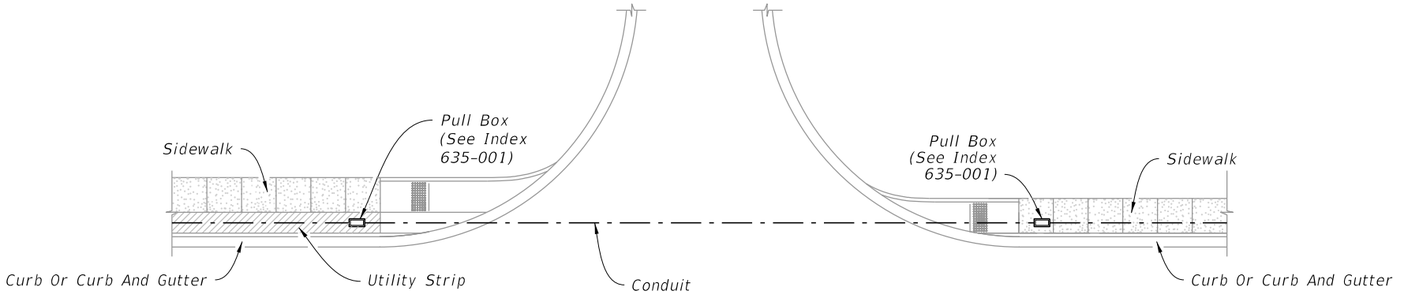
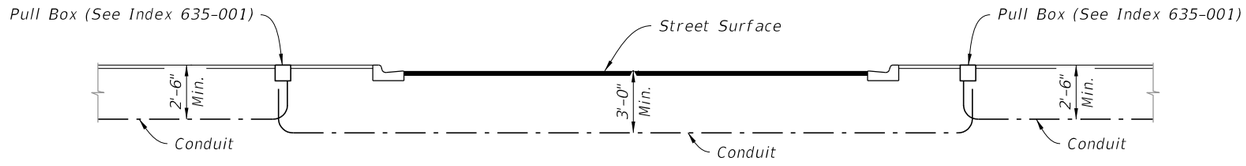
GENERAL NOTES:

1. Install conduit in accordance with Specification 630.
2. When sidewalk is damaged by conduit installation, replace entire sidewalk slab.
3. Trench not to be open more than 250' at a time when construction area is subject to vehicular or pedestrian traffic.
4. Sawcut asphalt at the edges of the trench to leave neat lines.
5. Provide route marker and route marker label in accordance with Specification 630.

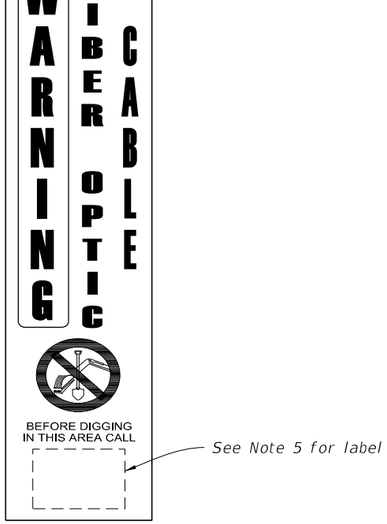


PLAN

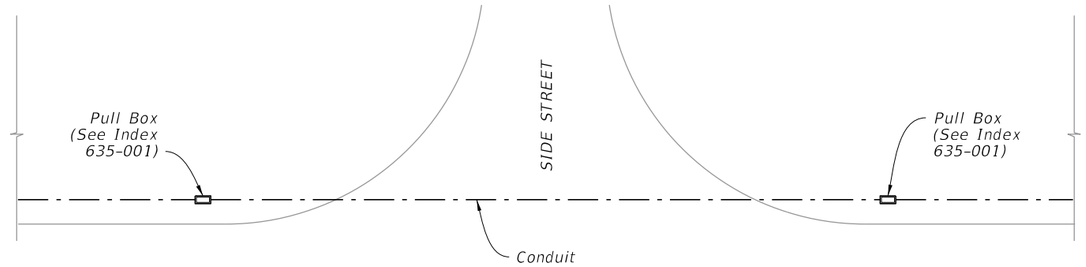


ELEVATION

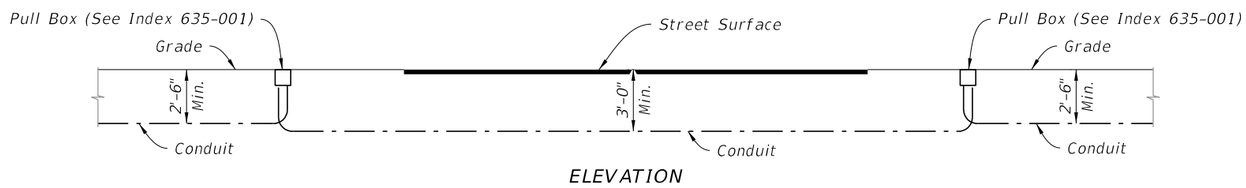
CURB AND GUTTER



ROUTE MARKER DETAIL



PLAN

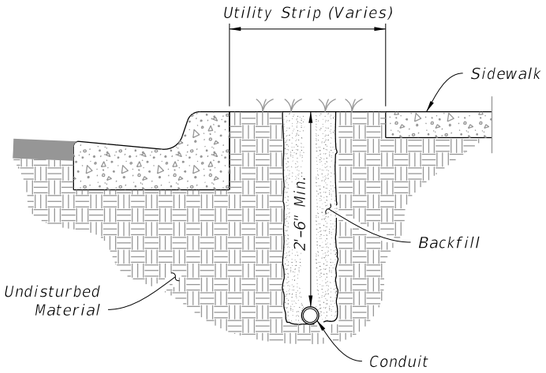


ELEVATION

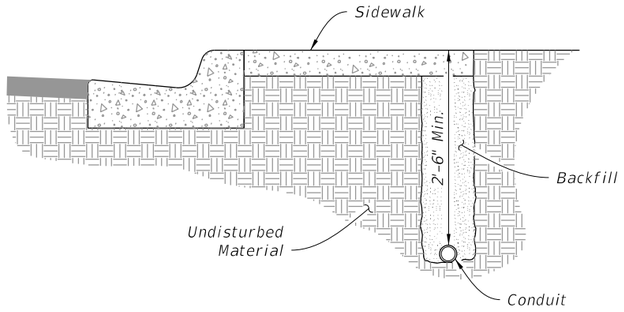
FLUSH SHOULDER

9:45:26 AM
9/29/2025

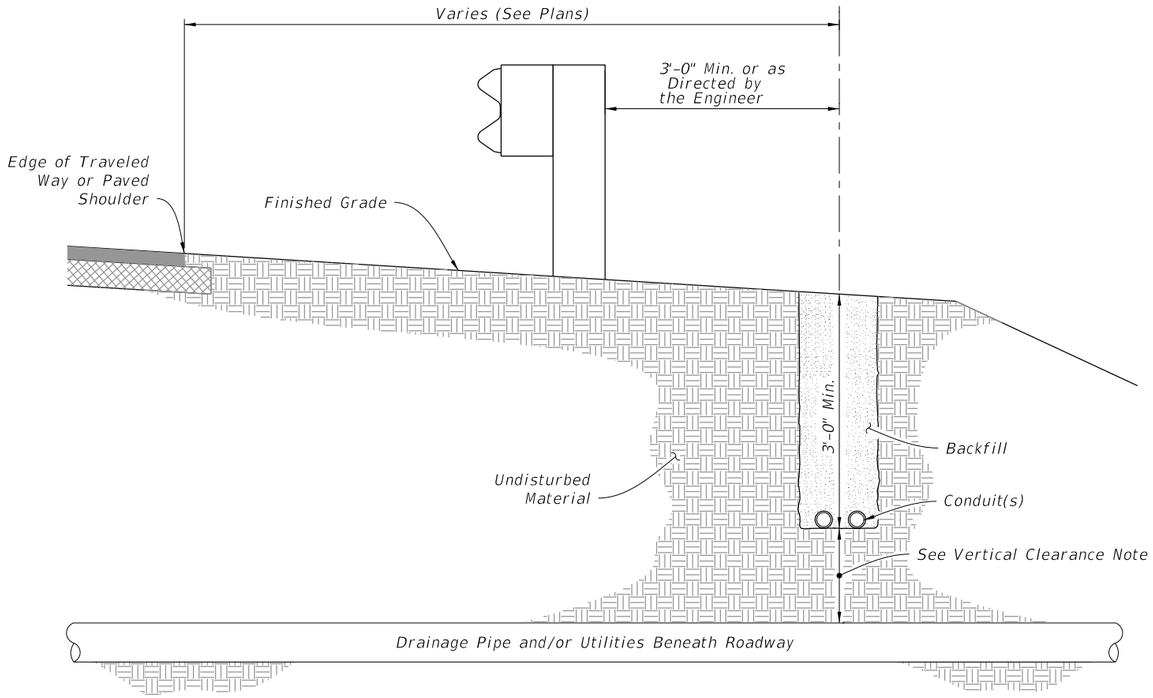
LAST REVISION	REVISION	DESCRIPTION:				
11/01/21			FY 2026-27 STANDARD PLANS	CONDUIT INSTALLATION DETAILS	INDEX 630-001	SHEET 1 of 4



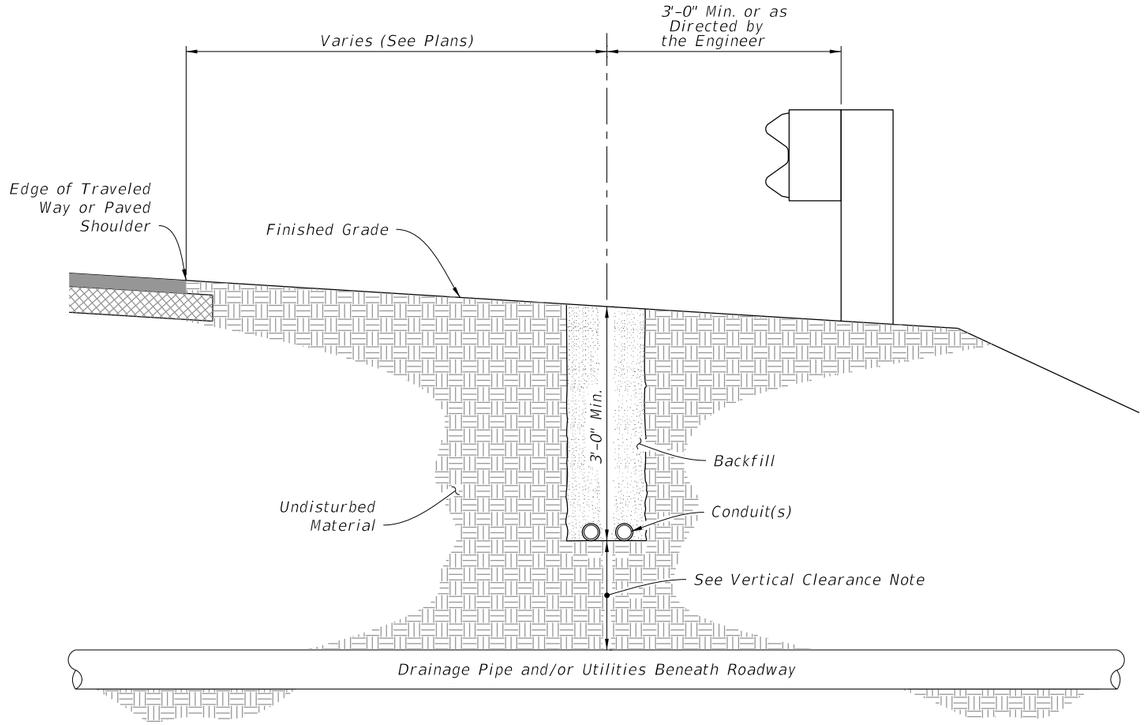
PLACEMENT WITHIN THE UTILITY STRIP



PLACEMENT UNDER SIDEWALK



PLACEMENT BEHIND GUARDRAIL



PLACEMENT IN FRONT OF GUARDRAIL

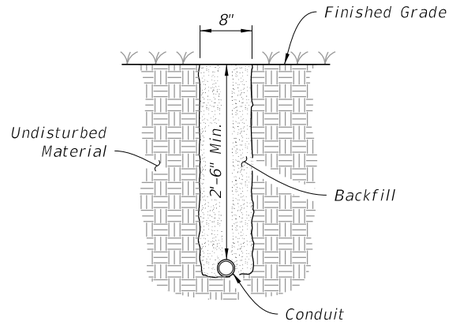
VERTICAL CLEARANCE NOTE:

Maintain 1'-0" minimum vertical clearance when crossing over pipe and or utilities. If minimum vertical clearance cannot be maintained, conduit is to be routed under pipe maintaining 1'-0" minimum vertical clearance.

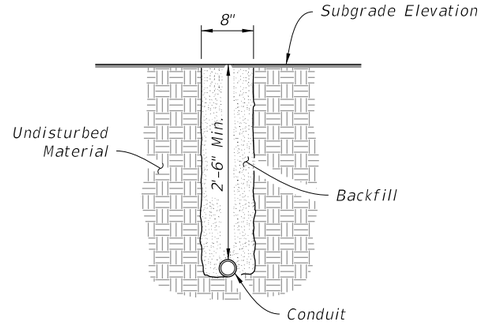
9:45:34 AM

9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	CONDUIT INSTALLATION DETAILS	INDEX	SHEET
11/01/18					630-001	2 of 4



PLACEMENT NOT EXPOSED TO VEHICULAR TRAFFIC

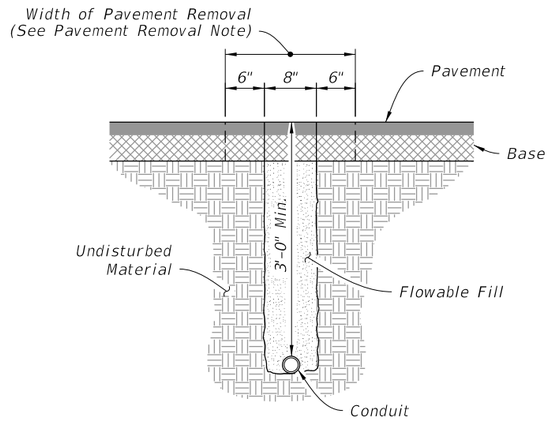


PLACEMENT UNDER NEW ROADWAY PRIOR TO INSTALLATION OF BASE AND PAVEMENT

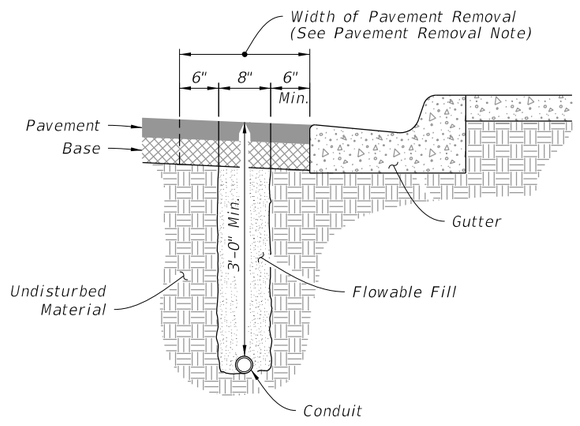
NOTES:

1. Pavement Removal: The removal and replacement of the additional pavement width (i.e., 6" Width either side of trench) will not be required when the trench can be constructed without disturbing the asphalt surface on either side.

2. Placement Under Existing Pavement: Place conduit prior to installation of base and pavement, unless otherwise shown in the Plans or approved by the Engineer.



PLACEMENT UNDER EXISTING PAVEMENT NOT ADJACENT TO GUTTER

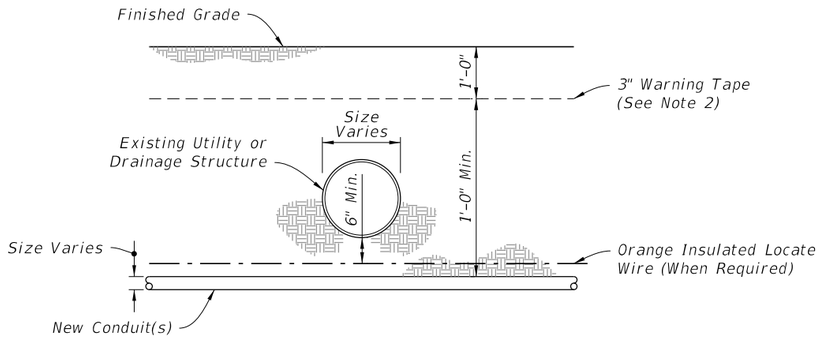


PLACEMENT UNDER EXISTING PAVEMENT ADJACENT TO GUTTER

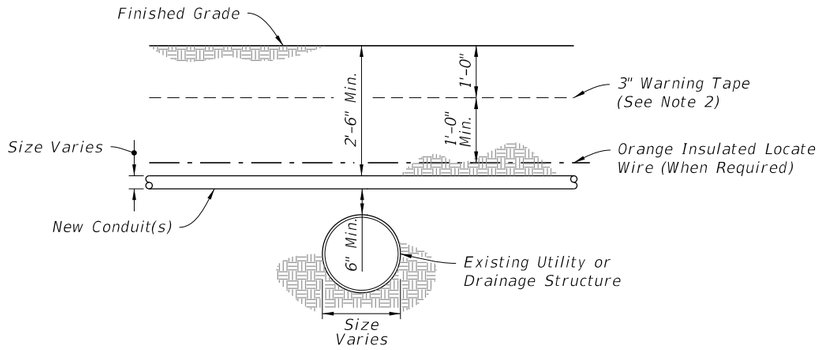
9:45:42 AM

9/29/2025

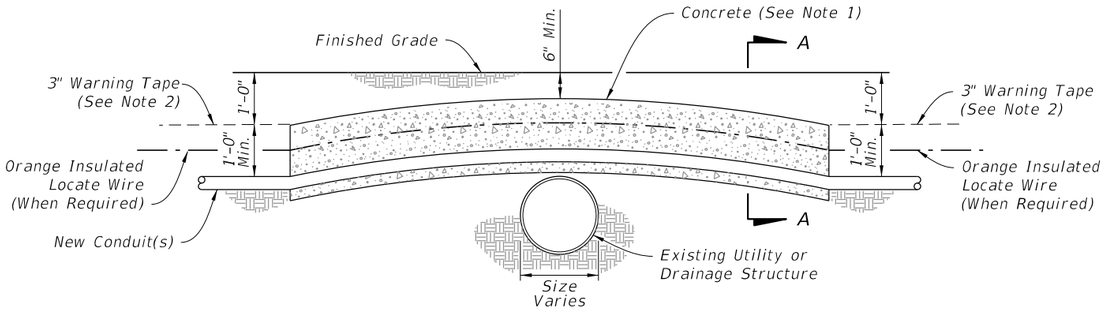
LAST REVISION	REVISION	DESCRIPTION:				
11/01/18			FDOT FY 2026-27 STANDARD PLANS	CONDUIT INSTALLATION DETAILS	INDEX 630-001	SHEET 3 of 4



BELOW EXISTING

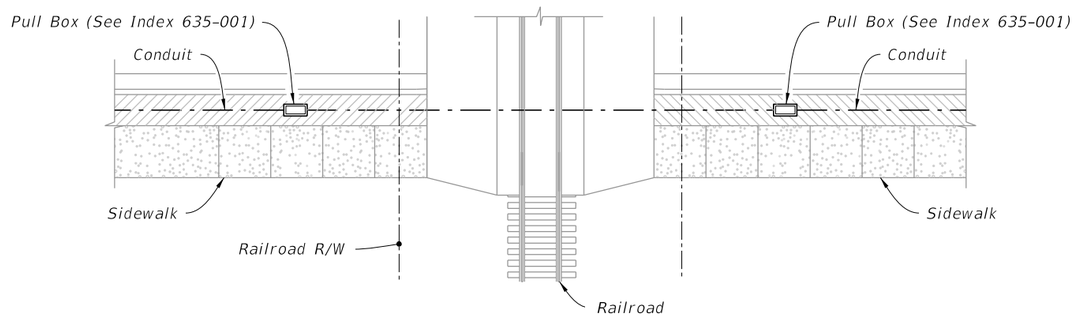


ABOVE EXISTING - DEPTH 2'-6" OR GREATER

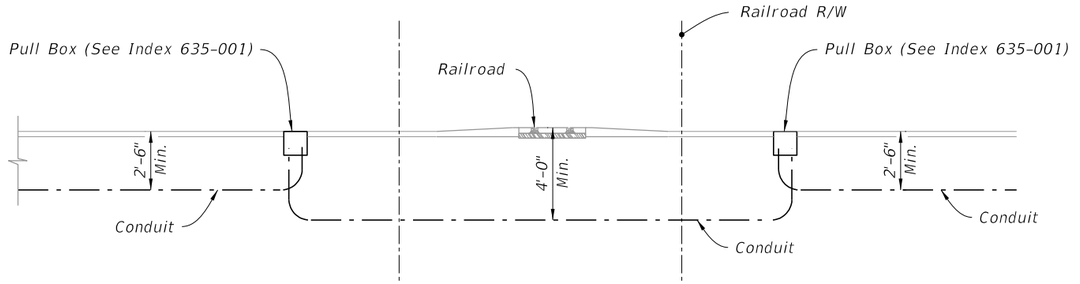


ABOVE EXISTING - DEPTH 2'-6" OR LESS

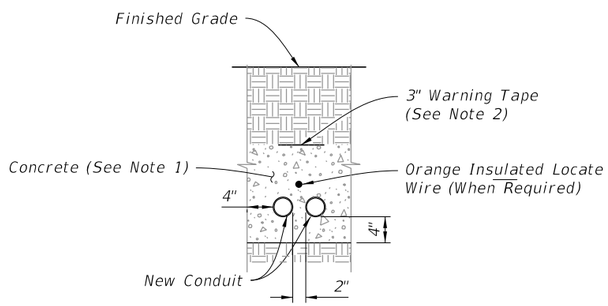
PLACEMENT ACROSS EXISTING DRAINAGE PIPES OR UTILITIES



PLAN



PLACEMENT UNDER RAILROAD



SECTION A-A

NOTES:

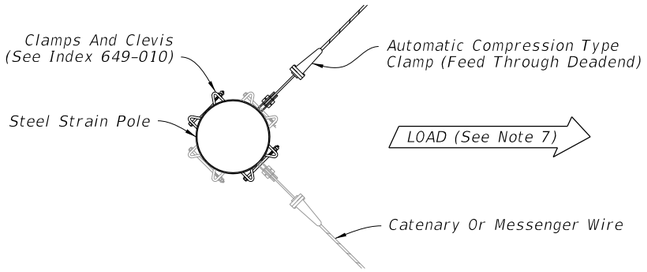
1. Where conduits are to be installed over existing underground structures (e.g., drainage pipes or utility lines) which are less than 2'-6" deep, encase the conduit in Class NS concrete for the entire length of conduit that is installed at a depth of less than 2'-6".

2. Place 3" Warning Tape when new conduit is installed at a depth of 1'-6" or greater, and the new conduit is not encased in concrete.

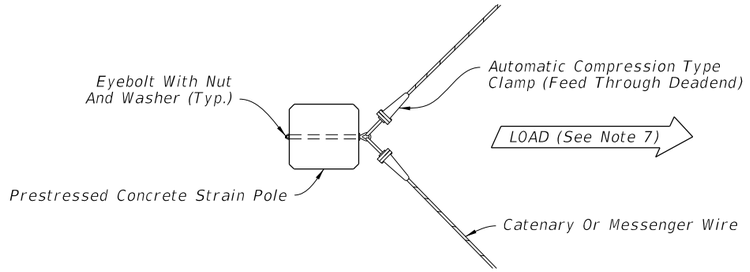
9:45:49 AM

9/29/2025

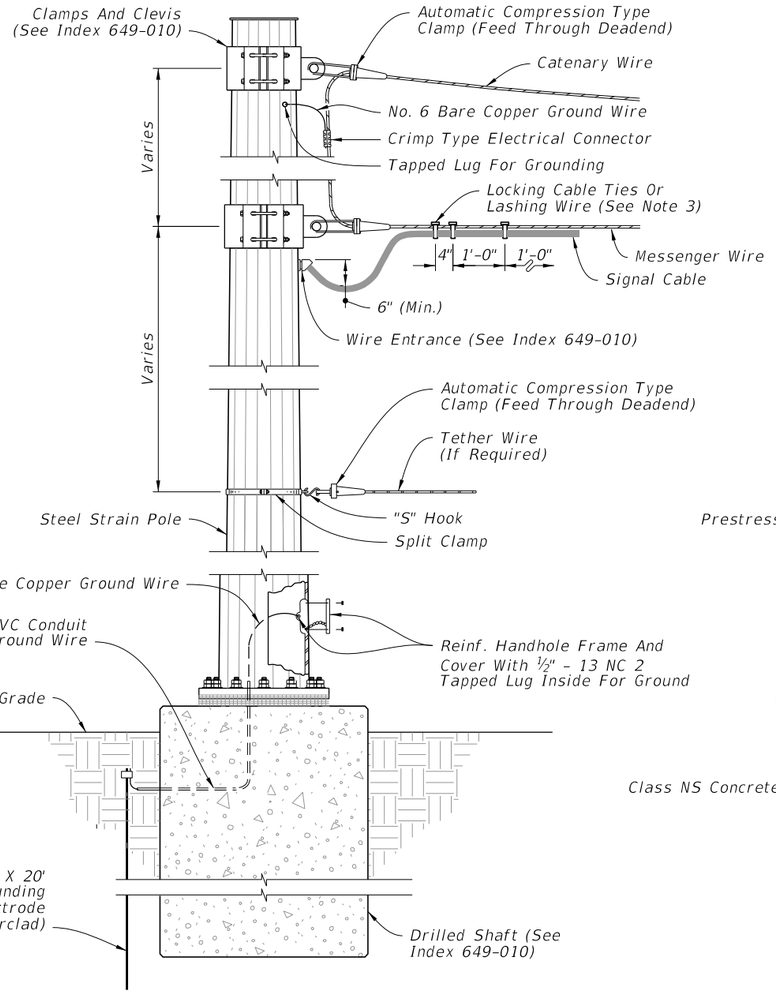
LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	CONDUIT INSTALLATION DETAILS	INDEX	SHEET
11/01/18					630-001	4 of 4



PLAN
(Two Span Connections Shown)

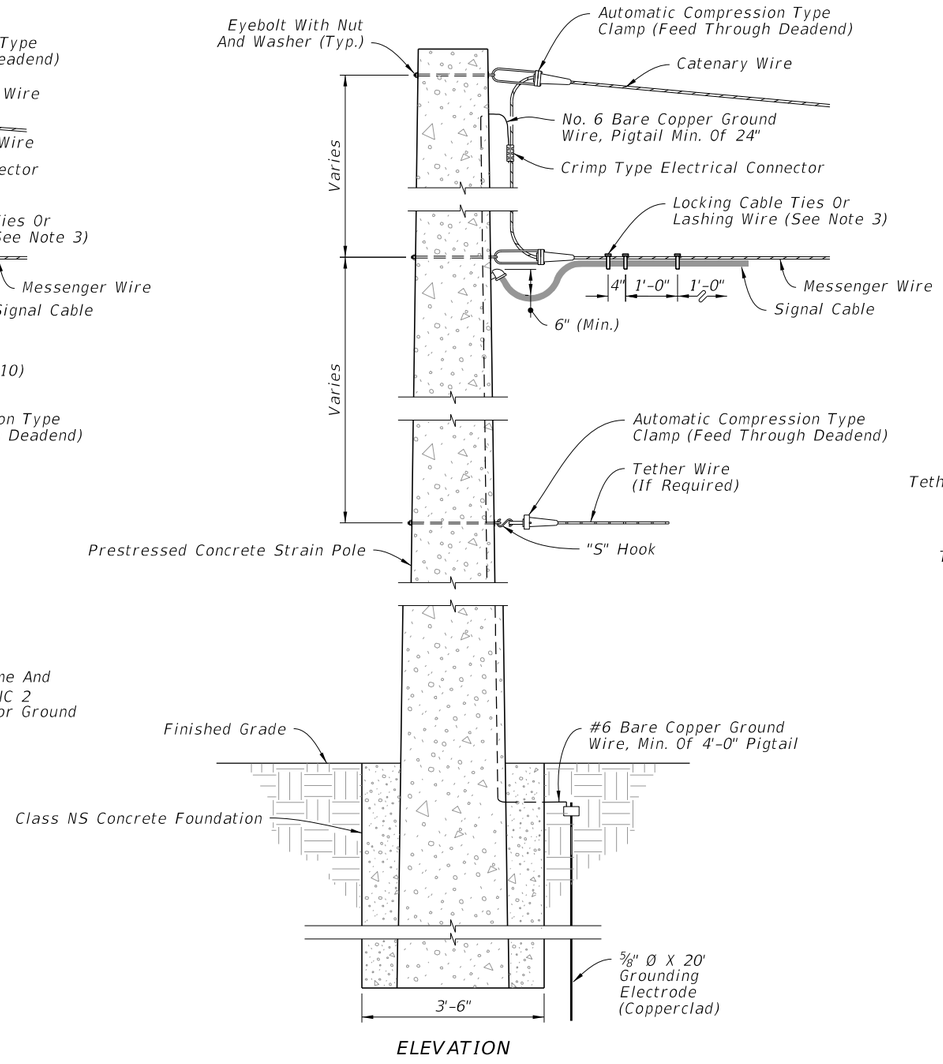


PLAN
(Two Span Connections Shown)



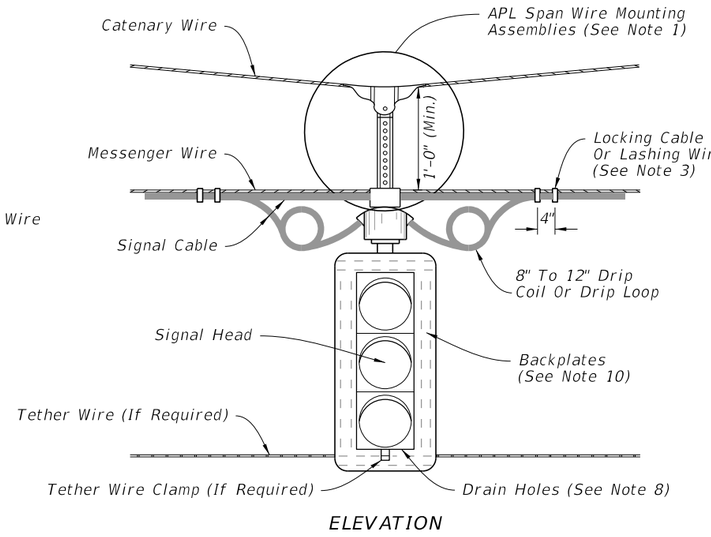
ELEVATION

STEEL STRAIN POLE



ELEVATION

PRESTRESSED CONCRETE STRAIN POLE



ELEVATION

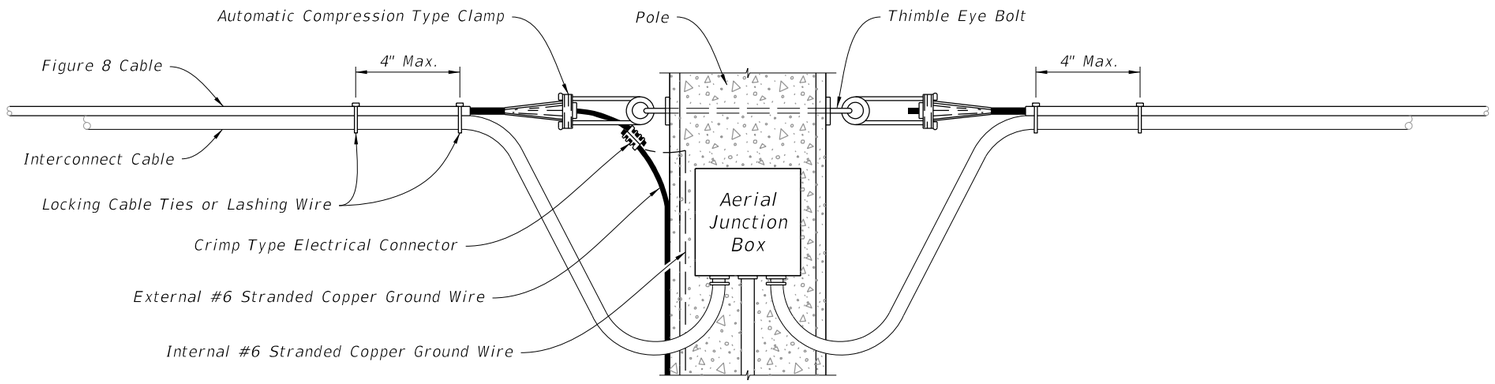
SIGNAL ATTACHMENT

NOTES:

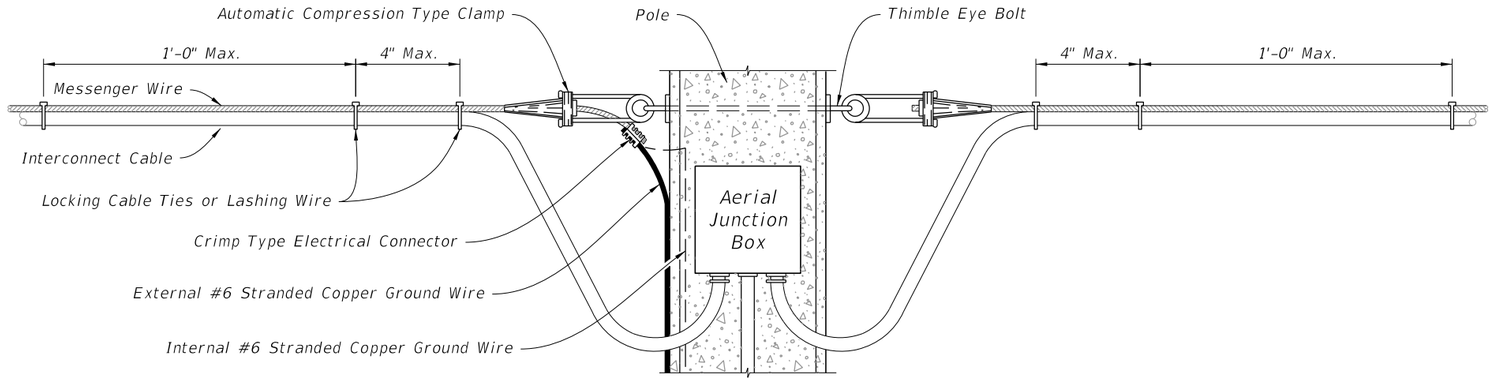
1. Use only span wire mounting assemblies listed on the APL. For specific details and requirements, see the vendor drawings on the APL.
2. With the approval of the resident engineer, the service head hole for joint use poles may be drilled by the utility company at an angle of 90° but not less than 45° to the face of the pole.
3. Lashing wire should normally be used for distances of 12' or greater.
4. Use only stainless steel hardware on all signal attachments.
5. Hole for eyebolt will require field reaming for 1" & 1¼" eyebolts.
6. Meet all grounding requirements of Specification 620.
7. The load face of pole is to be perpendicular to the resultant load.
8. Field Drill 2-¼" drain holes in the bottom of the installed signals.
9. Method of framing corner Strain Poles angles 10° to 120°.
10. Use only backplates listed on the APL. For specific details and requirements, see the vendor drawings on the APL.

9:45:58 AM
9/29/2025

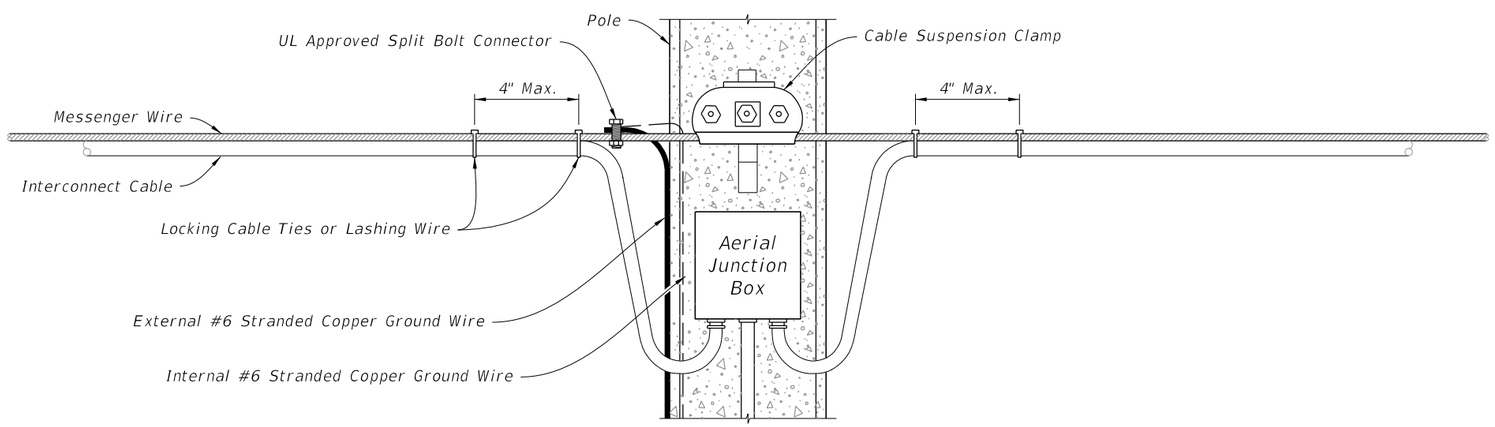
LAST REVISION	REVISION	DESCRIPTION:				
11/01/20			FDOT FY 2026-27 STANDARD PLANS	SIGNAL CABLE AND SPAN WIRE INSTALLATION DETAILS	INDEX 634-001	SHEET 1 of 1



CABLE DROP AND TERMINATION WITH FIGURE 8 CABLE



CABLE DROP AND TERMINATION WITH MESSENGER WIRE AND COMPRESSION CLAMP



CABLE DROP AND TERMINATION WITH MESSENGER WIRE AND SUSPENSION CLAMP

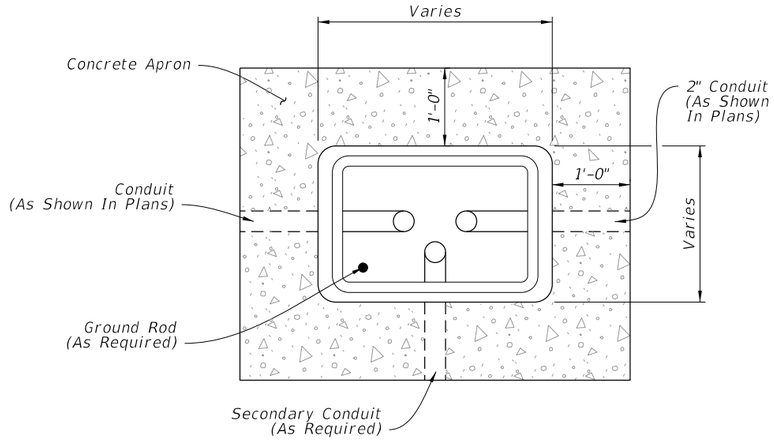
NOTES:

1. Meet all grounding requirements of Specification 620.
2. If accessible, ground the messenger wire of the interconnect cables to the copper ground wire of the pole or to the external wire extending down the pole.
3. When utilizing the external ground wire, install a piece of ½" conduit extending up 8' from the finish grade to protect the ground wire connecting the messenger wire to the ground rod.
4. Use either locking cable ties or lashing wire, placed no further than 12" apart. Except at the point of cable drop or terminations, place one (1) at the point where the cables separate from the messenger wire and place another at a maximum distance of 4" from that tie.
5. When installing Figure 8 interconnect cable, only use locking cable ties.
6. Lashing wire should normally be used for distances of 12' or greater.

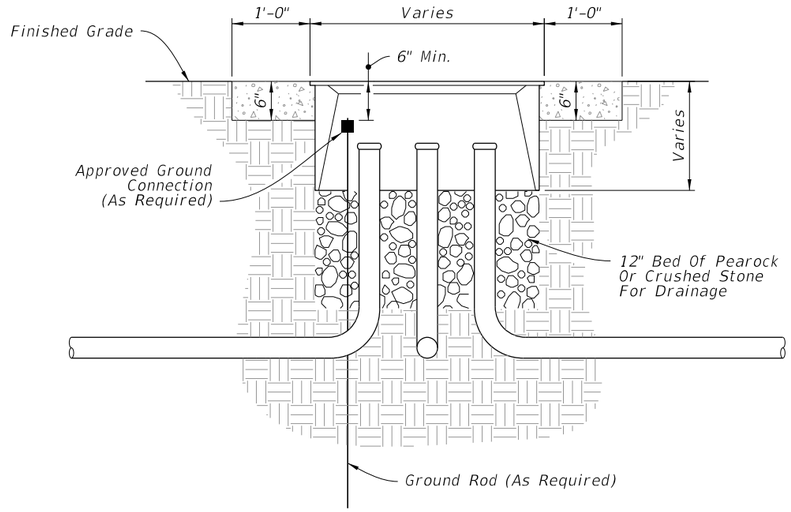
9:46:34 AM

9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	AERIAL INTERCONNECT	INDEX	SHEET
11/01/18					634-002	1 of 1

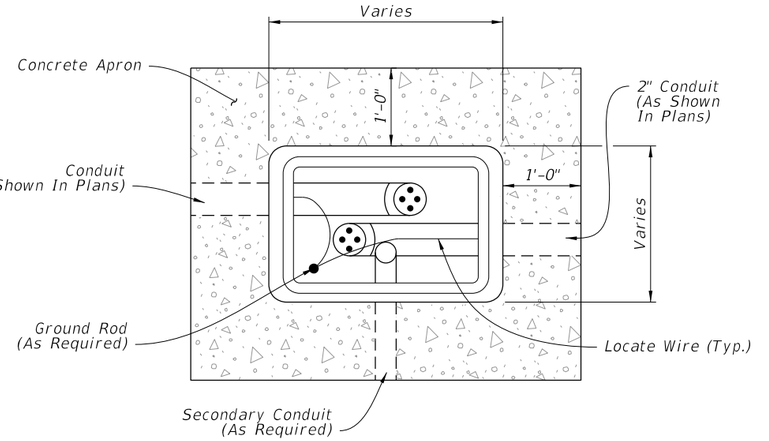


PLAN

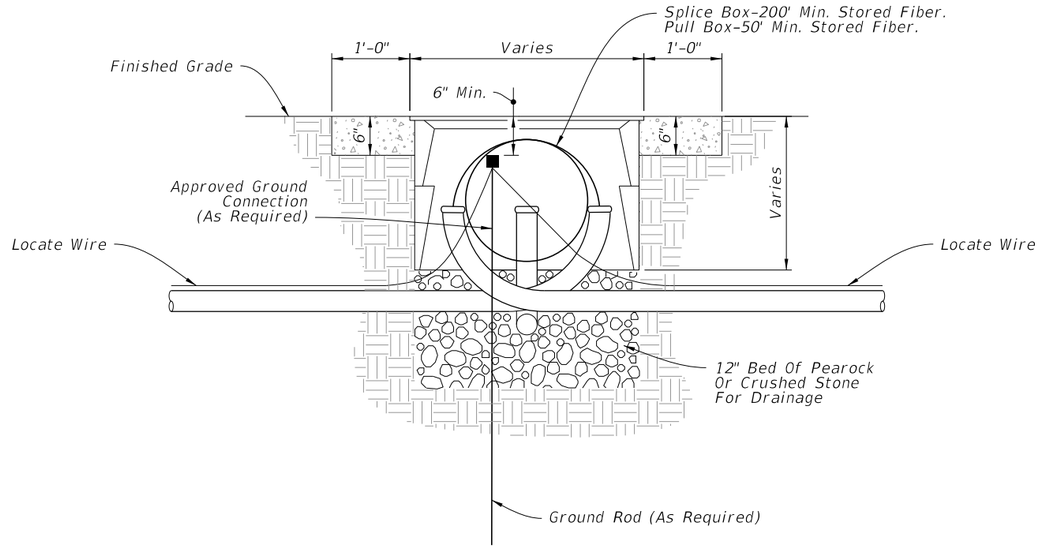


ELEVATION

PULL BOX



PLAN



ELEVATION

FIBER OPTIC BOX

NOTES:

1. Provide fiber optic splice boxes with cable hanger racks designed to support cables and splice enclosures.
2. Install a 1'-0" wide (Min.) concrete apron around all boxes using Class NS concrete. Slope the apron away from the box.
3. Where multiple pull boxes are placed side by side, maintain at least 8" between the pull boxes.
4. Rectangular boxes shown, others similar.

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LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	PULL AND SPLICE BOXES	INDEX	SHEET
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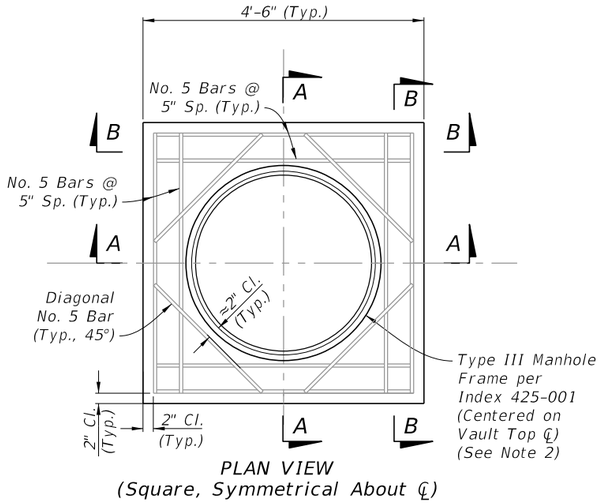
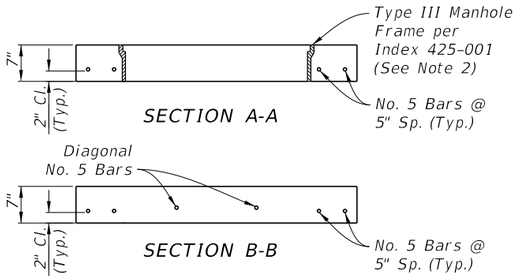


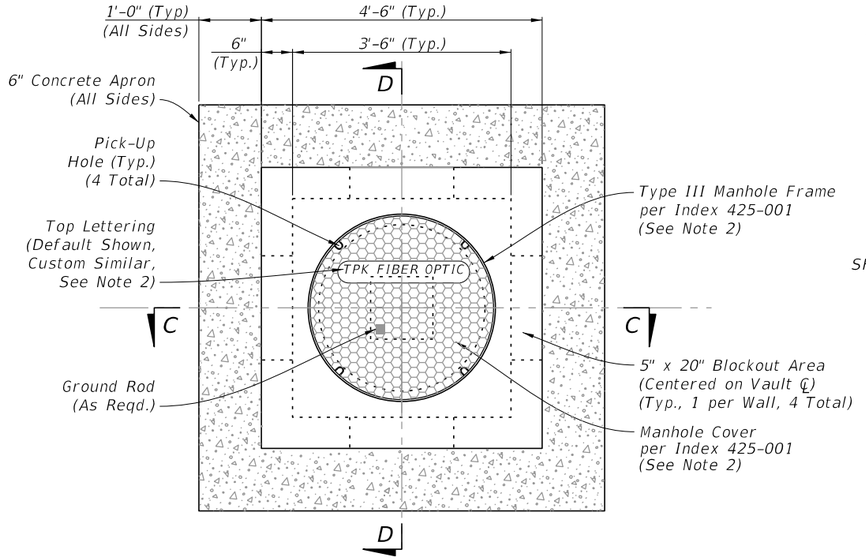
PLAN VIEW
(Square, Symmetrical About ℄)



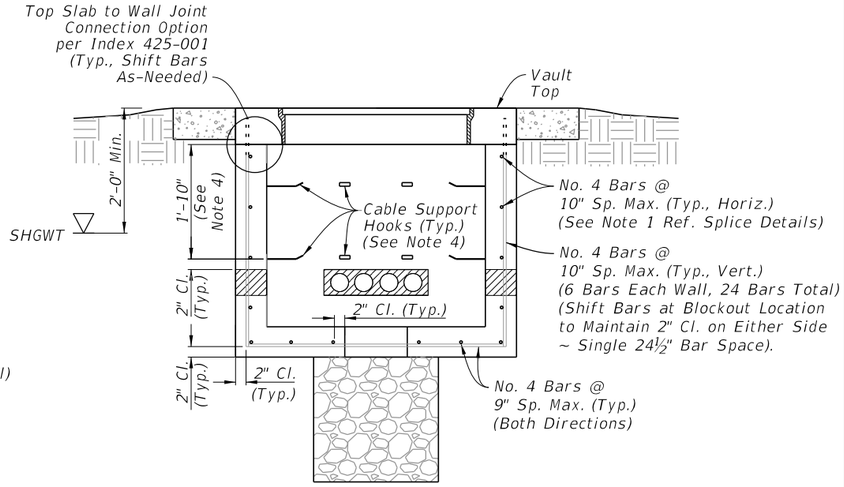
SECTION A-A

SECTION B-B

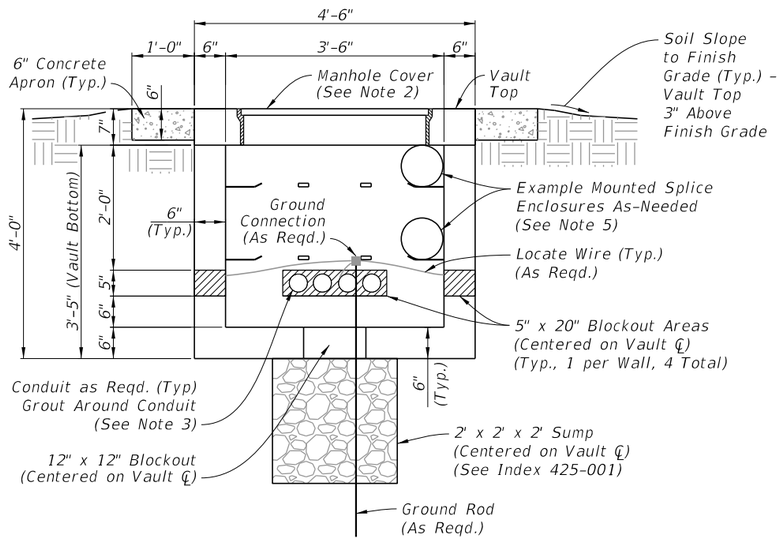
VAULT TOP



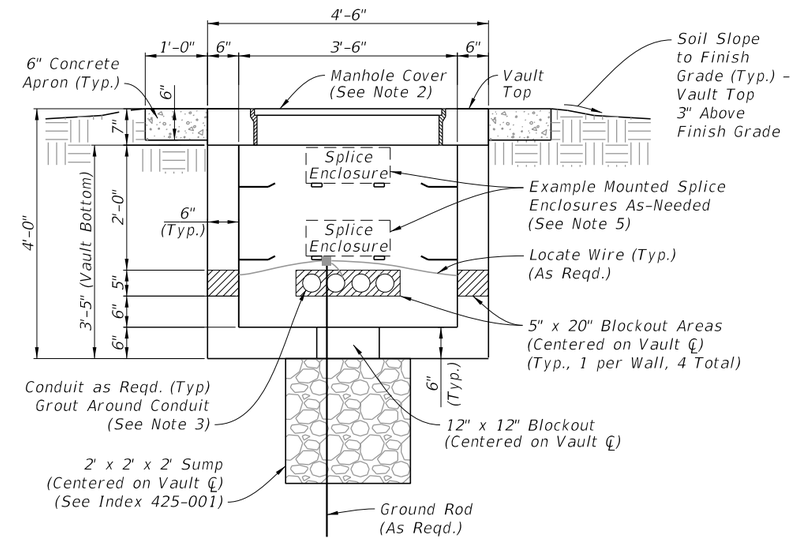
PLAN VIEW
(Symmetrical About ℄)



REINFORCING & MISCELLANEOUS DIMENSIONAL DETAILS
(Symmetrical About ℄, All Walls Similar)
(Vault Top Reinforcing Not Shown)



SECTION C-C



SECTION D-D

FIBER OPTIC SPLICE VAULT

NOTES:

1. GENERAL: Construct the vault top and bottom with Class II or IV concrete. Use steel reinforcement bars where shown. Construct the concrete apron with Class NS concrete. Work with Index 425-001 for supplemental details, including corner connections, wall reinforcing splice details, and the manhole cover.

2. MANHOLE COVER: Use the 2'-11¾" ∅ cover per Index 425-001, except the cover must be a single piece with its material cast continuously across the joint shown in the 2-piece cover detail. As as result, only 4 pick-up holes around the outer edge will be included as shown herein. Also, change the lettering on top to "TPK FIBER OPTIC" by default, or use custom wording if defined in the Plans.

3 CONDUITS: Place conduits through the 5" x 20" blockouts where shown in the Plans or as required by the Engineer. Fill the blockouts with non-shrink grout around the conduits as shown.

4. CABLE SUPPORT HOOKS & GROUND RODS: Place hooks (approx. 7" length) with adjustable rack system located within the 1'-10" range shown herein. Position the hooks as shown in the Plans or as required by the Engineer. Provide shop drawings or manufacturer's specifications for all hooks, racks, anchors, fasteners, straps, and ground rod systems for the approval of the Engineer. The wound fiber optic cable and splice enclosures are generally supported by the hooks and placed above the elevations per Note 6.

5. SPLICE ENCLOSURES: Mount splice enclosures on the hooks where shown in the Plans or as required by the Engineer. Provide shop drawings or manufacturer's specification sheets for the approval of the Engineer.

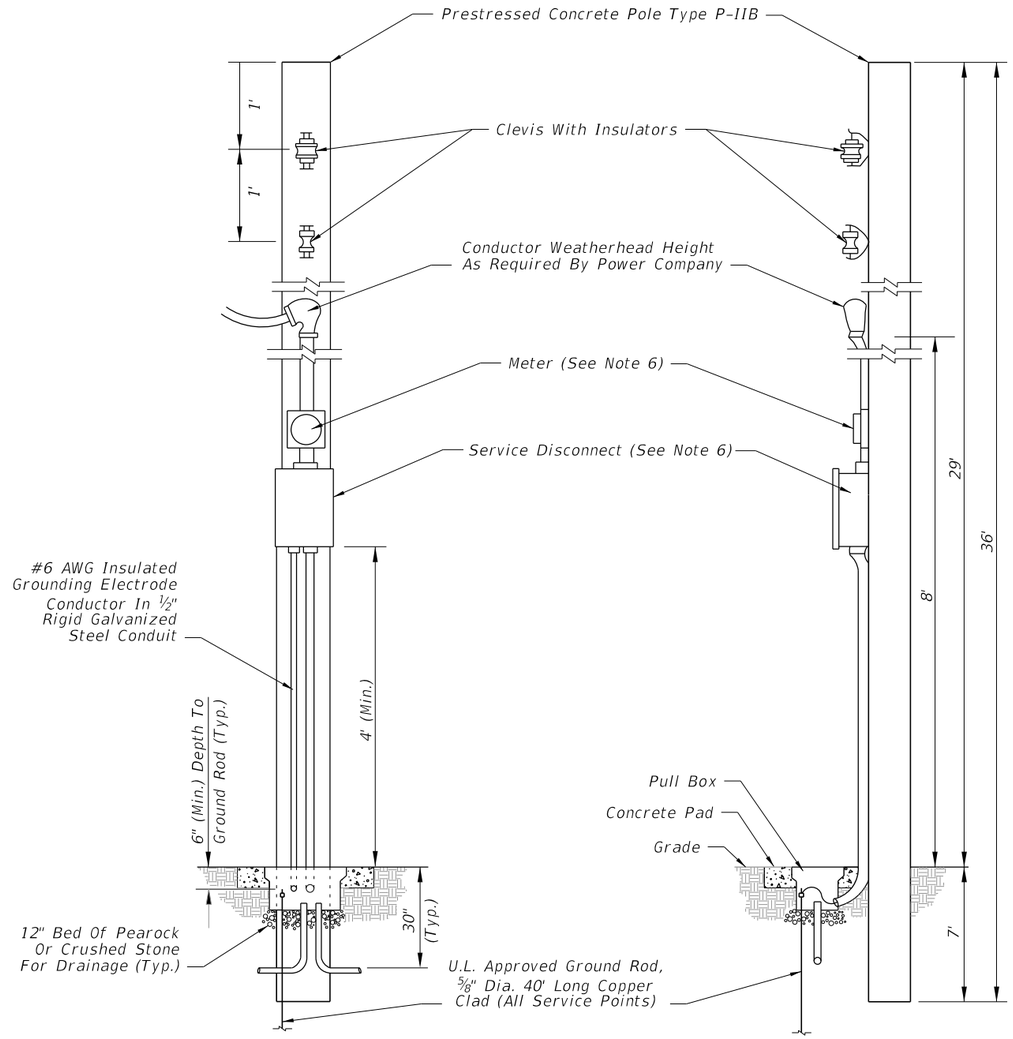
6. WATER INTRUSION: For general conditions, place fiber optic splice vault tops at elevations above the seasonal high groundwater table (SHGWT) as shown. When splice vaults are placed within drainage, water treatment, or water conveyance areas, place the structure's top above the drainage feature elevation.

9/29/2025 9:46:50 AM

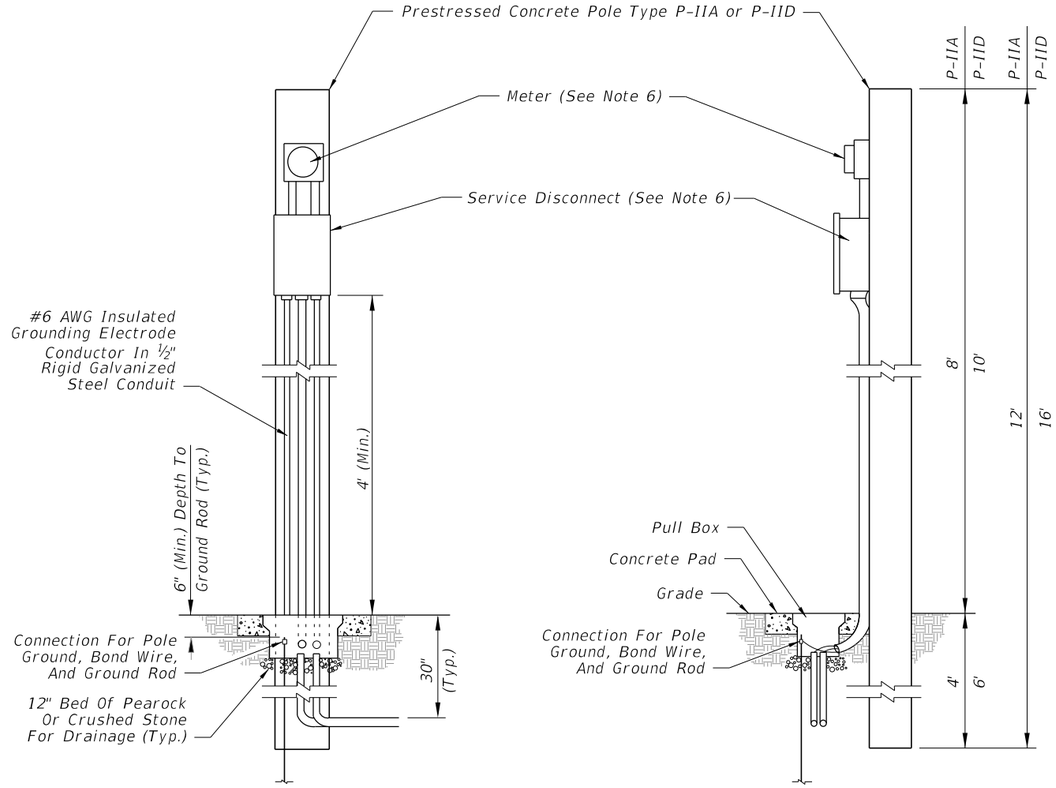
LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	FIBER OPTIC SPLICE VAULT	INDEX	SHEET
11/01/24					635-005	1 of 1

GENERAL NOTES:

1. It shall be the contractors responsibility to provide a complete service assembly as per the plans and service specifications.
2. The service installation shall meet the requirements of the national electric code and applicable local codes.
3. Shop drawings are not required for service equipment, unless noted in the plans.
4. A pull box is required at each service point; see Index 635-001.
5. For prestressed concrete pole details, see Index 641-010. Use the service pole type called for in the Plans.
6. Place the meter and service disconnect at the height shown in the Plans or as required by the power company. The service disconnect may be placed above the meter.



DETAIL A
AERIAL FEED



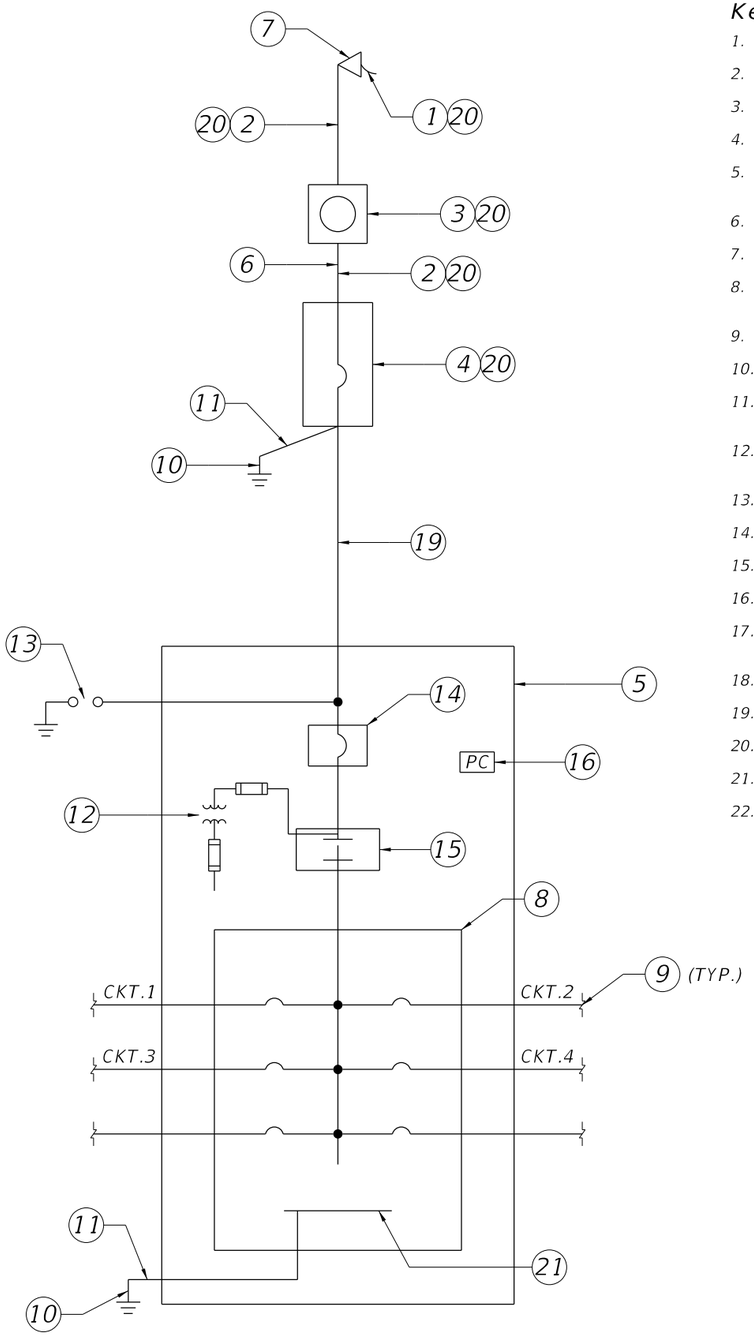
DETAIL B
UNDERGROUND FEED

9:46:59 AM
9/29/2025

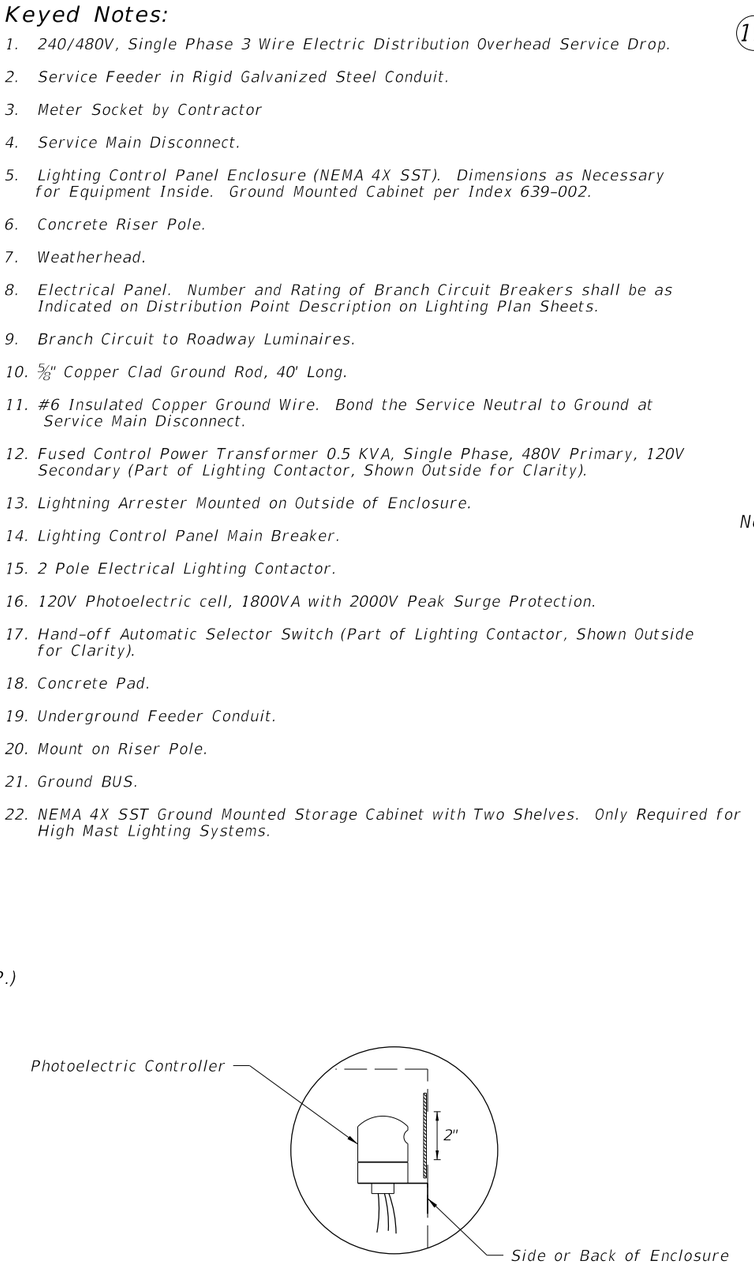
LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	SERVICE POINT DETAILS	INDEX	SHEET
11/01/23					639-001	1 of 2

Keyed Notes:

1. 240/480V, Single Phase 3 Wire Electric Distribution Overhead Service Drop.
2. Service Feeder in Rigid Galvanized Steel Conduit.
3. Meter Socket by Contractor
4. Service Main Disconnect.
5. Lighting Control Panel Enclosure (NEMA 4X SST). Dimensions as Necessary for Equipment Inside. Ground Mounted Cabinet per Index 639-002.
6. Concrete Riser Pole.
7. Weatherhead.
8. Electrical Panel. Number and Rating of Branch Circuit Breakers shall be as Indicated on Distribution Point Description on Lighting Plan Sheets.
9. Branch Circuit to Roadway Luminaires.
10. 5/8" Copper Clad Ground Rod, 40' Long.
11. #6 Insulated Copper Ground Wire. Bond the Service Neutral to Ground at Service Main Disconnect.
12. Fused Control Power Transformer 0.5 KVA, Single Phase, 480V Primary, 120V Secondary (Part of Lighting Contactor, Shown Outside for Clarity).
13. Lightning Arrester Mounted on Outside of Enclosure.
14. Lighting Control Panel Main Breaker.
15. 2 Pole Electrical Lighting Contactor.
16. 120V Photoelectric cell, 1800VA with 2000V Peak Surge Protection.
17. Hand-off Automatic Selector Switch (Part of Lighting Contactor, Shown Outside for Clarity).
18. Concrete Pad.
19. Underground Feeder Conduit.
20. Mount on Riser Pole.
21. Ground BUS.
22. NEMA 4X SST Ground Mounted Storage Cabinet with Two Shelves. Only Required for High Mast Lighting Systems.

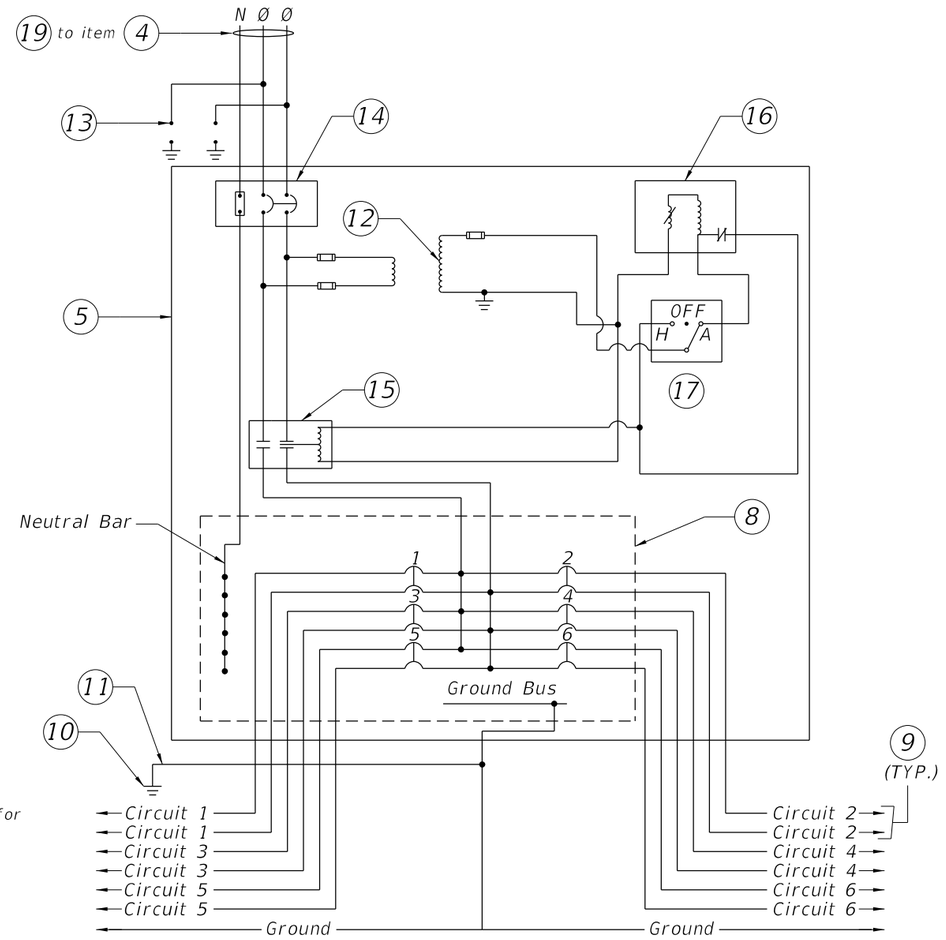


ONE LINE DIAGRAM DISTRIBUTION POINT

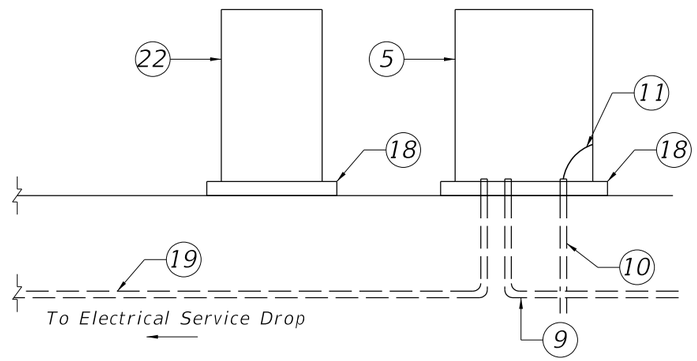


Cut a 2" hole in the side of the Lighting Control Panel enclosure for the operation and mounting of the Photo Electric controller. Use plexiglass and a clear silicone sealant to cover hole, install Photo Electric Controller.

PHOTOELECTRIC CONTROLLER DETAIL



TYPICAL DISTRIBUTION POINT SCHEMATIC DETAIL



RISER DIAGRAM - TYPICAL DISTRIBUTION POINT

9:47:07 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	SERVICE POINT DETAILS	INDEX	SHEET
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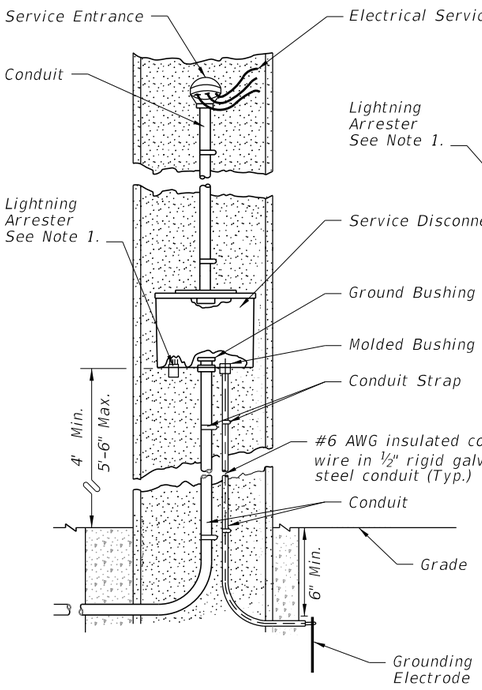
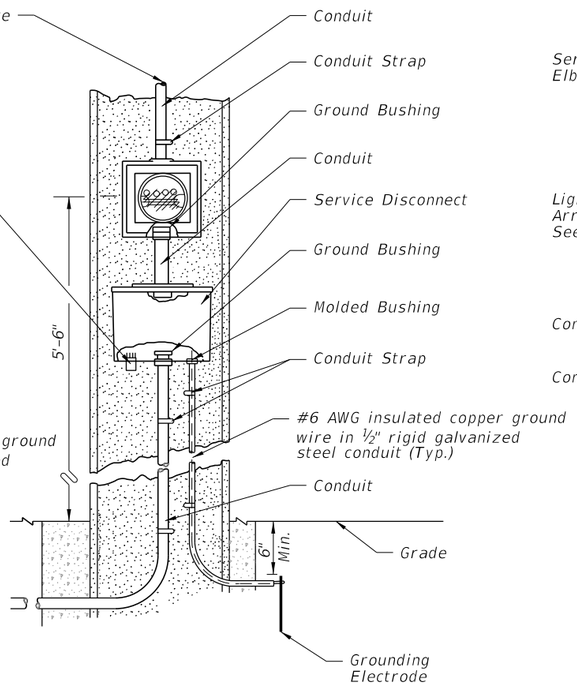
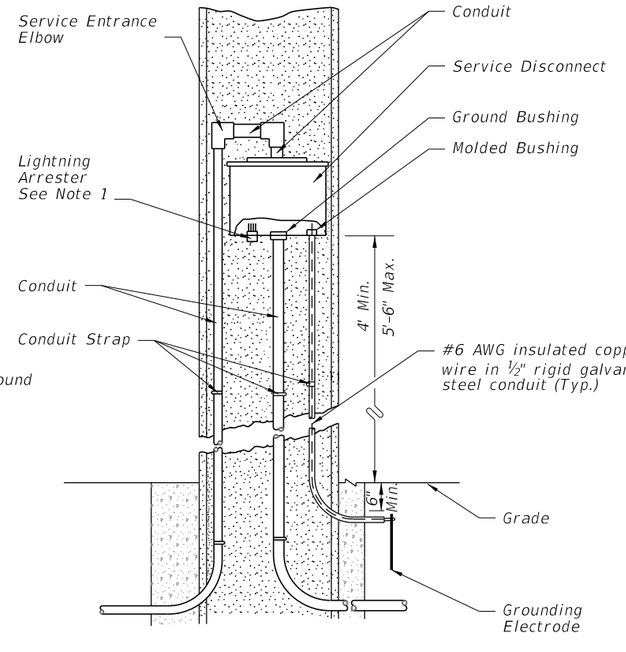


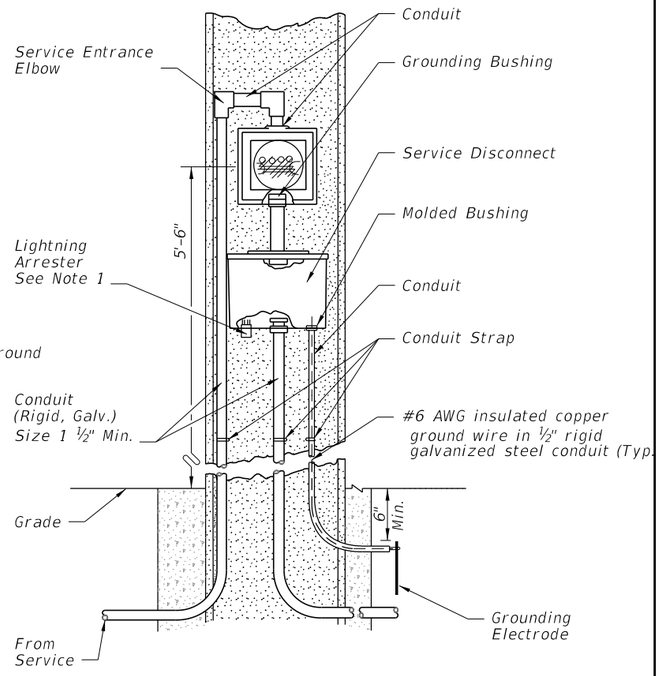
AERIAL FEED
(NO METER USED)
FIGURE A



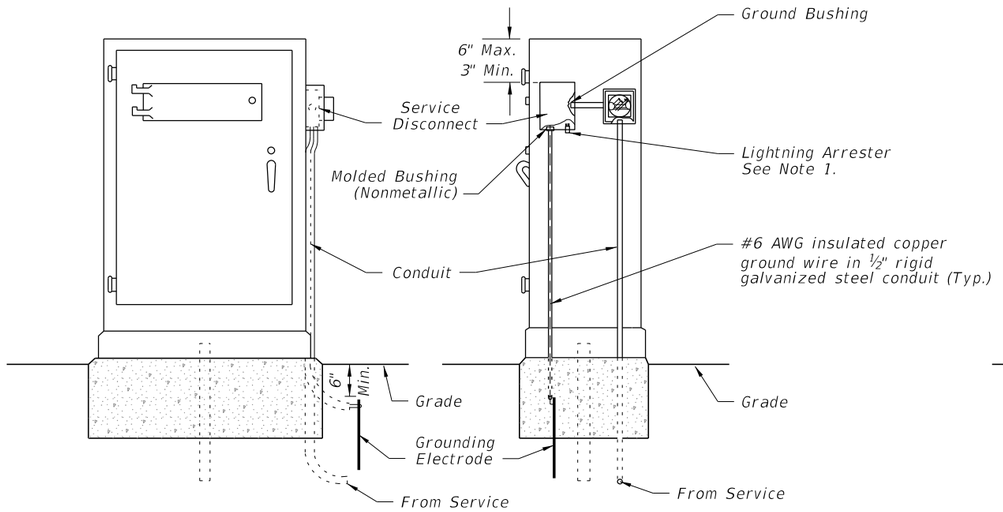
AERIAL FEED
(METER USED)
FIGURE B



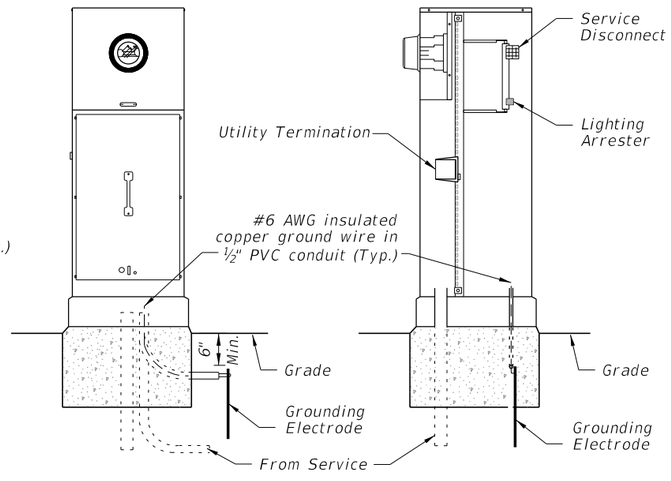
UNDERGROUND FEED
(NO METER USED)
FIGURE C



TYPE "B" UNDERGROUND FEED
(METER USED)
FIGURE D



UNDERGROUND CABINET MOUNTED
(METER USED)
FIGURE E



UNDERGROUND PEDESTAL
MOUNTED METER
FIGURE F

NOTES:

1. The lightning arrester can be located on the side or bottom of the service disconnect enclosure at the Contractor's Option.
2. Liquidtight flexible conduit is approved for use from the electrical disconnect to the cabinet when both are installed on the same pole.
3. Bond all elements together to form an Intersection Grounding Network in accordance with Specification 620. Run the bond wire in the conduit with the Electrical Service Wire or Signal Cable.
4. Meet all grounding requirements of Specification 620.
5. The Service Disconnect has a minimum of three hinges and is lockable using a padlock. Provide four keys to the maintaining agency. No screws are to be used to attach door.
6. The Service Disconnect meets NEMA 3R requirements or better.

9/29/2025 9:47:14 AM

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GENERAL NOTES:

1. Work these Index Sheets with the Strain Pole Schedule in the Plans. See Index 634-001 for corresponding signal cable and span wire installation details.

2. Shop Drawings:

   This Index is considered fully detailed and no shop drawing are necessary. Submit shop drawings only for minor modifications not detailed in the Plans.

3. Materials:

A. Concrete:	Class V with 4 ksi minimum strength at transfer or Class VI with 6.5 ksi minimum strength at transfer
B. Prestress Strands & Spiral Reinforcing:	Specification 641
C. Hand and coupler cover plates:	Non-corrosive material
D. Screws:	Round headed, chrome plated

4. Fabrication:

   A. Pole Total Taper shown is for pole width, strands, reinforcing and void (0.081 in/ft per face).
   B. Concrete Cover: 1" minimum.
   C. Spiral Reinforcing: Place as shown, and add one turn for splices and two turns at both the tip and butt ends of the pole.
   D. The design dimensions for Front Face (FF) and Back Face (BF) of the poles may vary transversely from the section shown by ± ¼" to assist with removal from forms. Balance addition and subtraction of the face widths to maintain section areas shown.
   E. Tie ground wires to the interior of reinforcing steel to prevent displacement during concreting operations.
   F. Cut the tip end of the prestressed strand either first or simultaneously with the butt end.
   G. Provide cover plates and screws for hand hole and couplers. Attach cover plates to the poles using lead anchors or embedded threaded inserts.
   H. Provide Aluminum Identification Tag on the pole with the following information:

      a. Financial Project ID.
      b. Pole Manufacturer
      c. Standard Pole Type Number
      d. Pole Length (L)

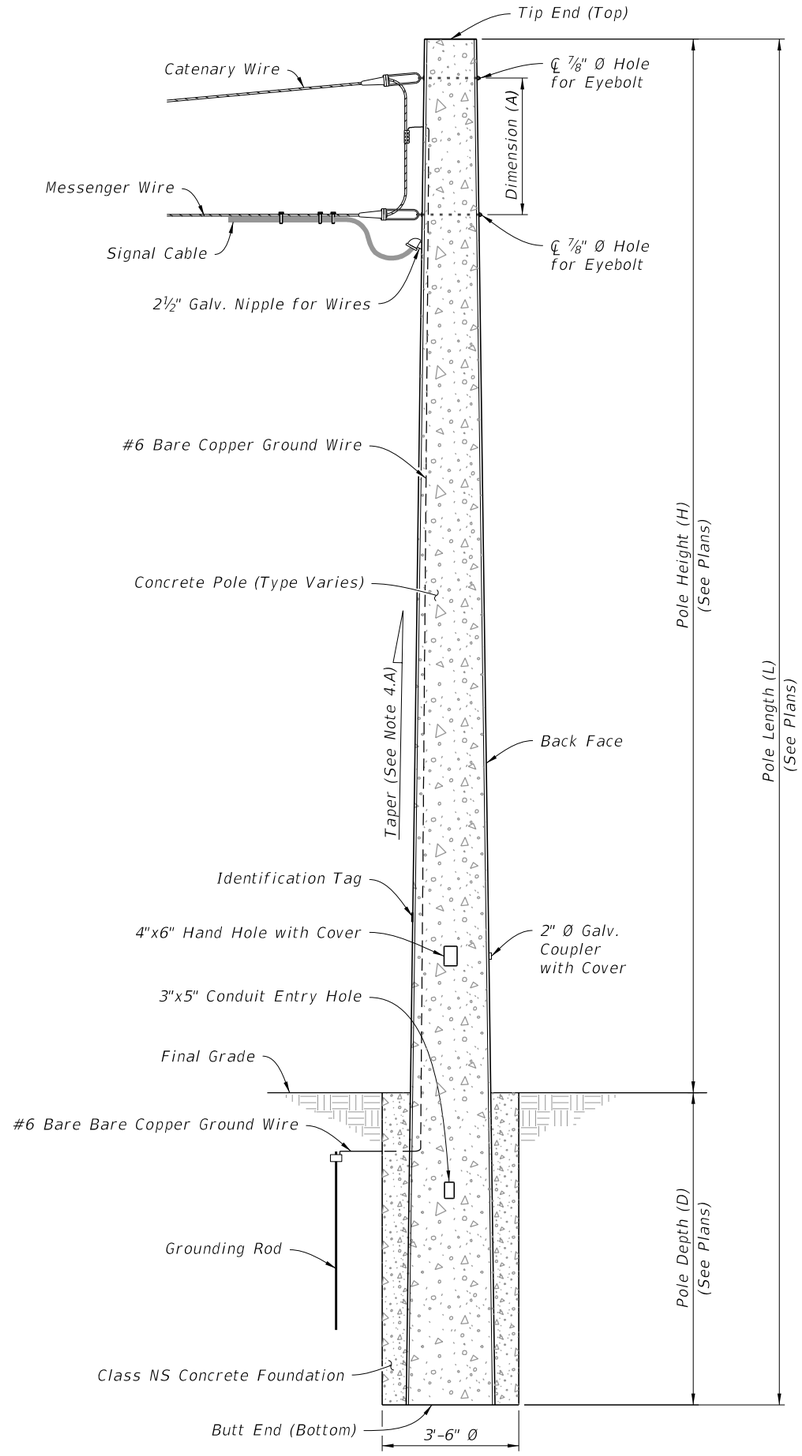
5. Support Points:
   Support Points shown may vary within a tolerance of ±3".

   Horizontal Pole Support Points shown are for strand release, storage, handling and transport of the horizontal pole. Keep Back Face oriented downward until final erection.

6. Two point attachment: Provide an eye bolt hole for the messenger wire.

7. Tether Wire: When required, field-drill the eyebolt hole prior to installation.

TABLE OF CONTENTS:



CONCRETE POLE ASSEMBLY
(Type P-VII Shown, Others Similar)

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LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	CONCRETE POLES	INDEX	SHEET
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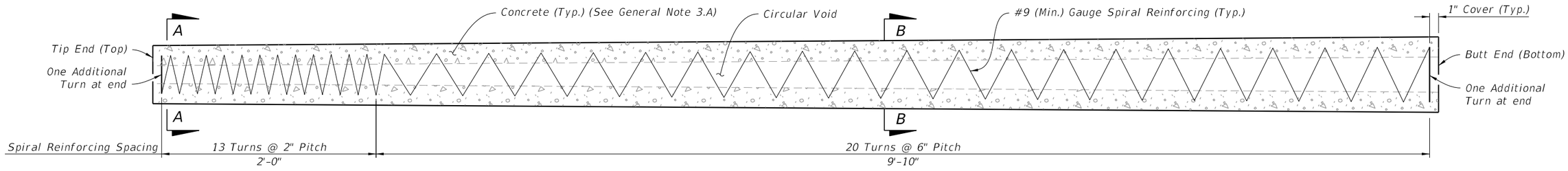
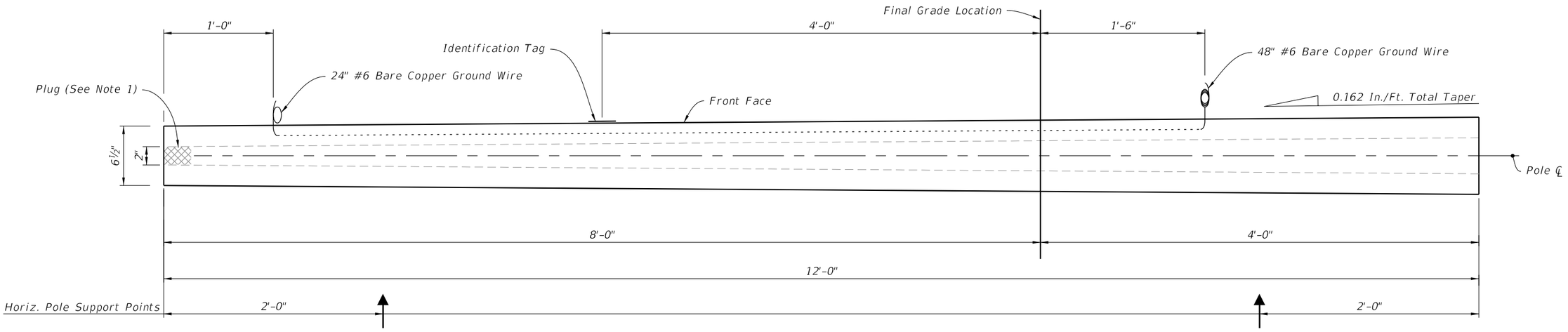
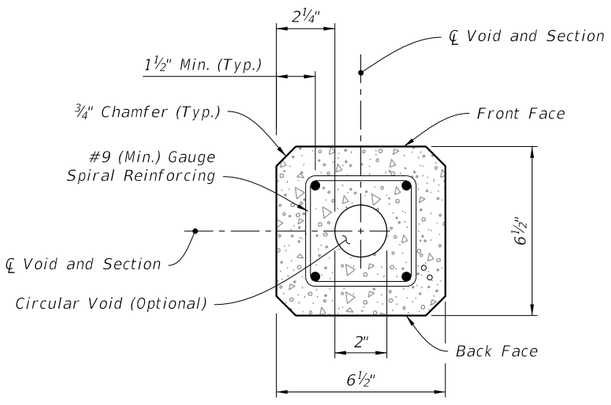


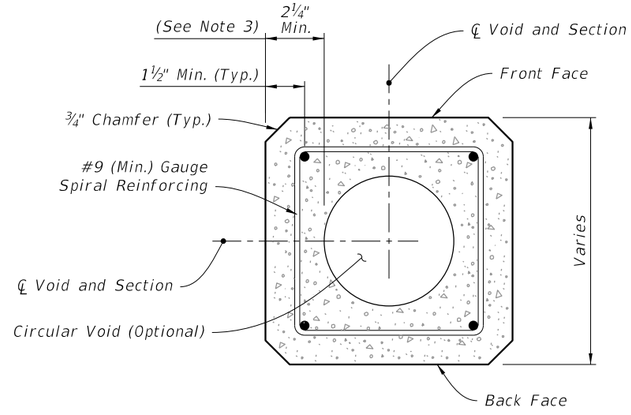
SPIRAL REINFORCING ELEVATION
(Strands and Fixtures Not Shown)



POLE ELEVATION
(Strands and Reinforcing Not Shown)



SECTION A-A - (Tip End)



SECTION B-B (Typical Square Section)

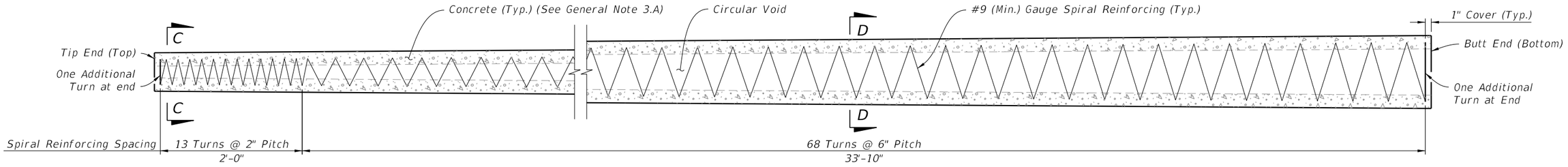
NOTES:

1. Provide a minimum 3" concrete plug at the Tip End.
2. For final erection, tilt pole upright with single point attachment located a distance of 4 feet from the Tip End.
3. Dimension may vary from 2¼" to 3½" to accommodate smaller radius of optional stepped (PVC) void. The minimum void diameter is 2".
4. Strands shown are continuous from Tip End to Butt End.
5. Strands are not shown in the elevation views for clarity.

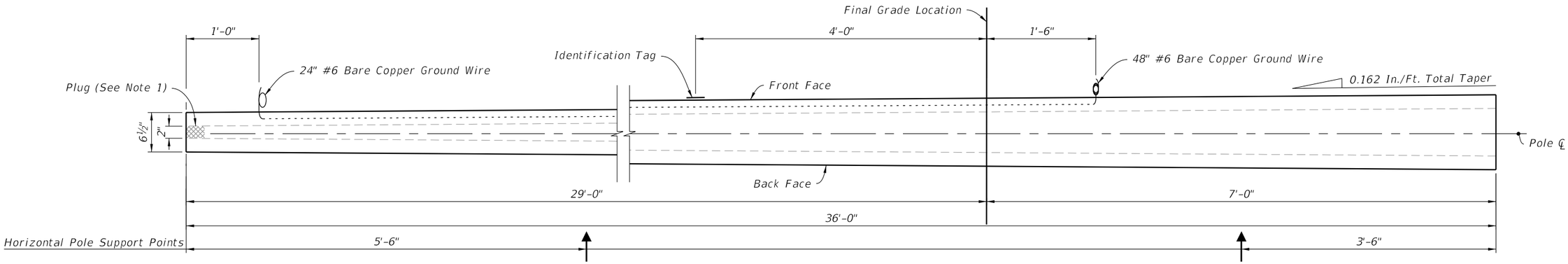
LEGEND:

- Prestressed Strand:
  0.5 in. ~ 24 kips before transfer or
  0.375 in. ~ 14 kips before transfer (4 strands total)

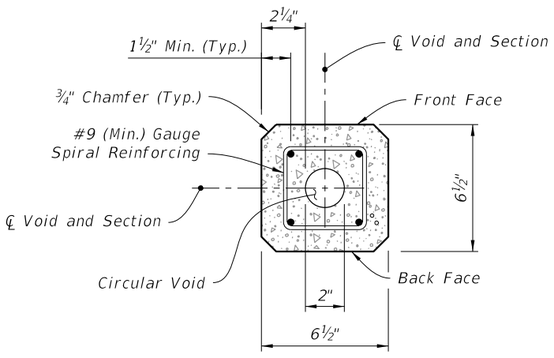
SERVICE POLE - TYPE P-IIA (12 Ft.)



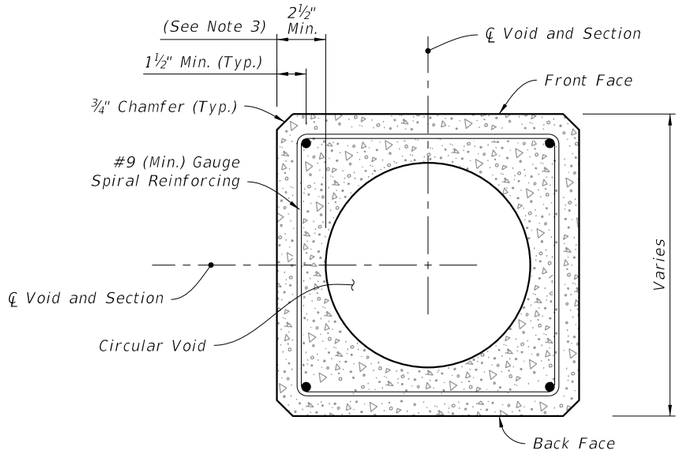
SPIRAL REINFORCING ELEVATION
(Strands and Fixtures Not Shown)



POLE ELEVATION
(Strands and Reinforcing Not Shown)



SECTION C-C (Tip End)



SECTION D-D (Typical Square Section)

NOTES:

1. Provide a minimum 3" concrete plug at the Tip End.
2. For final erection, tilt pole upright with single point attachment located a distance of 10 feet from the Tip End.
3. Dimension may vary from 2¼" to 3½" to accommodate smaller radius of optional stepped (PVC) void. The minimum void diameter is 2".
4. Strands shown are continuous from Tip End to Butt End.
5. Strands are not shown in the elevation views for clarity.

LEGEND:

- Prestressed Strand:
  0.5 in. ~ 24 kips before transfer or
  0.375 in. ~ 14 kips before transfer
  (4 strands total)

SERVICE POLE TYPE P-IIB (36 Ft.)

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LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	CONCRETE POLES	INDEX	SHEET
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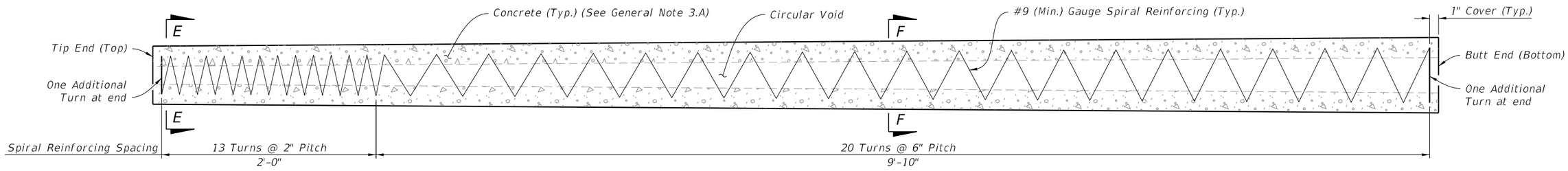

SPIRAL REINFORCING ELEVATION
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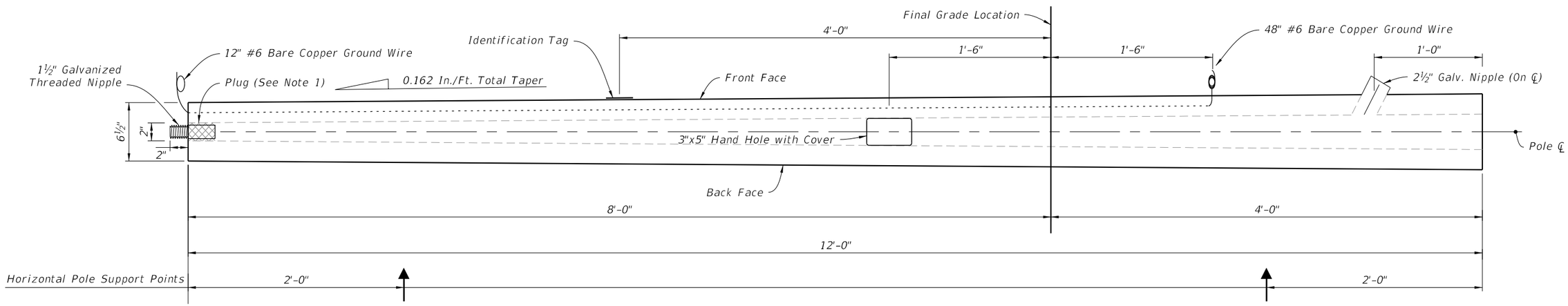
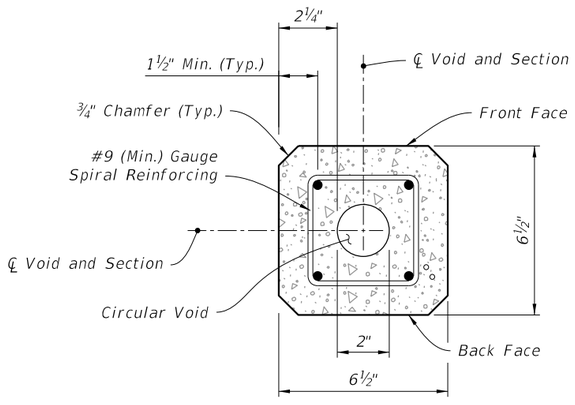
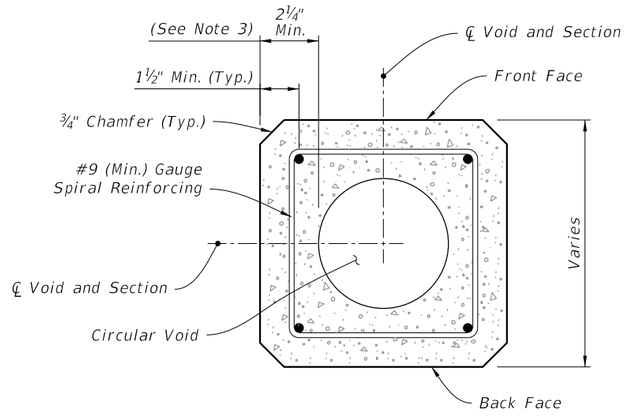


POLE ELEVATION
(Strands and Reinforcing Not Shown)



SECTION E-E (Tip End)



SECTION F-F (Typical Square Section)

NOTES:

1. Provide a minimum 3" concrete plug at the Tip End.
2. For final erection, tilt pole upright with single point attachment located a distance of 4 feet from the Tip End.
3. Dimension may vary from 2¼" to 3½" to accommodate smaller radius of optional stepped (PVC) void. The minimum void diameter is 2".
4. Strands shown are continuous from Tip End to Butt End.
5. Strands are not shown in the elevation views for clarity.

LEGEND:

- Prestressed Strand:
  0.5 in. ~ 24 kips before transfer or
  0.375 in. ~ 14 kips before transfer
  (4 strands total)

PEDESTAL - TYPE P-IIC (12 Ft.)

9:47:44 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	CONCRETE POLES	INDEX	SHEET
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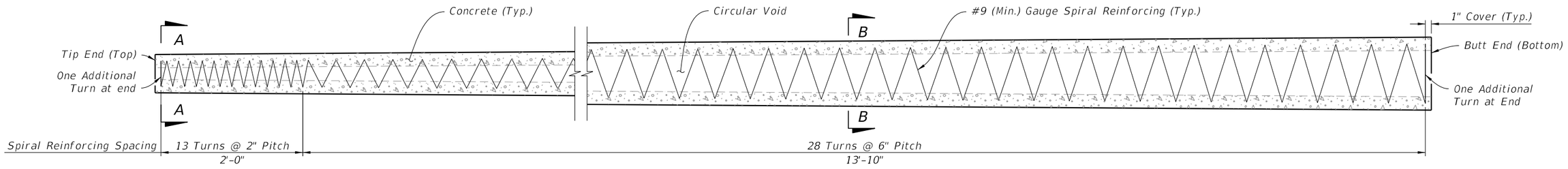

SPIRAL REINFORCING ELEVATION
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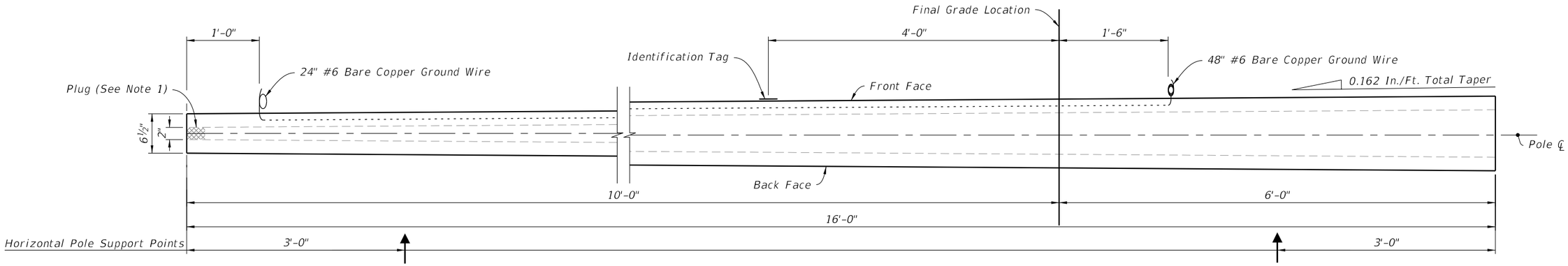

POLE ELEVATION
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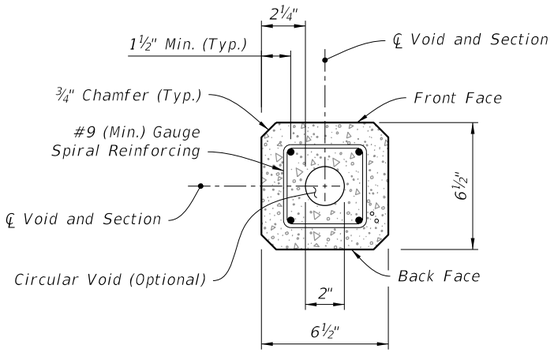
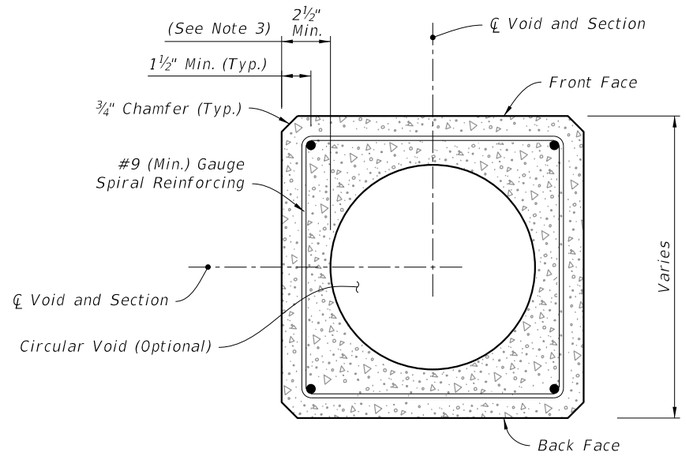


SECTION A-A (Tip End)



SECTION B-B (Typical Square Section)

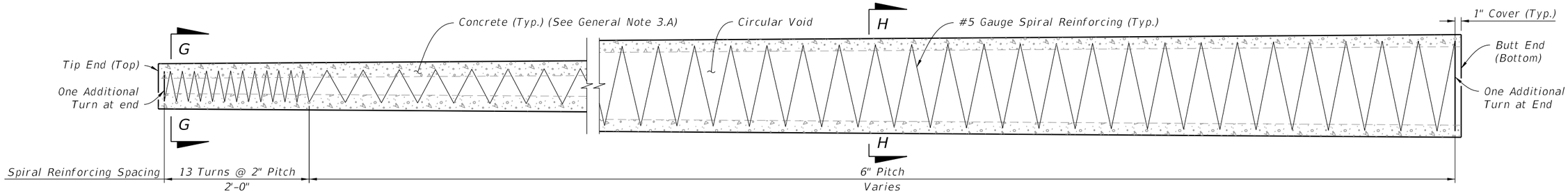
NOTES:

1. Provide a minimum 3" concrete plug at the Tip End.
2. For final erection, tilt pole upright with single point attachment located a distance of 5 feet from the Tip End.
3. Dimension may vary from 2¼" to 3½" to accommodate smaller radius of optional stepped (PVC) void. The minimum void diameter is 2".
4. Strands shown are continuous from Tip End to Butt End.
5. Strands are not shown in the elevation views for clarity.

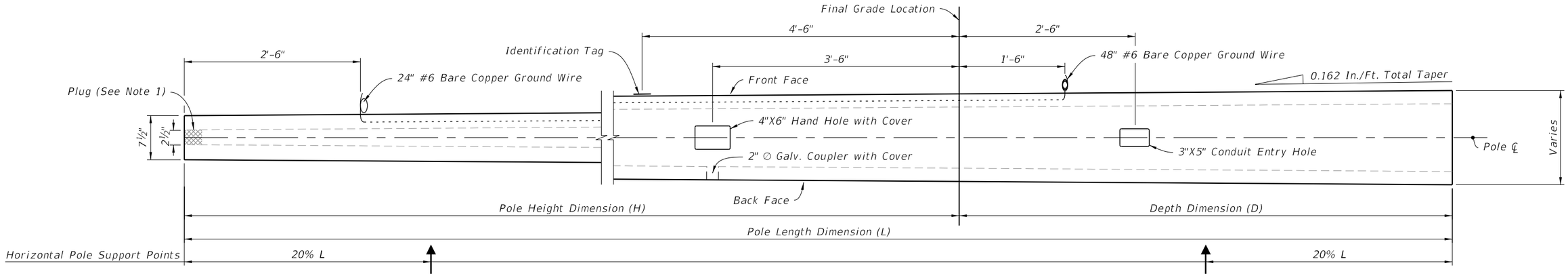
LEGEND:

- Prestressed Strand:
  0.5 in. ~ 24 kips before transfer or
  0.375 in. ~ 14 kips before transfer
  (4 strands total)

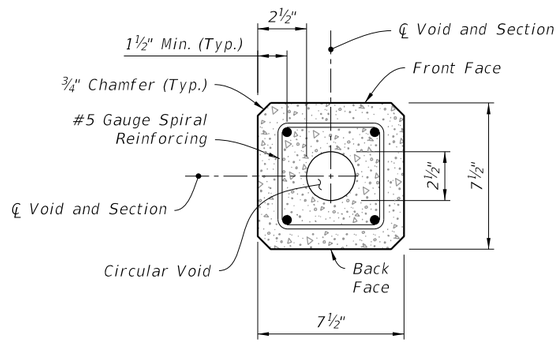
SERVICE POLE TYPE P-IID (16 Ft.)



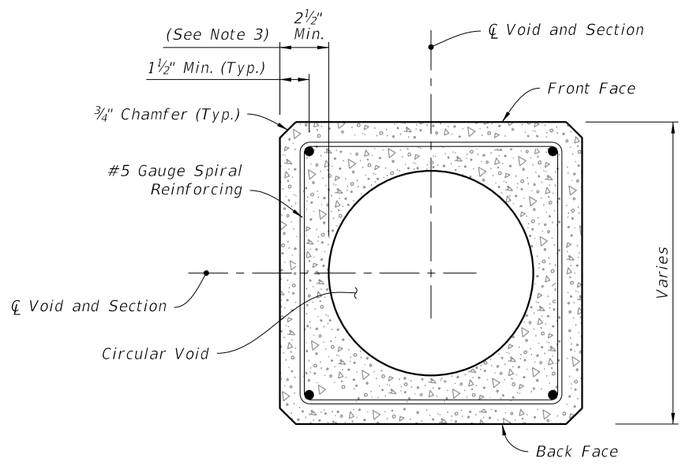
SPIRAL REINFORCING ELEVATION
(Strands, Holes and Fixtures Not Shown)



POLE ELEVATION
(Strands and Reinforcing Not Shown)



SECTION G-G (Tip End)



SECTION H-H (Typical Square Section)

NOTES:

1. Provide a minimum 3" concrete plug at the Tip End.
2. For final erection, tilt pole upright with single point attachment located a distance of 33% L from the Tip End.
3. Dimension may vary from 2½" to 3¾" to accommodate smaller radius of optional stepped (PVC) void. The minimum void diameter is 2½".
4. Strands shown are continuous from Tip End to Butt End.
5. Strands are not shown in the elevation views for clarity.

LEGEND:

- Prestressed Strand: 0.5 in. ~ 31 kips before transfer (4 strands total)

POLE TYPE P-III

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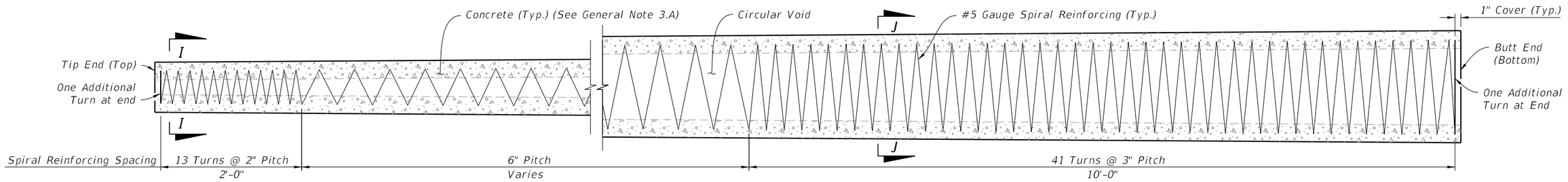
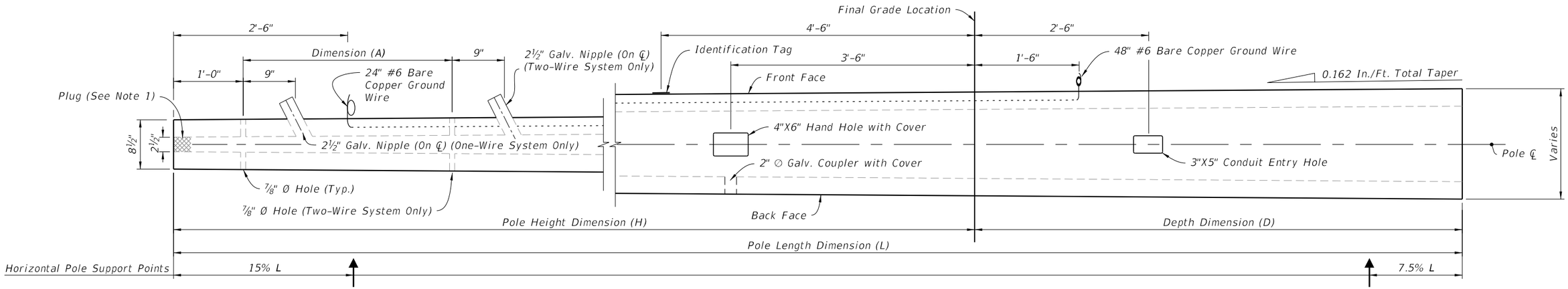
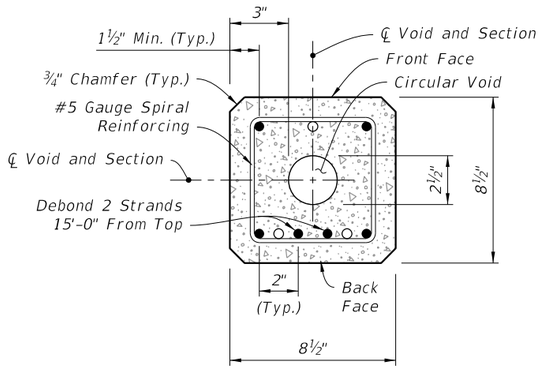
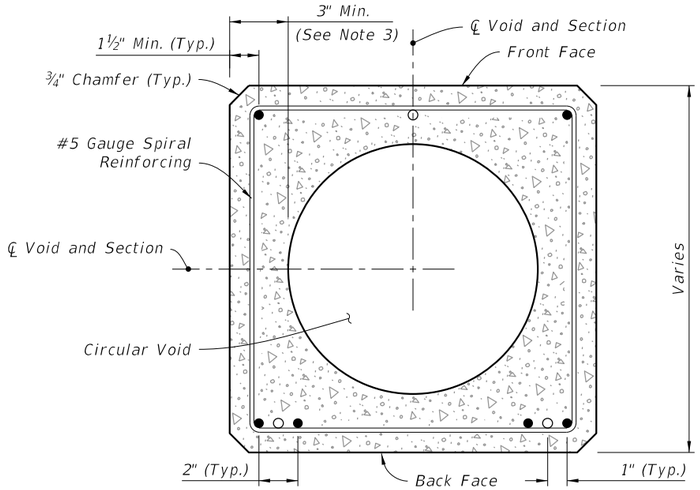


SPIRAL REINFORCING ELEVATION
(Strands, Holes and Fixtures Not Shown)



POLE ELEVATION
(Strands and Reinforcing Not Shown)





NOTES:

1. Provide a minimum 3" concrete plug at the Tip End.
2. For final erection, tilt pole upright with single point attachment located a distance of 20% L from the Tip End.
3. Dimension may vary from 3" to 4¼" to accommodate smaller radius of optional stepped (PVC) void. The minimum void diameter is 2½".
4. Strands shown are continuous from Tip End to Butt End.
5. Strands are not shown in the elevation views for clarity.

LEGEND:

- ● Prestressed Strand: 0.5 in. ~ 31 kips before transfer (6 strands total)
- ○ Dormant Strand: 0.5 in. (3 strands total) One 24" splice allowed per strand

SECTION I-I (Tip End)

SECTION J-J (Typical Square Section)

STRAIN POLE TYPE P-IV

9:48:05 AM
9/29/2025

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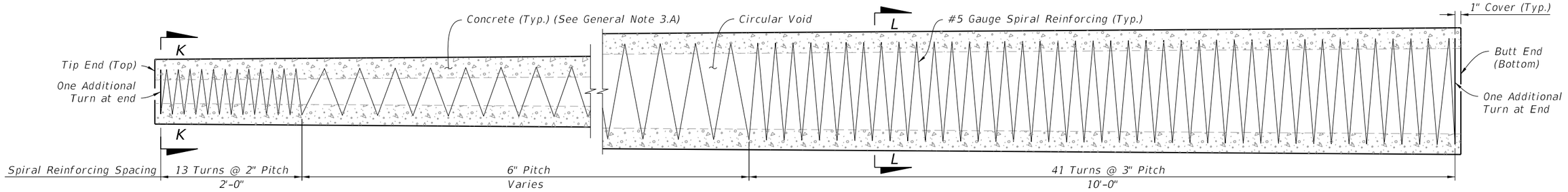
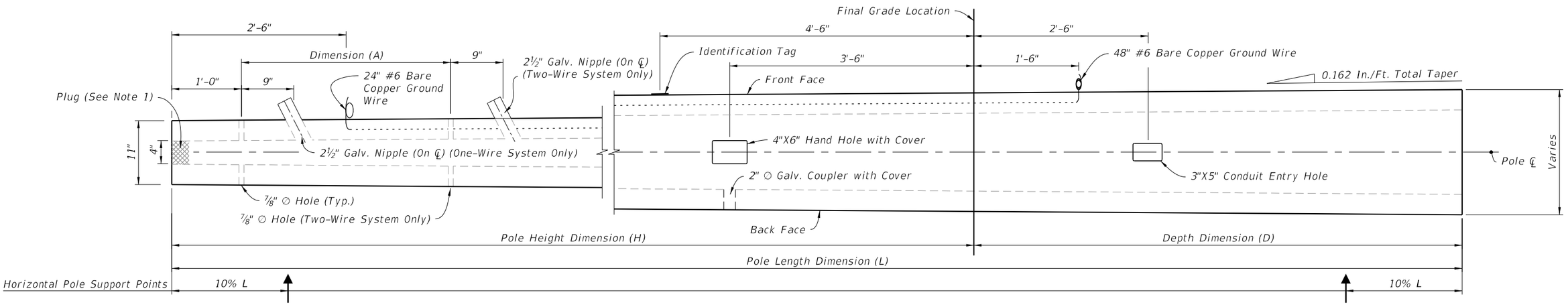
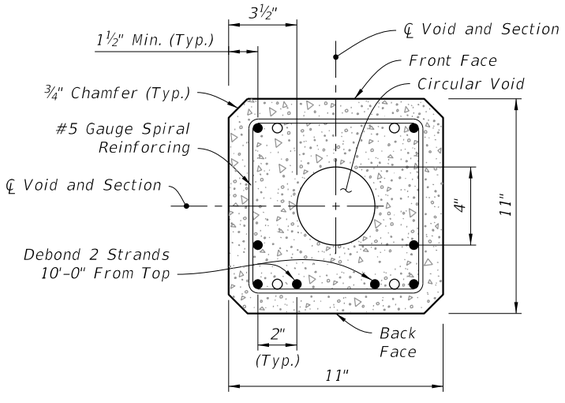
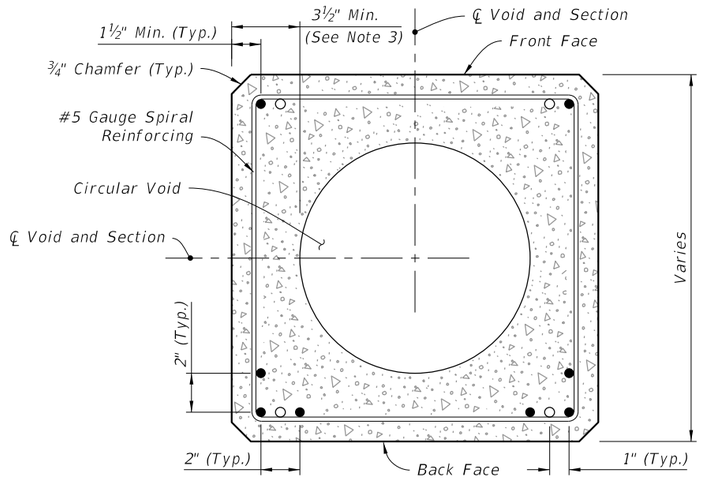


SPIRAL REINFORCING ELEVATION
(Strands, Holes, and Fixtures Not Shown)



POLE ELEVATION
(Strands and Reinforcing Not Shown)





NOTES:

1. Provide a minimum 3" concrete plug at the Tip End.
2. For final erection, tilt pole upright with single point attachment located a distance of 12.5% L from the Tip End.
3. Dimension may vary from 3½" to 4¾" to accommodate smaller radius of optional stepped (PVC) void. The minimum void diameter is 4".
4. Strands shown are continuous from Tip End to Butt End.
5. Strands are not shown in the elevation views for clarity.

LEGEND:

- ● Prestressed Strand: 0.5 in. ~ 31 kips before transfer (8 strands total)
- ○ Dormant Strand: 0.5 in. (4 strands total) One 24" splice allowed per strand

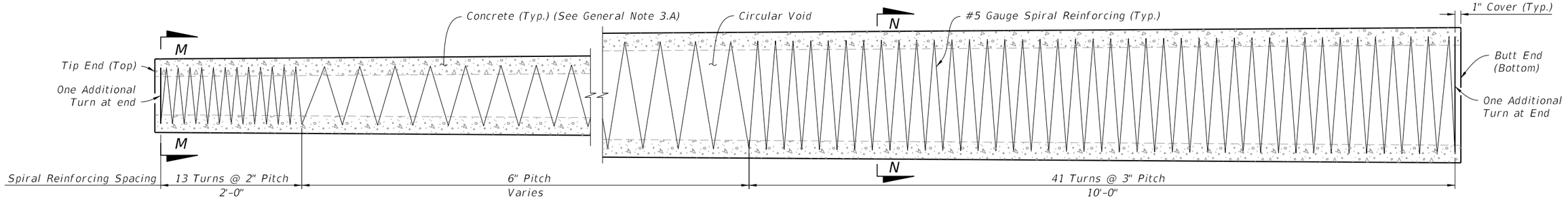
SECTION K-K (Tip End)

SECTION L-L (Typical Square Section)

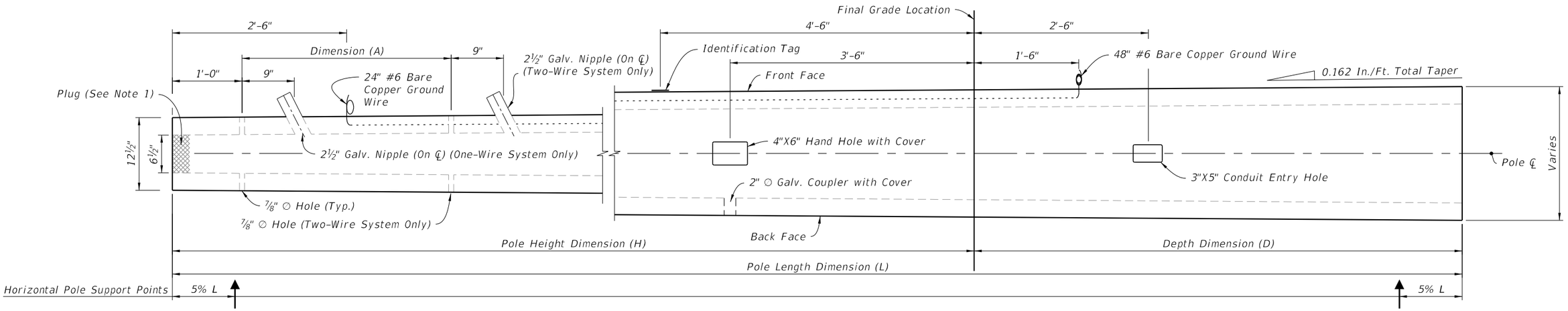
STRAIN POLE TYPE P-V

9:48:13 AM
9/29/2025

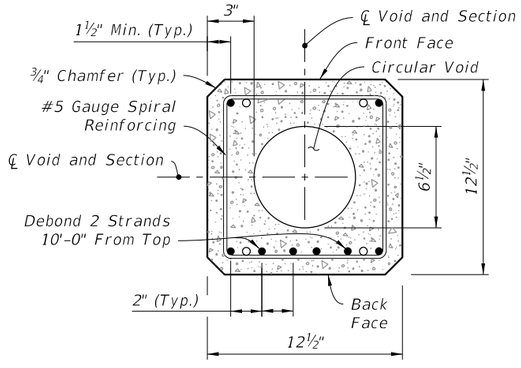
LAST REVISION	REVISION	DESCRIPTION:				
11/01/22			FY 2026-27 STANDARD PLANS	CONCRETE POLES	INDEX 641-010	SHEET 8 of 11



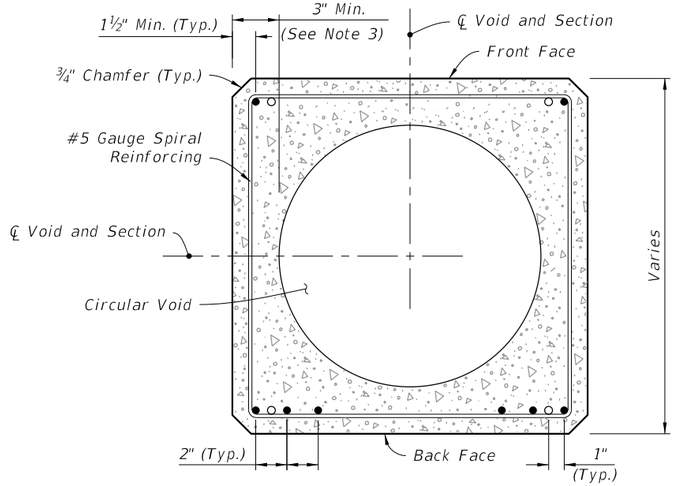
SPIRAL REINFORCING ELEVATION
(Strands, Holes, and Fixtures Not Shown)



POLE ELEVATION
(Strands And Reinforcing Not Shown)



SECTION M-M (Tip End)



SECTION N-N (Typical Square Section)

NOTES:

1. Provide a minimum 3" concrete plug at the Tip End.
2. For final erection, tilt pole upright with single point attachment located a distance of 10% L from the Tip End.
3. Dimension may vary from 3" to 4¼" to accommodate smaller radius of optional stepped (PVC) void. The minimum void diameter is 6½".
4. Strands shown are continuous from Tip End to Butt End.
5. Strands are not shown in the elevation views for clarity.

LEGEND:

- ● Prestressed Strand: 0.5 in. ~ 31 kips before transfer (8 strands total)
- ○ Dormant Strand: 0.5 in. (4 strands total) One 24" splice allowed per strand

STRAIN POLE TYPE P-VI

9:48:20 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	CONCRETE POLES	INDEX	SHEET
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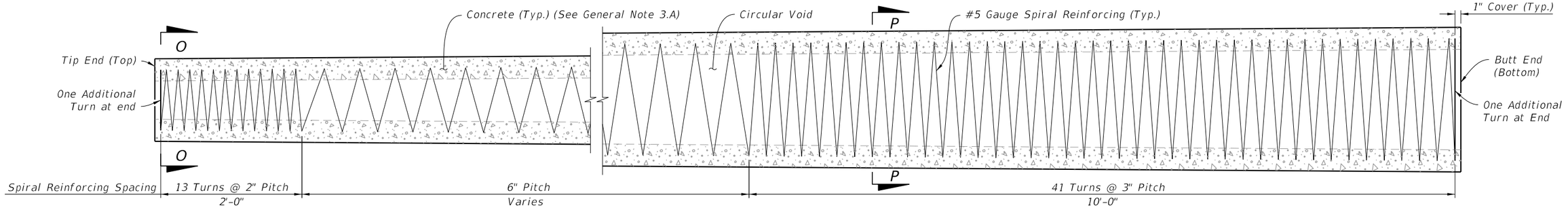
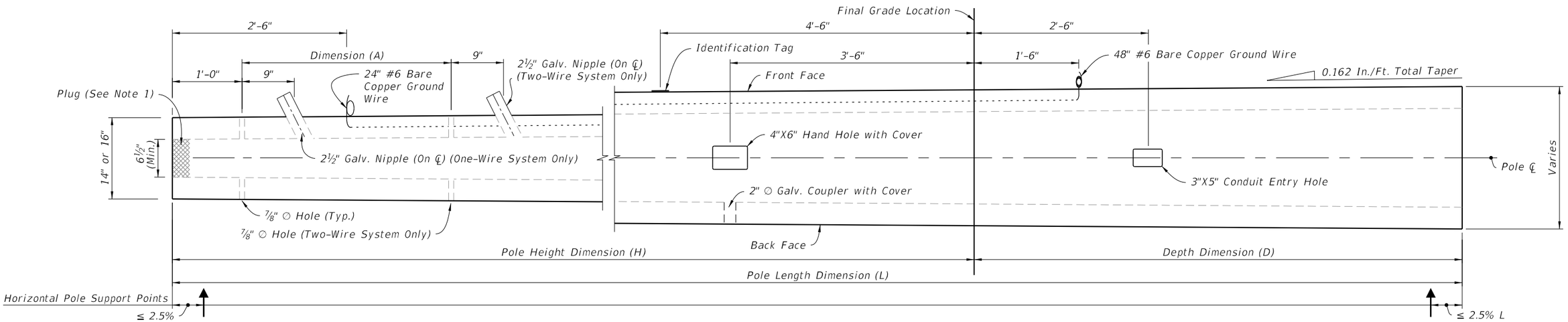
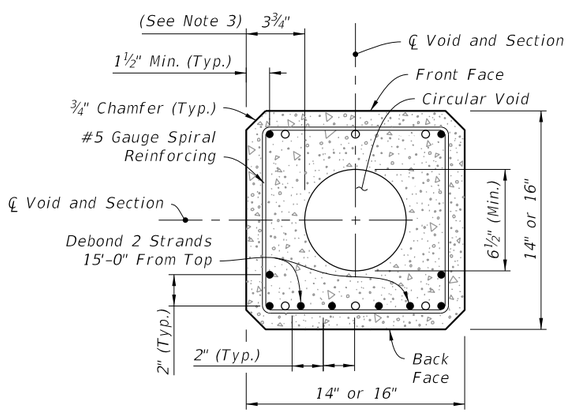


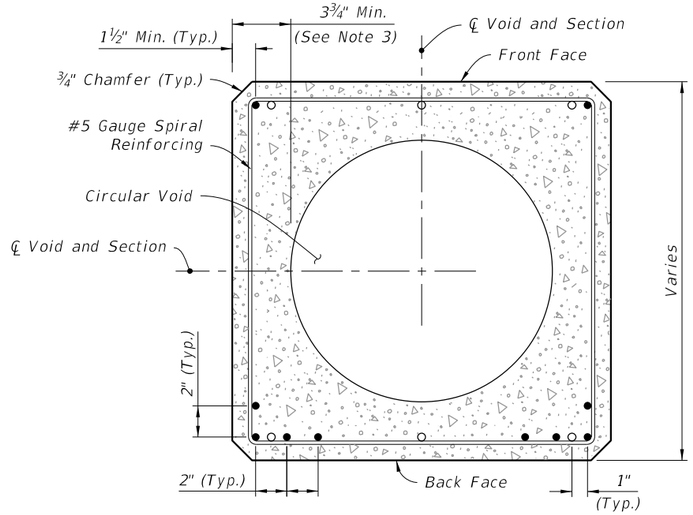
SPIRAL REINFORCING ELEVATION
(Strands, Holes, and Fixtures Not Shown)



POLE ELEVATION
(Strands And Reinforcing Not Shown)



SECTION O-O (Tip End)



SECTION P-P (Typical Square Section)

NOTES:

1. Provide a minimum 3" concrete plug at the Tip End.
2. For final erection, tilt pole upright with single point attachment located a distance of 10% L from the Tip End.
3. Dimension may vary from 3¾" to 5" to accommodate smaller radius of optional stepped (PVC) void. The minimum void diameter is 6½".
4. Strands shown are continuous from Tip End to Butt End.
5. Strands are not shown in the elevation views for clarity.

LEGEND:

- ● Prestressed Strand: 0.5 in. ~ 31 kips before transfer (10 strands total)
- ○ Dormant Strand: 0.5 in. (6 strands total) One 24" splice allowed per strand

STRAIN POLE TYPE P-VII

9:48:27 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	CONCRETE POLES	INDEX	SHEET
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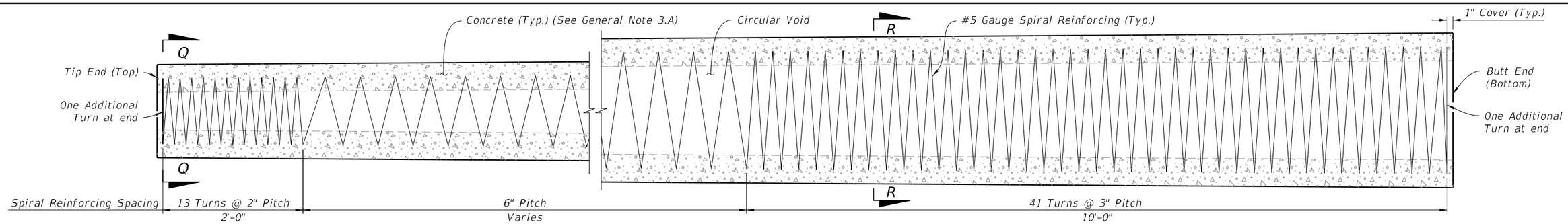
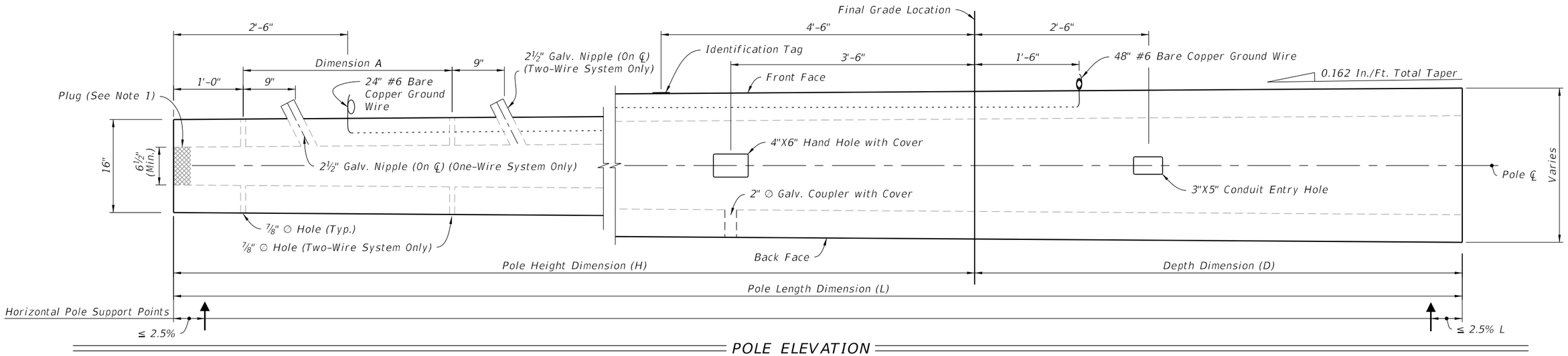
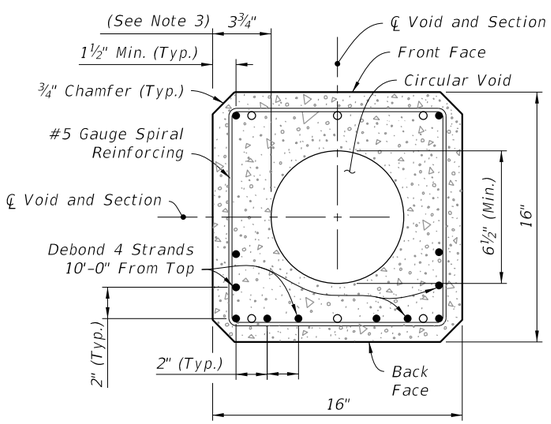


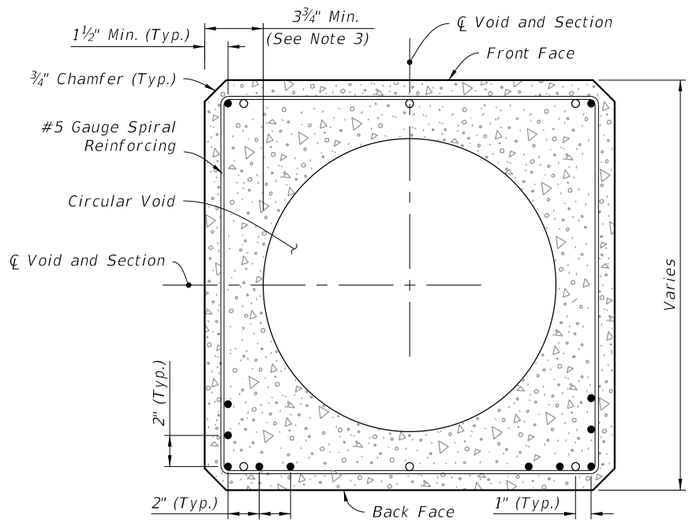
SPIRAL REINFORCING ELEVATION
(Strands, Holes, and Fixtures Not Shown)



POLE ELEVATION
(Strands And Reinforcing Not Shown)



SECTION Q-Q (Tip End)



SECTION R-R (Typical Square Section)

NOTES:

1. Provide a minimum 3" concrete plug at the Tip End.
2. For final erection, tilt pole upright with single point attachment located a distance of 10% L from the Tip End.
3. Dimension may vary from 3¾" to 5" to accommodate smaller radius of optional stepped (PVC) void. The minimum void diameter is 6½".
4. Strands shown are continuous from Tip End to Butt End.
5. Strands are not shown in the elevation views for clarity.

LEGEND:

- ● Prestressed Strand: 0.5 in. ~ 31 kips before transfer (12 strands total)
- ○ Dormant Strand: 0.5 in. (6 strands total) One 24" splice allowed per strand

STRAIN POLE TYPE P-VIII

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LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
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GENERAL NOTES:

1. Work this Index with Specification 641.

2. This Index is considered fully detailed and no shop drawings are necessary. Submit Shop Drawings for minor modifications not detailed in the Plans.

3. Provide either round or 12-sided Poles.

4. See Index 635-001 for additional Pull Box details.

5. See Index 676-010 for cabinet installation details.

6. Materials:

   A. Pole: Use Class VI concrete with 6 ksi minimum strength at transfer.
   B. Prestressing Strands: ASTM A416, Grade 270 low relaxation.
   C. Reinforcing Steel: ASTM A615, Grade 60
   D. Spiral Reinforcing: ASTM A1064 Cold-Drawn
   E. Bolts: ASTM F1554, Grade 55
      Nuts: ASTM A563, Grade A Heavy Hex
      Washers: ASTM F436
   F. Steel plates and Pole Cap: ASTM A36 or ASTM A709, Grade 50
   G. Galvanization: Bolts, nuts and washers: ASTM F2329
      All other steel: ASTM A123

7. Fabrication:

   A. Cut the tip end of the prestressed strand first or simultaneously with the butt end.
   B. For spiral reinforcing, one turn is required for spiral splices and two turns are required at the top and bottom of poles.
   C. For Reinforcing Steel, lap splice to consist of a 3'-0" lap length at each splice. No more than two opposing rebar to be spliced at the same cross section. Stagger lap splices as needed.
   D. Provided a Class 3 surface finish in accordance with Specification 400.
   E. Provide a 1" minimum cover.
   F. Provide handhole and coupler cover plates made of non-corrosive materials. Attach cover plates to poles using lead anchors or threaded inserts embedded in the poles in conjunction with round headed chrome plated screws.
   G. Provide Identification Markings on the poles where indicated on the following sheets. Include the following information using inset numerals with 1" height or as approved in the Producers' Quality Control Program:

      Financial Project ID
      Pole Manufacturer
      Pole Length

   H. Tie ground wires to the interior of reinforcing steel as necessary to prevent displacement during concreting operations.
   I. Storage, Handling and Erection locations shown may vary within ± 3".

8. Pole Installation:

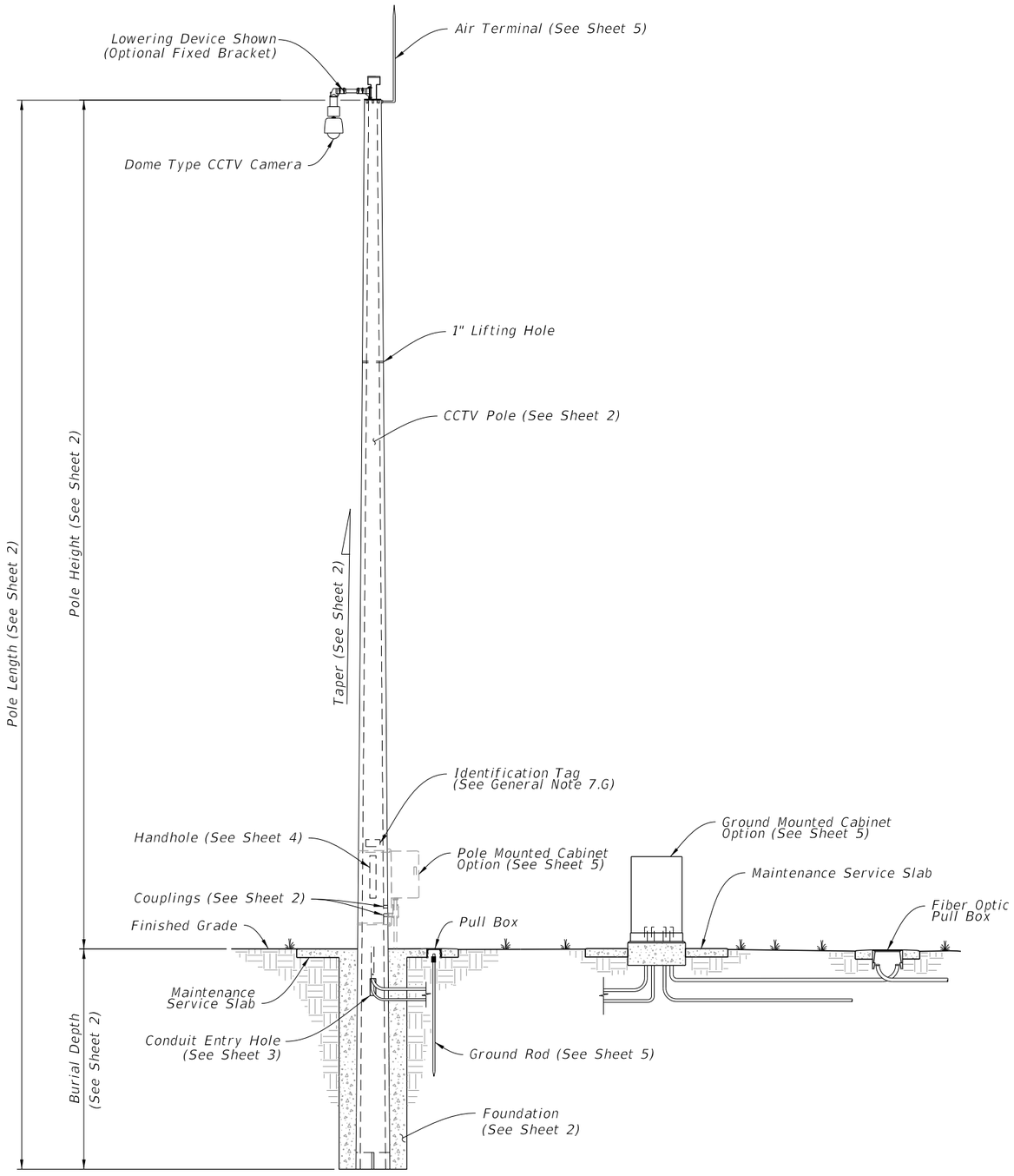
   A. Install the Pole plumb.
   B. Install Pole with the handhole located away from approaching traffic.

9. Cabinet Installation:

   A. Splice fiber optic cables in cabinet to preterminated patch panel.
   B. Furnish and install Surge Protection Devices (SPDs) on all cabling in cabinet.
   C. Furnish and install secondary SPDs protection on outlets for equipment in cabinet.
   D. Ensure that all electronic equipment power is protected and conditioned with SPDs.
   E. Ensure that equipment cabinet is bonded to CCTV pole grounding system.
   F. Install the pole mounted cabinet with the hinges next to the pole.
   G. Sizes and types of conduits and innerducts for network communications between the pullbox and cabinet are stated in the Contract Documents.

10. Lowering Device Installation:

   A. Place the lowering cable that moves within the pole in an interior conduit to prevent it from tangling or interfering with any electrical wire that is in the pole. Ensure that any electrical wire within the pole is routed securely and free from slack.
   B. Mount lowering arm perpendicular to the roadway or as shown in the plans. Position CCTV pole so that the camera can be safely lowered without requiring lane closures.
   C. Coordinate all lowering device hardware requirements (including Tenon, Tenon mounting plates, parking stand, etc.) with lowering device manufacturer.



CCTV POLE ASSEMBLY

9:48:41 AM

9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	CONCRETE CCTV POLE	INDEX	SHEET
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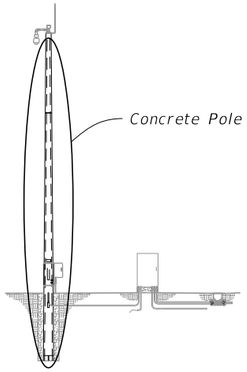


NOTES:

1. Diameter of 12-sided poles are measured flat to flat.
2. Total Taper applies to pole, strands and reinforcing.
3. For 12-Sided Pole and Round Roles Option 2, Stress prestressed strand to 70% of Ultimate before transfer. For Round Pole Option 1, stress prestressed strand to 60% of Ultimate before transfer.
4. Pole Design Tables, Burial Depth is based on level ground (flatter than 1:5). Increase the burial depth in accordance with the Additional Burial Depth Due To Ground Slope table for foundations with slopes 1:5 and steeper. Use the higher value for slope or diameter values that fall between those shown on the table.
5. Strand Pattern 1 may be used in lieu of Strand Pattern 2 where required by fabrication to facilitate Handhole construction.

ASSEMBLY

ADDITIONAL BURIAL DEPTH DUE TO GROUND SLOPE

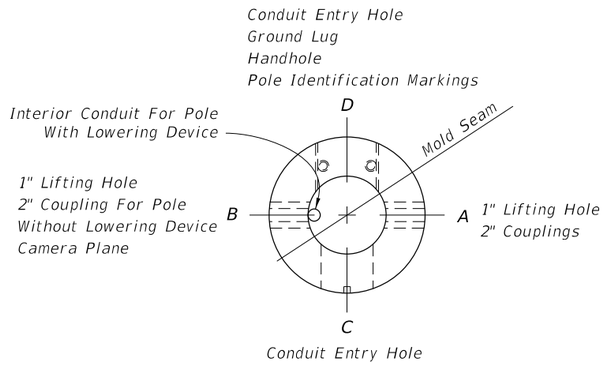
Ground Slope	Additional Burial Depth (feet)
1:5	3
1:4	4
1:3	5
1:2	7

12-SIDED POLE DESIGN TABLE (See Note 1, 5)

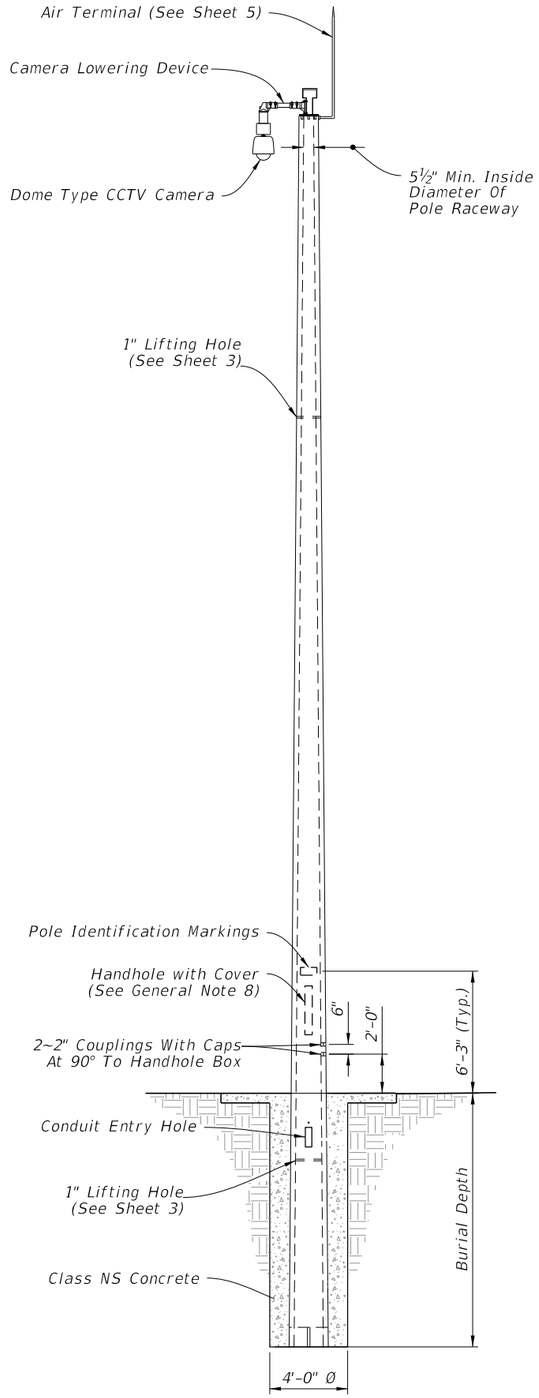
Pole Length (ft)	Pole Height (ft)	Burial Depth (ft)	Total Taper (in/ft) (See Note 2)	Void Taper (in/ft)	Min. Wall Thickness Tip (in)	Min. Wall Thickness Butt (in)	Tip Diameter (in)	Butt Diameter (in)	Strand Pattern	Strand Diameter
63	50	13	0.18	0.18	3	3	12	23.34	2	0.6"
69	55	14	0.18	0.18	3	3	12	24.42	2	0.6"
75	60	15	0.18	0.18	3	3	12	25.50	3	0.6"
80	65	15	0.18	0.18	3	3	12	26.40	3	0.6"
86	70	16	0.18	0.18	3	3	12	27.48	3	0.6"

ROUND POLE DESIGN TABLE

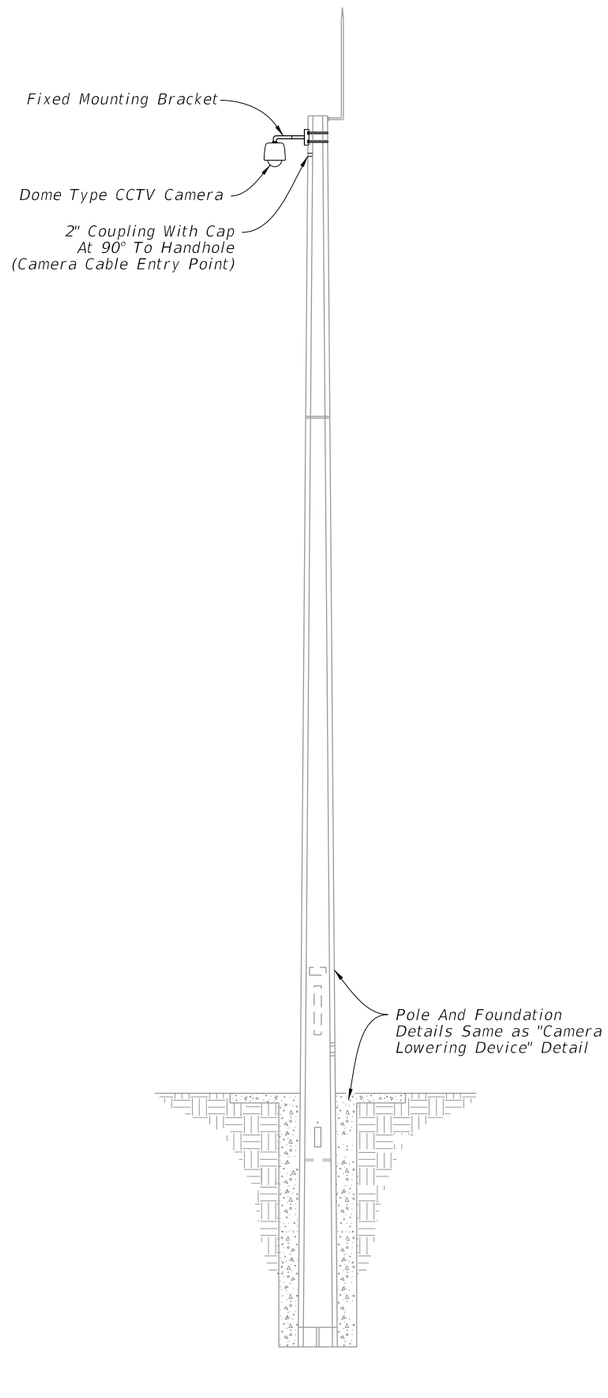
Pole Length (ft)	Pole Height (ft)	Burial Depth (ft)	Design Option	Total Taper (in/ft) (See Note 2)	Void Taper (in/ft)	Min. Wall Thickness Tip (in)	Min. Wall Thickness Butt (in)	Tip Diameter (in)	Butt Diameter (in)	Strand Pattern	Strand Diameter
63	50	13	Option 1	0.216	0.192	3	3.76	12.15	25.76	4	0.5"
			Option 2	0.180	0.172	3	3.50	12.00	23.34	5	0.5"
69	55	14	Option 1	0.216	0.192	3	3.83	12.15	27.05	4	0.5"
			Option 2	0.180	0.173	3	3.50	12.00	24.42	5	0.5"
75	60	15	Option 1	0.216	0.192	3	3.90	12.15	28.35	4	0.5"
			Option 2	0.180	0.173	3	3.50	12.00	25.50	5	0.5"
80	65	15	Option 1	0.216	0.192	3	3.96	12.15	29.43	4	0.5"
			Option 2	0.180	0.174	3	3.50	12.00	26.40	5	0.5"
86	70	16	Option 1	0.216	0.192	3	4.03	12.15	30.73	4	0.5"
			Option 2	0.180	0.174	3	3.50	13.00	28.48	5	0.5"



PLAN VIEW



CAMERA LOWERING DEVICE



FIXED MOUNTING BRACKET

ELEVATION

9/29/2025 9:48:49 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	CONCRETE CCTV POLE	INDEX	SHEET
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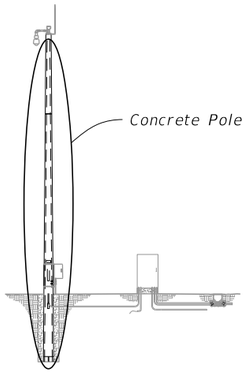
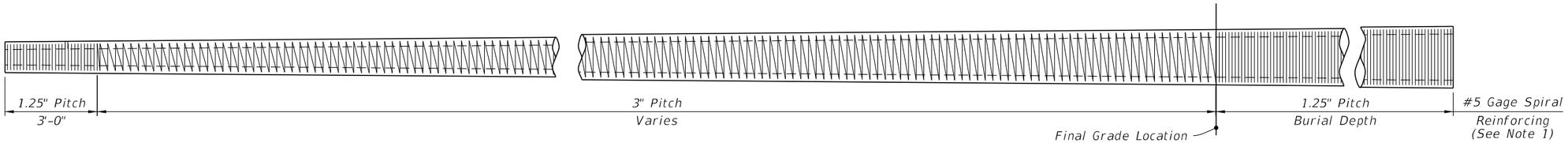
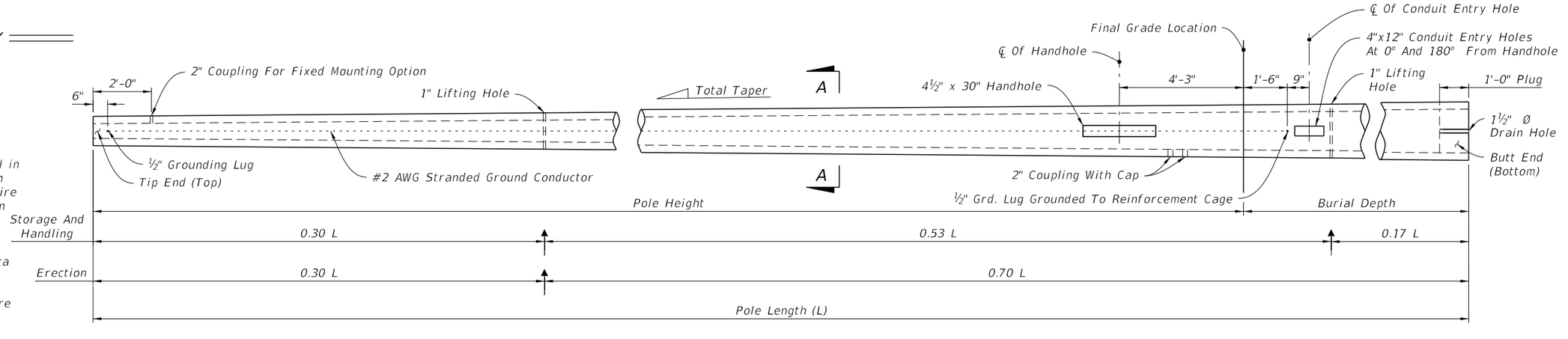


ASSEMBLY



SPIRAL REINFORCING ELEVATION
(Strands, Holes and Fixtures Not Shown)



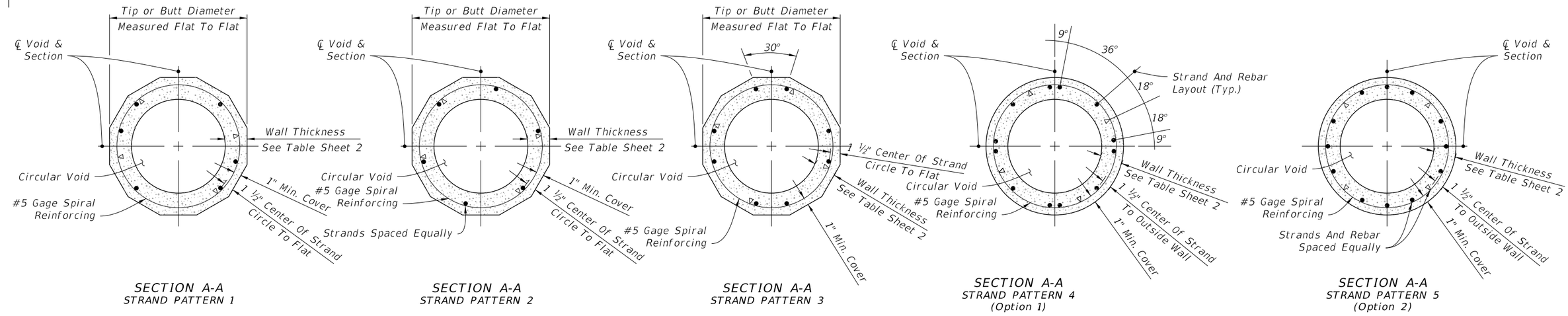
NOTES:

1. Spiral wire may be wrapped in two directions given that an equivalent area of spiral wire is provided to that shown in this Index and the cover requirements are met.
2. Work these details with Data Tables on Sheet 2.
3. Strands and rebar shown are continuous from Tip End to Butt End.

LEGEND:

- ● Prestressed Strand
- Δ (4) #5 Rebar (Shown) or (6) #4 Rebar
- ▲ Lift Points

POLE ELEVATION
(Strands And Reinforcing Not Shown)



SECTION A-A
STRAND PATTERN 1

SECTION A-A
STRAND PATTERN 2

SECTION A-A
STRAND PATTERN 3

SECTION A-A
STRAND PATTERN 4
(Option 1)

SECTION A-A
STRAND PATTERN 5
(Option 2)

12 - SIDED CONCRETE POLE

ROUND CONCRETE POLE

9:48:56 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	CONCRETE CCTV POLE	INDEX	SHEET
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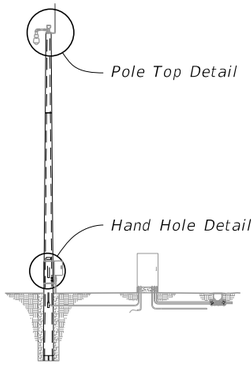
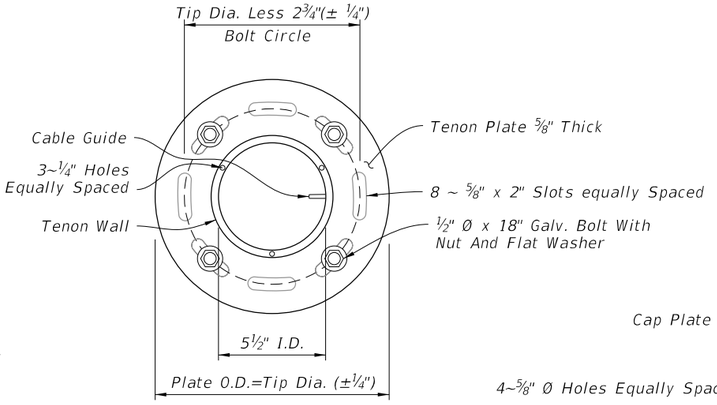


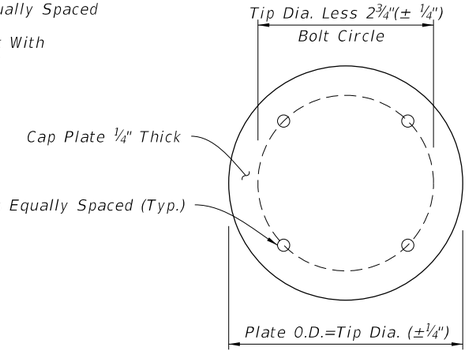
ASSEMBLY

NOTES:

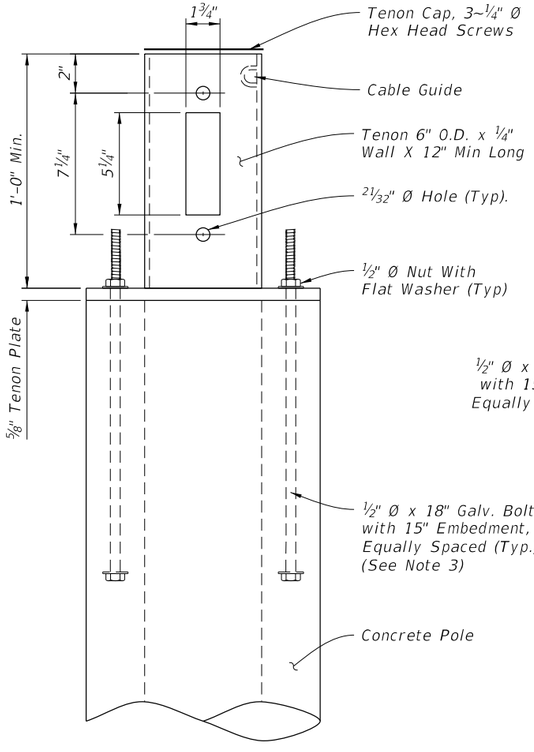
1. Install all handhole and opening covers prior to shipping.
2. Install ½" Ø x 5" long stud with hex nut in insert before shipment.
3. As an alternate, embed 4~½" Ø x 18" stainless steel threaded rods with a threaded nut. At top of rod, thread a coupling nut to attach plate w/ 4~½" x 1¾" stainless steel bolts.
4. Handhole frame may be Cast Aluminum 356.2.
5. Work these details with Data Tables on Sheet 2.



PLAN VIEW

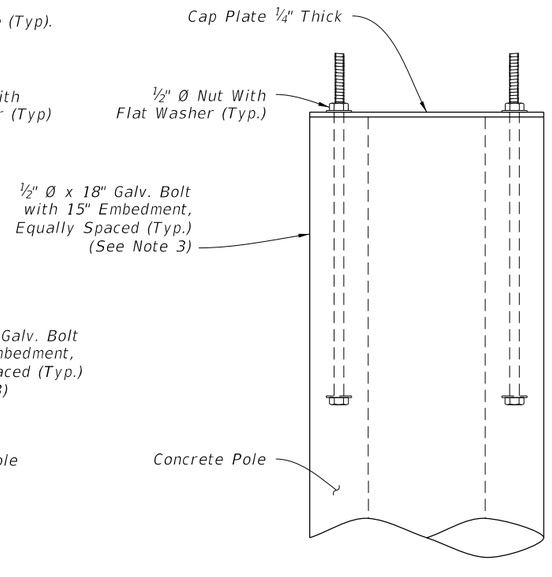


PLAN VIEW



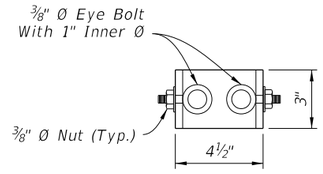
ELEVATION

LOWERING DEVICE TENON

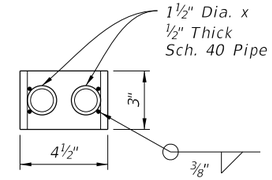


ELEVATION

CAP PLATE DETAIL
(Without Lowering Device)

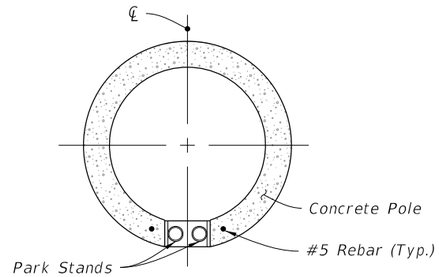


EYE BOLT OPTION

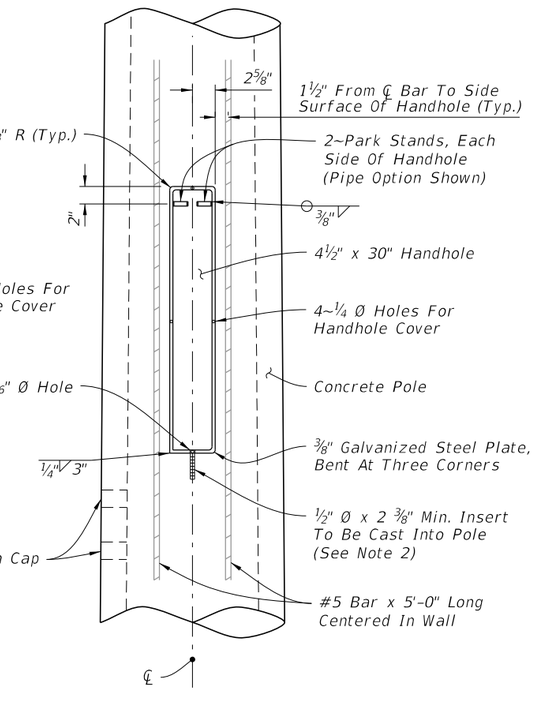


PIPE OPTION

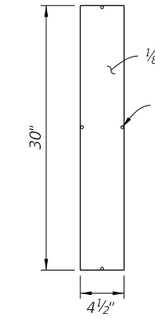
PARK STAND DETAIL



PLAN VIEW

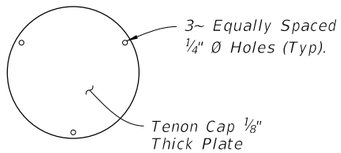


ELEVATION



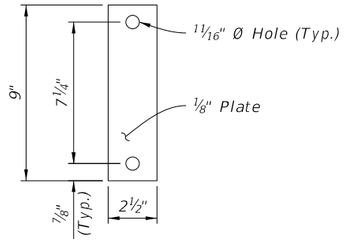
HANDHOLE COVER

2" Couplings With Cap



TENON CAP

PLAN VIEW



ELEVATION

TENON COVER

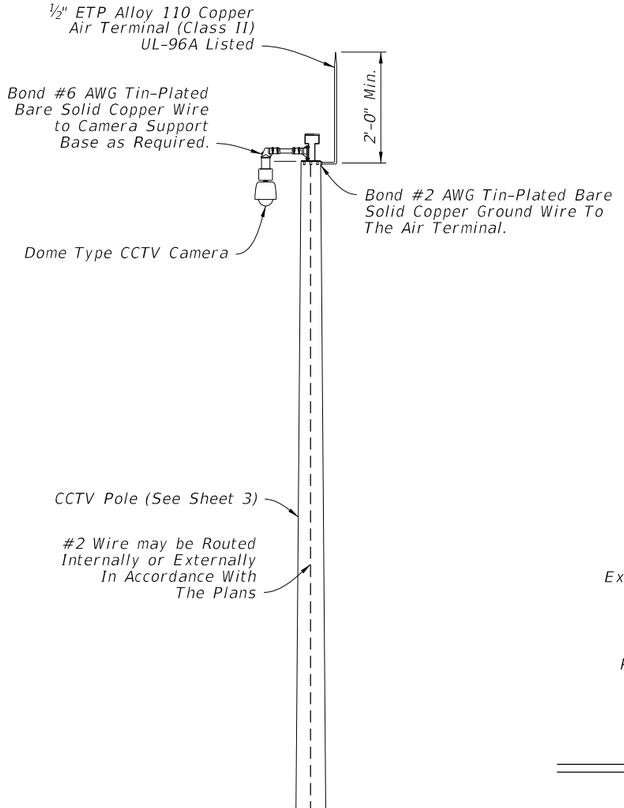
POLE TOP DETAIL

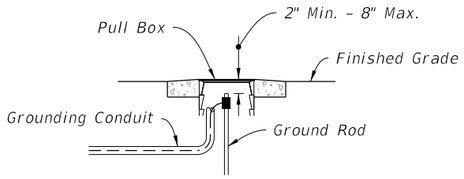
HANDHOLE DETAIL

9:49:03 AM

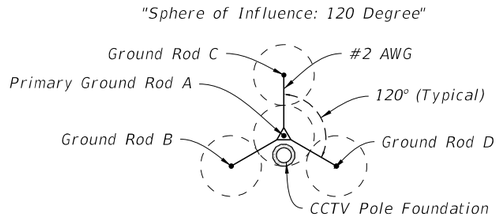
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/21			FY 2026-27 STANDARD PLANS	CONCRETE CCTV POLE	641-020	4 of 5

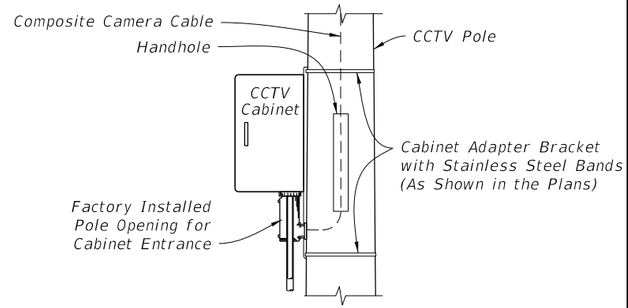




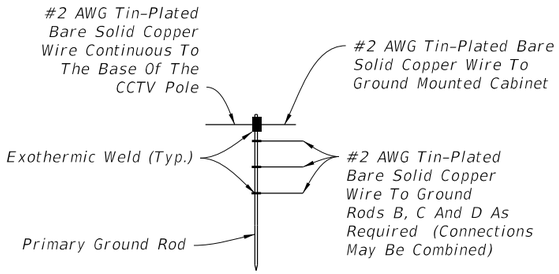
PULL BOX
DETAIL "A"



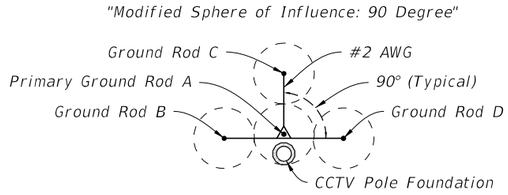
TYPICAL
(20' Rods, 40' Spacing)



SIDE VIEW

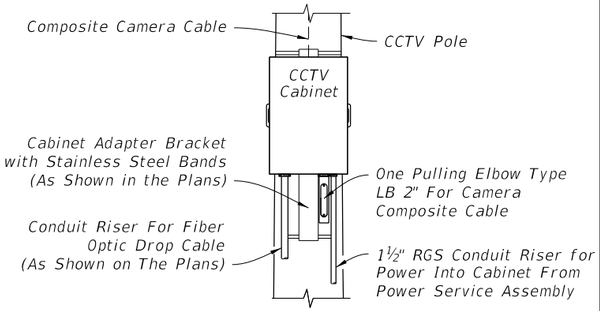


PRIMARY GROUND ROD ASSEMBLY
DETAIL "B"

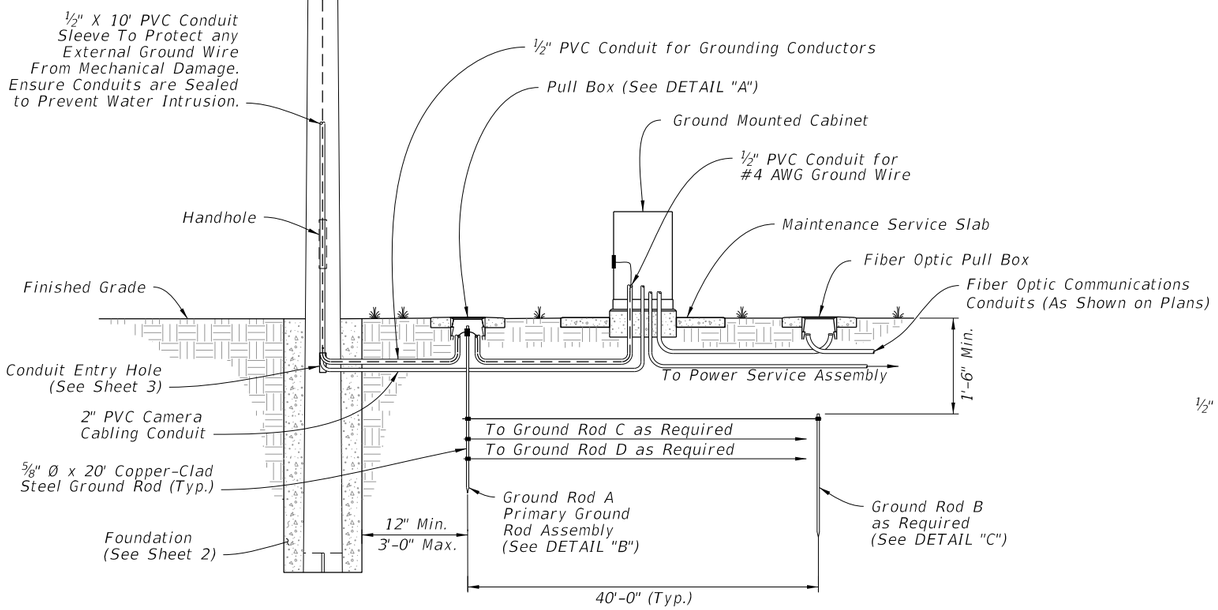


TYPICAL MODIFIED
(20' Rods, 40' Spacing)

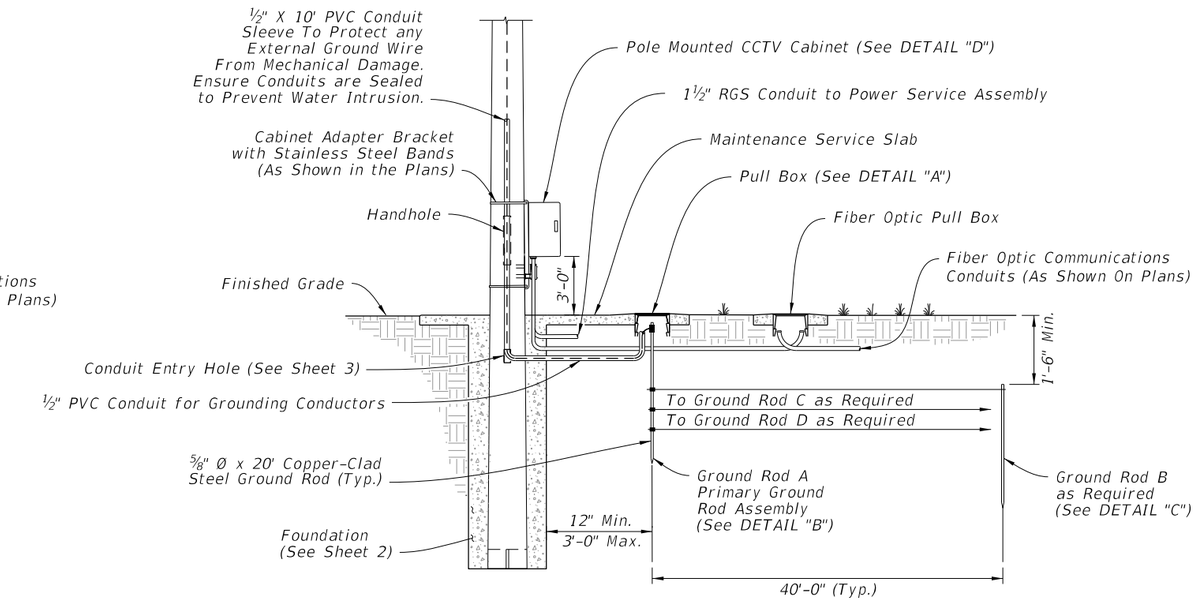
GROUND ROD ARRAY PLACEMENT
DETAIL "C"



FRONT VIEW
DETAIL "D"



GROUND MOUNTED CABINET



POLE MOUNTED CABINET

CONCRETE CCTV POLE GROUNDING

9:49:11 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/22			FY 2026-27 STANDARD PLANS	CONCRETE CCTV POLE	641-020	5 of 5

NOTES:

1. Work this Index with Specification 646.

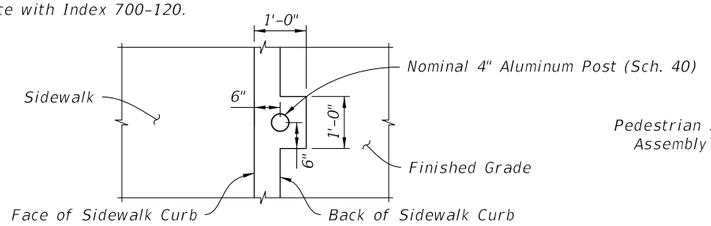
2. For Pedestrian Signals see Index 653-001.

3. For Pedestrian Detector Assembly (i.e., Pushbutton and Sign) details see Index 665-001.

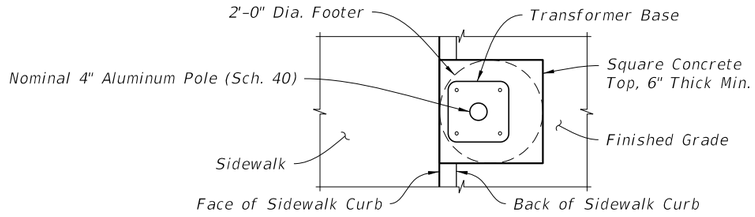
4. Footing may be Cast-In-Place (C-I-P) or Precast.

5. As an alternative to the direct buried "Post Mounted" Pedestrian Detector Assembly shown below, the post may be installed on a transformer base. Use a transformer base included on the APL approved as an alternative to a "Post Mounted" assembly,

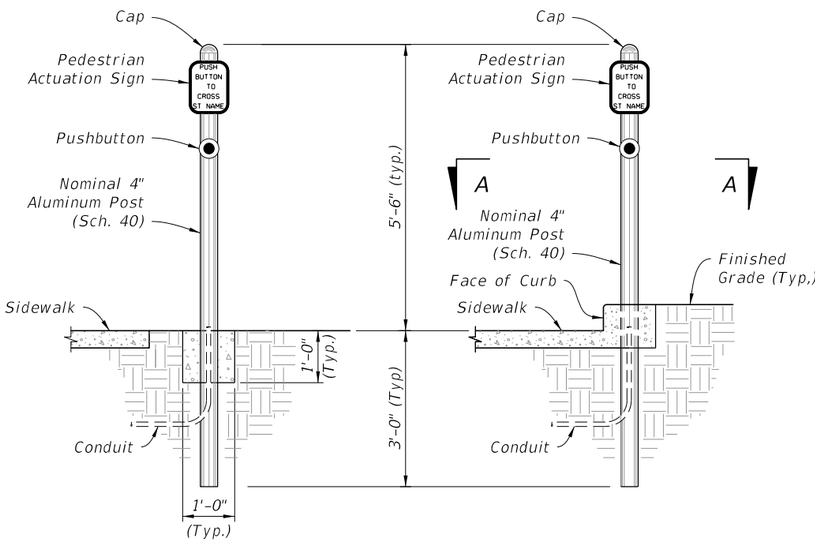
6. In lieu of footing design shown, a Spread Footing may be used in accordance with Index 700-120.



PLAN VIEW
SECTION A-A

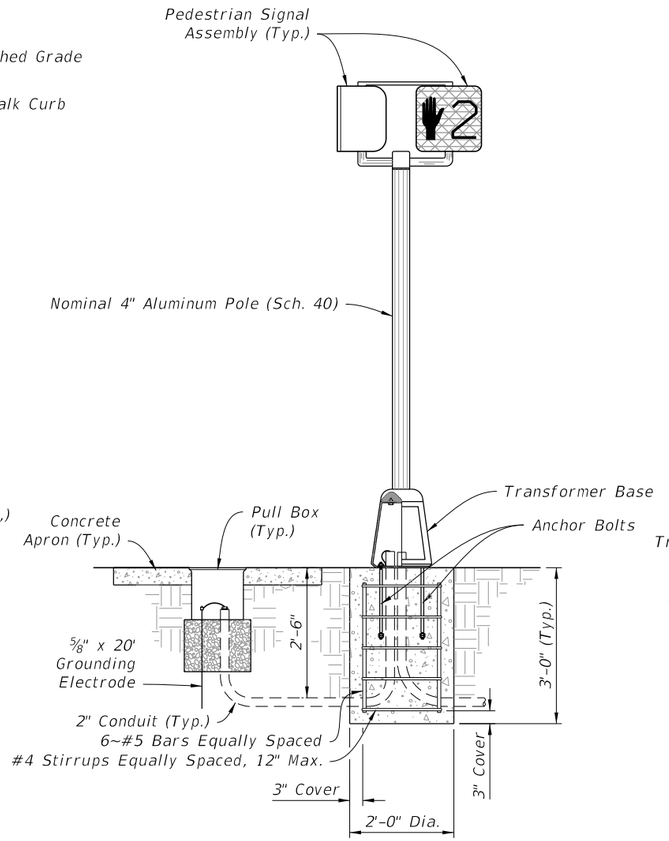


PLAN VIEW
SECTION B-B

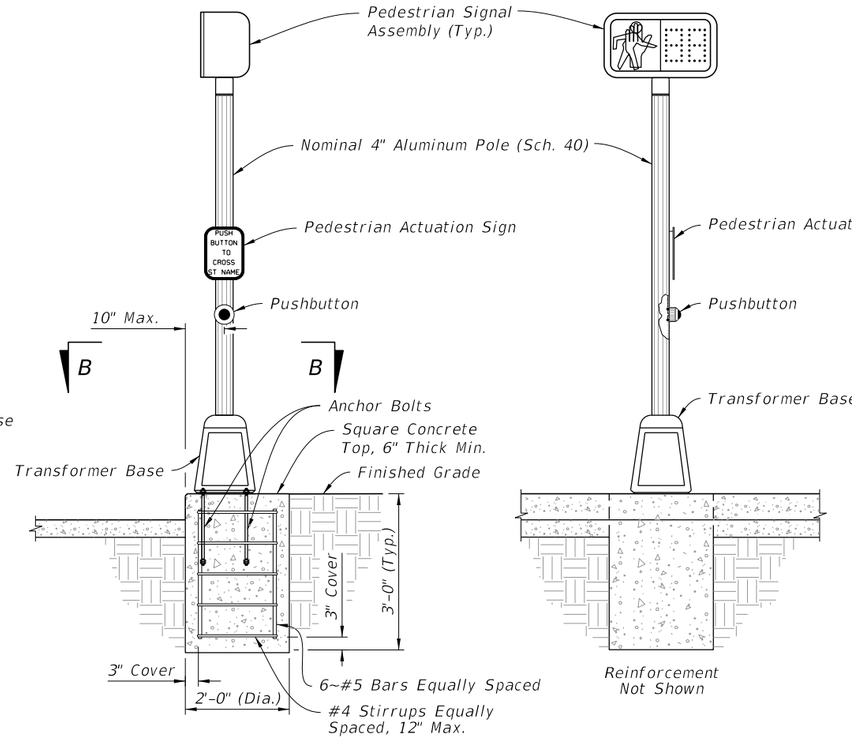


FRONT ELEVATION
ADJACENT TO SIDEWALK

FRONT ELEVATION
IN SIDEWALK CURB



FRONT ELEVATION
ADJACENT TO SIDEWALK



SIDE ELEVATION

FRONT ELEVATION

IN SIDEWALK CURB
(Conduit And Grounding Not Shown)

POST MOUNTED

PEDESTAL MOUNTED

9:49:18 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/23			FY 2026-27 STANDARD PLANS	ALUMINUM POST AND PEDESTAL MOUNTED PEDESTRIAN DETECTORS AND SIGNALS	646-001	1 of 1

NOTES:

1. Work with Index 634-001 for grounding and span wire details. See the Plans for clamp spacing, cable sizes and forces, signals and sign mounting locations and details.

2. Shop Drawings:

   This Index is considered fully detailed, only submit shop drawings for minor modifications not detailed in the Plans.

3. Materials:

   A. Strain Pole and Backing Rings:
      a. Less than 3/16": ASTM A1011 Grade 50, 55, 60 or 65
      b. Greater than or equal to 3/16": ASTM A572 Grade 50, 55, 60 or 65
      c. ASTM A595 Grade A (55 ksi yield) or Grade B (60 ksi yield)
   B. Steel Plates: ASTM A36
   C. Weld Metal: E70XX
   D. Bolts, Nuts and Washers:
      a. High Strength Bolts: ASTM F3125, Grade A325, Type 1
      b. Nuts: ASTM A563 Grade DH Heavy-Hex
      c. Washers: ASTM F436 Type 1, one under turned element
   E. Anchor Bolts, Nuts and Washers:
      a. Anchor Bolts: ASTM F1554 Grade 55
      b. Nuts: ASTM A563 Grade A Heavy-Hex (5 per anchor bolt)
      c. Plate Washers: ASTM A36 (2 per bolt). Split-lock washers and self-locking nuts are not permitted
   F. Handhole Frame: ASTM A709 or ASTM A36, Grade 36
   G. Handhole Cover: ASTM A1011 Grade 50, 55, 60 or 65
   H. Aluminum Pole Caps and Nut Covers: ASTM B26 (319-F)
   I. Stainless Steel Screws: AISI Type 316
   J. Threaded Bars/Studs: ASTM A36 or ASTM A307
   K. Concrete: Class IV (Drilled Shaft) for all environmental classifications.
   L. Reinforcing Steel: Specification 415

4. Fabrication:

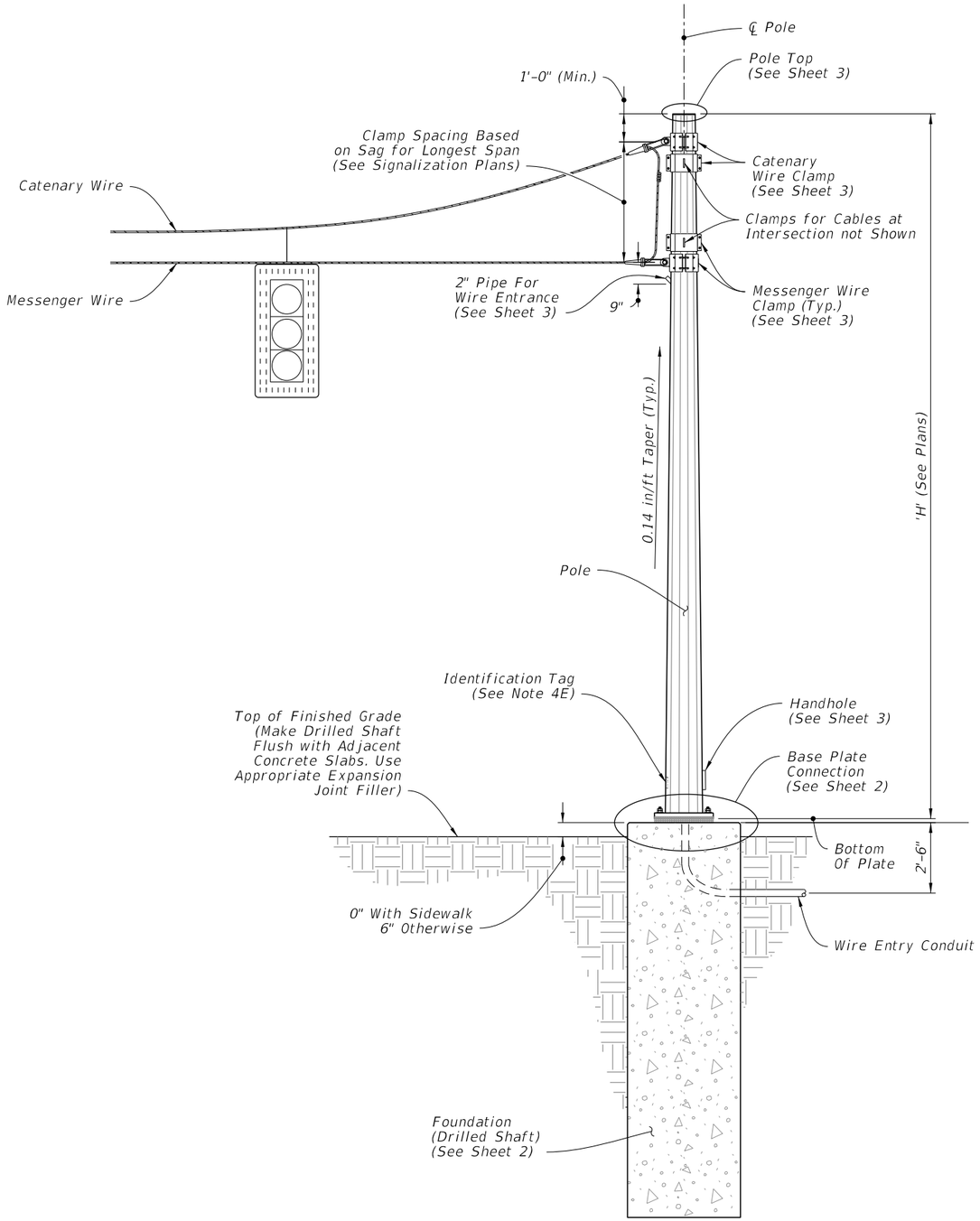
   A. Pole Taper: Change diameter at a rate of 0.14 inches per foot, round or 12-sided (Min.)
   B. Upright splices are not permitted. Transverse welds are only permitted at the base.
   C. Provide bolt hole diameters as follows:
      a. Bolts (except Anchor Bolts): Bolt diameter plus 1/16", prior to galvanizing.
      b. Anchor Bolts: Bolt diameter plus 1/2", maximum.
   D. Locate handhole 180° from 2" wire entrance pipe.
   E. Identification Tag: (Submit details for approval.)
      a. 2"x 4" (Max.) aluminum identification tag.
      b. Locate on the inside of the pole and visible from the handhole.
      c. Secure to pole with 1/8" diameter stainless steel rivets or screws.
      d. Include the following information on the ID Tag:
         1. Financial Project ID
         2. Pole Type
         3. Pole height
         4. Manufacturers' Name
         5. Fy of Steel
         6. Base Wall Thickness
   F. Provide a 'J' or 'C' hook at the top of the pole for signal wiring support (See Sheet 3).
   G. Perform all welding in accordance with Specification 460-6.4.
   H. Fabricate longitudinal seam welds in pole with 60 percent minimum penetration or fusion welds except, within 6" of the base plate connection use complete joint penetration welds.
   I. Hot Dip Galvanize after fabrication.

5. Coatings:

   A. All Nuts, Bolts, Washers and Threaded Bars/Studs: ASTM F2329
   B. All other steel items including plate washers: ASTM A123

6. Construction:

   A. Foundation: Specification 455, except that payment is included in the cost of the strain pole.
   B. After installation, place wire screen between top of foundation and bottom of base plate in accordance with Specification 649-8.

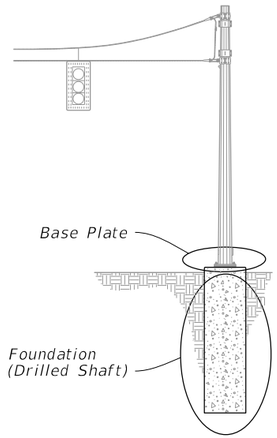


STRAIN POLE ASSEMBLY

ELEVATION AND NOTES

9/29/2025 9:49:25 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	STEEL STRAIN POLE	INDEX	SHEET
11/01/23					649-010	1 of 3

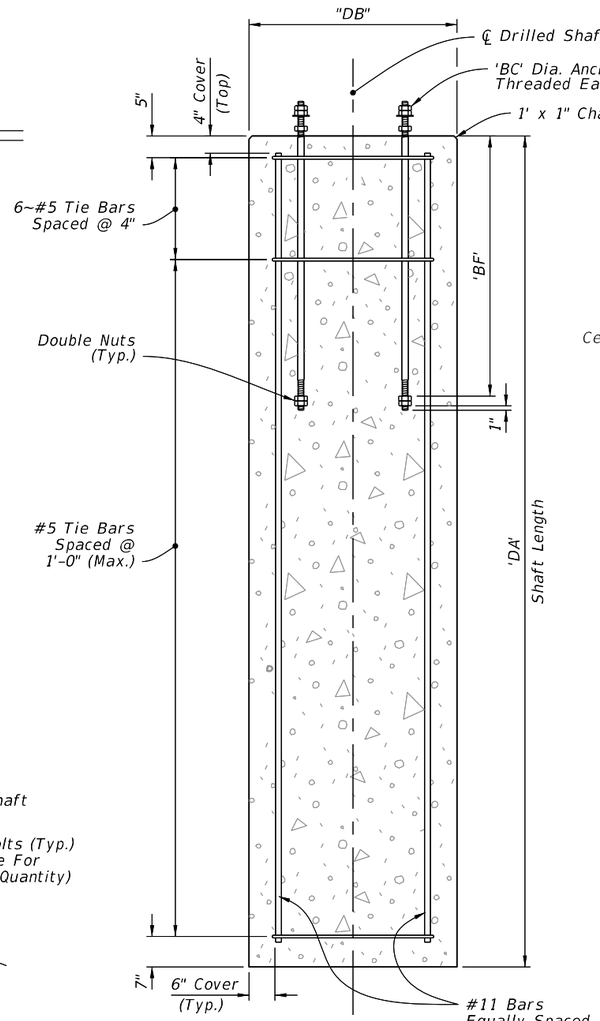


POLE ASSEMBLY

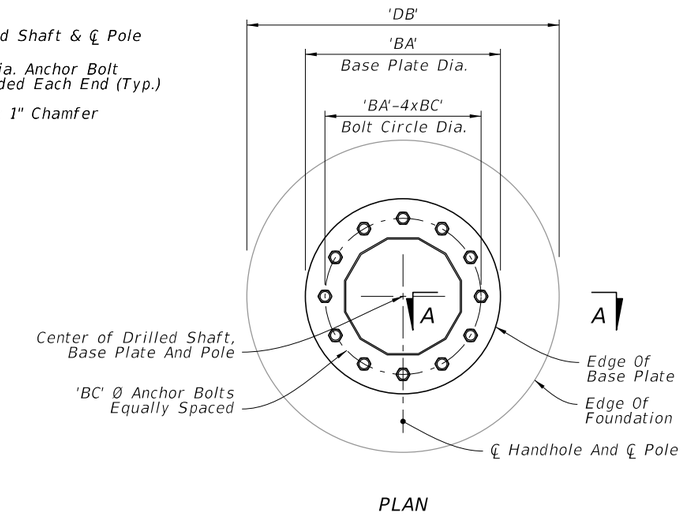
STEEL STRAIN POLE DATA TABLE										
POLE TYPE	POLE		BASE CONNECTION					SHAFT		
	J (in)	K (in)	No. of Bolts	BA (in)	BB (in)	BC (in)	BF (in)	DA (FT)	DB (FT)	No. of #11 Bars
PS-IV	0.250	14	8	25	2.50	1 3/8	60	14	4	14
PS-V	0.313	16	10	28	2.50	1 1/2	60	15	4	14
PS-VI	0.313	18	12	30	2.50	1 1/2	60	16	4	14
PS-VII	0.313	21	14	33	2.50	1 1/2	60	16	4.5	16
PS-VIII	0.313	23	16	35	2.50	1 1/2	60	17	4.5	16
PS-IX	0.313	25	12	39	3.00	1 3/4	60	17	5	18
PS-X	0.313	27	14	41	3.00	1 3/4	60	18	5	18

NOTE:

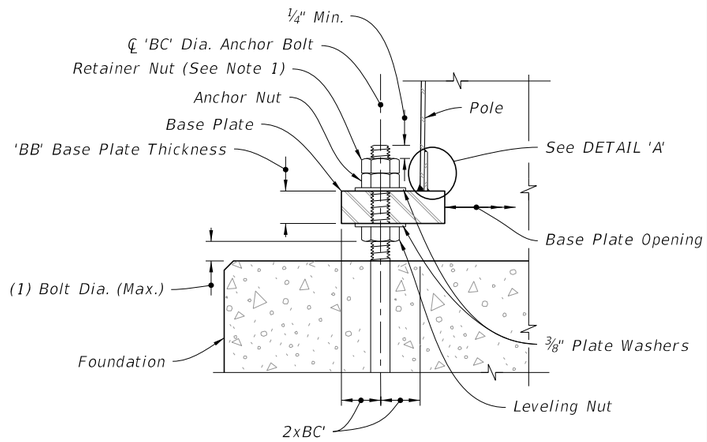
1. Retainer nut may be half-height. Provide Individual nut covers (not shown) for each bolt.



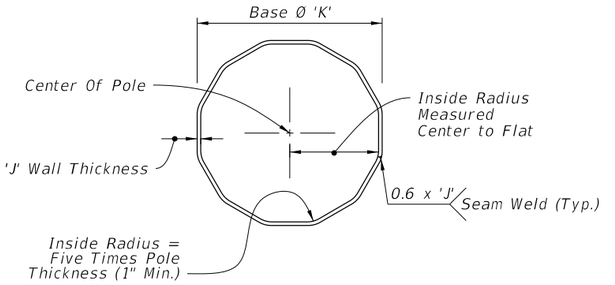
ELEVATION



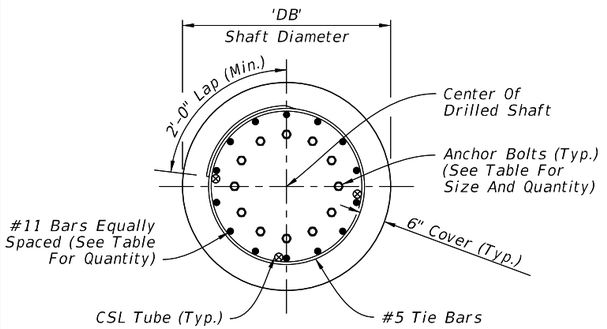
PLAN



SECTION A-A

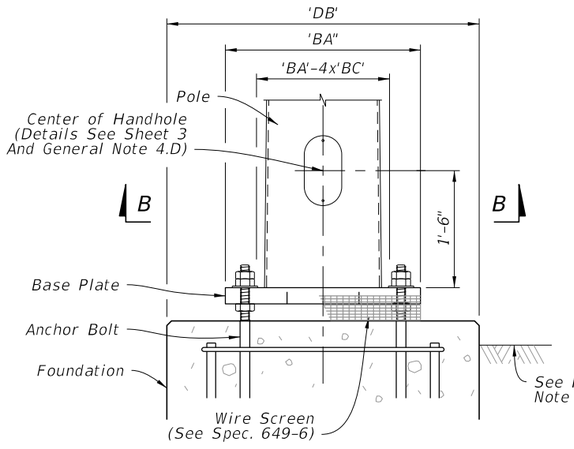


SECTION B-B



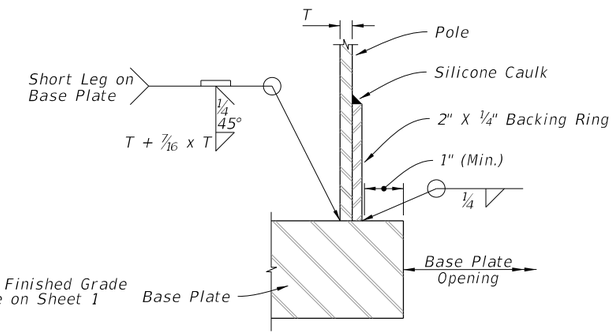
PLAN

FOUNDATION



ELEVATION

BASE PLATE



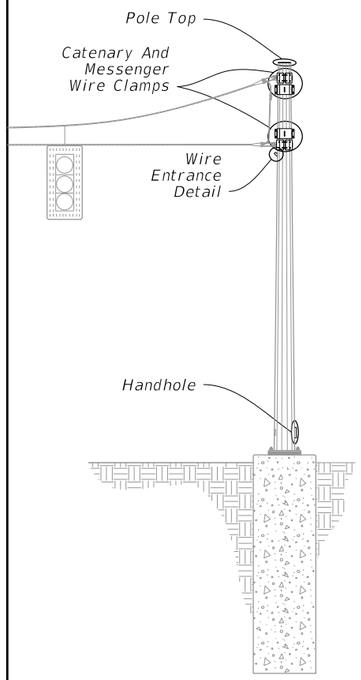
JOINT WELD DETAIL

DETAIL 'A'

FOUNDATION AND BASE DETAILS

9/29/2025 9:49:36 AM

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/24			FY 2026-27 STANDARD PLANS	STEEL STRAIN POLE	649-010	2 of 3

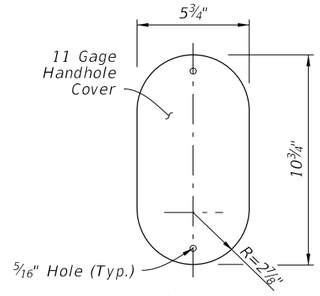


POLE ASSEMBLY

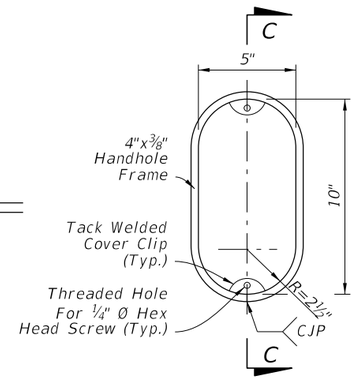
NOTES:

1. Clamps have been sized for Design Cable Loads shown in the Clamp Thickness Table, and a Maximum Pole Diameter at the Clamp location of 2'-1". Use one clamp per cable.
2. Install a properly sized Weather Head, fastened securely to the standard pipe for each pole location. At locations other than the wire entrance, the Weather Head face is to be left closed to outside atmosphere. Wire entrance installed per Index 634-001.
3. Any combination of Option 'a' or 'b' may be used provided both lifting and wiring is accommodated.

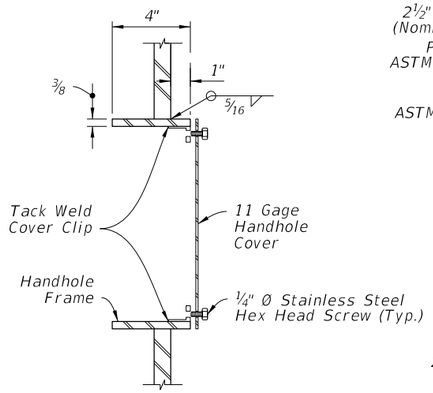
CLAMP THICKNESS TABLE		
Cable Diameter (in.)	Minimum Breaking Strength (kip)	Plate Thickness (in.)
1/2	25	1
7/16	18	7/8
3/8	11.5	3/4
1/4	3.15	3/8



COVER



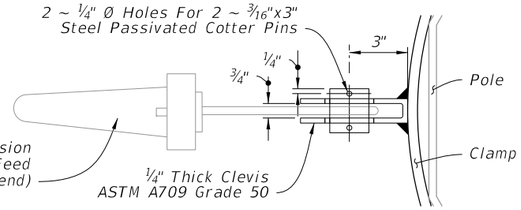
HANDHOLE FRAME



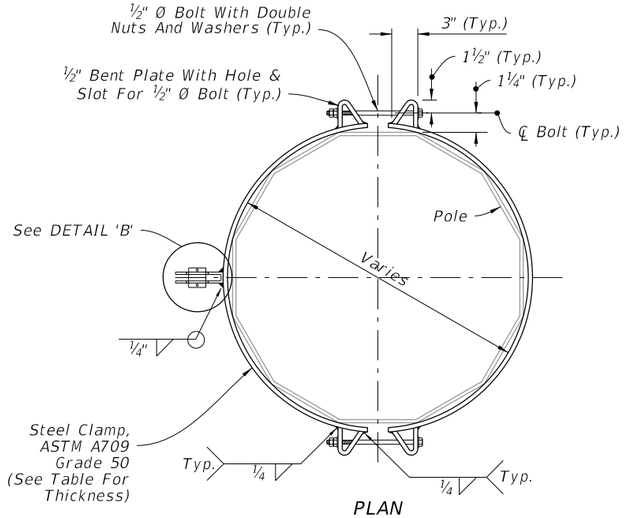
(Thru Handhole)

SECTION C-C

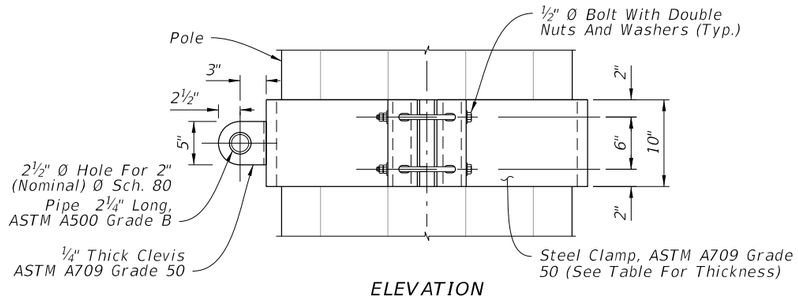
HANDHOLE



DETAIL "B"

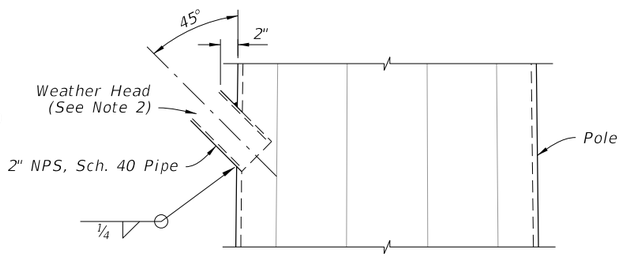


PLAN

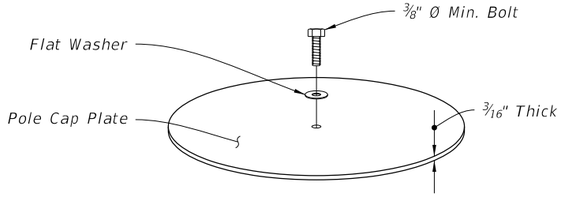


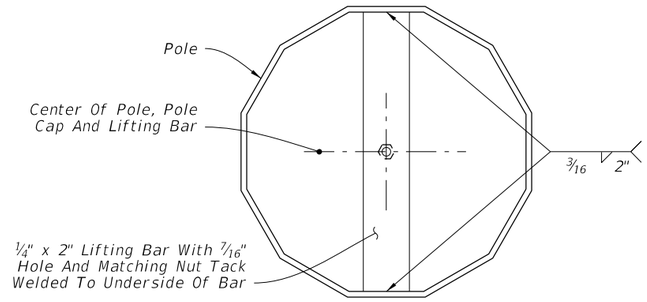
ELEVATION

CATENARY AND MESSENGER WIRE CLAMPS

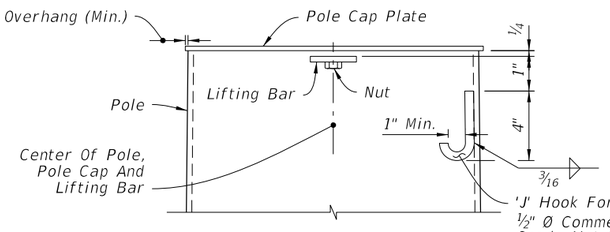


WIRE ENTRANCE DETAIL

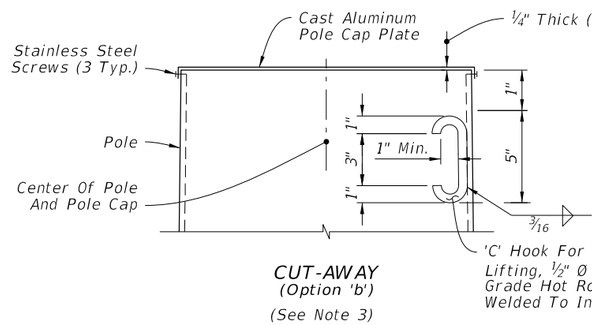




TOP VIEW



CUT-AWAY
(Option 'a')



CUT-AWAY
(Option 'b')
(See Note 3)

POLE TOP

ATTACHMENT DETAILS

9:49:43 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	STEEL STRAIN POLE	INDEX	SHEET
11/01/24						649-010	3 of 3

GENERAL NOTES:

1. Work this Index with Specification 649.

2. This Index is considered fully detailed; only submit shop drawings for minor modifications not detailed in the Plans.

3. See Index 635-001 for additional Pull Box details.

4. See Index 676-010 for cabinet installation details.

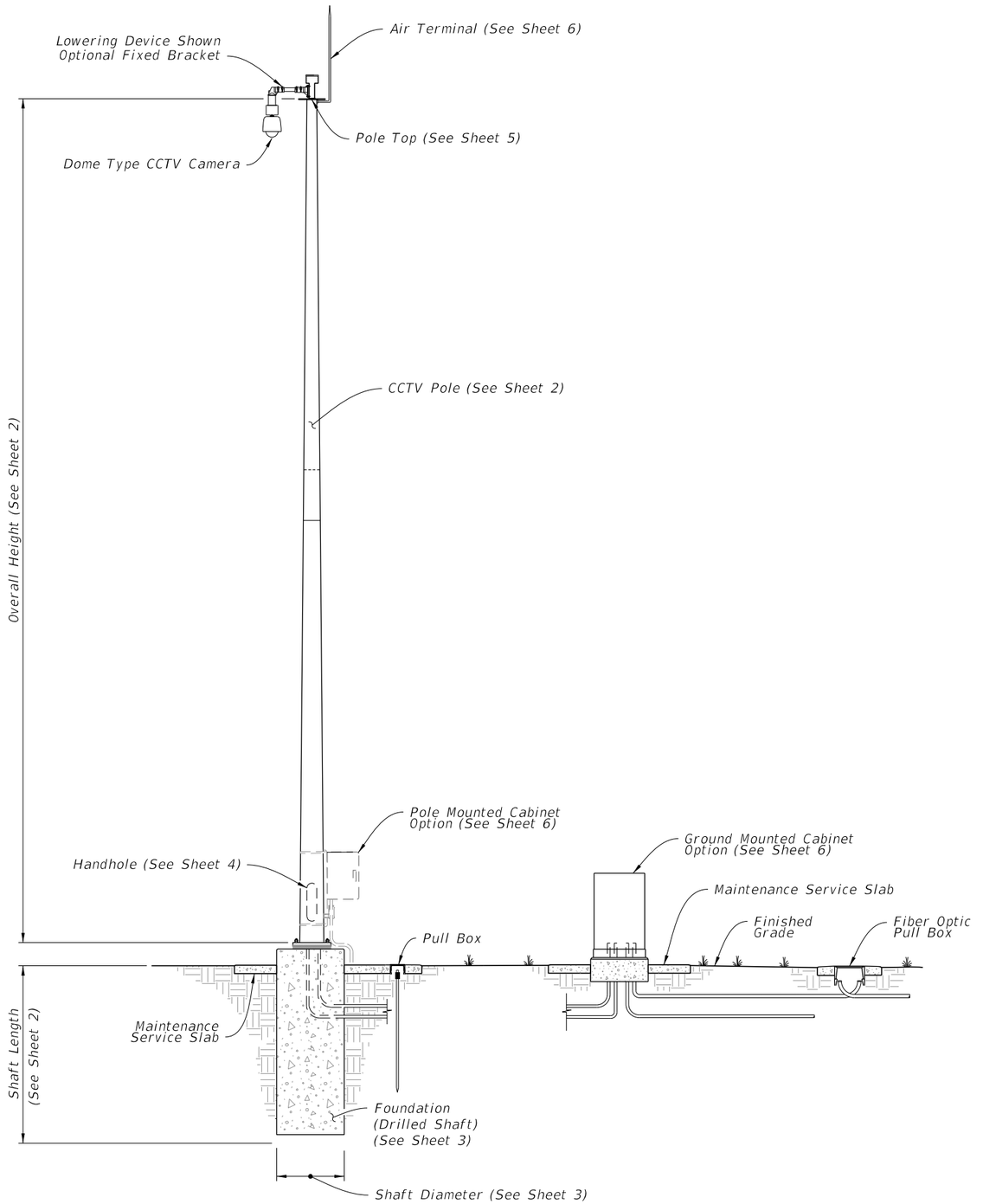
5. Materials:
   - A. Pole: ASTM A1011 Grade 50, 55, 60 or 65 (less than ¼") or ASTM A572 Grade 50, 60 or 65 (greater than or equal to ¼") or ASTM A595 Grade A (55 ksi yield) or Grade B (60 ksi yield).
   - B. Steel Plates and Pole Cap: ASTM A36 or ASTM A709 Grade 50.
   - C. Weld Metal: E70XX.
   - D. Bolts: ASTM F3125, Grade A325, Type 1.
     Nuts: ASTM A563.
     Washers: ASTM F-436.
   - E. Anchor Bolts: ASTM F1554 Grade 55 with ASTM A563 Grade A heavy-hex nuts and ASTM A36 plate washers.
   - F. Handhole Frame: ASTM A709 Grade 36 or ASTM A36.
   - G. Handhole Cover: ASTM A1011 Grade 50, 55, 60 or 65.
   - H. Stainless Steel Screws: AISI Type 316.
   - I. Reinforcing Steel: ASTM A615 Grade 60.
   - J. Galvanization: Bolts, nuts and washers: ASTM F2329 All other steel including plate washer: ASTM A123
   - K. Concrete: Class IV (Drilled Shaft) for all environment classifications.

6. Fabrication:
   - A. Welding:
     a. Specification 460-6.4 and
     b. AASHTO LRFD Specification for Structural Supports for Highway Signs, Luminaires, and Traffic Signals Section 14.4.4.
   - B. Poles:
     a. Round or 16-sided (Min.)
     b. Taper pole diameter at 0.14 inches per foot
     c. Fabricate Pole longitudinal seam welds (2 maximum) with 60 percent minimum penetration or fusion welds except as follows:
        1. Use a complete joint penetration weld within 6 inches of the circumferential tube-to-plate connection and
        2. Use complete joint penetration welds on the female end section of telescopic (i.e., slip type) field splices for a minimum length of one and one-half times the inside diameter of the female section plus 6 inches.
     d. Pole shaft may be either one or two sections (with telescopic field splice)
     e. Circumferentially welded pole shafts and laminated pole shafts are not permitted
   - C. Identification Tag: (Submit details for approval)
     a. 2"x 4" (Max.) aluminum tag
     b. Locate on the inside of the pole and visible from the handhole
     c. Secure with ⅛" diameter stainless steel rivets or screws.
     d. Include the following information on the ID Tag:
        1. Financial Project ID
        2. Pole Type
        3. Pole Height
        4. Manufacturers' Name
        5. Yield Strength (Fy of Steel)
        6. Base Wall Thickness
   - D. Except for Anchor Bolts, bolt hole diameters are bolt diameter plus 1/16" and anchor bolt holes are bolt diameter plus ½" (Max) prior to galvanizing.

7. Pole Installation:
   - A. Do not install additional wire access holes (not shown in this Index) with a diameter that exceeds 1½" in diameter.
   - B. Install Anchor Bolts in accordance with Specification 649-5.
   - C. Cable Supports: Electrical Cable Guides and Eyebolts.
     a. Locate top and bottom cable guides within the pole aligned with each other.
     b. Position one cable guide 2" below the handhole.
     c. Position other cable guide 1" directly below the top of the tenon.
     d. Position Park Stands 2" below the top of the handhole.
   - D. Install Pole with the handhole located away from approaching traffic.
   - E. Install the Pole plumb.

8. Cabinet Installation:
   - A. Splice fiber optic cables in cabinet to preterminated patch panel.
   - B. Furnish and install Surge Protection Devices (SPDs) on all cabling in cabinet.
   - C. Furnish and install secondary SPDs protection on outlets for equipment in cabinet.
   - D. Ensure that all electronic equipment power is protected and conditioned with SPDs.
   - E. Ensure that equipment cabinet is bonded to CCTV pole grounding system.
   - F. Install the pole mounted cabinet with the hinges next to the pole.
   - G. Sizes and types of conduits and inner ducts for network communications between the pull box and cabinet are stated in the Contract Documents.

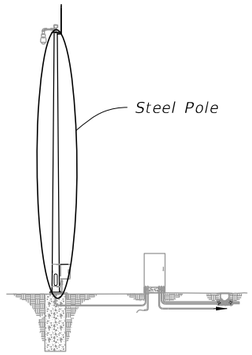
9. Lowering Device Installation:
   - A. Place the lowering cable that moves within the pole in an interior conduit to prevent it from tangling or interfering with any electrical wire that is in the pole. Ensure that any electrical wire within the pole is routed securely and free from slack.
   - B. Mount lowering device perpendicular to the roadway or as shown in the plans. Position CCTV pole so that the camera can be safely lowered without requiring lane closures.
   - C. Coordinate all lowering device hardware requirements (including Tenon, Tenon mounting plates, parking stands, etc.) with lowering device manufacturer.



STEEL CCTV POLE ASSEMBLY

9:49:50 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/23			FY 2026-27 STANDARD PLANS	STEEL CCTV POLE	649-020	1 of 6



ASSEMBLY

SHAFT DESIGN TABLE			
Pole Overall Height (ft)	Shaft Diameter	Shaft Length	Longitudinal Reinforcement
50	4'-0"	11'-0"	(14) #11
55	4'-0"	12'-0"	(14) #11
60	4'-6"	13'-0"	(16) #11
65	4'-6"	13'-0"	(16) #11
70	5'-0"	14'-0"	(18) #11

ADDITIONAL SHAFT DEPTH DUE TO GROUND SLOPE		
Ground Slope	4'-0" Shaft Diameter	5'-0" Shaft Diameter
1:5	3'-0"	4'-0"
1:4	4'-0"	5'-0"
1:3	5'-0"	6'-0"
1:2	7'-0"	9'-0"

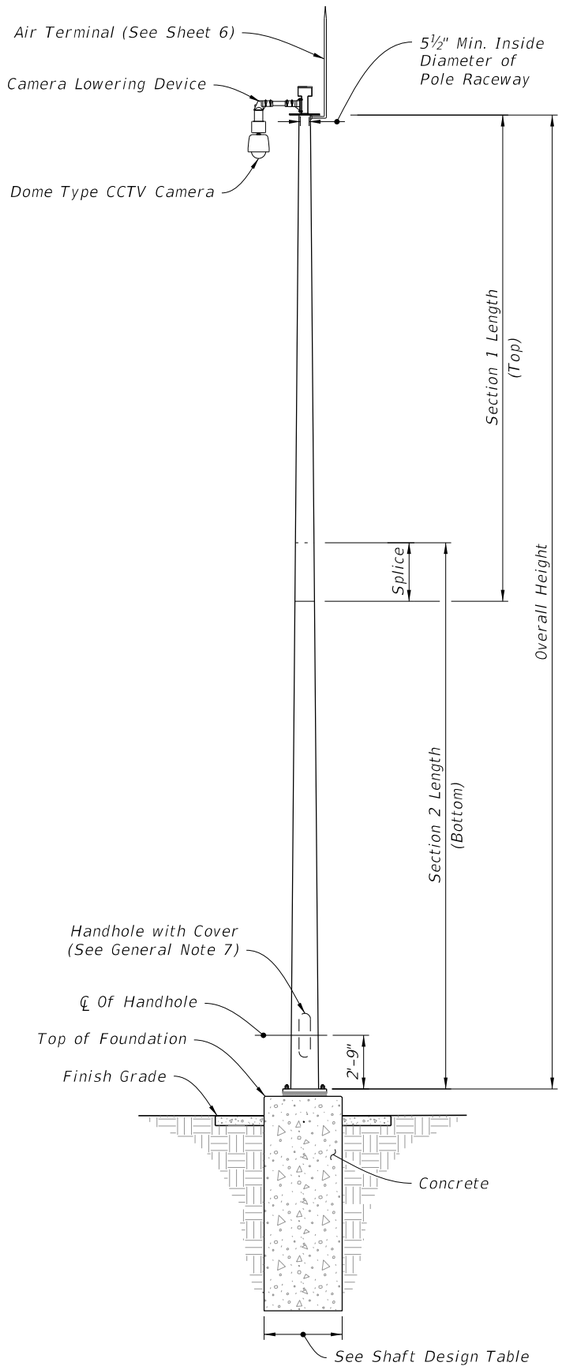
FOUNDATION NOTES:

1. Shaft Length is based on 1'-0" height above the finished grade.

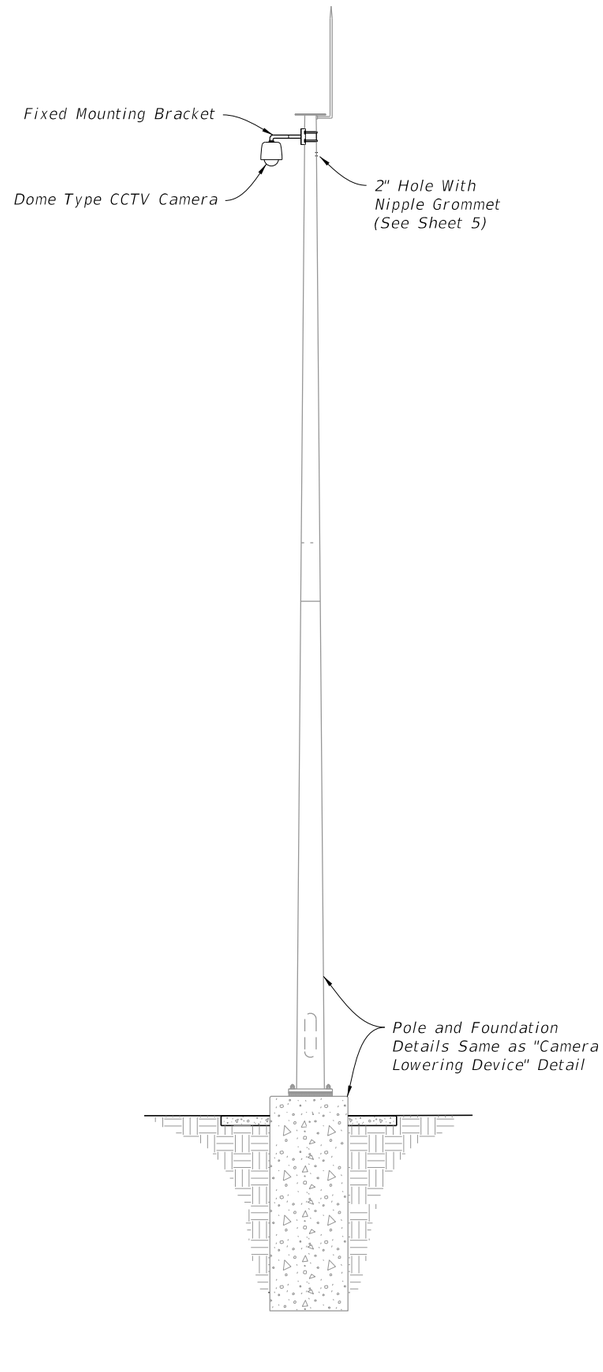
2. Shaft Design Table Shaft Length is based on level ground (flatter than 1:5). Increase the shaft depth in accordance with the Additional Shaft Depth Due To Ground Slope table for foundations with slopes 1:5 and steeper. Use the higher value for slope or diameter values that fall between those shown on the table.

BASE PLATE AND ANCHOR BOLT DESIGN TABLE							
Pole Overall Height (ft)	Base Plate Diameter (in.)	Base Plate Thickness (in.)	Anchor Bolt Circle (in.)	Number of Bolts	Anchor Bolt Diameter (in.)	Anchor Bolt Embedment (in.)	Minimum Anchor Bolt Projection (in.)
50	27	2.5	22	6	1.25	31	8.5
55	28	2.5	23	6	1.25	33	8.5
60	33	2.5	27	6	1.50	34	9.5
65	35	2.5	29	6	1.50	35	9.5
70	40	2.5	33	6	1.75	38	10.5

POLE DESIGN TABLE							
Pole Overall Height (ft)	Section 1 (Top)			Section 2 (Bottom)			Joint
	Length	Wall Thickness (in.)	Base Diameter (in.)	Length	Wall Thickness (in.)	Base Diameter (in.)	Minimum Splice Length (in.)
50	---	---	---	50'-0"	0.25	17	---
	25'-0"	0.25	14	28'-0"	0.25	17	27
55	30'-0"	0.25	15	28'-0"	0.3125	18	30
60	35'-0"	0.25	18	29'-0"	0.3125	21	33
65	33'-0"	0.25	19	36'-0"	0.3125	23	33
70	38'-0"	0.25	22	36'-0"	0.3125	26	39



CAMERA LOWERING DEVICE



FIXED MOUNTING BRACKET

ELEVATION

9:49:58 AM

9/29/2025

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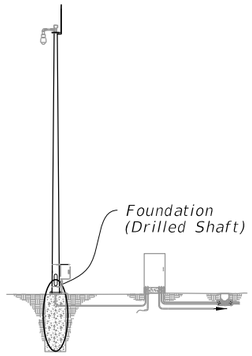
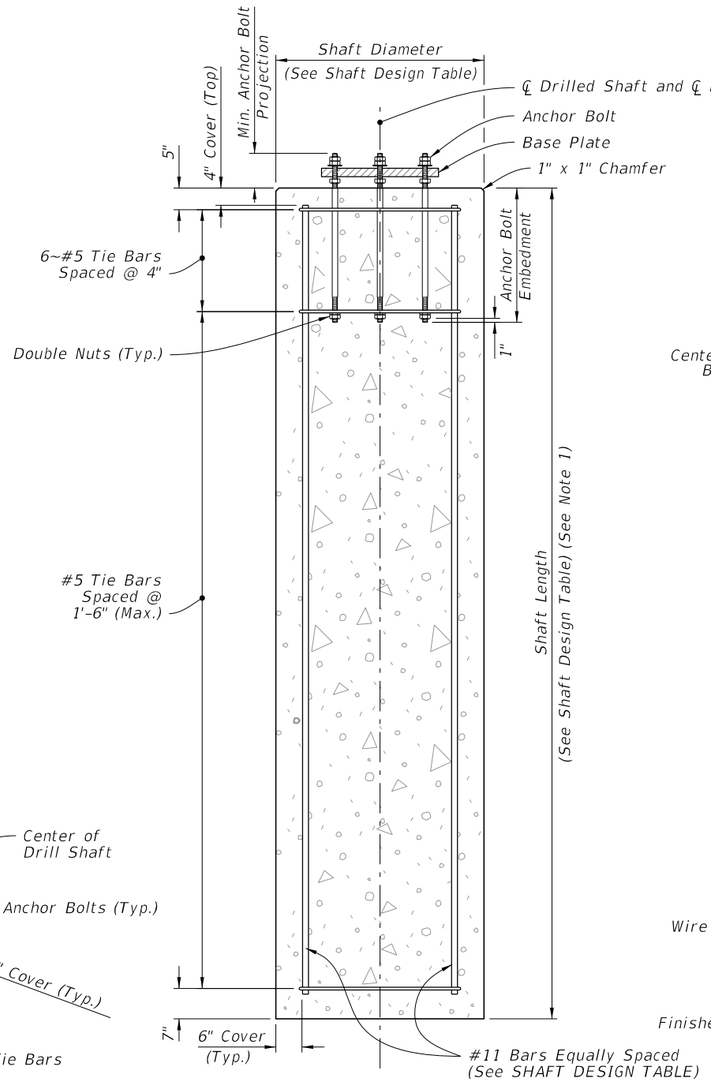


ASSEMBLY

NOTES:

1. Shaft Length is based on 1'-0" height above the finished grade.
2. Retainer nut may be half-height. Provide individual nut covers (not shown) for each bolt.
3. Conduit and CSL Tubes not shown for clarity.
4. Work these details with Data Table on Sheet 2.



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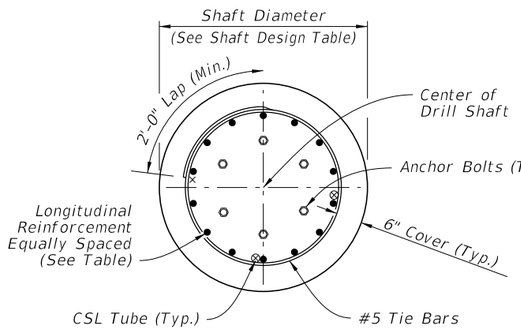
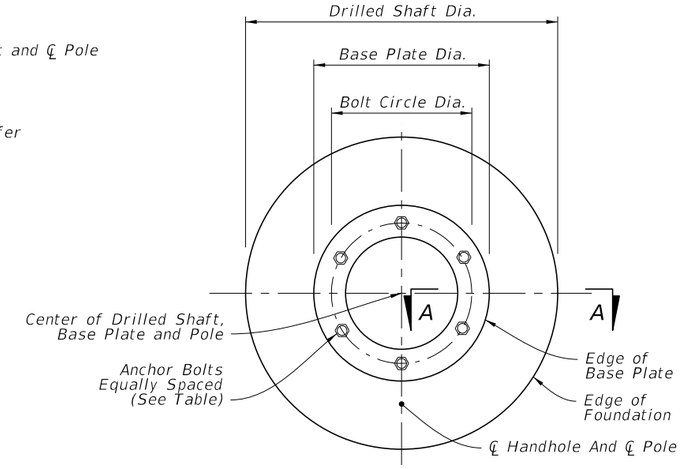


PLAN

FOUNDATION



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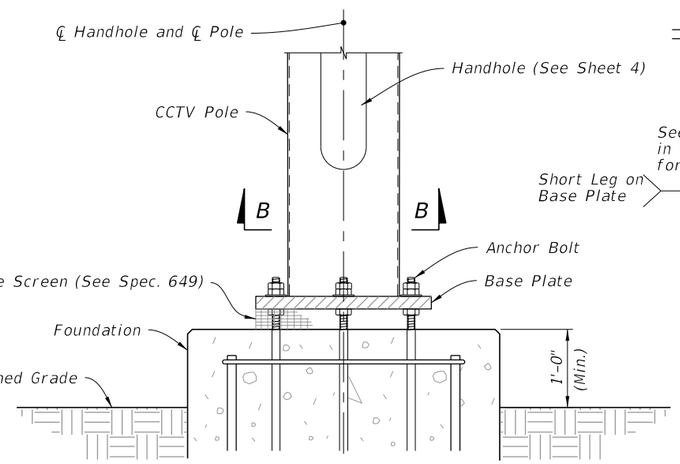
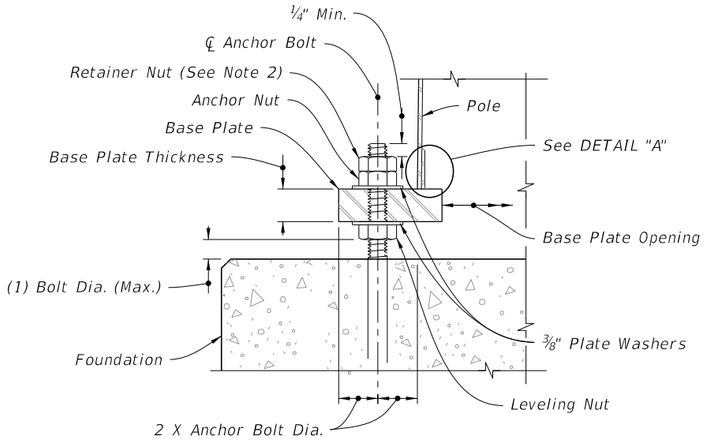
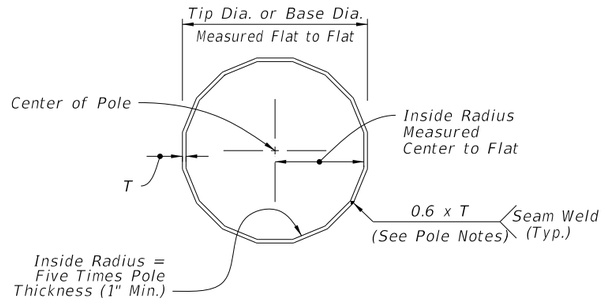


ELEVATION

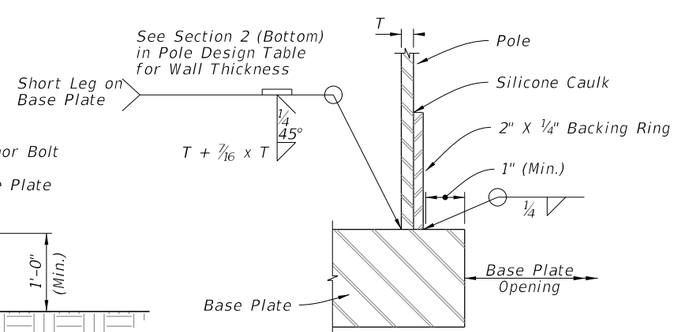
BASE PLATE



SECTION A-A



SECTION B-B



JOINT WELD DETAIL

DETAIL "A"

9/29/2025 9:50:06 AM

LAST REVISION	REVISION	DESCRIPTION:
11/01/24		

FDOT FY 2026-27 STANDARD PLANS

STEEL CCTV POLE

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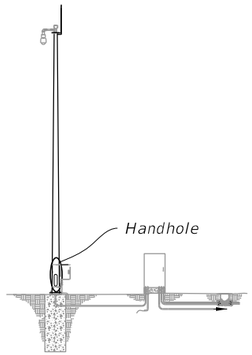

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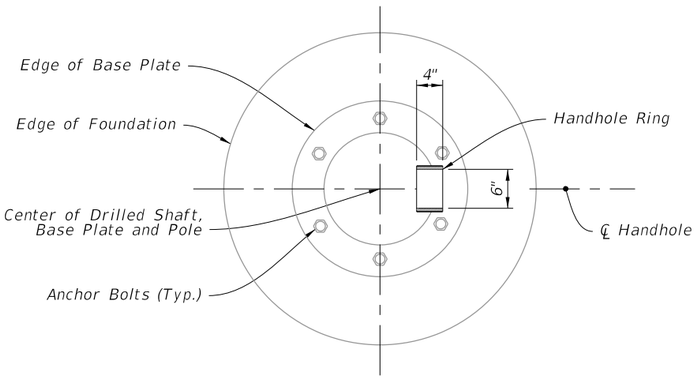
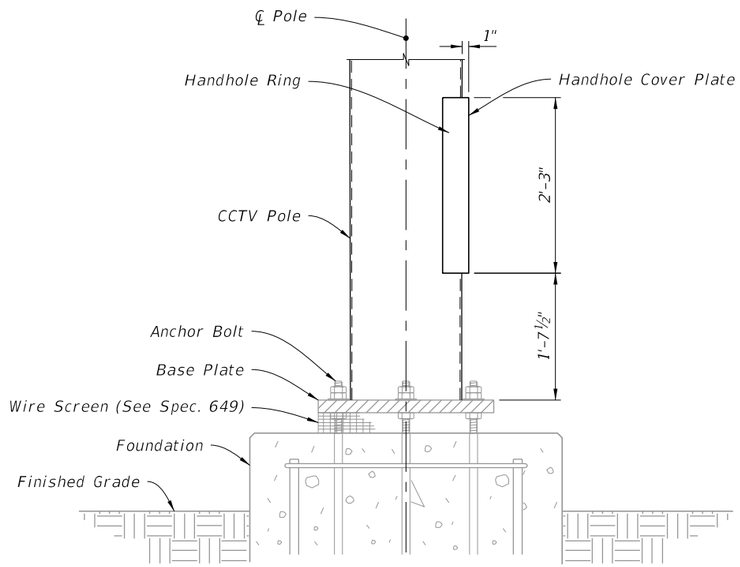
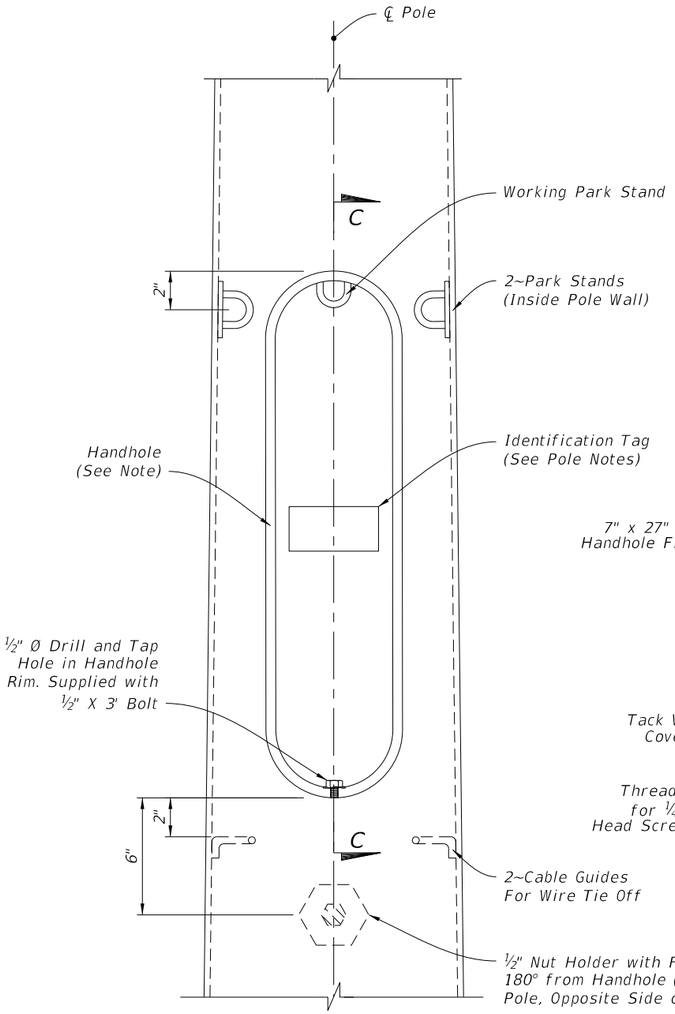


PLAN



ELEVATION

HANDHOLE LOCATION



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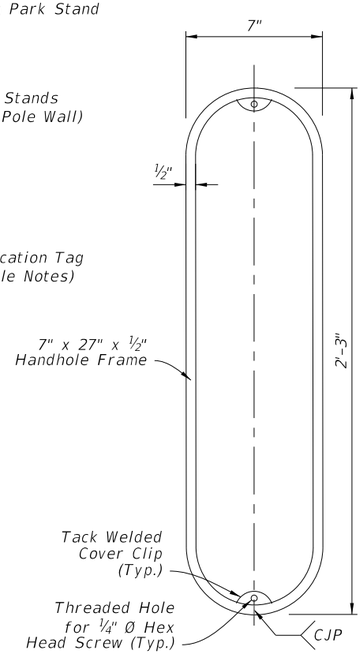
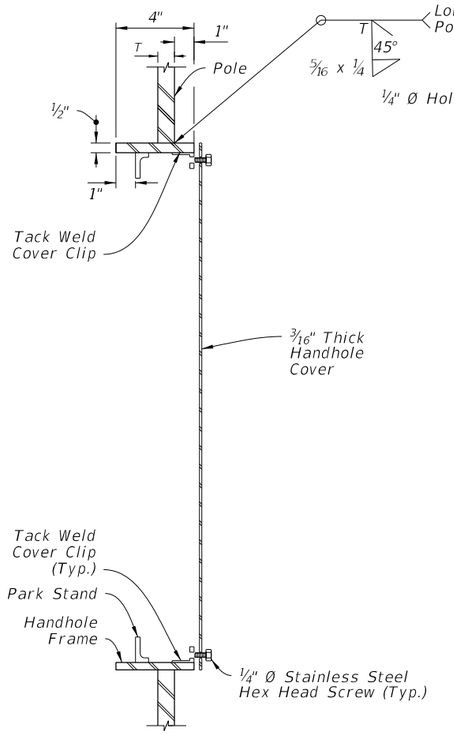
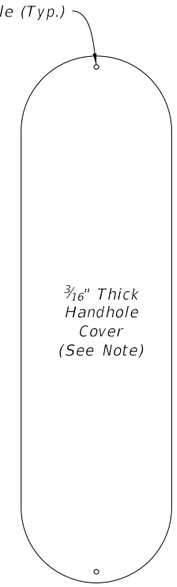


HANDHOLE FRAME



SECTION C-C

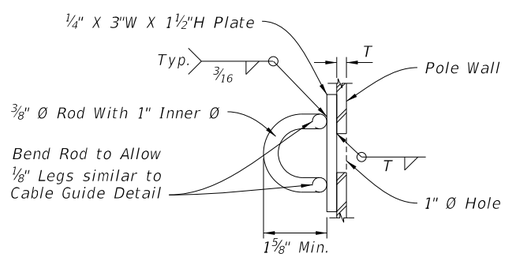


COVER PLATE

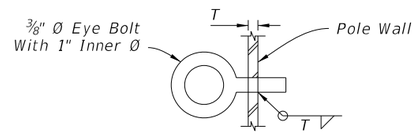
NOTE:

To secure the cover plate, install a steel chain from the cover to the pole or by mounting the cover with hinges and install a pad lock tab.

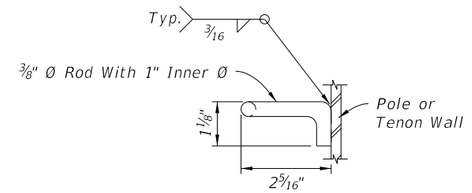
HANDHOLE DETAIL



Rod Option



Eye Bolt Option



PARK STAND DETAILS

CABLE GUIDE DETAIL

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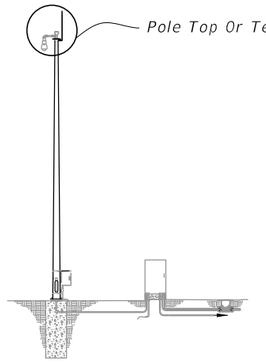
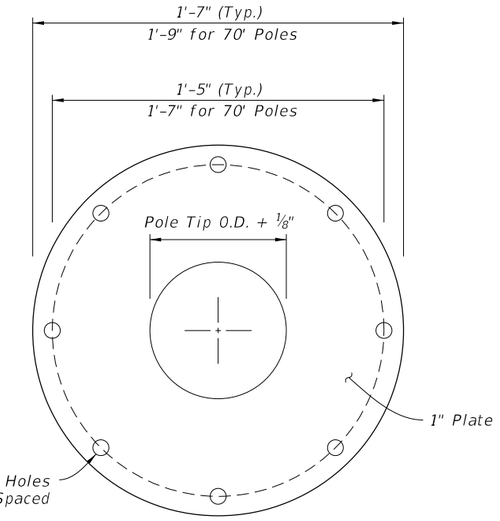
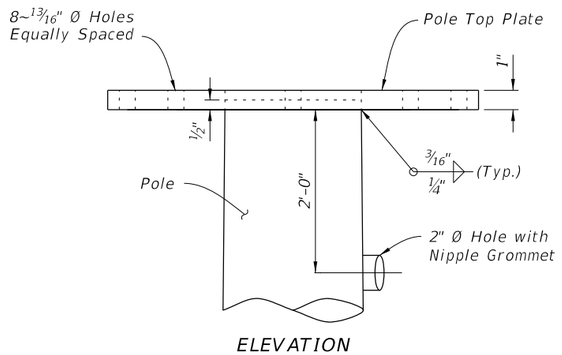


ASSEMBLY

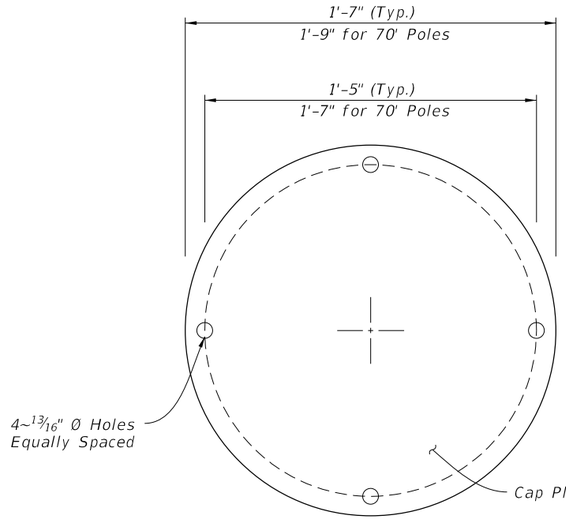


PLAN VIEW

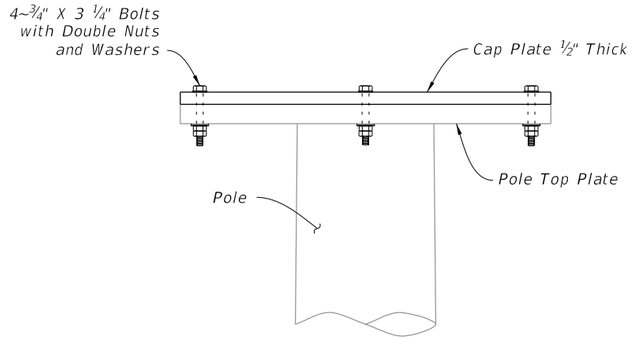


ELEVATION

POLE TOP PLATE

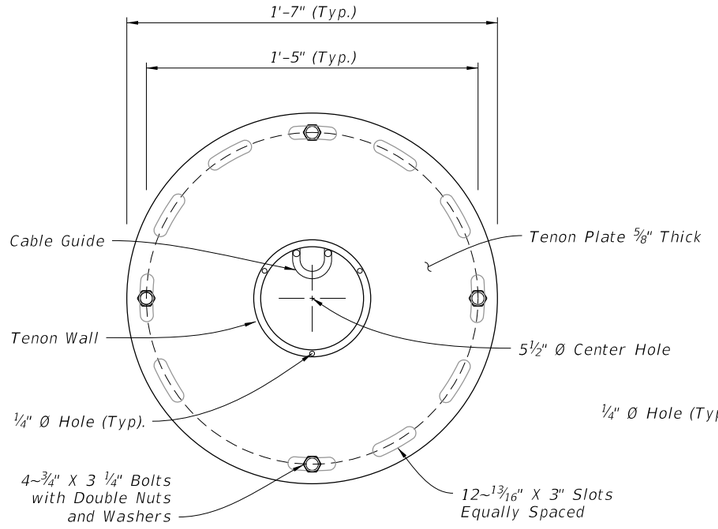


PLAN VIEW

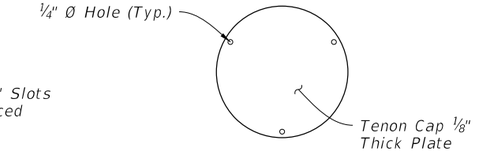


ELEVATION
CAP PLATE DETAIL

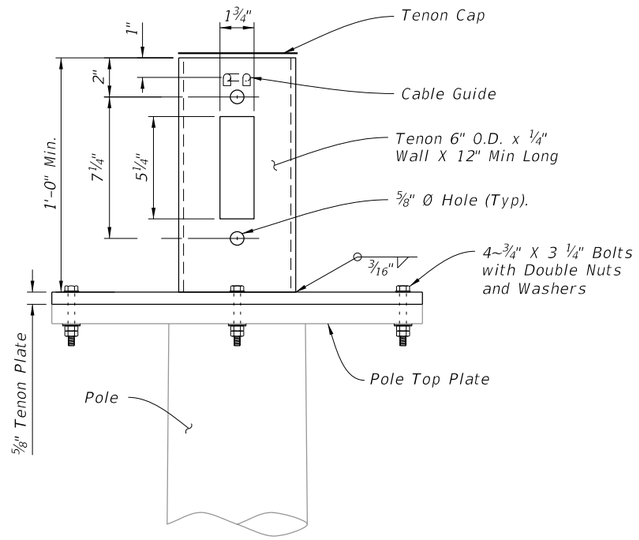
POLE TOP DETAIL



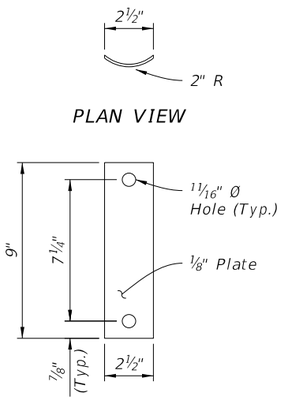
PLAN VIEW



TENON CAP



ELEVATION
LOWERING DEVICE TENON



ELEVATION

TENON COVER

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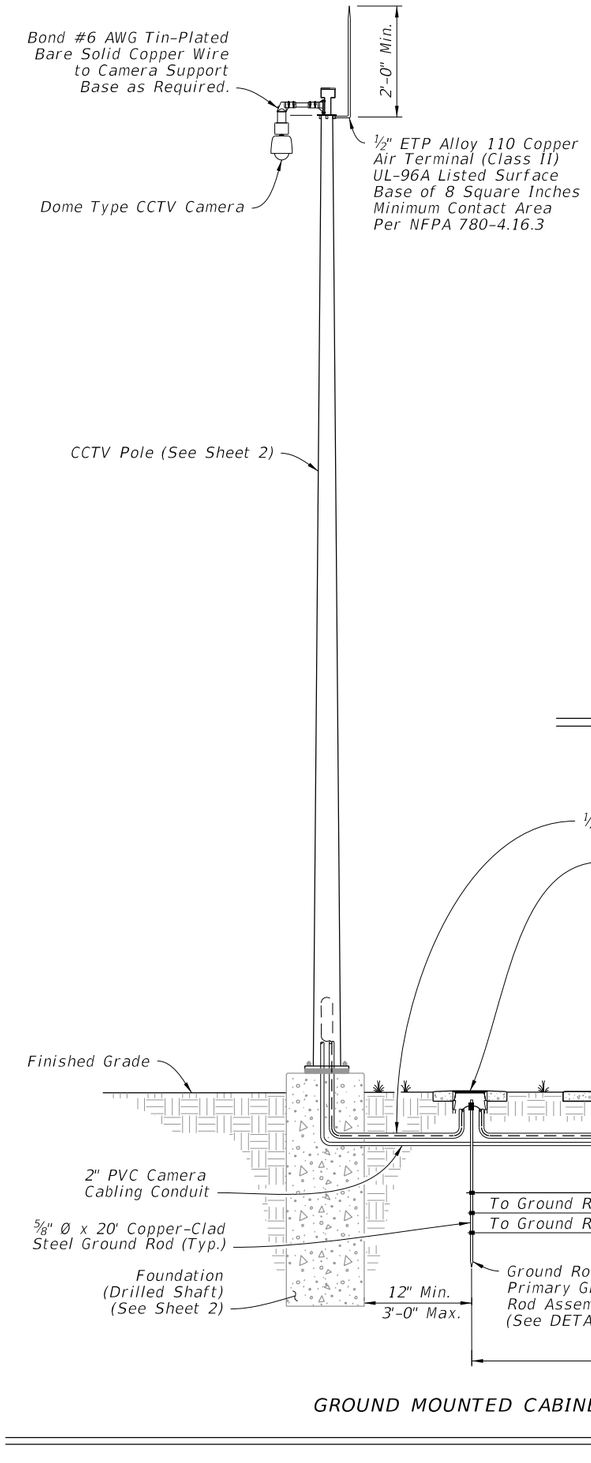
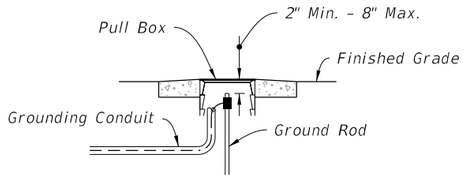
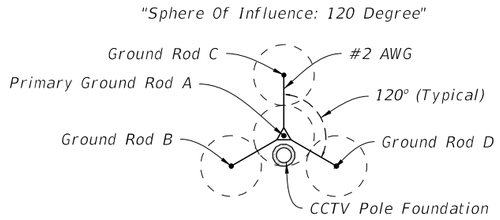
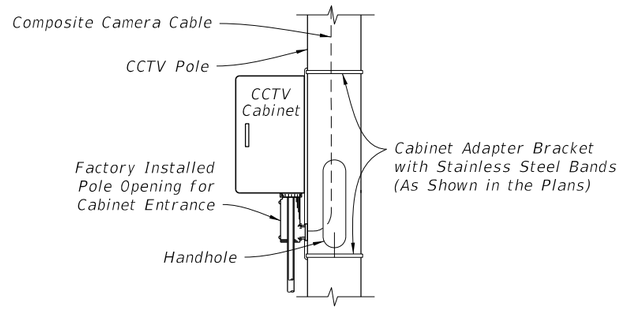




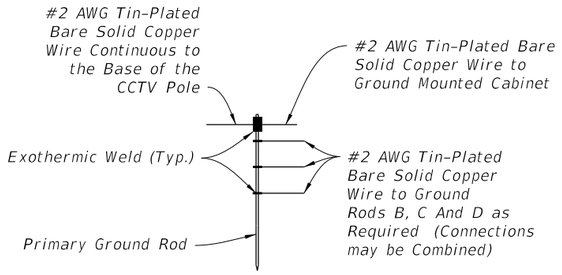
PULL BOX
DETAIL "B"



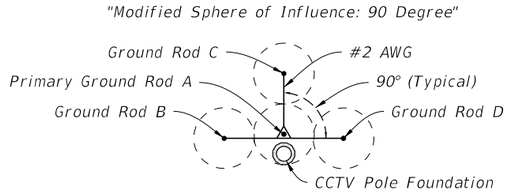
TYPICAL
(20' Rods, 40' Spacing)



SIDE VIEW

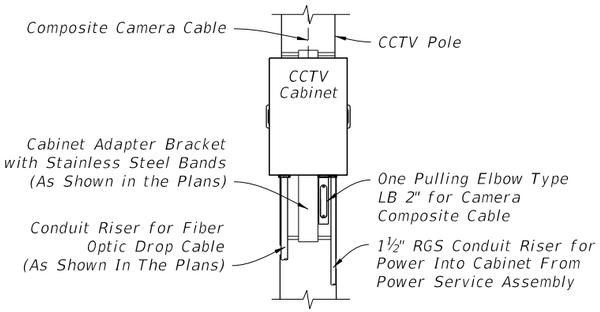


PRIMARY GROUND ROD ASSEMBLY
DETAIL "C"

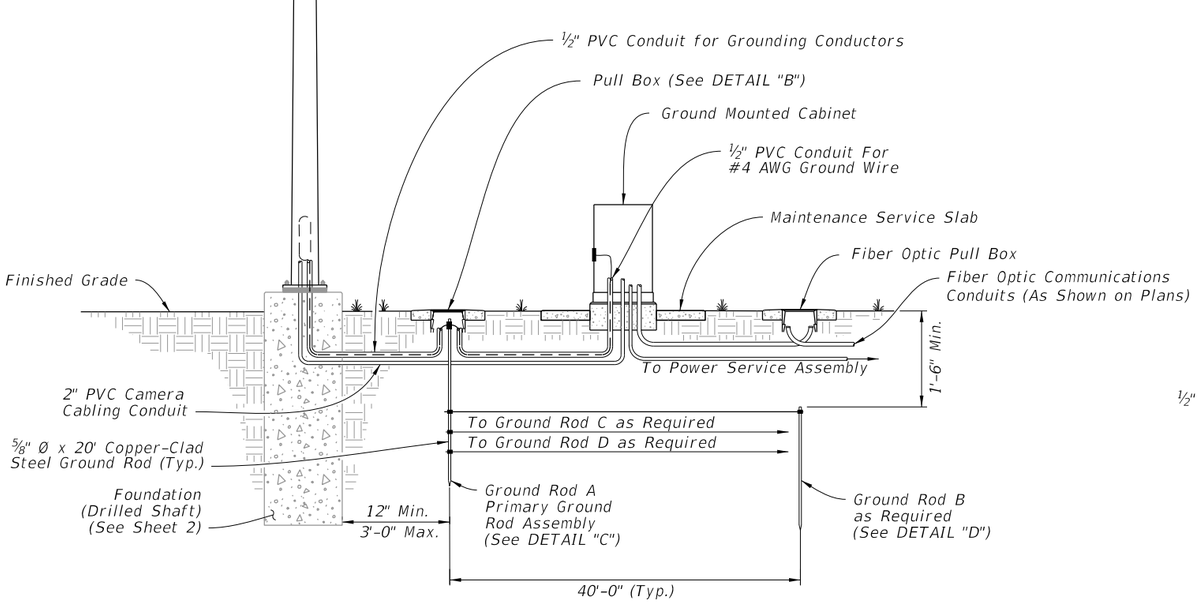


TYPICAL MODIFIED
(20' Rods, 40' Spacing)

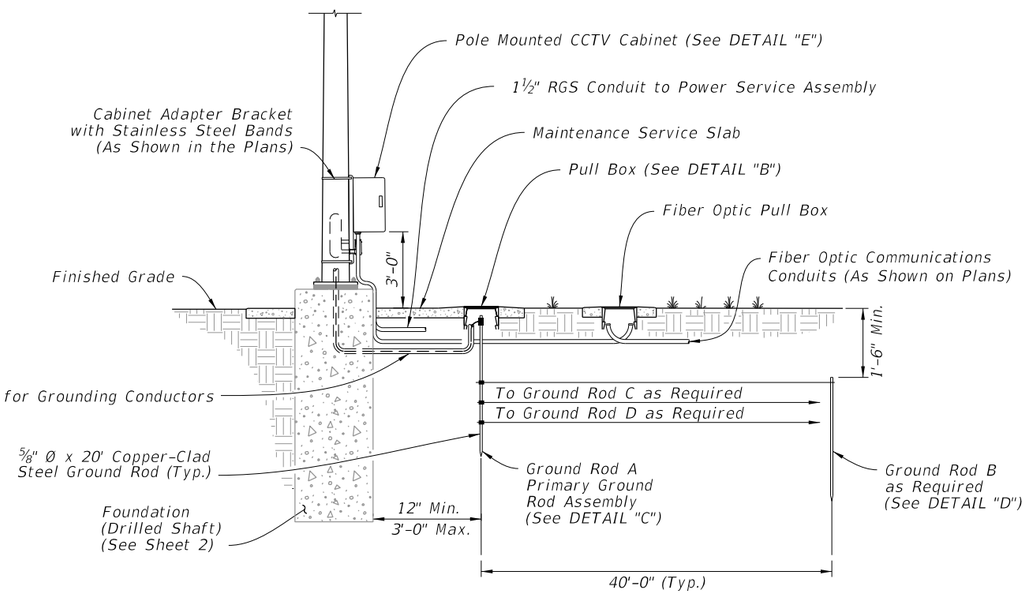
GROUND ROD ARRAY PLACEMENT
DETAIL "D"



FRONT VIEW
DETAIL "E"



GROUND MOUNTED CABINET



POLE MOUNTED CABINET

STEEL CCTV POLE GROUNDING

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ARM AND BASE PLATE											
Arm ID Axx-ArmLength S-SingleArm D-DoubleArm H-HeavyDuty	Total Arm Length (ft)	Arm			Arm Extension			Base Plate			
		FA/SA (ft)	FC/SC (in)	FD/SD (in)	FE/SE (ft)	FG/SG (in)	FH/SH (in)	HT (in)	FJ/SJ (in)	FK/SK (in)	
A30/S	30	30	11	0.25	--	--	--	22	25	3	
A30/S/H			12								
A30/D			11					30	36		
A30/D/H			12								
A40/S	40	40	13	0.25	--	--	--	22	27	3	
A40/S/H			14								
A40/D			13					30	36		
A40/D/H			14								
A50/S	50 (See Note 2)	32.5	12	0.25	20.5	14	0.313	22	29	3	
A50/S/H			13			15					
A50/D			12			14		30	36		
A50/D/H			13			15					
A60/S	60	35.5	12	0.25	27.5	15	0.375	30	36	3	
A60/S/H			13			16					
A60/D			12			15					
A60/D/H			13			16					
A70/S	70	38	13	0.25	35	17	0.375	30	36	3	
A70/S/H			14			18					
A70/D			13			17					
A70/D/H			14			18					
A78/S	78	39	13	0.25	42	18	0.375	30	36	3	
A78/S/H			15			20					
A78/D			13			18					
A78/D/H			15			20					

POLE, BASE PLATE AND ARM CONNECTION																				
Pole ID Px-PoleNo S-SingleArm D-DoubleArm L-Luminaire	Upright				Base Plate					Arm-Upright Connection										
	UA (ft)	UD (in)	UE (in)	UG (ft)	No. Bolts	BA (in)	BB (in)	BC (in)	BF (in)	HT (in)	FJ/SJ (in)	FL/SL (in)	FN/SN (in)	FO/SO (in)	FP/SP (in)	FR/SR (in)	FS/SS (in)	FT/ST (in)		
P1/S	25	16	0.375	37.5	6	32	2.5	2	40	22	25	0.75	0.438	14	1.25	2	8.5	0.438		
P1/S/L	39																			
P1/D	25									30	36			23		2.75	12.5			
P1/D/L	39			37.5																
P2/S	25	18	0.375	37.5	6	34	2.5	2	40	22	27	0.75	0.438	15	1.25	2	8.5	0.438		
P2/S/L	39																			
P2/D	25									30	36			23		2.75	12.5			
P2/D/L	39			37.5																
P3/S	25	20	0.375	37.5	6	36	2.5	2	40	22	29	0.75	0.438	16	1.25	2	8.5	0.438		
P3/S/L	39																			
P3/D	25									30	36			23		2.75	12.5			
P3/D/L	39			37.5																
P4/S	25	22	0.375	37.5	8	38	2.5	2	40	30	36	0.75	0.438	17	1.25	2.5	12.5	0.438		
P4/S/L	39																			
P4/D	25													23						
P4/D/L	39			37.5																
P5/S	25	24	0.375	37.5	8	40	2.5	2	40	30	36	0.75	0.5	18	1.25	2.5	12.5	0.5		
P5/S/L	39																			
P5/D	25													23						
P5/D/L	39			37.5																
P6/S	25	24	0.5	37.5	8	40	2.5	2	40	30	36	0.75	0.625	18	1.5	2.5	12	0.625		
P6/S/L	39																			
P6/D	25													23						
P6/D/L	39			37.5																
P7/S	25	26	0.5	37.5	8	42	2.5	2	40	30	36	0.75	0.625	19	1.5	2.5	12	0.625		
P7/S/L	39																			
P7/D	25													23						
P7/D/L	39			37.5																

NOTE:

1. Work this Index with Index 649-031.
2. 50 foot long arms may be fabricated in one piece, eliminating the lap splice, provided the arm base diameter = 15" and the wall thickness for the entire length of the arm = 0.313".

DRILLED SHAFT								
Drilled Shaft ID	DA (ft)	DB (ft)	RA	RB	RC	RD (in)	RE	RF (in)
DS/12/4.0	12	4.0	11	14	8	12	--	--
DS/12/4.5	12	4.5	11	16	8	12	--	--
DS/14/4.5	14	4.5	11	16	10	8	--	--
DS/14/5.0	14	5.0	11	18	10	8	--	--
DS/16/4.5	16	4.5	11	16	10	8	--	--
DS/16/5.0	16	5.0	11	18	10	8	--	--
DS/18/5.0	18	5.0	11	18	10	8	--	--
DS/20/5.0	20	5.0	11	18	10	6	10	9
DS/25/5.0	25	5.0	11	18	10	6	10	9

LUMINAIRE AND CONNECTION											
LA (ft)	LB (ft)	LC (in)	LD (in)	LE	LF (ft)	LG (in)	LH (in)	LJ (in)	LK (in)	LL (deg)	UG (ft)
40	10	3	0.125	0.5	8	0.5	0.75	0.25	0.25	0	37.5

9:50:34 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:				
11/01/25			FY 2026-27 STANDARD PLANS	STANDARD MAST ARM ASSEMBLIES	INDEX 649-030	SHEET 1 of 1

GENERAL NOTES:

1. Shop Drawings: This Index is considered fully detailed, only submit shop drawings for minor modifications not detailed in the Plans.

2. Prior to Fabrication: Verify the installed foundation elevation will result in the required signal elevation and adjust the Pole height as needed.

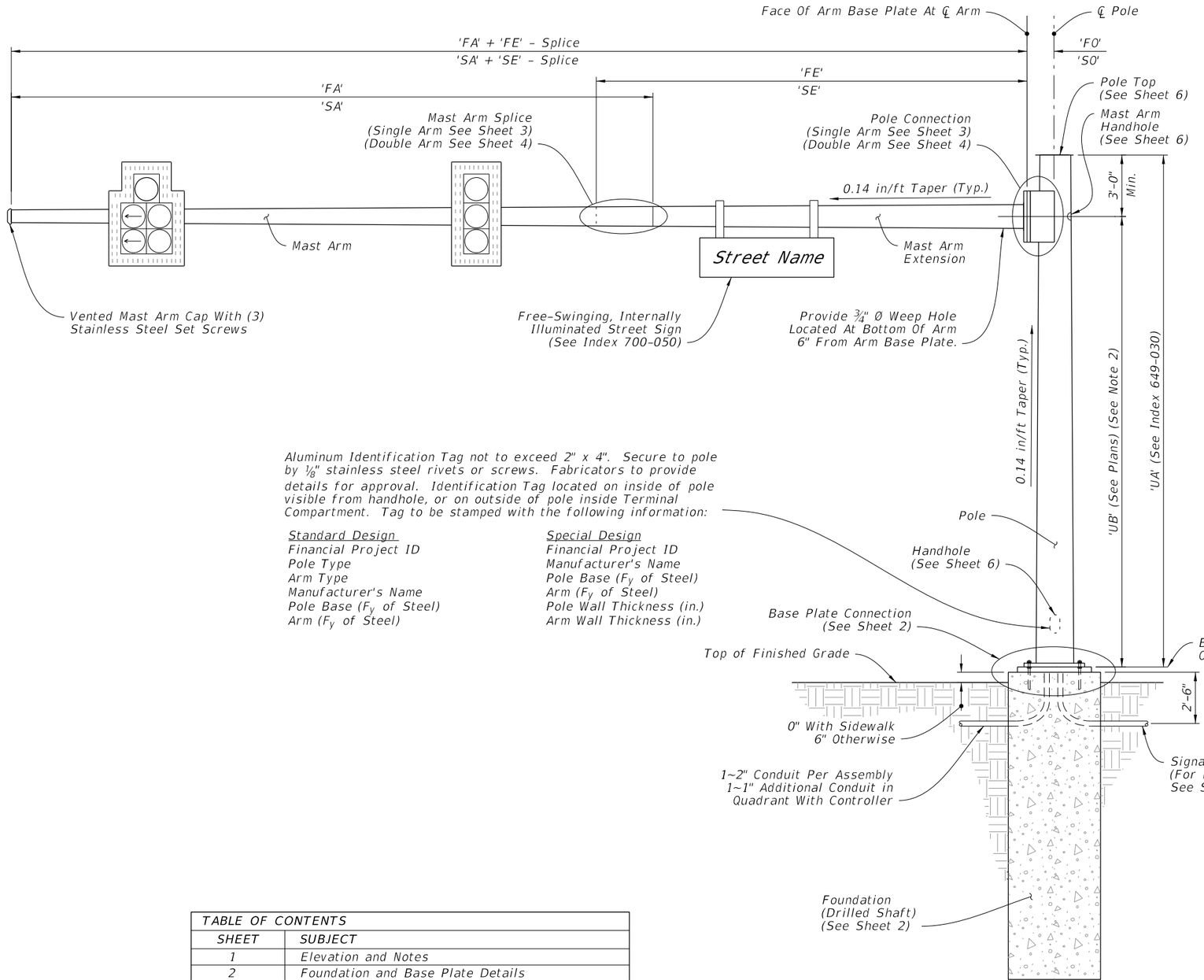
3. Details for Signal and Sign locations, Signal Head attachment, Sign attachment, Pedestrian Head attachment, and Foundation Conduit are not shown for simplicity.

4. Materials:
   - A. Poles, Mast Arms and Backing Rings:
     - a. Less than 3/16": ASTM A1011 Grade 50, 55, 60 or 65
     - b. Greater than or equal to 3/16": ASTM A572 Grade 50, 55, 60 or 65
     - c. ASTM A595 Grade A (55 ksi yield) or Grade B (60 ksi yield)
   - B. Steel Plates: ASTM A36
   - C. Weld Metal: E70XX
   - D. Bolts, Nuts and Washers:
     - a. High Strength Hex Head Bolts: ASTM F3125, Grade A325, Type 1
     - b. Nuts: ASTM A563 DH Heavy-Hex
     - c. Washers: ASTM F436 Type 1, one under turned element
   - E. Anchor Bolts, Nuts and Washers:
     - a. Anchor Bolts: ASTM F1554 Grade 55
     - b. Nuts: ASTM A563 Grade A Heavy-Hex (5 per anchor bolt)
     - c. Plate Washers: ASTM A36 (2 per bolt)
   - F. Threaded Bars/Studs: ASTM A36 or ASTM A307
   - G. Handhole Frame: ASTM A709 or ASTM A36, Grade 36
   - H. Handhole Cover: ASTM A1011 Grade 50, 55, 60 or 65
   - I. Pole Caps and Nut Covers: Fabricate from cast aluminum or galvanized carbon steel.
   - J. Stainless Steel Screws: AISI Type 316
   - K. Concrete: Class IV (Drilled Shaft) for all environmental classifications.
   - L. Reinforcing Steel: Specification 415

5. Fabrication:
   - A. Welding:
     - a. Specification 460-6.4 and
     - b. AASHTO LRFD Specification for Structural Supports for Highway Signs, Luminaires, and Traffic Signals Section 14.4.4
   - B. Poles and Mast Arms:
     - a. Round or 12-sided (Min.)
     - b. Taper pole diameter at 0.14 inches per foot
     - c. Upright poles must be a single section. For arms and upright poles, circumferential welds and laminated sections are not permitted.
     - d. Arms may be either one or two sections. See Sheet 4 for telescopic splice detail
     - e. Fabricate longitudinal seam welds with 60 percent minimum penetration or fusion welds except:
       1. Use a complete joint penetration weld within 6 inches of the circumferential tube-to-plate connection.
       2. Use complete joint penetration welds on the female end section of telescopic (i.e., slip type) field splices for a minimum length of one and one-half times the inside diameter of the female section plus 6 inches.
     - f. Locate longitudinal seams weld along the:
       1. Lower quadrant of the arms.
       2. Same side of the pole as the arm connections
     - g. Face handhole perpendicular from arm on single arm poles, perpendicular from the first arm of double arms poles facing away from traffic or see special instructions on the Mast Arm Tabulation Sheet.
     - h. Provide a 'J' or 'C' hook at the top of the pole for signal wiring support (See Sheet 6)
     - i. First and Second arm camber angle = 2°
     - j. Bolt holes diameters as follows:
       1. Bolts (except Anchor bolts): Bolt diameter plus 1/16" prior to galvanizing.
       2. Anchor Bolts: Bolt diameter plus 1/2" (Max.).

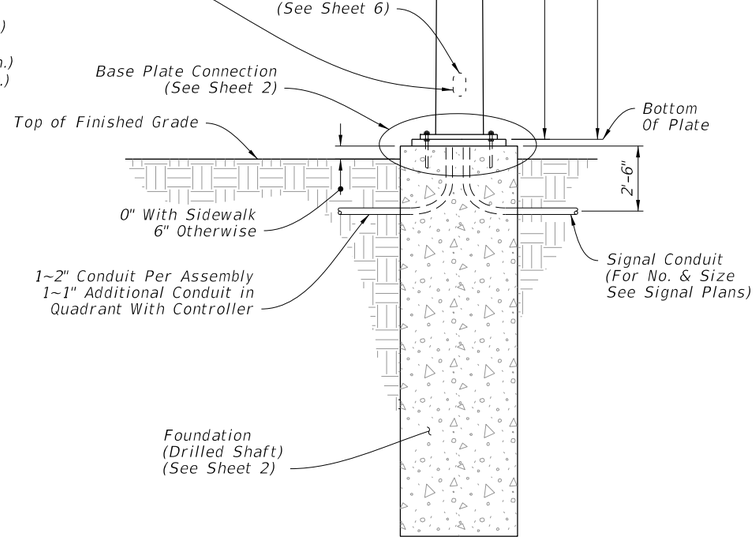
6. Coatings:
   - A. All Nuts, Bolts, Washers and Threaded Bars/Studs: ASTM F2329
   - B. All other steel items including plate washers ASTM A123

7. Construction:
   - A. Foundation: Specification 455 Drilled Shaft, except that payment is included in the cost of the Mast Arm.
   - B. Install Pole vertically.
   - C. Place structural grout pad with drain between top of foundation and bottom of baseplate in accordance with Specification 649-7.
   - D. Attach Sign Panels and Signals centered on the elevation of the Mast Arm.
   - E. Wire Access holes are 1½" or less in diameter.



Aluminum Identification Tag not to exceed 2" x 4". Secure to pole by 1/8" 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:

Standard Design	Special Design
Financial Project ID	Financial Project ID
Pole Type	Manufacturer's Name
Arm Type	Pole Base (F_y of Steel)
Manufacturer's Name	Arm (F_y of Steel)
Pole Base (F_y of Steel)	Pole Wall Thickness (in.)
Arm (F_y of Steel)	Arm Wall Thickness (in.)



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

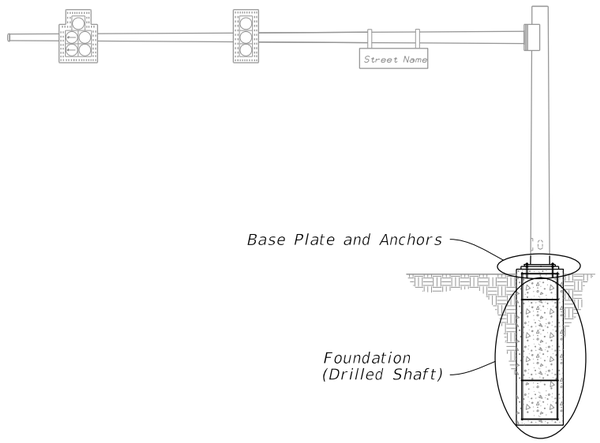
MAST ARM ASSEMBLY

TABLE OF CONTENTS

ELEVATION AND NOTES

9:50:41 AM

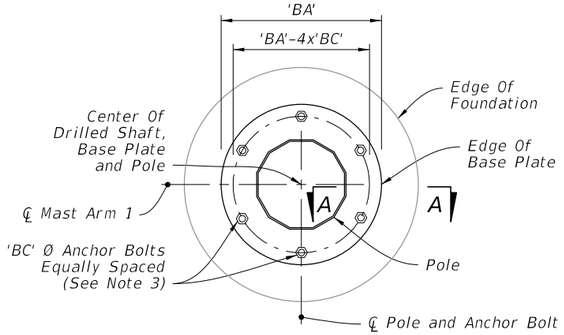
9/29/2025



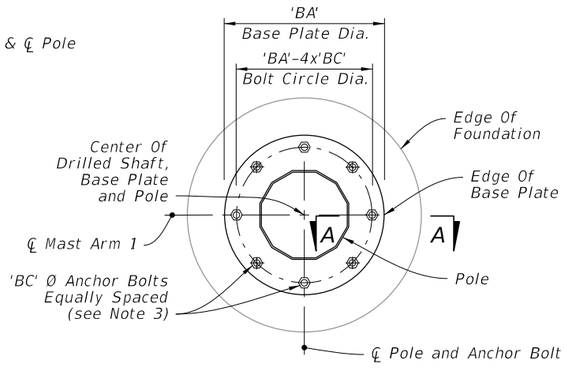
MAST ARM ASSEMBLY

NOTES:

1. The Structural Grout Pad diameter may be reduced where the footprint of the Grout Pad does not provide adequate clearance for the sidewalk and/or accessibility considerations.
2. See Index 649-030 and the plans for actual quantity of bolts in the Base Plate Connection.
3. The retainer nut shown in Section A-A may be half-height. Provide individual nut covers (not shown) for each bolt.
4. Detail 'A' Silicone Caulk may be applied after installation. Consult with Manufacturer to determine the suitability of the caulk to be applied.

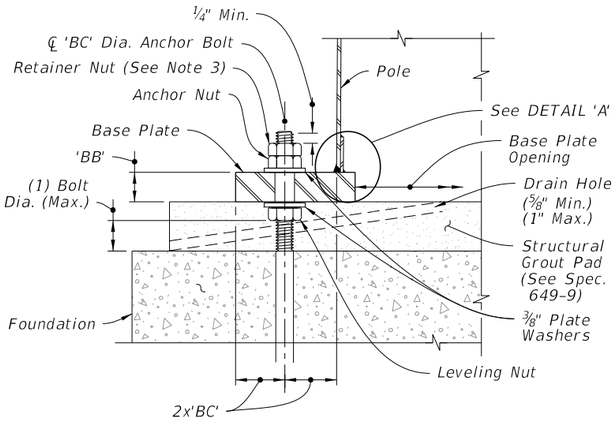


(6 Anchor Bolts)

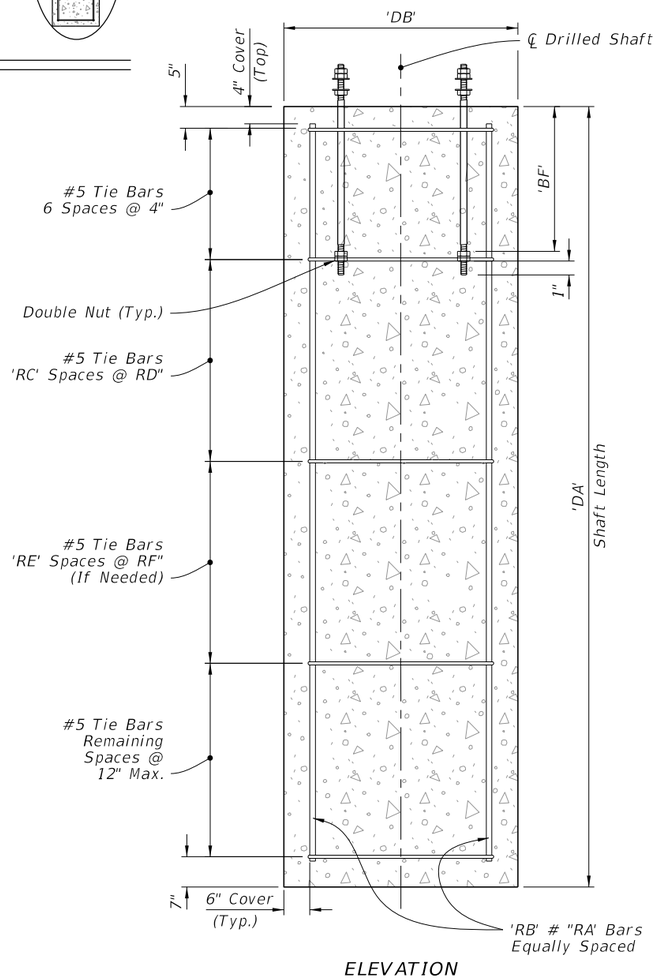


(8 Anchor Bolts)

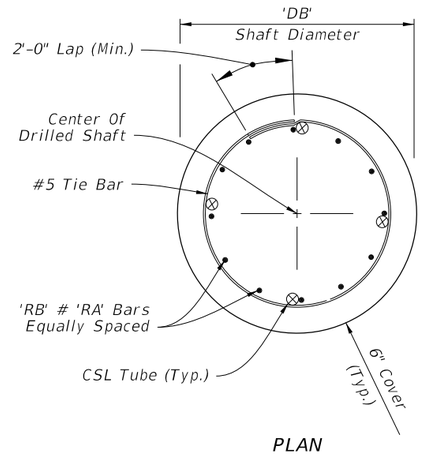
PLAN



SECTION A-A

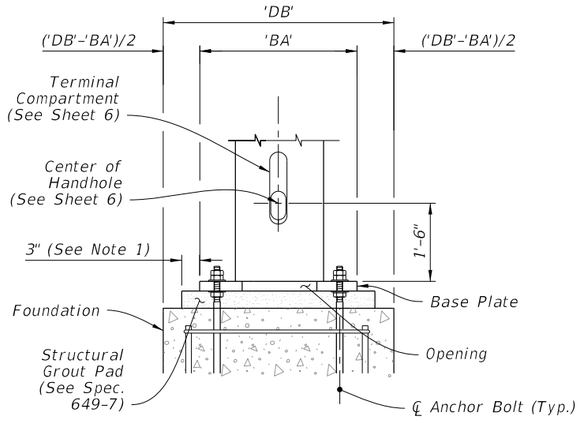


ELEVATION



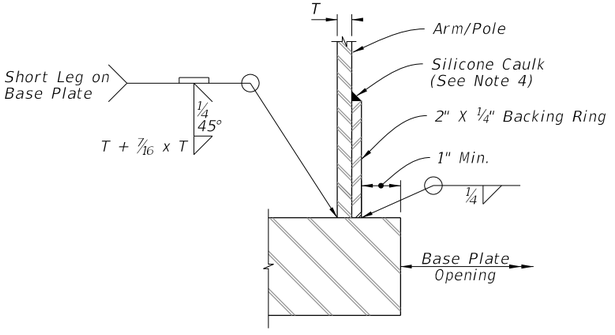
PLAN

FOUNDATION



ELEVATION
(Back Face Shown)

BASE PLATE CONNECTION



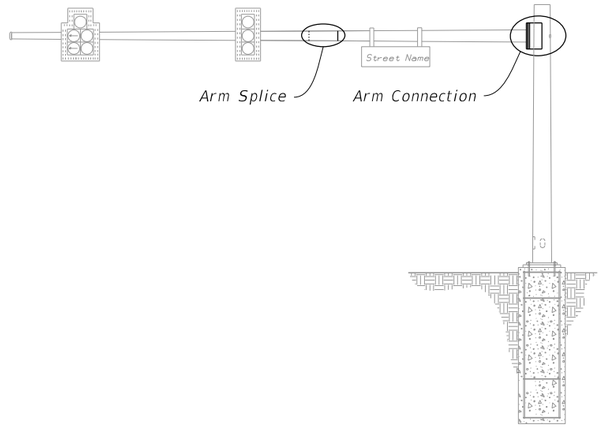
JOINT WELD DETAIL

DETAIL 'A'

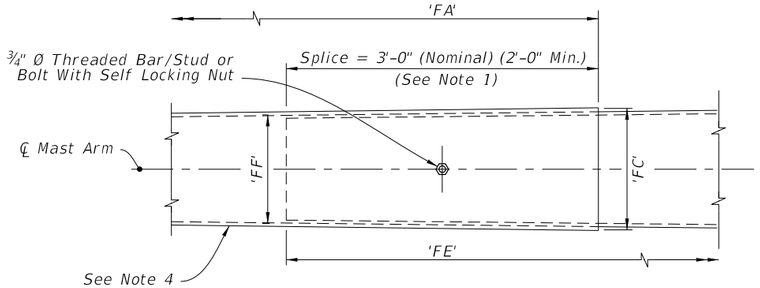
FOUNDATION AND BASE PLATE DETAILS

9:50:49 AM
9/29/2025

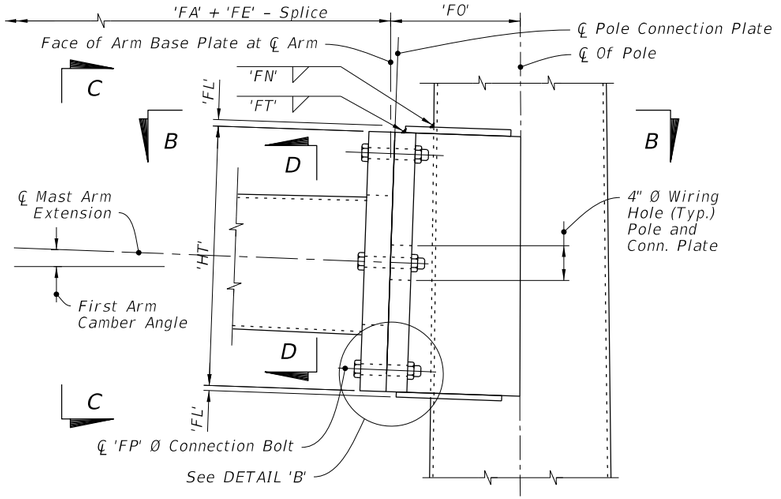
LAST REVISION	REVISION	DESCRIPTION:				
11/01/24			FY 2026-27 STANDARD PLANS	MAST ARM ASSEMBLIES	INDEX 649-031	SHEET 2 of 6



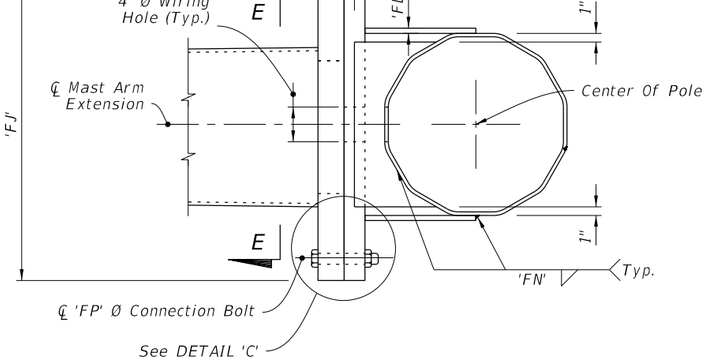
MAST ARM ASSEMBLY



ARM SPLICE



SINGLE ARM CONNECTION



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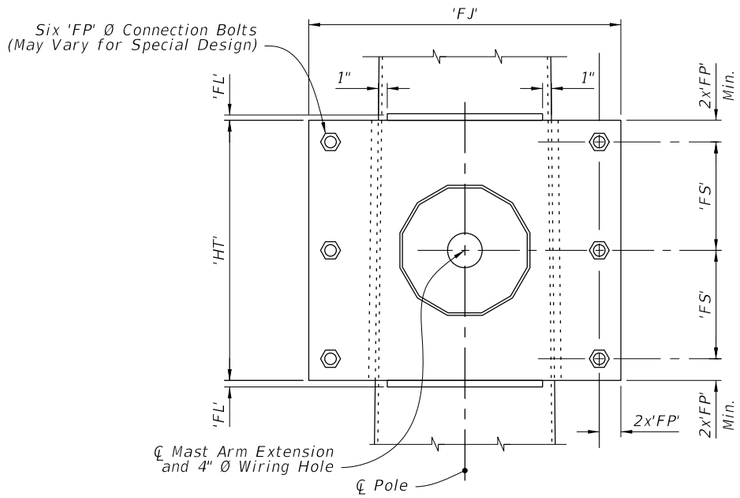

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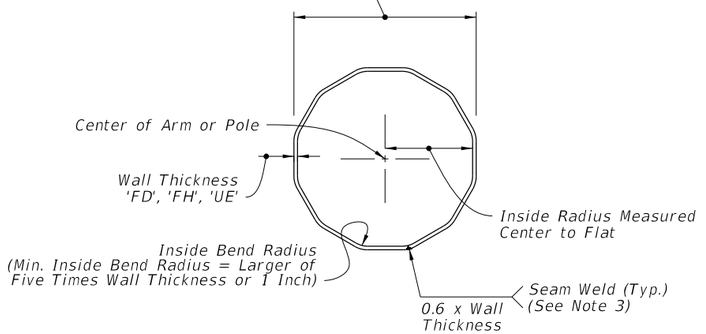

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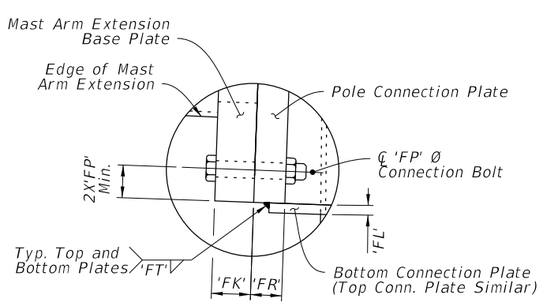

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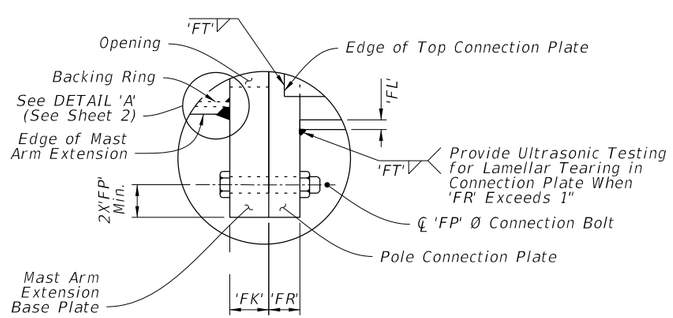


DETAIL 'C'

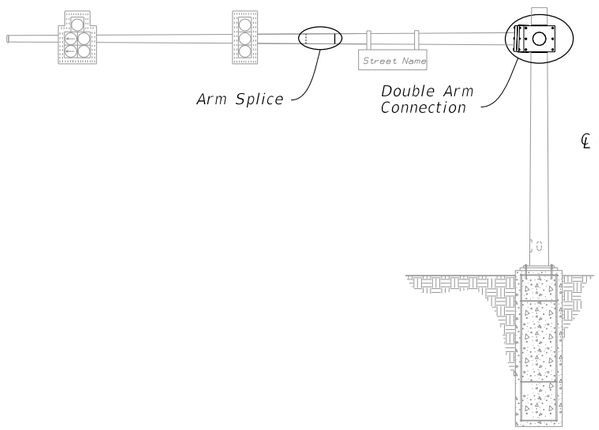
NOTES:

1. Install the 'Slip Joint' splice with a tight fit and no change in the Mast Arm taper due to the splice.
2. 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.
3. Match mark the Arm and Connection Plates to ensure proper assembly and the seam weld is in the proper location (seam located at the bottom side of the Arm).
4. On the outer mast arm section, the manufacturer may increase both the tip diameter and the base diameter of the female section of the splice by up to ⅛" to meet the required 2'-0" minimum lap splice.

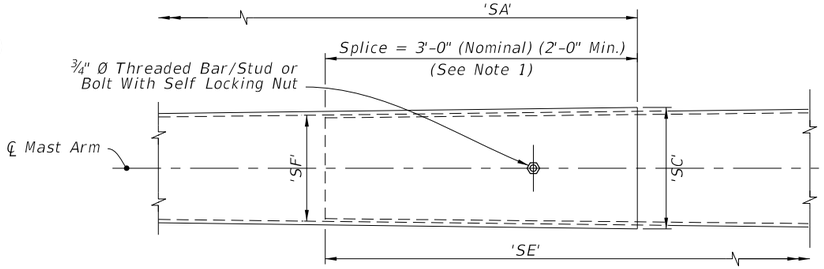
SINGLE ARM CONNECTIONS & SPLICE DETAILS

9/29/2025 9:50:57 AM

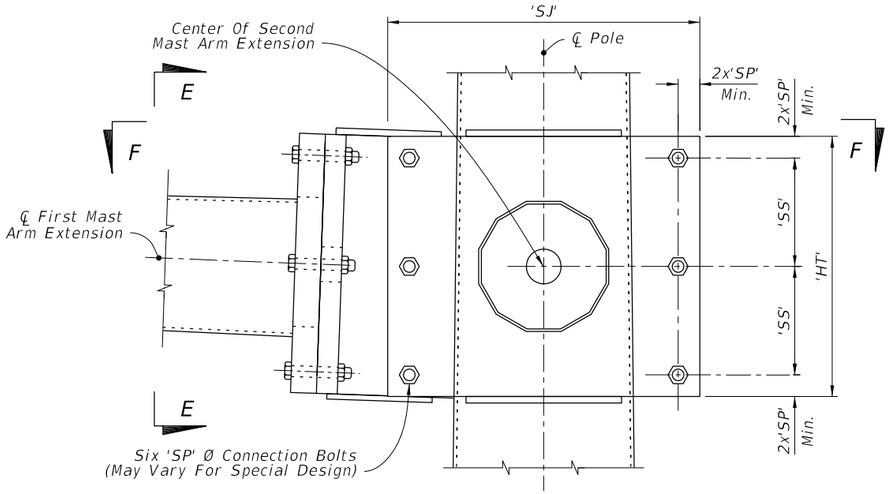
LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	MAST ARM ASSEMBLIES	INDEX	SHEET
11/01/23					649-031	3 of 6



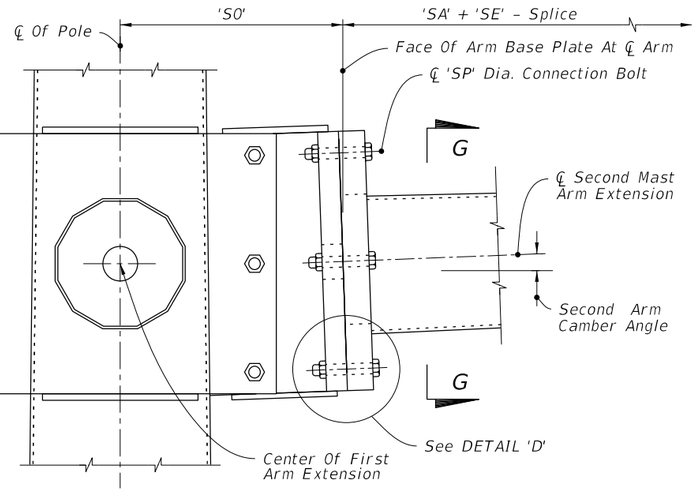
MAST ARM ASSEMBLY



ARM SPLICE



DOUBLE ARM CONNECTION



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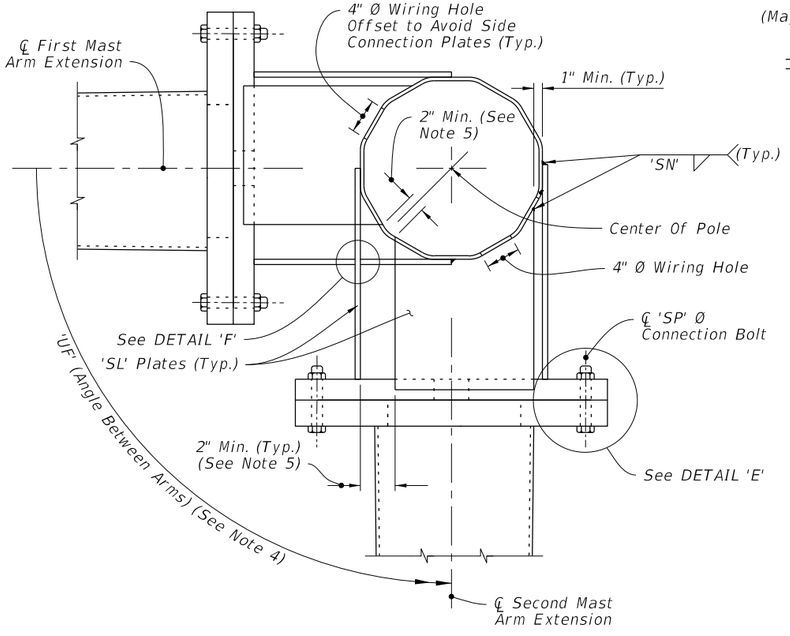

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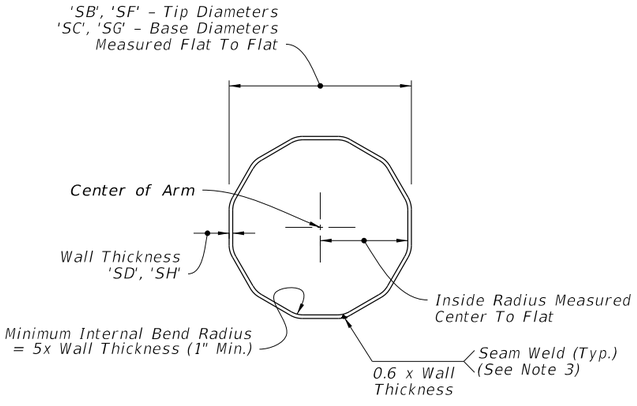

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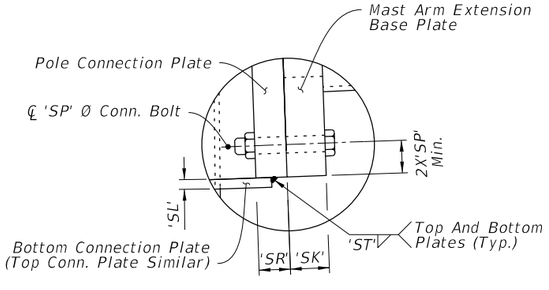

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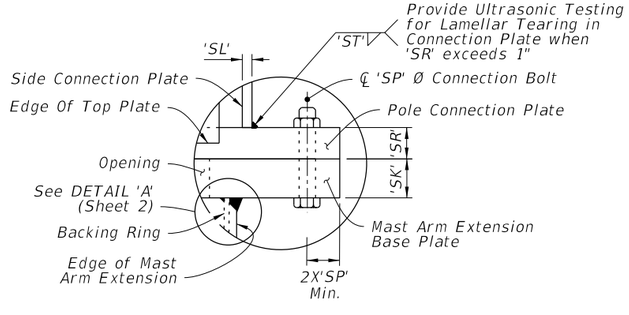

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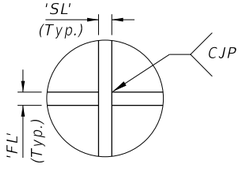


DETAIL 'F'

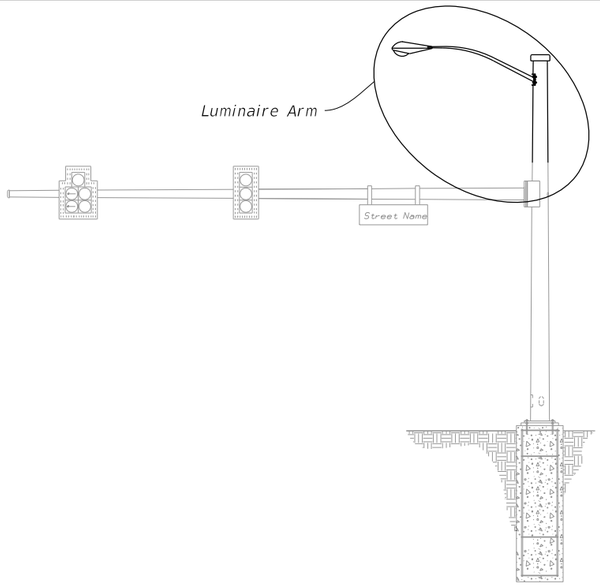
NOTES:

1. Install the 'Slip Joint' splice with a tight fit and no change in the Mast Arm taper due to the splice.
2. 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.
3. Match mark the Arm and Connection Plates to ensure proper assembly and the seam weld is in the proper location (seam located at the bottom side of the Arm).
4. 'UF' measured counter clockwise from ℄ First Mast Arm Extension.
5. Adjust width of top and bottom Connection Plates to maintain minimum clearance shown.

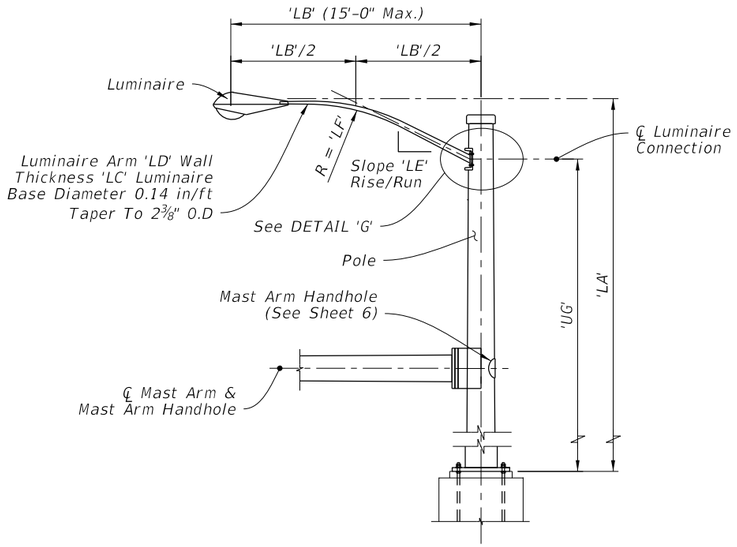
DOUBLE ARM CONNECTIONS & SPLICE DETAILS

9:51:05 AM
9/29/2025

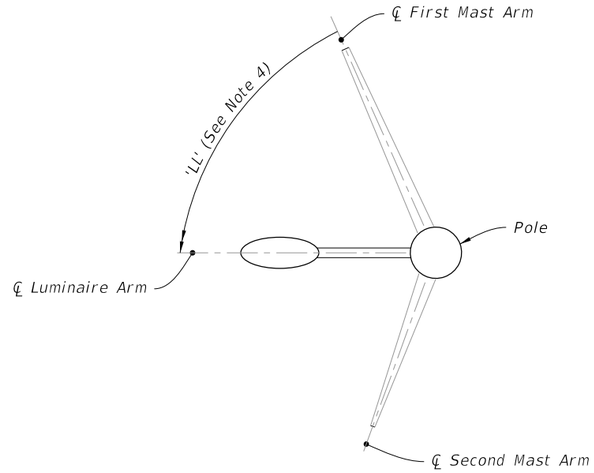
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	MAST ARM ASSEMBLIES	INDEX	SHEET
11/01/23						649-031	4 of 6



MAST ARM ASSEMBLY



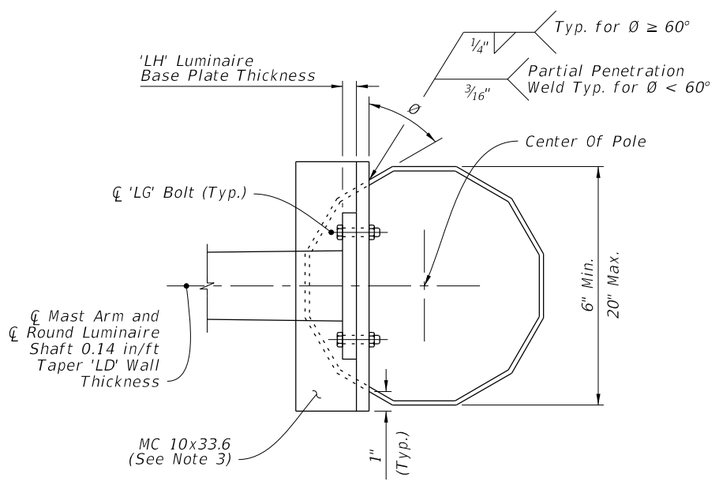
LUMINAIRE ELEVATION



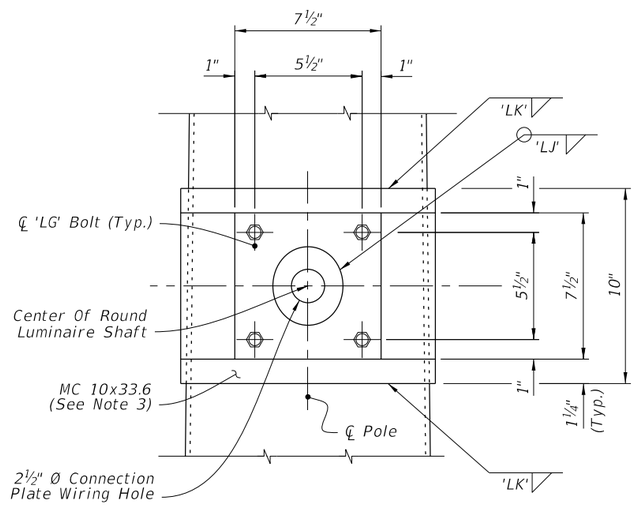
LUMINAIRE ORIENTATION

NOTES:

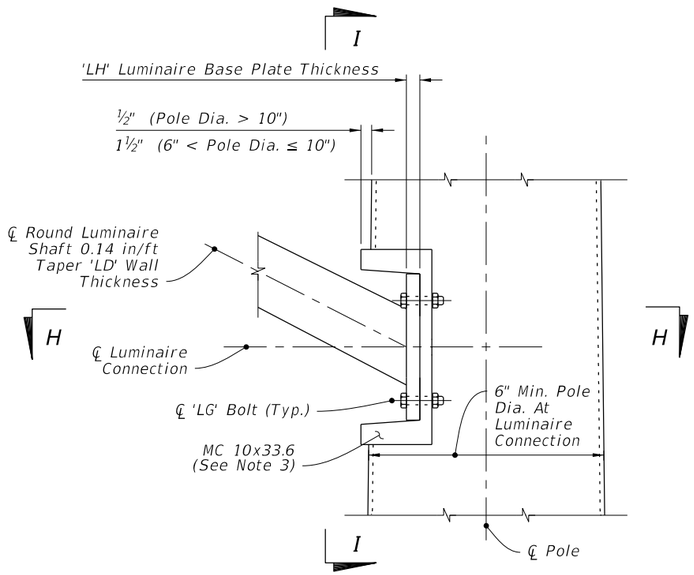
1. Galvanized steel luminaire type and luminaire length may be found in the Lighting Plans.
2. Align Luminaire Arm with Single Mast Arm or First Arm of Double Mast Arm unless indicated otherwise in the plans.
3. The fabricator may substitute a ½" thick bent plate with the same flange width, height, and length as the MC 10x33.6 Channel section.
4. 'LL' measure counter clockwise from First Mast Arm.



SECTION H-H



SECTION I-I



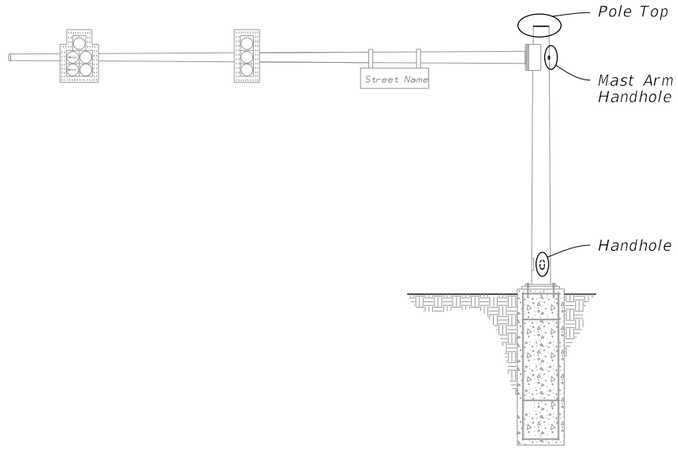
LUMINAIRE CONNECTION ELEVATION

DETAIL 'G'

LUMINAIRE ARM AND CONNECTION DETAILS

9/29/2025 9:51:12 AM

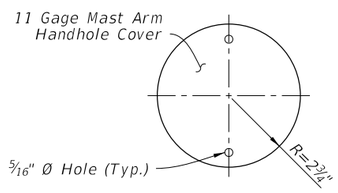
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	MAST ARM ASSEMBLIES	INDEX	SHEET
11/01/19						649-031	5 of 6



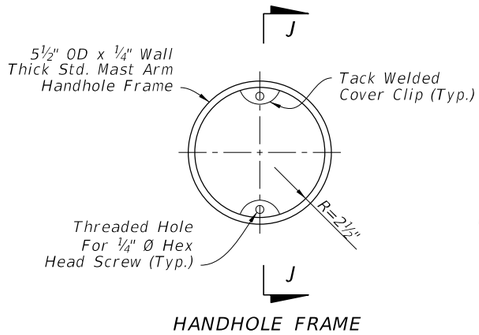
MAST ARM ASSEMBLY

NOTES:

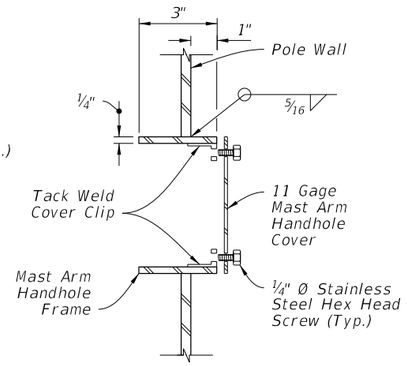
1. Handhole covers may be omitted when Terminal Compartment is provided.
2. See Mast Arm Tabulation sheet to see if Terminal Compartment is required and for locations.
3. Terminal Compartment Frame Height 2'-0" minimum to 2'-6" maximum. Align bottom of Terminal Compartment a minimum of 1" below the bottom of the Handhole Frame.
4. Any combination of Option 'a' or 'b' may be used, provided both lifting and wiring is accommodated. Cap may be flat plate or domed cap with set screws.
5. An alternate terminal compartment frame detail is allowed where the compartment frame is of constant depth and cuts into the pole at the frame top and bottom but lays flush with the pole on the frame sides. The frame is then welded to the pole using fillet welds all around the outside.



COVER

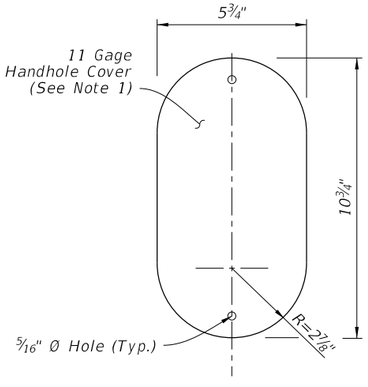


HANDHOLE FRAME

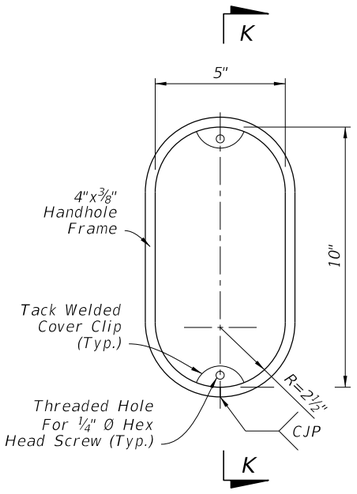


SECTION J-J

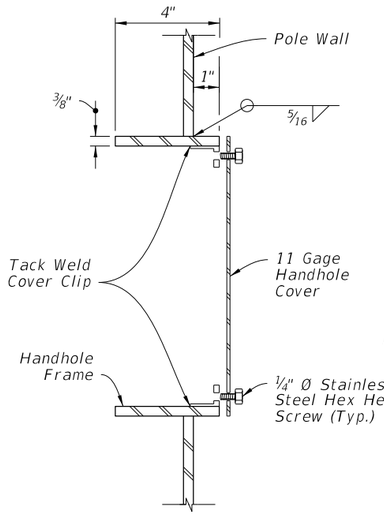
MAST ARM HANDHOLE



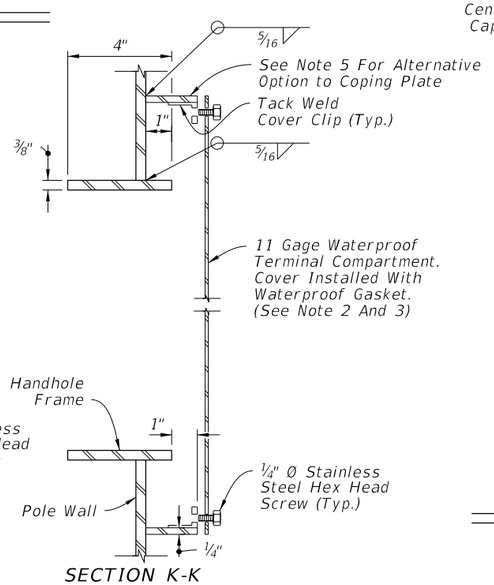
COVER



HANDHOLE FRAME

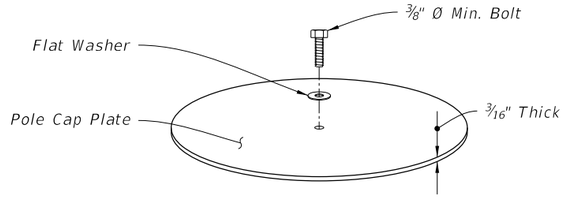


SECTION K-K
(Thru Handhole)

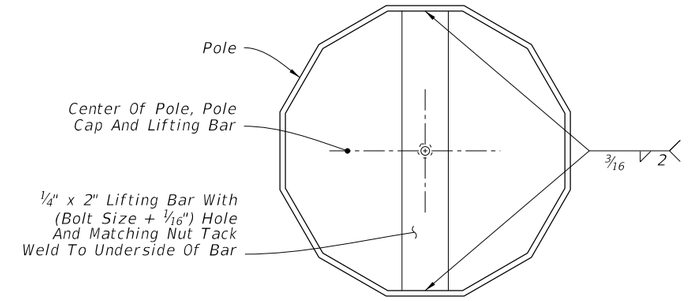


SECTION K-K
(Terminal Compartment)

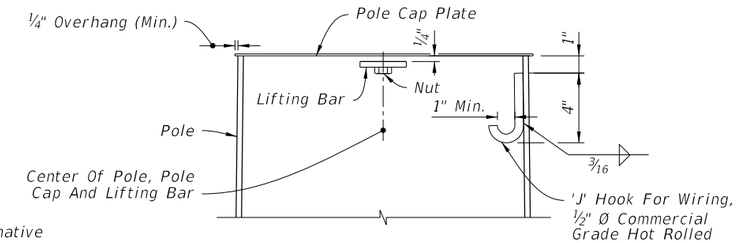
HANDHOLE



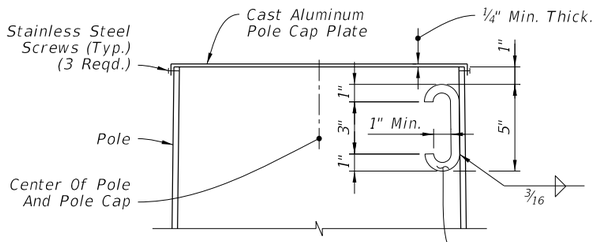
ISO VIEW
(Option 'a')



TOP VIEW
(Option 'a')



CUT-AWAY
(Option 'a')



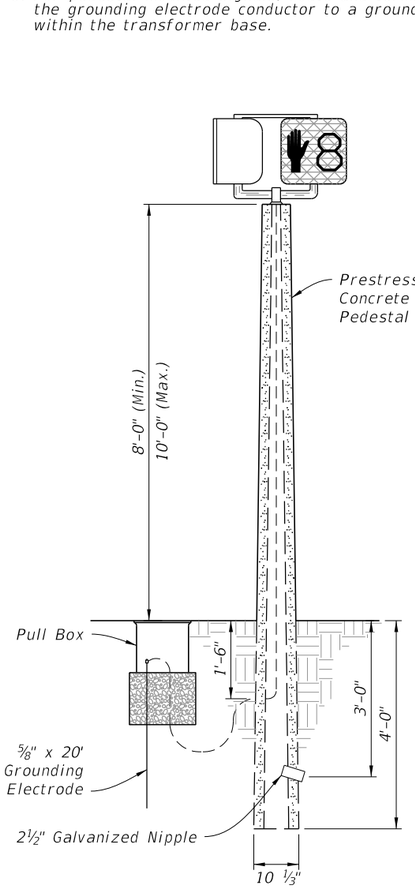
CUT-AWAY
(Option 'b')

POLE TOP

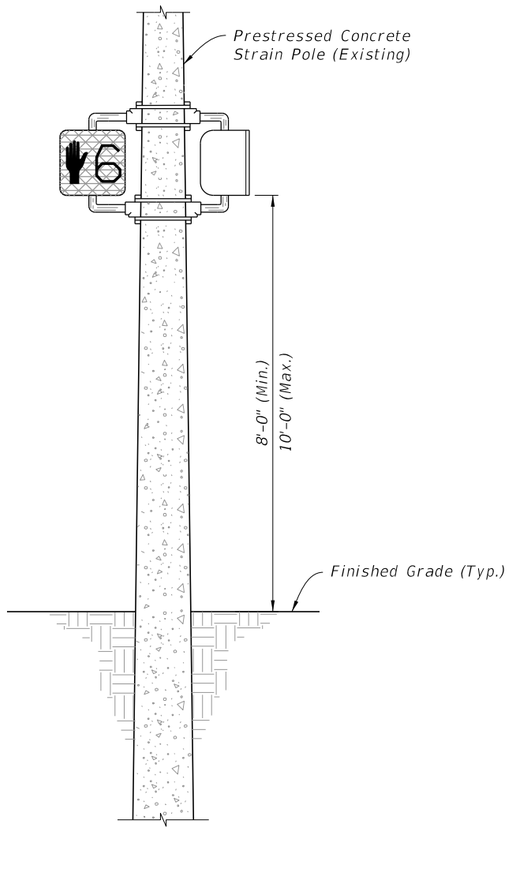
HANDHOLE AND POLE TOP DETAILS

NOTES:

1. As an option, pedestrian signals may be installed on concrete poles and pedestals using lead anchors (two bolts same size per hub) in lieu of the stainless steel bands.
2. Repair drilled or punched holes in galvanized steel poles or pedestals in accordance with Specification 562. Install grommets or bushings in each hole.
3. Meet grounding requirements of Specification 620.
4. See APL for Department-approved Pedestrian Signal Assemblies and hardware.
5. For Prestressed Concrete Poles see Index 641-010.
6. For Steel Strain Poles see Index 649-010.
7. For Pedestal Mounted Signal posts and foundations see Index 646-001.
8. For pedestal mounted signals, route and terminate the grounding electrode conductor to a ground lug within the transformer base.

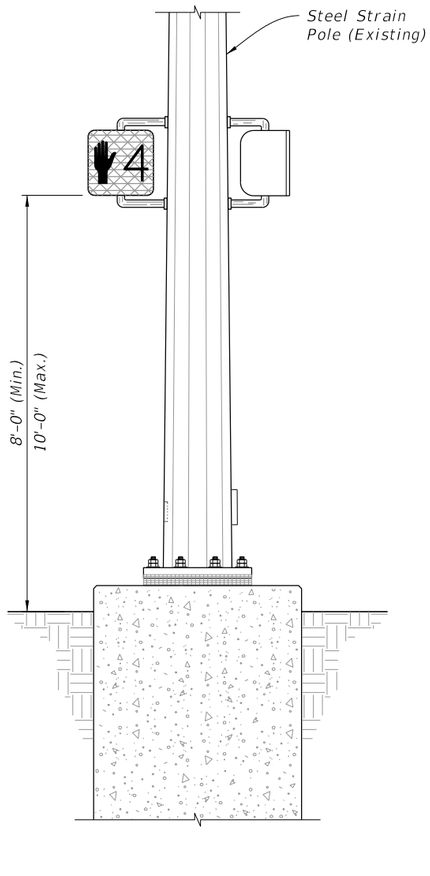


NEW CONSTRUCTION

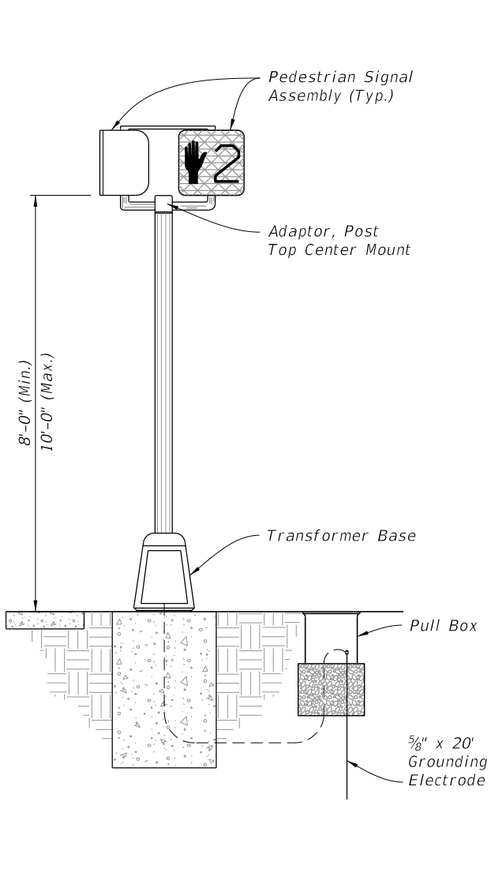


EXISTING CONSTRUCTION

CONCRETE POLE MOUNTED SIGNAL



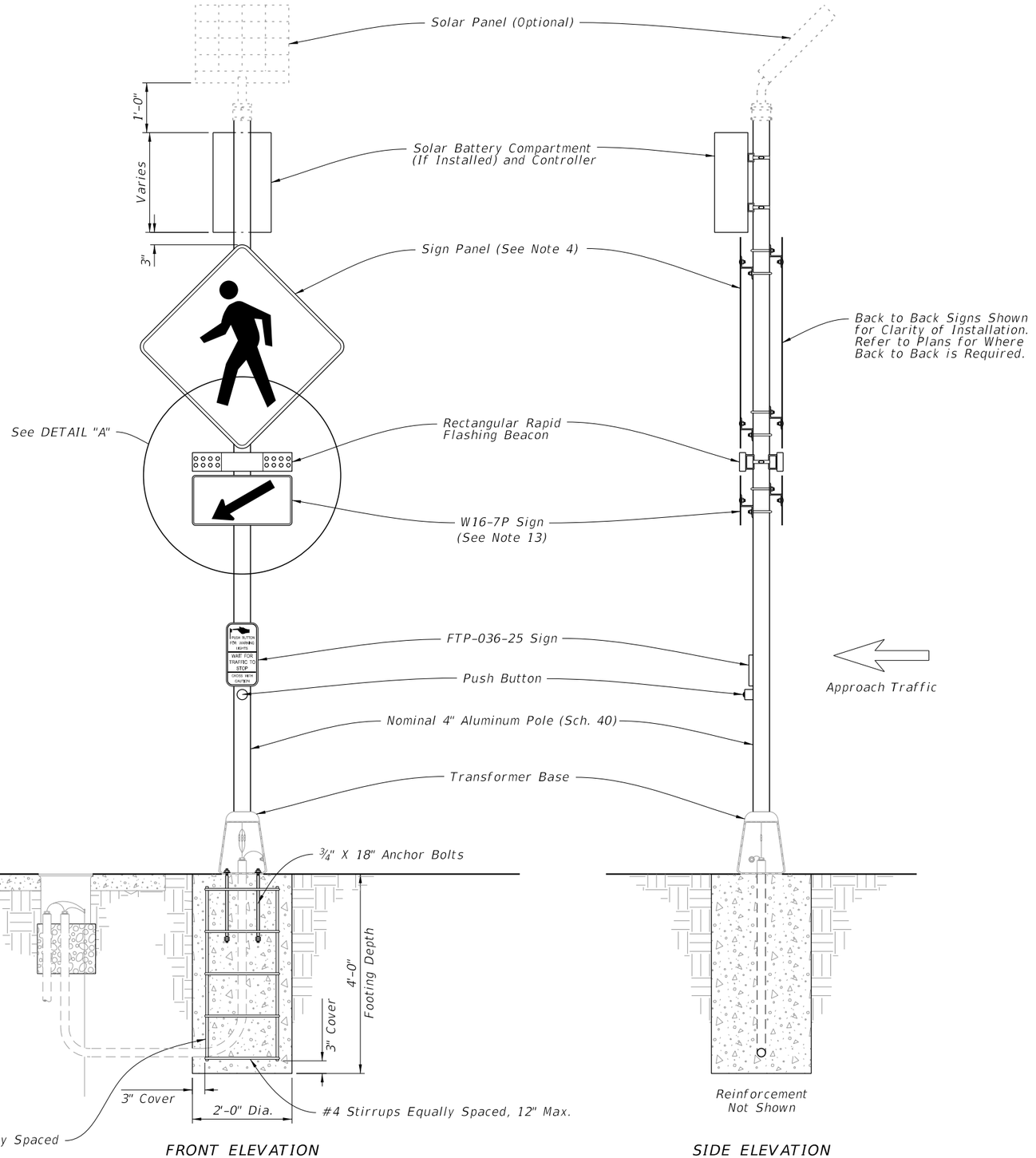
STRAIN POLE MOUNTED SIGNAL



PEDESTAL MOUNTED SIGNAL

9:51:26 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:				
11/01/25			FY 2026-27 STANDARD PLANS	PEDESTRIAN CONTROL SIGNAL INSTALLATION DETAILS	INDEX 653-001	SHEET 1 of 1



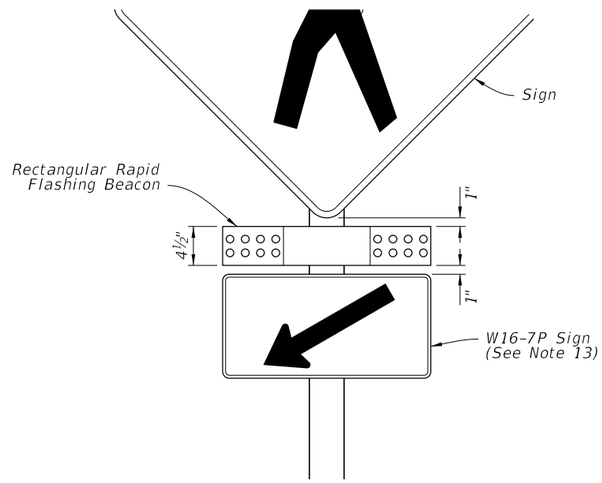
FRONT ELEVATION

SIDE ELEVATION

ADJACENT TO SIDEWALK

NOTES:

1. A transformer base is required for both conventionally-powered and solar-powered applications. Install pull box, conduit, wiring, and grounding in accordance with Index 700-120 based on the powering configuration called for in the Plans.
2. Install the RRFB in pairs, one on either side of approach traffic.
3. Install controller on the backside of post from approach traffic.
4. W11-2 sign panel shown, others similar. Use 30" X 30" sign panels for two-lane roadways and 36" X 36" sign panels on multilane roadways.
5. Install push button and FTP-036-25 sign in accordance with Index 665-001.
6. Engage all threads on the transformer base and post unless the aluminum post is fully seated into base.
7. Meet the requirements of Specification 646.
8. Install a concrete slab around all pull boxes. The minimum slab dimension is 4'-0" by 4'-0". In urban areas where space is limited slab dimensions may be adjusted as shown in the Plans.
9. For assemblies connected to conventional power, provide single pole non-fused watertight breakaway electrical connectors in the frangible transformer base.
10. When wire entry holes are drilled in the sign column, use a bushing or rubber grommet to protect conductors.
11. For solar-powered applications, orient solar panel to face South for optimal exposure to sunlight.
12. In lieu of footing design shown, a Spread Footing may be used in accordance with Index 700-120.
13. See Standard Plans Index 700-010 for sign dimensions.

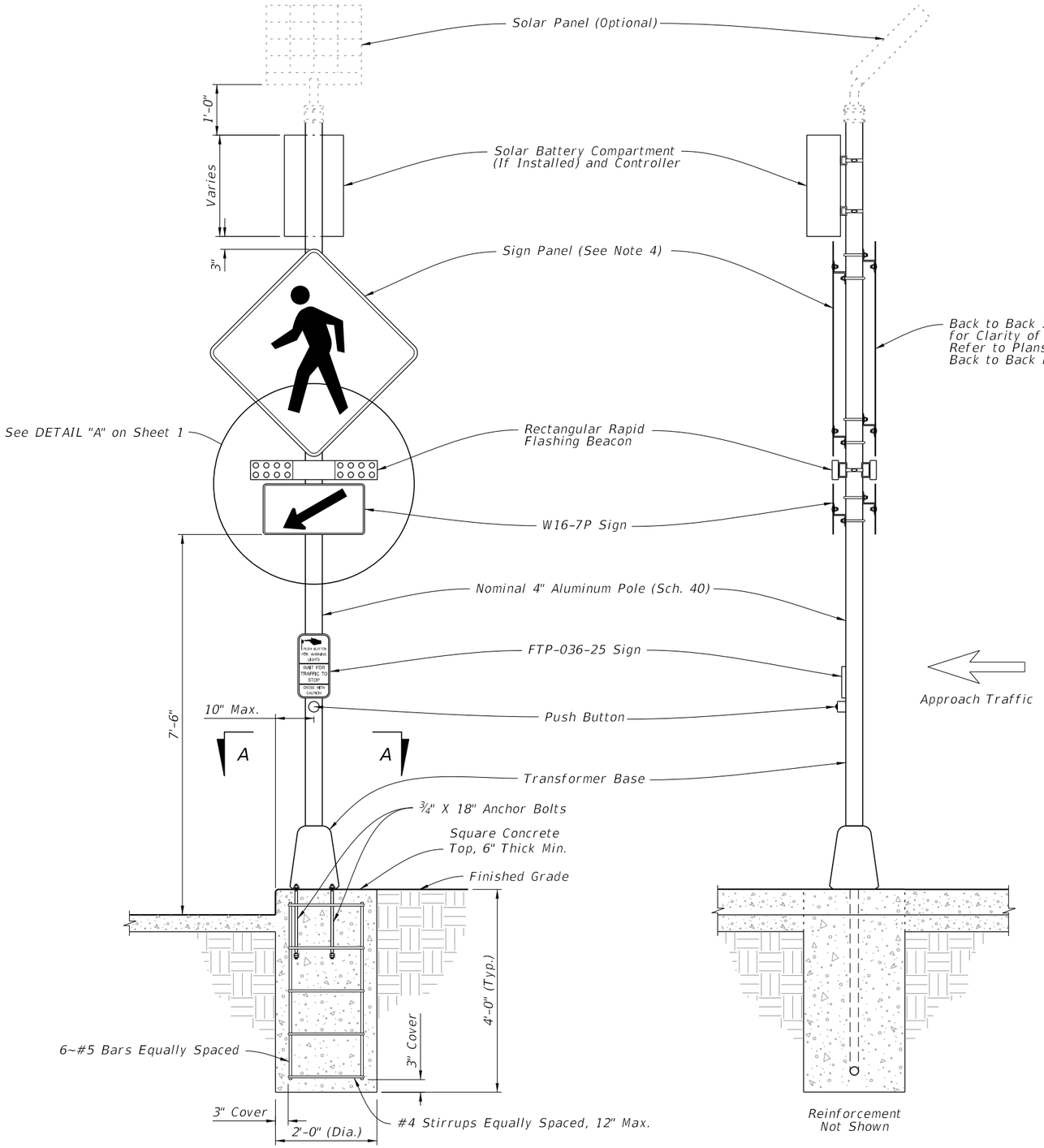


DETAIL "A"

9:51:33 AM

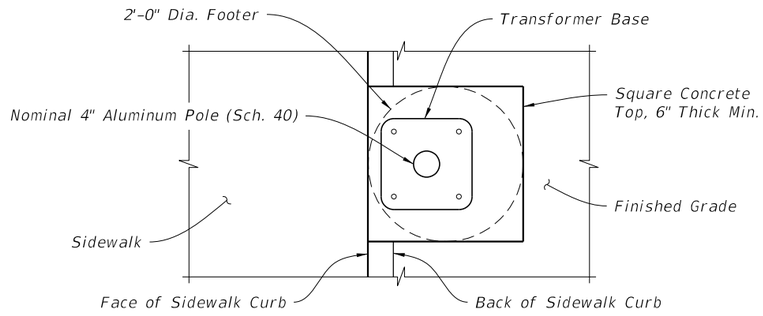
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:				
11/01/25			FY 2026-27 STANDARD PLANS	RECTANGULAR RAPID FLASHING BEACON ASSEMBLY	INDEX 654-001	SHEET 1 of 2



SIDE ELEVATION

FRONT ELEVATION



PLAN VIEW

IN SIDEWALK CURB

SECTION A-A

9/29/2025 9:51:40 AM

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	RECTANGULAR RAPID FLASHING BEACON ASSEMBLY	INDEX	SHEET
11/01/25					654-001	2 of 2

NOTES:

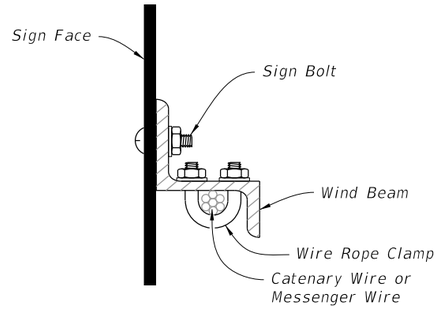
1. Materials:
   A. Sign panels, wind beams and associated hardware: See Index 700-020
   B. Sign adjustable hangers, wire rope clamps and associated hardware: See APL
   C. Wire and additional hardware requirements: See Specification 634

2. Type B and C Attachments:
   A. Extend wind beams to within 6" of the sign edge.
   B. Number of sign hangers required based on sign width:
      a. Sign width < 4'-0": One
      b. 4'-0" ≤ sign width ≤ 8'-0" : Two
   C. Number of wind beams required based on sign depth:
      a. Sign depth < 3'-6": One
      b. 3'-6" ≤ Sign depth ≤ 7'-0": Two

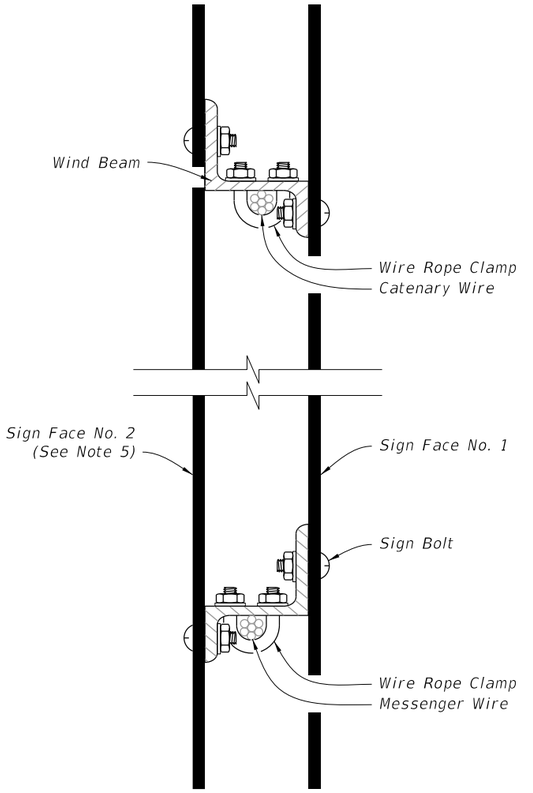
3. Type D Attachments:
   Maximum sign width = 3'-0"

4. Align the bottom edges of signs to approximately the same elevation.

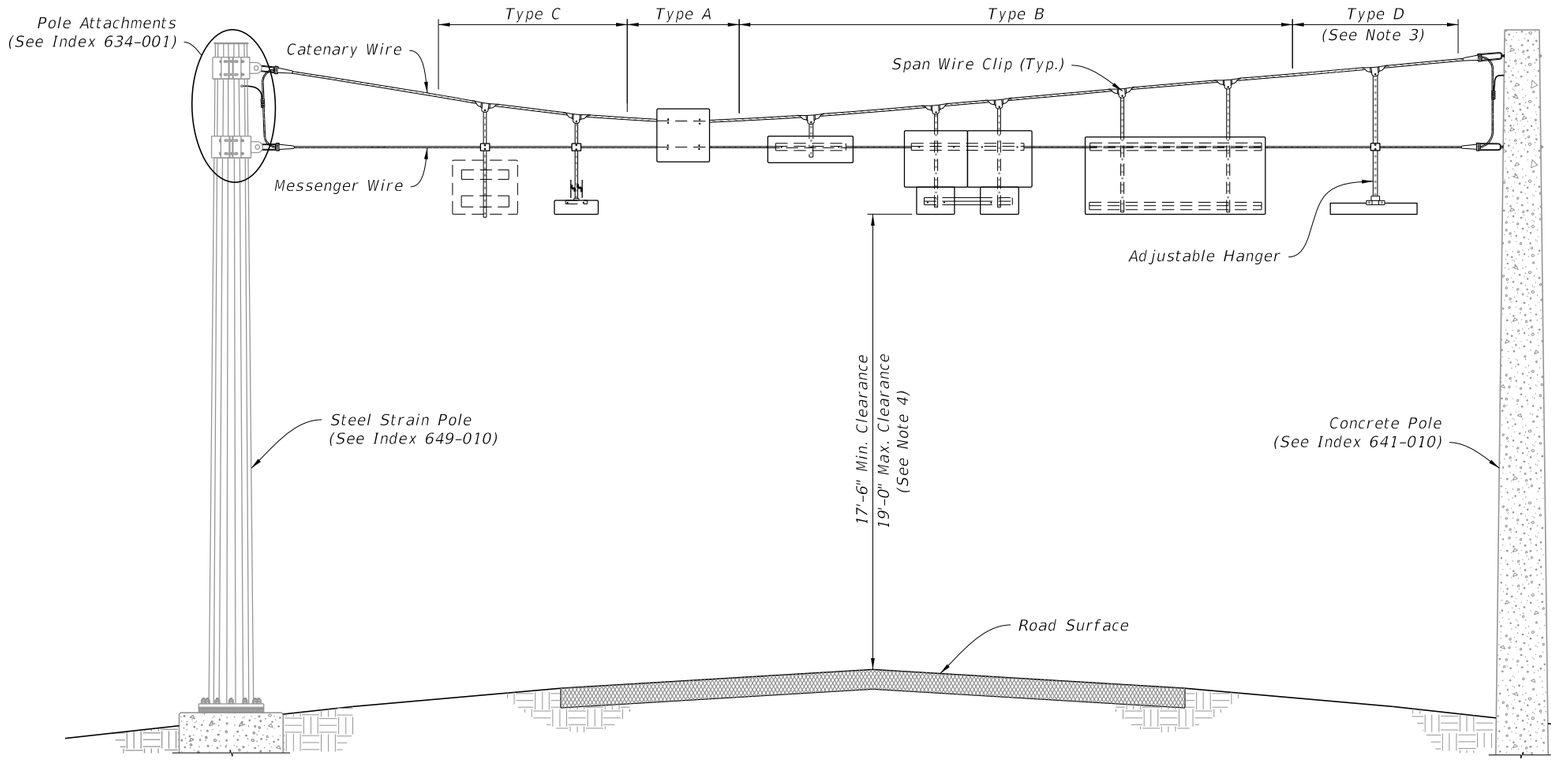
5. Use a minimum of 2 bolts with a minimum spacing of 2" for overlapped connection of the adjustable hangers.



SIGN MOUNTING DETAIL



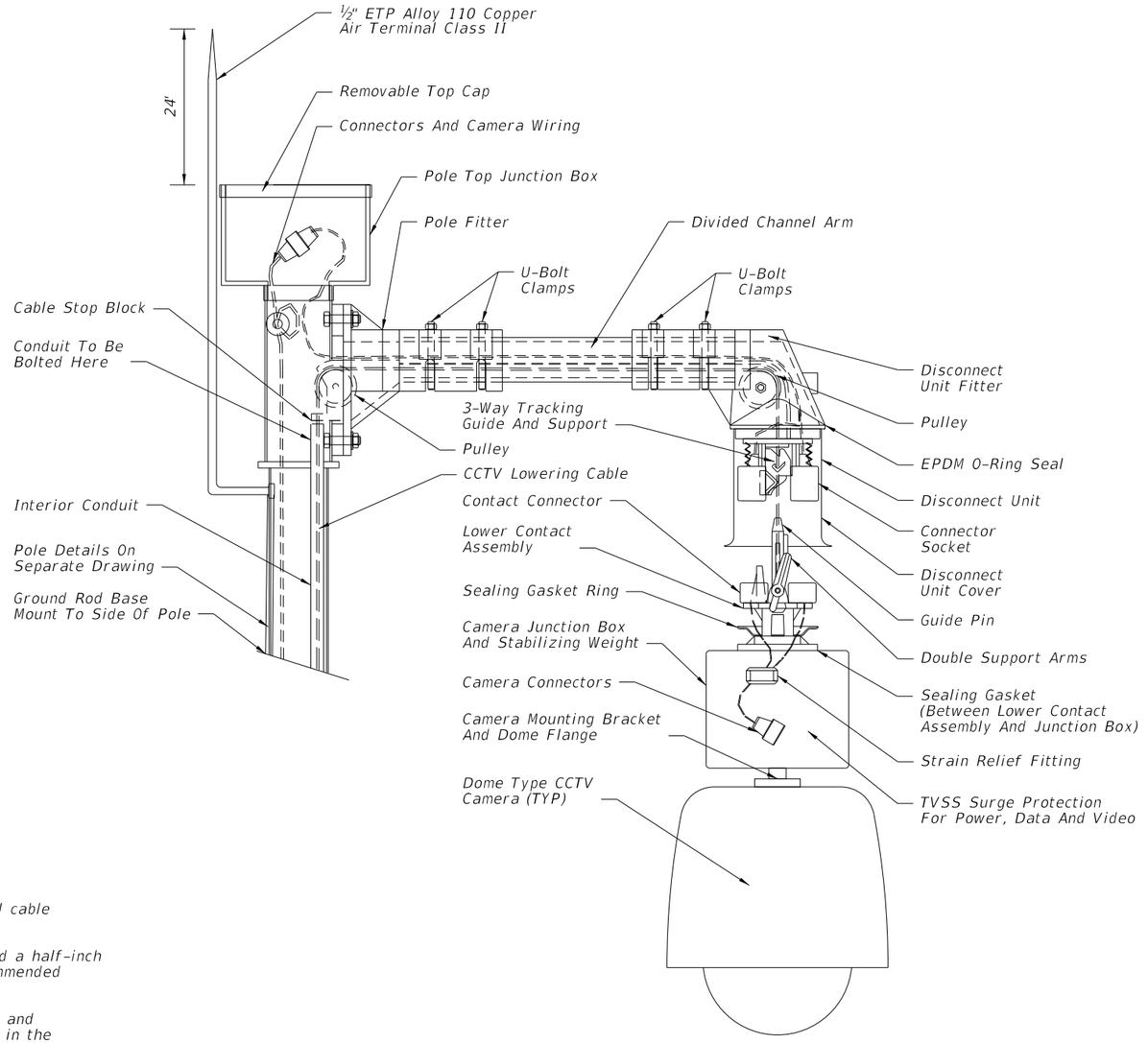
OPPOSING SIGN MOUNTING DETAIL



TYPICAL INSTALLATIONS FOR SIGN PANEL(S) MOUNTED ON SPAN WIRE

9:51:48 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	SPAN WIRE MOUNTED SIGN DETAILS	INDEX	SHEET
11/01/21					659-010	1 of 1

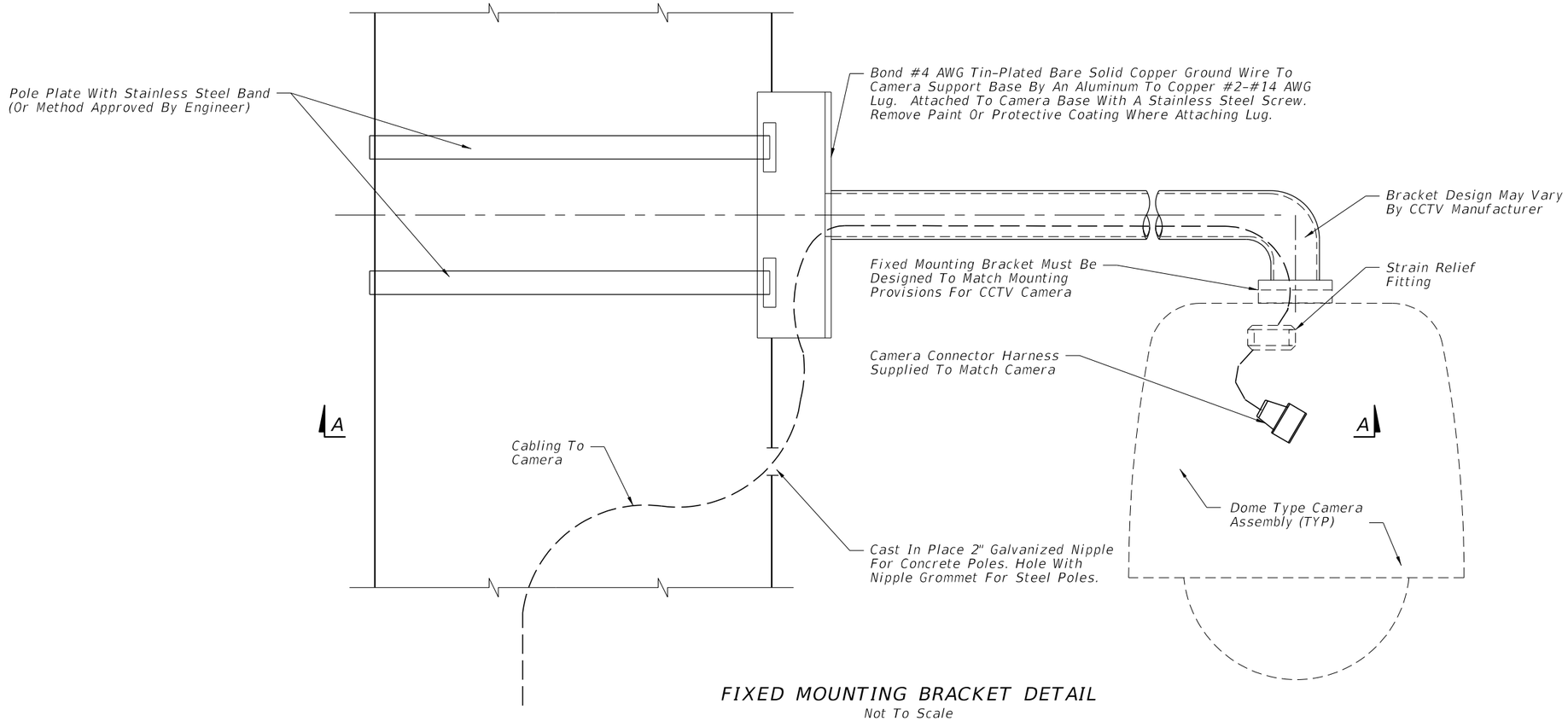


CAMERA LOWERING DEVICE DETAIL

GENERAL NOTES:

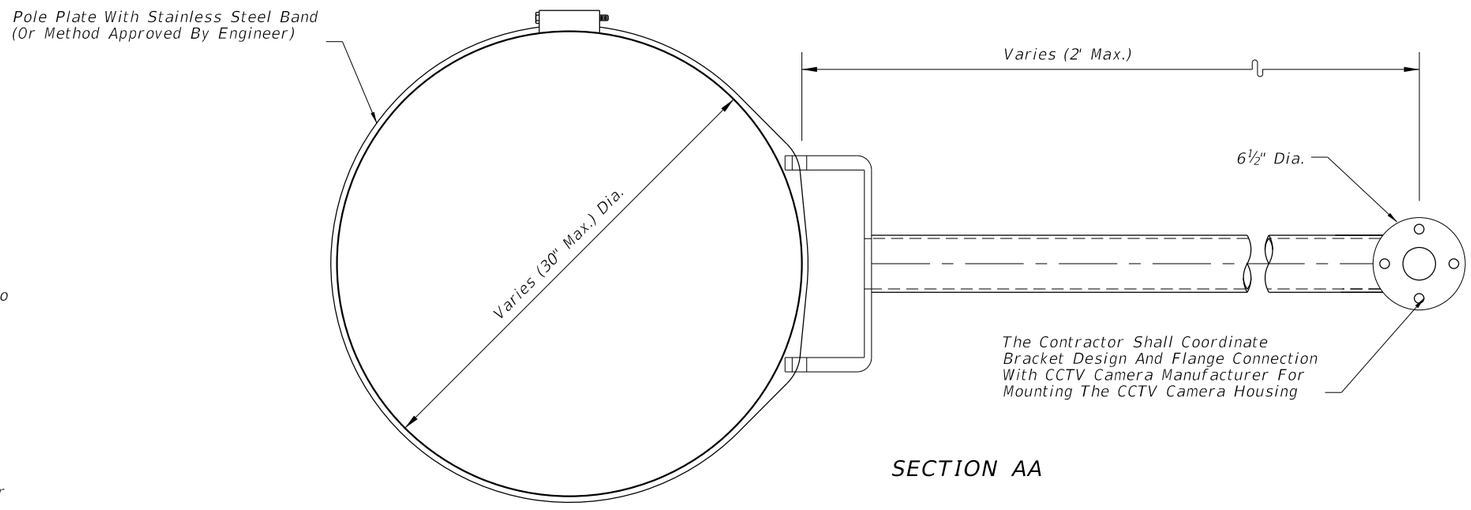
1. Lowering device to be shipped ready for pole attachment to include 100 ft. of composite power and signal cable prewired to lowering device at the factory.
2. The lowering device manufacturer shall supply both a portable lowering tool with a manual hand crank and a half-inch chuck variable-speed reversible industrial-duty electric drill that matches the winch's manufacturer-recommended revolutions per minute. One lowering tool per every 10 lowering devices is required.
3. The lowering device manufacturer shall provide an on-site installation inspection and operator instruction and certification. This ensures the product is assembled correctly and that all necessary persons are trained in the proper, safe operation of the system. Before erecting the first pole the contractor must contact the lowering device supplier and schedule a manufacturer's representative to be on-site.
4. Design camera mounting arm and connection to tenon according to FDOT Structures Manual (current edition).
5. Camera to be mounted to camera junction box and stabilizing weight via 1½" Standard NPT Pipe Thread.
6. Use air terminal extension when the pole top junction box is wider than top of pole.
7. The stainless steel device lowering cable shall be installed inside the pole within a 1 ¼" diameter PVC conduit.
8. All communication and power cables must be neatly bundled and secured.
9. Use a Camera Lowering Device listed on the Approved Product List (APL).
10. See Index 641-020 for concrete pole details and Index 649-020 for steel pole details.

CAMERA MOUNTING WITH LOWERING DEVICE



FIXED MOUNTING BRACKET DETAIL

Not To Scale



SECTION AA

GENERAL NOTES:

1. Verify the pole type, the dimensions of the pole at the point of installation of the camera mount, and angle with respect to the roadway before manufacturing camera mount assembly.
2. Design camera mounting arm and connection to the pole according to FDOT Structures Manual (current edition).
3. No field welding shall be permitted.
4. Mounting bracket arm shall be level after installation.
5. The contractor shall submit shop drawings for the proposed fixed mounting arm, signed and sealed by a Professional Engineer registered in the State of Florida, to the Engineer for review and approval.
6. See Index 641-020 for concrete pole details and Index 649-020 for steel pole details.
7. Galvanized pipe connections and conduit entry points shall be sealed in accordance with Specification 630.

CAMERA MOUNTING WITH FIXED BRACKET

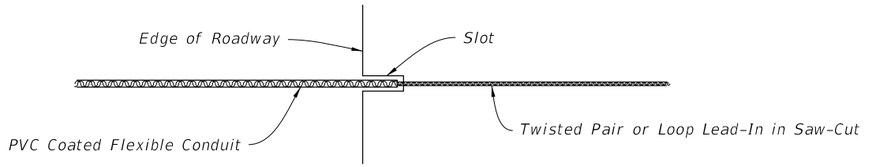
9:52:02 AM

9/29/2025

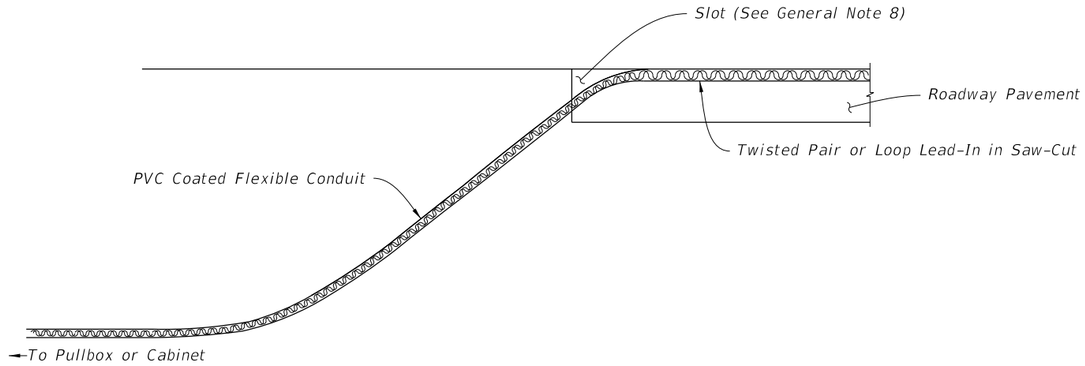
LAST REVISION	REVISION	DESCRIPTION:				
11/01/17			FY 2026-27 STANDARD PLANS	CAMERA MOUNTING DETAILS	INDEX 659-020	SHEET 2 of 2

GENERAL NOTES:

1. If the loop lead-in is 75' or less from the edge of the loop detector to controller cabinet, continue the twisted pair to the cabinet. If the loop lead-in is greater than 75' continue the twisted pair an Intermediate Pullbox, splice to shielded lead-in wire and continue to the controller cabinet.
2. Provide sufficient saw-cut width to allow unforced placement of loop wires or lead-in cables into the saw-cut. Except across expansion joints, saw-cut to a standard depth of 3", but no more than 4" below the top of the final surface.
3. On resurfacing or new roadway construction projects, install the loop wires and lead-in cables in the asphalt structural course prior to the placement of the asphalt friction course. Place the loop wires and lead-in cables in a saw cut in the structural course.
4. Use nonmetallic hold down material to secure loop wires and lead-ins to the bottom of saw-cuts. Place the hold down material approximately 12" intervals around loops and 24" intervals on lead-ins.
5. The minimum distance between the twisted pairs of loop lead-in wire is 6" from the loop to 12" from the pavement edge or curb.
6. Splice Connections in pull boxes with UL listed, watertight, insulated enclosures. Place one enclosure over the end of each conductor and place a third enclosure over the exposed end of the shielded cable. As an alternate, a larger diameter enclosure that will accommodate both the splices of the conductors and the exposed end of the shielded cable may be used.
7. Do not disturb more than a 6" x 6" area of asphalt. Restore asphalt as directed by the Engineer.
8. Alternative installations may be approved by the State Traffic Operations Engineer.



PLAN

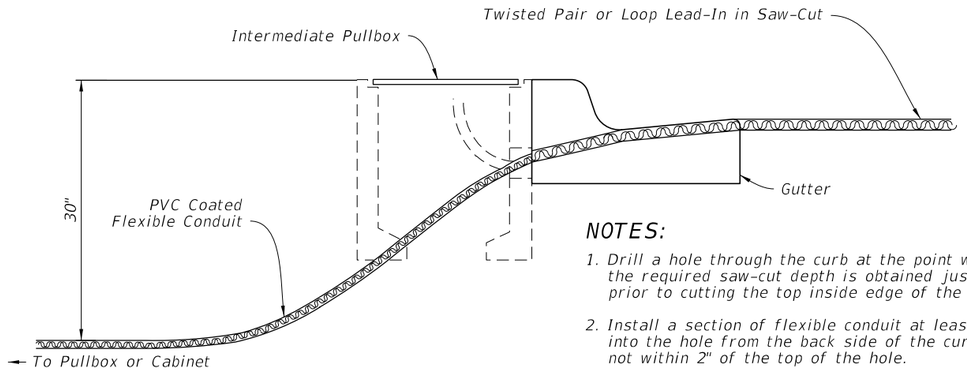


ELEVATION

NOTES:

1. Cut a slot in the edge of the roadway of sufficient size and depth to snugly place the end of the flexible conduit.
2. Install the conduit at least 6" into the roadway pavement and approximately 2" below the top of the roadway surface.
3. The departure angle of the conduit from the roadway is between 30° to 45°.

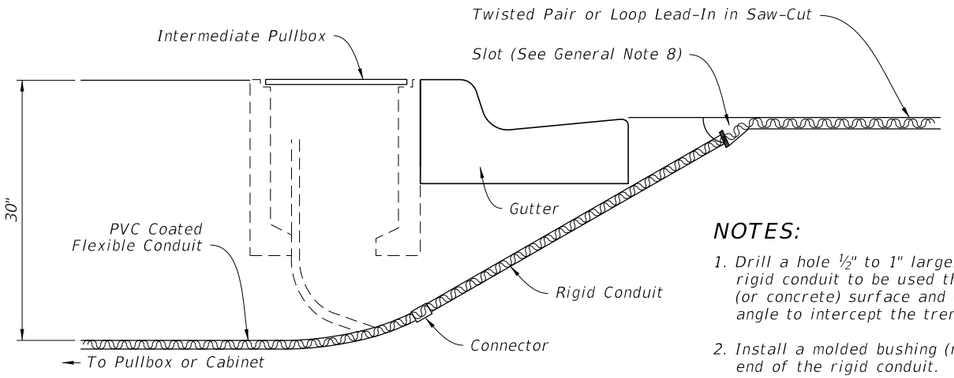
INSTALLATION WITHOUT CURB & GUTTER



NOTES:

1. Drill a hole through the curb at the point which the required saw-cut depth is obtained just prior to cutting the top inside edge of the curb.
2. Install a section of flexible conduit at least 6" into the hole from the back side of the curb but not within 2" of the top of the hole.
3. Insure the conduit fits snug within the drilled hole.
4. Fill the top of the hole with loop sealant to the level of the curb surface.
5. Use a nonmetallic material to prevent excessive loop sealant from entering the flexible conduit.

ALTERNATIVE 1



NOTES:

1. Drill a hole ½" to 1" larger in diameter than the rigid conduit to be used through the roadway asphalt (or concrete) surface and base at an appropriate angle to intercept the trench or pull box hole.
2. Install a molded bushing (nonmetallic) on the roadway end of the rigid conduit.
3. Place the top of the rigid conduit approximately 2" below the roadway surface.
4. Fill the hole with loop sealant to the level of the roadway surface.
5. Use a nonmetallic material to prevent excessive loop sealant from entering the rigid conduit.

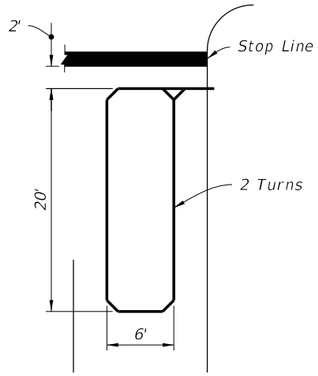
ALTERNATIVE 2

INSTALLATION WITH CURB & GUTTER

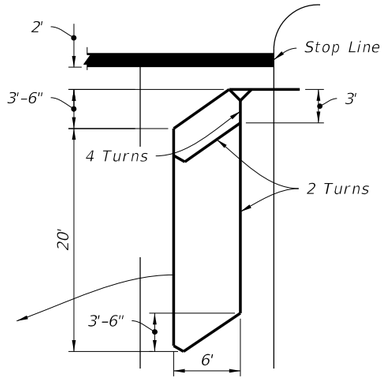
TWISTED PAIR AND LOOP LEAD-IN INSTALLATION

LAST REVISION	REVISION	DESCRIPTION:				
11/01/18			FDOT FY 2026-27 STANDARD PLANS	VEHICLE LOOP INSTALLATION DETAILS	INDEX 660-001	SHEET 1 of 2

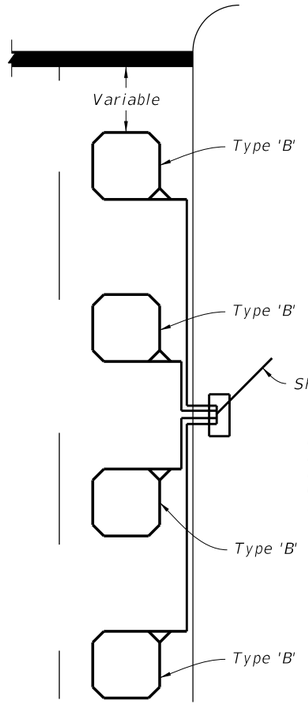
9:52:10 AM
9/29/2025



TYPE A

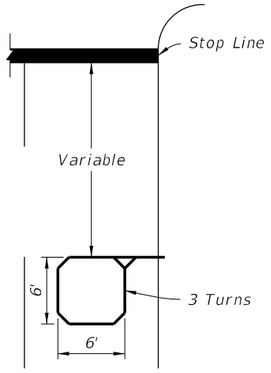


TYPE D

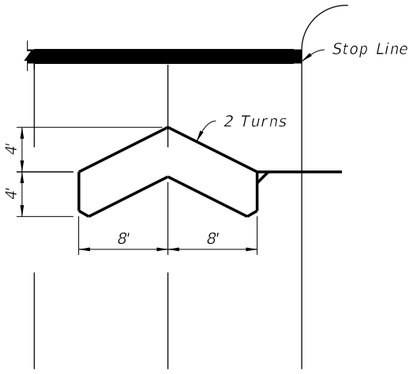


NOTE:
Loops To Pullbox. Pullbox Specified Under Separate Pay Items.

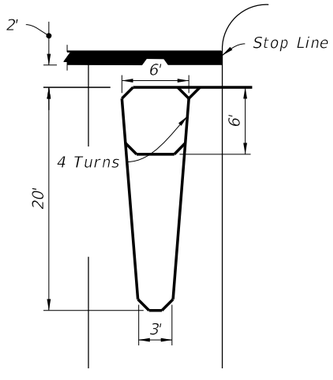
TYPE G



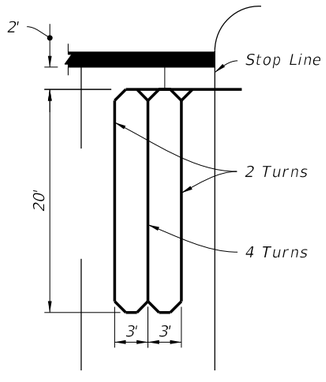
TYPE B



TYPE E



TYPE C



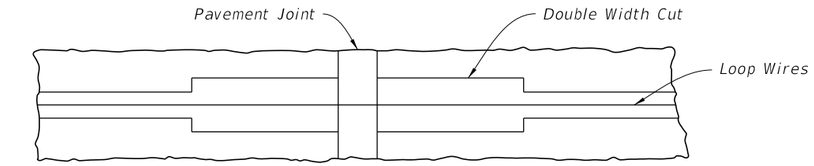
TYPE F

NOTE:
Loop conductors must follow saw-cut to bottom forming slack section at joint.

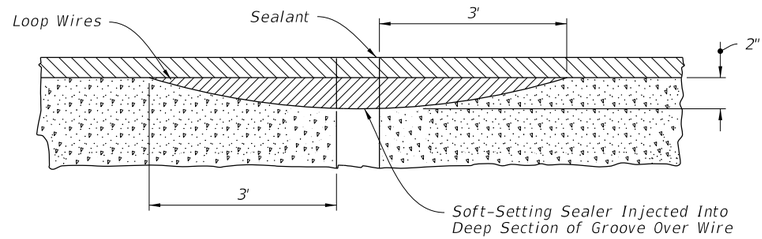
NOTES:

1. The number of "Turns" indicated at the specified point on the loop refers to the number of passes of loop wires which are placed in the saw-cut forming the complete loop.
2. Loop types or details not drawn to scale.
3. Loop Types are centered in a single lane except Type E which is centered on two lanes.
4. The number of individual loops in the Type G loop may vary up to a maximum of four (4).
5. Lead-in may be connected to either end of loop.
6. When shown in the Plans, the leading edge of loop Types A, C, D, & F may extend past the stop line a maximum of 10' and the length of these loops may be extended to a maximum of 60'.
7. Do not install loop lead-in wires in the same pull box with signal power cable.

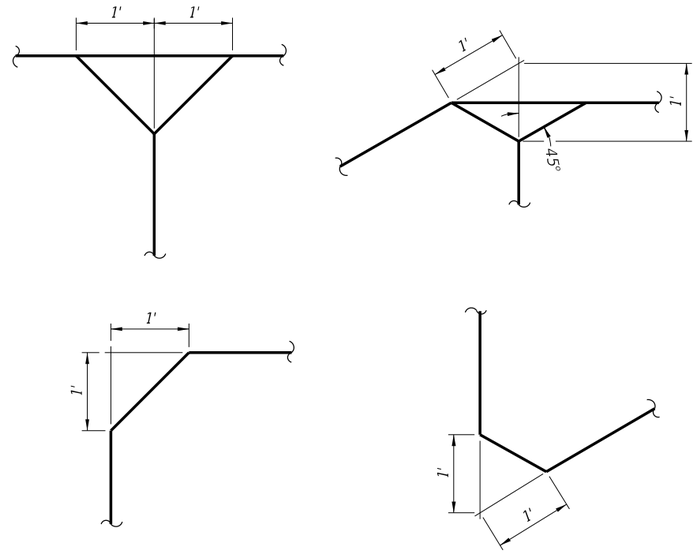
LOOP TYPES



PLAN



VERTICAL SECTION



LOOP CORNER AND LEAD-IN DETAILS

LOOP TYPES, EXPANSION JOINTS, AND DETAILS

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/18			FY 2026-27 STANDARD PLANS	VEHICLE LOOP INSTALLATION DETAILS	660-001	2 of 2

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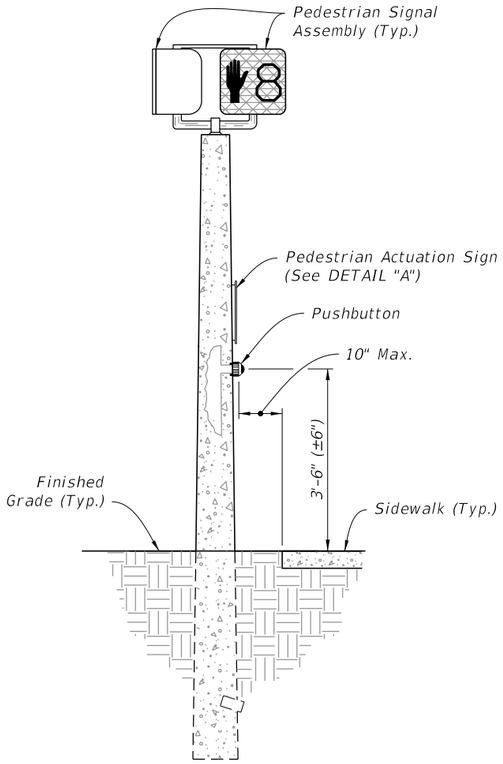
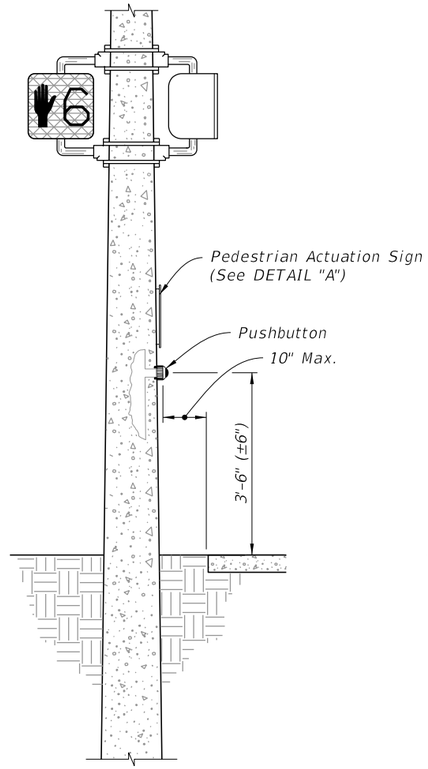
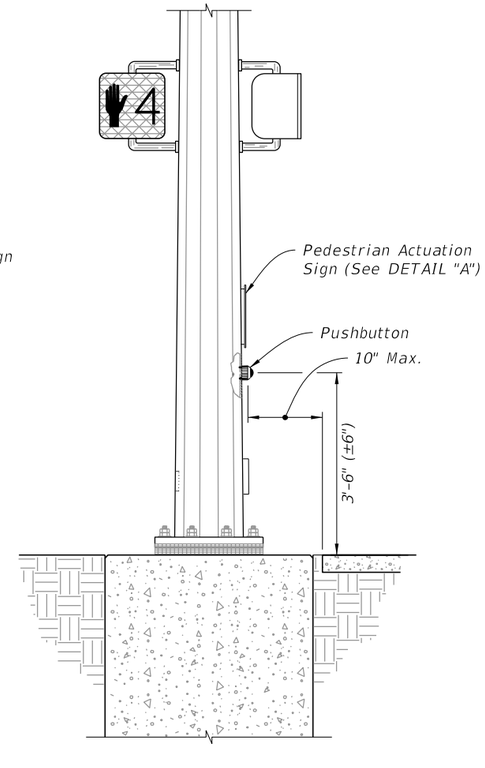
9/29/2025



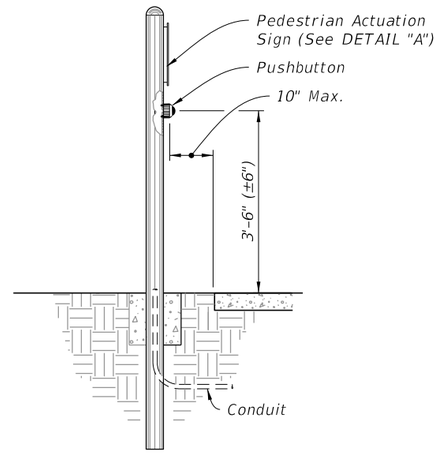
PRESTRESSED CONCRETE PEDESTAL POLE



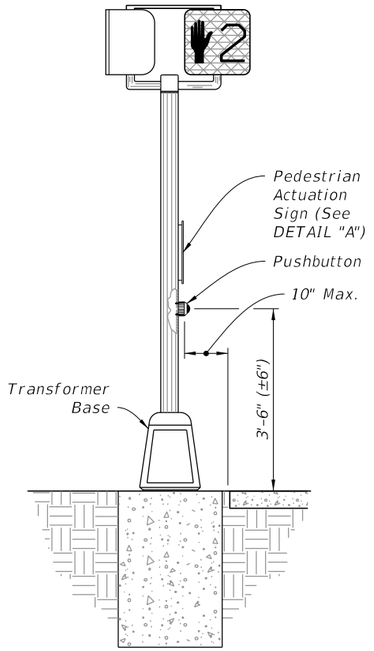
PRESTRESSED CONCRETE STRAIN POLE



STEEL STRAIN POLE

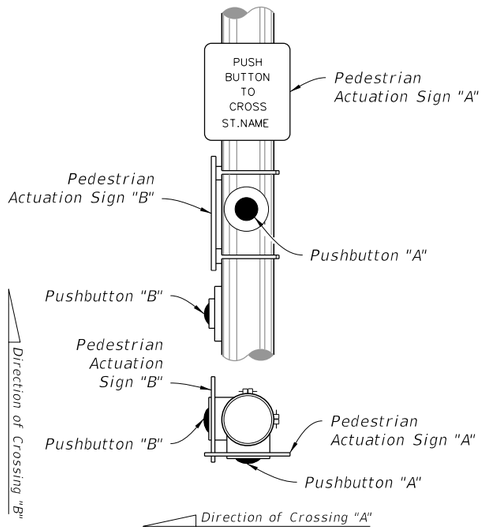


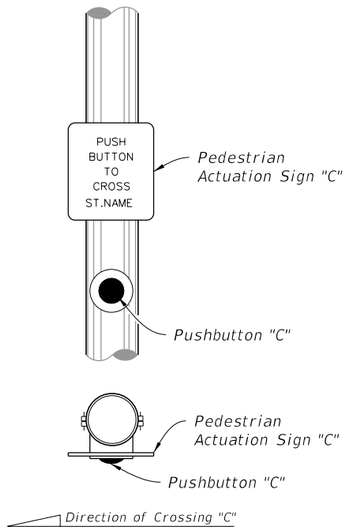
ALUMINUM POLE



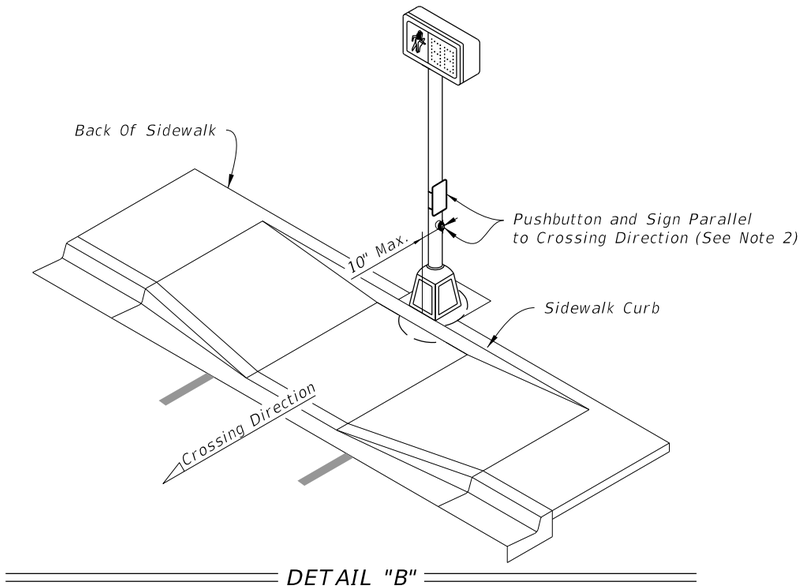
PEDESTAL

PUSHBUTTON PEDESTRIAN DETECTORS





DETAIL "A"



DETAIL "B"

NOTES:

1. Mount Signs above the detectors. See Index 700-102 for sign details.
2. Install Pushbuttons and Pedestrian Actuation Signs with faces parallel to the crossing direction, see DETAIL "B".
3. Mount pushbuttons and Signs in accordance with Specification 665.
4. Pushbutton mounting height shown is taken at the center of the actuation switch.
5. for pedestrian control signal see index 653-001.
6. For Aluminum Pole and Pedestal supports see Index 646-001.

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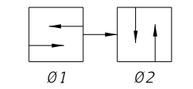
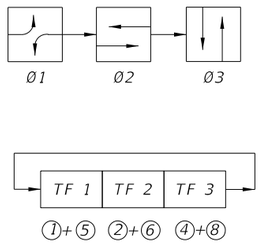
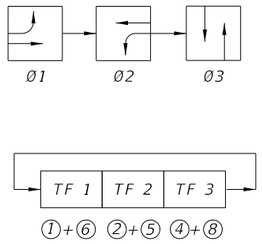
11/01/20			FDOT	FY 2026-27 STANDARD PLANS	PEDESTRIAN DETECTOR ASSEMBLY INSTALLATION DETAILS	INDEX 665-001 / SHEET 1 of 1



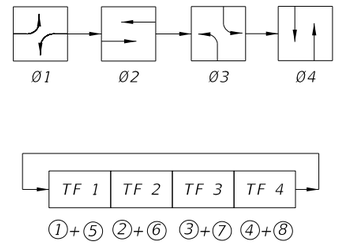
SOP 1



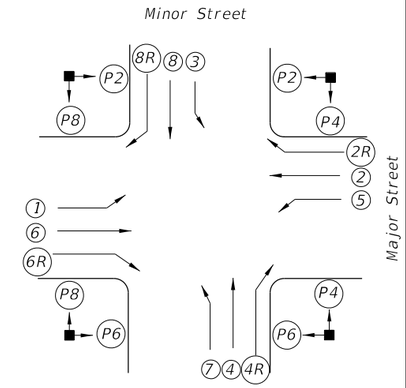
SOP 2



SOP 3



SOP 4

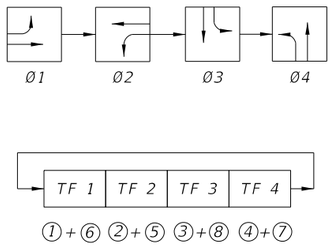


SIGNALIZED INTERSECTION

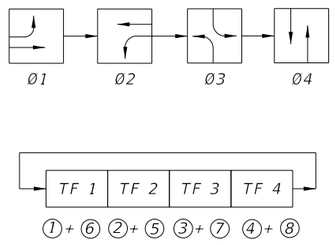
Vehicle movements & signal head number assignments are not directionally oriented but shall maintain their relative orientation about the intersection (I.E., movements 7 and 4 are always to the right of movements 1 and 6 etc.).

LEGEND

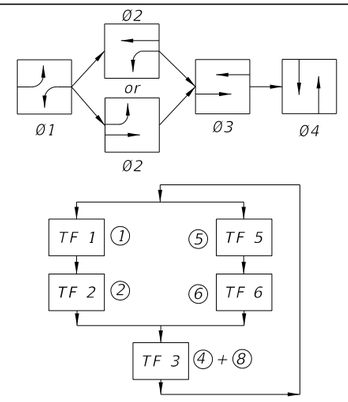
(X)	Vehicle Movement Number
(PX)	Pedestrian Movement Number
TF X	Timing Function Number
ØX	Phase Number
G	Green Arrow (Left or Right)
R	Red Arrow
Y	Yellow Arrow



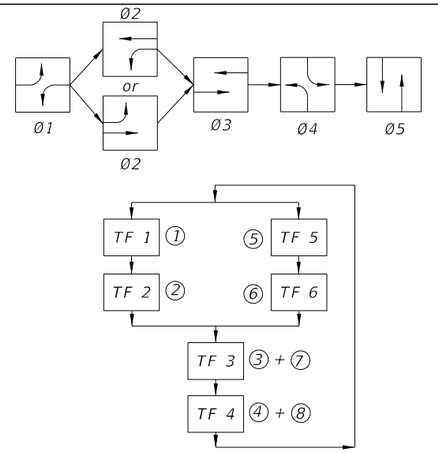
SOP 5



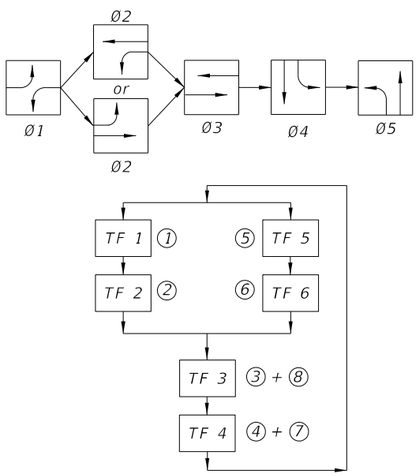
SOP 6



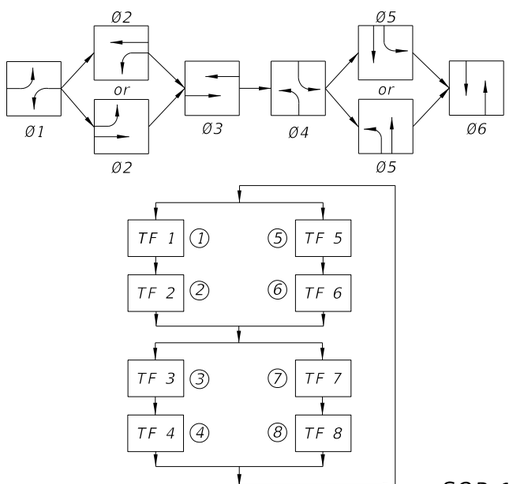
SOP 7



SOP 8



SOP 9



SOP 10

SIGNAL CLEARANCE TABLE

(Blank Indicates No Clearance Required)

From \ To		R	R	G		G	Y	WALK	DONT WALK
SIGNAL INDICATIONS	R			Y		G	Y		
	R			Y		G	Y		
	G					G			
	G								
	Y								
	WALK								
	DONT WALK							Flash DONT WALK	

SIGNAL INDICATIONS

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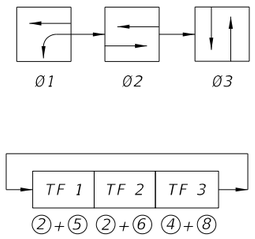
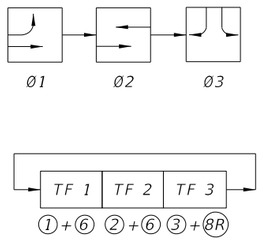
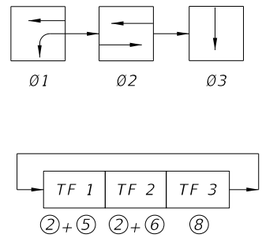
LAST REVISION	REVISION	DESCRIPTION:			
11/01/17			FY 2026-27 STANDARD PLANS	STANDARD SIGNAL OPERATING PLANS	INDEX 671-001 / SHEET 1 of 2



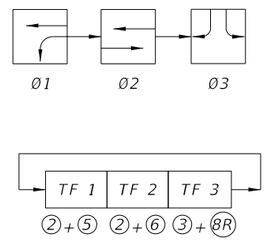
SOP 11



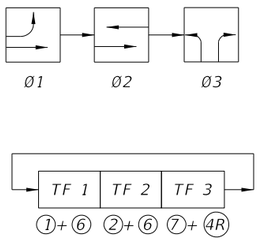
SOP 12



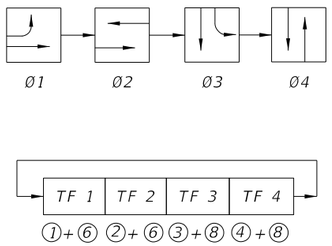
SOP 13
(ONE- WAY STREET INTERSECTION)



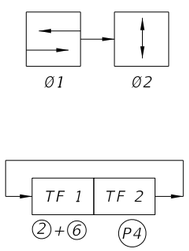
SOP 14
(DIAMOND INTERCHANGE OPERATION)



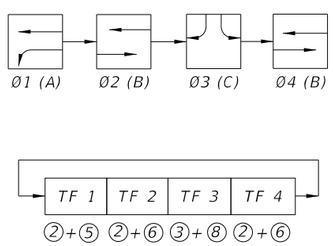
SOP 15
(DIAMOND INTERCHANGE OPERATION)



SOP 16

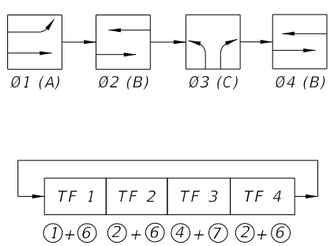


SOP 17
(MIDBLOCK)



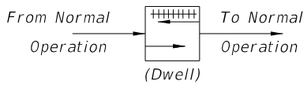
NOTE:
Only Ø2 Or Ø4 Used, Not Both To Obtain ABC, Or ACB Operation.

SOP 18
(DIAMOND INTERCHANGE OPERATIONS)

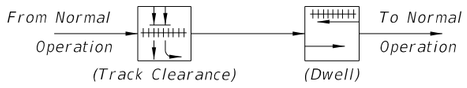


NOTE:
Only Ø2 Or Ø4 Used, Not Both To Obtain ABC, Or ACB Operation.

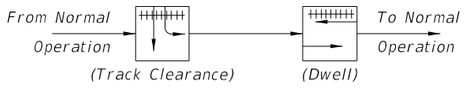
SOP 19
(DIAMOND INTERCHANGE OPERATIONS)



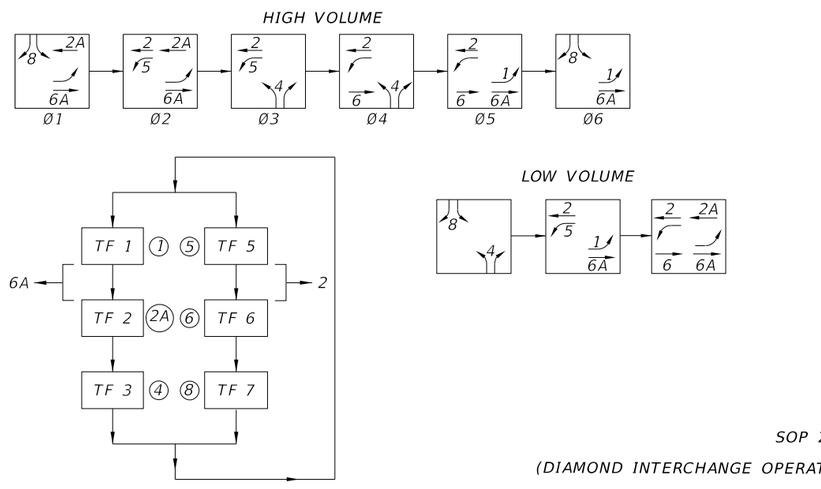
POP 1



POP 2



POP 3



SOP 20
(DIAMOND INTERCHANGE OPERATIONS)

LAST REVISION	REVISION	DESCRIPTION:				
11/01/17			FY 2026-27 STANDARD PLANS	STANDARD SIGNAL OPERATING PLANS	INDEX 671-001	SHEET 2 of 2

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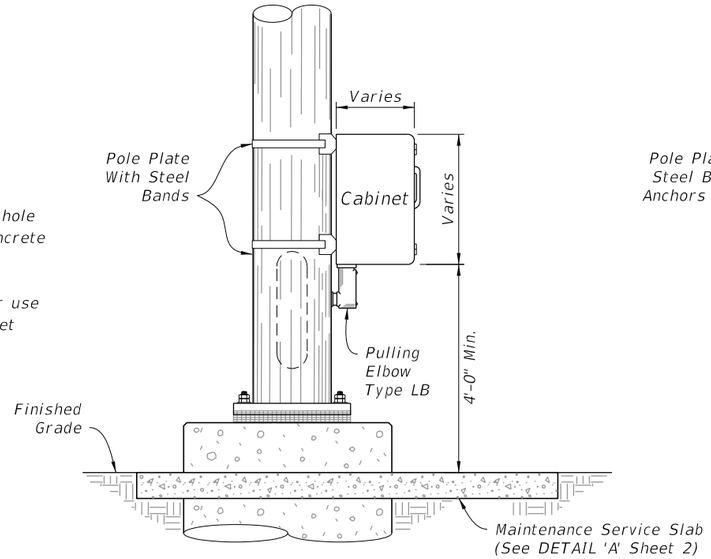
NOTES:

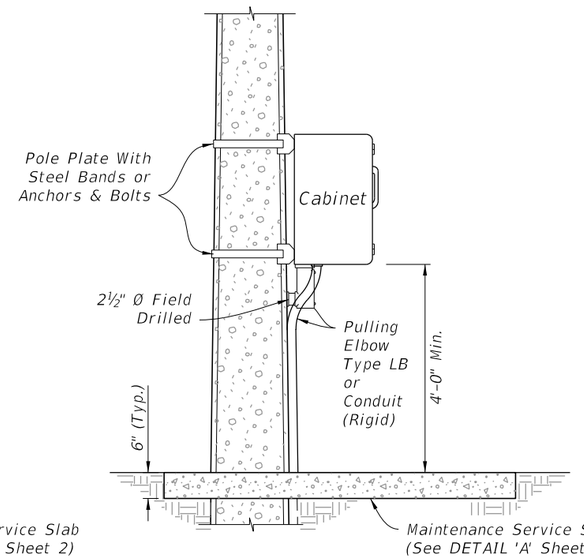
1. If cabinet mounting requires relocation of hole in concrete pole, fill existing hole with concrete or cover with a noncorrosive cover plate.

2. Liquidtight flexible conduit is approved for use from the electrical disconnect to the cabinet when both are installed on the same pole.



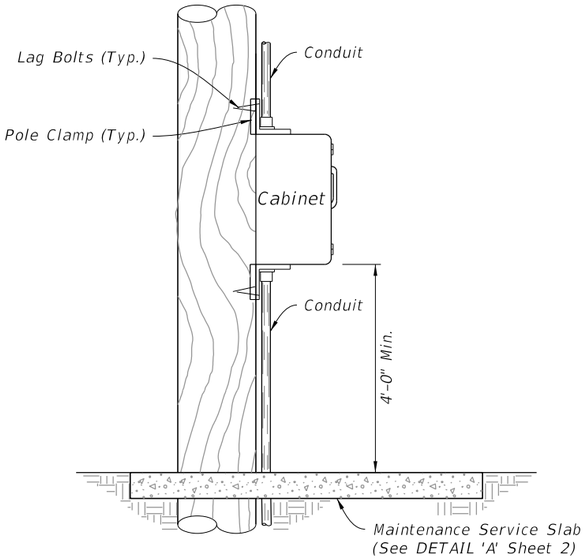
SIDE ELEVATION

METAL POLE



SIDE ELEVATION

CONCRETE POLE



SIDE ELEVATION

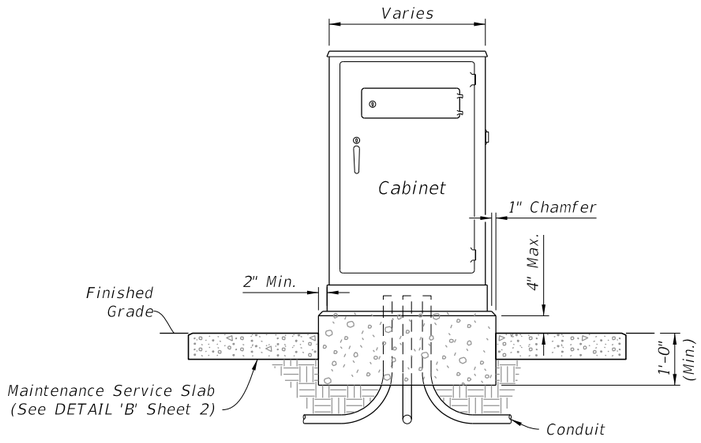
WOOD POLE

POLE MOUNTED CONTROLLER CABINET

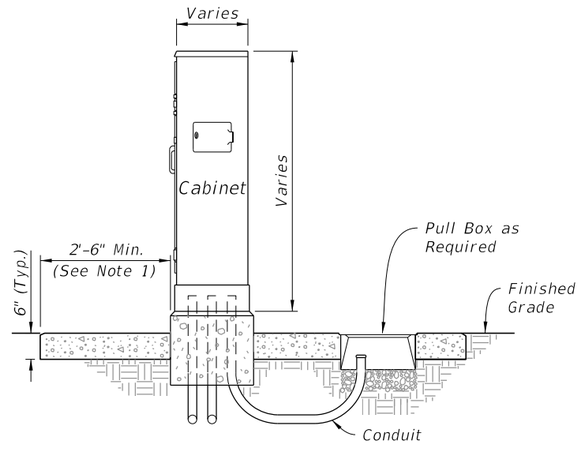
NOTES:

1. Maintenance Service Slab: Use Class NS concrete and slope ¼" to 1" for drainage. Not required in sidewalk, pavement areas, or where R/W is restricted.

2. The number, size and orientation of conduit sweep will vary according to site condition or locations. Provide two spare 2" PVC conduits in all bases. Place the exits of the spare conduits in the direction of the center rear of the cabinet base and into a pull box. If obstructions prevent the spare conduit from exiting to the rear, or the rear of the cabinet is located on the R/W line, locate as directed by the Engineer. Cap all spare conduit sweeps with a weatherproof fitting.



FRONT ELEVATION



SIDE ELEVATION

NEW CONTROLLER CABINET

GROUND MOUNTED CONTROLLER CABINET

9:52:47 AM

9/29/2025

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/23			FY 2026-27 STANDARD PLANS	CABINET INSTALLATION DETAILS	676-010	1 of 4

NOTES:

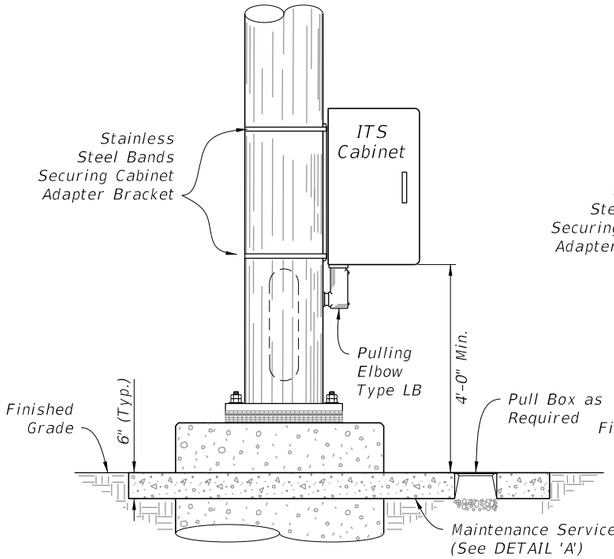
1. Maintenance Service Slab: Use Class NS concrete and slope ¼" to 1" for drainage. Not required in sidewalk, pavement areas, or where R/W is restricted.

2. If cabinet mounting requires relocation of hole in concrete pole, fill existing hole with concrete or cover with a noncorrosive cover plate.

3. Liquidtight flexible conduit is approved for use from the electrical disconnect to the cabinet when both are installed on the same pole.

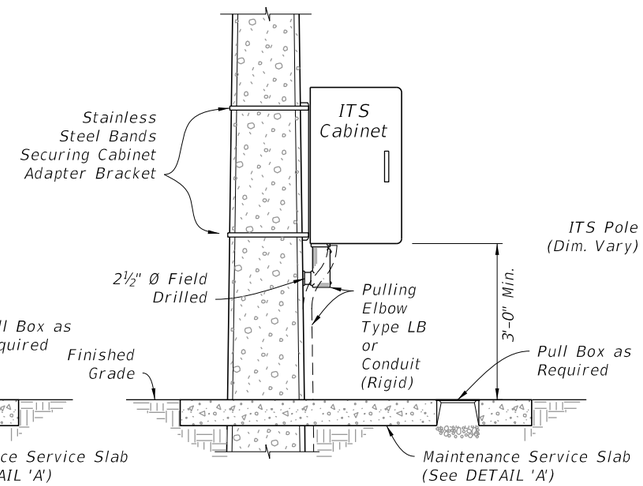
4. Where a pull box is to be placed within the maintenance service slab, the slab width must be extended to provide for the required pull box concrete apron as detailed in Index 635-001.

5. Coordinate placement of maintenance service slab with proposed final grade. Grade and compact side slopes around the maintenance service slab to provide a stable and level working area and tie into the proposed embankment.



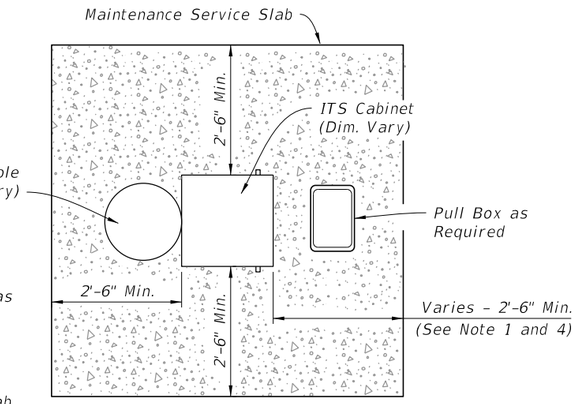
SIDE ELEVATION

METAL POLE



SIDE ELEVATION

CONCRETE POLE



PLAN VIEW

DETAIL 'A'

POLE MOUNTED INTELLIGENT TRANSPORTATION SYSTEMS (ITS) CABINET

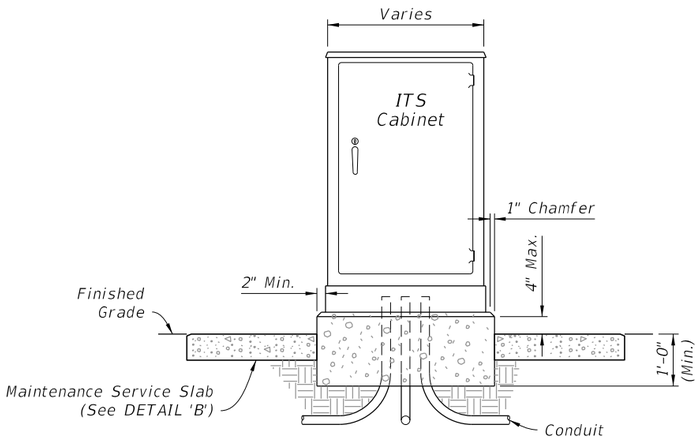
NOTES:

1. Maintenance Service Slab: Use Class NS concrete and slope ¼" to 1" for drainage. Not required in sidewalk, pavement areas, or where R/W is restricted.

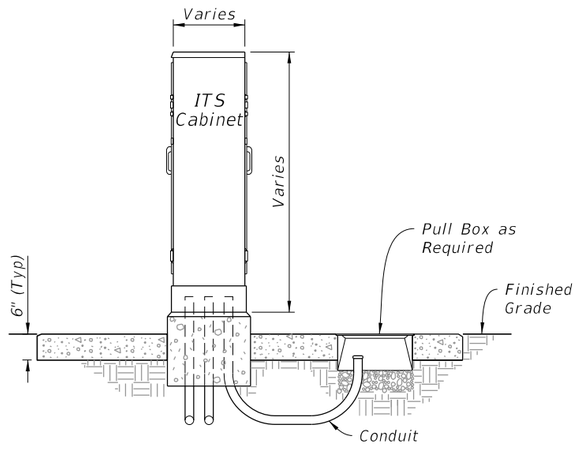
2. The number, size and orientation of conduit sweep will vary according to site condition or locations. Provide two spare 2" PVC conduits in all bases. Place the exits of the spare conduits in the direction of the center rear of the cabinet base and into a pull box. If obstructions prevent the spare conduit from exiting to the rear, or the rear of the cabinet is located on the R/W line, locate as directed by the Engineer. Cap all spare conduit sweeps with a weatherproof fitting.

3. When a pull box is to be placed within the maintenance service slab, the slab width must be extended to provide for the required pull box apron as detailed in Index 635-001.

4. Coordinate placement of maintenance service slab with proposed final grade. Grade and compact side slopes around the maintenance service slab to provide a stable and level working area and tie into the proposed embankment.

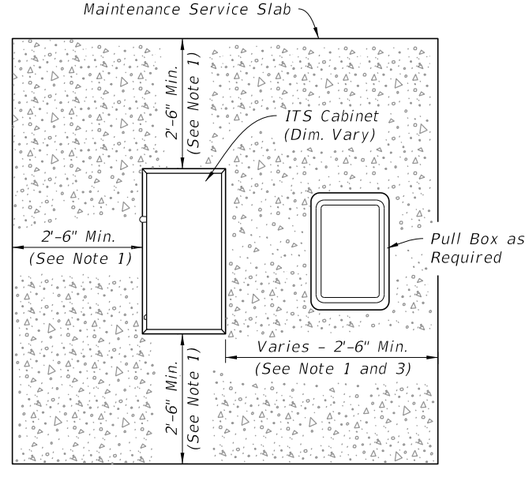


FRONT ELEVATION



SIDE ELEVATION

NEW ITS CABINET



PLAN VIEW

DETAIL 'B'

GROUND MOUNTED INTELLIGENT TRANSPORTATION SYSTEMS (ITS) CABINET

9:52:55 AM

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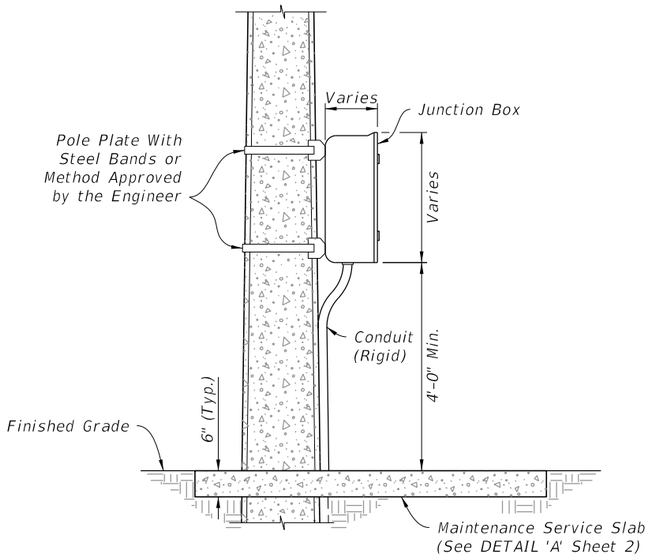
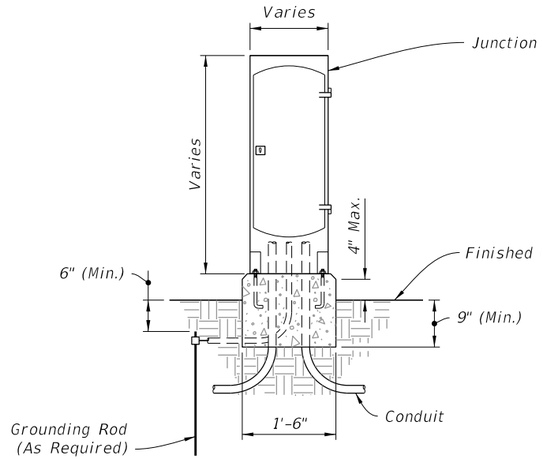
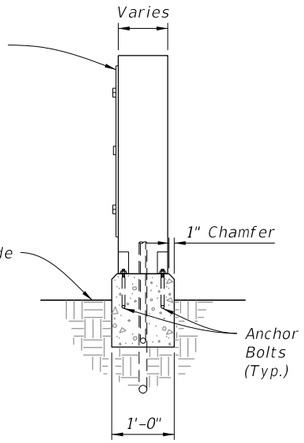


SIDE ELEVATION

POLE MOUNTED



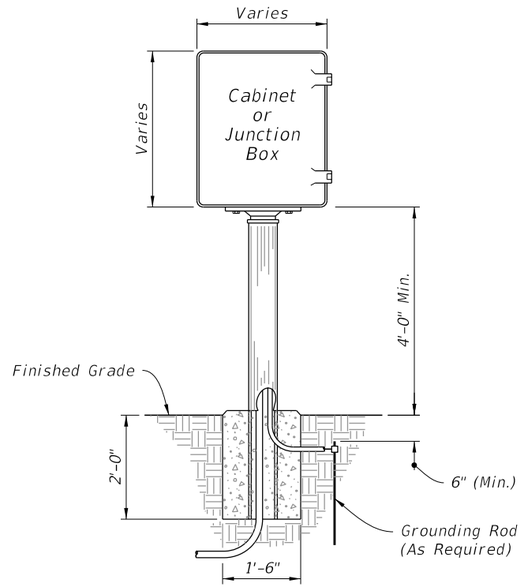
FRONT ELEVATION



SIDE ELEVATION

GROUND MOUNTED

INTERCONNECT JUNCTION BOX



FRONT ELEVATION

PEDESTAL MOUNTED CABINET

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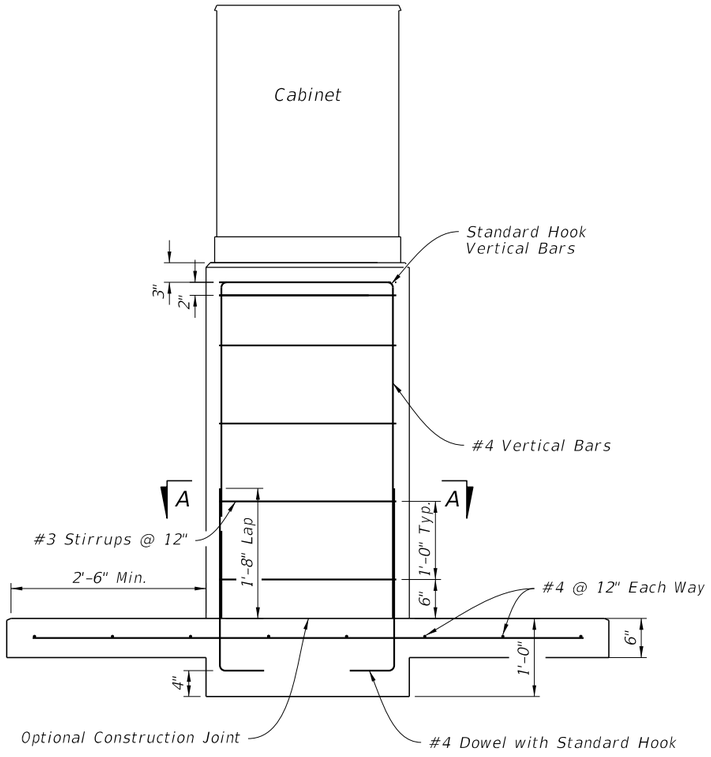
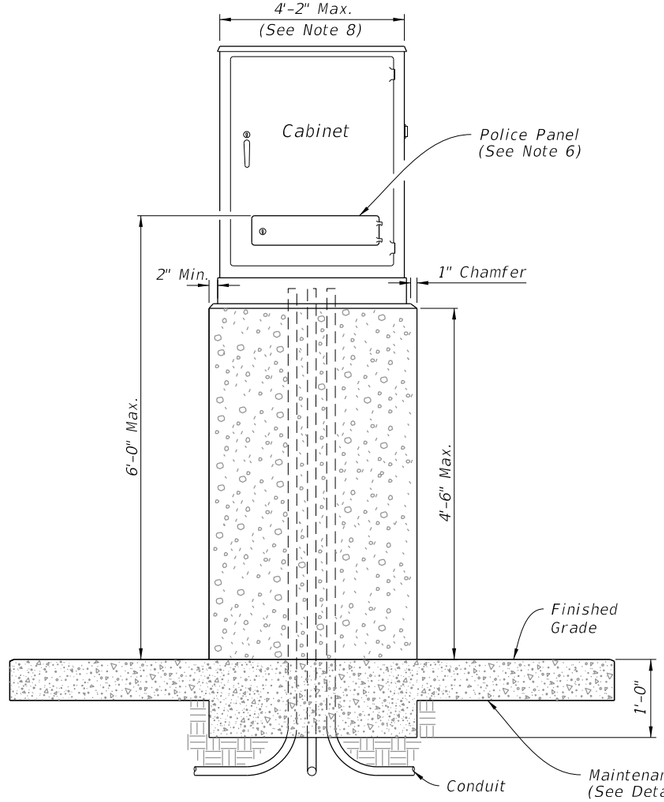
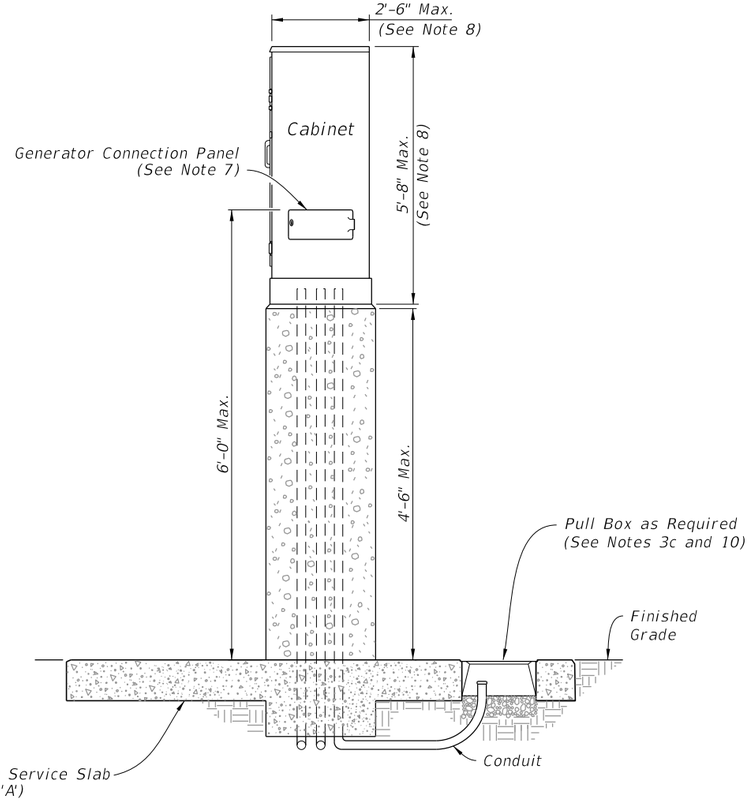


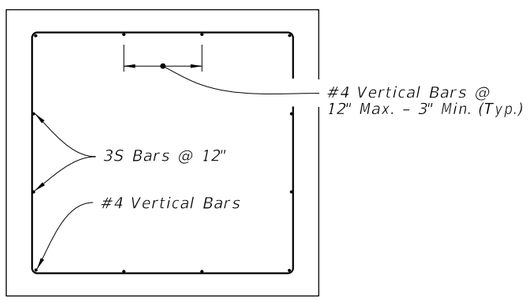
FRONT ELEVATION



FRONT ELEVATION



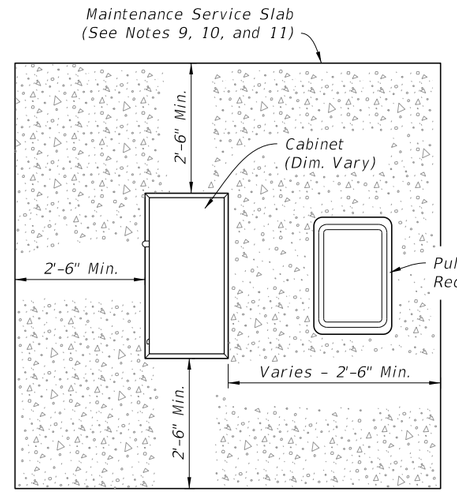
SIDE ELEVATION



SECTION A-A

NOTES:

1. Install cabinet riser as called for in the Plans. Concrete riser shown, for other options, see Specification 676.
2. Concrete:
   a. Concrete will be in accordance with Specification 346.
   b. Concrete will be Class IV.
3. Reinforcing:
   a. Reinforcing will be in accordance with Specification 415.
   b. All reinforcing steel will have a 2" minimum cover unless noted otherwise.
   c. Adjust reinforcing to facilitate Pull Box. Add equal number of bars to to either side for each bar interrupted by Pull Box.
4. Generator connection cables will be extended by the same length as the riser's height.
5. Controller cabinet depicted. ITS cabinet similar.
6. Locate Police Panel at bottom of cabinet assembly.
7. Locate generator connection panel at bottom of cabinet assembly.
8. Riser dimensions shown are based on maximum cabinet dimensions per the APL.
9. Slope maintenance slab ¼" to 1" for drainage. Not required in sidewalk, pavement areas, or where R/W is restricted.
10. When a pull box is to be placed within the maintenance service slab, the slab width must be extended to provide for the required pull box apron as detailed in Index 635-001.
11. Coordinate placement of maintenance service slab with proposed final grade. Grade and compact side slopes around the maintenance service slab to provide a stable and level working area and tie into the proposed embankment.
12. The number, size and orientation of conduit sweep will vary according to site condition or location. Provide two spare 2" PVC conduits in all bases. Place the exits of the two spare conduits in the direction of the center rear of the cabinet base and into a pull box. If obstructions prevent the spare conduit from existing to the rear, or the rear of the cabinet is located on the R/W line, locate as directed by the Engineer. Cap all spare conduit sweeps with a weatherproof fitting.



PLAN VIEW

DETAIL 'A'

GROUND MOUNTED CONTROLLER CABINET RISER

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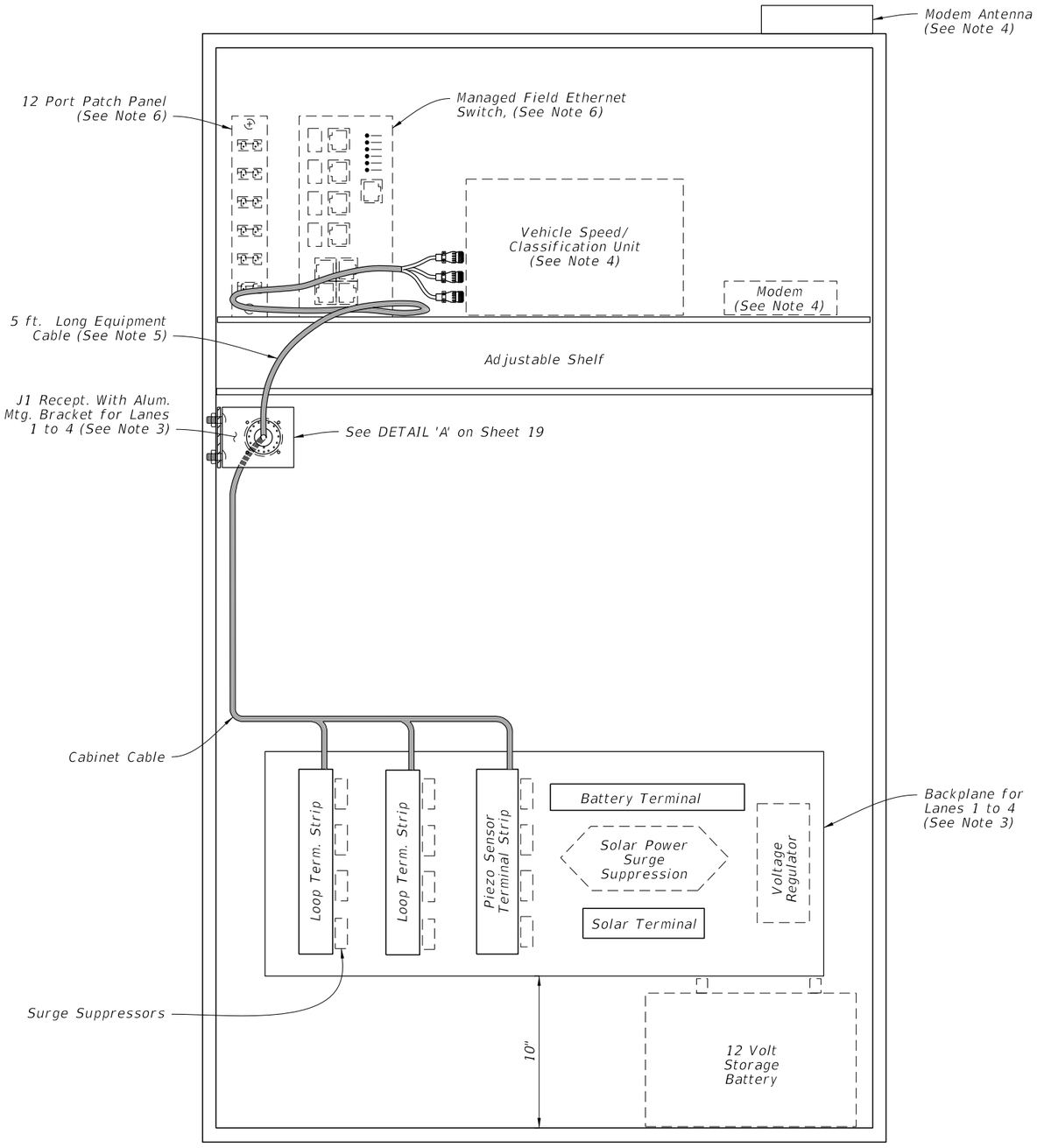

TABLE OF CONTENTS:

NOTES:

1. Traffic monitoring site cabinet includes:
   A. One adjustable shelf; (equipped as shown)
   B. One backplane assembly; (equipped as shown)
   C. One J1 receptacle with mounting bracket;
   D. One P1 equipment cable 5 ft. long (See Sheet 4);
   E. All associated wiring and wiring harnesses.

2. Basic backplane assembly consists of:
   A. Two inductive loop terminal strips;
   B. One piezo sensor terminal strip;
   C. One battery terminal strip;
   D. One solar panel terminal strip.

3. The contractor is responsible for contacting the TMS Manager at the Transportation Data and Analytics Office for lane number information and verification.

4. Provide and install a Speed/Classification Unit, Modem, and Antenna.

5. Cable ends must be fabricated to fit the vehicle speed/classification unit. See Sheet 4 for Pinout Charts, receptacle and plug details.

6. Provide and install a 12-fiber single mode cable, a 12-port patch panel, and a managed field ethernet switch.

CABINET LAYOUT DETAILS
(Four Lanes or Less)

9:53:17 AM

9/29/2025

CONTINUOUS COUNT STATION TRAFFIC MONITORING SITE - TTMS/CCS

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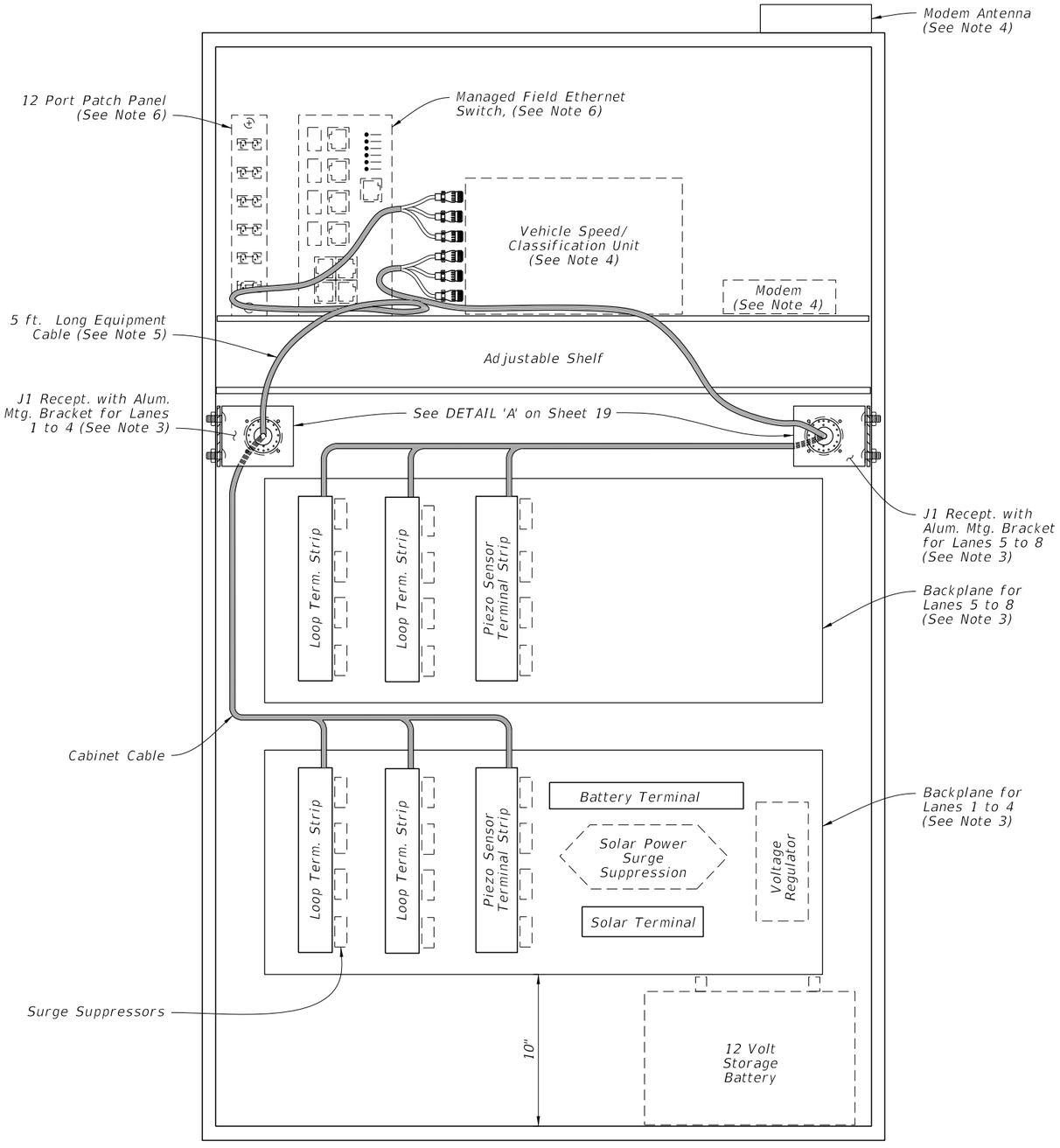
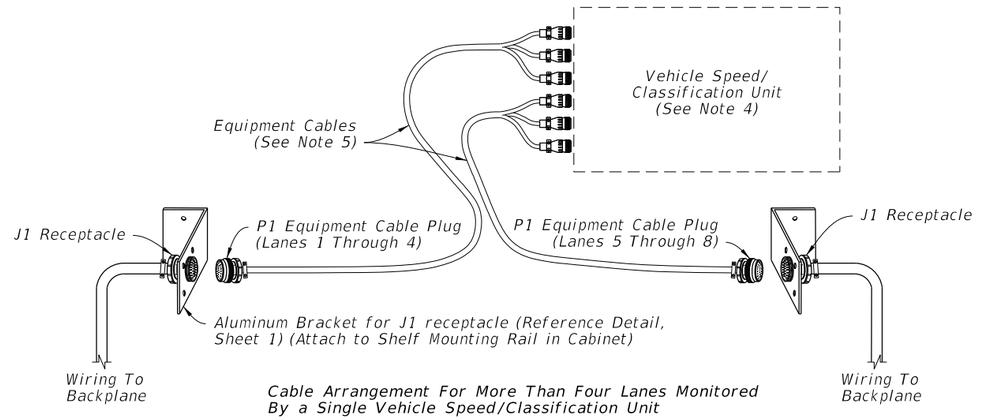
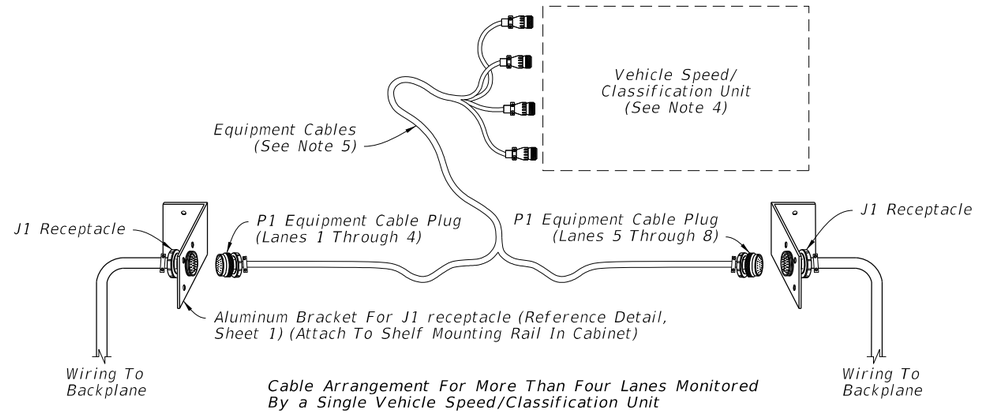




Cable Arrangement For More Than Four Lanes Monitored By a Single Vehicle Speed/Classification Unit

OPTION A
(Shown)



Cable Arrangement For More Than Four Lanes Monitored By a Single Vehicle Speed/Classification Unit

OPTION B

EQUIPMENT CABLE ASSEMBLY

NOTES:

1. Traffic monitoring site cabinet includes:
   - A. One adjustable shelf; (equipped as shown)
   - B. Two backplane assembly; (equipped as shown)
   - C. Two J1 receptacle with mounting bracket;
   - D. One P1 equipment cable 5 ft. long (See Sheet 4);
   - E. All associated wiring and wiring harnesses.
2. Basic backplane assembly consists of:
   - A. Two inductive loop terminal strips;
   - B. One piezo sensor terminal strip;
   - C. One battery terminal strip;
   - D. One solar panel terminal strip.
3. The contractor is responsible for contacting the TMS Manager in the Transportation Data and Analytics Office for lane number information and verification.
4. Provide and install Speed/Classification Unit, Modem, and Antenna.
5. Cable ends must be fabricated to fit the vehicle speed/classification unit. See Sheet 4 for Pinout Charts, receptacle and plug details.
6. Provide and install a 12-fiber single mode cable, a 12-port patch panel, and a managed field ethernet switch.

CABINET LAYOUT DETAILS
(Five to Eight Lanes)

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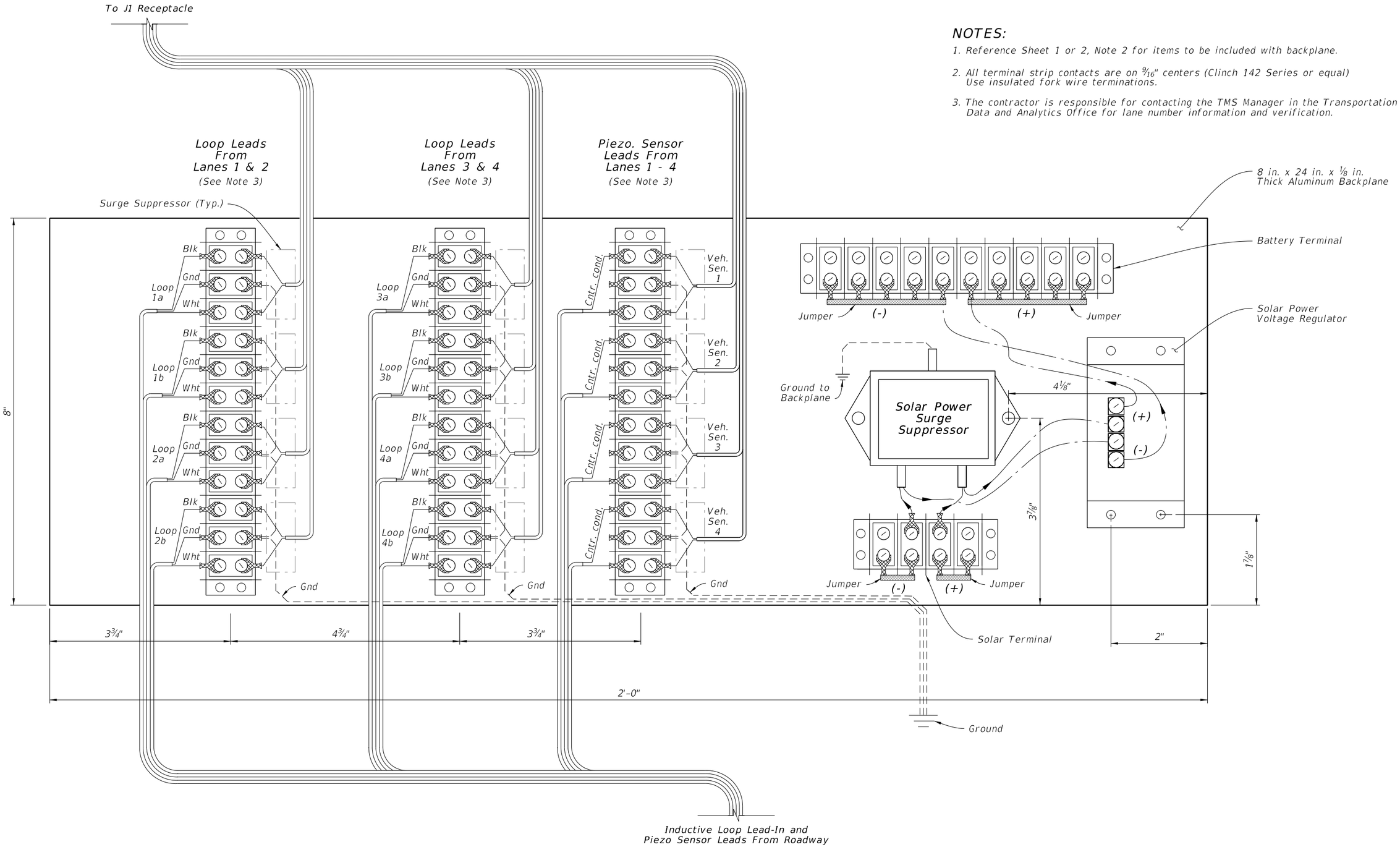
NOTES:

1. Reference Sheet 1 or 2, Note 2 for items to be included with backplane.
2. All terminal strip contacts are on $\frac{9}{16}$" centers (Clinch 142 Series or equal) Use insulated fork wire terminations.
3. The contractor is responsible for contacting the TMS Manager in the Transportation Data and Analytics Office for lane number information and verification.



CABINET BACKPLANE DETAIL

CONTINUOUS COUNT STATION TRAFFIC MONITORING SITE - TTMS/CCS

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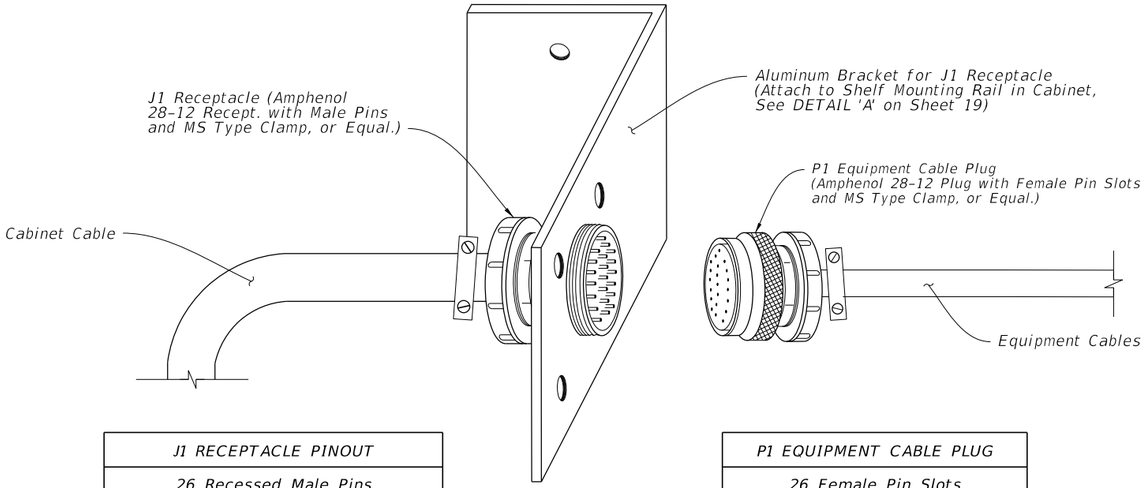
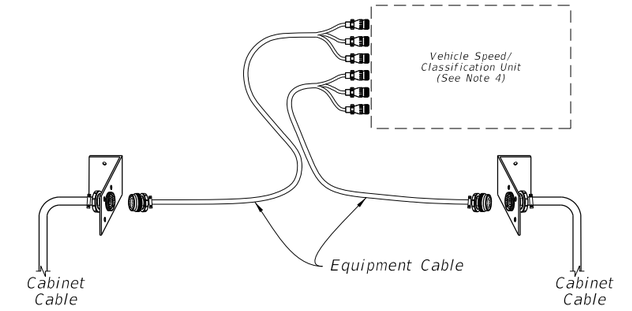


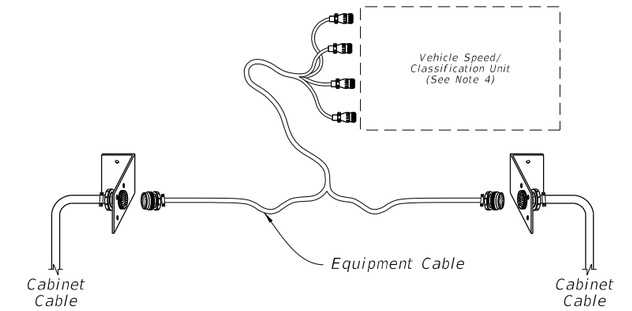
J1 RECEPTACLE PINOUT	
26 Recessed Male Pins	
A	Loop 1a (5a) white
B	Loop 1a (5a) black
C	Loop 1b (5b) red
D	Loop 1b (5b) black
E	Loop 2a (6a) green
F	Loop 2a (6a) blue
G	Loop 2b (6b) orange
H	Loop 2b (6b) tan
J	Loop 3a (7a) white
K	Loop 3a (7a) green
L	Loop 3b (7b) red
M	Loop 3b (7b) black
N	Gnd
P	Loop 4a (8a) w/white
R	Loop 4a (8a) w/black
S	Loop 4b (8b) w/red
T	Loop 4b (8b) w/green
U	Piezo 1 (5) (+) w/blue
V	Piezo 1 (5) sh w/orange
W	Piezo 2 (6) (+) w/green
X	Piezo 2 (6) sh w/red
Y	Piezo 3 (7) (+) w/black
Z	Piezo 3 (7) sh w/red/blk
a	Piezo 4 (8) (+) red/ green
b	Piezo 4 (8) sh red/white
d	Gnd green

P1 EQUIPMENT CABLE PLUG		
26 Female Pin Slots		
A	Loop 1a (5a)	Connect To Electronics Unit
B	Loop 1a (5a)	
C	Loop 1b (5b)	
D	Loop 1b (5b)	
E	Loop 2a (6a)	
F	Loop 2a (6a)	
G	Loop 2b (6b)	
H	Loop 2b (6b)	
N	Gnd	
J	Loop 3a (7a)	Connect To Electronics Unit
K	Loop 3b (7b)	
L	Loop 3b (7b)	
M	Loop 3b (7b)	
P	Loop 4a (8a)	
R	Loop 4a (8a)	
S	Loop 4b (8b)	
T	Loop 4b (8b)	
d	Gnd	
U	Piezo 1 (5) (+)	Connect To Electronics Unit
V	Piezo 1 sh	
W	Piezo 2 (6) (+)	
X	Piezo 2 sh	
Y	Piezo 3 (7) (+)	
Z	Piezo 3 sh	
a	Piezo 4 (8) (+)	
b	Piezo 4 sh	

PINOUT, RECEPTACLE, AND PLUG DETAILS



OPTION A



OPTION B

NOTES:

1. The contractor is responsible for contacting the TMS Manager in the Transportation Data and Analytics Office for lane number information and verification.
2. The equipment cable can accommodate up to four lanes of inductive loop and piezo sensor inputs. (See Sheet 1 for cabinet layout)
3. For more than four lanes and up to eight lanes of inputs, the following options are available:
   A. Second Vehicle Speed/Classification Unit and separate equipment cable connecting to a second J1 receptacle; or
   B. Single Vehicle Speed/Classification Unit capable of up to eight lanes of inputs and a single equipment cable with split ends to fit two J1 receptacles. (See Sheet 2 detail)
4. Numbers in parenthesis in the pinout chart identify lane numbers when a second backplane for lanes 5 through 8 is required.
5. Cable Ends must be fabricated to fit the vehicle Speed/Classification Unit.

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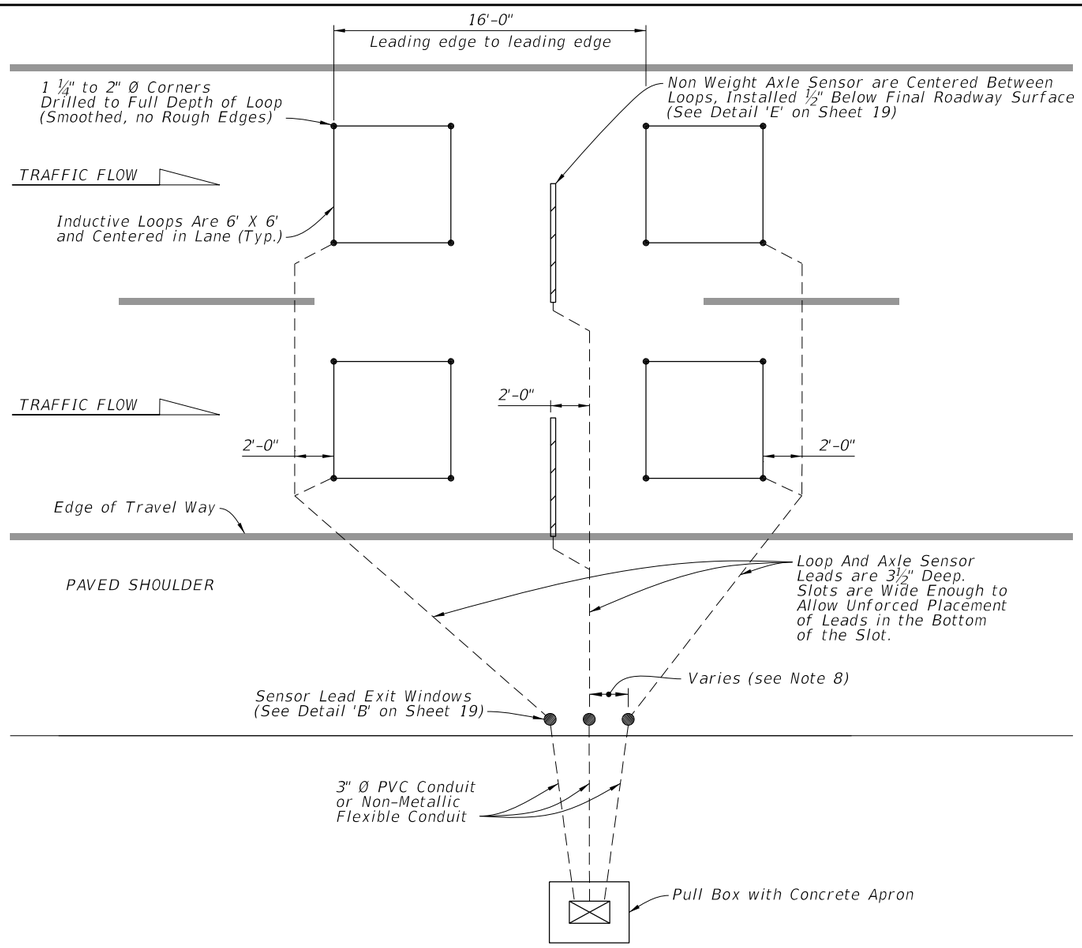
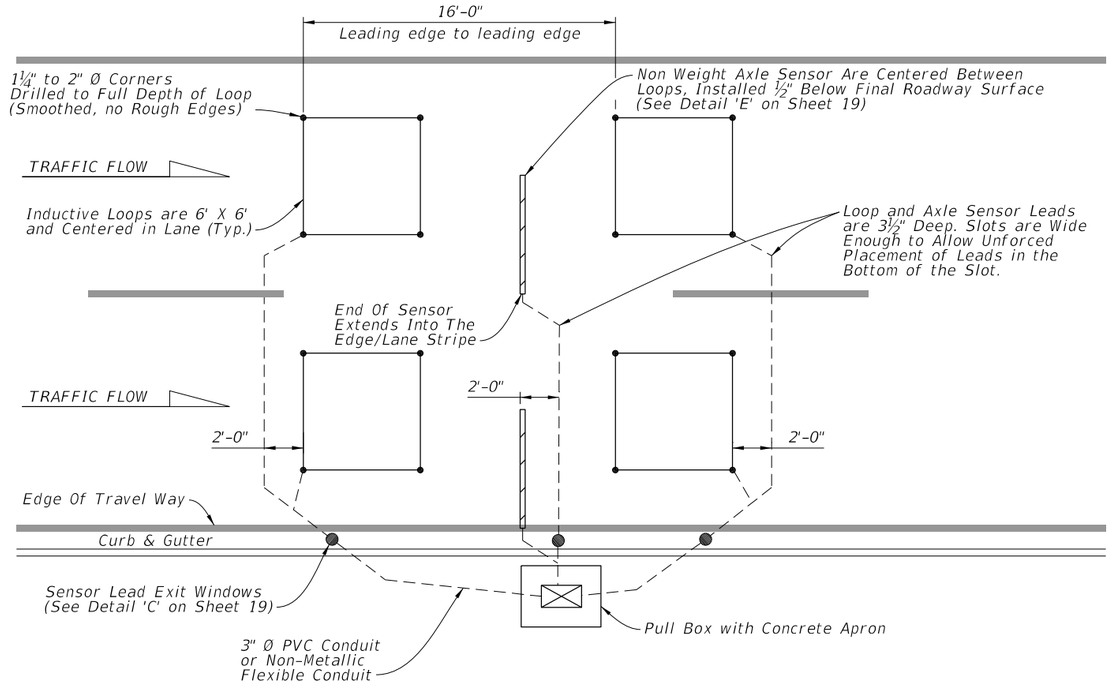


ROADWAYS WITH PAVED SHOULDERS



CURB & GUTTER ROADWAYS

NOTES:

1. Install axle sensors and loops associated with axle sensors after placement of the friction course.
2. Cut a 3½" deep slot for the Inductive loops. Loop slots will be cut wide enough to allow unforced placement of the wire into the bottom of the slot. Place four turns of #14 AWG, place the IMSA 51-7 copper wire in the slot. Place short pieces of backer rod (2" to 3" in length) every 18" to 24" to hold the loop wire in the bottom of the slot and start wire twist at the beginning of the home run slot.
3. Twist loop leads at the rate of 8 to 16 twist per foot. Extend the twisted pair loop wire directly to the cabinet. No splicing of the loop leads will be permitted. Install a home run slot with a minimum width of ⅝".
4. Marking will consist of two rounds of contrasting colored tape, one color for the lane number and the second color for the lead loop location in the lane. The first band closest to the cabinet will represent the lane number, one round of tape will be for lane 1 and two rounds will be lane 2, etc. The lead loop in lane one would have one round of tape and a second round of a contrasting colored tape for the lead loop in the lane. The trailing loop would not have a second contrasting colored band of tape.
5. See Index 635-001 for pull box and concrete apron details.
6. Use a chalk line or string and paint to layout the position of the sensor and lead-in cable slots. Ensure saw cuts do not deviate more than ½" from the chalk line. Use a single blade or ganged blade saw wide enough to cut the axle sensor slot at full width in a single pass. Cutting two slots and chipping out roadway material between them is not allowed.
7. All sensor slots and any cuts in the roadway will be thoroughly blown out to ensure there is no dust or debris prior to installation of sensors or leads.
8. Install Exit Windows at least 2' apart.

LANE LAYOUT FOR TTMS/CCS INDUCTIVE LOOP AND AXLE SENSORS
(Typical for up to 4 Lanes of Sensor Leads Pulled to one Side of the Roadway)

CONTINUOUS COUNT STATION TRAFFIC MONITORING SITE - TTMS/CCS

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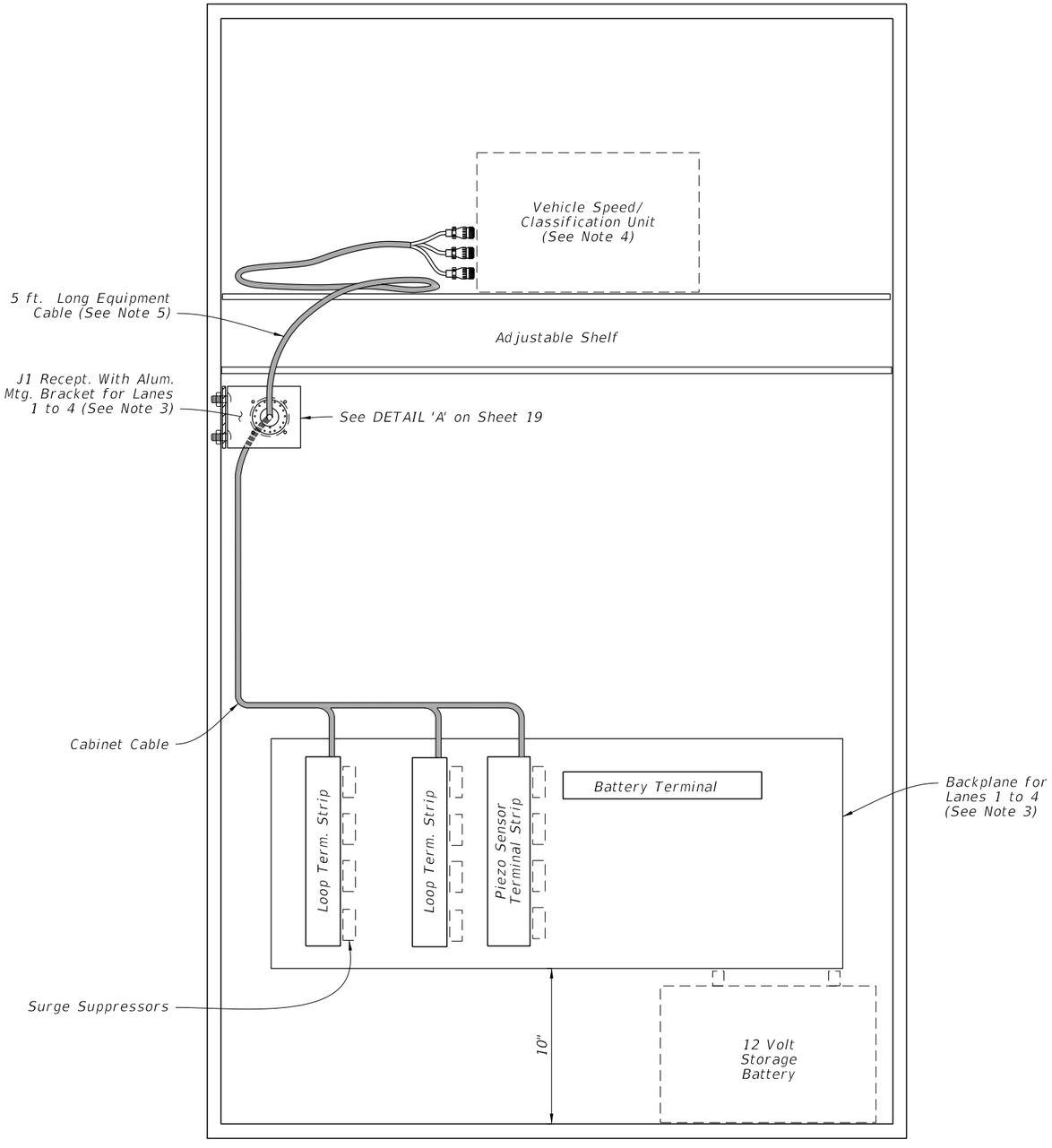

NOTES:

1. Traffic monitoring site cabinet includes:
   A. One adjustable shelf; (equipped as shown)
   B. One backplane assembly; (equipped as shown)
   C. One J1 receptacle with mounting bracket;
   D. One P1 equipment cable 5 ft. long (See Sheet 4);
   E. All associated wiring and wiring harnesses.

2. Basic backplane assembly consists of:
   A. Two inductive loop terminal strips;
   B. One piezo sensor terminal strip;
   C. One battery terminal strip.

3. The contractor is responsible for contacting the District Data Collection Coordinator for lane numbering.

4. Proved and install a Speed/Classification Unit.

5. Cable ends must be fabricated to fit the vehicle speed/ classification unit. See Sheet 4 for Pinout Charts, receptacle and plug details.

CABINET LAYOUT DETAILS
(Four Lanes or Less)

9:53:56 AM

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SHORT TERM TRAFFIC MONITORING SITE - PTMS

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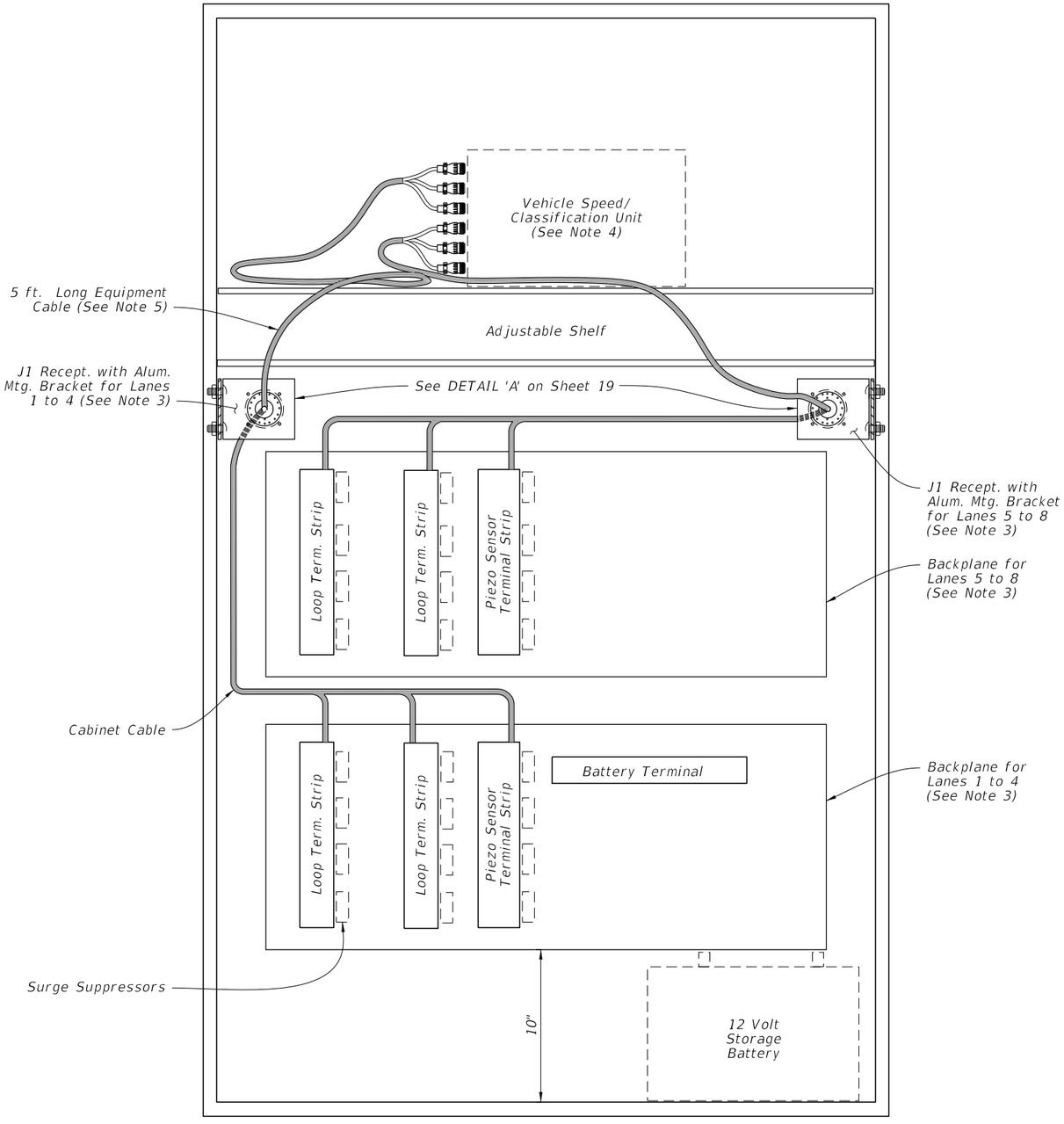
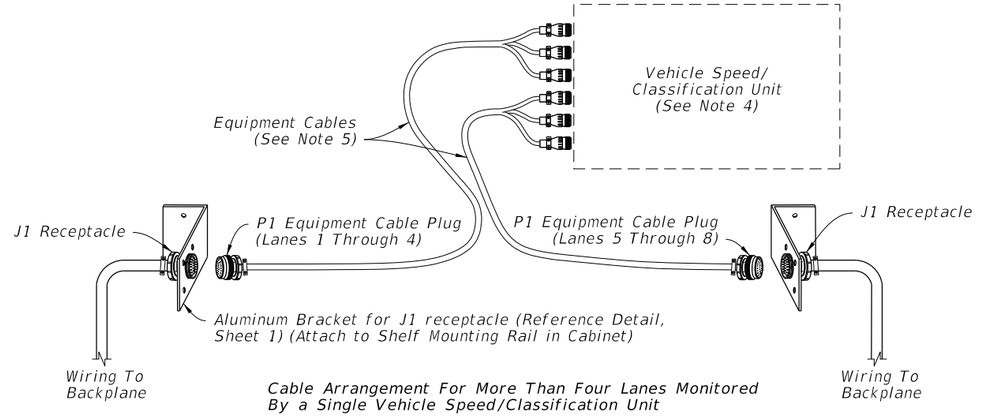
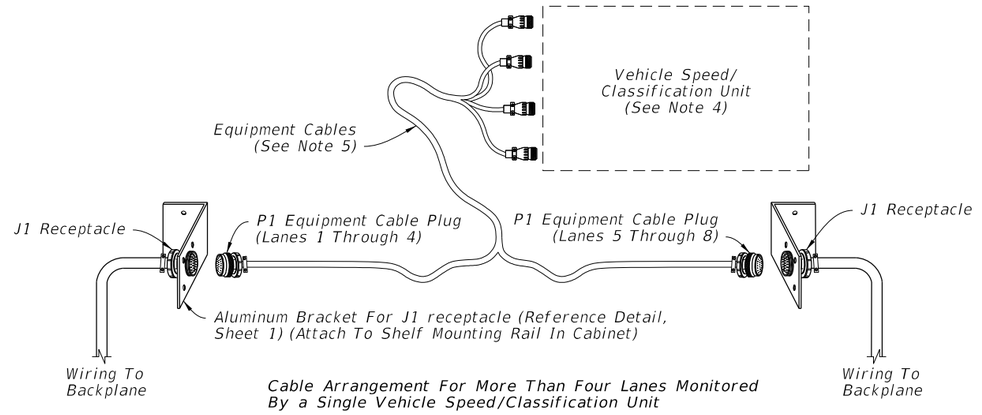




Cable Arrangement For More Than Four Lanes Monitored By a Single Vehicle Speed/Classification Unit

OPTION A
(Shown)



Cable Arrangement For More Than Four Lanes Monitored By a Single Vehicle Speed/Classification Unit

OPTION B

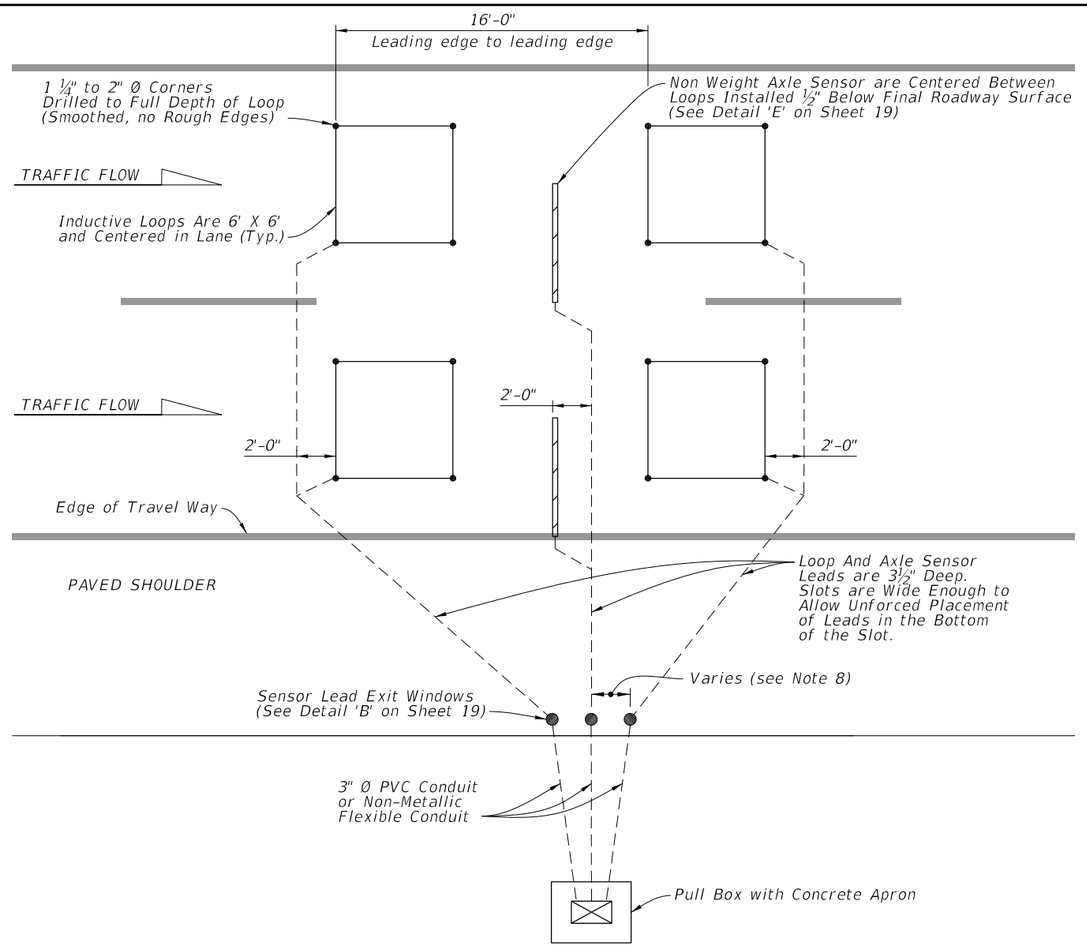
EQUIPMENT CABLE ASSEMBLY

NOTES:

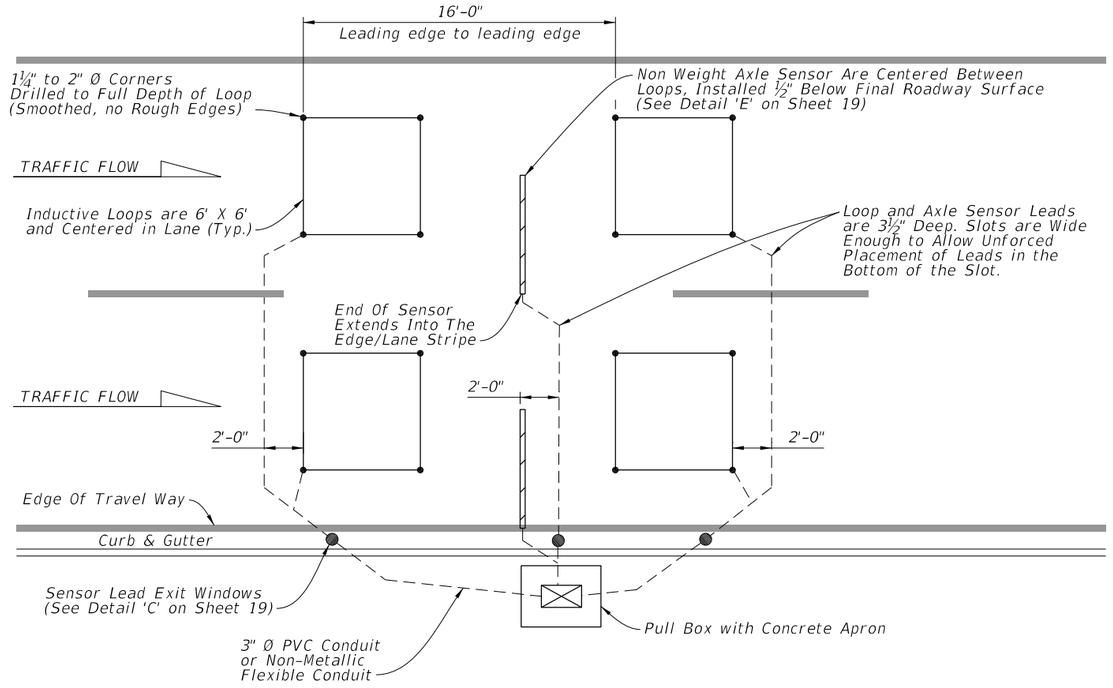
1. Traffic monitoring site cabinet includes:
   A. One adjustable shelf; (equipped as shown)
   B. Two backplane assembly; (equipped as shown)
   C. Two J1 receptacle with mounting bracket;
   D. One P1 equipment cable 5 ft. long (See Sheet 4);
   E. All Associated wiring and wiring harnesses.
2. Basic backplane assembly consists of:
   A. Two inductive loop terminal strips;
   B. One piezo sensor terminal strip;
   C. One battery terminal strip.
3. The contractor is responsible for contacting the TMS Manager in the Transportation Data and Analytics Office for lane number information and verification.
4. Provide and install Speed/Classification Unit.
5. Cable ends must be fabricated to fit the vehicle speed/classification unit. See Sheet 4 for Pinout Charts, receptacle and plug details.

CABINET LAYOUT DETAILS
(Five to Eight Lanes)

9:54:03 AM
9/29/2025



ROADWAYS WITH PAVED SHOULDERS



CURB & GUTTER ROADWAYS

NOTES:

1. Install axle sensors and loops associated with axle sensors after placement of the friction course.
2. Cut a 3½" deep slot for the Inductive loops. Loop slots will be cut wide enough to allow unforced placement of the wire into the bottom of the slot. Place four turns of #14 AWG IMSA 51-7 copper wire in the slot. Place short pieces of backer rod (2" to 3" in length) every 18" to 24" to hold the loop wire in the bottom of the slot and start wire twist at the beginning of the home run slot.
3. Twist loop leads at the rate of 8 to 16 twists per foot. Extend the twisted pair loop wire directly to the cabinet. No splicing of the loop leads will be permitted. Install a home run slot with a minimum width of ⅝".
4. Marking will consist of two rounds of contrasting colored tape, one color for the lane number and the second color for the lead loop location in the lane. The first band closest to the cabinet will represent the lane number, one round of tape will be for lane 1 and two rounds will be lane 2, etc. The lead loop in lane one would have one round of tape and a second round of a contrasting colored tape for the lead loop in the lane. The trailing loop would not have a second contrasting colored band of tape.
5. See Index 635-001 for pull box and concrete apron details.
6. Use a chalk line or string and paint to layout the position of the sensor and lead-in cable slots. Ensure saw cuts do not deviate more than ½" from the chalk line. Use a single blade or ganged blade saw wide enough to cut the axle sensor slot at full width in a single pass. Cutting two slots and chipping out roadway material between them is not allowed.
7. All sensor slots and any cuts in the roadway will be thoroughly blown out to ensure there is no dust or debris prior to installation of sensors or leads.
8. Install Exit Windows at least 2' apart.

LANE LAYOUT FOR PTMS INDUCTIVE LOOP AND AXLE SENSORS

(Typical for up to 4 Lanes of Sensor Leads Pulled to one Side of the Roadway)

9:54:11 AM

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SHORT TERM TRAFFIC MONITORING SITE - PTMS

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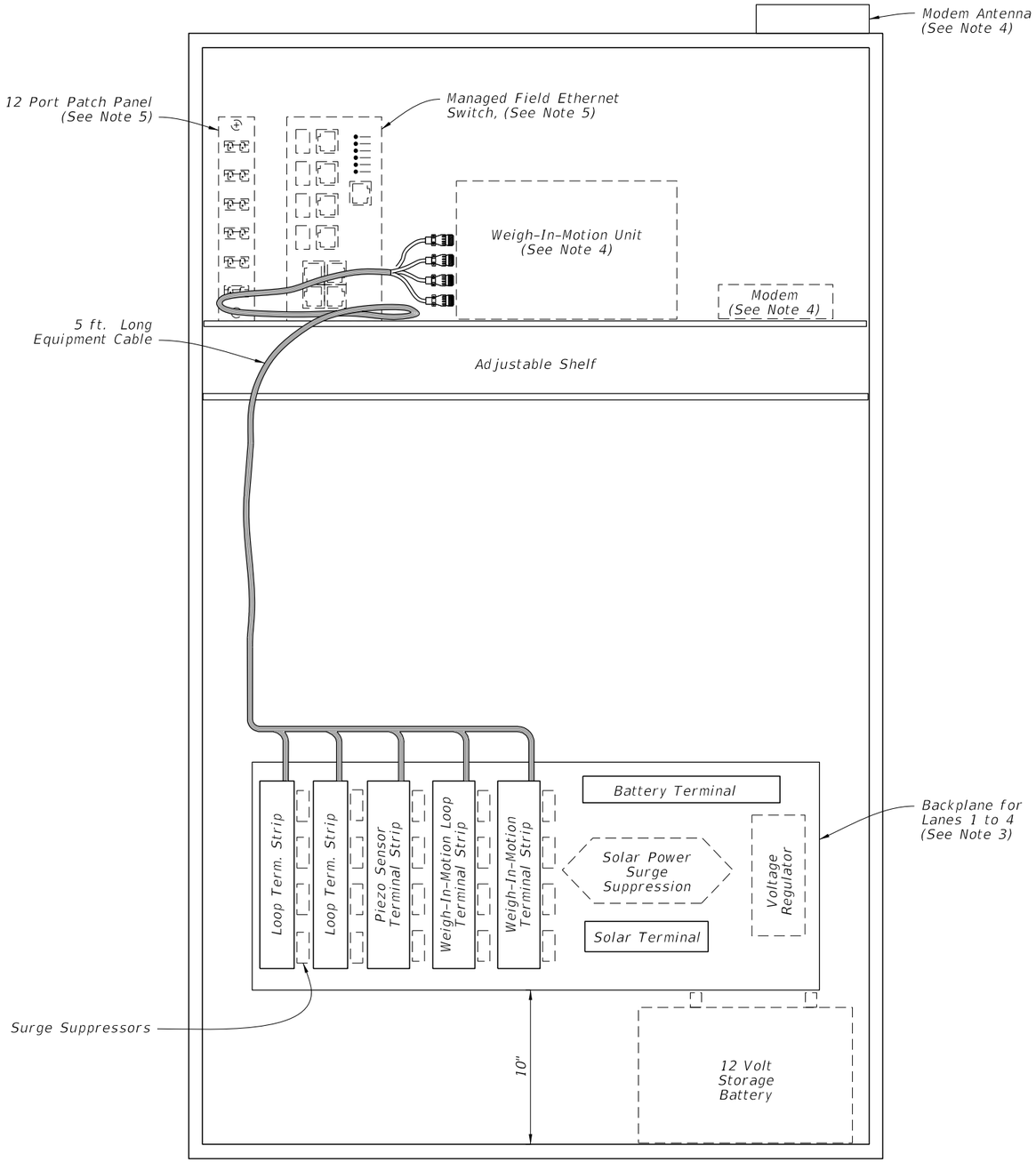

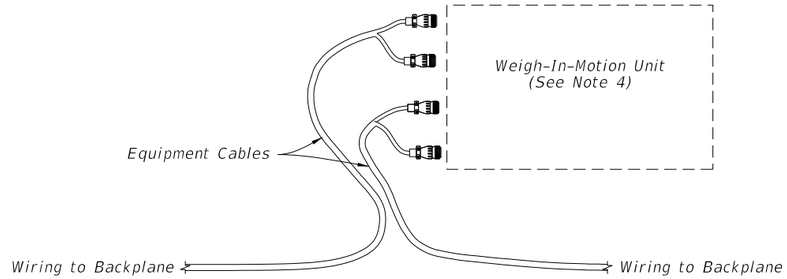

EQUIPMENT CABLE ASSEMBLY

NOTES:

1. Traffic monitoring site cabinet includes:
   A. One adjustable shelf; (equipped as shown)
   B. One backplane assembly; (equipped as shown)
   C. All associated wiring and wiring harnesses.

2. Basic backplane assembly consists of:
   A. Two inductive loop terminal strips;
   B. One piezo sensor terminal strip;
   C. Two weigh-in-motion terminal strips;
   D. One battery terminal strip;
   E. One solar panel terminal strip.

3. The contractor is responsible for contacting the TMS Manager at the Transportation Data and Analytics Office for lane number information and verification.

4. Provide and install a Weigh-In-Motion Unit, Modem, and Antenna.

5. Provide and install a 12-fiber single mode cable, a 12-port patch panel, and a managed field ethernet switch.

CABINET LAYOUT DETAILS

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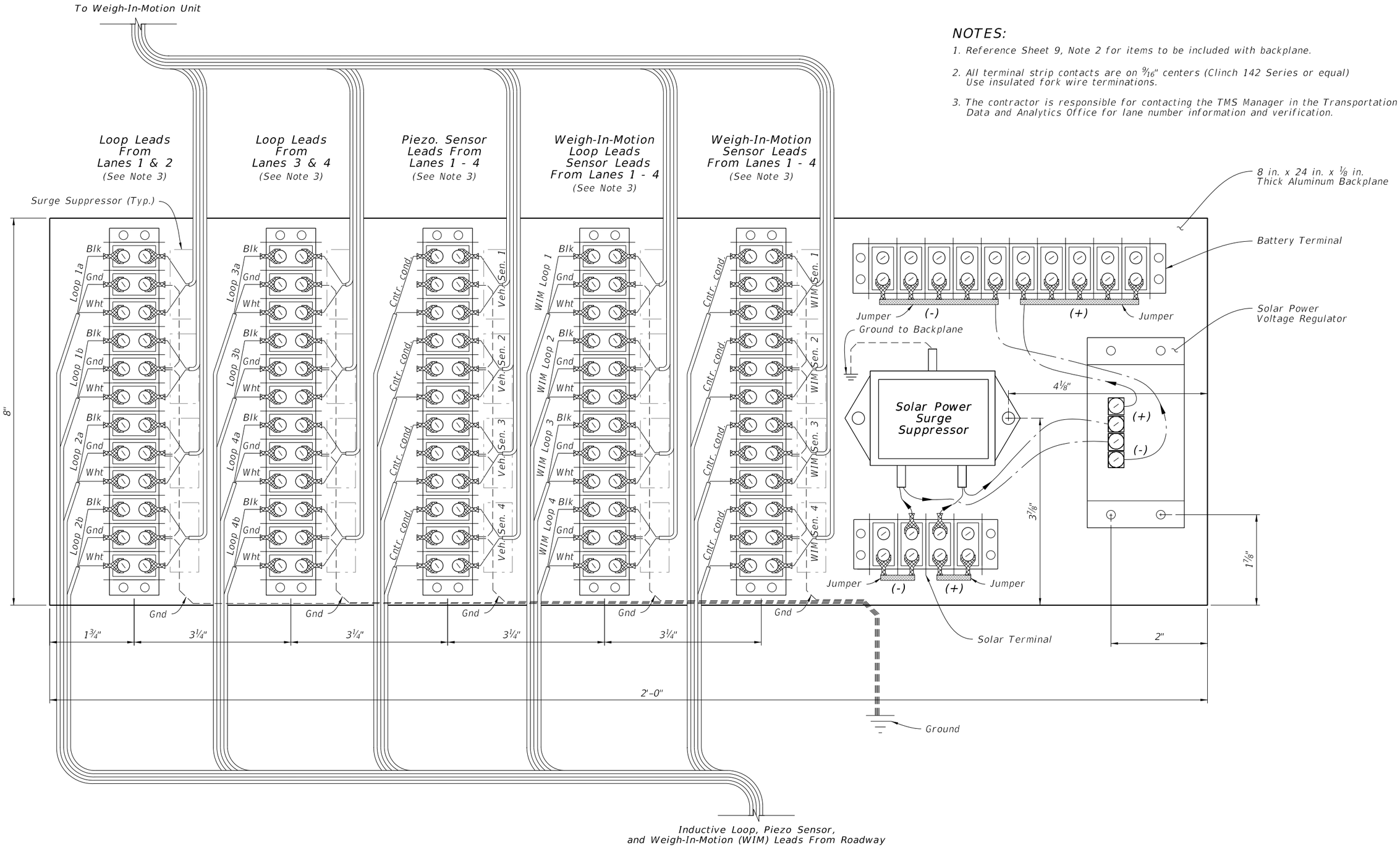
WEIGH-IN-MOTION MONITORING SITE

NOTES:

1. Reference Sheet 9, Note 2 for items to be included with backplane.
2. All terminal strip contacts are on 9/16" centers (Clinch 142 Series or equal) Use insulated fork wire terminations.
3. The contractor is responsible for contacting the TMS Manager in the Transportation Data and Analytics Office for lane number information and verification.



CABINET BACKPLANE DETAILS

WEIGH-IN-MOTION MONITORING SITE

NOTES:

1. Install axle sensors and loops associated with axle sensors after placement of the friction course.

2. Cut a 3½" deep slot for the Inductive loops. Loop slots will be cut wide enough to allow unforced placement of the wire into the bottom of the slot. Place four turns of #14 AWG IMSA 51-7 copper wire in the slot. Place short pieces of backer rod (2" to 3" in length) every 18" to 24" to hold the loop wire in the bottom of the slot.

3. Twist loop leads at the rate of 8 to 16 twists per foot. Extend the twisted pair loop wire directly to the cabinet. No splicing of the loop leads will be permitted.

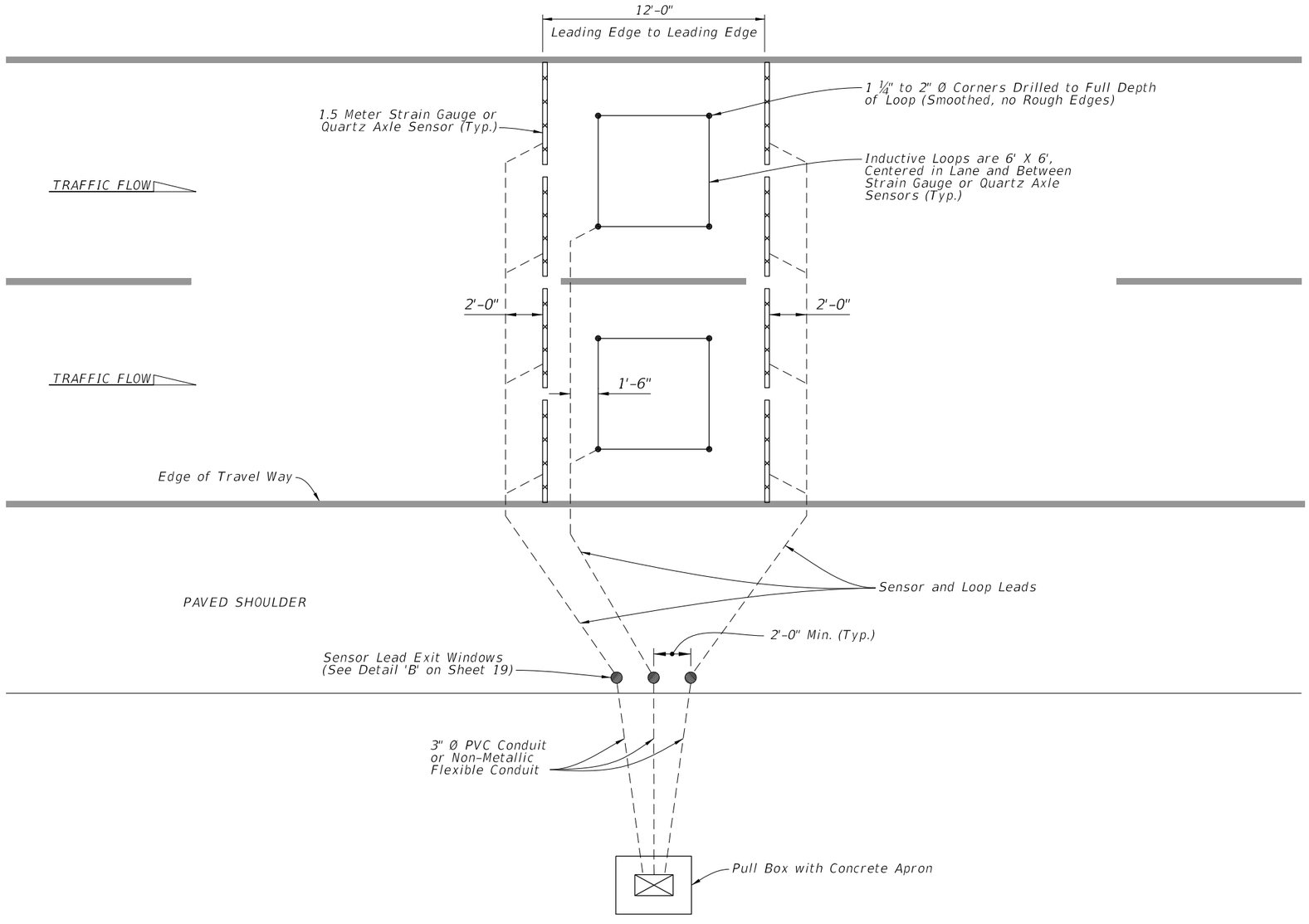
4. Marking will consist of two rounds of contrasting colored tape, one color for the lane number and the second color for the lead loop location in the lane. The first band closest to the cabinet will represent the lane number, one round of tape will be for lane 1 and two rounds will be lane 2, etc. The lead loop in lane one would have one round of tape and a second round of a contrasting colored tape for the lead loop in the lane. The trailing loop would not have a second contrasting colored band of tape.

5. See Index 635-001 for pull box and concrete apron details.

6. Use a chalk line or string and paint to layout the position of the sensor and lead-in cable slots. Ensure saw cuts do not deviate more than ½" from the chalk line. Install the sensor according to manufacturer's recommendations.

7. All sensor slots and any cuts in the roadway will be thoroughly blown out to ensure there is no dust or debris prior to installation of sensors or leads.

8. Install Exit Windows at least 2' apart.



LANE LAYOUT FOR TTMS/CCS INDUCTIVE LOOP AND WEIGH-IN-MOTION SENSORS

WEIGH-IN-MOTION MONITORING SITE

9:54:32 AM

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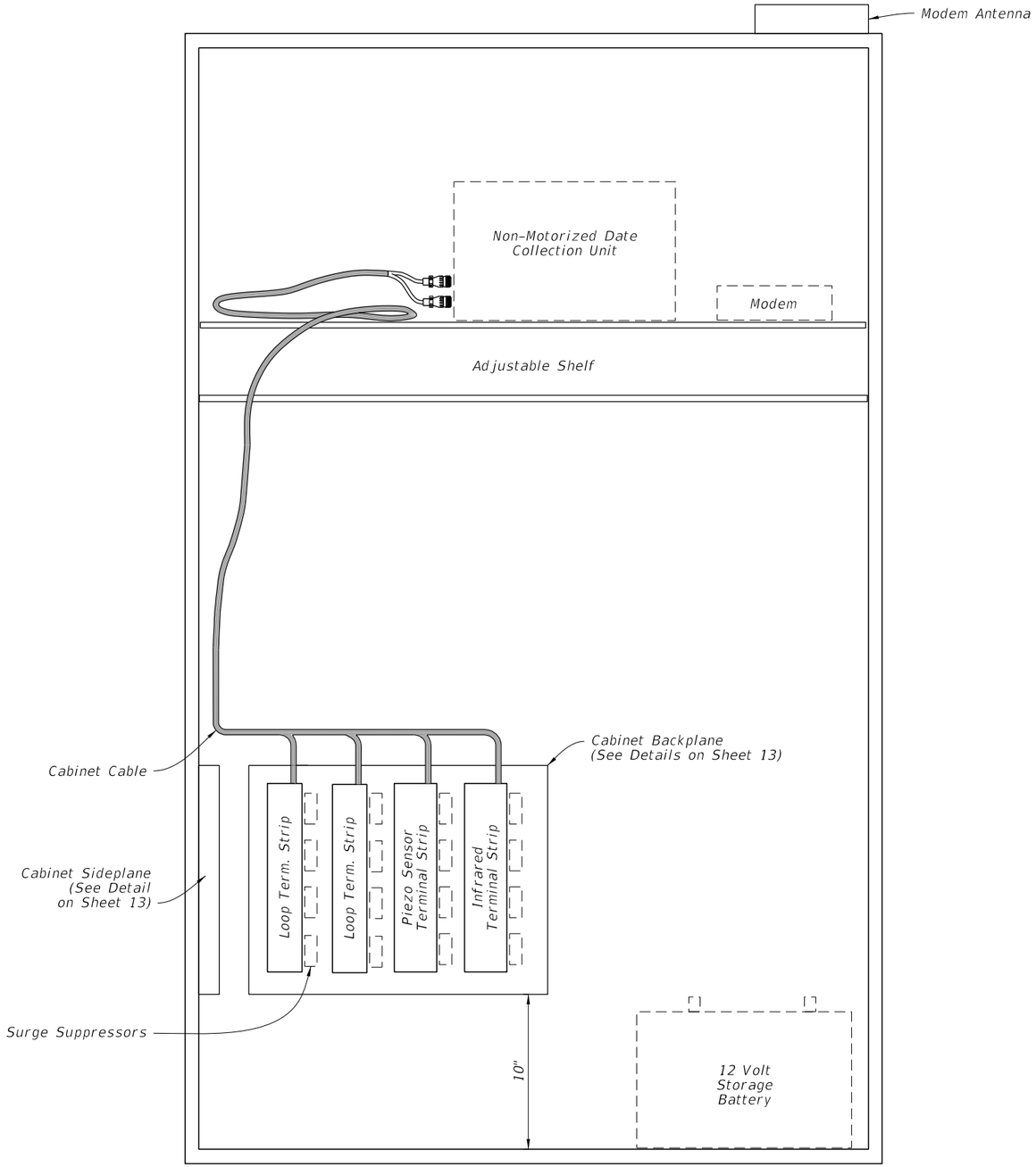

NOTES:

1. Traffic monitoring site cabinet includes:
   A. One adjustable shelf; (equipped as shown)
   B. One backplane assembly; (equipped as shown)
   C. One sideplane assembly; (equipped as shown);
   D. Infrared sensor and piezo sensor cables.

2. Basic backplane assembly consists of:
   A. Two inductive loop terminal strips;
   B. One piezo sensor terminal strip:
   C. One infrared sensor terminal strip;.

3. Basic sideplane assembly consists of:
   A. One battery terminal strip;
   B. One solar panel terminal strip.

CABINET LAYOUT DETAILS

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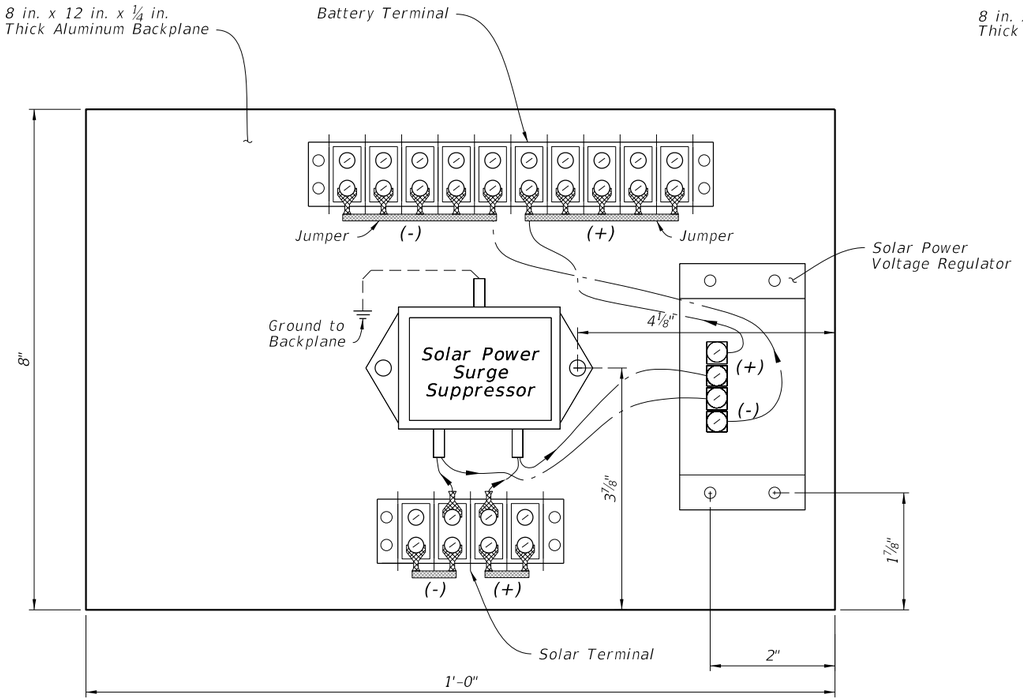
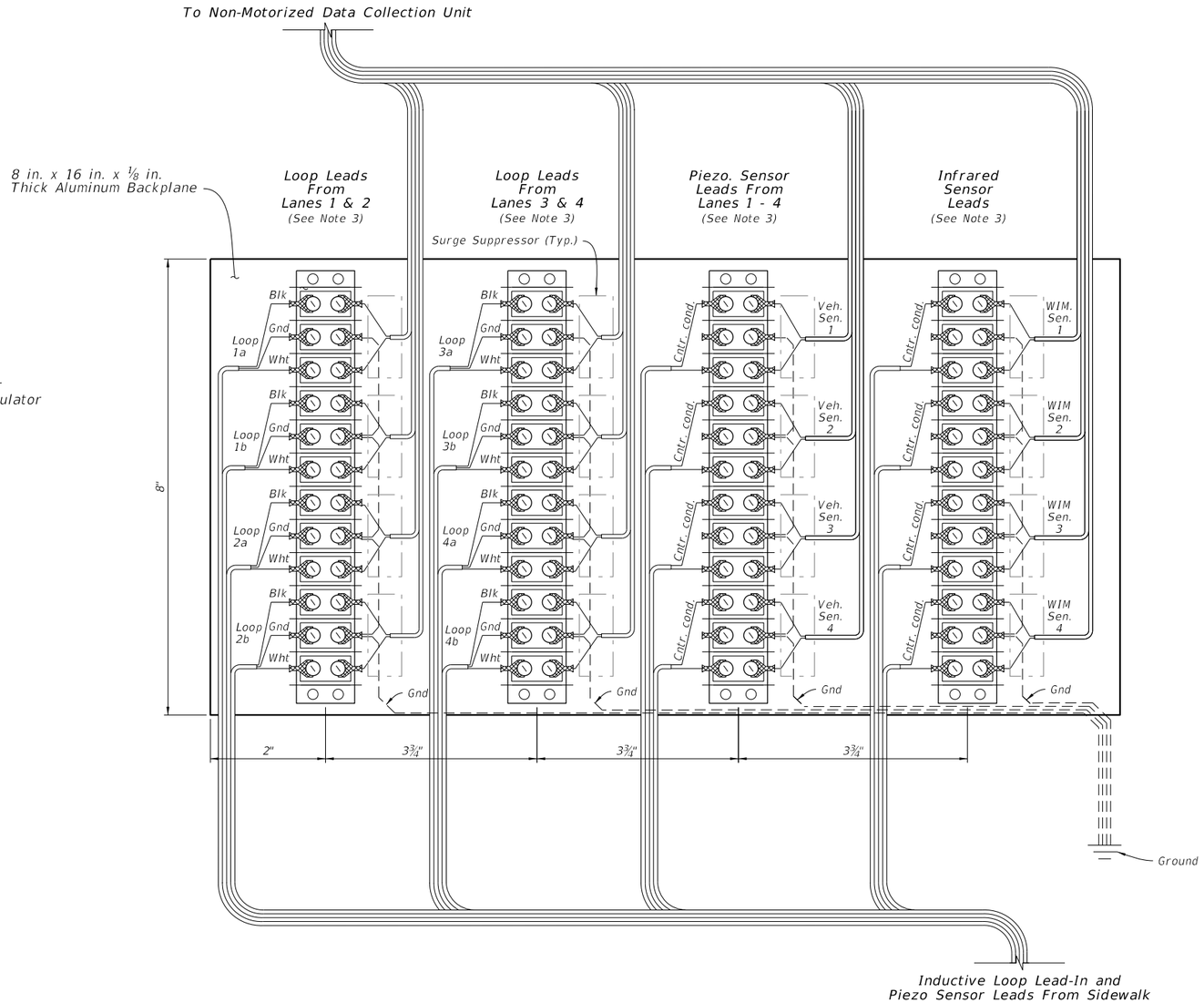
NON-MOTORIZED MONITORING SITE

NOTES:

1. Reference Sheet 12, Note 2 for items to be included with backplane.
2. All terminal strip contacts are on $^{9}/_{16}$" centers (Clinch 142 Series or equal) Use insulated fork wire terminations.
3. The contractor is responsible for contacting the TMS Manager in the Transportation Data and Analytics Office for lane number information and verification.



CABINET SIDEPLANE DETAILS



CABINET BACKPLANE DETAILS

NON-MOTORIZED MONITORING SITE

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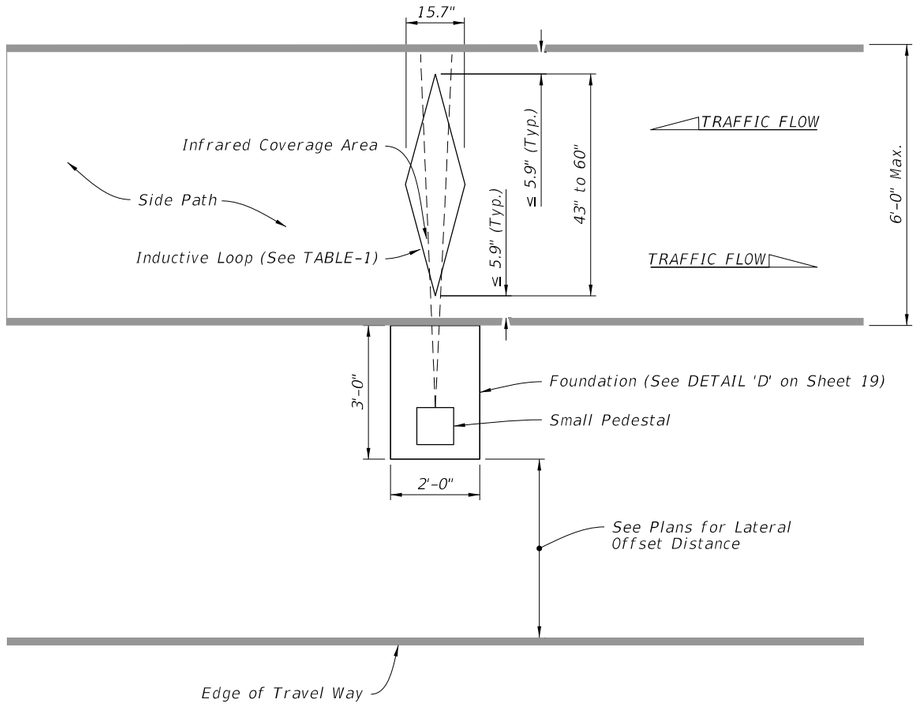
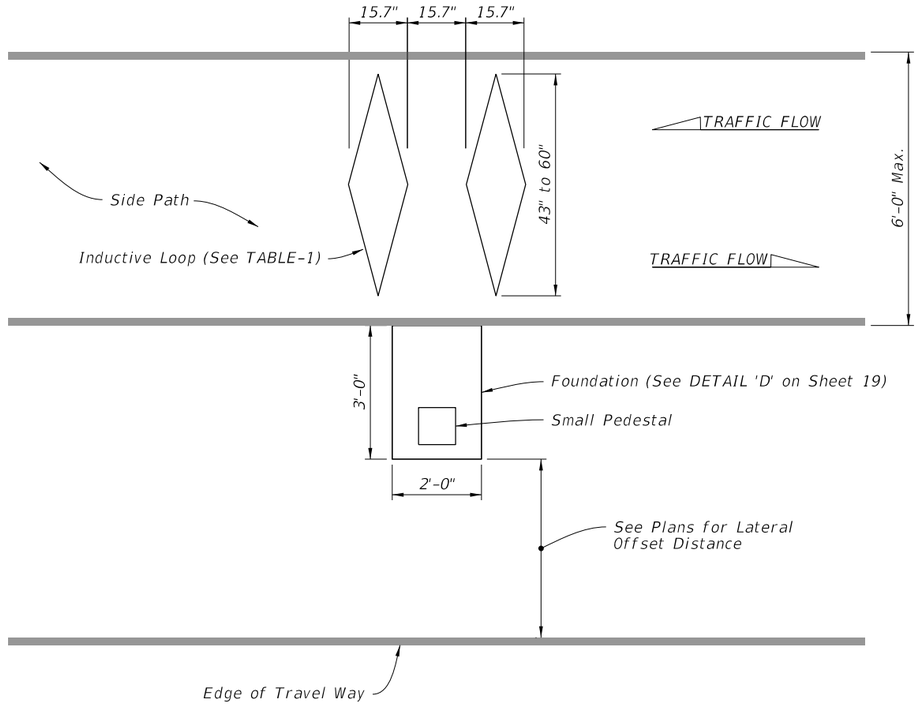


SINGLE LOOP ASSEMBLY

(Directional Recognition With Infrared)



DUAL LOOP ASSEMBLY

(Directional Recognition Without Infrared)

NON-MOTORIZED MONITORING SITE NOTES:

1. Use a chalk line or string and paint to layout the position of the sensor and lead-in cable slots. Ensure saw cuts do not deviate more than 0.5 inches from the chalk line. Use a single blade or ganged blade saw wide enough to cut the axle sensor at full width in a single pass. Cutting two slots and chipping out roadway material between them is not allowed.
2. Cut a ¼" to ½" wide slot.
3. All sensor slots and any cuts in the pathway will be thoroughly blown out to ensure there is no dust or debris prior to installation of the loops and leads.
4. Place eight turns of loop wire in each slot.
5. Twist loop leads at the rate of 10 twists per foot.
6. Extend the twisted pair loop wire directly to the termination point with no splices.
7. For the side-by-side configuration, install the farthest loop lead through the near side loop slot.
8. At the termination point, for north-south pathways, mark the north piezometer and inductive loop sensor lead(s) with one tape. For east-west pathways, mark the east piezometer and inductive loop sensor lead(s) with two tapes.
9. Do not point infrared sensors towards a path where motor vehicles pass, a metallic or reflective surface, surfaces exposed to sunlight or vegetation that are likely to move.
10. Avoid placing infrared sensors near heat sources, steep surfaces, high voltage power cables, and telecommunications equipment.
11. If crossing pavement joints see DETAIL "F" on Sheet 19.

TABLE - 1

Lane Width	Loop Length
43.3"	39.4" to 43.3"
47.2"	43.3" to 47.2"
51.2"	47.2" to 51.2"
55.1"	51.2" to 55.1"
59"	55.1" to 59.1"
63" to 70.9"	59.1"
72.8" to 76.8"	Contact Manufacturer

REGULAR SIDE PATH CONFIGURATIONS

NON-MOTORIZED MONITORING SITE

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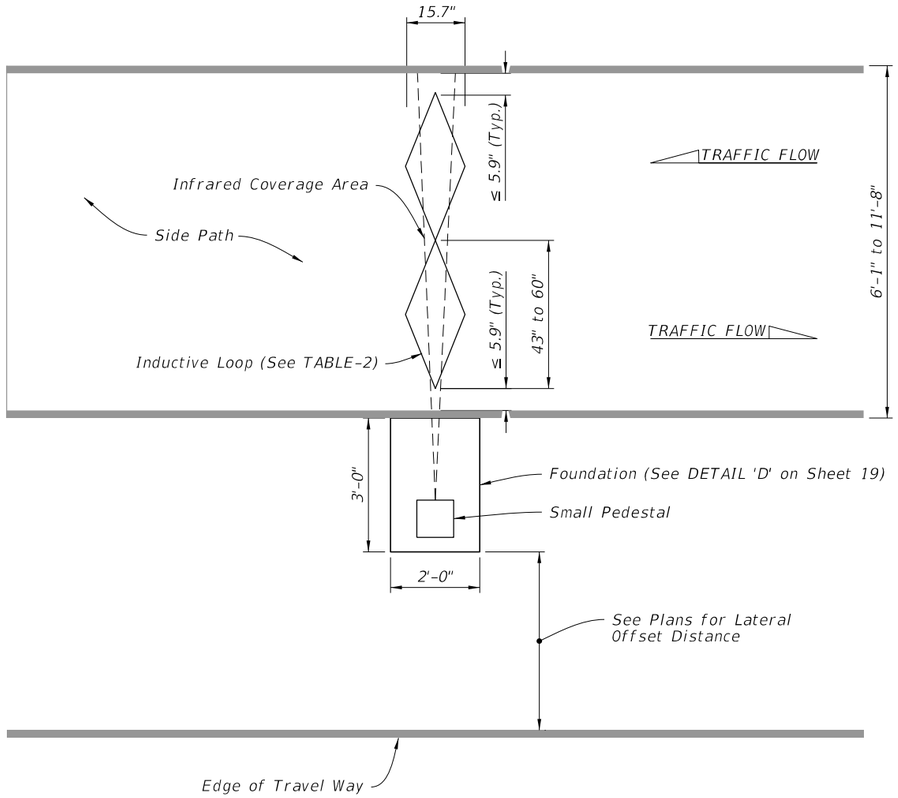
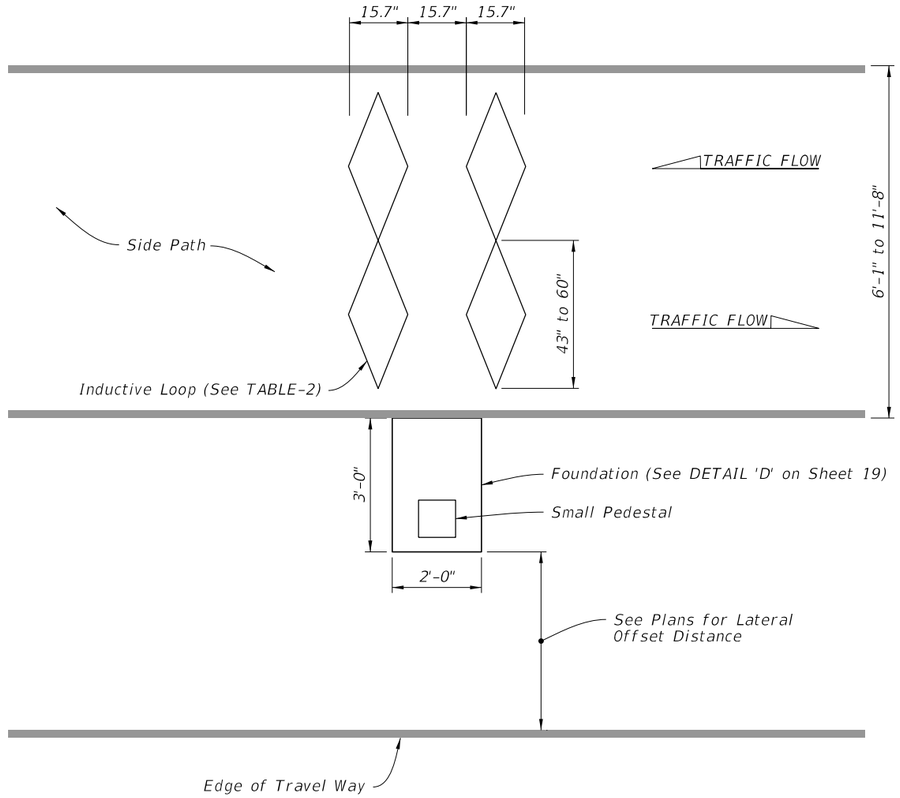


DUAL LOOP ASSEMBLY

(Directional Recognition With Infrared)



QUAD LOOP ASSEMBLY

(Directional Recognition Without Infrared)

TABLE - 2	
Lane Width	Loop Length
78.7" to 82.7"	39.4"
86.6" to 98.4"	43.3"
102.7" to 106.3"	47.2"
110.2" to 114.2"	51.2"
118.1" to 122"	55.1"
126" to 133.9"	59.1"
≥133.9"	Contact Manufacturer

MEDIUM SHARED USE PATH CONFIGURATIONS

NON-MOTORIZED MONITORING SITE

9:55:02 AM

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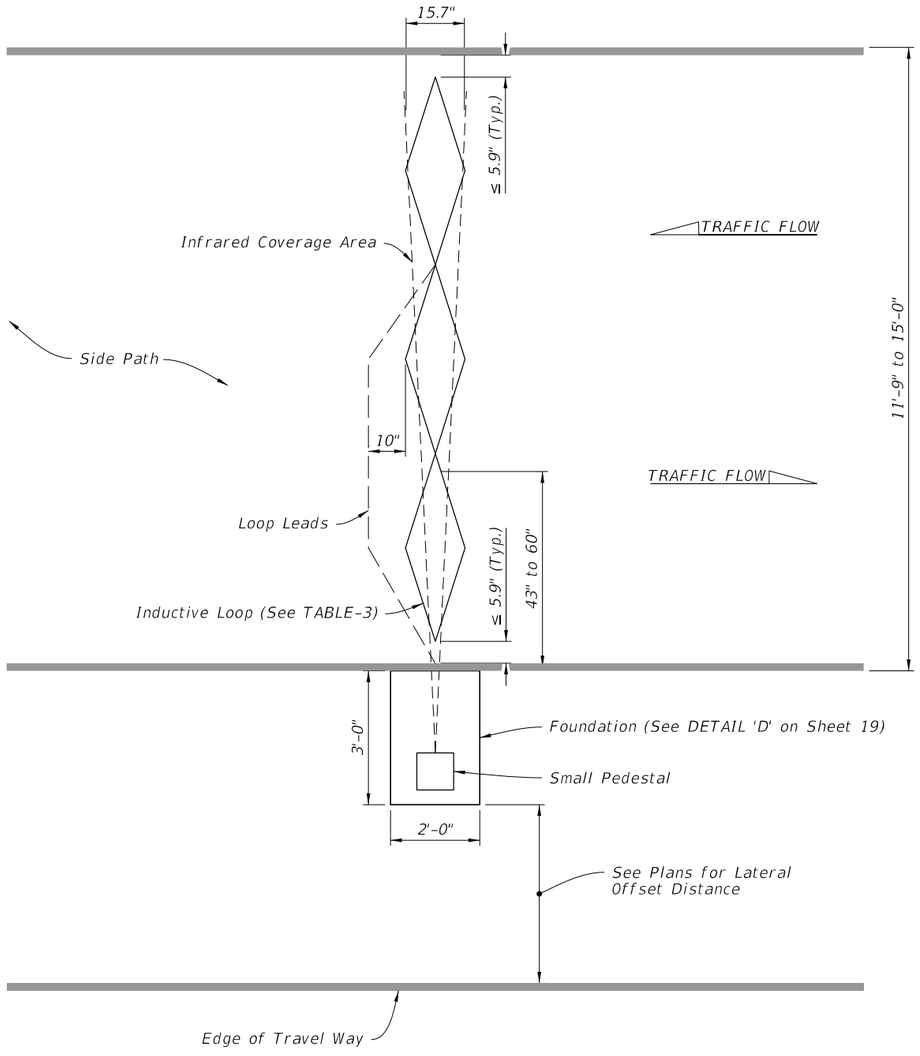
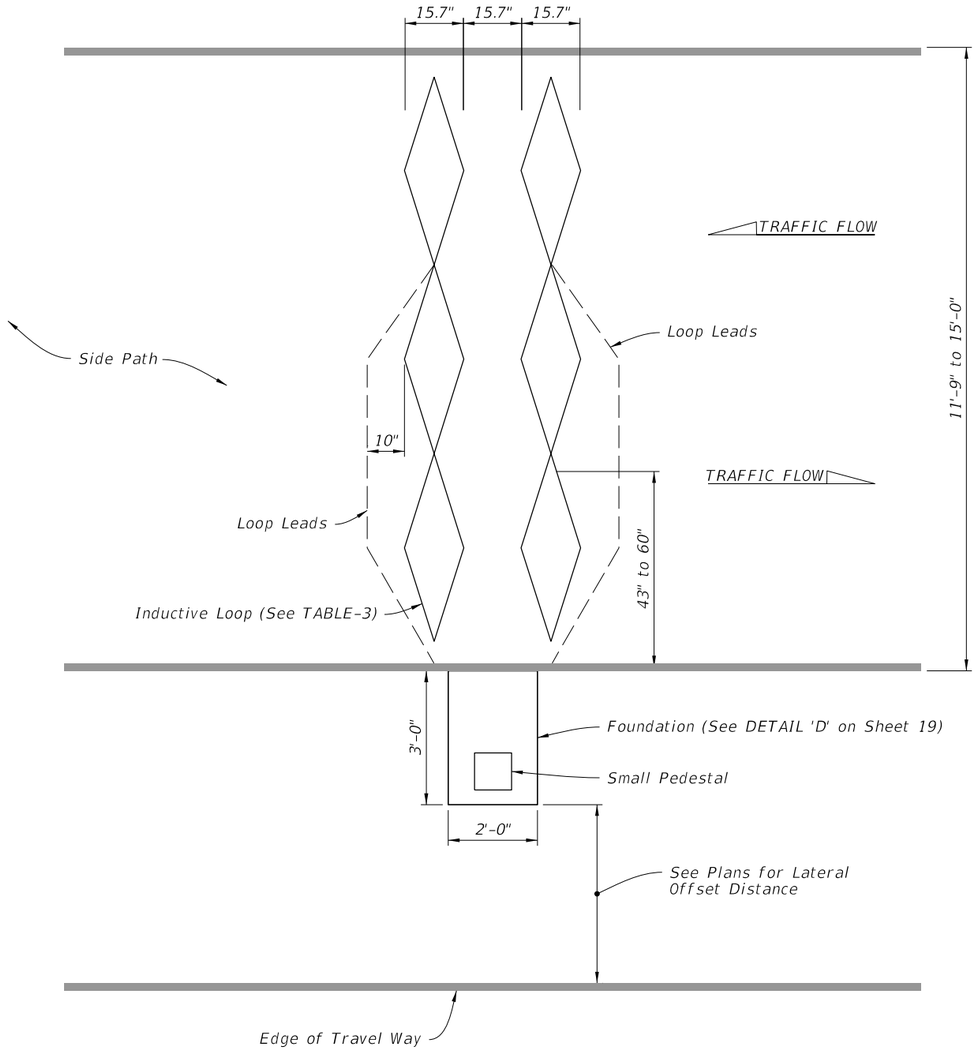


TRIPLE LOOP ASSEMBLY

(Directional Recognition With Infrared)



SEXTUPLE LOOP ASSEMBLY

(Directional Recognition Without Infrared)

TABLE - 3	
Lane Width	Loop Length
133.9" to 141.7"	43.3"
145-7" to 153.5"	47.2"
157.5" to 165.4"	51.2"
169.2" to 177.2"	55.1"
181.1" to 189"	59.1"

SHARED USE PATH CONFIGURATIONS

NON-MOTORIZED MONITORING SITE

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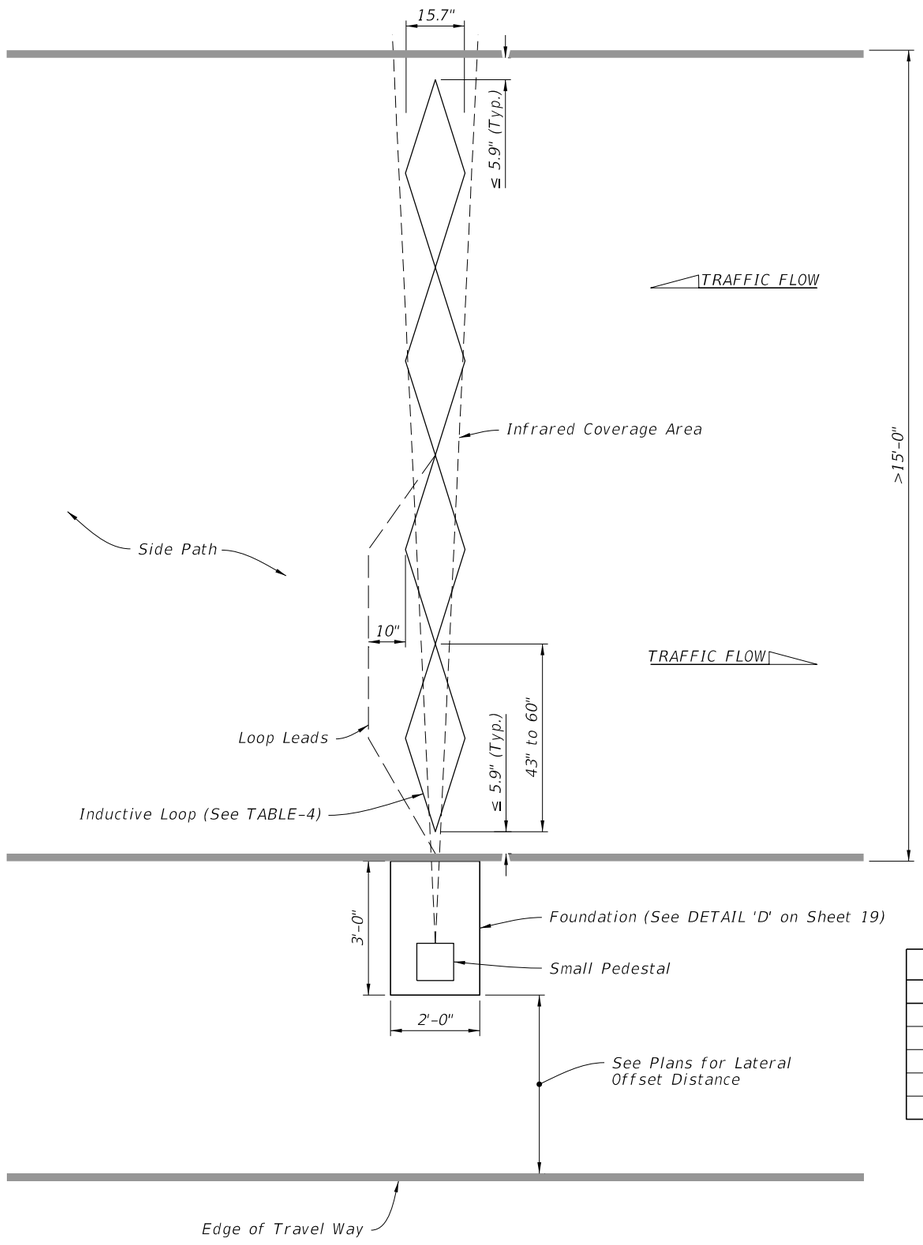
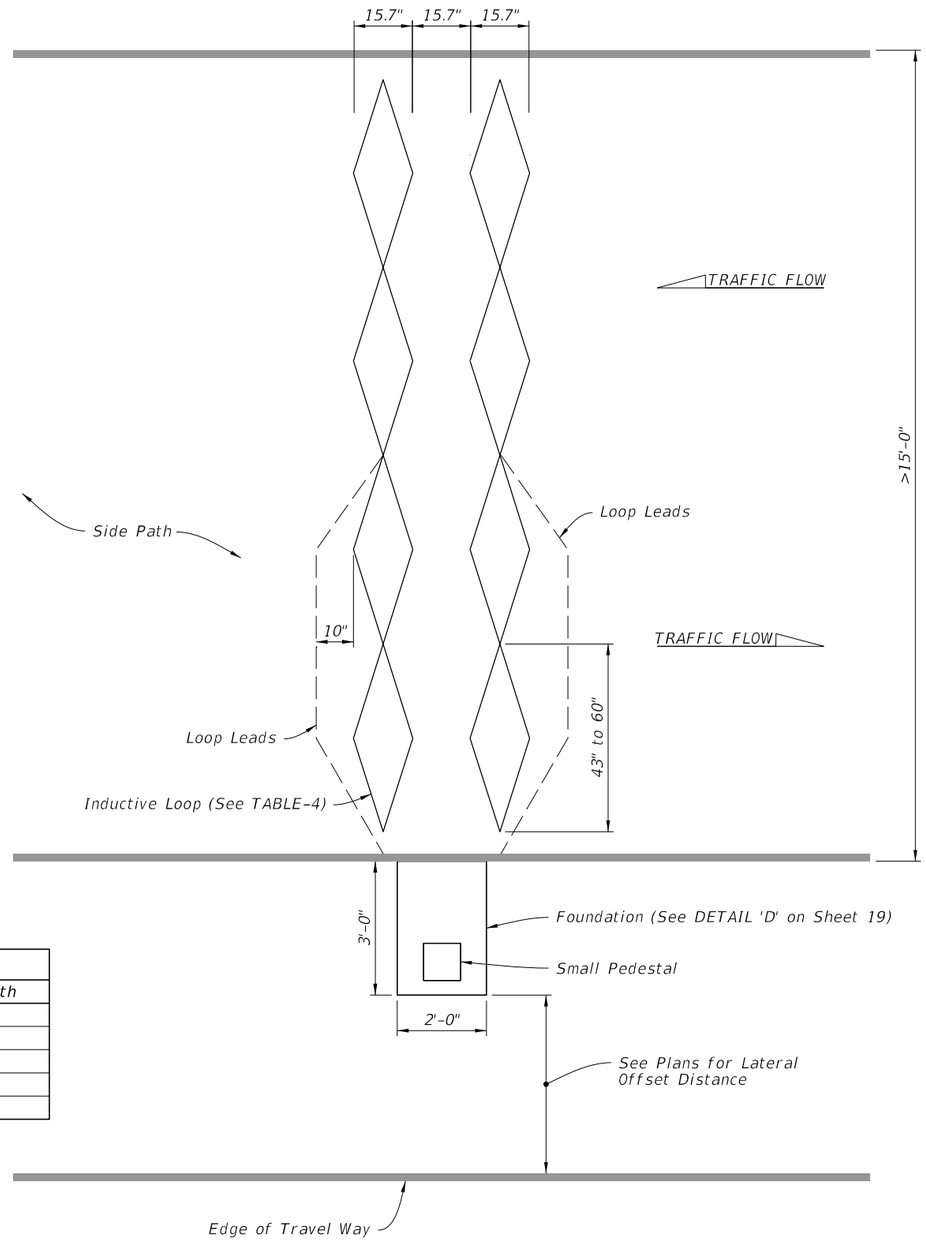


FOUR LOOP ASSEMBLY

(Directional Recognition With Infrared)

TABLE - 4	
Lane Width	Loop Length
173.2" to 185"	43.3"
188" to 200.8"	47.2"
204.7" to 216.5"	51.2"
220.5" to 232.3"	55.1"
236.2" to 248"	59.1"



QUADRUPLE LOOP ASSEMBLY

(Directional Recognition Without Infrared)

EXTRA LARGE SHARED USE PATH CONFIGURATIONS

NON-MOTORIZED MONITORING SITE

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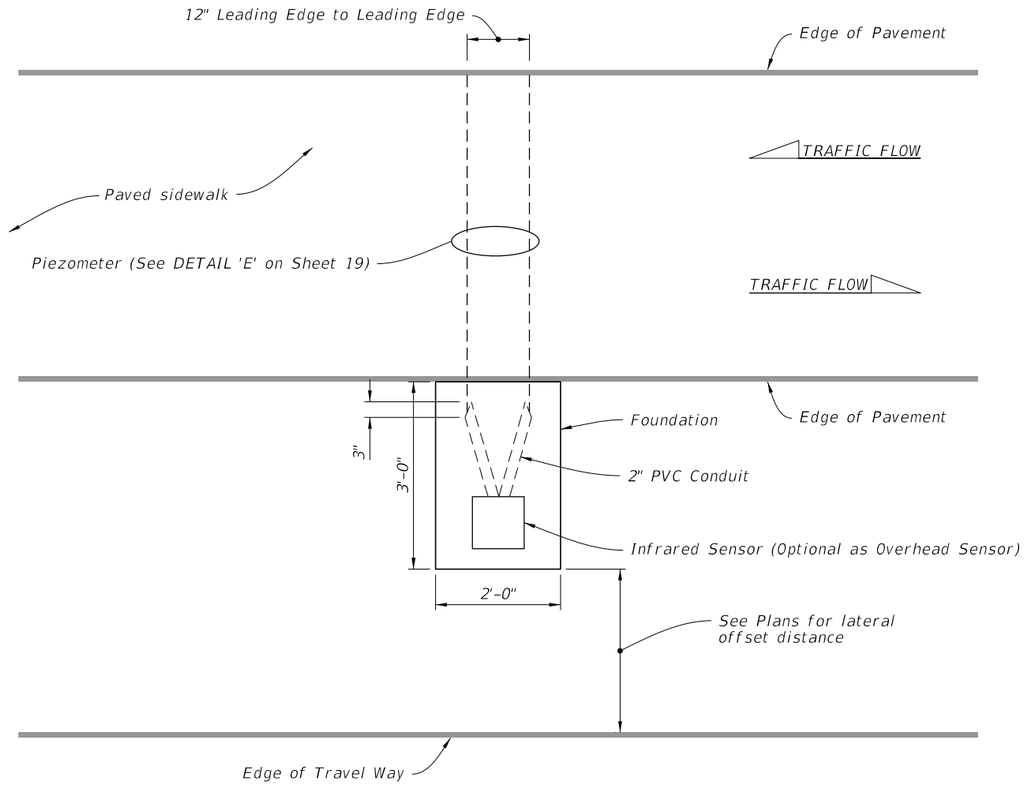
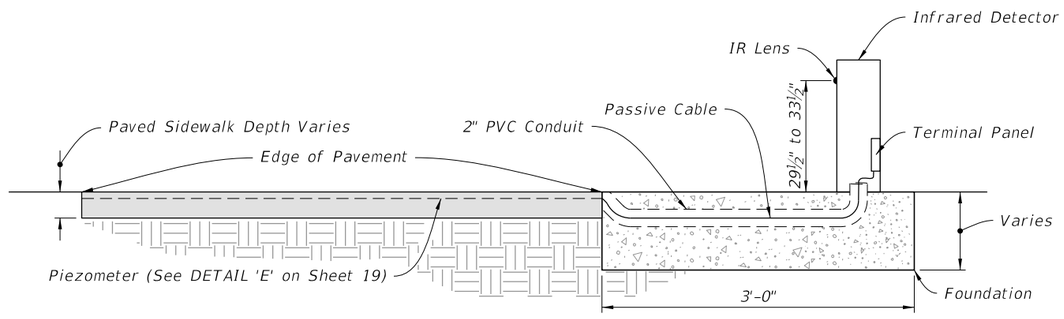


PLAN VIEW



ELEVATION

PAVED SIDEWALK CONFIGURATION

NON-MOTORIZED MONITORING SITE

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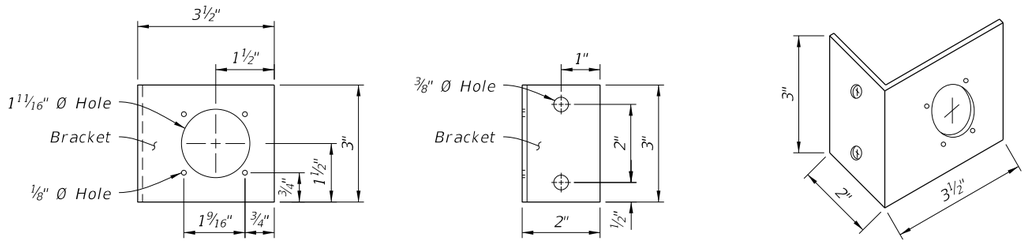
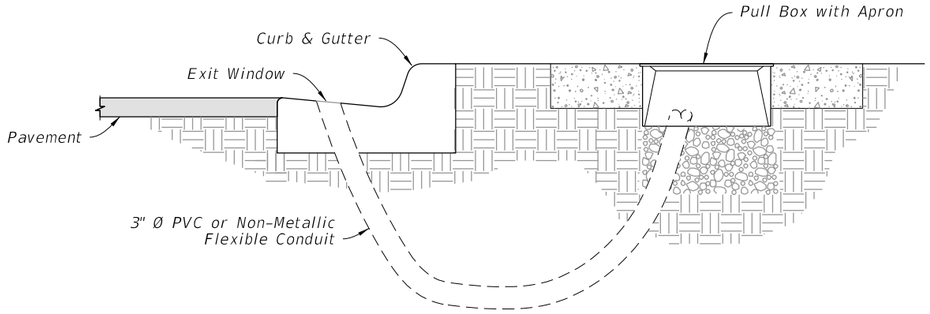


NOTE:

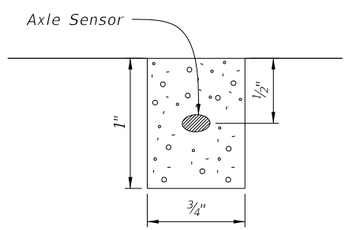
Fabricate bracket out of 3/32" – ⅛" inch thick aluminum. Dimensions may vary depending on the manufacturer of the J1 receptacle being furnished. The cabinet manufacturer will construct the mounting bracket to fit the receptacle.

J1 MOUNTING BRACKET

DETAIL 'A"

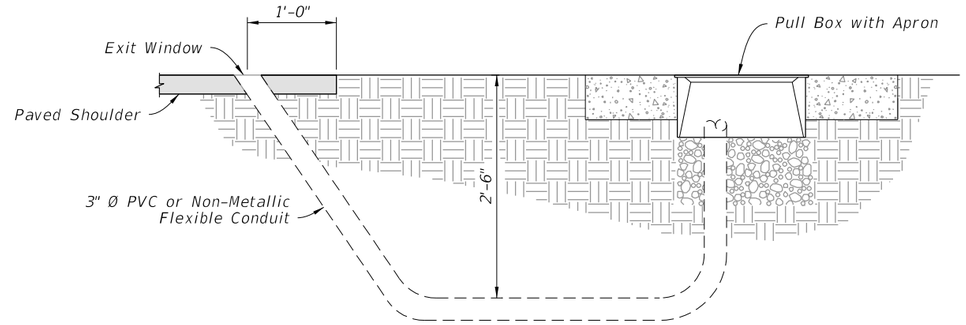


DETAIL 'C'

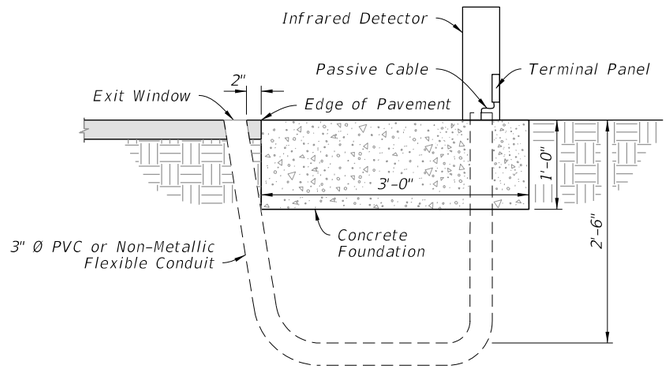


END VIEW
(Axle Sensor Slot)

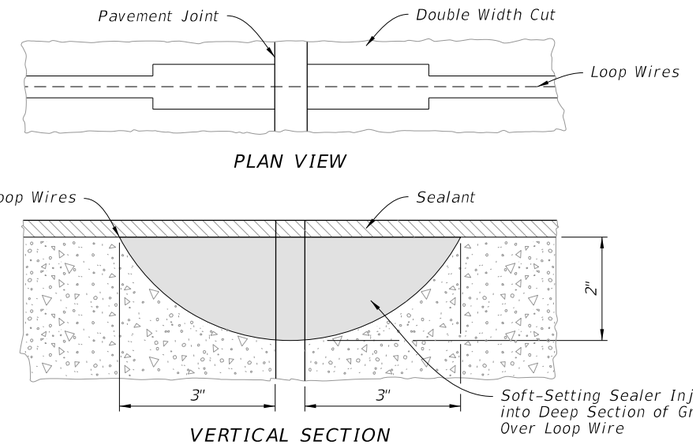
DETAIL 'E'



DETAIL 'B'



DETAIL 'D'



DETAIL 'F'

DETAILS 'A' THRU 'F'

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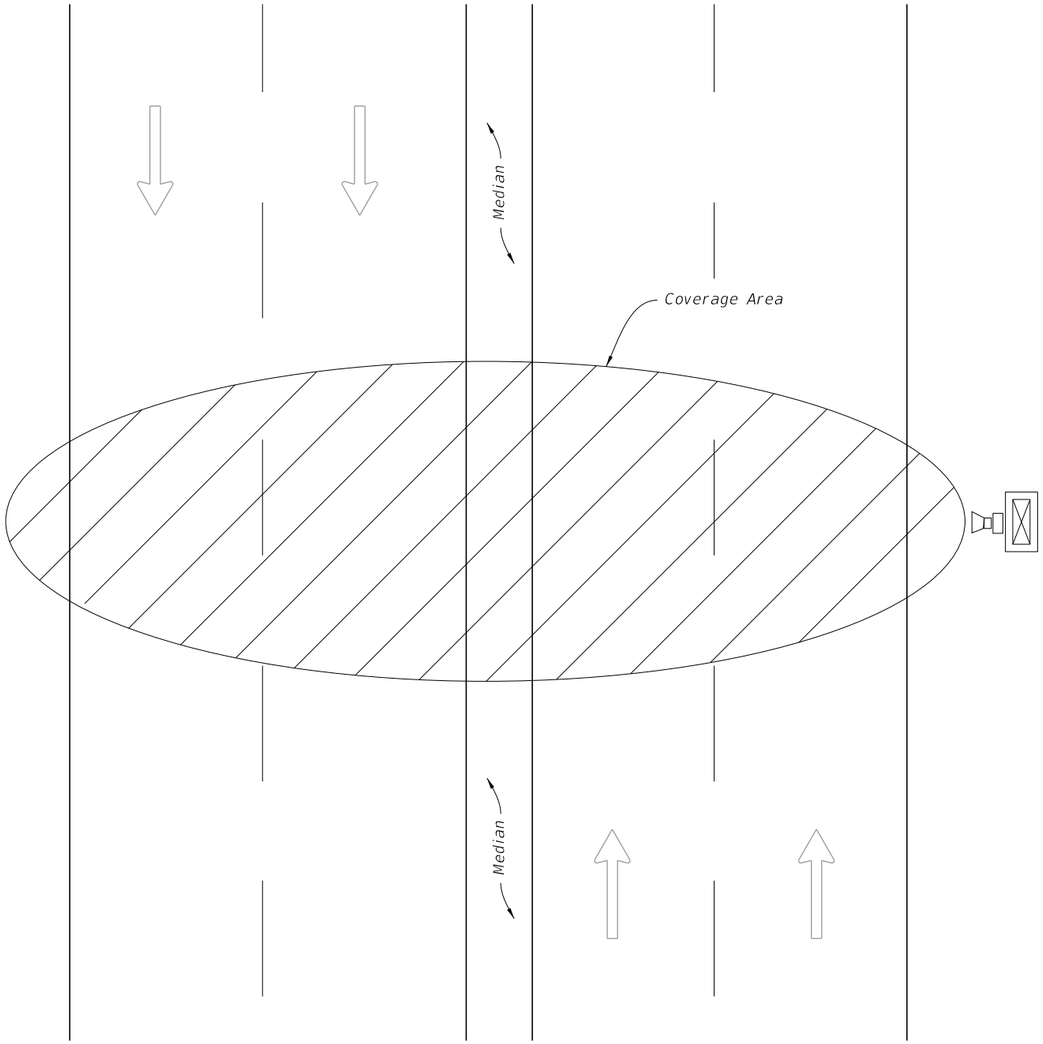
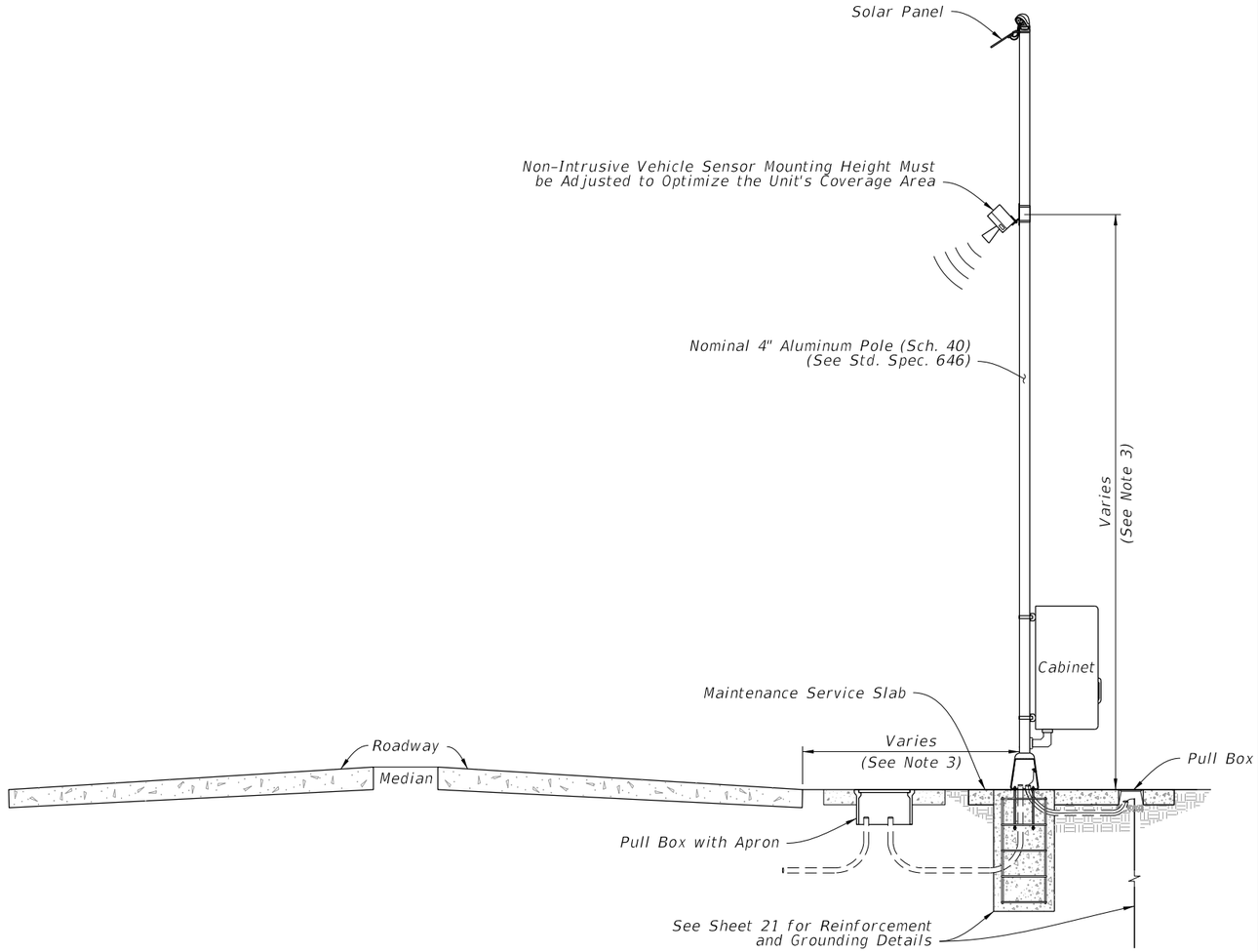


PLAN

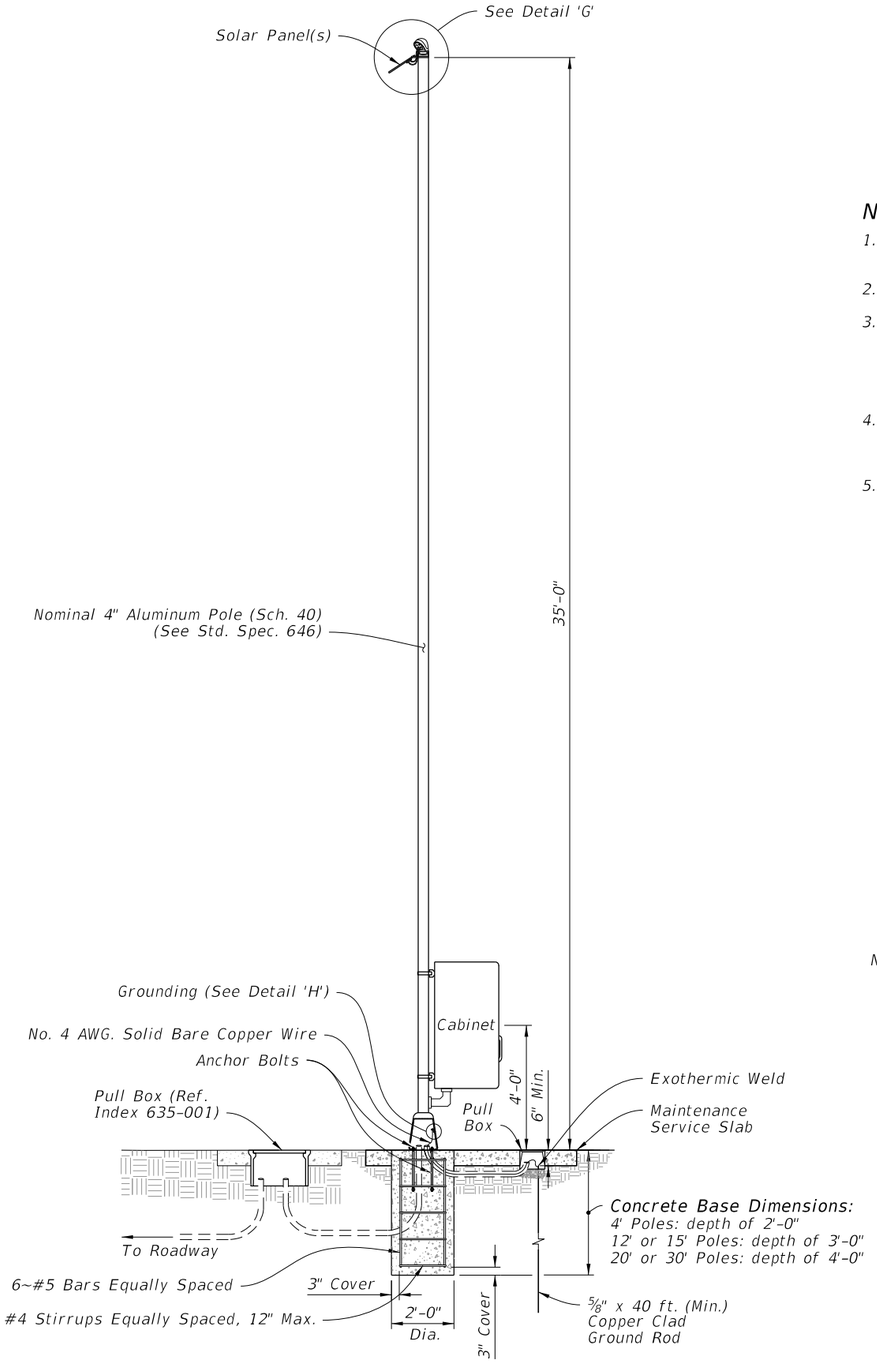


ELEVATION

NOTES:

1. The unit must be capable of detecting up to eight lanes of traffic (in either or both directions) when mounted perpendicular to the roadway.
2. Coverage area of the unit is affected by the roadway geometry: distance from the travel lanes, median type and width, barrier walls, etc.
3. Mounting height of the unit and offset from the roadway must be determined on a site-by-site basis, in accordance with the manufacturer's recommended guidelines. Offset of pole must be greater than or equal to minimum clear zone requirements.
4. Cabinet, ground rod pull box, and maintenance service slab installed per Index 676-010, except cabinet center will be 4 feet above grade.

NON-INTRUSIVE VEHICLE SENSOR



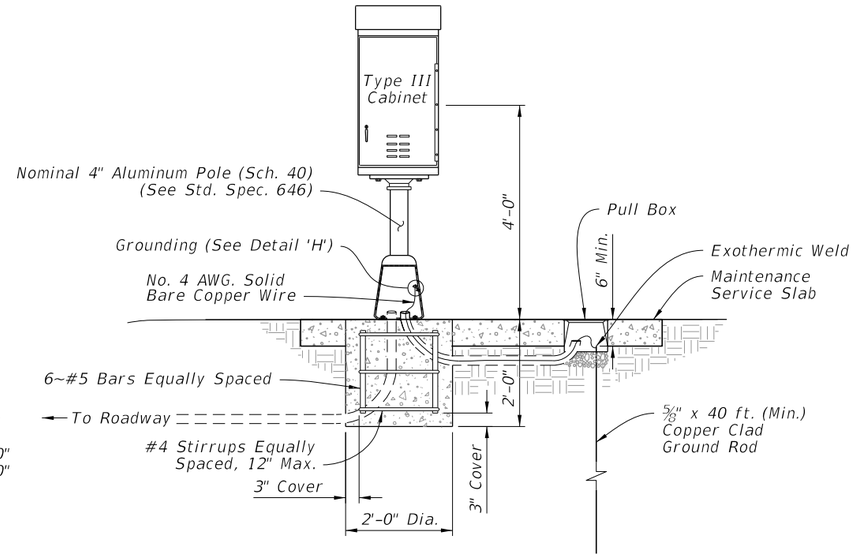
ELEVATION

SOLAR POWER POLE WITH POLE MOUNTED CABINET

(Continuous Count Site - TTMS/CCS)

NOTES:

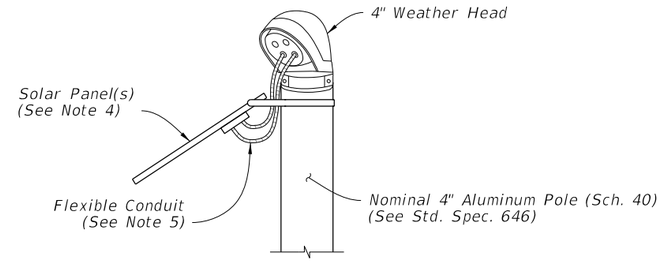
1. Cabinet, ground rod pull box, and maintenance service slab installed per Index 676-010, except cabinet center will be 4 feet above grade.
2. Meet the requirements of Specification 646.
3. Use #10 AWG stranded copper wire for Solar Panel Array installations, Red insulation is THHN or THWN for positive 12 volts wiring, Black insulation is THHN or THWN for negative, 12 volts wiring, Green insulation is THHN or THWN for ground bonding of the solar panel frame to the pole and earth.
4. Solar panel should be installed facing due south with angle of tilt equal to the sum of the following equation. The Latitude of the panel's location, multiplied by 0.76, plus 3.1 degrees. Equation expressed as (LAT)X(0.76)+(3.1°)
5. Encase all wiring from the weather head to the solar panel in outdoor flexible conduit.



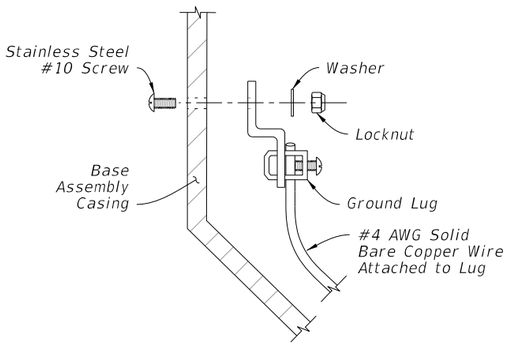
ELEVATION

PEDESTAL MOUNTED CABINET

(Short Term Traffic Monitoring Sites - PTMS)



DETAIL 'G'



DETAIL 'H'

SOLAR POWER POLE WITH POLE MOUNTED CABINET AND PEDESTAL MOUNTED CABINET DETAILS

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GENERAL NOTES:

1. Meet the requirements of Specification 700.

2. Shop Drawings:
   This Index is considered fully detailed. Submit Shop Drawings only for minor modifications not detailed in the Plans.

3. BREAKAWAY SUPPORTS REQUIREMENTS: Install non-frangible aluminum column (post) (larger than 3½") with breakaway supports as shown on Sheet 4. Signs shielded by barrier wall or guardrail do not require breakaway support.

4. Aluminum Sign, Wind Beams and Column (Post) Materials:
   A. Aluminum Plates: ASTM B209, Alloy 6061-T6
   B. Aluminum Bars and Extruded Shapes: ASTM B221, Alloy 6061-T6
   C. Aluminum Structural Shapes: ASTM B221 Alloy 6061-T6
   D. Cast Aluminum: ASTM B26 Alloy A356-T6

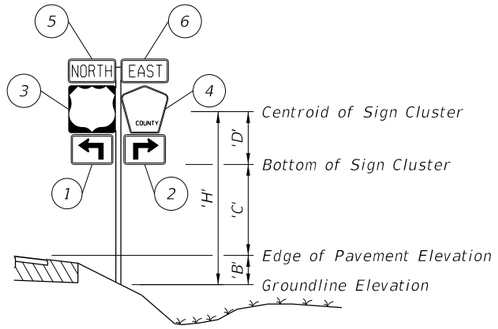
5. Galvanized Steel Slip Base Stub Materials:
   A. Steel Plate and Structural Shapes: ASTM A36 or ASTM A709, Grade 36

6. Sign Mounting Bolts, Nuts and Washers:
   A. Aluminum Button Head and Flat Head Bolts: ASTM F468 Alloy 2024-T4
   B. Aluminum Hex Nuts: ASTM F467 Alloy 6061-T6 or 6262-T9
   C. Aluminum Washers: ASTM B221, Alloy 7075-T6

7. Stainless Steel Bolts, Nuts and Washers may be used in lieu of the Aluminum button head and flat head bolts as follows:
   A. Stainless Steel Bolts: ASTM Ft 593 Alloy Group 2, Condition A, CW1 or SH1
   B. Stainless Steel Nuts: ASTM F594

8. Sign Column (Post) Bolts, Nuts and Washers:
   A. Galvanized U-Bolt (Column): ASTM A449 or ASTM A193 B7 according to ASTM F2329 with double nuts (nut and lock washer optional).
   B .Aluminum Bolts (Sleeve): ASTM F468, Alloy 6061-T6 or 2024-T4 with Hex Nuts F467 6061-T6 or 6262-T9 and Washers B221, Al clad 2024-T4
   C. Galvanized High Strength Hex Head Bolts (BaseBolts): ASTM F3125, Grade A325, Type 1
   D. Galvanized Hex Nuts: ASTM A563 Grade D
   E. Galvanized Washers: ASTM F436
   F. Galvanized Bolts (Sleeve): ASTM A307 with Galvanized Hex Nuts and Washers

STEP 1: Calculate the area and the centroid for an individual sign or a sign cluster. Note that the centroid and areas have been calculated for frequently used sign clusters. These are shown on Sheets 7, 8, and 9.



	Size a x h	Centroid: Local $'Y'_n$	Centroid: Global $'X'_n$	Centroid: Global $'Y'_n$	$'A'_n$	$'X'_n$ x $'A'_n$	$'Y'_n$ x $'A'_n$
	(in. x in.)	(in.)	(in.)		(in.²)	(in.³)	(in.³)
1	21 x 15	7.5	-10.5-1.5-1.5 = -13.5	7.5	315	-4,252.5	2,362.5
2	21 x 15	7.5	10.5+1.5+1.5 = 13.5	7.5	315	+4,252.5	2,362.5
3	24 x 24	12	-12-1.5 = -13.5	15+1+12 = 28	576	-7,776	16,128
4	24 x 24	12	12+1.5 = 13.5	15+1+12 = 28	436	5,886	12,208
5	24 x 12	6	-12-1.5 = -13.5	15+1+24+1+6 = 47	288	-3,888	13,536
6	24 x 12	6	12+1.5 = 13.5	15+1+24+1+6 = 47	288	3,888	13,536
				TOTALS	2,218	-1,890	60,133

$\Sigma\ ('A'_n)$ = 2,218 in.² = 15.4 ft.² $\quad \Sigma\ ('X'_n \times 'A'_n)$ = -1,890 in.³ = -1.09 ft.³ $\quad \Sigma\ ('Y'_n \times 'A'_n)$ = 60,133 in.³ = 34.8 ft.³

$$'X'_c = \frac{\Sigma\ ('X'_n \times 'A'_n)}{\Sigma\ 'A'_n} = -0.1 \text{ ft.} \qquad 'Y'_c = \frac{\Sigma\ ('Y'_n \times 'A'_n)}{\Sigma\ 'A'_n} = 2.26 \text{ ft.}$$

STEP 2: Determine the height 'H' from groundline to the centroid of the individual sign or sign cluster.

Assume: 'B' = 1 ft., 'C' = 7 ft.

Calculated: X'_c = -0.1 ft., $'Y'_c$ = 'D' 2.26 ft.

'H' = 'B' + 'C' + 'D' = 10.26 ft. ==> USE 11 ft. $\quad \Sigma\ ('A'_n)$ = 15.4 ft.² ==> USE 16 ft.²

STEP 3: Refer to the Aluminum Column (Post) Selection Tables and find the intersection point. See Sheet 3.

ALUMINUM COLUMN (POST) SELECTION TABLE

TOTAL PANEL AREA (SF) \ 'H' (FT)	8 ft	9 ft	10 ft	11 ft	12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
3 sf	2	2.5	2.5	2.5	3	3	3	3	3.5	3.5	3.5	3.5	3.5
4 sf	2.5	2.5	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5
5 sf	2.5	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4
6 sf	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4
7 sf	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4
8 sf	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4
9 sf	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4
10 sf	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4.5	4.5
11 sf	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4.5	4.5	4.5
12 sf	3.5	3.5	3.5	4	4	4	4	4	4	4	4.5	4.5	4.5
13 sf	3.5	3.5	4	4	4	4	4	4	4	4.5	4.5	4.5	5
14 sf	3.5	3.5	4	4	4	4	4	4	4.5	4.5	4.5	5	5
15 sf	3.5	4	4	4	4	4	4	4.5	4.5	4.5	5	5	5
16 sf	3.5	4	4	4	4	4	4	4.5	4.5	5	5	5	6
17 sf	4	4	4	4	4	4	4.5	4.5	4.5	5	5	6	6
18 sf	4	4	4	4	4	4.5	4.5	4.5	5	5	5	6	6
19 sf	4	4	4	4	4	4.5	4.5	4.5	5	5	6	6	6
20 sf	4	4	4	4	4.5	4.5	4.5	5	5	5	6	6	6
21 sf	4	4	4	4	4.5	4.5	5	5	5	6	6	6	6
22 sf	4	4	4	4.5	4.5	4.5	5	5	6	6	6	6	6
23 sf	4	4	4	4.5	4.5	5	5	5	6	6	6	6	6
24 sf	4	4	4.5	4.5	4.5	5	5	6	6	6	6	6	6
25 sf	4	4	4.5	4.5	5	5	5	6	6	6	6	6	8
26 sf	4	4.5	4.5	4.5	5	5	5	6	6	6	6	8	8
27 sf	4	4.5	4.5	4.5	5	5	6	6	6	6	6	8	8
28 sf	4	4.5	4.5	5	5	5	6	6	6	6	6	8	8
29 sf	4.5	4.5	4.5	5	5	5	6	6	6	6	8	8	8
30 sf	4.5	4.5	5	5	5	6	6	6	6	6	8	8	8

For 'H' = 11 ft., Area = 16 ft.²

- Refer to the Aluminum Column (Post) Selection Table, from Sheet 3 and shown here for reference.
- To determine the required post size, find the intersection of the row labeled "16 SF" and the column labeled "11 FT". For the example the intersection value is "4" (4" OD).
- In the Column (Post) and Foundation Table, the value "4" shows the design requires a 4.0" diameter and ¼" thick Aluminum Column (Post) and a 2.0' diameter and 3.5' deep Concrete Foundation and 3.0' Stub.

STEP 4: For sign assemblies with signs oriented in two directions, only the sign with the largest area should be analyzed to determine the Column (Post) requirements.

GUIDE TO USE THIS INDEX

GENERAL NOTES AND DESIGN EXAMPLE

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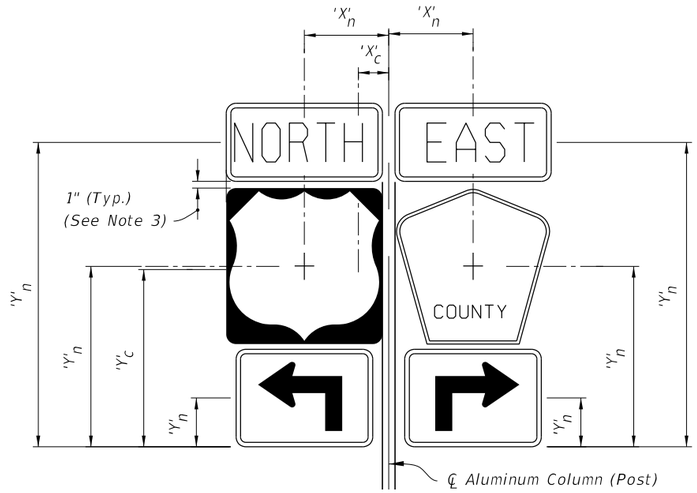
9/29/2025



SIGN CLUSTER

$$'X'_c = \frac{\Sigma\,('X'_n \times 'A'_n)}{\Sigma\,'A'_n} \qquad 'C' = 'Y'_c = \frac{\Sigma\,('Y'_n \times 'A'_n)}{\Sigma\,'A'_n}$$

'A'n = Area of individual sign

'B' = Height of the edge of pavement from the mounting elevation

'C' = Height of the the bottom of the sign or cluster from the edge of pavement elevation

'D' = Height of the centroid of the sign or cluster from the bottom of the sign or cluster

h = Individual sign height

'H' = Height of sign or cluster centroid from groundline

a = Individual sign width

'X'c = Centroid horizontal location of sign or cluster from ℄ Aluminum Column (Post)

'Y'c = Centroid height of sign or cluster from bottom of sign cluster

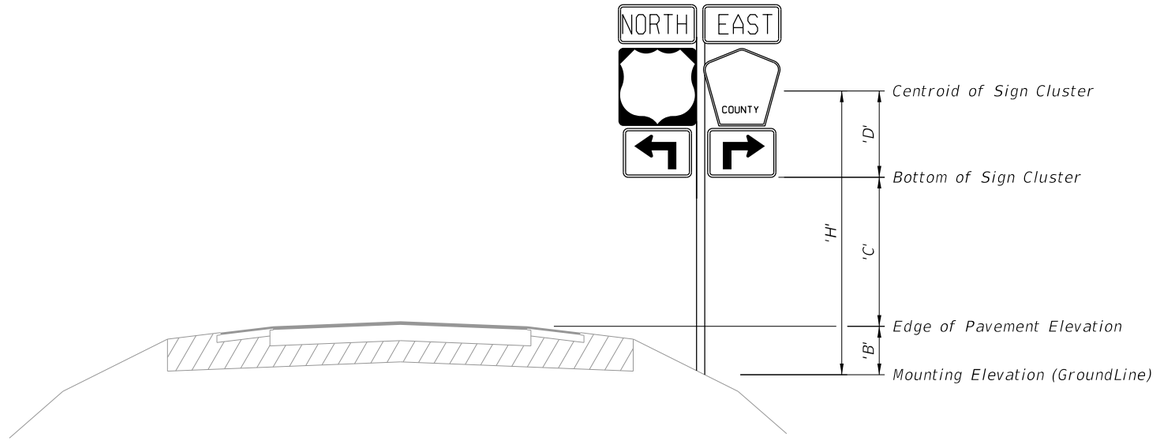
'X'n = Individual sign centroid horizontal location from ℄ Aluminum Column (Post)

'Y'n = Individual Sign centroid height from bottom of sign cluster

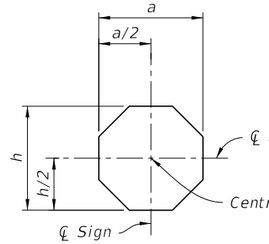
NOTES:

1. For 'B' & 'C' see Index 700-101 and Roadway Plans.
2. Do not exceed an area of 30 SF or a width of 60 inches for a sign or a sign cluster, including rotated sign panels.
3. Vertical sign spacing (1" shown on Sign Cluster detail) also applies to rotated signs.

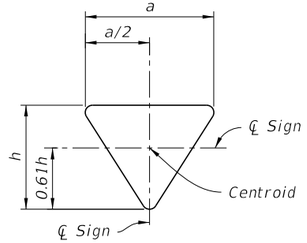
CALCULATION OF SIGN CLUSTER CENTROID



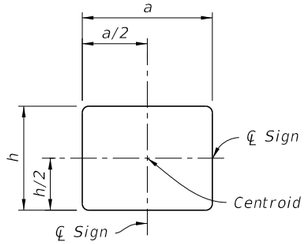
TYPICAL SECTION



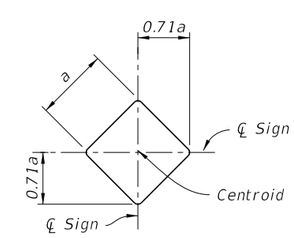
STOP



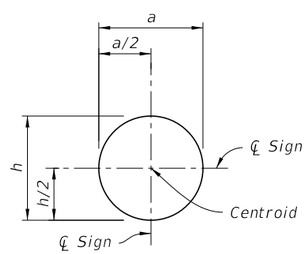
YIELD



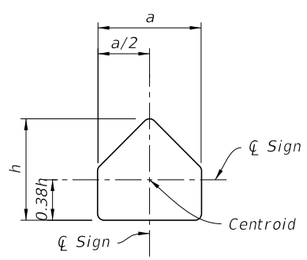
RECTANGLE



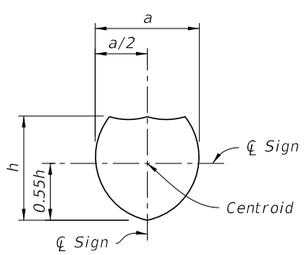
DIAMOND



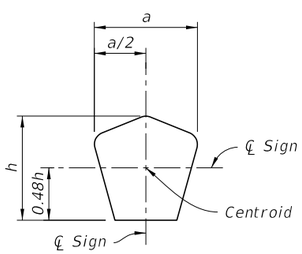
RAILROAD



SCHOOL



SHIELD



COUNTY

DESIGN EXAMPLE - CENTROID

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LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/22			FY 2026-27 STANDARD PLANS	SINGLE COLUMN GROUND SIGNS	700-010	2 of 11

ALUMINUM COLUMN (POST) SELECTION TABLE (O.D. in.)

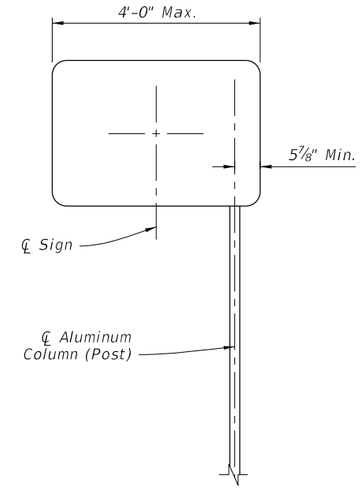
TOTAL PANEL AREA (SF)	'H' (FT)	8 ft	9 ft	10 ft	11 ft	12 ft	13 ft	14 ft	15 ft	16 ft	17 ft	18 ft	19 ft	20 ft
	3 sf	2	2.5	2.5	2.5	3	3	3	3	3.5	3.5	3.5	3.5	3.5
	4 sf	2.5	2.5	3	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5
	5 sf	2.5	3	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4
	6 sf	3	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4
	7 sf	3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4
	8 sf	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4
	9 sf	3.5	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4
	10 sf	3.5	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4.5	4.5
	11 sf	3.5	3.5	3.5	3.5	4	4	4	4	4	4	4.5	4.5	4.5
	12 sf	3.5	3.5	3.5	4	4	4	4	4	4	4	4.5	4.5	4.5
	13 sf	3.5	3.5	4	4	4	4	4	4	4	4.5	4.5	4.5	5
	14 sf	3.5	3.5	4	4	4	4	4	4	4.5	4.5	4.5	5	5
	15 sf	3.5	4	4	4	4	4	4	4.5	4.5	4.5	5	5	5
	16 sf	3.5	4	4	4	4	4	4	4.5	4.5	5	5	5	6
	17 sf	4	4	4	4	4	4	4.5	4.5	4.5	5	5	6	6
	18 sf	4	4	4	4	4	4.5	4.5	4.5	5	5	5	6	6
	19 sf	4	4	4	4	4	4.5	4.5	4.5	5	5	6	6	6
	20 sf	4	4	4	4	4.5	4.5	4.5	5	5	5	6	6	6
	21 sf	4	4	4	4	4.5	4.5	5	5	5	6	6	6	6
	22 sf	4	4	4	4.5	4.5	4.5	5	5	6	6	6	6	6
	23 sf	4	4	4	4.5	4.5	5	5	5	6	6	6	6	6
	24 sf	4	4	4.5	4.5	4.5	5	5	6	6	6	6	6	6
	25 sf	4	4	4.5	4.5	5	5	5	6	6	6	6	6	8
	26 sf	4	4.5	4.5	4.5	5	5	5	6	6	6	6	8	8
	27 sf	4	4.5	4.5	4.5	5	5	6	6	6	6	6	8	8
	28 sf	4	4.5	4.5	5	5	5	6	6	6	6	6	8	8
	29 sf	4.5	4.5	4.5	5	5	6	6	6	6	6	8	8	8
	30 sf	4.5	4.5	5	5	5	6	6	6	6	6	8	8	8

FOUNDATION TABLE

Column (Post) Size		Foundation Alternatives				
		Driven Post *		Concrete (Class II)		
Outside Diameter (in)	Wall Thk. (in)	Embedment Depth (ft)		Diameter (ft)	Embedment Depth (ft)	Stub Length (ft)
		without Soil Plate	with Soil Plate			
2.0	1/8	4.5	2.5	---	---	---
2.5	1/8	5.0	3.0	---	---	---
3.0	1/8	5.0	3.5	---	---	---
3.5	3/16	6.0	4.5	---	---	---
4.0	1/4	---	---	2.0	3.5	3.0
4.5	1/4	---	---	2.0	4.0	3.0
5.0	1/4	---	---	2.0	4.5	3.0
6.0	1/4	---	---	2.0	5.0	3.0
8.0	1/4	---	---	2.0	5.5	3.0

* *INSTALLING FRANGIBLE COLUMN SUPPORTS:*

Columns (posts) 3½" O.D. and less are considered frangible and may be installed either by driving the post or setting the posts in preformed holes. Backfill preformed holes with suitable material tamped in layers not thicker than 6" (to provide adequate compaction) or filled with flowable fill or bagged concrete.



OFFSET SIGN

NOTES:

1. For offset sign placement see Index 700-101.
2. For signs with widths greater than 4' see Index 700-011.
3. Offset signs with driven posts require a soil plate.

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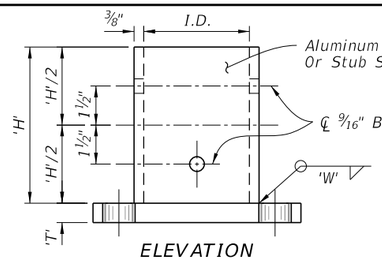
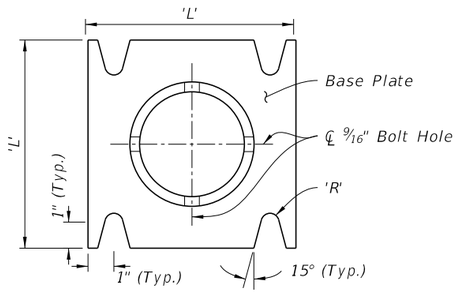
COLUMN AND FOUNDATION TABLES



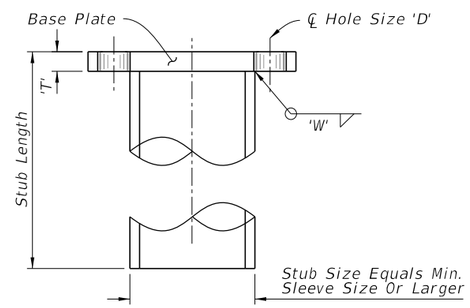
ELEVATION



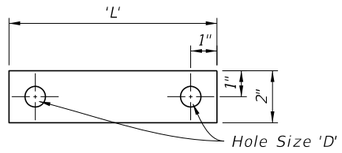
PLAN

(Welded Or Sandcast)

STUB/SLEEVE & BASE PLATE DETAILS

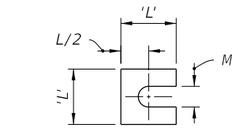


(Welded)



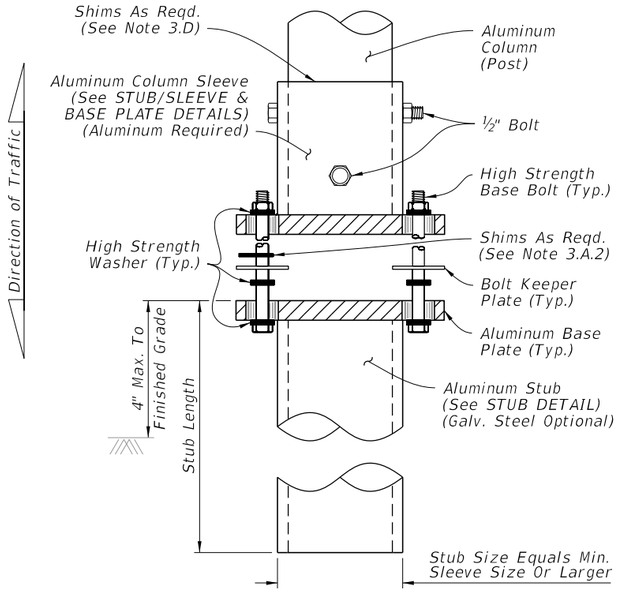
28 Ga. Thick Aluminum Strip
2 Reqd. Per Base

BOLT KEEPER PLATE DETAIL

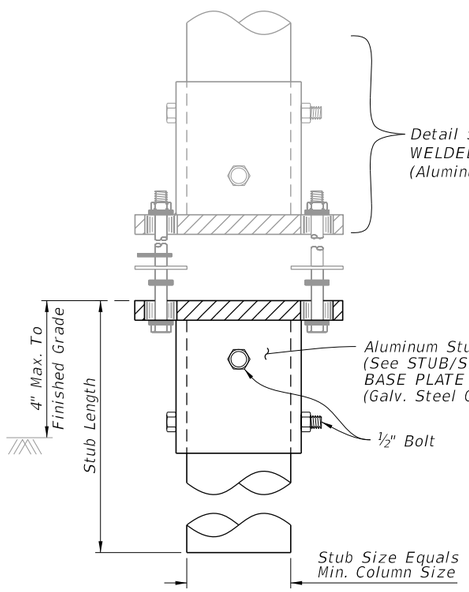


Provide 2~0.0149" Thick (28 gauge)
and 2~0.0329" Thick (21 gauge)
Brass Shims Per Post

SHIM DETAIL



WELDED STUB BASE



BOLTED STUB/SLEEVE BASE

Direction of Traffic

NOTES:

1. Foundation Notes for Slip Base:

   A. See FOUNDATION TABLE on Sheet 3 for foundation embedment depth and stub length.

2. Slip Base Fabrication Notes:

   A. The difference between the O.D. of the post and I.D. of the Sleeve must be 1/16" or less.

   B. The WELDED STUB BASE and lower STUB/SLEEVE BASE PLATE may be fabricated using galvanized steel as an option to aluminum. The upper portion of the SLIP BASE must be aluminum.

   C. Either a Welded Stub Base or Bolted Stub/Sleeve Base may be used in Slip Base.

   D. For cast base plates bolted to foundation stubs, use a foundation stub the same size as the sign column (Post).

3. Slip-Base Assembly Instructions:

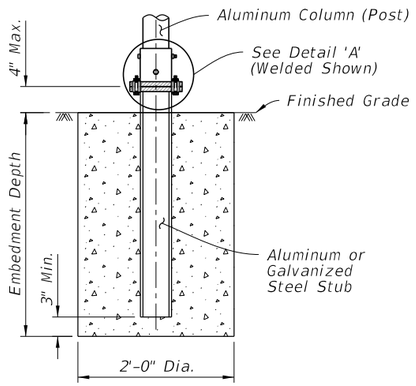
   A. Assemble the Slip Base as follows:
      1. Insert Post into Sleeve and connect using 2 ~ ½" diameter Sleeve Bolts.
      2. Assemble top base plate to bottom Base Plate using Base Bolts (High strength) with 3 washers per bolt. (See Detail 'A'):
         a. Place one washer on each Base Bolt between the bottom Base Plate and the Base Bolt head.
         b. Place the next washer between the Bottom Base Plate and the Bolt Keeper Plate.
         c. Use brass or galvanized steel shims to plumb the post.
         d. Add the top base plate section.
         e. Place the third washer between the Top Base Plate and the Nut.

   B. Orient the Bolt Keeper Plates in the Direction of Traffic.

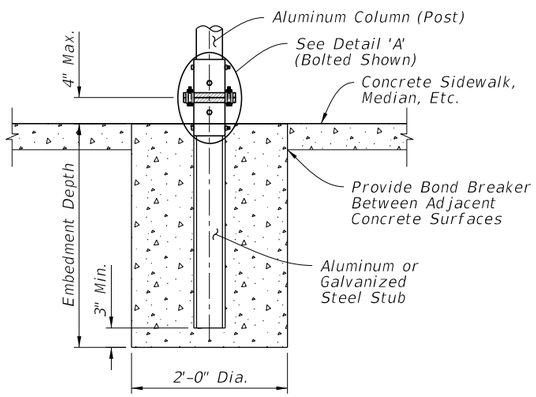
   C. Tighten Base Bolts as follows:
      1. Tighten Base Bolts to the maximum possible with a 12" to 15" wrench (this will bed the washers and shims and clear the bolt threads).
      2. Loosen each Base Bolt one turn.
      3. Under the supervision of the Engineer, use a calibrated wrench to tighten bolts to the torque prescribed in the SLIP BASE DETAILS Table. Over tightened Base Bolts are not permitted.
      4. Distort bolt threads at the junction with nuts to prevent loosening. Repair damaged galvanizing.

   D. Obtain a tight sleeve connection by placing 4 galvanized steel shims between the column (post) and sleeve. Space the shims evenly around the perimeter of the column (1 between each bolt hole, 4 total). Use shims that are 1" shorter than the height of the sleeve.

STUB DETAIL



DETAIL 'A'



SLIP BASE AND FOUNDATION DETAIL
(Non-Frangible Column, Typ.)

SLIP BASE AND FOUNDATION DETAIL IN CONCRETE
(Non-Frangible Column In Crossovers, Medians & Sidewalks)

Column (Post) Size	SLIP BASE DETAILS													
Outside Dia.	Wall Thickness	Sleeve I.D. (Max.)	Sleeve Height 'H'	Weld 'W'	Base Plate 'L'	Base Plate 'T'	Radius 'R'	Base Bolt Size	Base Bolt Length	Base Plate Torque ft-lbs	Base Plate Torque in.-lbs	Hole Size 'D'	SHIM L	SHIM M
4"	1/4"	4 1/16"	6"	1/4"	8"	3/4"	11/32"	5/8"	3"	29	345	11/16"	1 3/8"	1 1/16"
4½"	1/4"	4 9/16"	6"	1/4"	8"	7/8"	11/32"	5/8"	3 1/4"	29	345	11/16"	1 3/8"	1 1/16"
5"	1/4"	5 1/16"	7"	1/4"	8"	7/8"	11/32"	5/8"	3 1/4"	29	345	11/16"	1 3/8"	1 1/16"
6"	1/4"	6 1/16"	8"	1/4"	9"	1"	13/32"	3/4"	3 1/2"	46	554	13/16"	1 3/4"	1 3/16"
8"	1/4"	8 1/16"	10"	1/4"	11"	1"	15/32"	7/8"	3 3/4"	53	640	15/16"	2 3/8"	1 1/16"

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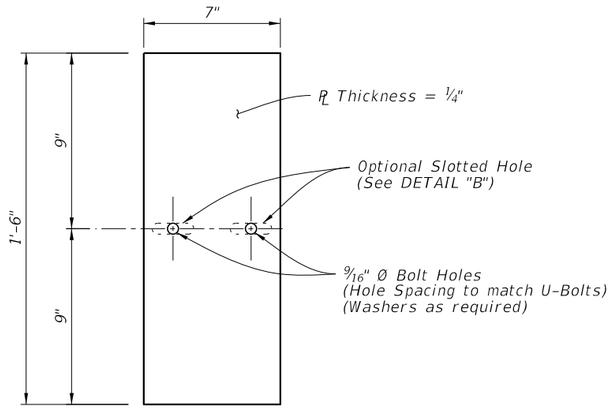
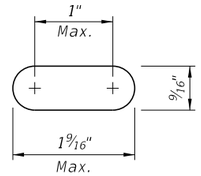
SLIP BASE AND FOUNDATION DETAILS

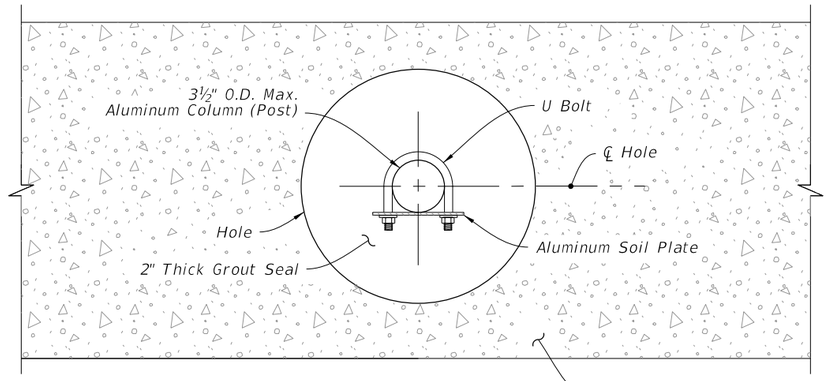


ALUMINUM SOIL PLATE DETAIL

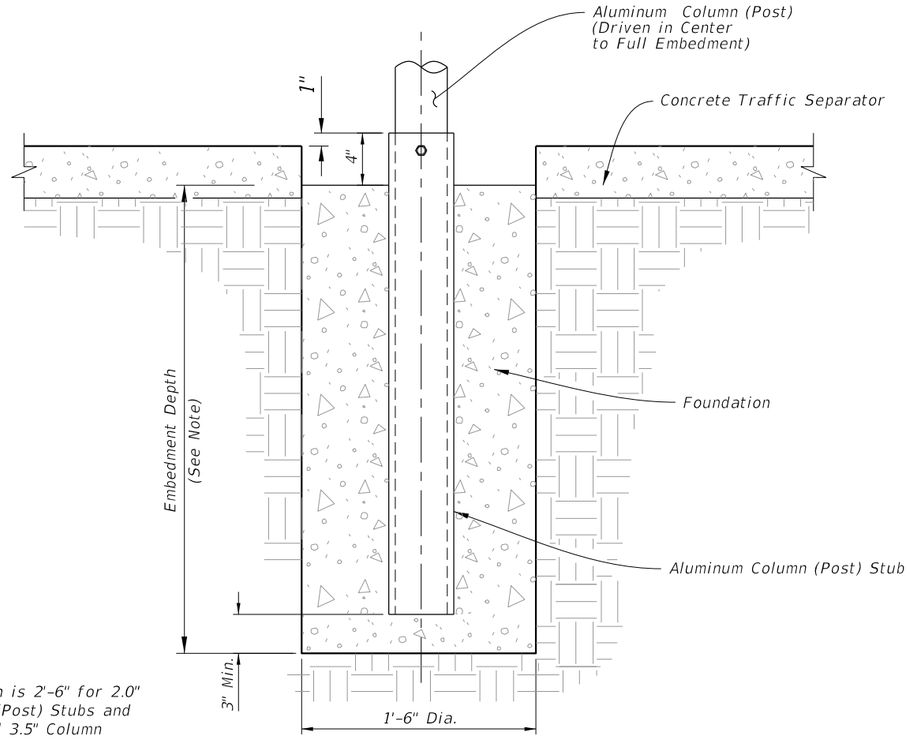


Optional Slotted Holes

DETAIL "B"



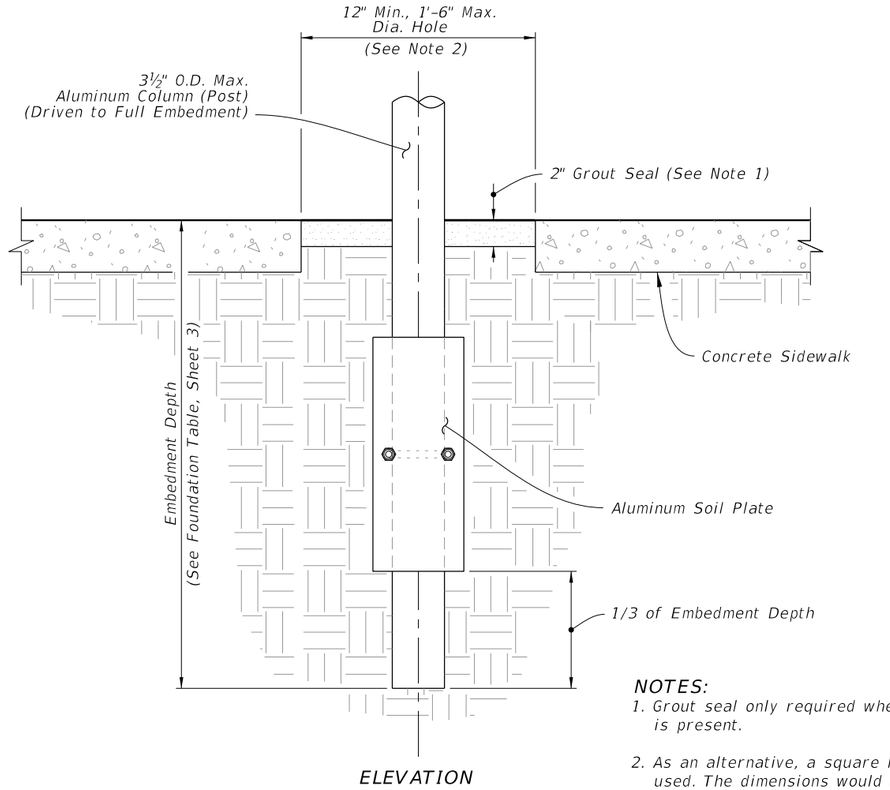
PLAN



ELEVATION

NOTE:
Embedment Depth is 2'-6" for 2.0" and 2.5" Column (Post) Stubs and 3'-6" for 3.0" and 3.5" Column (Post) Stubs.

CONCRETE/STUB DETAIL
(Traffic Separator)



ELEVATION

NOTES:
1. Grout seal only required when sidewalks is present.
2. As an alternative, a square hole may be used. The dimensions would remain, 12" minimum and 18" maximum.

DRIVEN POST DETAIL
(Frangible Post In Through Sidewalk Shown
Installations without Sidewalk Similar)

DRIVEN POST, CONCRETE/STUB, AND SOIL PLATE DETAILS

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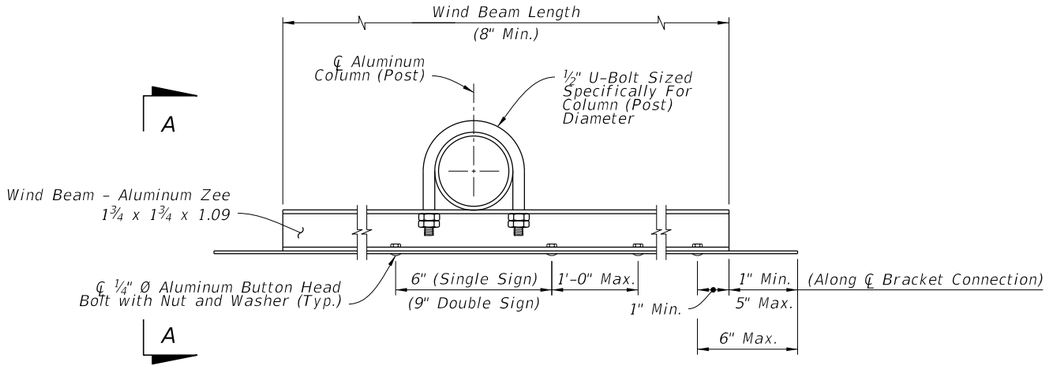
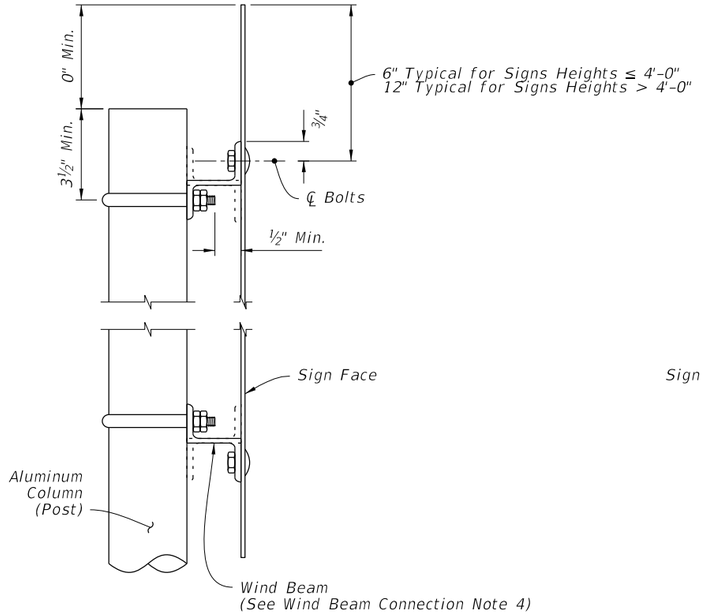


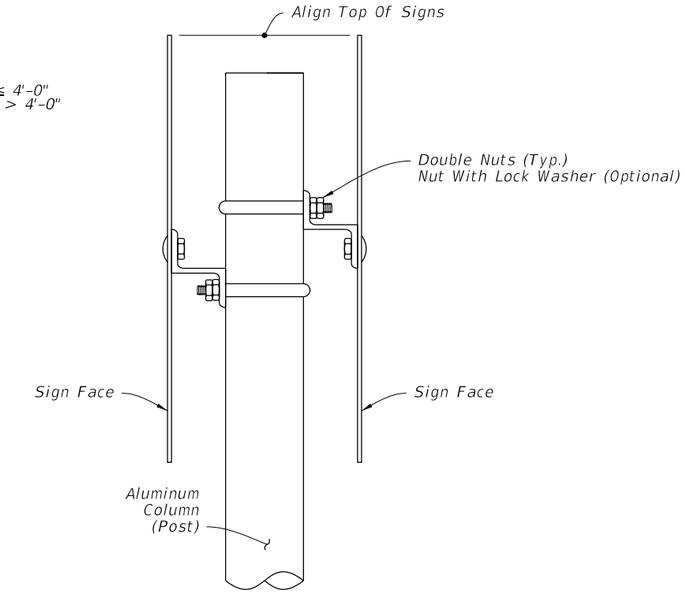
NOTES:

1. 5/16" Ø stainless steel hex head bolts with nylon washer under head and washer under nut may be used in lieu of ¼" Ø aluminum button or flat head bolts.
2. Use nylon washers (provided by the sheeting supplier) under the bolt heads to protect sign sheeting.
3. Slots up to 2" long are allowed in wind beams to accommodate U-Bolts for varying Column (Post) diameters.
4. Wind beams may be oriented in either direction.
5. For signs greater than 66" in height, install a third wind beam evenly spaced between the top and bottom wind beams. For signs up to 12" in height, use only one wind beam at ℄ Sign. Install two wind beams on signs with heights greater than 12" and less than or equal to 66".

WIND BEAM CONNECTIONS DETAILS



SINGLE SIGN DETAIL



NOTE: Use the area and the centroid location of the largest sign to determine aluminum column (post) size.

BACK-TO-BACK SIGN DETAIL

VIEW A-A

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WIND BEAM CONNECTION

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	SINGLE COLUMN GROUND SIGNS	INDEX	SHEET
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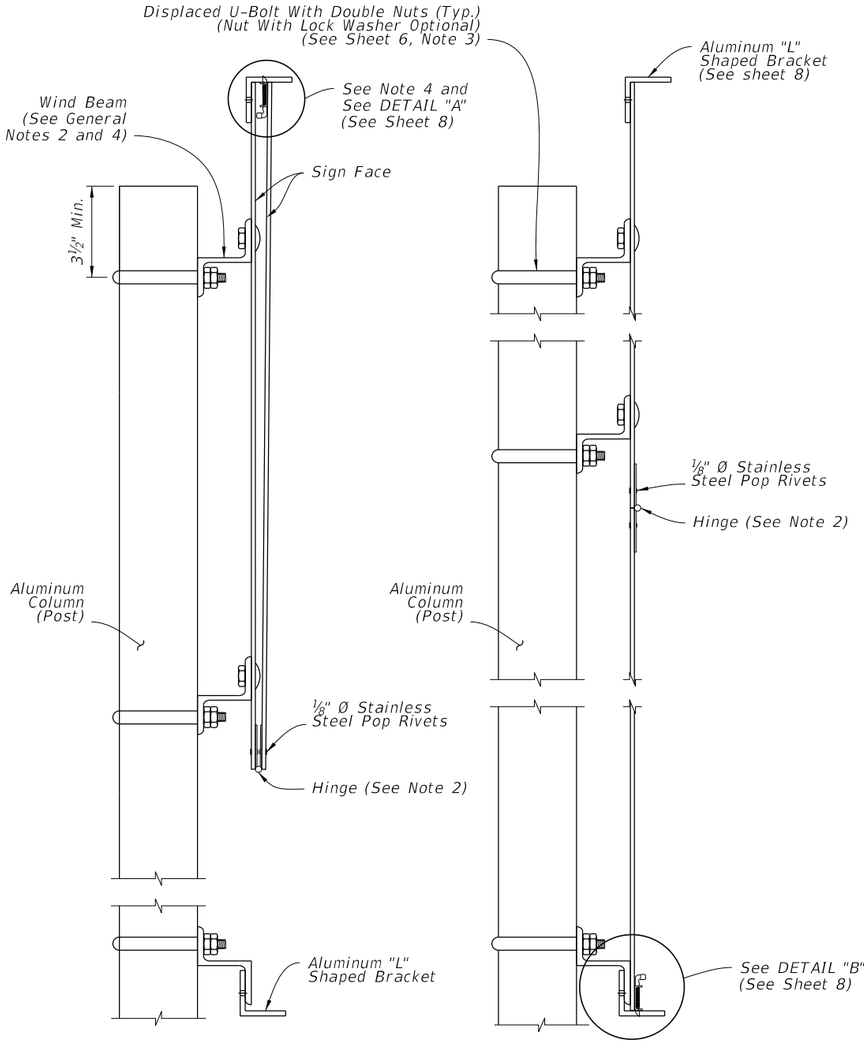
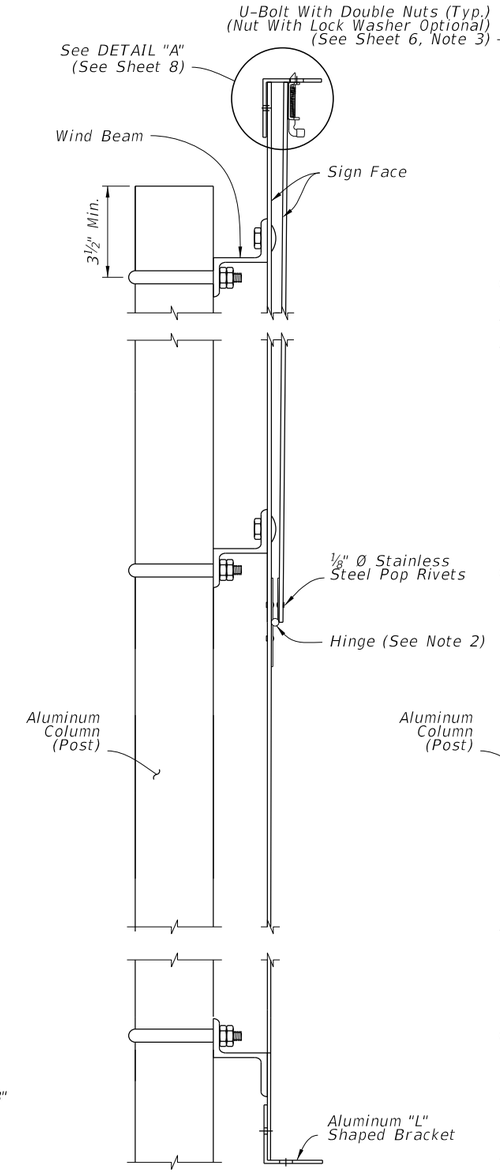


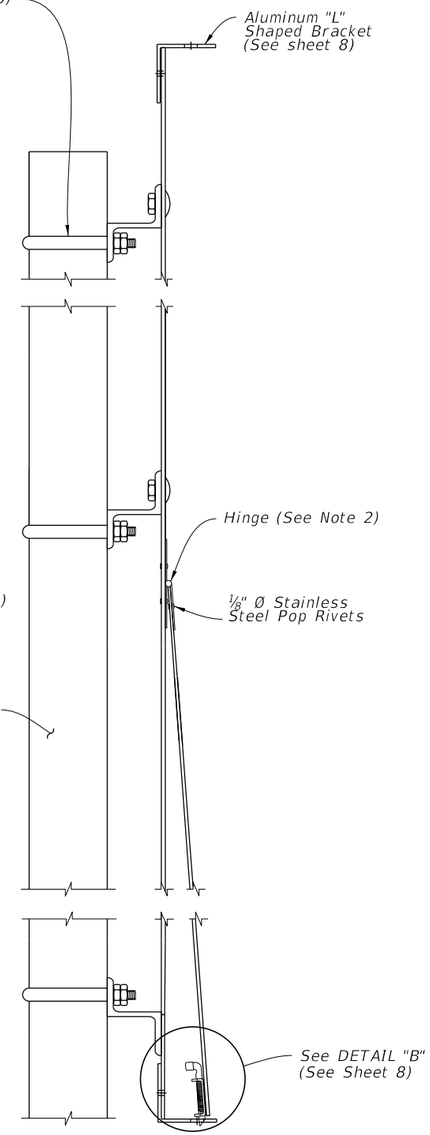
UNDEPLOYED
SIGN DETAIL

DEPLOYED
SIGN DETAIL

SINGLE SIGN PANEL SIDE VIEW

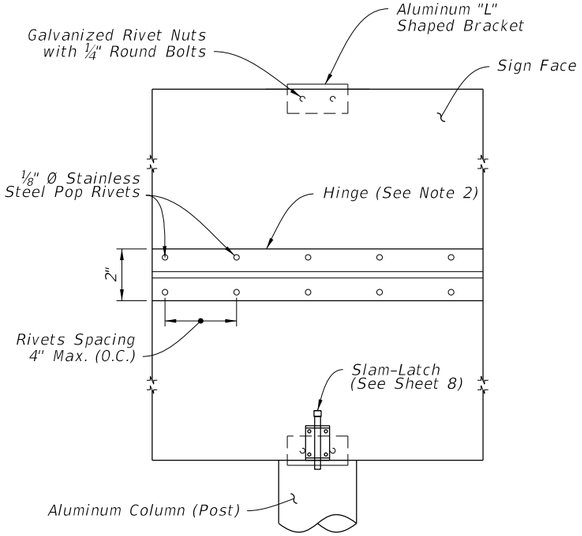


UNDEPLOYED
SIGN DETAIL



DEPLOYED
SIGN DETAIL

MULTI SIGN PANEL SIDE VIEW



SINGLE & MULTI SIGN
PANEL FRONT VIEW

NOTES:

1. Install sign with ESU sign panel in the undeployed (up) position.
2. Provide a continuous stainless steel hinge with minimum 0.060" leaf thickness, 2" open width and 0.120" pin diameter. Stake the hinge at both ends to prevent pin movement.
3. Install Stainless Steel Spring Loaded Slam-Latch with cover to bottom face of flip sign per manufacturer's recommendations.
4. Punch or drill a 3/4" diameter hole in the "L" shaped bracket on site to match location of 1/2" wide slam-latch pin. Remove any burs or sharp edges.
5. Multi sign panel assembly only use one of the following approved sign messages, actual sign may need to be scaled: FTP 413-25, FTP-005-25, and FTP 414-25.

WIND BEAM CONNECTION FOR ESU FLIP SIGNS

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LAST REVISION	REVISION	DESCRIPTION:				
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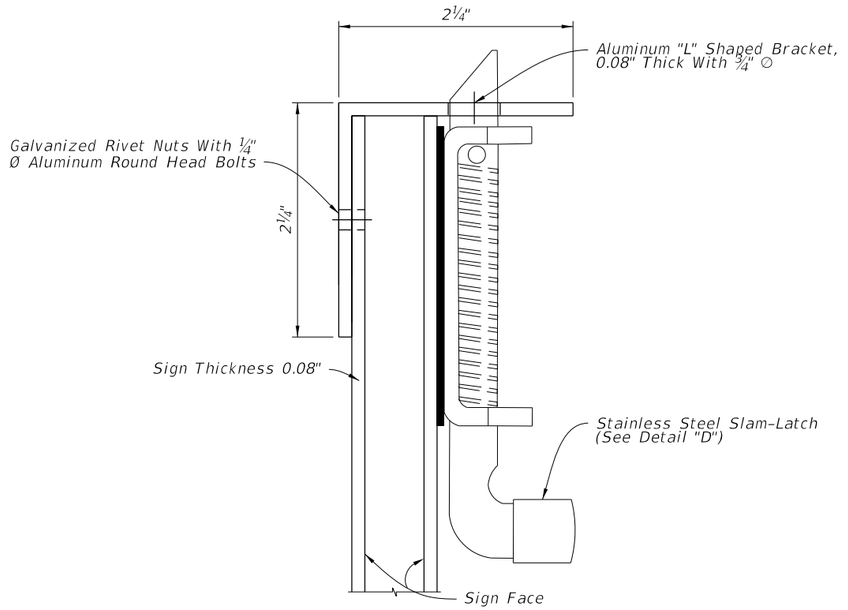
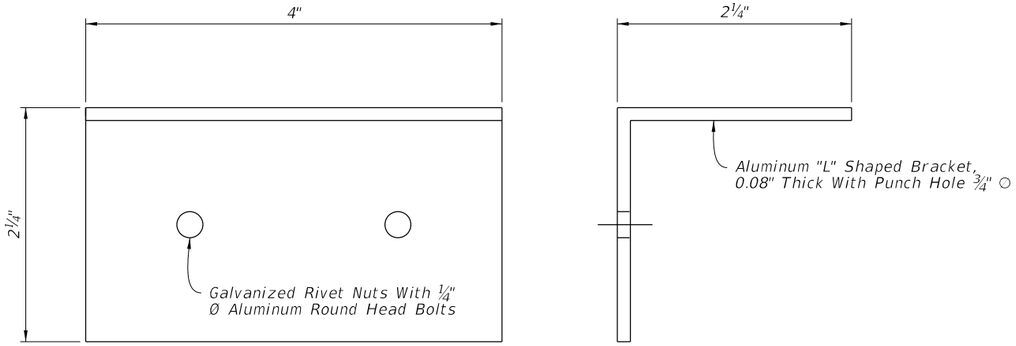
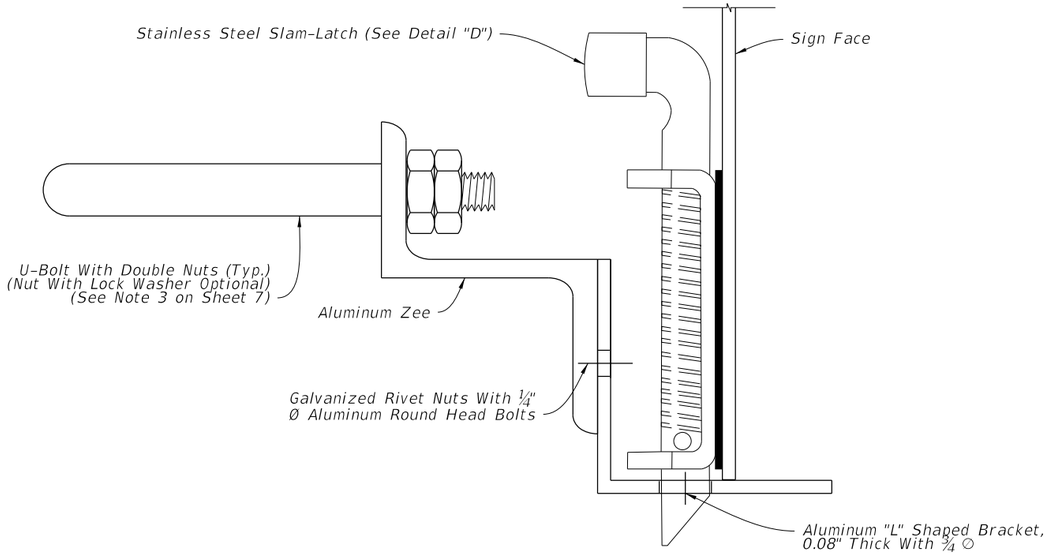


DETAIL "A"

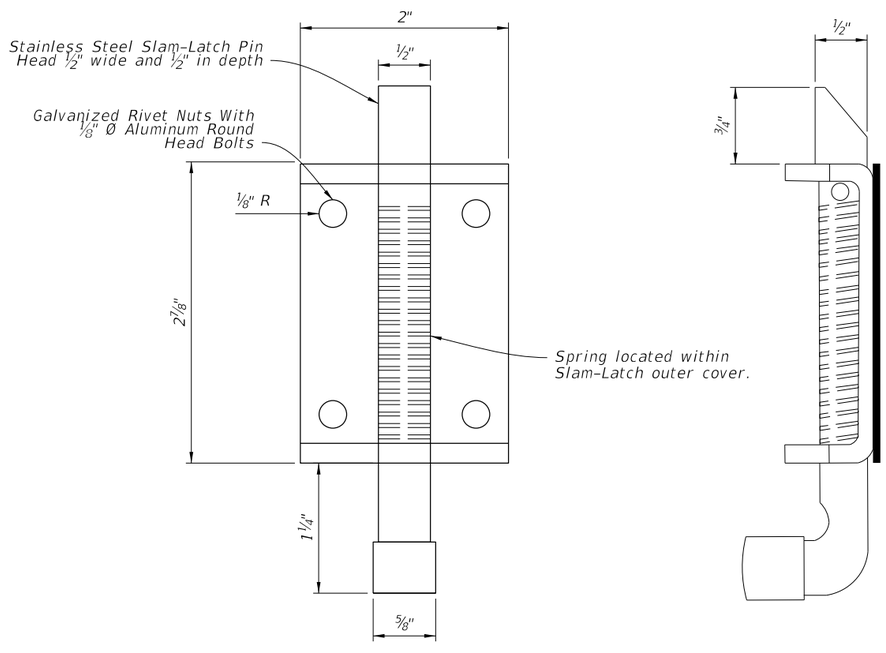


"L" Shaped Bracket

DETAIL "C"



DETAIL "B"



Stainless Steel Slam-Latch

DETAIL "D"

SLAM-LATCH DETAIL

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LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	SINGLE COLUMN GROUND SIGNS	INDEX	SHEET
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	Size	Area	Total Area	Centroid
ONE WAY	36x12	3.00 SF	6.31 SF	1.75 Ft.
STOP	24x24	3.31 SF		

	Size	Area	Total Area	Centroid
ONE WAY	36x12	3.00 SF	8.18 SF	1.92 Ft.
STOP	30x30	5.18 SF		

	Size	Area	Total Area	Centroid
ONE WAY	36x12	3.00 SF	10.46 SF	2.10 Ft.
STOP	36x36	7.46 SF		

	Size	Area	Total Area	Centroid
ONE WAY	36x12	3.00 SF	16.25 SF	2.48 Ft.
STOP	48x48	13.25 SF		

	Size	Area	Total Area	Centroid
STOP	24x24	3.31 SF	6.31 SF	1.71 Ft.
DIVIDED HIGHWAY	24x18	3.00 SF		

	Size	Area	Total Area	Centroid
STOP	30x30	5.18 SF	10.18 SF	2.19 Ft.
DIVIDED HIGHWAY	30x24	5.00 SF		

	Size	Area	Total Area	Centroid
STOP	36x36	7.46 SF	12.46 SF	2.55 Ft.
DIVIDED HIGHWAY	30x24	5.00 SF		

	Size	Area	Total Area	Centroid
ONE WAY	36x12	3.00 SF	13.18 SF	2.87 Ft.
STOP	30x30	5.18 SF		
DIVIDED HIGHWAY	30x24	5.00 SF		

	Size	Area	Total Area	Centroid
ONE WAY	36x12	3.00 SF	15.46 SF	3.15 Ft.
STOP	36x36	7.46 SF		
DIVIDED HIGHWAY	30x24	5.00 SF		

	Size	Area	Total Area	Centroid
JCT	21x15	2.19 SF	6.19 SF	1.60 Ft.
27	24x24	4.00 SF		

	Size	Area	Total Area	Centroid
JCT	21x15	2.19 SF	7.19 SF	1.52 Ft.
301	30x24	5.00 SF		

	Size	Area	Total Area	Centroid
BUSINESS OR EAST	24x12	2.00 SF	6.00 SF	1.53 Ft.
27 27	24x24	4.00 SF		

	Size	Area	Total Area	Centroid
BUSINESS OR EAST	24x12	2.00 SF	7.00 SF	1.45 Ft.
301 301	30x24	5.00 SF		

	Size	Area	Total Area	Centroid
BUSINESS OR EAST	30x15	3.13 SF	8.13 SF	1.66 Ft.
301 301	30x24	5.00 SF		

	Size	Area	Total Area	Centroid
27	24x24	4.00 SF	6.19 SF	1.73 Ft.
	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
301	30x24	5.00 SF	7.19 SF	1.81 Ft.
	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
BUSINESS EAST OR 27 27	24x12	2.00 SF	8.19 SF	2.26 Ft.
	24x24	4.00 SF		
	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
BUSINESS EAST OR 301 301	24x12	2.00 SF	9.19 SF	2.27 Ft.
	30x24	5.00 SF		
	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
BUSINESS EAST OR 301 301	30x15	3.13 SF	10.32 SF	2.49 Ft.
	30x24	5.00 SF		
	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
EAST	24x12	2.00 SF	10.19 SF	2.80 Ft.
BUSINESS	24x12	2.00 SF		
27	24x24	4.00 SF		
	21x15	2.19 SF		

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LAST REVISION	REVISION	DESCRIPTION:				
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	Size	Area	Total Area	Centroid
EAST	24x12	2.00 SF	11.19 SF	2.76 Ft.
BUSINESS	24x12	2.00 SF		
301	30x24	5.00 SF		
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
EAST	30x15	3.13 SF	13.45 SF	3.16 Ft.
BUSINESS	30x15	3.13 SF		
301	30x24	5.00 SF		
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
JCT	21x15	2.19 SF	3.90 SF	1.57 Ft.
LEON 56 COUNTY	18x18	1.71 SF		

	Size	Area	Total Area	Centroid
JCT	21x15	2.19 SF	5.22 SF	1.72 Ft.
LEON 56 COUNTY	24x24	3.03 SF		

	Size	Area	Total Area	Centroid
JCT	21x15	2.19 SF	6.95 SF	1.87 Ft.
LEON 56 COUNTY	30x30	4.76 SF		

	Size	Area	Total Area	Centroid
LEON 56 COUNTY	18x18	1.71 SF	3.90 SF	1.26 Ft.
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
LEON 56 COUNTY	24x24	3.03 SF	5.22 SF	1.62 Ft.
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
LEON 56 COUNTY	30x30	4.76 SF	6.95 SF	1.97 Ft.
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
TO	24x12	2.00 SF	9.39 SF	2.87 Ft.
EAST	24x12	2.00 SF		
INTERSTATE 75	24x24	3.20 SF		
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
TO	24x12	2.00 SF	10.18 SF	2.84 Ft.
EAST	24x12	2.00 SF		
INTERSTATE 295	30x24	3.99 SF		
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
TO	30x15	3.13 SF	12.44 SF	3.26 Ft.
EAST	30x15	3.13 SF		
INTERSTATE 295	30x24	3.99 SF		
→	21x15	2.19 SF		

	Size	Area	Total Area	Centroid
JCT	21x15	2.19 SF	5.39 SF	1.75 Ft.
INTERSTATE 75	24x24	3.20 SF		

	Size	Area	Total Area	Centroid
JCT	21x15	2.19 SF	6.18 SF	1.67 Ft.
INTERSTATE 295	30x24	3.99 SF		

	Size	Area	Total Area	Centroid
EAST INTERSTATE 75 OR TO INTERSTATE 75	24x12	2.00 SF	5.20 SF	1.67 Ft.
	24x24	3.20 SF		

	Size	Area	Total Area	Centroid
EAST INTERSTATE 295 OR TO INTERSTATE 295	24x12	2.00 SF	5.99 SF	1.60 Ft.
	30x24	3.99 SF		

	Size	Area	Total Area	Centroid
EAST INTERSTATE 295 OR TO INTERSTATE 295	30x15	3.13 SF	7.12 SF	1.81 Ft.
	30x24	3.99 SF		

	Size	Area	Total Area	Centroid
EAST INTERSTATE 75 OR TO INTERSTATE 75	30x15	3.13 SF	10.33 SF	2.27 Ft.
	36x36	7.20 SF		

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LAST REVISION	REVISION	DESCRIPTION:				
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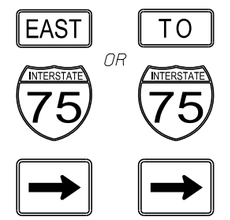
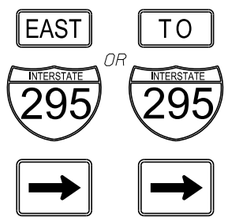
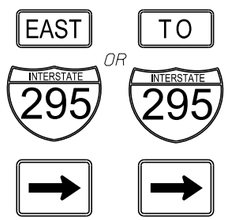
Size	Area	Total Area	Centroid
30x15	3.13 SF	12.12 SF	2.18 Ft.
45x36	8.99 SF		



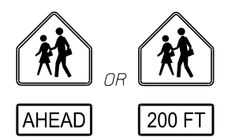
Size	Area	Total Area	Centroid
24x12	2.00 SF	7.39 SF	2.30 Ft.
24x24	3.20 SF		
21x15	2.19 SF		



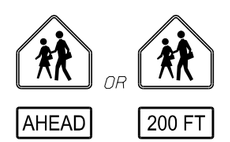
Size	Area	Total Area	Centroid
24x12	2.00 SF	8.18 SF	2.31 Ft.
30x24	3.99 SF		
21x15	2.19 SF		



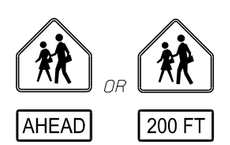
Size	Area	Total Area	Centroid
30x15	3.13 SF	9.31 SF	2.55 Ft.
30x24	3.99 SF		
21x15	2.19 SF		



Size	Area	Total Area	Centroid
30x30	4.69 SF	6.69 SF	1.61 Ft.
24x12	2.00 SF		



Size	Area	Total Area	Centroid
30x30	4.69 SF	8.44 SF	1.77 Ft.
30x18	3.75 SF		



Size	Area	Total Area	Centroid
36x36	6.75 SF	10.50 SF	2.06 Ft.
30x18	3.75 SF		

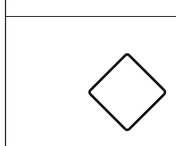
Size	Area	Total Area	Centroid
30X30	4.69 SF	6.69 SF	1.61 Ft.
24X12	2.00 SF		

Size	Area	Total Area	Centroid
30X30	4.69 SF	8.44 SF	1.77 Ft.
30X18	3.75 SF		

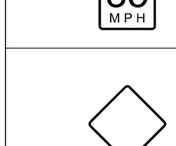
Size	Area	Total Area	Centroid
36X36	6.75 SF	10.50 SF	2.06 Ft.
30X18	3.75 SF		

Size	Area	Total Area	Centroid
30X30	6.25 SF	8.25 SF	2.28 Ft.
24X12	2.00 SF		

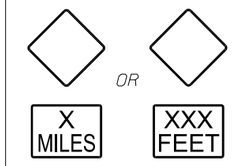
Size	Area	Total Area	Centroid
36X36	9.00 SF	12.75 SF	2.84 Ft.
30X18	3.75 SF		



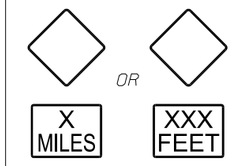
Size	Area	Total Area	Centroid
30X30	6.25 SF	10.25 SF	2.74 Ft.
24X24	4.00 SF		



Size	Area	Total Area	Centroid
36X36	9.00 SF	15.25 SF	3.29 Ft.
30X30	6.25 SF		



Size	Area	Total Area	Centroid
30X30	6.25 SF	9.25 SF	2.51 Ft.
24X18	3.00 SF		

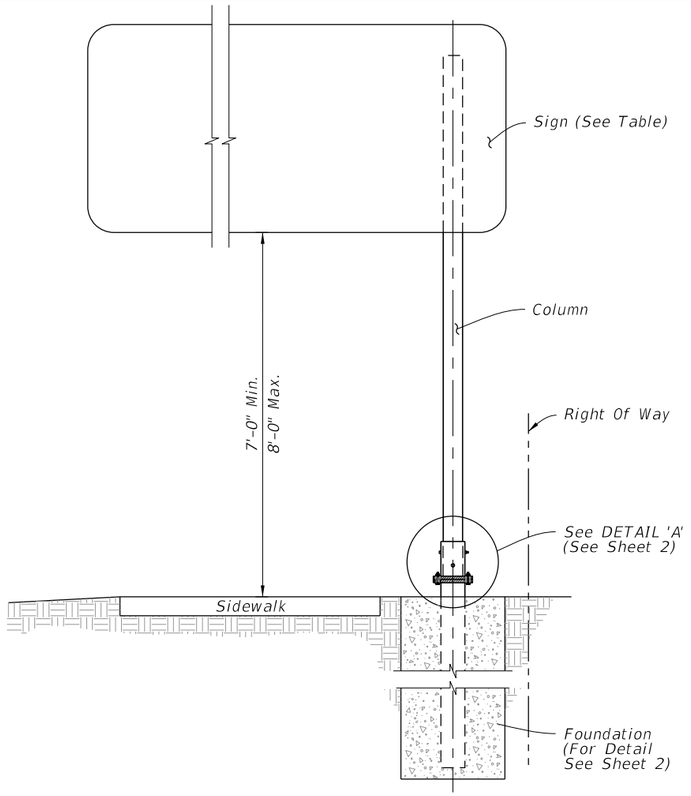


Size	Area	Total Area	Centroid
36X36	9.00 SF	14.00 SF	3.06 Ft.
30X24	5.00 SF		

9:57:06 AM

9/29/2025

LAST REVISION	REVISION	DESCRIPTION:				
11/01/22			FDOT FY 2026-27 STANDARD PLANS	SINGLE COLUMN GROUND SIGNS	INDEX 700-010	SHEET 11 of 11



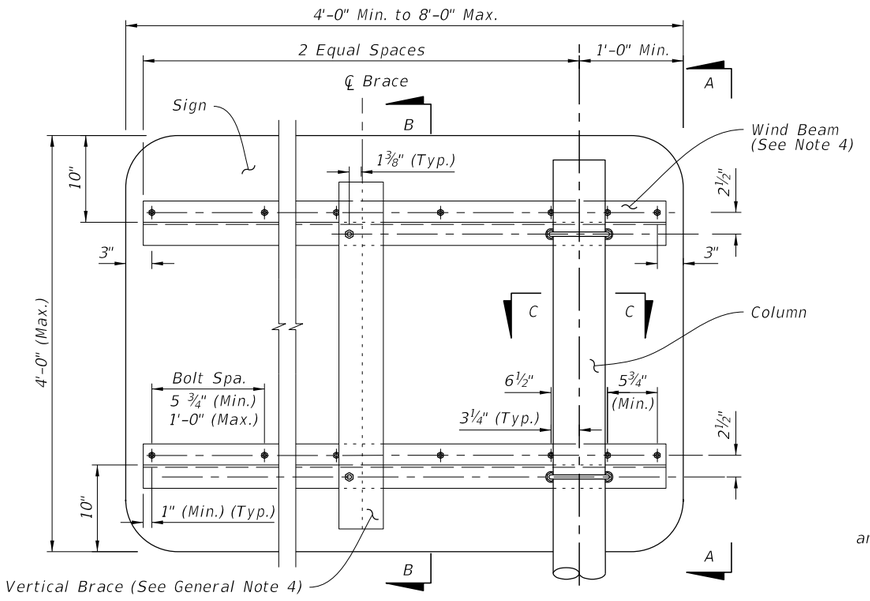
TYPICAL SECTION

GENERAL NOTES:

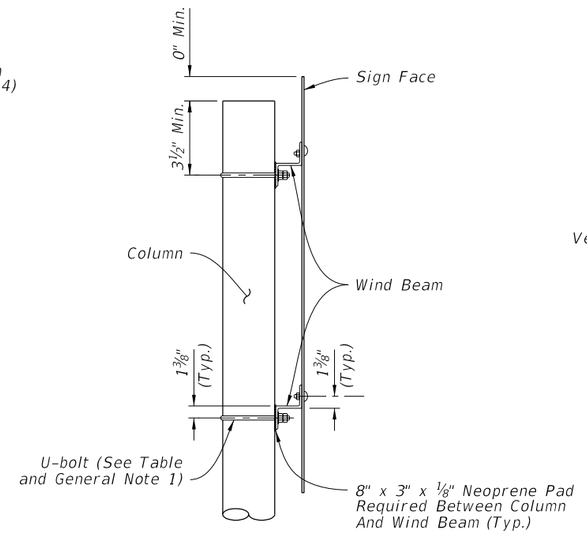
1. Work with Index 700-010 for additional notes and the assembly of base connection.
2. Meet the requirements of Specification 700.
3. Place galvanized steel shims between the Sleeve and Post to obtain a tight fit between the Post and Sleeve.
4. Wind Beam and Vertical Brace: Aluminum Z 3 x $2^{11}/_{16}$ x 3.38. Install Vertical Brace on 7'-0" to 8'-0" signs only.
5. Use Brass shims to plumb the post.
6. Use nylon washers under the button bolt heads to protect sign sheeting. Use aluminum washers under nut.
7. Aluminum Columns: ASTM B429 Alloy 6061-T6.

COLUMN SELECTION AND FOOTING SIZE TABLE

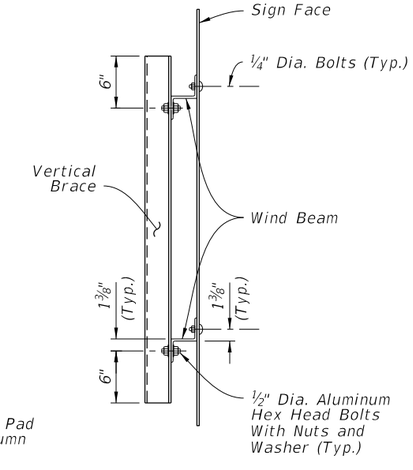
Sign Size Width x Height	Column Size Diameter x Thickness	Sleeve Size Diameter x Thickness	U-bolt Diameter	Base Bolt Diameter x Length	Torque lbs./in	Base Plate Thickness	Footing Depth
5'-0" x 4'-0"	4 NPS Schedule 80 (4.5" x 0.337")	5 NPS Schedule 120 (5.563" x 0.5")	½"	⅝" x 3½"	270 +/- 45	1"	6'-0"
6'-0" x 4'-0"							
7'-0" x 4'-0"	5 NPS Schedule 80 (5.563" x 0.375")	6 NPS Schedule 80 (6.625" x 0.432")	⅝"	¾" x 4"	445 +/- 75	1⅛"	6'-6"
8'-0" x 4'-0"							7'-0"



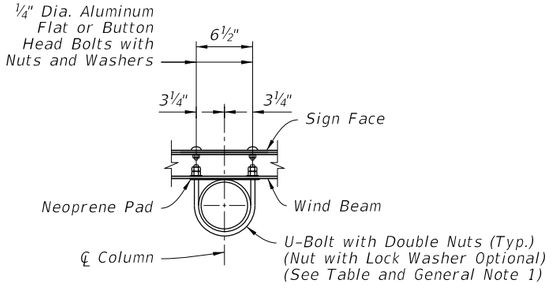
SIGN DETAIL



VIEW A-A



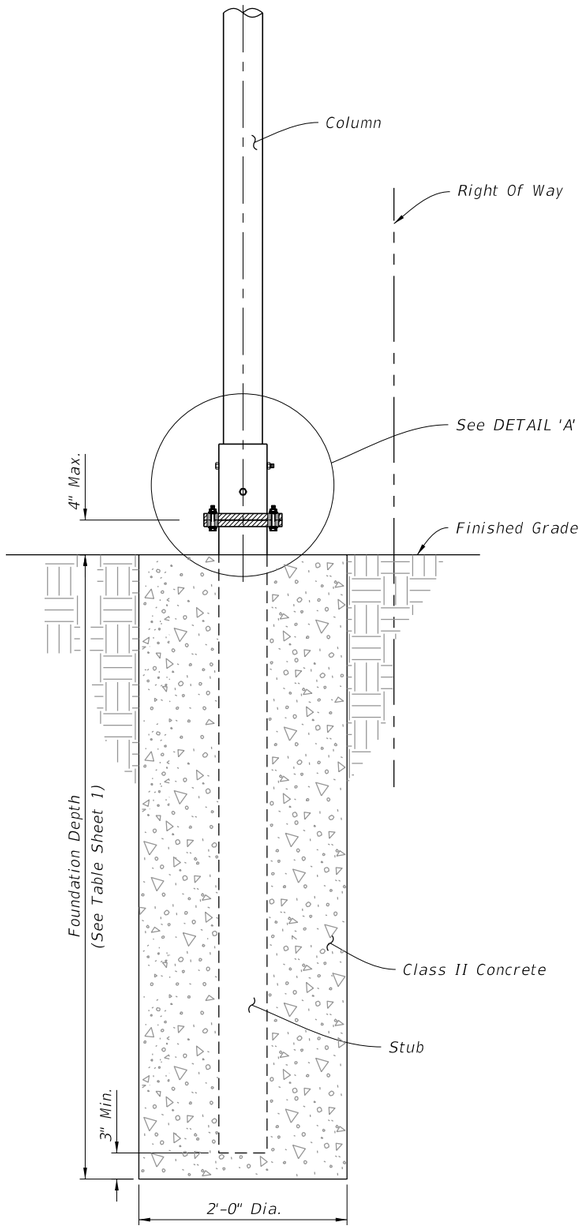
SECTION B-B



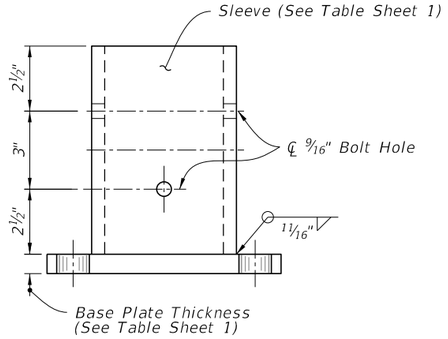
SECTION C-C

9:57:13 AM
9/29/2025

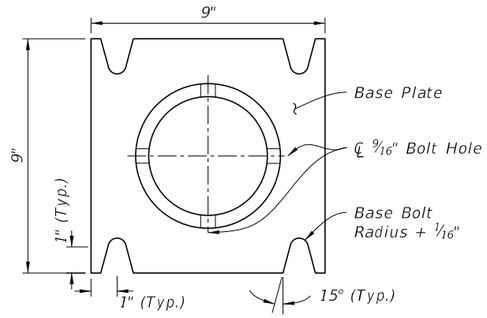
LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/23			FY 2026-27 STANDARD PLANS	SINGLE COLUMN CANTILEVER GROUND MOUNTED SIGN	700-011	1 of 2



BASE AND FOUNDATION DETAIL

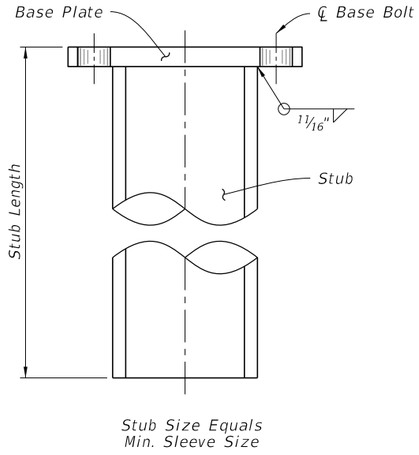


ELEVATION



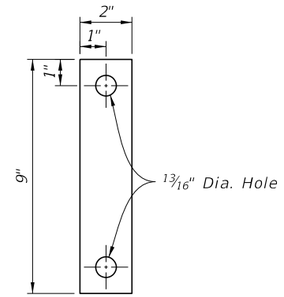
PLAN

SLEEVE & BASE PLATE DETAILS



Stub Size Equals
Min. Sleeve Size

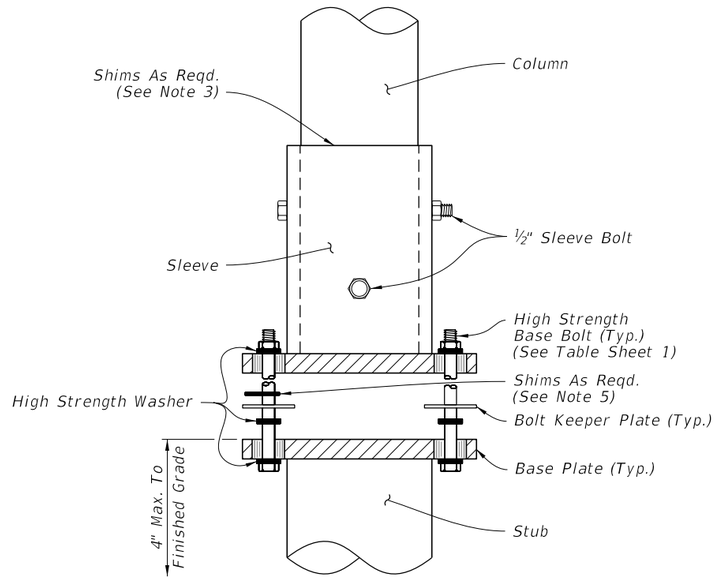
STUB DETAIL



28 Ga. Thick Aluminum Strip
2 Required Per Base

BOLT KEEPER PLATE DETAIL

Direction of Traffic



DETAIL 'A'

9/29/2025 9:57:21 AM

LAST REVISION 11/01/21	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	SINGLE COLUMN CANTILEVER GROUND MOUNTED SIGN	INDEX 700-011	SHEET 2 of 2

GENERAL NOTES:

1. Meet the requirements of Specification 700.

2. Work with Index 700-010.

3. Shop Drawings: Not required.

4. Construction:

   A. Locate Sign Support a minimum of 5 feet from an open joint or transition (sign stationing may be adjusted to accommodate this requirement.
   B. Base plate must be flush with back of Traffic Railing
   C. Anchors in Traffic Railings:
      a. Install Adhesive Anchors in accordance with Specification 416 except perform field test on one anchor per sign support location.
      b. Use templates and tie anchors as necessary to maintain correct placement of C-I-P Embedded Anchors
      c. Do not drill into existing conduit
   D. Temporary Signs on Permanent Traffic Railings: Same as Permanent except Field testing of anchors is not required

5. Removal of Temporary Signs on Permanent Traffic Railings:

   A. Cut anchor rods flush with the top of the traffic railing
   B. Coat anchors with Type F-1 epoxy to prevent corrosion
      a. Extend coating 2 inches beyond edge of cut anchor rods
      b. Epoxy coating 1/16" thick minimum

6. Bridge deck shown. Approach slabs, junction slabs, and miscellaneous structures are similar.

7. Traffic railings are shown. Concrete barriers and parapets are similar.

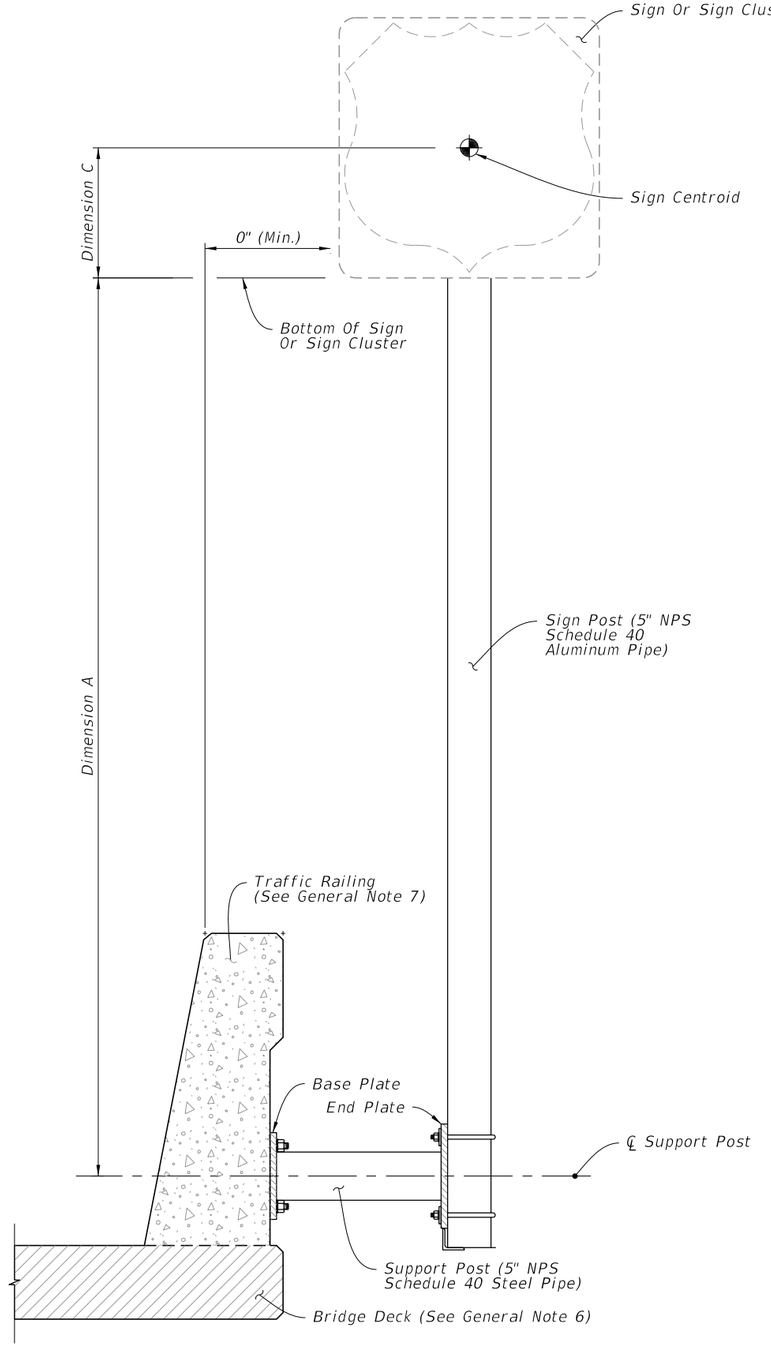
8. Materials:

   A. Steel Plate: ASTM A36 or ASTM A709 Grade 36
   B. Steel Pipe (Support Post): ASTM A501 Schedule 40
   C. Aluminum Pipe: ASTM B429 Alloy 6061-T6
   D. Galvanized U-Bolts, Nuts and Plate Washer
      a. U-Bolts: ASTM A449
      b. Hex Nuts: ASTM A 563 Lock Nuts
      c. Plate Washer: ASTM A 36 or ASTM A709 Grade 36 or 50
   E. Galvanized Anchor bolts, Nuts and Washers:
      a. Anchor Rod: ASTM F1554 Grade 55 fully threaded (for Adhesive Anchors)
      b. Anchor Bolts: ASTM F1554 Grade 55 Grade A Hex
      c. Nuts: ASTM A563 Heavy Hex Locking
      d. Washers: ASTM F436

SIGN LIMITATIONS TABLE	
MAX. SIGN AREA (SF)	MAX. SIGN CENTROID HEIGHT (DIM. A + DIM. C)
25	9'-7"

Dimension A = Distance from centerline of the Support Post to the bottom of the sign or sign cluster.

Dimension C = Vertical distance from the bottom of the sign or sign cluster to the Centroid of the sign or sign cluster.

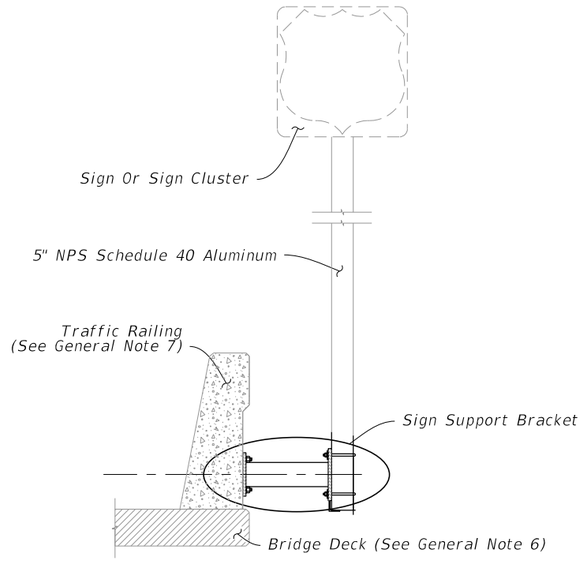


SIGN SUPPORT ASSEMBLY

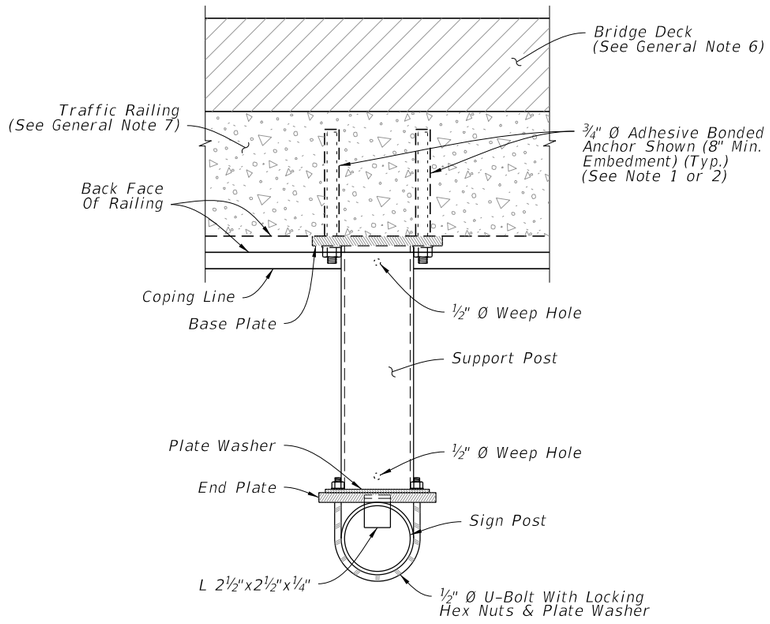
9:57:28 AM

9/29/2025

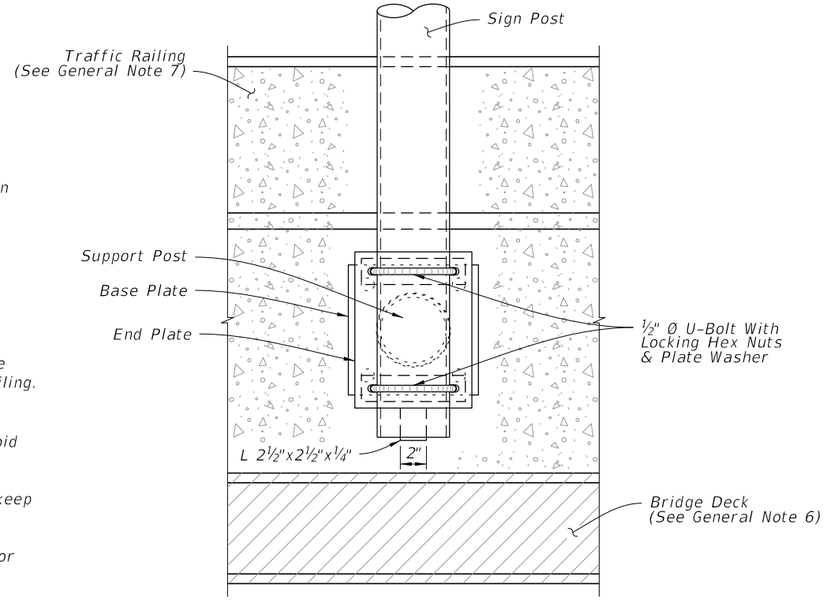
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	SINGLE POST SIGN SUPPORT BARRIER SIDE-MOUNTED	INDEX	SHEET
11/01/22						700-012	1 of 3



SIGN SUPPORT ASSEMBLY

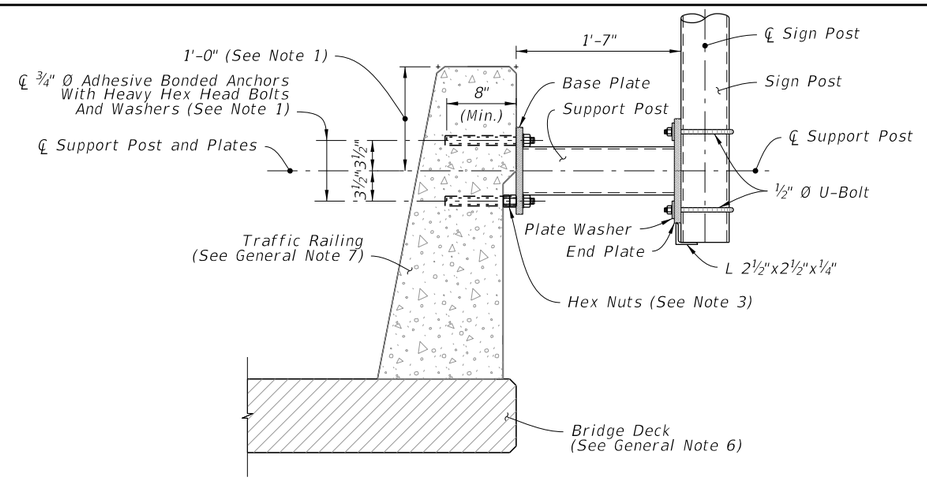


PLAN

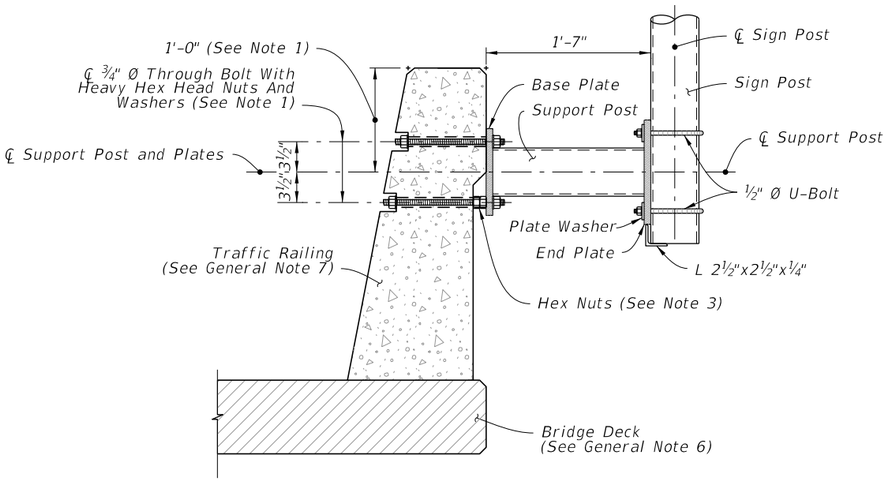


ELEVATION

SIGN SUPPORT BRACKET

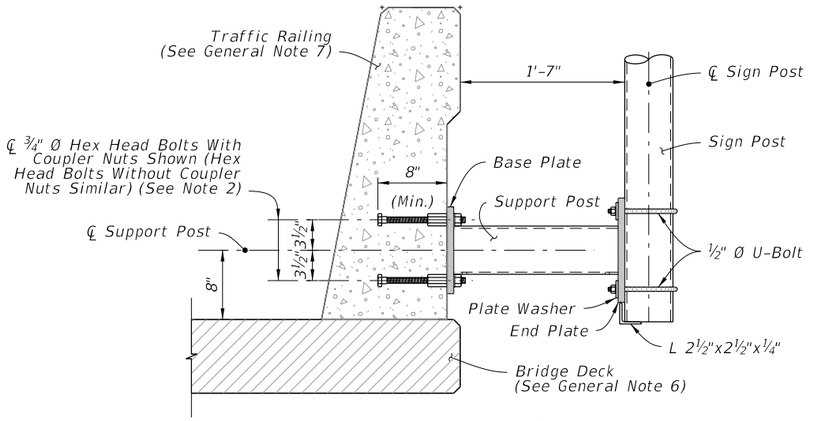


ADHESIVE BOND



THROUGH BOLTING

TYPICAL SECTION - EXISTING RAILING



TYPICAL SECTION - NEW CONSTRUCTION

NOTES:

1. Existing Traffic Railings:

   A. Locate existing conduit prior to drilling and adjust placement of base plate as necessary to avoid damaging existing conduit. Base plate must be flush with back of traffic railing. Maintain a minimum cover 2" from face of traffic railing to tip of Adhesive Anchor.

   B. For concrete parapets less than 10" thick, through bolt ¾" Ø Heavy Hex Head Bolts with Nuts and Washers in lieu of Adhesive Bonded Anchors. Bolt heads shall not protrude more than 1½" beyond traffic face of railing.

   C. For through bolting, countersink the nut and washer so that the bolt and nut does not extend beyond the face of the traffic railing. Do not exceed a countersink depth and diameter of 2½".

   D. Shift assembly up or down a maximum of 1" as required to avoid horizontal bars in the barrier.

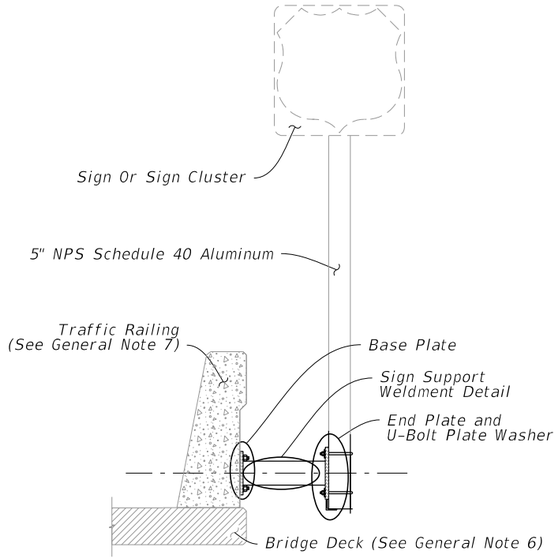
2. For new Traffic Railings, couplers are shown for slipforming, keep Anchor Bolt coupler threads free of concrete.

3. Install 2 heavy hex nuts. Add a washer if required to account for concrete dimension tolerance.

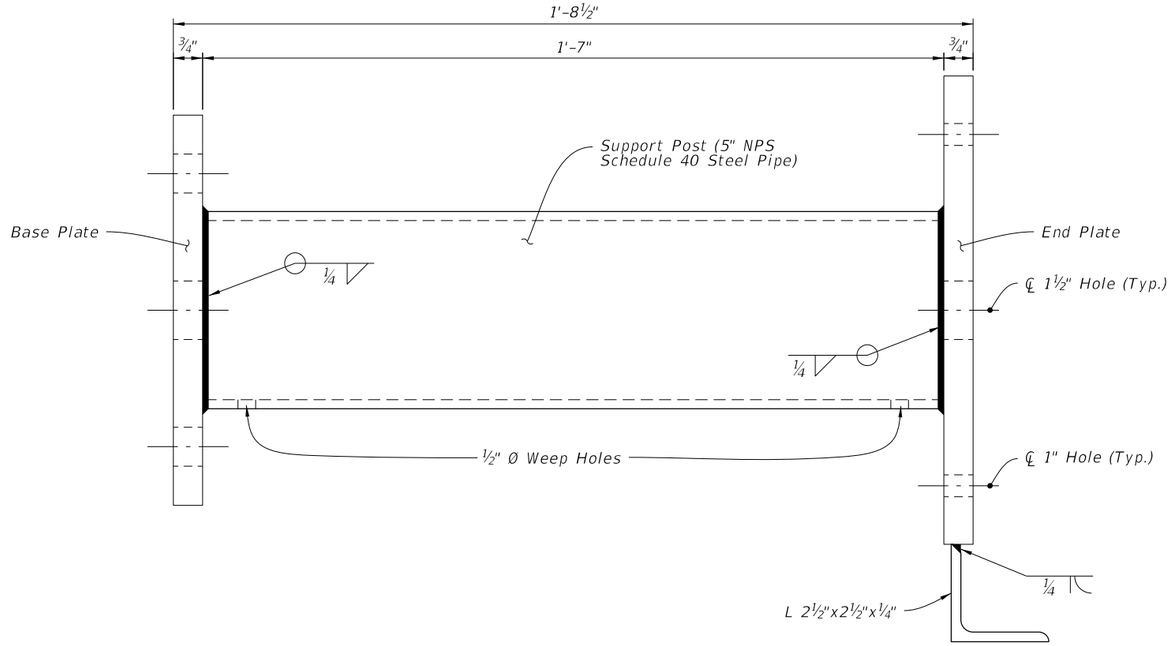
9:57:36 AM

9/29/2025

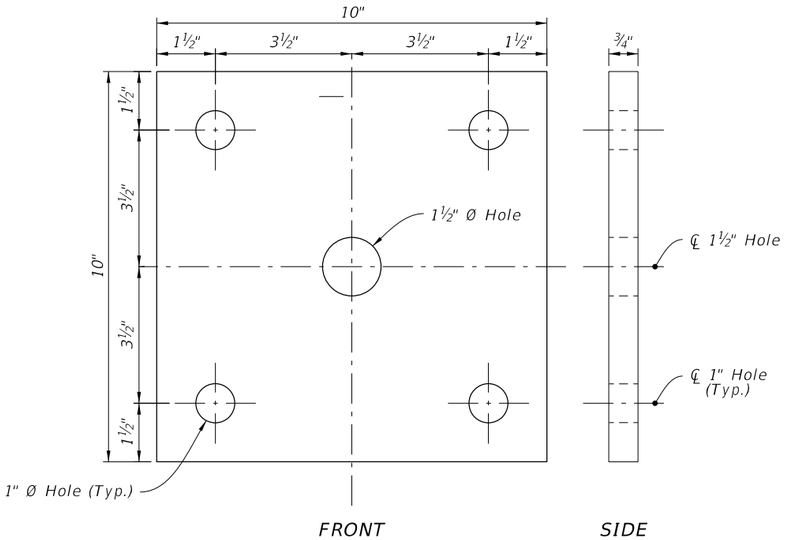
LAST REVISION	REVISION	DESCRIPTION:				
11/01/25			FDOT	FY 2026-27 STANDARD PLANS	SINGLE POST SIGN SUPPORT BARRIER SIDE-MOUNTED	INDEX 700-012 / SHEET 2 of 3



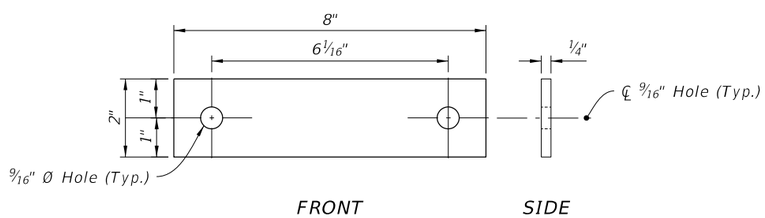
SIGN SUPPORT ASSEMBLY



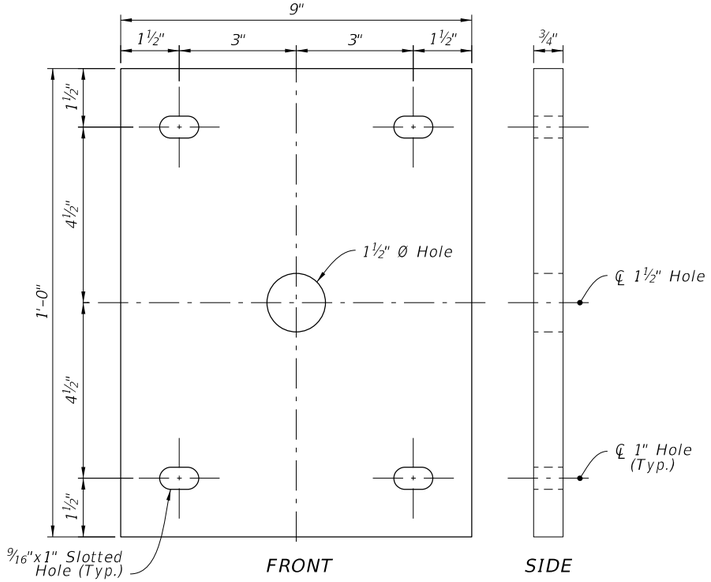
SIGN SUPPORT WELDMENT DETAIL



BASE PLATE



U-BOLT PLATE WASHER



END PLATE

9/29/2025 9:57:43 AM

LAST REVISION	REVISION	DESCRIPTION:				
11/01/22			FY 2026-27 STANDARD PLANS	SINGLE POST SIGN SUPPORT BARRIER SIDE-MOUNTED	INDEX 700-012	SHEET 3 of 3

GENERAL NOTES:

1. Meet the requirements of Specification 700.

2. Work with Index 700-010.

3. Shop Drawings: Not required.

4. Construction:

   A. Locate Sign Support a minimum of 5 feet from an open joint or transition (sign stationing may be adjusted to accommodate this requirement
   B. Base plate must be flush with top of Railing
   C. Anchors in Traffic Railings:
      a. Install Adhesive Anchors in accordance with Specification 416 except perform field test on one anchor per sign support location
      b. Use template and tie anchors as necessary to maintain correct placement of C-I-P Embedded Anchors
      c. Do not drill into existing reinforcing
   D. Temporary Signs on Permanent Traffic Railings, Same as Permanent except field testing of anchors is not required
   E. Temporary Signs on Temporary Railings/Barriers:
      a. Install Sign Supports at the midpoint along the length of a single segment
      b. Avoid drilling through existing reinforcement; use of metal detector not required.
      c. Field testing of anchors is not required

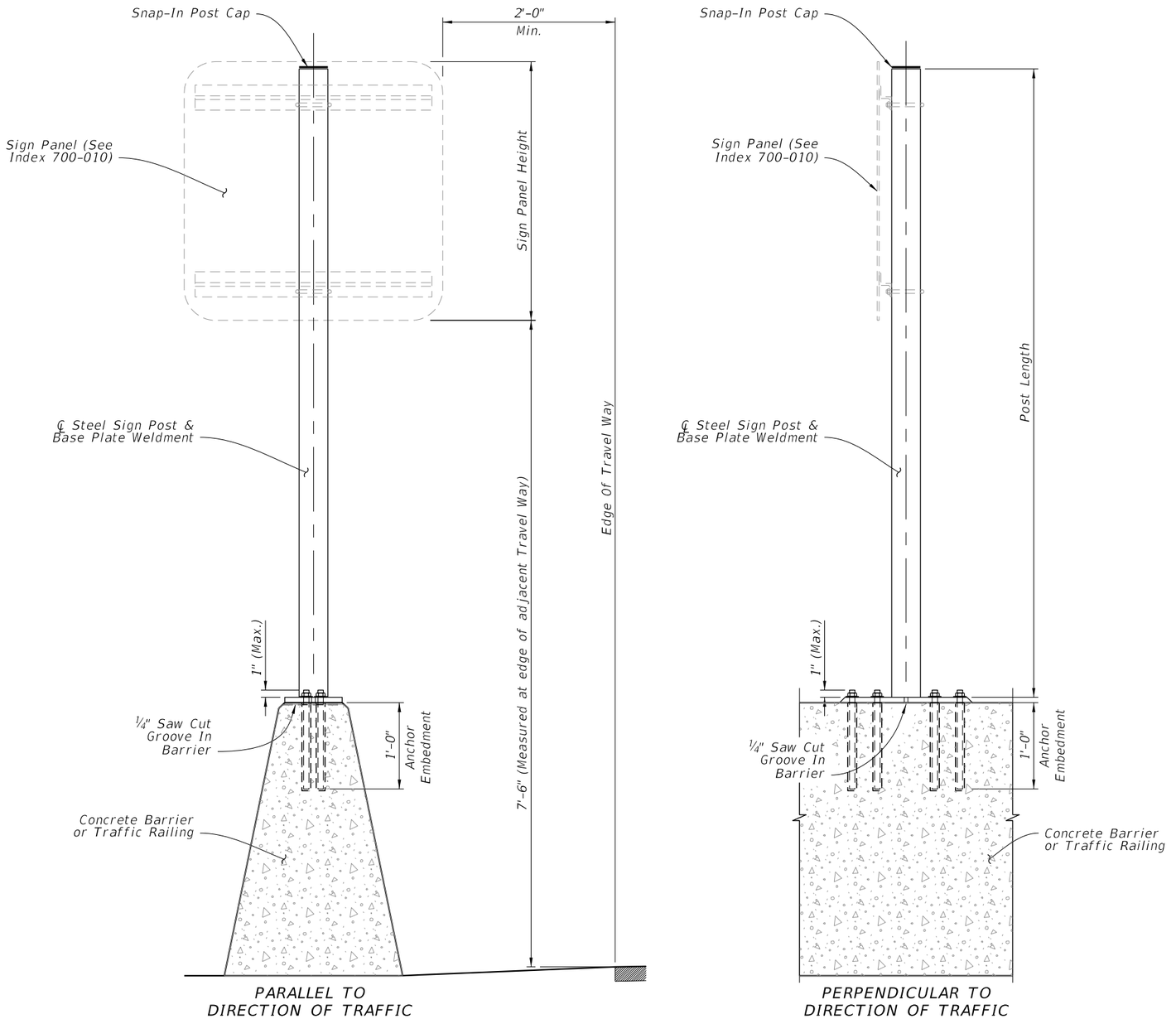
5. Removal of Temporary Signs on Permanent Traffic Railings:

   A. Cut anchor rods flush with the top of the railing
   B. Coat anchors with Type F-1 epoxy to prevent corrosion
      a. Extend coating 2 inches beyond edge of cut anchor rods
      b. Epoxy coating 1/16" thick minimum

6. Materials:

   A. Steel Plate: ASTM A36 or ASTM A709 Grade 36
   B. Steel Pipe (Support Post): ASTM A53 Grade B Schedule 40
   C. Galvanized U-Bolts, Nuts and Plate Washer
      a. U-Bolts: ASTM A449
      b. Hex Nuts: ASTM A 563 Lock Nuts
      c. Plate Washer: ASTM A 36 or ASTM A709 Grade 36 or 50
   D. Galvanized Anchor Bolts, Nuts and Washers:
      a. Anchor Rod: ASTM F1554 Grade 55 fully threaded (for Adhesive Anchors)
      b. Anchor Bolts: ASTM F1554 Grade 55 Grade A Hex
      c. Nuts: ASTM A563 Heavy Hex Locking
      d. Washers: ASTM F436

TABLE 1 - SIGN PANEL AND POST SIZING		
	Max. Sign Area (SF)	Post (NPS)
Temporary Signs	≤ 24	3.0
Permanent Signs	< 13.5	3.0
	13.5 < Sign < 20	3.5



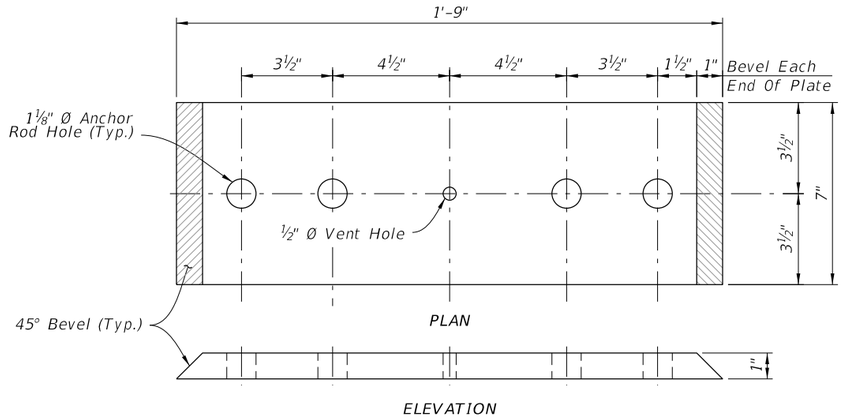
(Index 521-001 Median Barrier shown; others similar)

ELEVATION

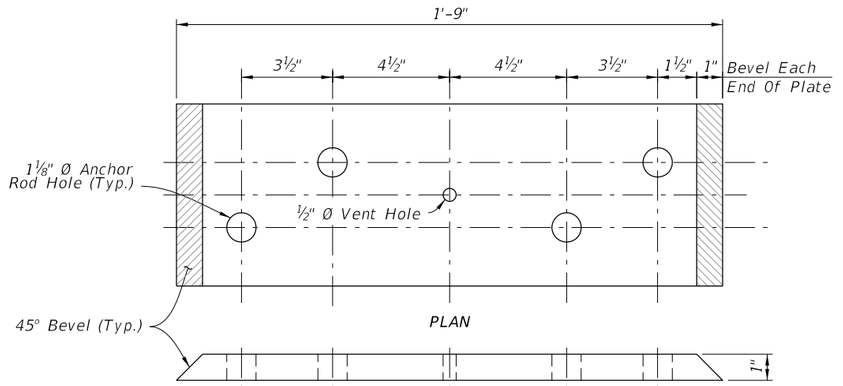
9:57:50 AM

9/29/2025

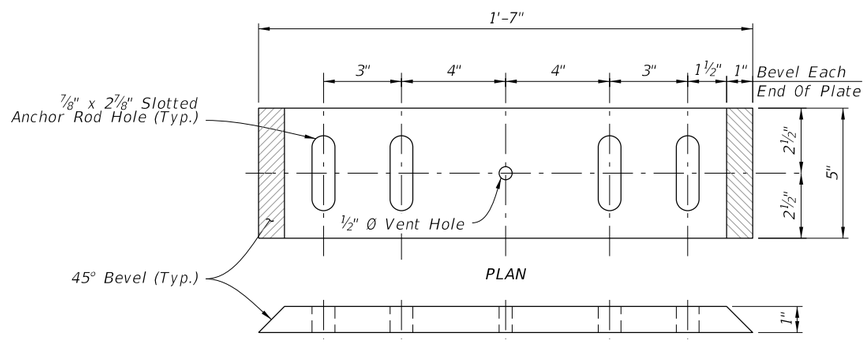
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	SINGLE POST SIGN SUPPORT BARRIER TOP-MOUNTED	INDEX	SHEET
11/01/22						700-013	1 of 2



BASE PLATE TYPE A
(Linear Anchor Rod Pattern)



BASE PLATE TYPE B
(Staggered Anchor Rod Pattern)



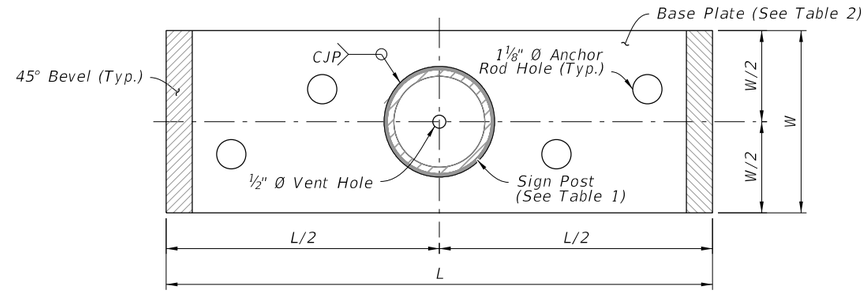
BASE PLATE TYPE C

NOTES:

1. Place anchor rods in a staggered or linear pattern as necessary to avoid reinforcing.
2. Use a staggered pattern for all temporary barriers.

TABLE 2 - BASE PLATE TYPE AND ANCHOR ROD SIZING

Index	Type/Application	Base Plate Type	Anchor Rod Ø
521-001	Full Wall	B	1"
521-001	Cantilever or L-Wall	A	
All listed above Plus 102-110 & 102-100	Temporary Signs	C	¾"



SIGN SUPPORT WELDMENT DETAIL
(Staggered Anchor Rod Pattern shown)

9/29/2025 9:57:58 AM

LAST REVISION	REVISION	DESCRIPTION:				
11/01/22			FY 2026-27 STANDARD PLANS	SINGLE POST SIGN SUPPORT BARRIER TOP-MOUNTED	INDEX 700-013	SHEET 2 of 2

GENERAL NOTES:

1. Meet the requirements of Specification 700.

2. Verify Column lengths in the field prior to fabrication.

3. Shop drawings:

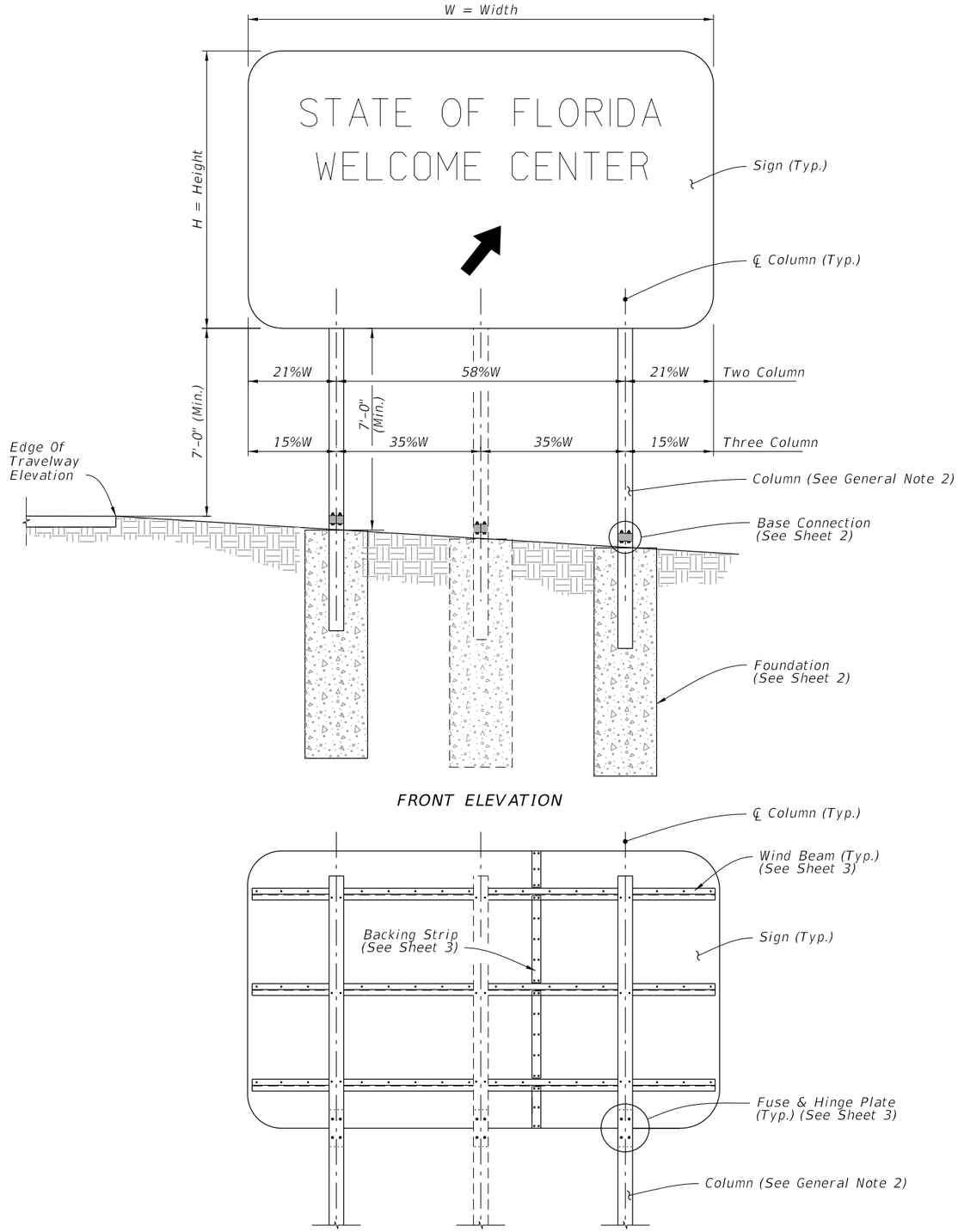
   A. Sign Support Shop drawings and calculations are not required when fabricated in accordance with this Index and support columns do not vary from the plan locations by more than 2'-0" longitudinally.

   B. Sign Panels: Horizontal panel splices are allowed at interior wind beams for sign panels with a height ("H") greater than 10 feet. Shop drawings required for horizontal panel splice details.

   C. When shop drawings are required, obtain approval prior to fabrication.

4. Materials:

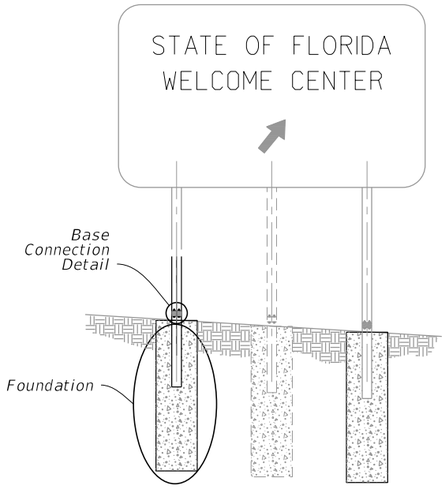
   A. Sign Panel Mounting Materials:
      a. Aluminum Bars, and Extruded Shapes: ASTM B221, Alloy 6061-T6 or Alloy 6351-T5
      b. Aluminum Structural Shapes: ASTM B221, Alloy 6061-T6
   B. Sign Support Structure Materials:
      a. Steel Plates and Structural Shapes: ASTM A36 or ASTM A709, Grade 36
      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 II.



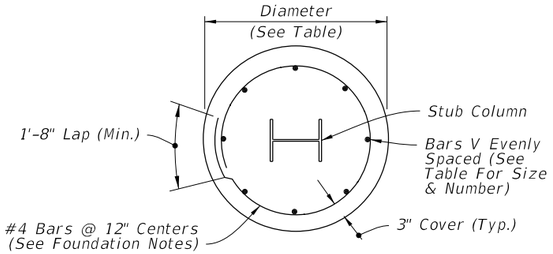
MULTI-COLUMN SIGN ASSEMBLY

9/29/2025 9:58:05 AM

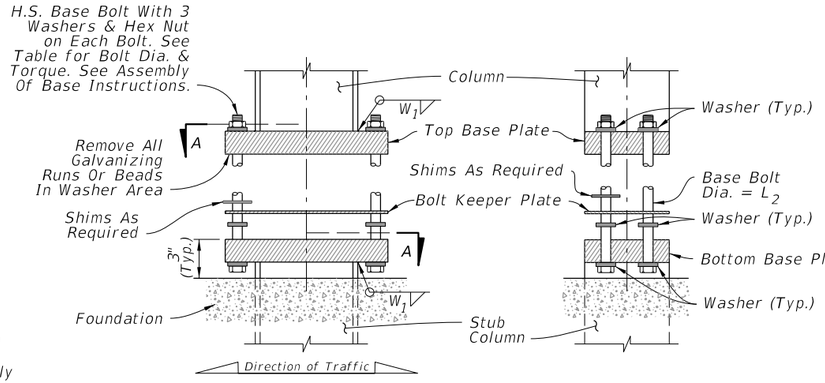
LAST REVISION	REVISION	DESCRIPTION:				
11/01/25			FY 2026-27 STANDARD PLANS	MULTI-COLUMN GROUND SIGN	INDEX 700-020	SHEET 1 of 3



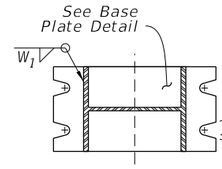
FOUNDATION DATA				
Steel Post & Stub Section*	Dia.	Depth	Stub Column Length	Reinf. Bars V
S 3x5.7	2'-0"	4'-0"	3'-0"	10-#6
W 6x12	2'-0"	6'-0"	3'-0"	10-#6
W 8x18	2'-4"	7'-6"	4'-0"	8-#8
W 8x24	2'-4"	8'-6"	4'-0"	8-#8
W 10x33	2'-4"	10'-3"	4'-0"	8-#8
W 12x45	2'-8"	11'-3"	5'-0"	10-#8



PLAN



SIDE ELEVATION FRONT ELEVATION



SECTION A-A

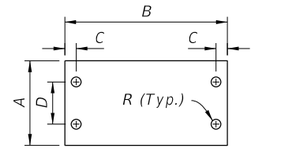
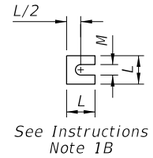
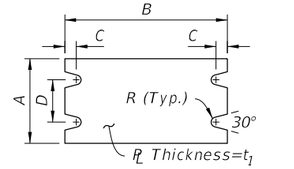


Plate Thickness=0.0149" (28 Gauge)

BOLT KEEPER PLATE DETAIL



SHIM DETAIL



BASE PLATE DETAIL

BASE CONNECTION DATA										SHIM	
Steel Post & Stub Section*	A	B	C	D	R	t_1	L_2	W_1	Torque (lbf*in)	L	M
S 3x5.7	4"	7"	3/4"	2"	5/16"	1"	1/2"	1/4"	90 ± 20	1-1/4"	9/16"
W 6x12	4"	10"	3/4"	2"	3/8"	1-5/8"	5/8"	1/4"	270 ± 45	1-3/8"	11/16"
W 8x18	5-1/4"	12-1/2"	7/8"	2-3/4"	7/16"	1-3/4"	3/4"	3/8"	445 ± 75	1-3/4"	13/16"
W 8x24	6-1/2"	12-1/2"	7/8"	3-1/4"	7/16"	1-3/4"	3/4"	3/8"	445 ± 75	2-1/8"	13/16"
W 10x33	8"	16"	1-1/4"	4-3/4"	9/16"	2"	1"	1/2"	580 ± 90	2-3/8"	1-1/16"
W 12x45	10"	18"	1-1/4"	6"	9/16"	2"	1"	1/2"	580 ± 90	2-3/4"	1-1/16"

* Designations: (Nominal Depth in inches) x (weight in pounds per linear foot).

MULTI-COLUMN SIGN ASSEMBLY

FOUNDATION NOTES:

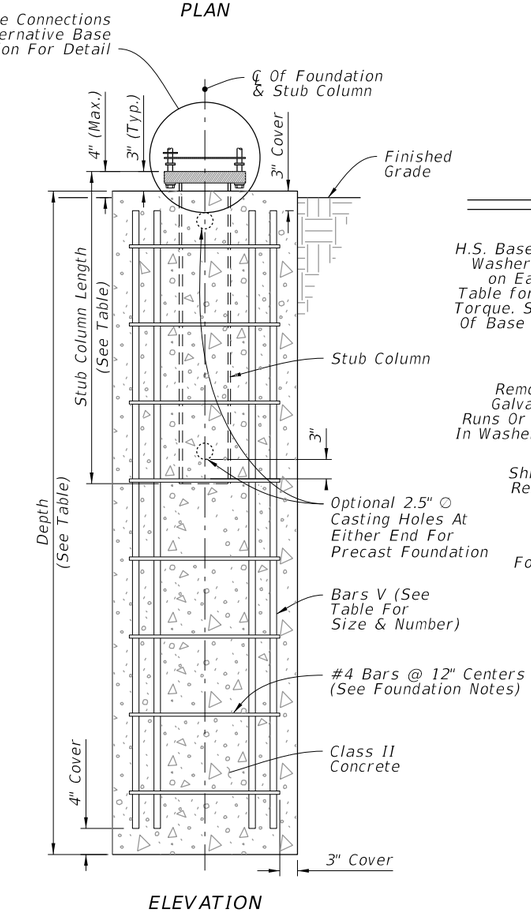
The foundation may be either precast or cast-in-place. Use Reinforcing bars or equivalent Welded Wire Reinforcement.

At the Contractor's option, the #4 tie bars at 12" o.c. may be replaced by D10 Spiral Wire @ 6" pitch, with three flat turns at the top and one flat turn at the bottom in accordance with Specification 415.

For precast foundations, the circular cross section shown may be substituted with an octagon shape. The out-to-out distance between parallel edges must be greater than or equal to the diameter in the Foundation Data table. Use the same reinforcing diameter with centered placement and a minimum 3" cover.

BASE CONNECTION NOTES:

1. Assembly of Base Instructions:
   A. Place one washer on each Base Bolt between the Bottom Base Plate and the head of high strength Base Bolt; place the next washer between the Bottom Base Plate and the Bolt Keeper Plate; add the Top Base Plate section and place the third washer between the Top Base Plate and the Nut.
   B. Shim as required to plumb column. Provide 2-0.0149" thick (28 gauge) and 2-0.0329" thick (21 gauge) shims per column.
2. H.S. Base Bolt L Tightening Instructions:
   A. Tighten Base Bolts to the maximum possible with a 12" to 15" wrench (this will bed the washers and shims and clear the bolt threads).
   B. Loosen each Base Bolt one turn.
   C. Under the supervision of the Engineer, use a calibrated wrench to tighten bolts to the torque prescribed in the Table. Over tightened Base Bolts will not be permitted.
   D. Burr threads at junction with nut to prevent nut loosening. Treat damaged galvanizing.
3. Assemble Post to Stub with Base Bolts and three flat washers per bolt (See Base Connection Details). Tighten Base Bolts in accordance with Instructions with Note 2.
4. Weld Base Plate to Post & Stub or if using the Alternate Connection Detail weld Base Plate and Stiffeners to Post and Stub.
5. Orient Stub Post according to direction of traffic.



ELEVATION

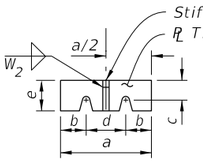
FOUNDATION

BASE CONNECTION

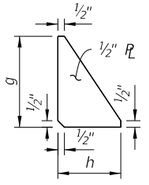
SIDE ELEVATION FRONT ELEVATION

SECTION B-B

BOLT KEEPER PLATE DETAIL



BASE PLATE DETAIL



STIFFENER PLATE DETAIL

ALTERNATIVE BASE CONNECTION DATA												
Steel Section*	a	b	c	d	e	t_2	L_2	R	Torque (lbf*in)	g	h	W_2
W 6x12	4-3/4"	1-1/8"	1-3/16"	2-1/2"	2"	1/2"	5/8"	3/8"	270±45	5-1/8"	2"	1/4"
W 8x18	5-3/4"	1-1/2"	1-3/8"	2-3/4"	2-3/16"	5/8"	3/4"	7/16"	445±75	6-1/4"	2-3/16"	1/4"
W 8x24	7"	1-3/4"	1-3/8"	3-1/2"	2-3/8"	3/4"	3/4"	7/16"	445±75	8"	2-3/8"	5/16"
W 10x33	8"	2"	1-9/16"	4"	2-3/4"	3/4"	1"	9/16"	580±90	8"	2-3/4"	5/16"
W 12x45	8"	2"	1-9/16"	4"	3"	3/4"	1"	9/16"	580±90	8"	3"	5/16"

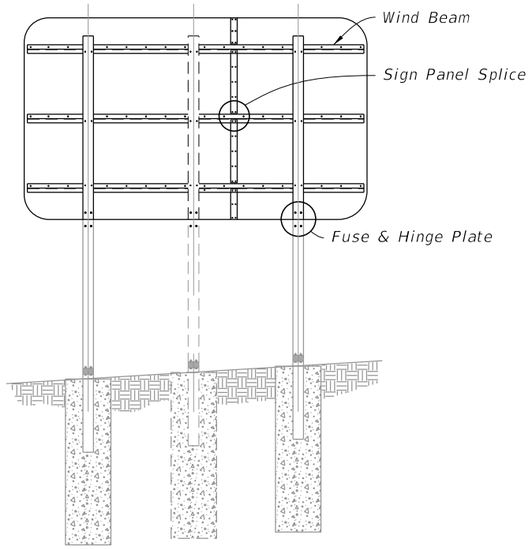
* Designations: (Nominal Depth in inches) x (weight in pounds per linear foot).

ALTERNATIVE BASE CONNECTION

FOUNDATION AND BASE CONNECTION DETAILS

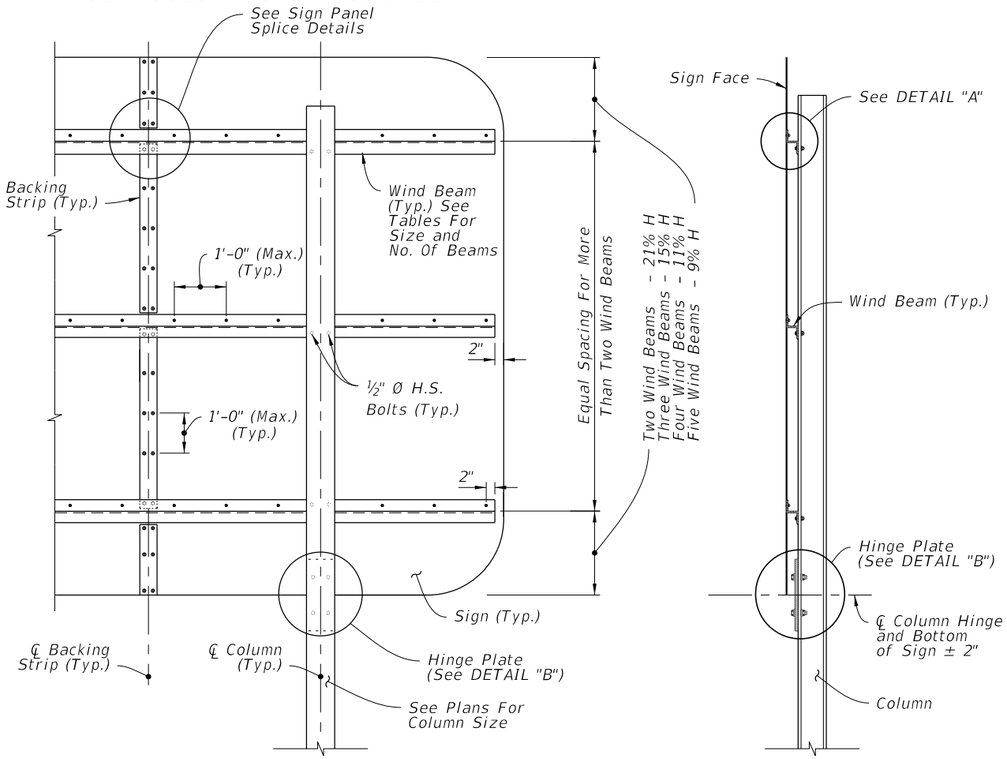
9:58:12 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	MULTI-COLUMN GROUND SIGN	INDEX	SHEET
11/01/24						700-020	2 of 3



BACK ELEVATION

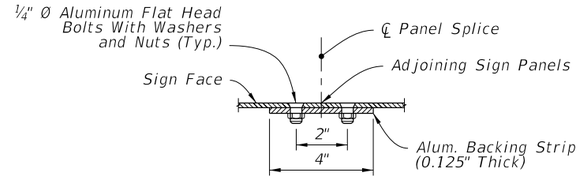
MULTI-COLUMN SIGN ASSEMBLY



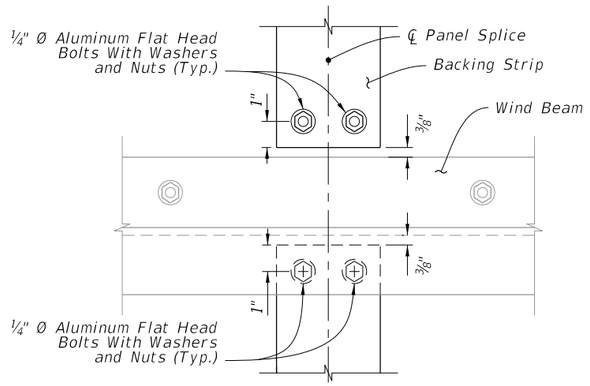
BACK ELEVATION

SIDE ELEVATION

MULTI-COLUMN SIGN BACK PANEL



PLAN VIEW



ELEVATION

SIGN PANEL SPLICE

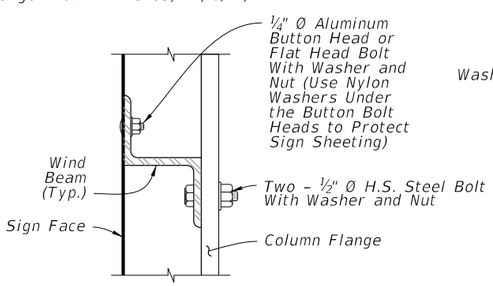
NUMBER OF WIND BEAMS BASED ON SIGN HEIGHT (H)

2 Beams	3 Beams	4 Beams	5 Beams
H ≤ 8'	8' < H ≤ 12'	12' < H ≤ 16'	16' < H ≤ 20'

WIND BEAM SIZE BASED ON SIGN WIDTH (W)

2 Columns	3 Columns	Aluminum Beam Size **
W ≤ 12'	W ≤ 18'	Z 1-¾ x 1-¾ x 1.09
12' < W ≤ 20'	18' < W ≤ 30'	Z 3 x 2-$^{11}/_{16}$ x 2.33
20' < W ≤ 25'	30' < W ≤ 39'	Z 4-$^{1}/_{16}$ x 3-⅛ x 3.57

**Designation gives (Member Depth in inches) x (Flange Width in inches) x (lb/ft)

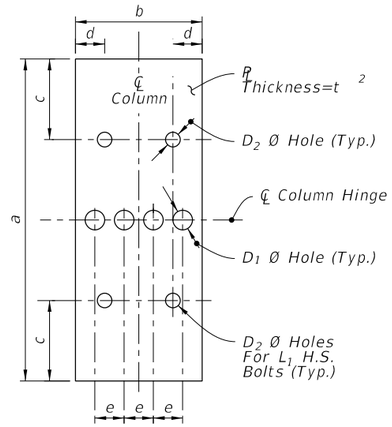


DETAIL "A"

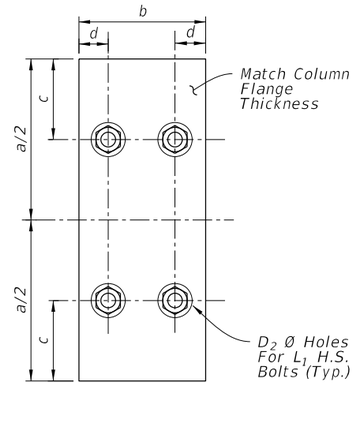
FUSE (HINGE) PLATE DATA

Steel Section*	a	b	c	d	e	t_2	D_1	D_2	L_1
S 3x5.7	7-1/4"	2-3/8"	1-1/4"	1/2"	9/16"	3/8"	7/16"	9/16"	1/2"
W 6x12	7-1/4"	4"	1-1/4"	7/8"	15/16"	3/8"	13/16"	11/16"	5/8"
W 8x18	8-1/4"	5-1/4"	1-3/8"	1-1/8"	1-1/4"	3/8"	1"	13/16"	3/4"
W 8x24	8-1/4"	6-1/2"	1-3/8"	1-1/2"	1-1/2"	1/2"	1"	13/16"	3/4"
W 10x33	9-1/4"	8"	2"	1-3/4"	1-3/4"	5/8"	1-1/8"	1-1/16"	1"
W 12x45	11"	8"	2"	1-3/4"	1-3/4"	3/4"	1-5/16"	1-1/16"	1"

* Designations: (Nominal Depth in inches) x (Weight in Pounds Per Linear Foot)

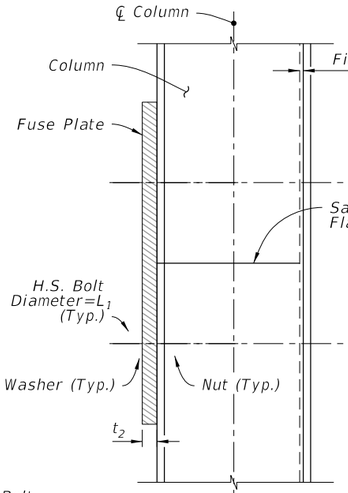


FUSE PLATE



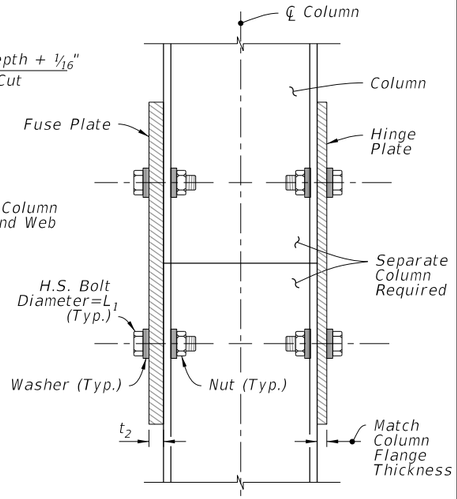
HINGE PLATE

FUSE & HINGE PLATE



Side Elevation

TYPICAL HINGE



Side Elevation

OPTIONAL HINGE

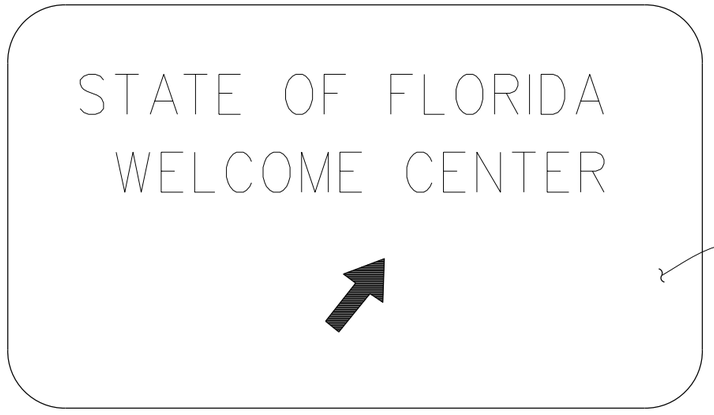
DETAIL "B"

WIND BEAM, BACKING STRIP & FUSE/HINGE PLATE DETAILS

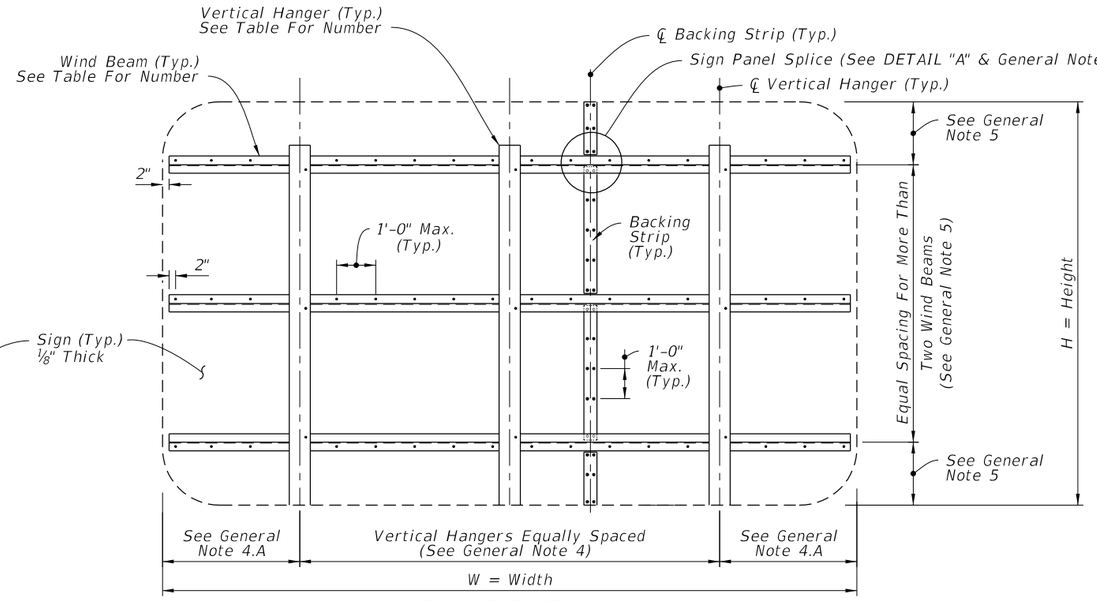
9:58:20 AM

9/29/2025

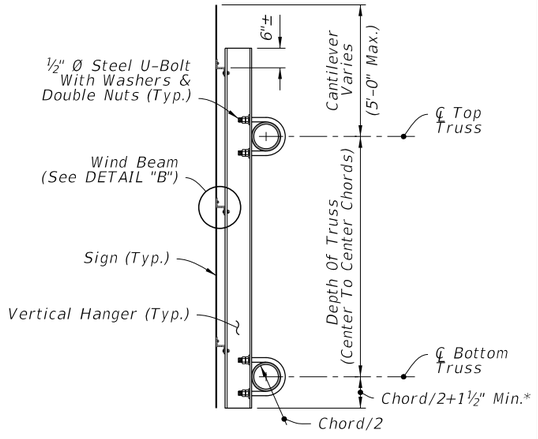
LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	MULTI-COLUMN GROUND SIGN	INDEX	SHEET
11/01/23					700-020	3 of 3



FRONT ELEVATION



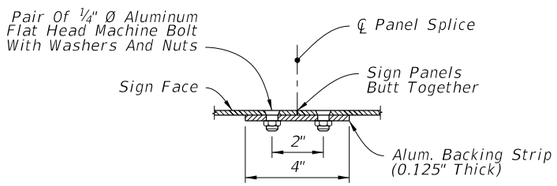
BACK ELEVATION



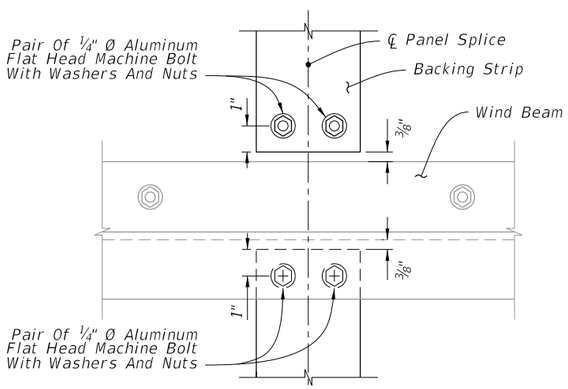
*Bottom Justified Shown, Center Justified Similar.

SIDE ELEVATION

TYPICAL SIGN FOR OVERHEAD TRUSS



PLAN VIEW



ELEVATION

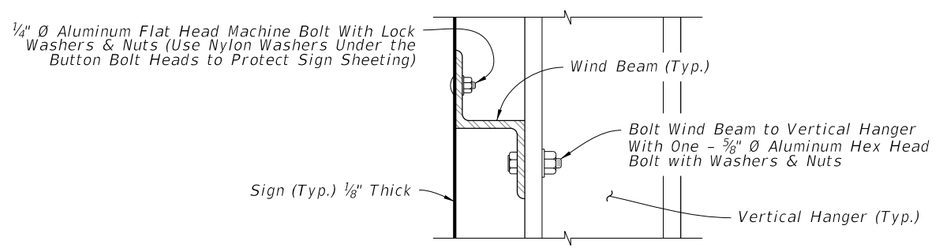
SIGN PANEL SPLICE

DETAIL "A"

WIND BEAM TABLE (Z 3 x 2 11/16 x 2.33)				
Number of Horizontal Wind Beams Based on Sign Height (H)				
2 Beams	3 Beams	4 Beams	5 Beams	6 Beams
H ≤ 5'	5' < H ≤ 9'	9' < H ≤ 12'	12' < H ≤ 15'	15' < H ≤ 18'

HANGER TABLE (I 6 X 4 x 4.69 or Z 5 x 3¼ x 4.01)					
Number of Vertical Hanger Beams Based on Wind Speed and Sign Width (W)					
	2 Hangers	3 Hangers	4 Hangers	5 Hangers	6 Hangers
130 mph	W ≤ 20'	20' < W ≤ 30'	30' < W ≤ 40'	40' < W ≤ 50'	--
150 mph	W ≤ 18'	18' < W ≤ 27'	27' < W ≤ 35'	35' < W ≤ 45'	45' < W ≤ 50'
170 mph	W ≤ 15'	15' < W ≤ 20'	20' < W ≤ 28'	28' < W ≤ 35'	35' < W ≤ 43'

NOTE: For Monroe County designs, use 170 mph values but with Z 5 x 3-¼ x 6.19 vertical hanger beams only.



DETAIL "B"

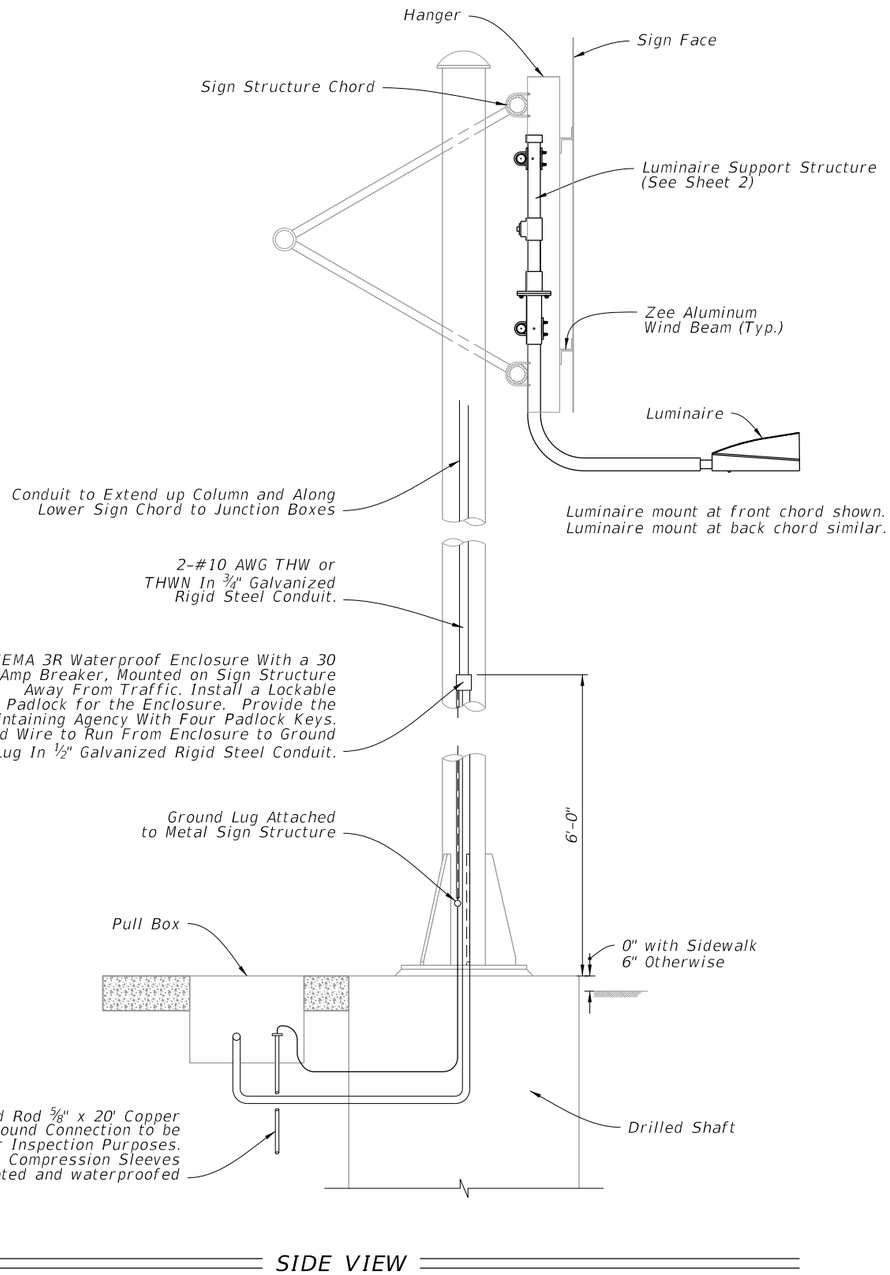
GENERAL NOTES

1. Meet the requirements of Specification 700.
2. Work this Index with Index 700-040 and 700-041.
3. The number and location of the Panel Splices are determined by the Sign Face supplier.
4. Spacing of Vertical Hangers:
   - A. Two Vertical Hanger = 21.0% W
     Three Vertical Hanger = 15.0% W
     Four Vertical Hanger = 11.0% W
     Five Vertical Hanger = 9.0% W
     Six Vertical Hanger = 7.0% W
   - B. Spacing of vertical hangers may be varied slightly as necessary to clear the truss struts and diagonals at panel points
5. Spacing of Wind Beams:

   Two Wind Beams = 21.0% H
   Three Wind Beams = 15.0% H
   Four Wind Beams = 11.0% H
   Five Wind Beams = 9.0% H
   Six Wind Beams = 7.0% H
6. 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".
7. Wind Speed by county: see Index 715-010.
8. Materials:
   - A. Aluminum:
     a. Bars, and Extruded Shapes: ASTM B221, Alloy 6061-T6 or Alloy 6351-T5
     b. Structural Shapes: ASTM B221, Alloy 6061-T6
     c. Flat Head and Hex Head Machine Bolts: ASTM F468, Alloy 2024-T4
     d. Hex Nuts: ASTM F467, Alloy 6061-T6 or Alloy 6262-T9
     e. Washers: ASTM B221, Alclad 2024-T4
   - B. Steel:
     a. U-Bolts: ASTM A449 or ASTM A193 B7
     b. Nuts: ASTM A563, 2 per leg
     c. Washers: ASTM F436, (Flat Washers)

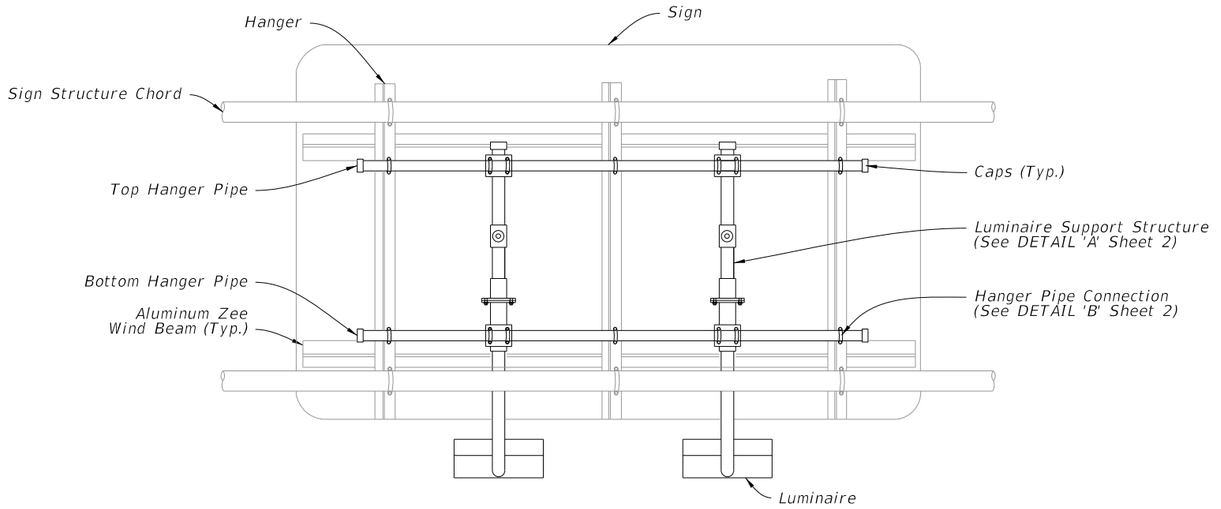
9:58:28 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	WIND AND HANGER BEAMS FOR OVERHEAD SIGNS	INDEX	SHEET
11/01/23						700-030	1 of 1



Luminaire mount at front chord shown.
Luminaire mount at back chord similar.

SIDE VIEW



BACK VIEW

PLACEMENT OF SIGN LIGHTS

1. This Index details a bottom luminaire support structure. For signs requiring top luminaire support structures, the detail can be reversed.
2. Luminaire spacing and arm length is shown on Guide Sign Worksheet.
3. The Guide Sign Worksheet indicates the sign luminaire used for basis of design. The contractor may propose a different luminaire by submitting photometric calculations for each lighted sign for review by the Engineer.

SIGN LIGHTING INSTALLATION

Roadway Lighting included in contract:

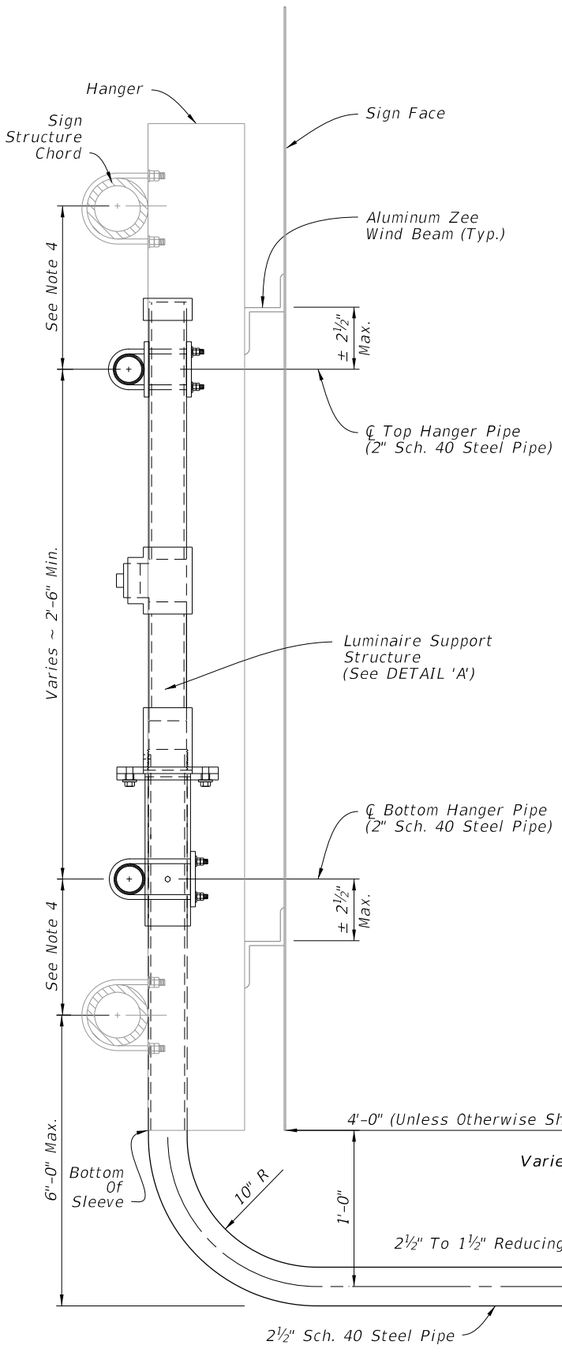
1. Power for the sign lighting provided from the roadway lighting circuit.
2. Indicate sign location and a pull box location for connection to the sign lights in the lighting plans.
3. Lighting contractor installs pull box and loop 2' of lighting circuit conductors in the pull box for connection by the signing contractor.
4. Signing contractor furnishes and installs the Luminaires, NEMA 3R enclosure, 30 amp breaker, conduit, conductors and all other electrical equipment necessary for connection to the lighting circuit.

Roadway Lighting not included in contract:

1. Signing plans include the pay item numbers to furnish and install conduit, conductors, ground rods, pull boxes and service point equipment.
2. Signing plans indicate the location of the service point equipment and circuit runs.
3. Signing contractor provides all electrical equipment necessary for connection of the sign lights.

9/29/2025 9:58:35 AM

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	EXTERNAL LIGHTING FOR SIGNS	INDEX	SHEET
11/01/17					700-031	1 of 2



LUMINAIRE SUPPORT STRUCTURE

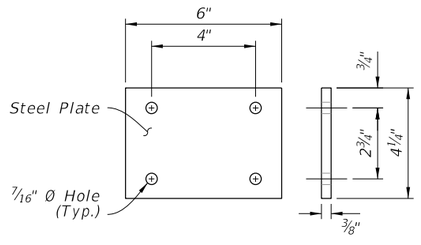
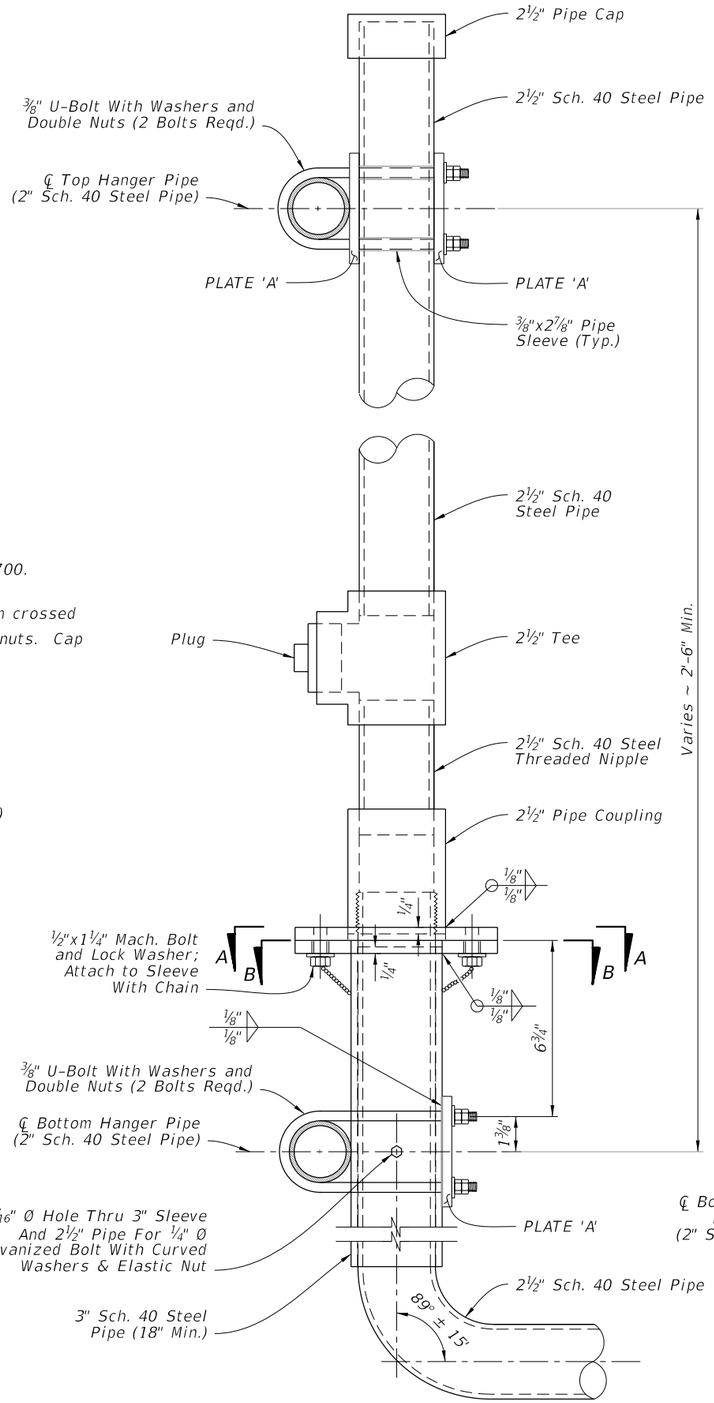


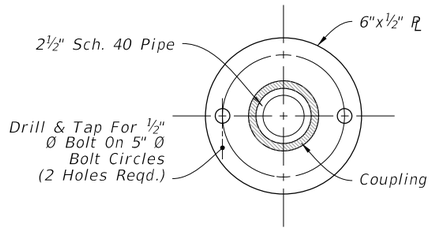
PLATE 'A'

NOTES:

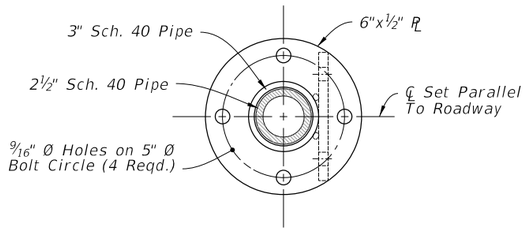
1. Meet the requirements of Specification 700.
2. Install hanger pipe to each vertical beam crossed with a ⅜" U-Bolt, lock washers and hex nuts. Cap both ends of the horizontal pipe.
3. All pipe dimensions are NPS.
4. $\frac{\text{Chord O.D.} + 5"\ (\text{Min.})}{2}$
5. Materials;
   - A. Steel Pipe: ASTM A53 (Grade A or B)
   - B. Steel Plate: ASTM A36
   - C. Bolts: ASTM A307
   - D. Hex Nuts: ASTM A563
   - E. Washers: ASTM F436



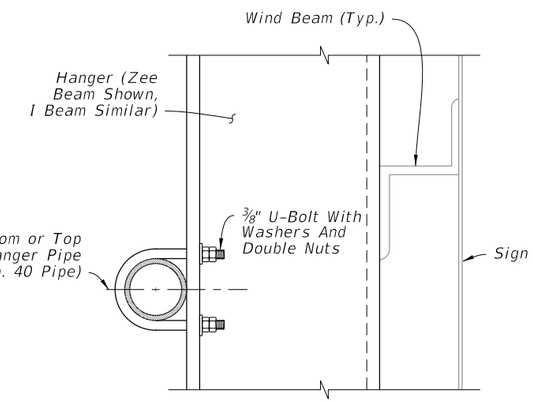
DETAIL 'A'
(Luminaire Support Structure)



SECTION A-A



SECTION B-B



DETAIL 'B'
(Hanger Pipe Connection)

9:58:42 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/22			FY 2026-27 STANDARD PLANS	EXTERNAL LIGHTING FOR SIGNS	700-031	2 of 2

GENERAL NOTES:

1. Meet the requirements of Specification 700.

2. Work this Index in conjunction with CANTILEVER SIGN STRUCTURE DATA TABLES in the Plans and Index 700-030.

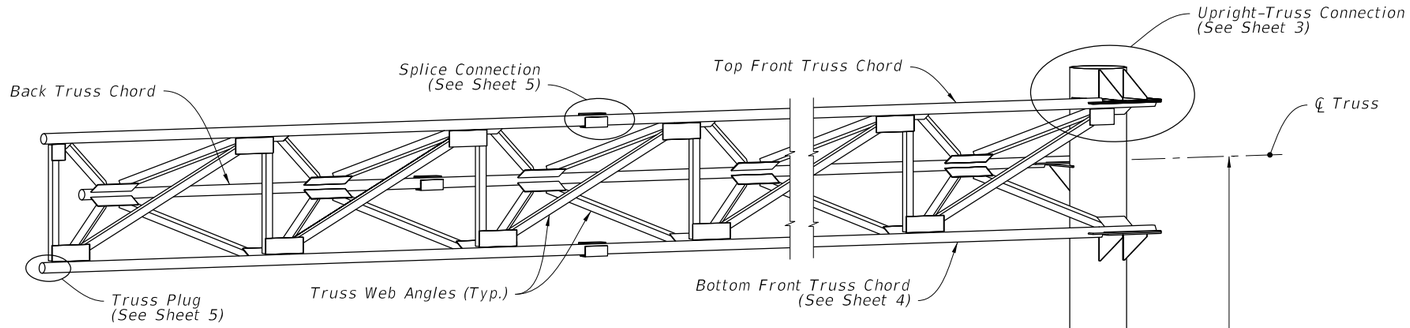
3. Handholes are required at pole base for DMS Structures. Refer to Index 700-090 for Handhole Details.

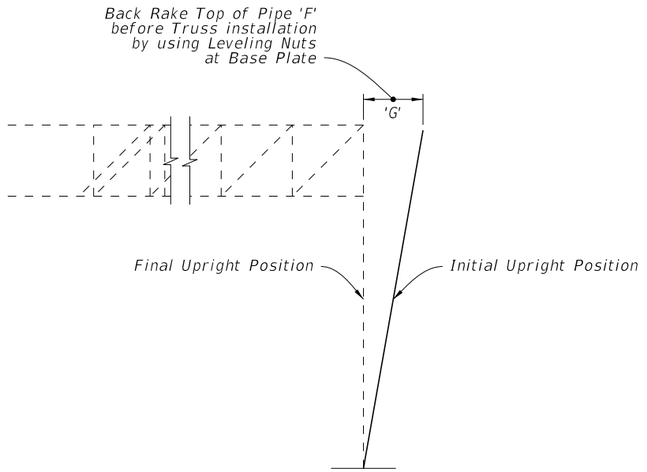
4. Shop Drawings are required.

   Obtain Shop Drawing approval prior to fabrication. Include the following:
   A. Upright Pipe height ('A') and Foundation elevations: Verify dimension in the field prior to submittal to ensure minimum vertical clearances of the sign panel over the roadway.
   B. Height of the foundation above adjacent ground.
   C. Anchor bolt orientation with respect to centerline of truss and the direction of traffic.
   D. Chord Splices
   E. Handholes at pole base (when required).

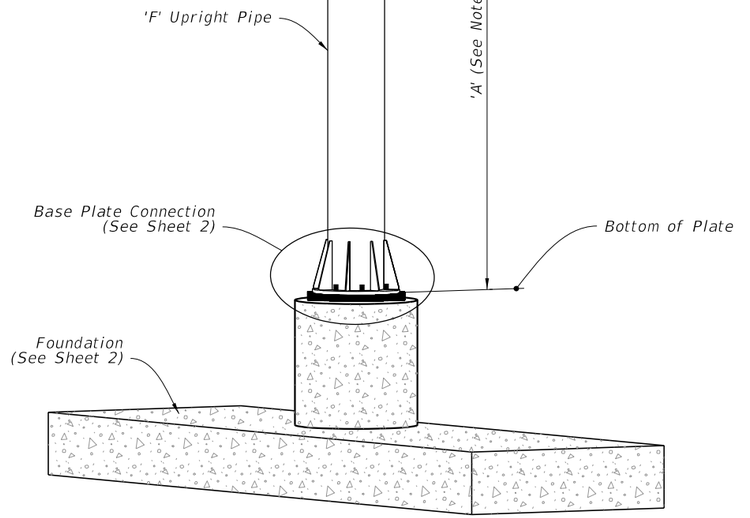
5. Materials:

   A. Sign Structure:
      a. Upright and Chords (Steel Pipe): API 5L X42 PSL2, 42 ksi yield or ASTM A500, Grade B (Min.)
      b. Steel Angles and Structural Plates and Bars: ASTM A709 Grade 36
   B. Bolts, Nuts and Washers:
      a. High Strength Bolts: ASTM F3125, Grade A325 Type 1
      b. Nuts: ASTM A563 Grade DH Heavy-Hex
      c. Washers: ASTM F436 Type 1, one under turned element
   C. Anchor Bolts, Nuts and Washers
      a. Anchor Bolts: ASTM F1554 Grade 55
      b. Nuts: ASTM A563 Grade A Heavy-Hex (5 per bolt)
      c. Plate Washers: ASTM A36 (2 per bolt)





CAMBER DIAGRAM

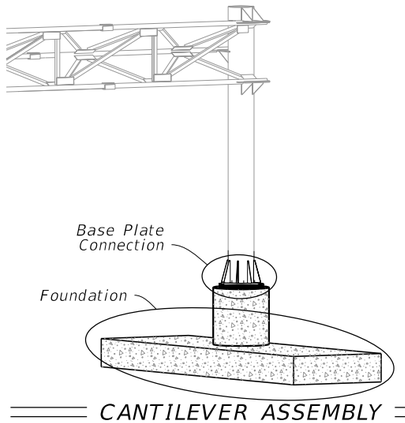


ISOMETRIC VIEW

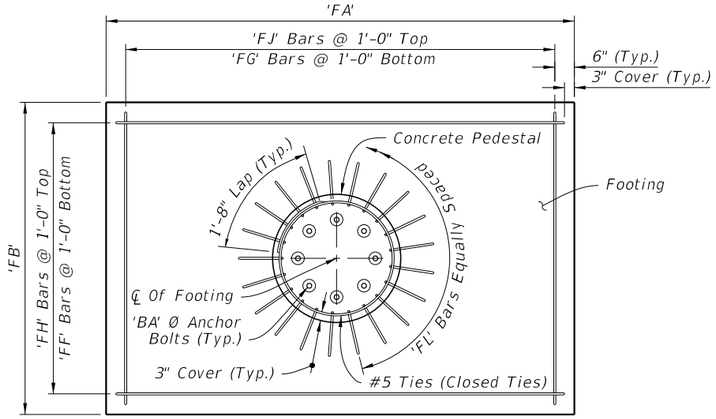
CANTILEVER SIGN ASSEMBLY

9/29/2025 9:58:51 AM

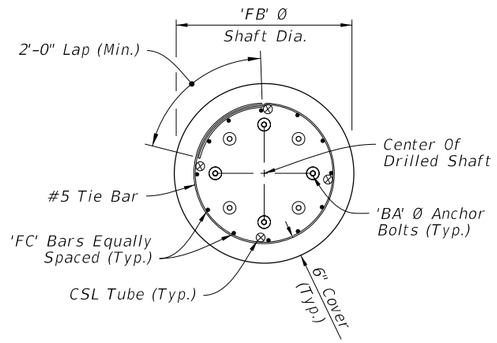
LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	CANTILEVER SIGN STRUCTURE	INDEX	SHEET
11/01/25					700-040	1 of 5



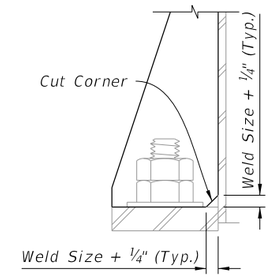
CANTILEVER ASSEMBLY



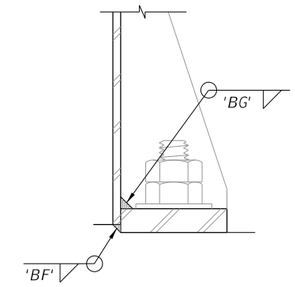
PLAN



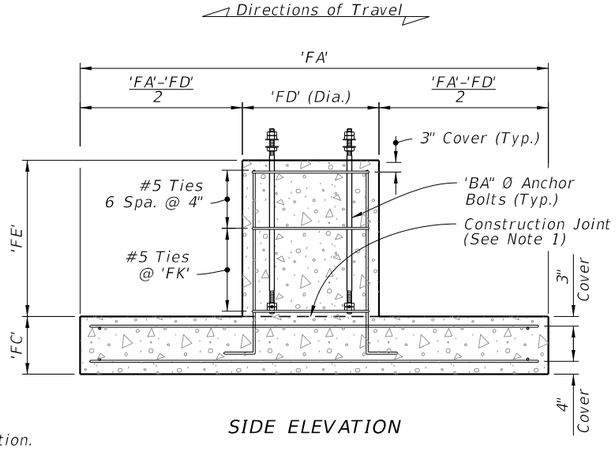
PLAN



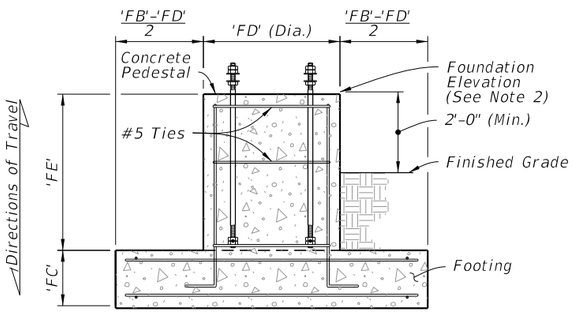
DETAIL 'A'



DETAIL 'B'

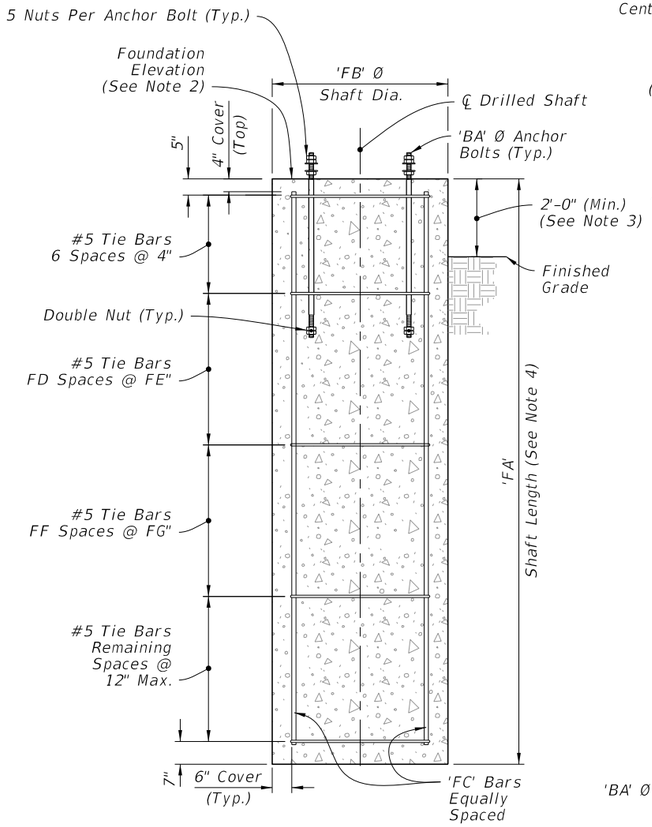


SIDE ELEVATION



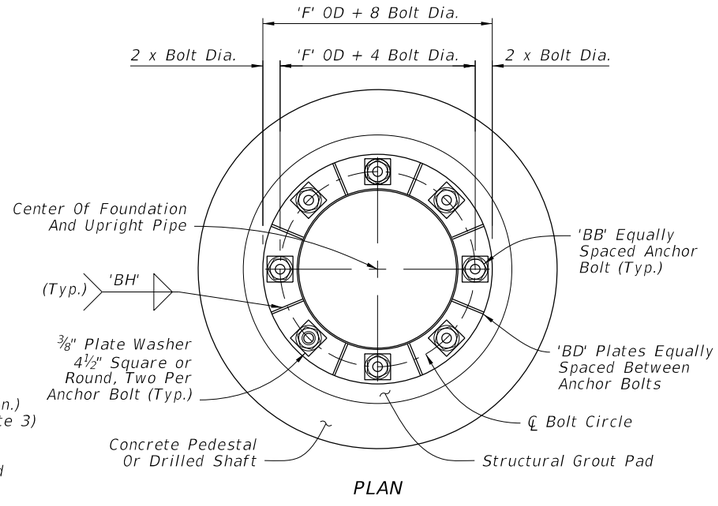
FRONT ELEVATION

FOOTING AND PEDESTAL

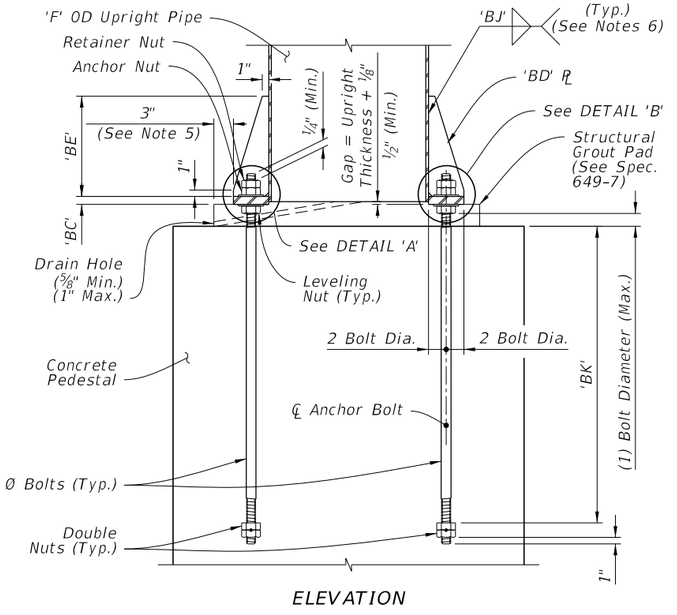


ELEVATION

DRILLED SHAFT
(Alternate Foundation)



PLAN



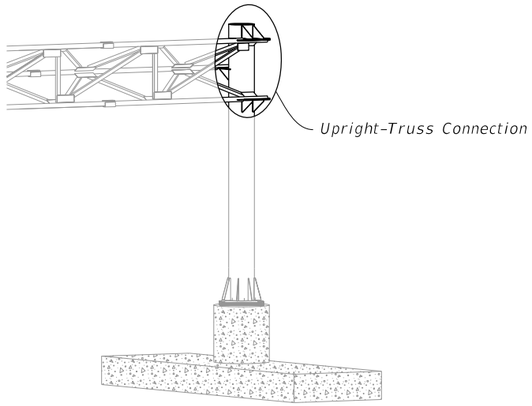
ELEVATION

BASE PLATE CONNECTION

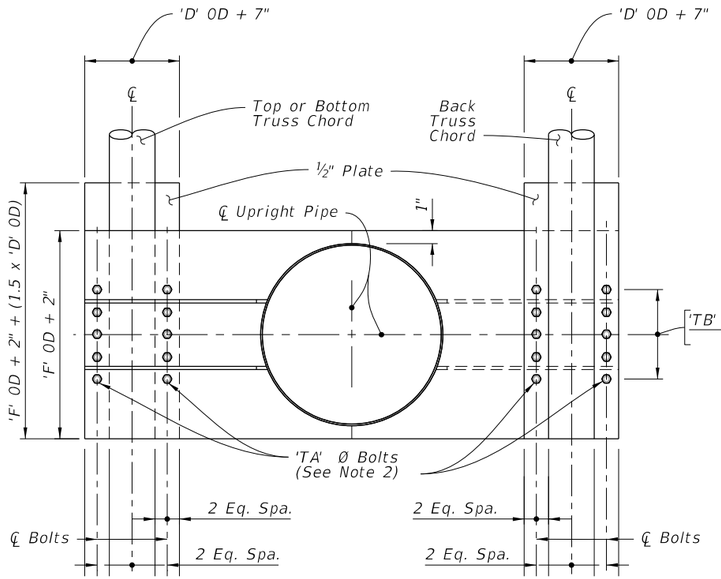
NOTES:

1. Construction joint allowed, roughen surface to ¼" minimum amplitude prior to pour.
2. See Traffic Plans for elevation at top of Foundation.
3. Install Drilled Shaft with a 2'-0" minimum from top elevation of the drilled shaft to the finished grade, unless specified otherwise in the plans.
4. The shaft length is based on 2'-0" height above finished grade.
5. Structural Grout Pad dimension may be modified to be less than 3" where the footprint of the Structural Grout Pad does not provide adequate clearance for accessibility considerations.
6. Wrap fillet weld around the stiffener termination on the tube wall.
7. Weld plates 'BD' in a star pattern. A star pattern is one in which the plates on opposite and near opposite sides of the pole circle are successively welded in a pattern resembling a star. For an 8 plate circle with plates sequentially numbered 1 to 8, weld the plates in the following order: (1, 5, 7, 3, 8, 4, 6, 2).

FOUNDATION

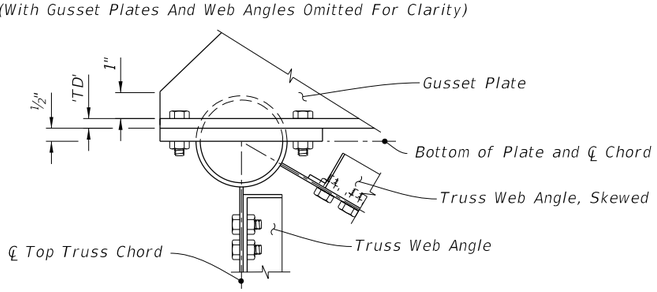


CANTILEVER ASSEMBLY

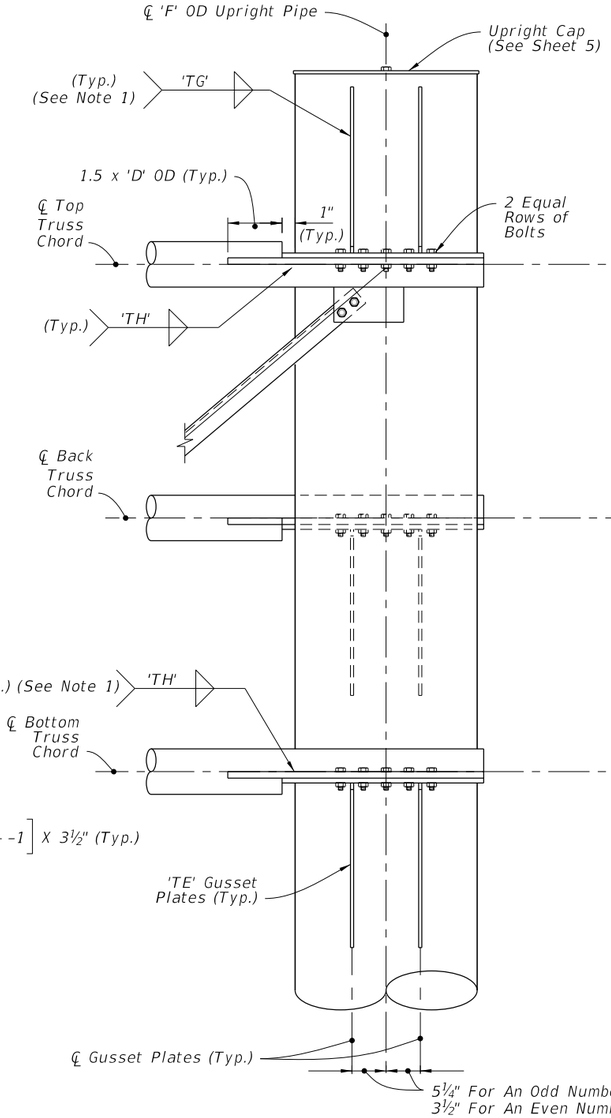


SECTION A-A

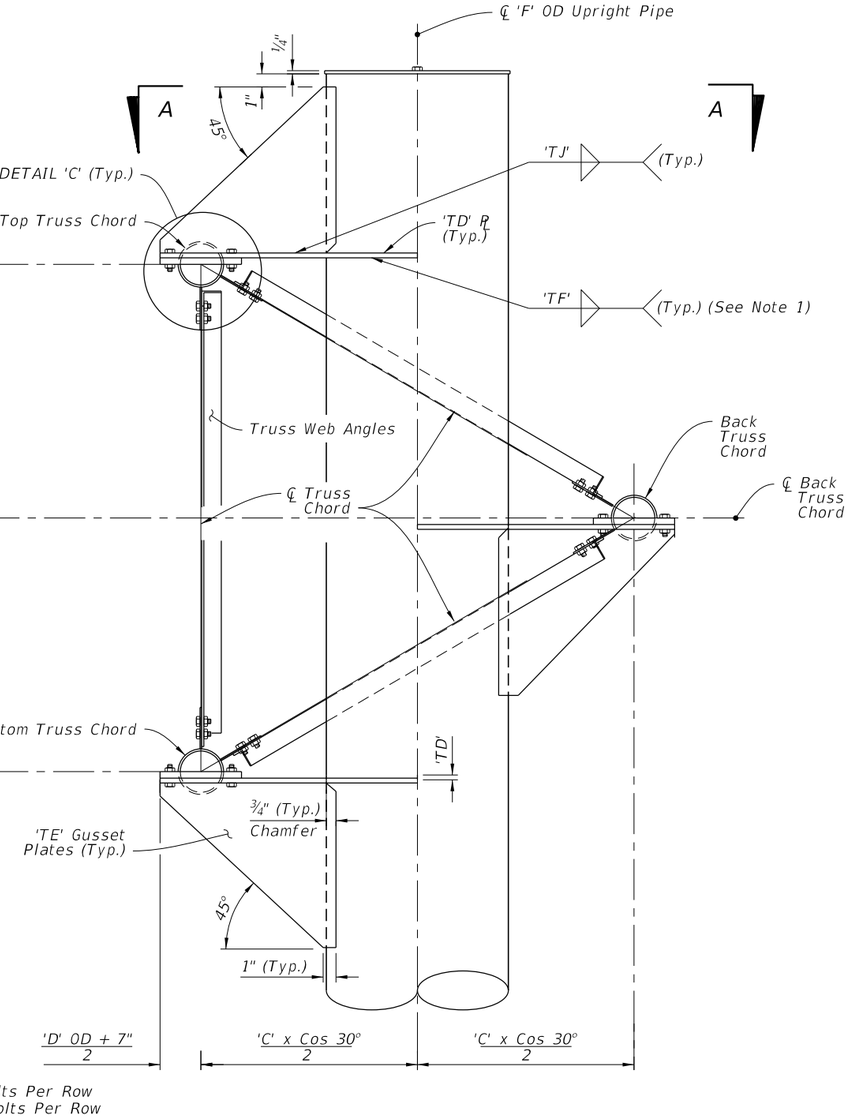
(With Gusset Plates And Web Angles Omitted For Clarity)



DETAIL 'C'



FRONT ELEVATION



SIDE ELEVATION

UPRIGHT-TRUSS CONNECTION DETAIL

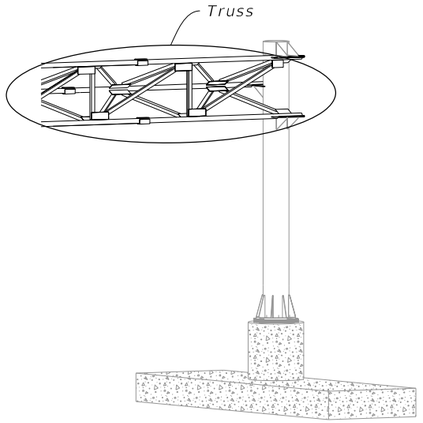
(Web Members From Back Truss Chord Omitted For Clarity)

NOTES:

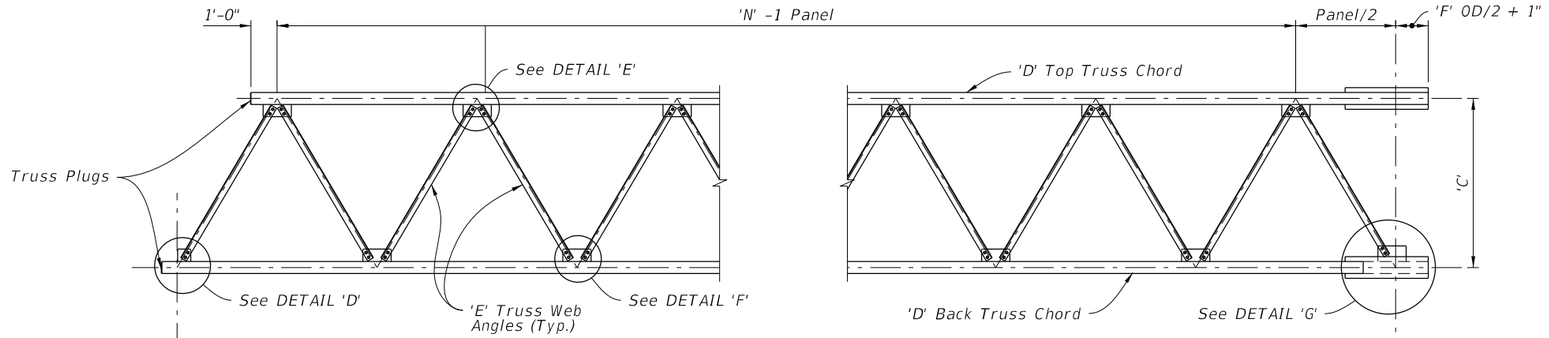
1. Wrap fillet weld around the stiffener termination on the tube wall.
2. Truss Chord Bolts:
   A. Top and Bottom: Install 'TC' hex head bolts.
   B. Back: Install 'TB' hex head bolts.

9:59:50 AM
9/29/2025

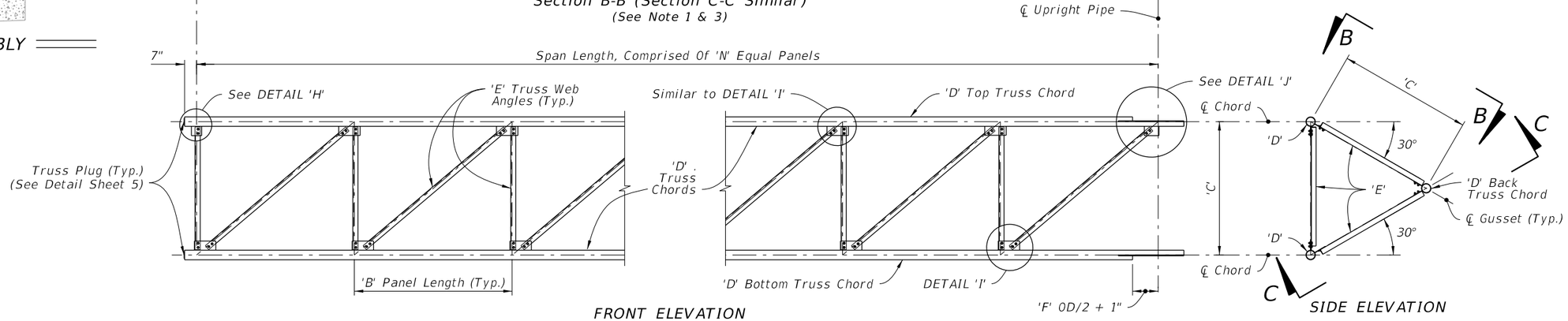
LAST REVISION	REVISION	DESCRIPTION:				
11/01/22			FDOT FY 2026-27 STANDARD PLANS	CANTILEVER SIGN STRUCTURE	INDEX 700-040	SHEET 3 of 5



CANTILEVER ASSEMBLY



Section B-B (Section C-C Similar)
(See Note 1 & 3)



FRONT ELEVATION
(See Note 1 & 3)

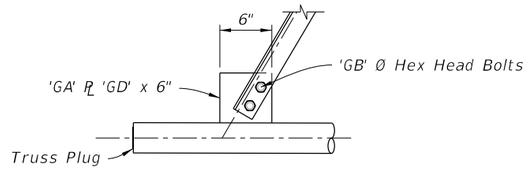
SIDE ELEVATION

TRUSS NOTES:

1. Out-of-plane members are not shown for clarity.
2. Wrap fillet weld around plate termination on the tube wall.
3. Chord Splices not shown.

TRUSS

Bolt Size	Distance	
	EA	EB
1¼" Ø	4⅜"	2¼"
1" Ø	3½"	1¾"
⅞" Ø	3"	1½"
¾" Ø	2½"	1¼"
⅝" Ø	2¼"	1⅛"



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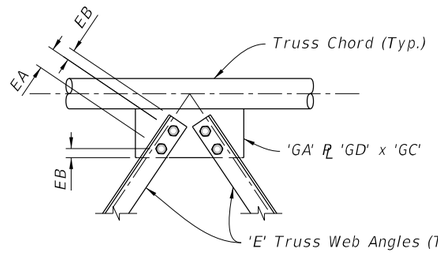

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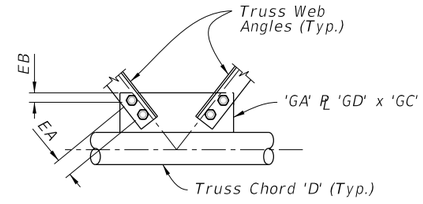

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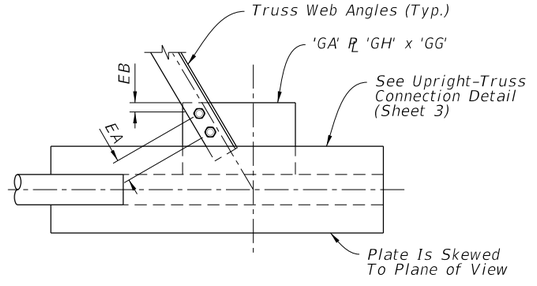

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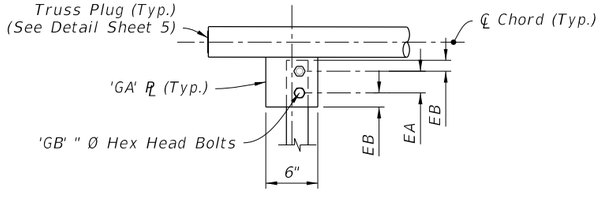
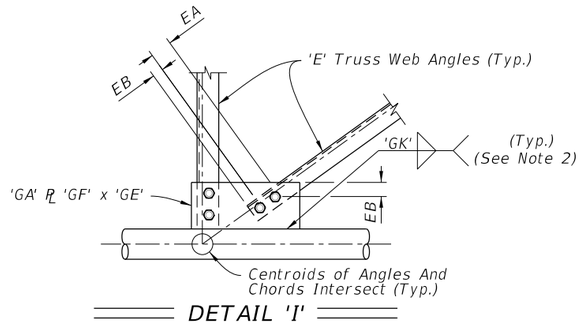
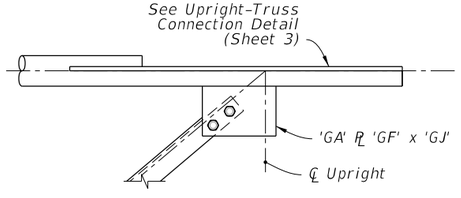


DETAIL 'H'



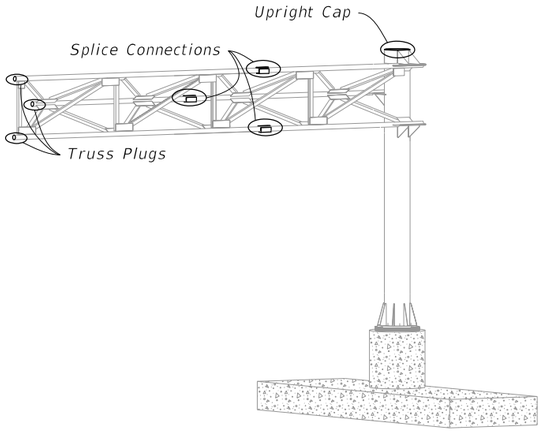
DETAIL 'I'



DETAIL 'J'

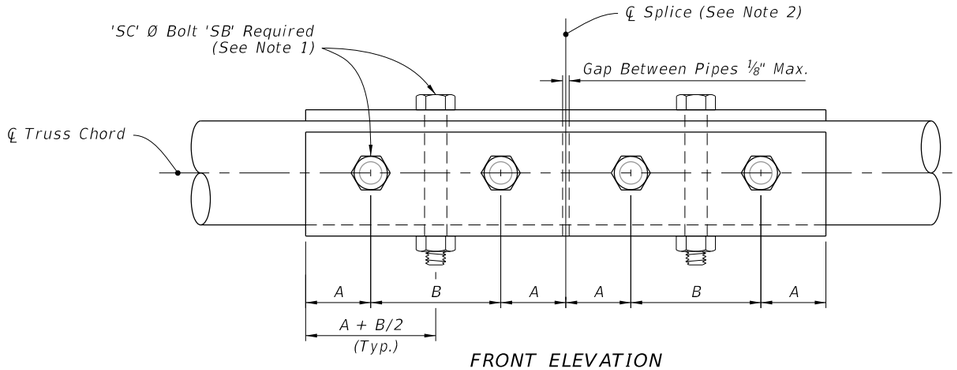
10:00:01 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	CANTILEVER SIGN STRUCTURE	INDEX	SHEET
11/01/22						700-040	4 of 5

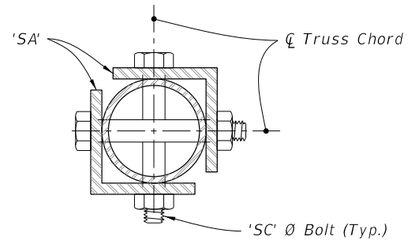


CANTILEVER ASSEMBLY

Bolt Size	Distance	
	A	B
1" Ø	1¾"	3½"
⅞" Ø	1½"	3"
¾" Ø	1¼"	2½"



FRONT ELEVATION

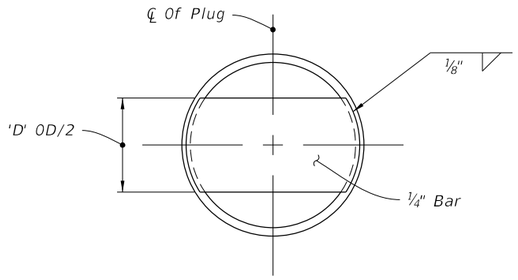


SIDE ELEVATION

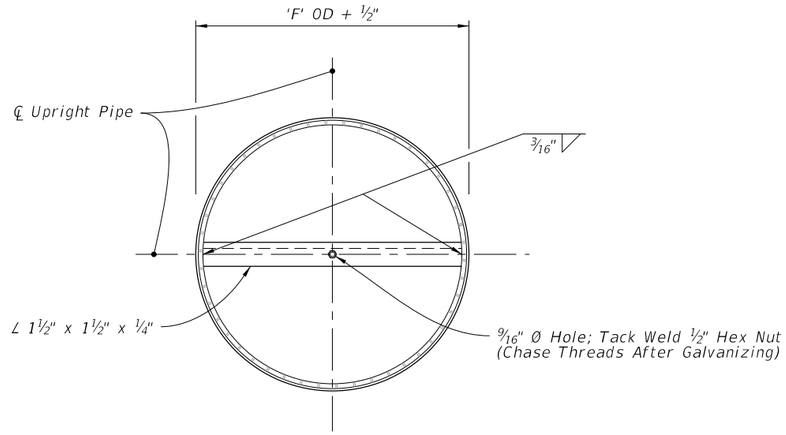
SPLICE CONNECTION DETAIL

SPLICE CONNECTION NOTES:

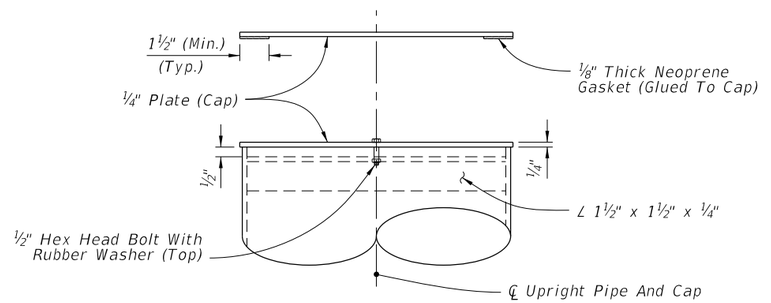
1. Only 6 bolts are shown in detail for clarity. (One Half Each Side Of Splice)
2. Splices are not permitted for trusses less than or equal to 40', Splice optional for trusses greater than 40'.
3. Chord Splices: "SD" Panel from upright is the closest panel in which a chord splice may be used. See Plans for CANTILEVER SIGN STRUCTURE DATA TABLE. Minimum splice spacing is two truss panel lengths apart.



TRUSS PLUG DETAIL



PLAN



ELEVATION

UPRIGHT CAP DETAIL

9/29/2025 10:00:08 AM

LAST REVISION	REVISION	DESCRIPTION:				
11/01/22			FDOT FY 2026-27 STANDARD PLANS	CANTILEVER SIGN STRUCTURE	INDEX 700-040	SHEET 5 of 5

GENERAL NOTES:

1. Meet the requirements of Specification 700.

2. Work this Index in conjunction with SPAN SIGN STRUCTURE DATA TABLES in the Plans and Index 700-030.

3. Handholes at the pole base are required for DMS Structures. Refer to Index 700-090 for Handhole Details.

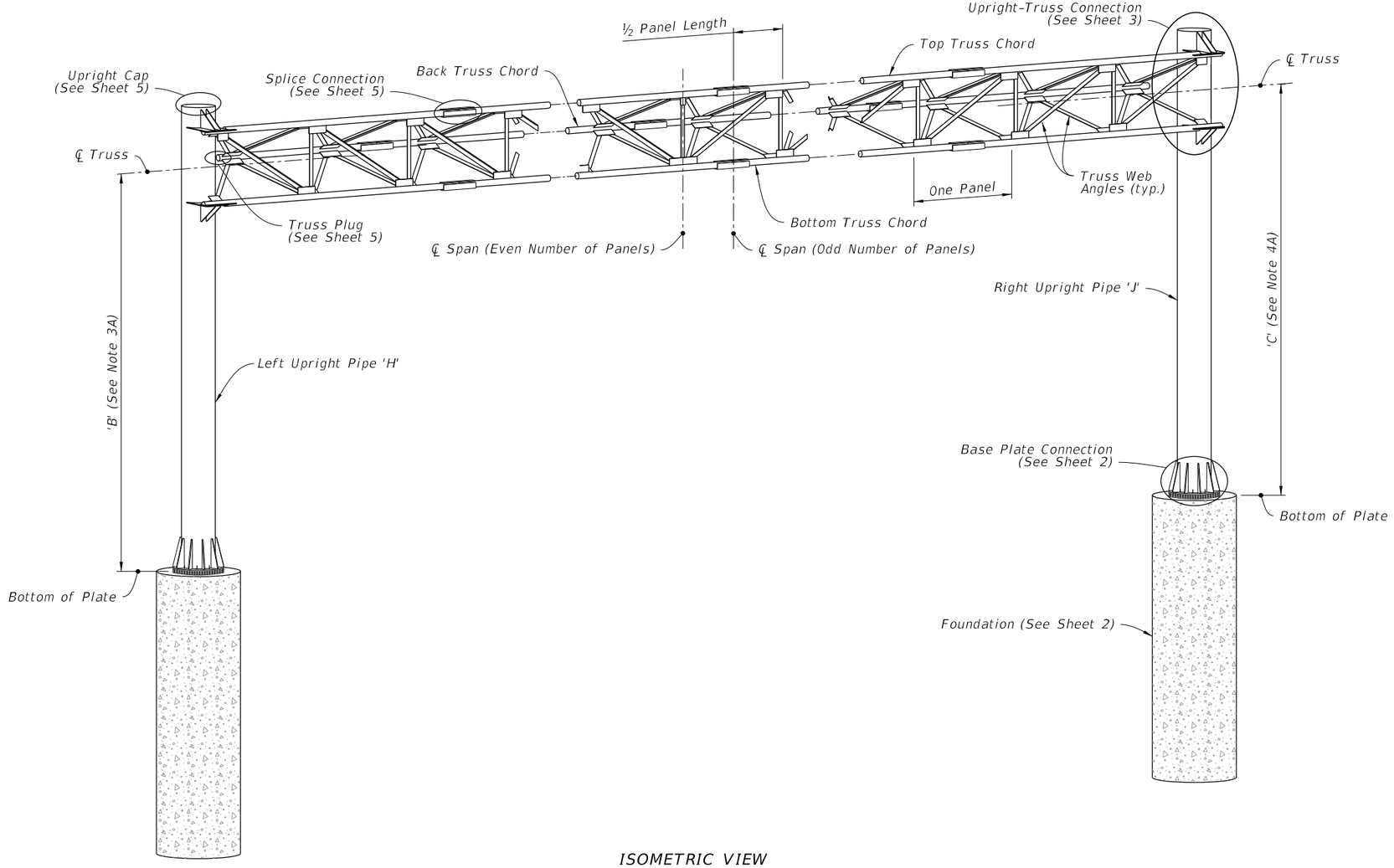
4. Shop Drawings are required.

   Obtain Shop Drawing approval prior to fabrication. Include the following:
   A. Upright Pipe height ('C' & 'B') and foundation elevations: Verify dimensions in the field prior to submittal to ensure minimum vertical clearances of the sign panel over the roadway.
   B. Height of the foundation above adjacent ground.
   C. Anchor bolt orientation with respect to centerline of truss and the direction of traffic.
   D. Method to be used to provide the required parabolic camber (see Camber Diagram).
   E. Handholes at pole base (when required).

5. Provide a parabolic camber with the required upward deflection as shown on the Camber Diagram.

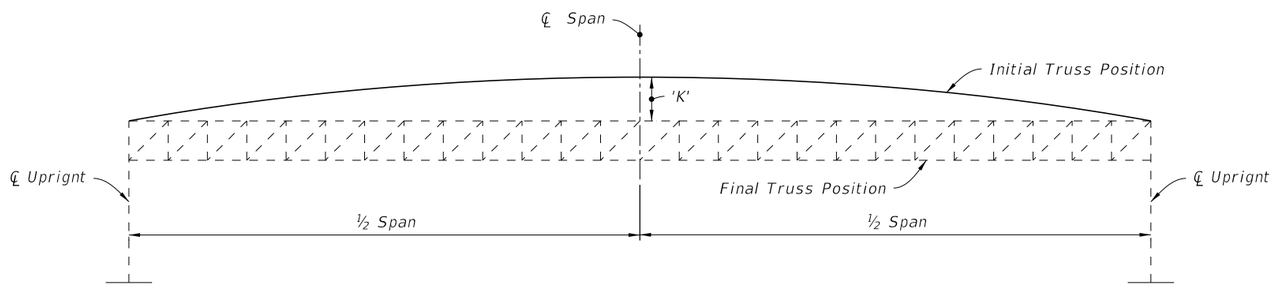
6. Materials:

   A. Sign Structure:
      a. Upright and Chords (Steel Pipe): API 5L X42 PSL2, 42 ksi yield or ASTM A500, Grade B (Min.)
      b. Steel Angles and Plates: ASTM A709 grade 36
   B. Bolts, Nuts and Washers:
      a. High Strength Bolts: ASTM F3125, Grade A325, Type 1
      b. Nuts: ASTM A563, Grade DH Heavy-Hex
      c. Washers: ASTM F436, Type 1, one under turned element
   C. Anchor Bolts, Nuts and Washers
      a. Anchor Bolts: ASTM F1554 Grade 55
      b. Nuts: ASTM A563 Grade A Heavy-Hex (5 per bolt)
      c. Plate Washers: ASTM A36 (2 per bolt)



ISOMETRIC VIEW

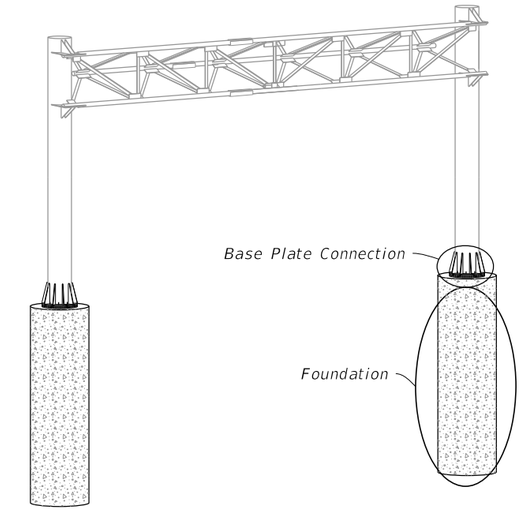
SPAN SIGN ASSEMBLY



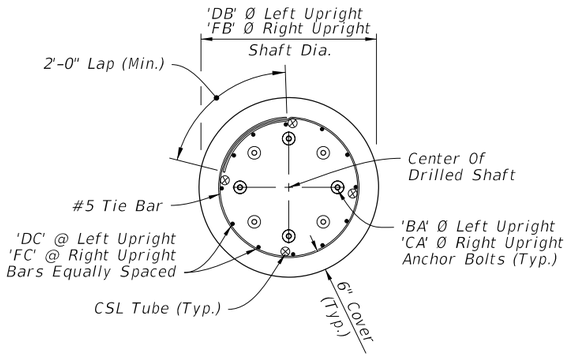
CAMBER DIAGRAM

9/29/2025 10:00:15 AM

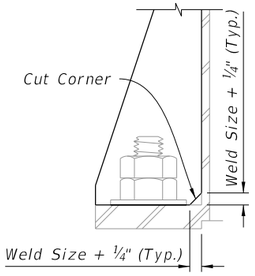
LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/22			FY 2026-27 STANDARD PLANS	SPAN SIGN STRUCTURE	700-041	1 of 5



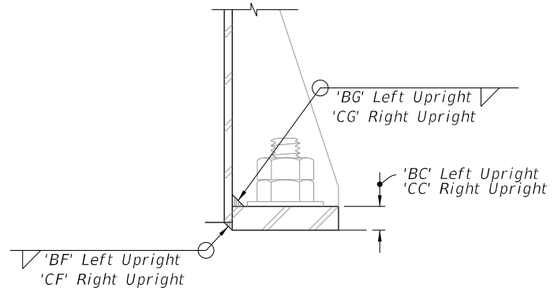
SPAN SIGN ASSEMBLY



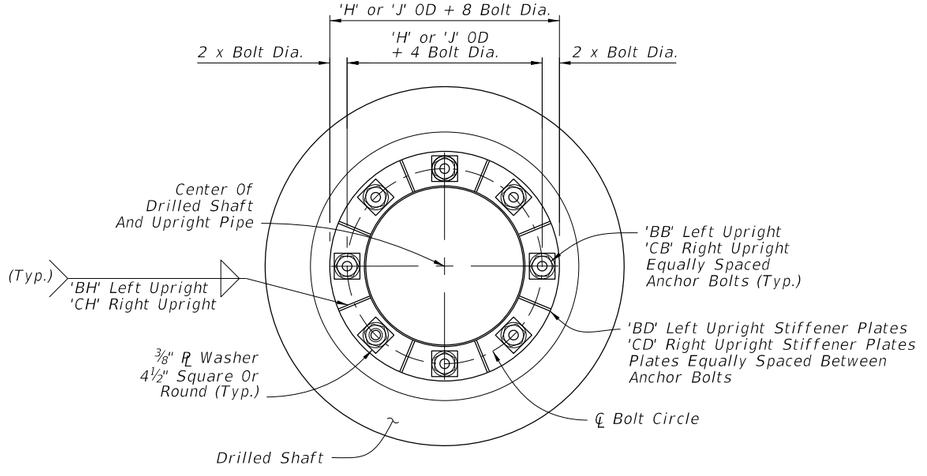
PLAN



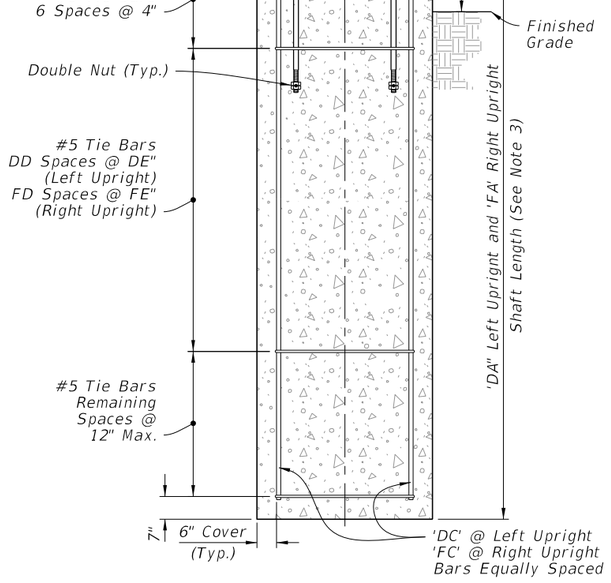
DETAIL "A"



DETAIL "B"



PLAN



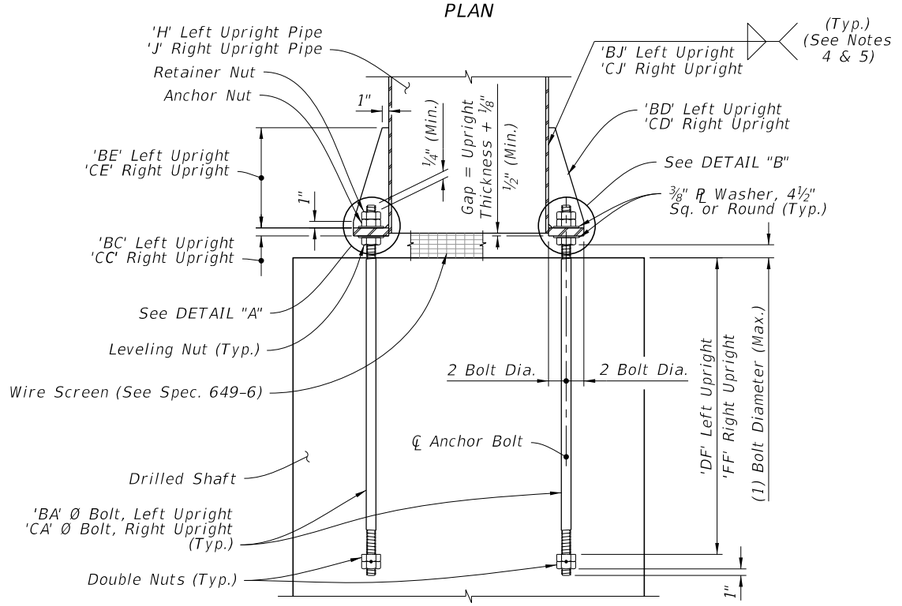
ELEVATION

DRILLED SHAFT

FOUNDATION

NOTES:

1. See Traffic Plans for elevation at top of Foundation.
2. Install Drilled Shaft with a 2'-0" minimum from top elevation of the drill shaft to the finished grade, unless specified otherwise in the plans.
3. The shaft length is based on 2'-0" height above finished grade.
4. Wrap fillet weld around the stiffener termination on the tube wall (Typ).
5. After galvanizing, provide magnetic particle testing on 100% of upright fillet welds.
6. Weld plates 'BD' and 'CD' in a star pattern. A star pattern is one in which the plates on opposite and near opposite sides of the pole circle are successively welded in a pattern resembling a star. For an 8 plate circle with plates sequentially numbered 1 to 8, weld the plates in the following order: (1, 5, 7, 3, 8, 4, 6, 2).

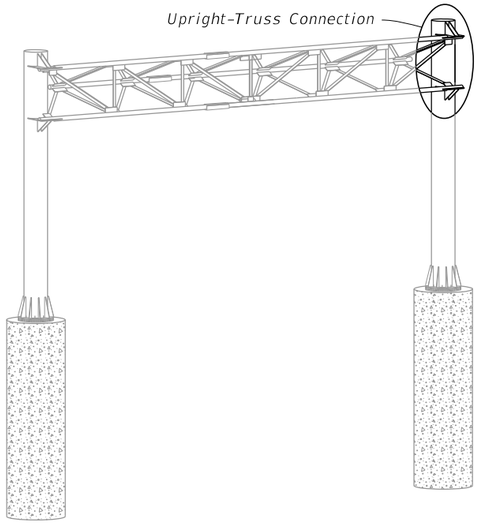


ELEVATION

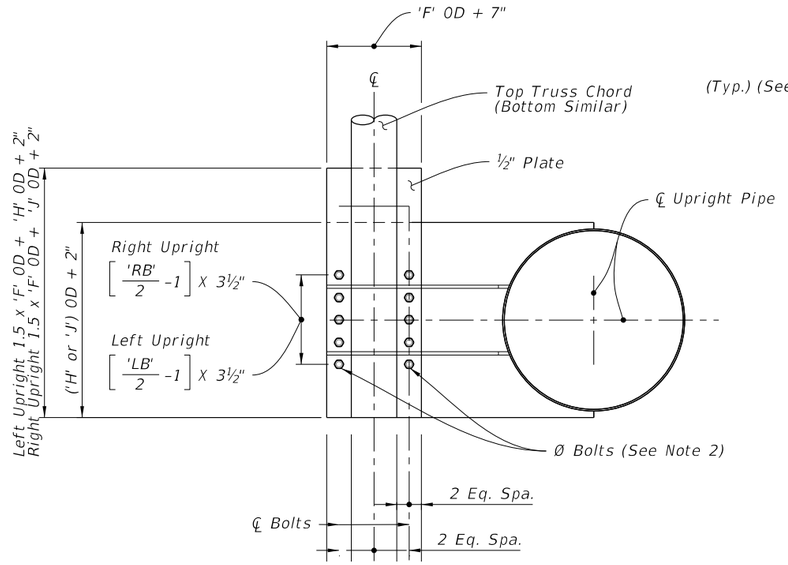
BASE PLATE CONNECTION

9/29/2025 10:00:23 AM

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	SPAN SIGN STRUCTURE	INDEX	SHEET
11/01/24					700-041	2 of 5

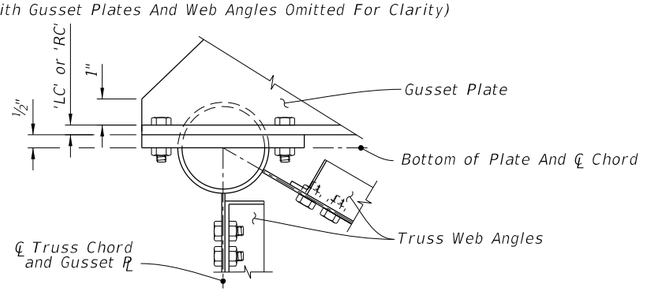


SPAN SIGN ASSEMBLY

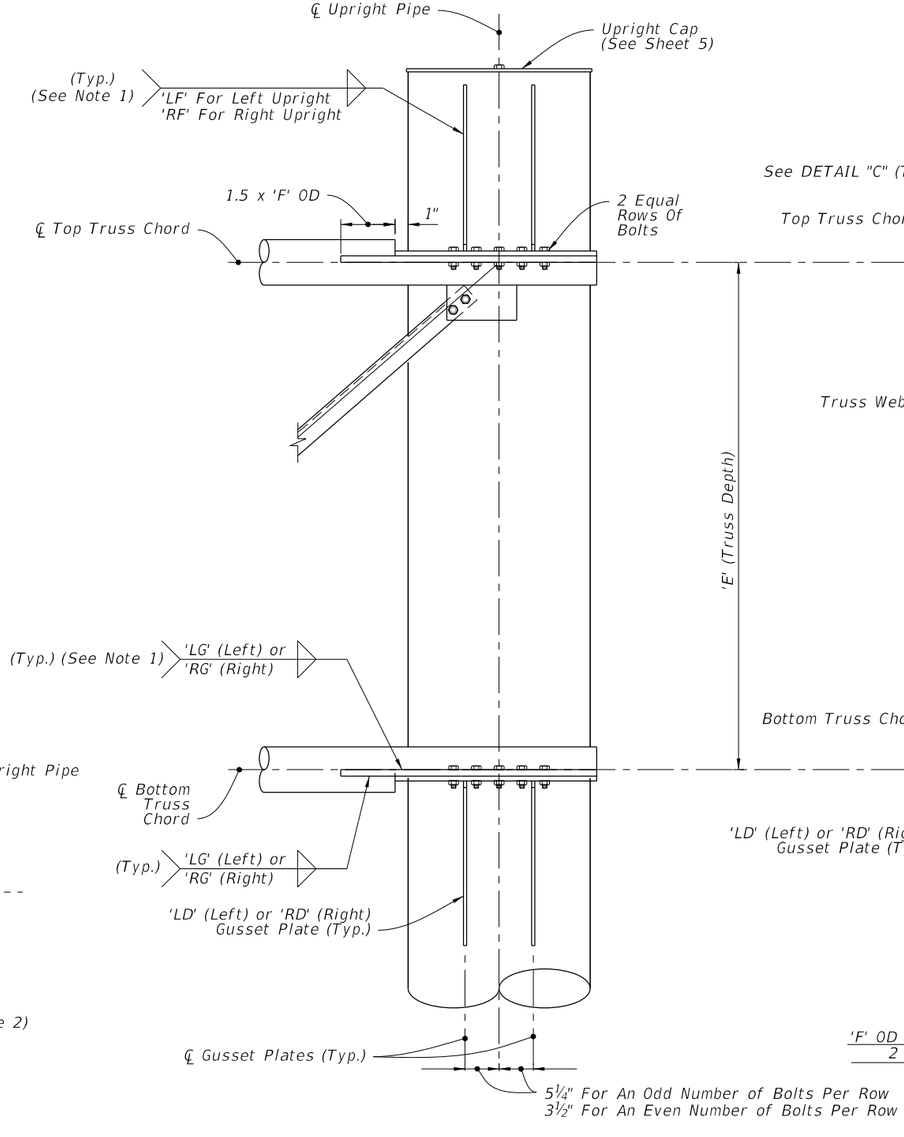


SECTION A-A

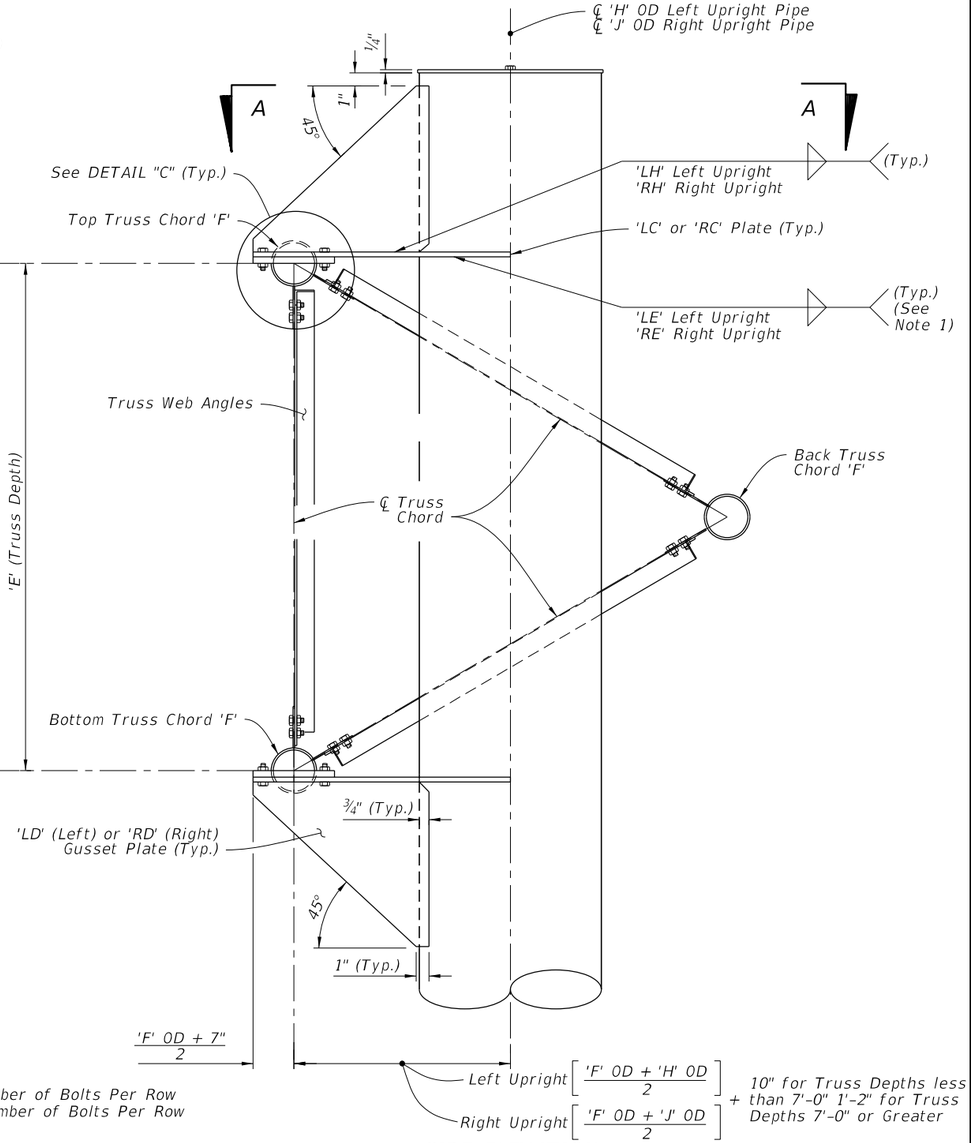
(With Gusset Plates And Web Angles Omitted For Clarity)



DETAIL "C"



FRONT ELEVATION



SIDE ELEVATION

UPRIGHT-TRUSS CONNECTION DETAIL

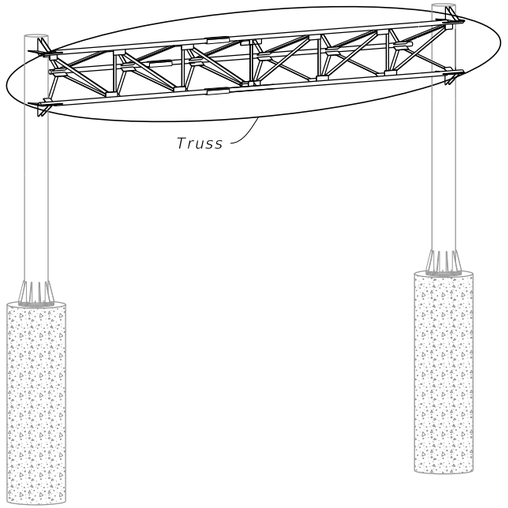
(Web Members From Back Truss Chord Omitted For Clarity, See Note 3)

NOTES:

1. Wrap fillet weld around the stiffener termination on the tube wall.
2. Truss Chord Bolts: 'LB' or 'RB' Hex Head Bolts 'LA' or RA' Ø.
3. Right Upright Truss connection shown, Left Upright Truss connection similar.

9/29/2025 10:00:30 AM

LAST REVISION	REVISION	DESCRIPTION:				
11/01/22			FDOT FY 2026-27 STANDARD PLANS	SPAN SIGN STRUCTURE	INDEX 700-041	SHEET 3 of 5

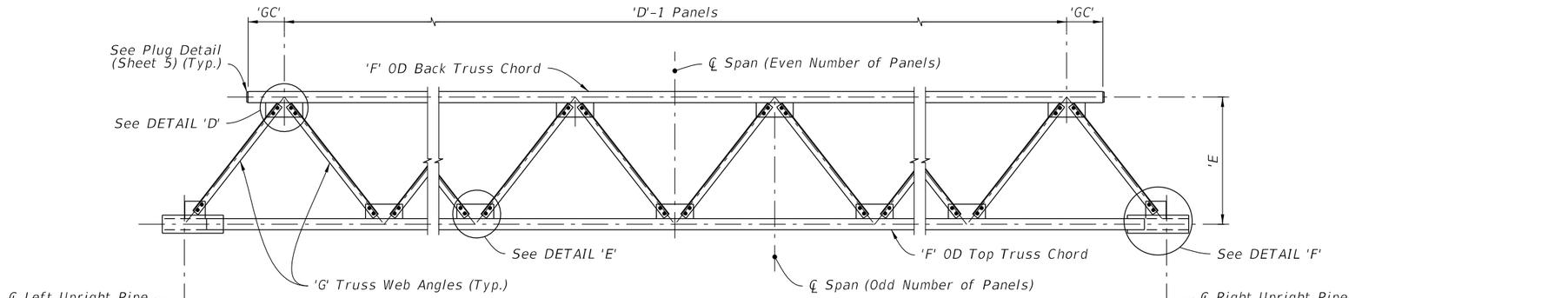


SPAN SIGN ASSEMBLY

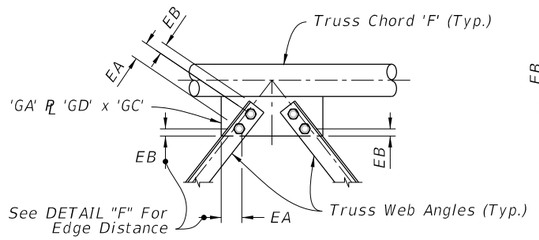
NOTES:

1. Out-of-plane members are not shown for clarity.
2. Back truss chord and attached angles are not shown for clarity.
3. Wrap fillet weld around plate termination on the tube wall.

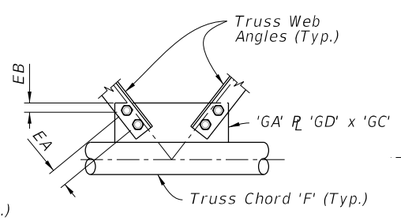
Bolt Diameter (in.)	Distance (in.)	
	EA	EB
1¼	4⅜	2¼"
1	3½	1¾
⅞	3	1½
¾	2½	1¼
⅝	2¼	1⅛



TRUSS



DETAIL 'D'



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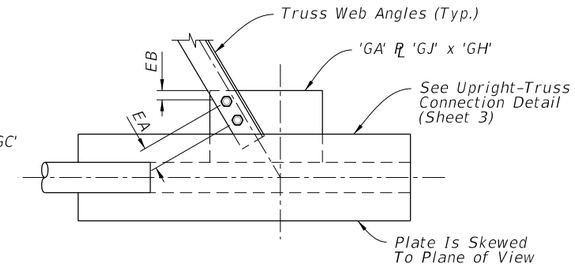

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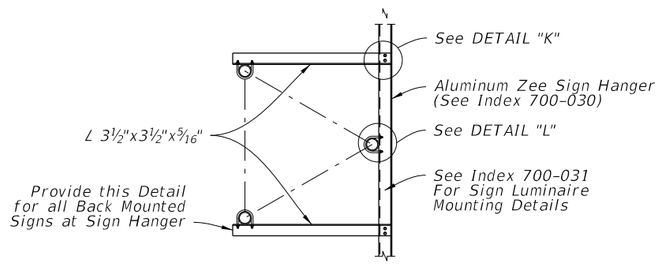
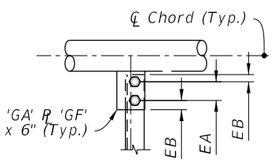


BACK-SIDE SIGN MOUNTING



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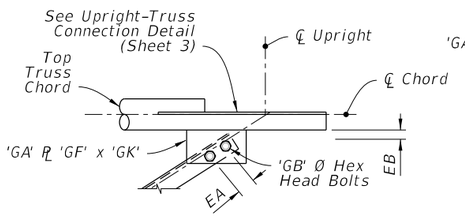

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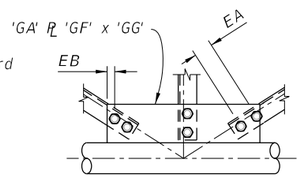

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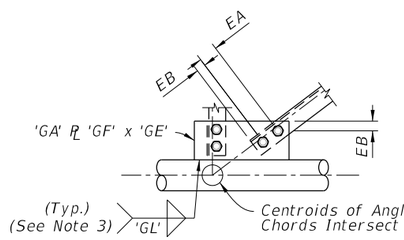

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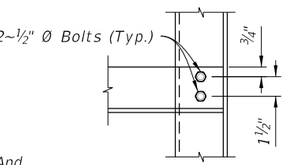

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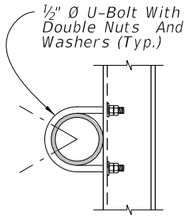
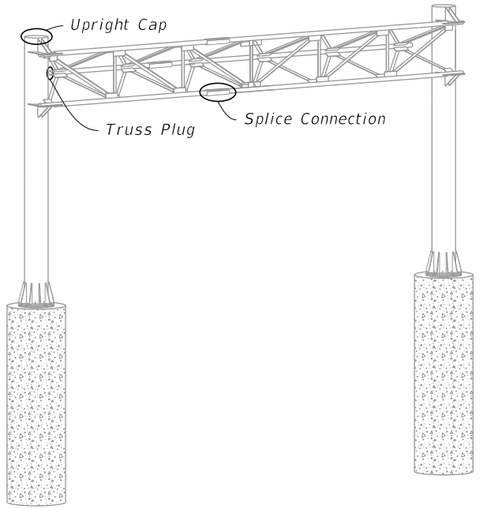


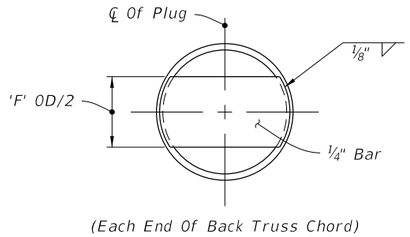
DETAIL 'L'

10:00:37 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:			
11/01/22			FY 2026-27 STANDARD PLANS	SPAN SIGN STRUCTURE	INDEX 700-041 / SHEET 4 of 5

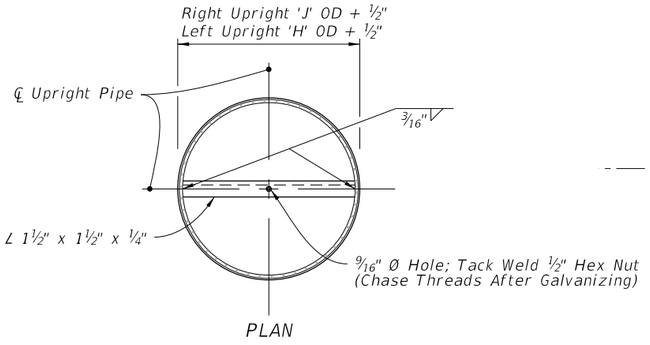


SPAN SIGN ASSEMBLY

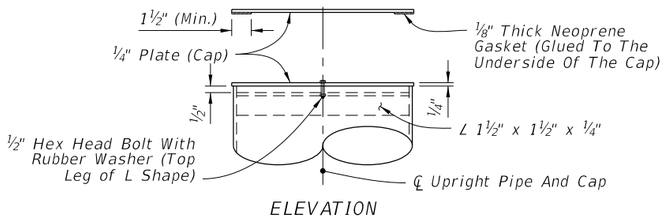


(Each End Of Back Truss Chord)

TRUSS PLUG DETAIL



PLAN



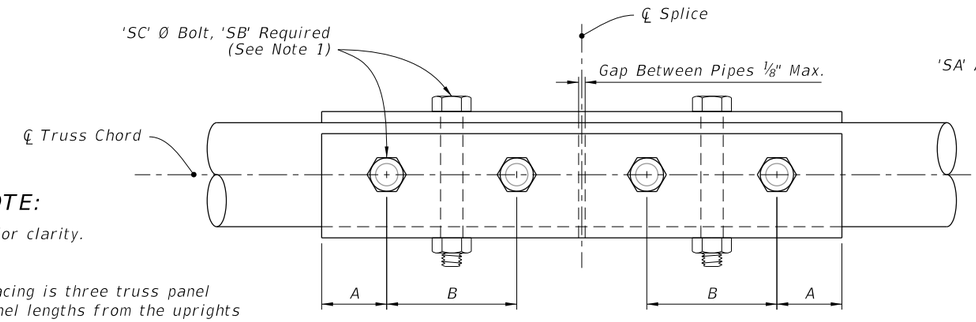
ELEVATION

UPRIGHT CAP DETAIL

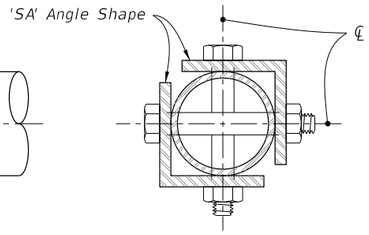
Bolt Diameter (in.)	Distance (in.)	
	A	B
1	1 3/4	3 1/2
7/8	1 1/2	3
3/4	1 1/4	2 1/2

SPLICE CONNECTION NOTE:

1. Only 6 bolts are shown in detail for clarity. (One Half Each End Of Splice)
2. Chord Splices: Minimum splice spacing is three truss panel lengths apart and three truss panel lengths from the uprights when panel lengths are 10'-0" or less. Chord Splices may be either the Standard Splice or the Alternate Splice, but not both on the same structure.
3. Upright splice: Not allowed unless the upright exceeds available mill lengths (35' – 40').

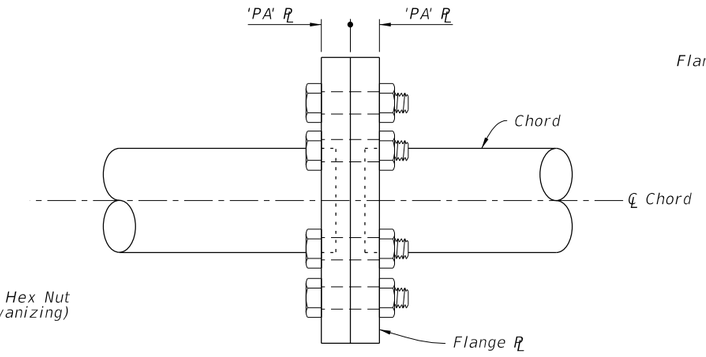


FRONT ELEVATION

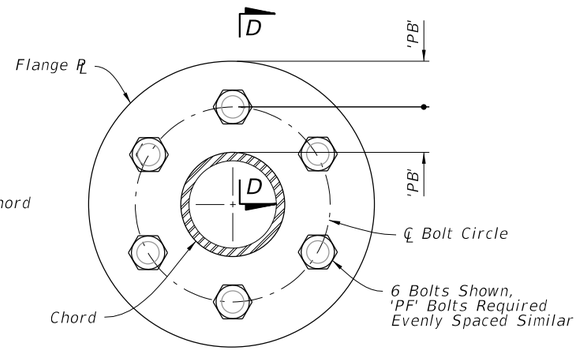


SIDE ELEVATION

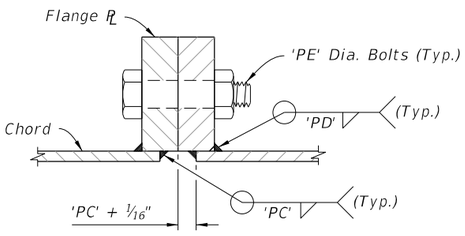
SPLICE CONNECTION DETAIL



FRONT ELEVATION



SIDE ELEVATION

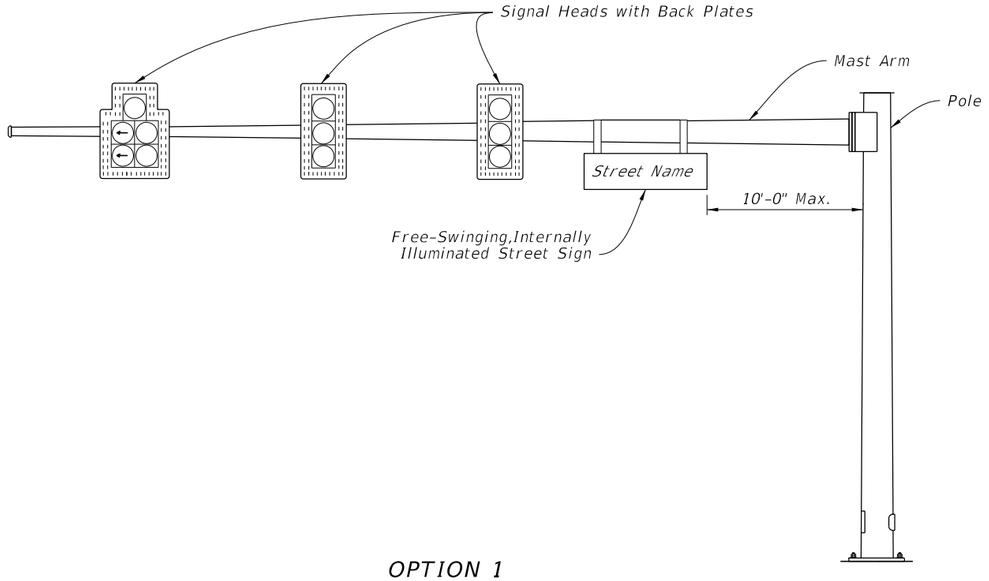


SECTION D-D

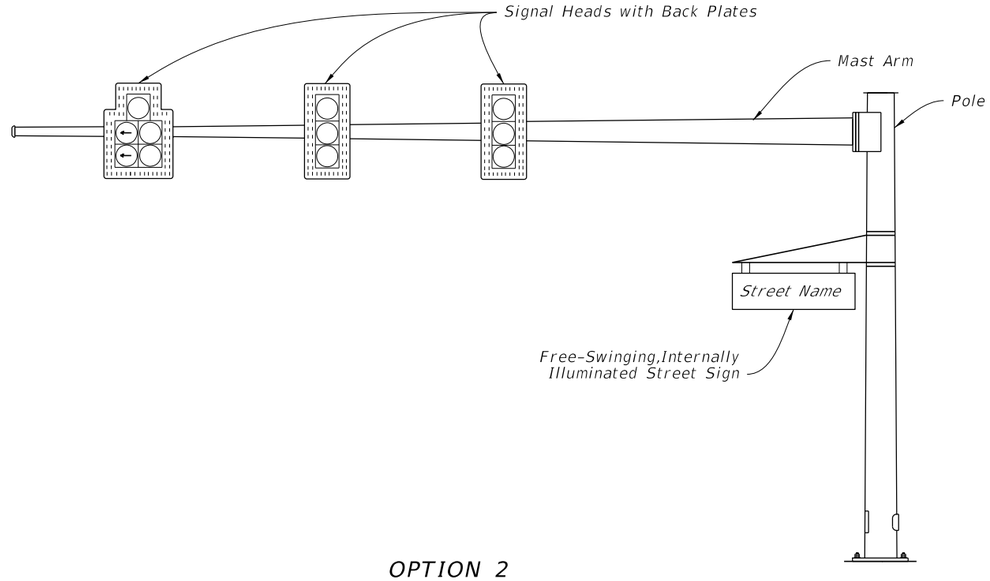
ALTERNATE SPLICE CONNECTION DETAIL

9/29/2025 10:00:45 AM

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/22			FY 2026-27 STANDARD PLANS	SPAN SIGN STRUCTURE	700-041	5 of 5

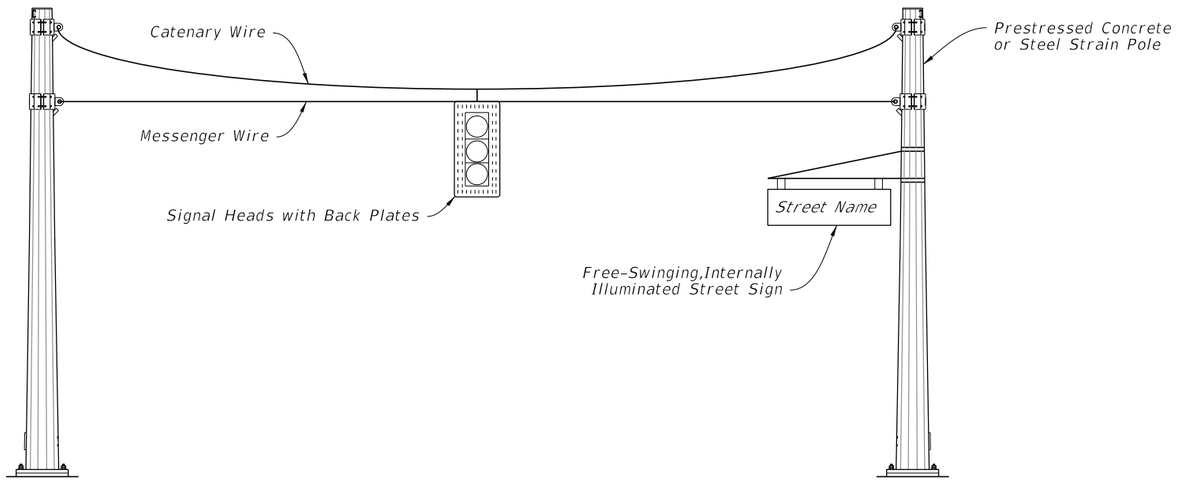


OPTION 1



OPTION 2

MAST ARM ASSEMBLY



SPAN WIRE ASSEMBLY

NOTES:

1. Install free-swinging, internally-illuminated street signs only on the signal pole for span wire assemblies. For mast arm assemblies the street sign may be installed on the arm or pole.

2. Free-swinging, internally-illuminated street signs meet the requirements of Specification 700.

3. Pole attachments and cantilever arm (or truss) assemblies may be accepted by Contractor certification provided the signs being supported meet the weight and area limitations included in Specification 700 for "Acceptance by Certification".

4. Pole attachments and cantilever arm (or truss) assemblies supporting signs not meeting the weight or area limitations included in Specification 700 for "Acceptance by Certification" require the submittal of structural calculations and Shop Drawings that have been prepared by and sealed by the Specialty Engineer.

9/29/2025 10:00:52 AM

LAST REVISION	REVISION	DESCRIPTION:				
11/01/17			FDOT	FY 2026-27 STANDARD PLANS	FREE-SWINGING, INTERNALLY-ILLUMINATED STREET SIGN ASSEMBLIES	INDEX 700-050 / SHEET 1 of 1

GENERAL NOTES:

1. Meet the requirements of Specification 700.

2. Furnish and install the Dynamic Message Sign (DMS), sign structure in accordance with Index 700-040 or 700-041. Locate foundations at locations shown in the Plans.

3. Shop Drawings are required:

   A. Include the DMS connection
   B. Do not start fabrication until the shop drawings are approved

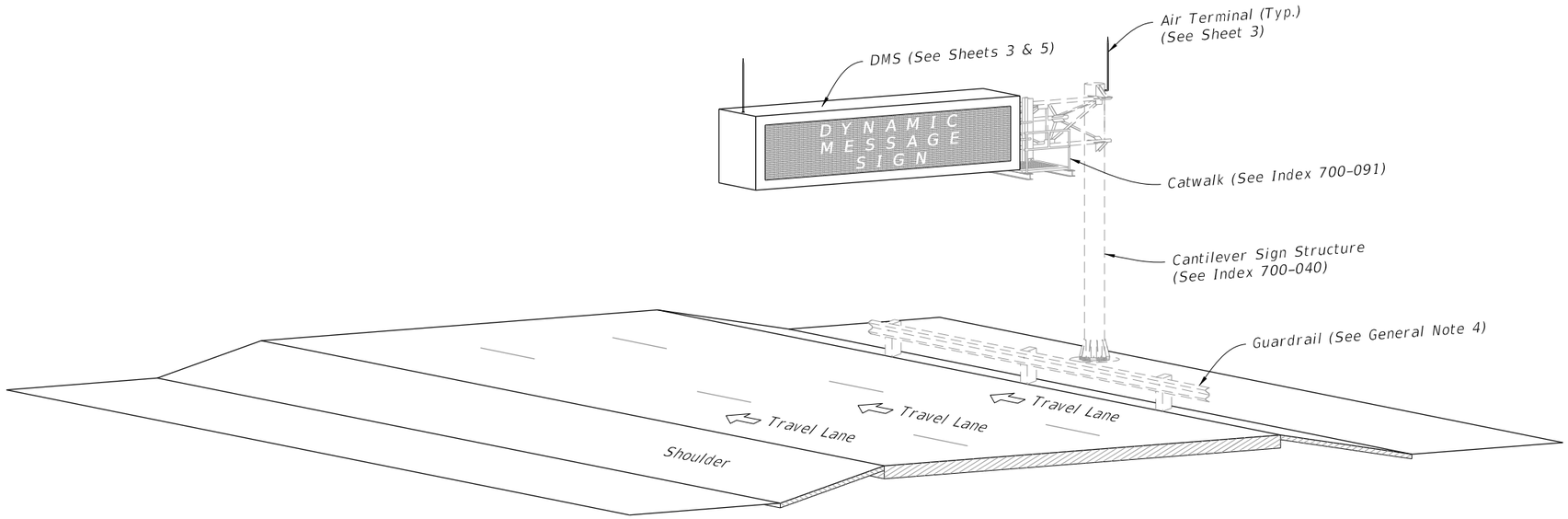
4. If required, install guardrail at location show in the Plans and in accordance with Index 536-001.

5. Installation:

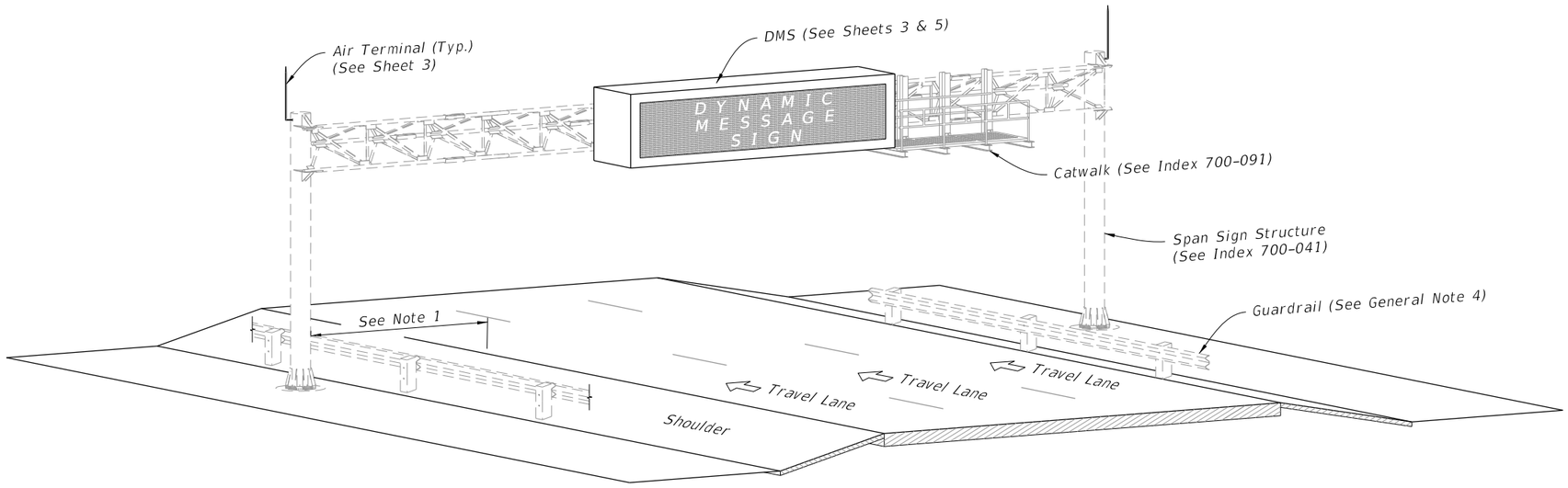
   A. See project requirements for location of DMS Cabinet.
   B. Field Adjust pole-mounted DMS cabinet height to achieve best access for maintenance personnel given site condition as directed by the Engineer. Avoid conflicts with stiffeners, handhole and maintenance of anchor bolts.
   C. Locate the sign horizontal on the structure as shown in the Plans. Vertically center the sign enclosure with the centerline of the truss.
   D. Before erection, field drill the bolt holes in the vertical hangers and horizontal mounting member attached to the sign enclosure. Field locate holes to allow vertical hanger placement as shown on the Plans with no conflicts with gusset or splice plates.
   E. Locate threaded couplings on sign side of upright above the sign truss
   F. Connect grounding conductors to the steel framework that has been cleaned to base metal by use of bonding plates having contact area of not less than 8 square inches or by welding or brazing. Drilling and tapping the steel structure to accept a threaded connector is also an acceptable method
   G. If steel framework is to be drilled and tapped to accept threaded connector, the threaded connector shall be galvanized and have at least 5 threads fully engaged and secured with a jam nut to the steel framework.
   H. Bends in the conduit must be greater than the minimum bending radius for the cable contained in the conduit.
   I. Completely encase all data, fiber optic and power cables for the DMS within the sign structure or in conduit.
   J. Permanently stamp/mark foundation to indicate conduit locations.
   K. Transition conduit in foundation to indicate underground conduit with appropriate reducer outside the limits of the foundation.

6. Materials (Sign Mounting Components):

   A. Aluminum Structural Shapes: ASTM B221, Alloy 6061-T6
   B. Vertical Hangers: ASTM A709, Grade 36
   C. U-Bolts: ASTM A449 or A193 B7
   D. Steel Bolts, Nuts, and Washers:
      1. High Strength Bolts: ASTM F3125, Grade A325, Type 1
      2. Nuts: ASTM F563
      3. Washers: ASTM F463 (Flat Washer)



CANTILEVER ISOMETRIC VIEW

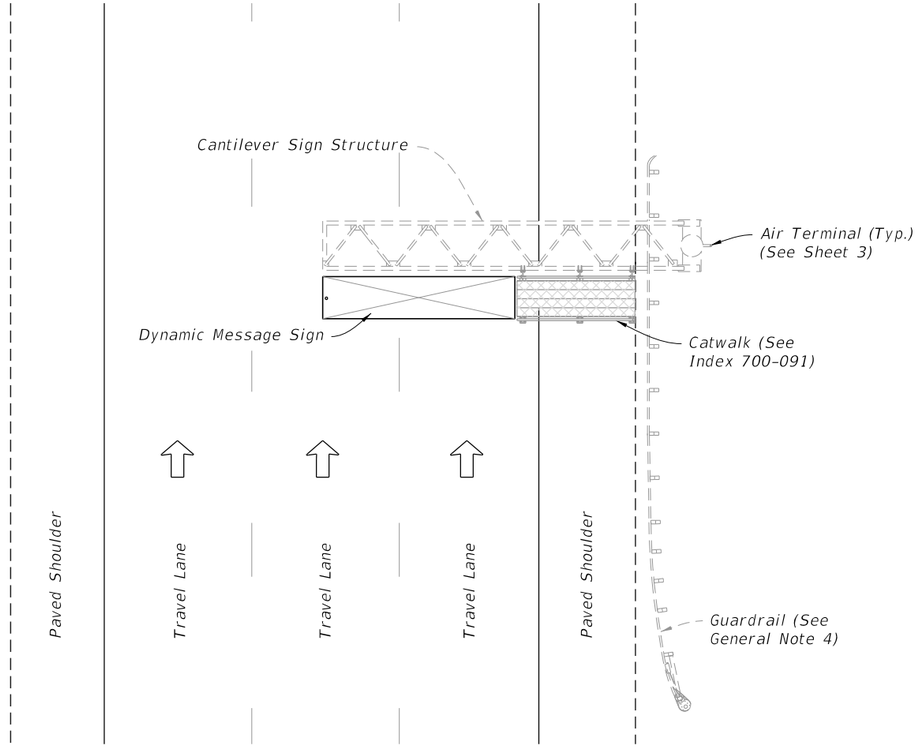


SPAN ISOMETRIC VIEW

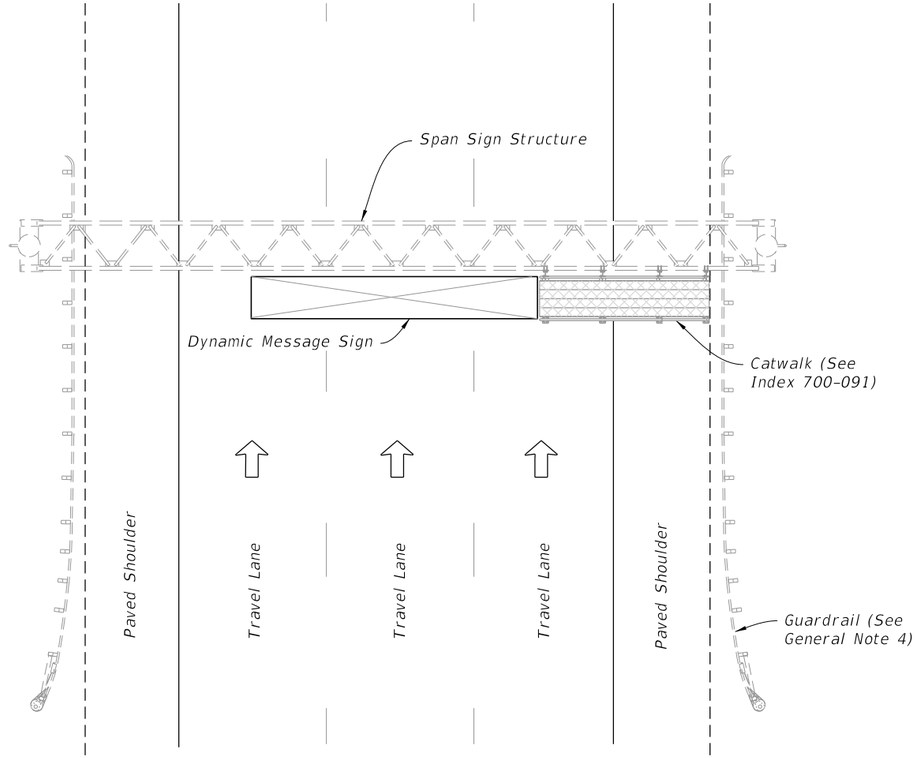
DYNAMIC MESSAGE SIGN ASSEMBLY

9/29/2025 10:01:02 AM

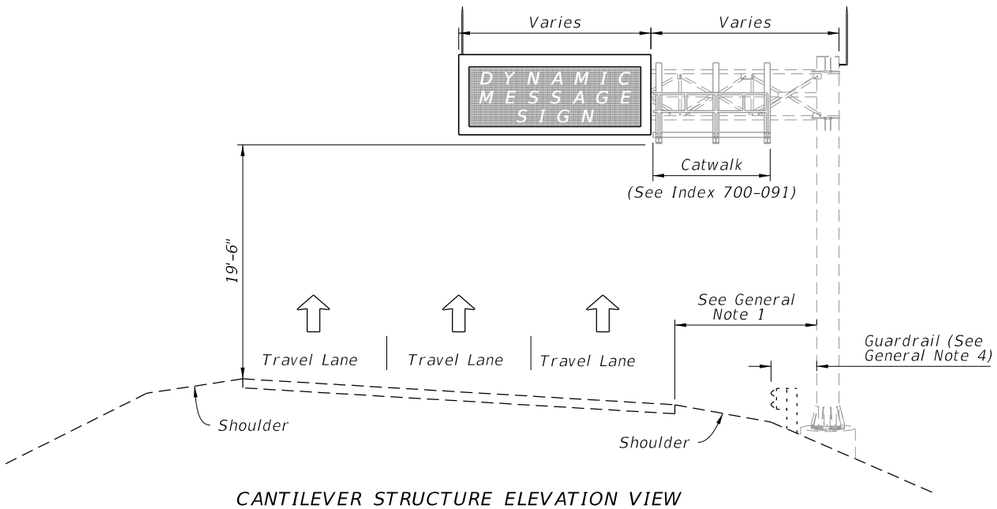
LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/22			FY 2026-27 STANDARD PLANS	DYNAMIC MESSAGE SIGN WALK-IN	700-090	1 of 5



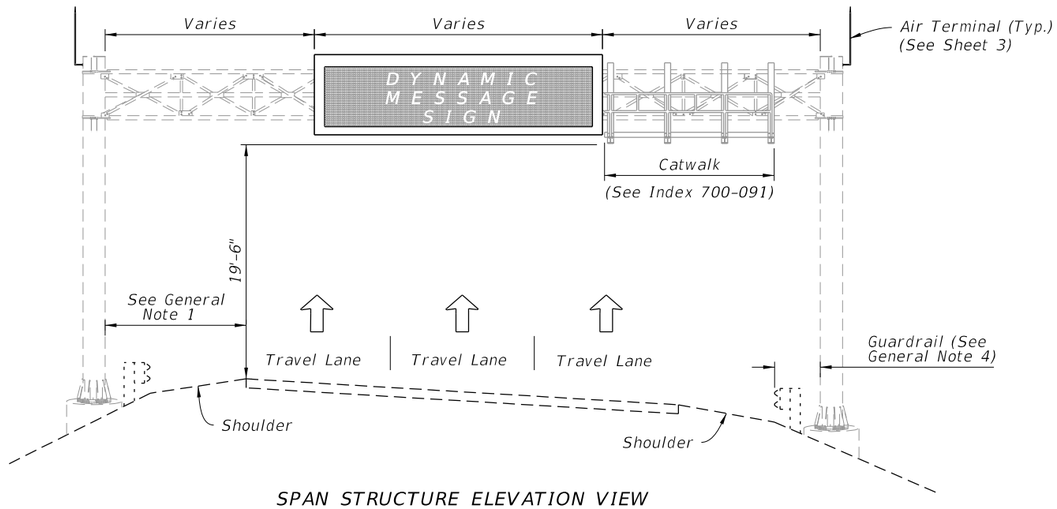
CANTILEVER STRUCTURE PLAN VIEW



SPAN STRUCTURE PLAN VIEW



CANTILEVER STRUCTURE ELEVATION VIEW



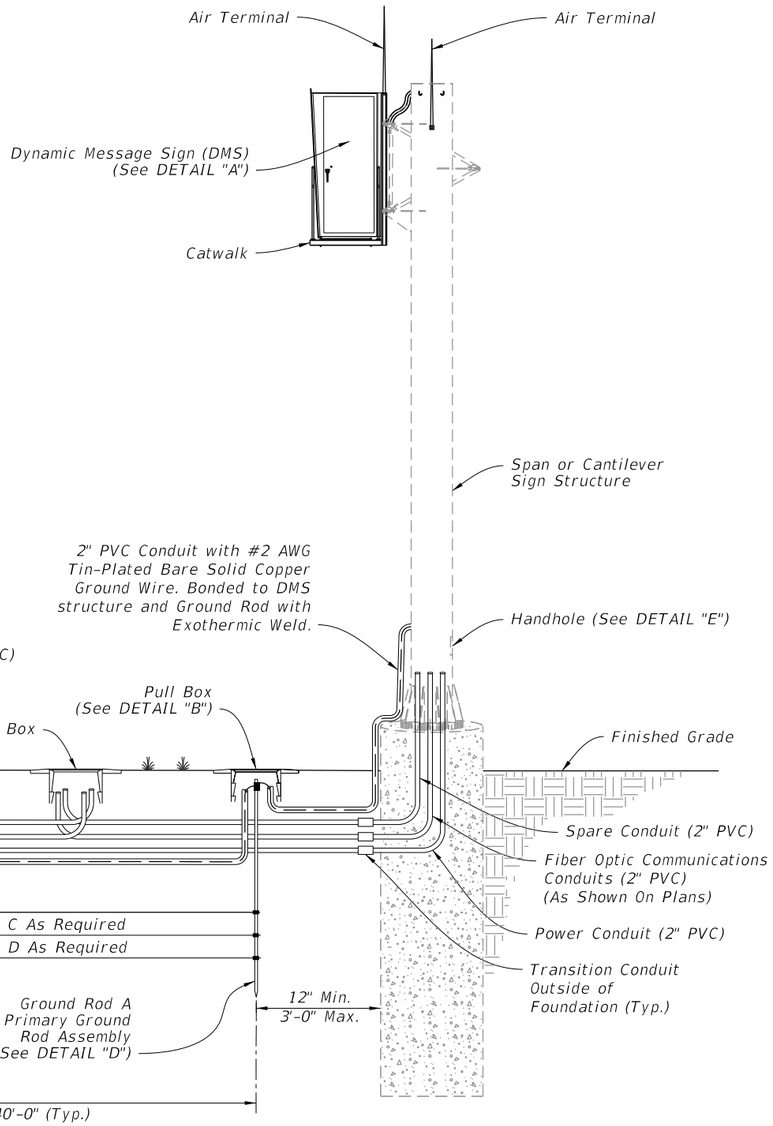
SPAN STRUCTURE ELEVATION VIEW

DYNAMIC MESSAGE SIGN GENERAL LAYOUT

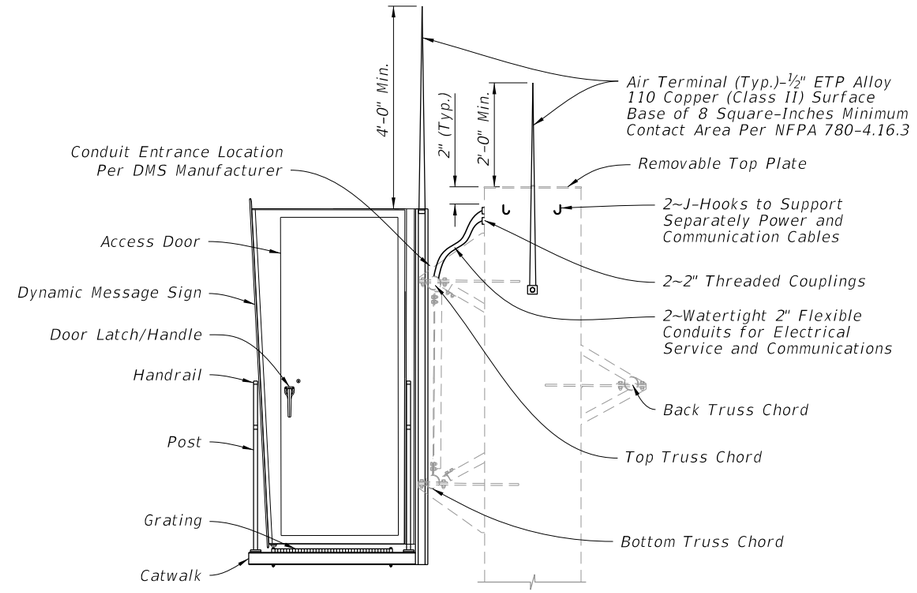
NOTE: Actual number and direction of travel lanes varies.

9/29/2025 10:01:10 AM

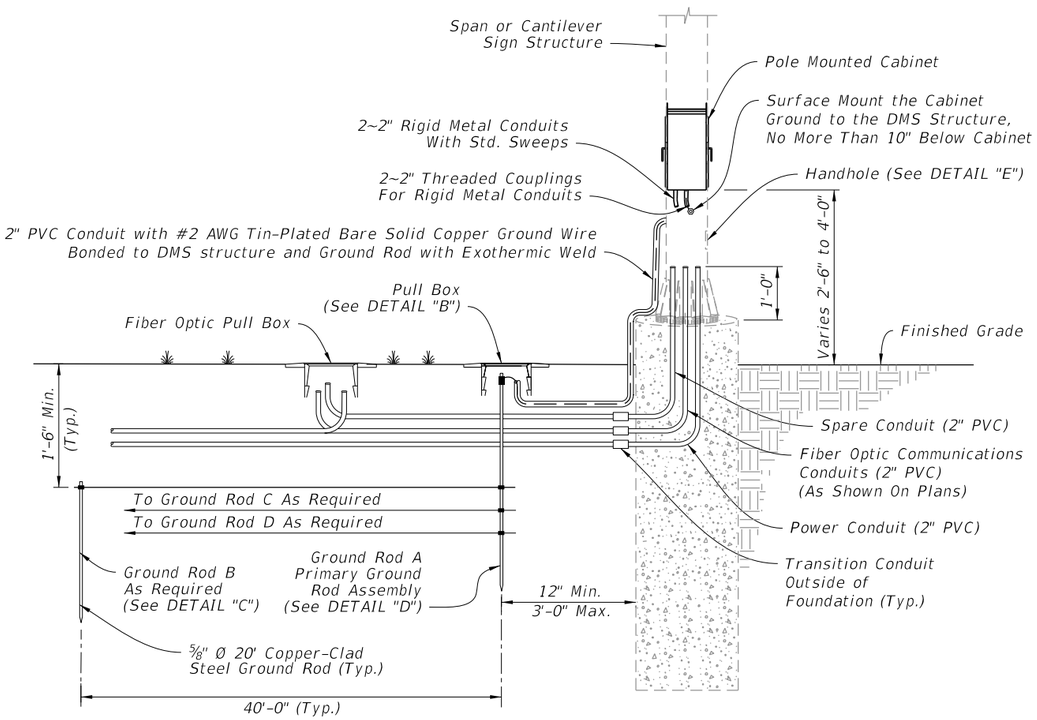
LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/19			FY 2026-27 STANDARD PLANS	DYNAMIC MESSAGE SIGN WALK-IN	700-090	2 of 5



GROUND MOUNTED CABINET



DETAIL "A"

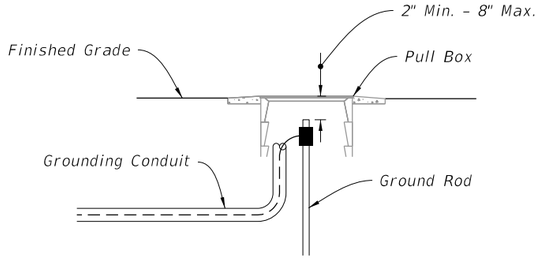


POLE MOUNTED CABINET

DYNAMIC MESSAGE SIGN GROUNDING AND CONDUIT DETAIL

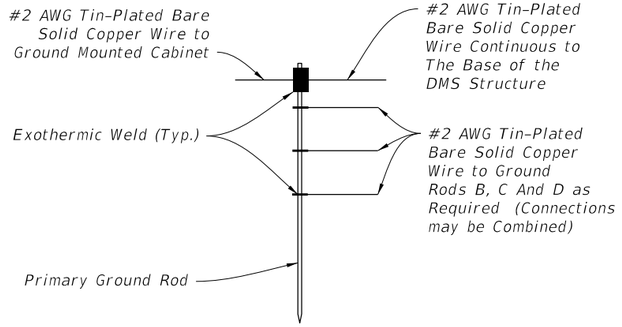
9/29/2025 10:01:17 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	DYNAMIC MESSAGE SIGN WALK-IN	INDEX	SHEET
11/01/17						700-090	3 of 5

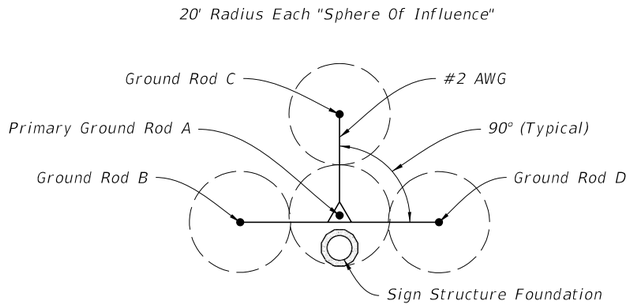


(Pole Mounted Cabinet Configuration Shown)

DETAIL "B"



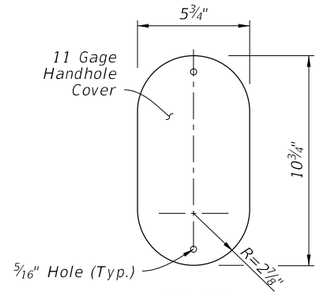
DETAIL "C"



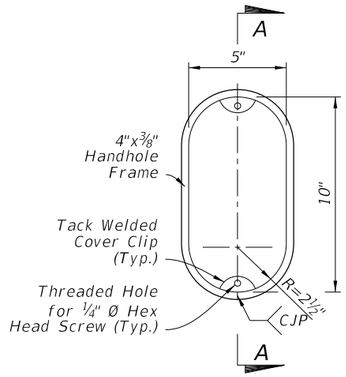
TYPICAL
(20' Rods, 40' Spacing)

GROUND ROD ARRAY DETAIL

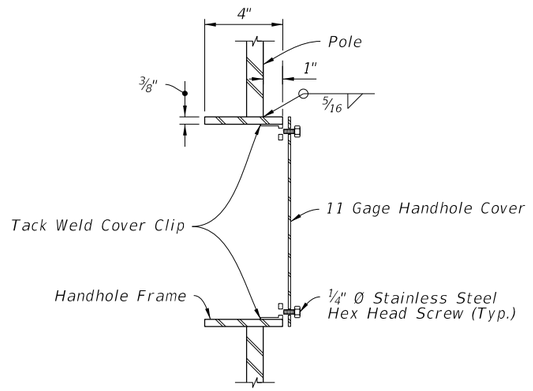
DETAIL "D"



COVER



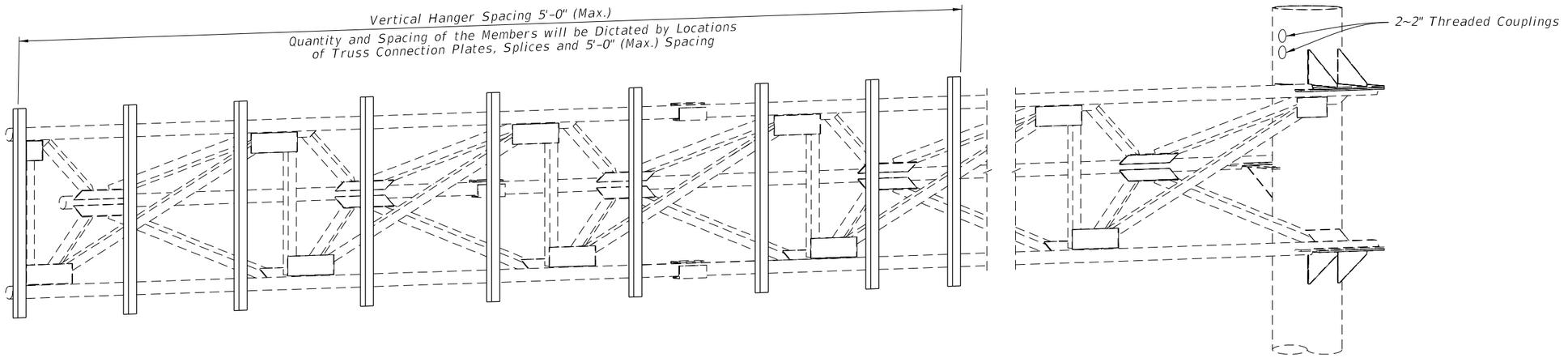
HANDHOLE FRAME



(Thru Handhole)

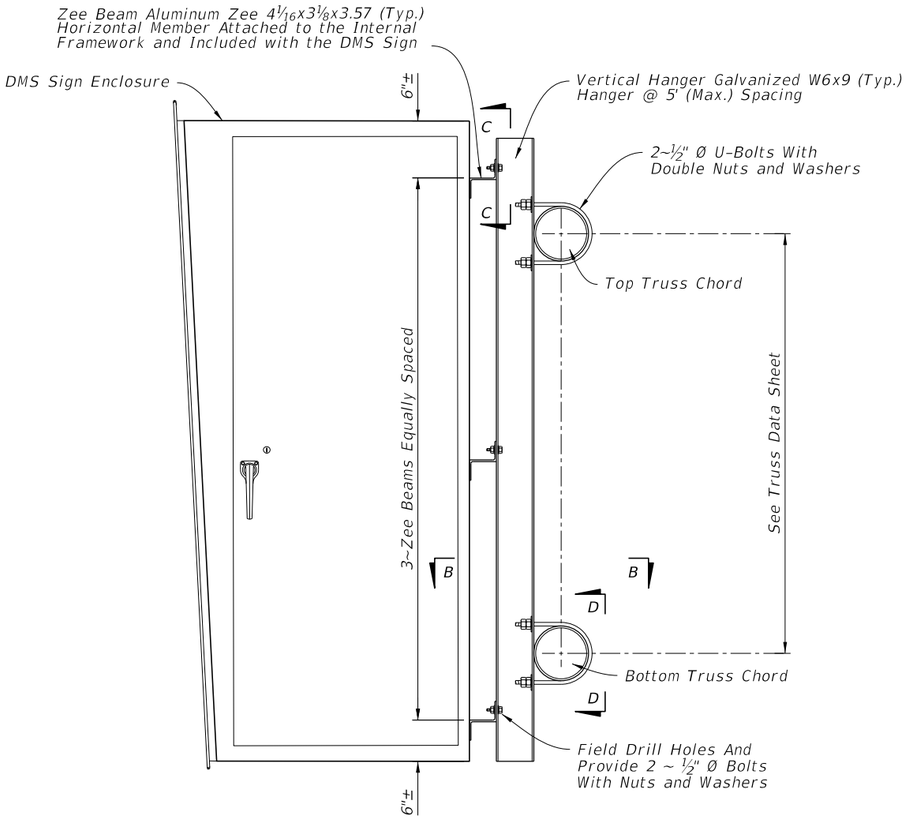
SECTION A-A

DETAIL "E"

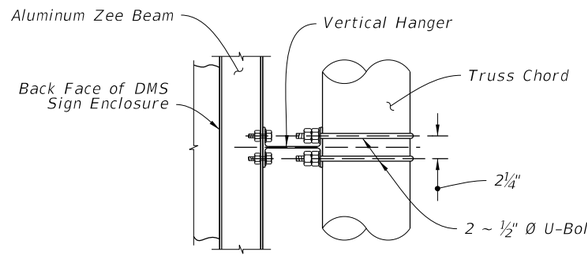


(Cantilever Sign Structure Shown, Span Sign Structure Similar)

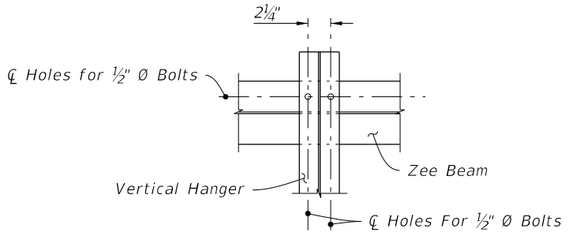
HANGER LOCATION DETAIL



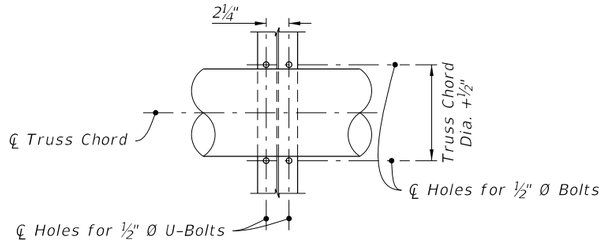
DYNAMIC MESSAGE SIGN END VIEW



SECTION B-B



SECTION C-C



SECTION D-D

9/29/2025 10:01:31 AM

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/17			FY 2026-27 STANDARD PLANS	DYNAMIC MESSAGE SIGN WALK-IN	700-090	5 of 5

GENERAL NOTES:

1. Meet the requirements of Specification 700.

2. Shop Drawings are required:

   A. Provide length as shown in the Plans
   B. Design in accordance with AISC, AASHTO, and OSHA requirements
   B. Do not start fabrication until the shop drawings are approved

3. Catwalk hangers must be positioned to avoid conflicts with the sign structure truss and gusset plates. Place walkway close to the sign with a maximum open distance from walkway grate to DMS sign of ½".

4. Maximum spacing of Catwalk hanger supports is 5'–0". Cantilever ends of grating is 8".

5. Galvanized steel catwalk grating meeting the requirements of Specification 504–2.3. Must Support a 90 psf load and have a 3½" minimum toe kick. Attach grating in accordance with the manufacturer's instructions using stainless steel or galvanized fasteners.

6. Supply and install an OSHA 1910 compliant, self closing, hot dip galvanized safety gate. Install per manufactures instructions.

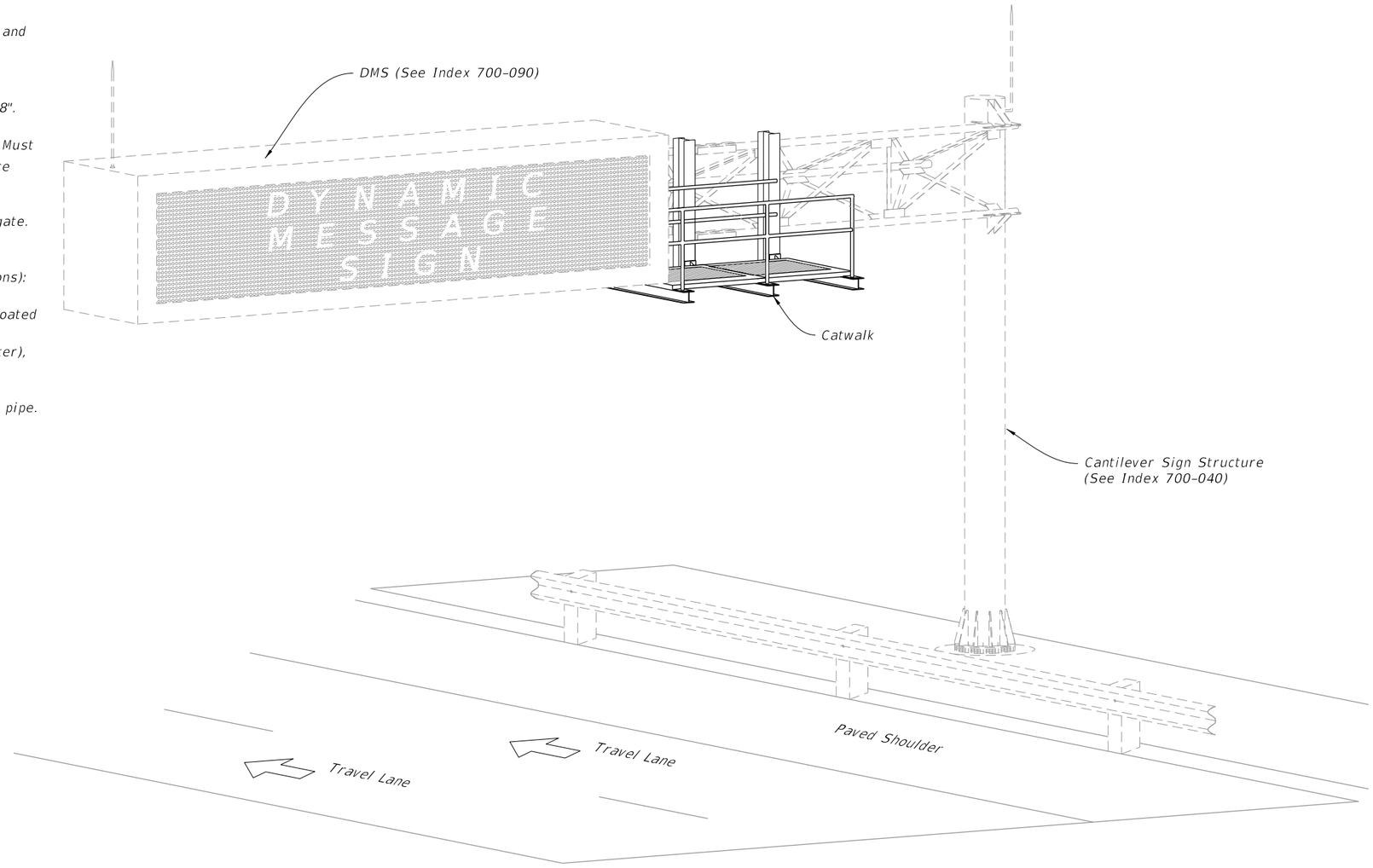
7. Chain link fabric options (2" mesh with knuckled selvage top and bottom for all options):

   A. AASHTO M181 Type I – Zinc Coated Steel, No. 9 gage (coated wire diameter), coated at the rate of 1.8 oz/ft². (M181 Class D 2.0 oz./ft². modified to 1.8 oz./ft².).
   B. AASHTO M181 Type II – Aluminum Coated Steel, No. 9 gage (coated wire diameter), coated at the rate of 0.40 oz./ft².

8. Install 2" NPS (Sch. 40) guiderail and posts: ASTM A53 Grade B for standard weight pipe.

9. Materials:

   A. Steel plates ASTM A 36 or A709 Grade 36.
   B. W–Sections: ASTM A572 Grade 36 or 50.



CATWALK ASSEMBLY
(Cantilever Shown, Span Similar)

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LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	CATWALK DETAILS	INDEX	SHEET
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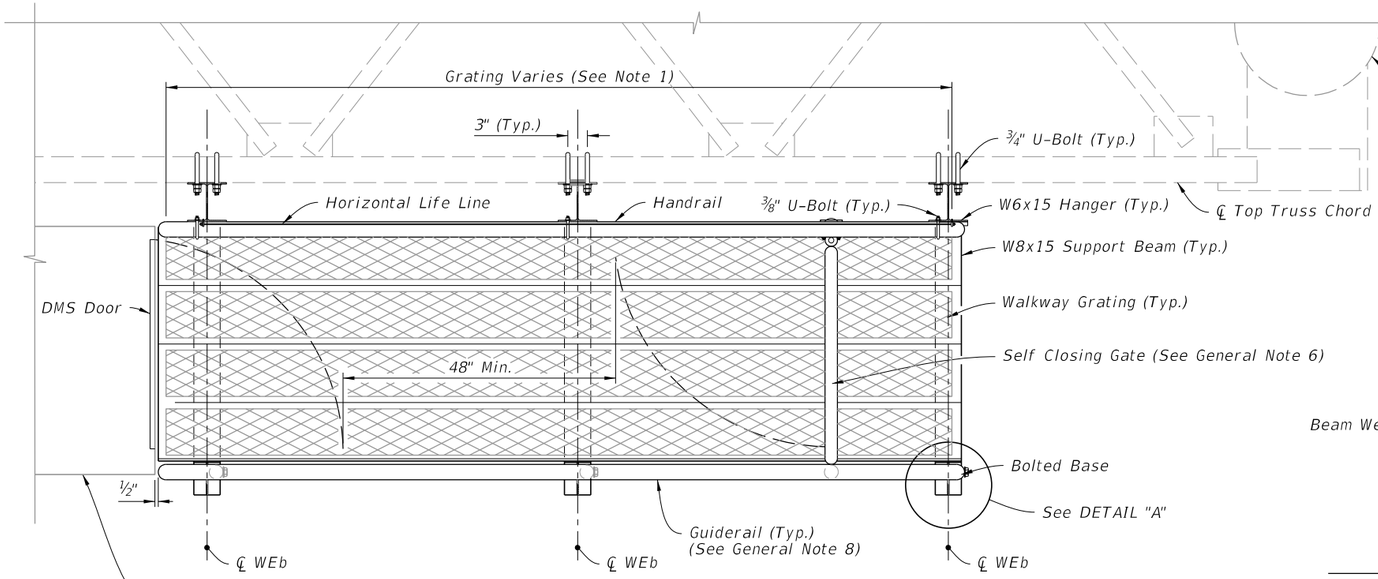
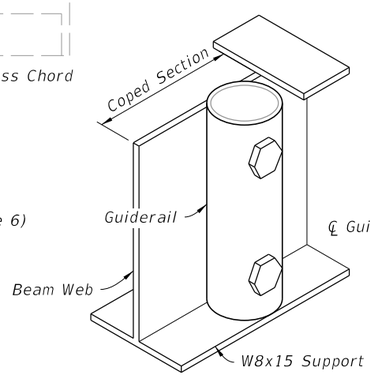
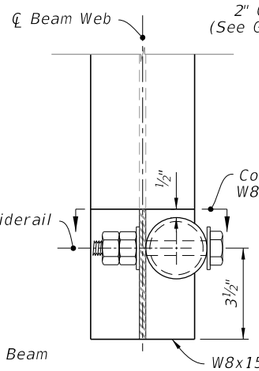


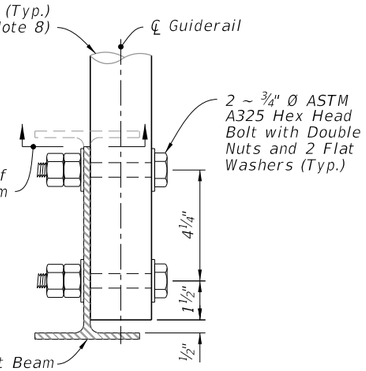
PLAN



ISOMETRIC VIEW

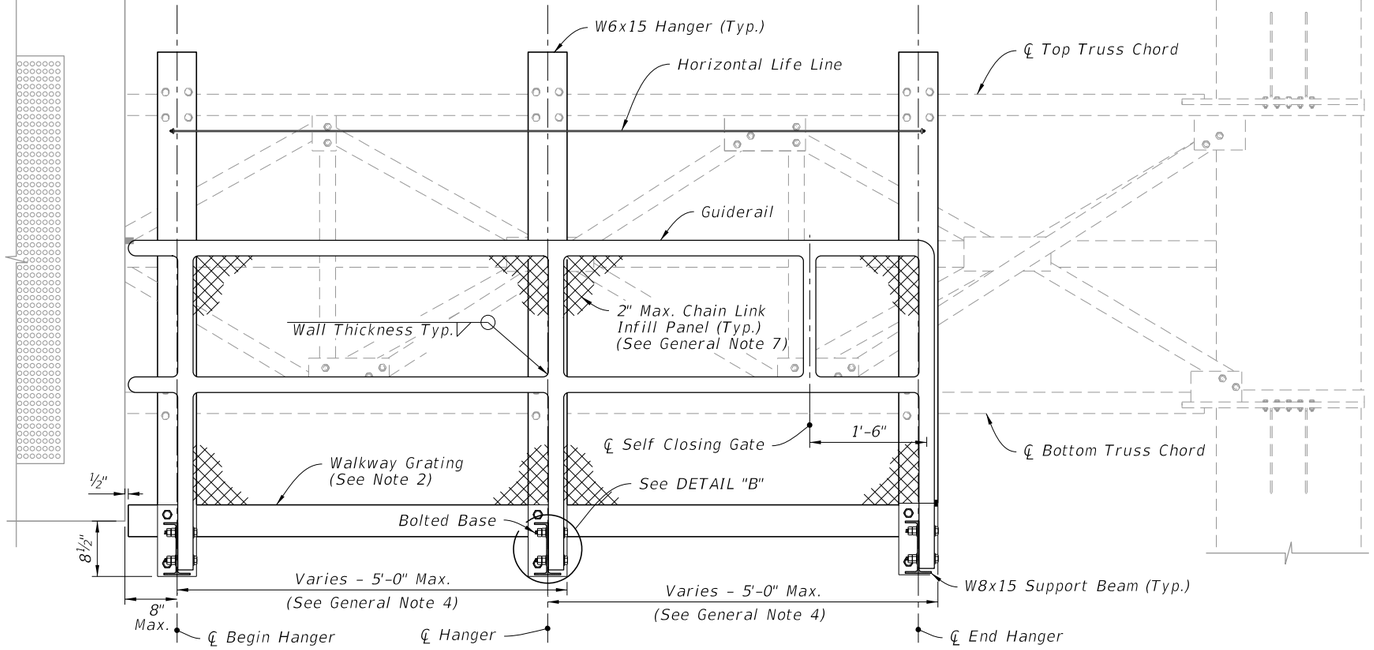


DETAIL "A"

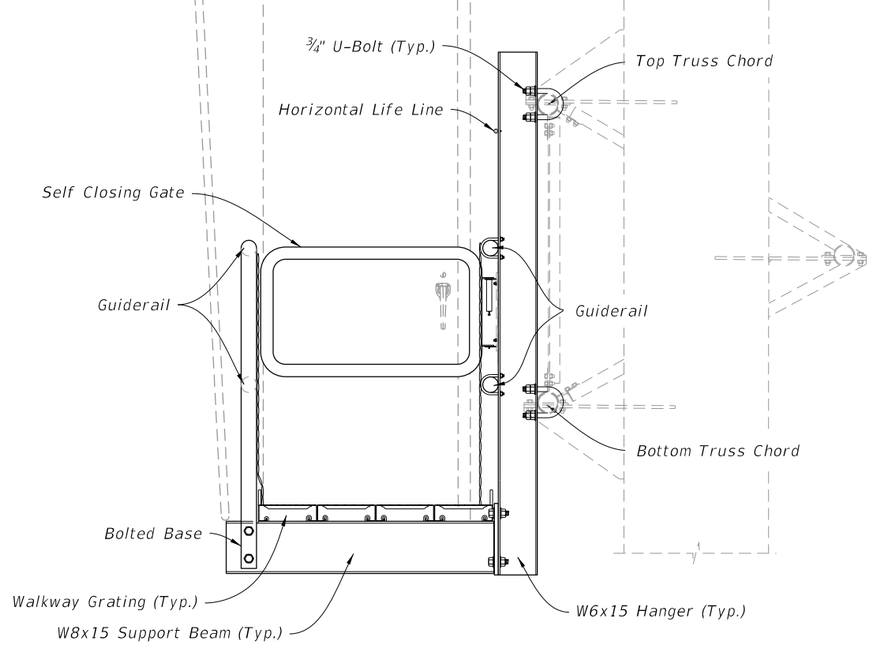


DETAIL "B"

BOLTED BASE DETAILS



FRONT ELEVATION



SIDE ELEVATION

GENERAL ASSEMBLY

NOTES:

1. See manufacturer details for walkway planks and bolting criteria.
2. Fasten securely. See grating manufactures details.

GENERAL ASSEMBLY AND FIXED BASE DETAILS

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
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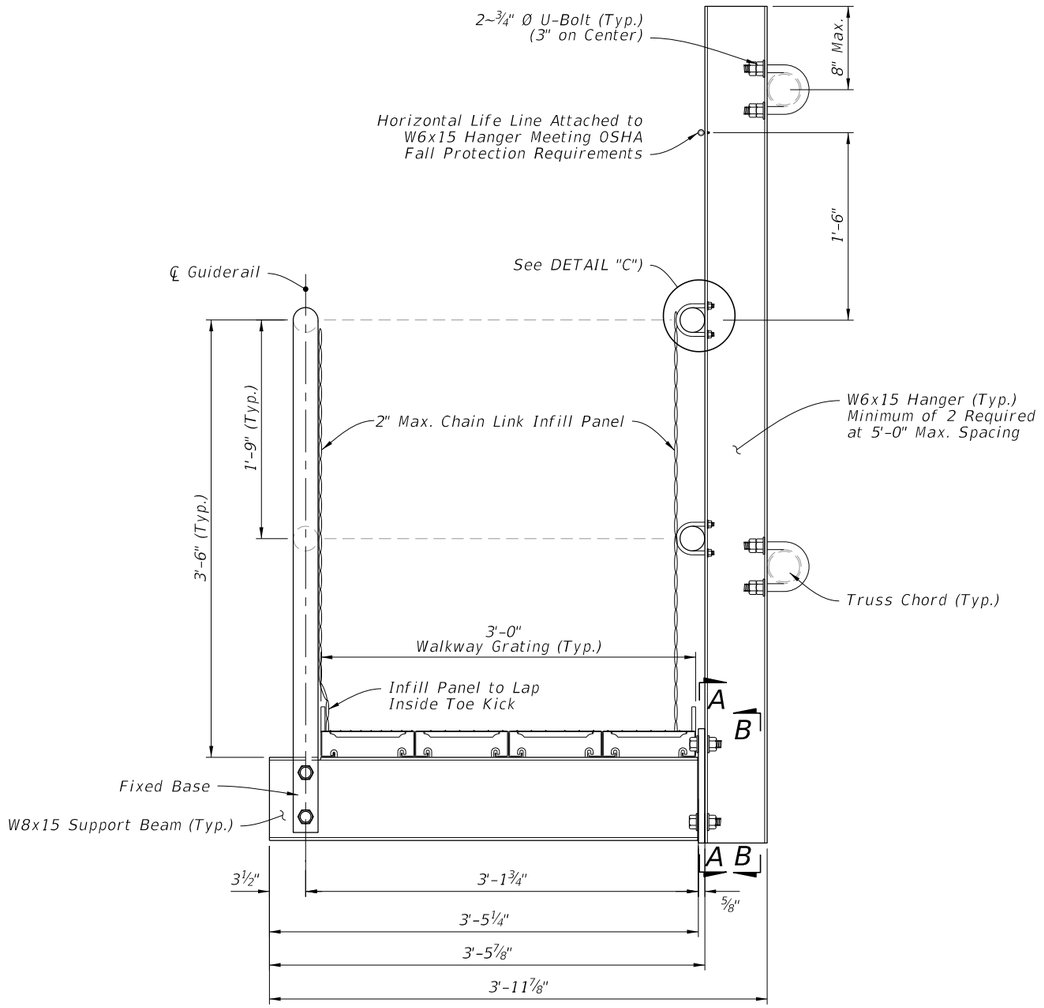
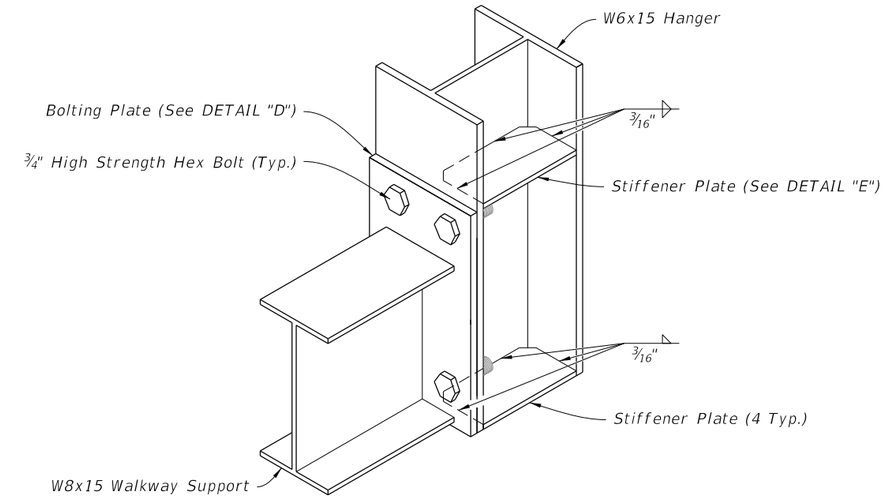
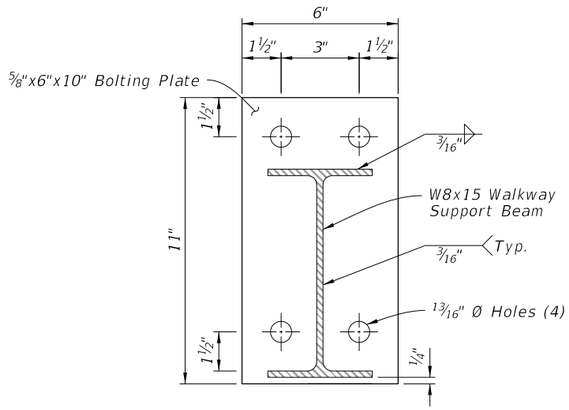


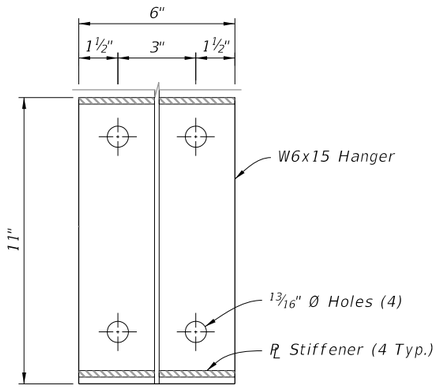
WALKWAY SUPPORT DETAILS



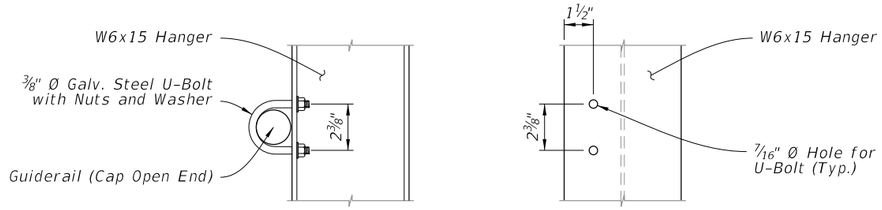
ISOMETRIC VIEW



SECTION A-A



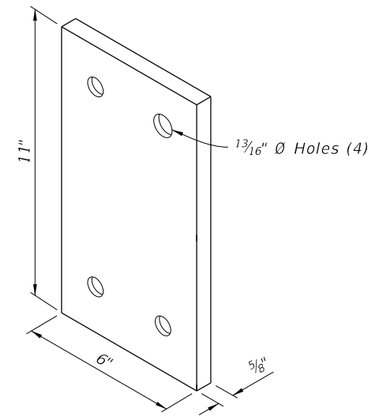
SECTION B-B



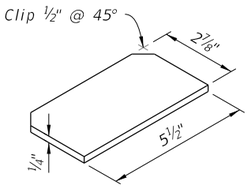
SIDE ELEVATION

FRONT ELEVATION

DETAIL "C"
(Guiderail Attachment)



DETAIL "D"
(Bolting Plate)



DETAIL "E"
(Stiffener Plate)

WALKWAY SUPPORT DETAILS

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/19			FY 2026-27 STANDARD PLANS	CATWALK DETAILS	700-091	3 of 3

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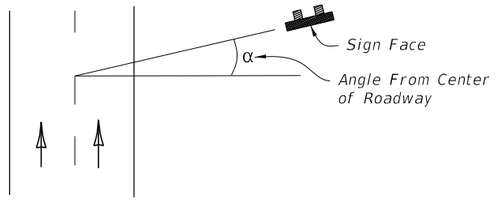
GENERAL NOTES:

1. Single-Column Signs Shown, Multi-Column Signs similar. These typical sections serve as a guide for locating the traffic signs required under various roadside conditions. For size and details of sign construction and footing, refer to the appropriate Index and Plans.

2. Verify the length of sign supports in the field prior to fabrication.

3. Install ground signs at an angle of 1 to 4 degrees away from the traffic flow (see illustration). Install shoulder mounted signs rotated counterclockwise and median mounted signs rotated clockwise. Install signs on a curve as noted above from the perpendicular to the motorist line of sight.



4. The setback for Stop and Yield signs may be reduced to 3' minimum from the Edge of Traveled Way if required for visibility in business or residential sections with no curb and speeds of 30 MPH or less.

5. The mounting heights are measured from the bottom of the sign panel to a horizontal line extended from the Edge of Traveled Way or from the ground surface at the back of curb. If the standard heights cannot be met, the minimum heights are as follows:

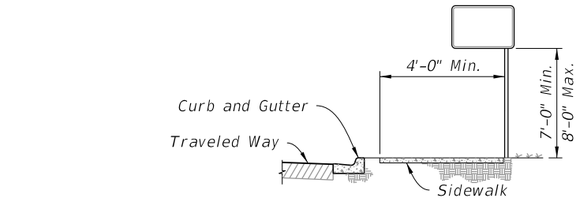
   A. Limited Access Roadways – 7', if a secondary sign is mounted below the major sign, mount the major sign so that the bottom of the sign is at least 8' above the edge of the traveled way and the secondary sign at least 5' above the edge of the traveled way.

   B. Arterial and Collector Roadways: 5'-Rural, mount the secondary sign at least 5' above the edge of the traveled way; 7'-Urban (including residential with parking and/or pedestrian activity), mount the secondary sign at least 7' above the edge of the traveled way.

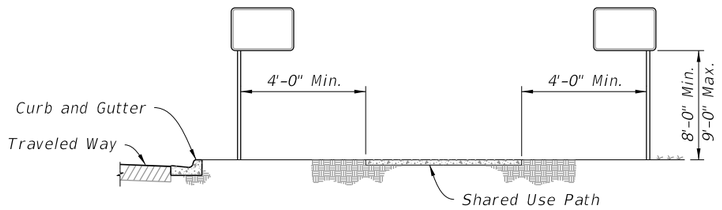
6. Do not install sign supports in the bottom of ditches.

7. CASE X sign placement is for Interstate Exit Ramps only. Use CASE I through Case VIII as appropriate for all other Wrong Way signs.

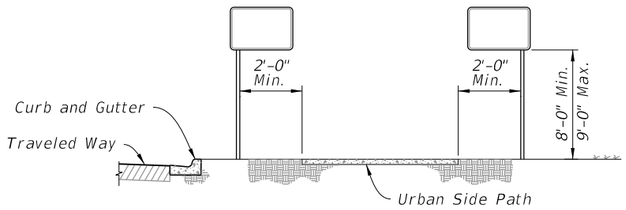
8. Sign Supports:
   A. Install sign supports, so they do not reduce the accessible width of sidewalk to less than 4' min. clear width.
   B. Install sign supports along shared use paths, so a 4-foot clear area is adjacent to both sides of the shared use path.
   C. Install sign supports along urban side paths so there is a 2-foot buffer along both sides of the path.



SIDEWALK



SHARED USE PATH



URBAN SIDE PATH

9/29/2025 10:02:00 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	TYPICAL SECTIONS FOR PLACEMENT OF SINGLE AND MULTI-COLUMN SIGNS	INDEX	SHEET
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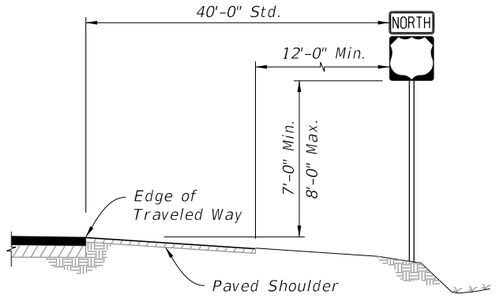
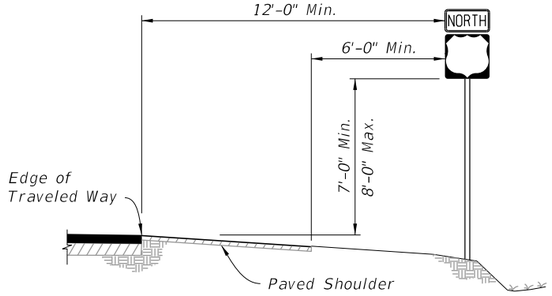


NOTE:
If median width does not allow standard offset from both roadway, center sign in median.

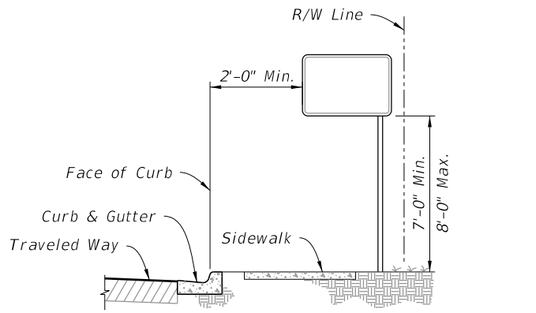
CASE I

Use on Limited Access Roadways



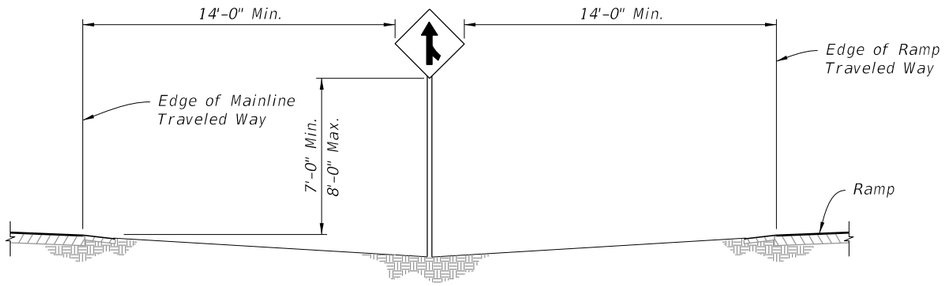
CASE II

Use on Arterial and Collector Roadways, and Limited Access Ramps



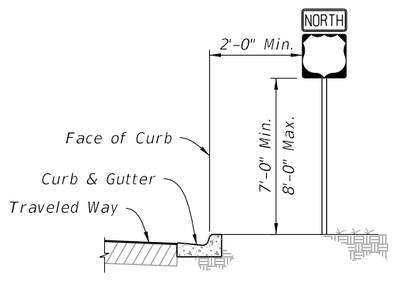
CASE III

Use on Arterial and Collector Roadways



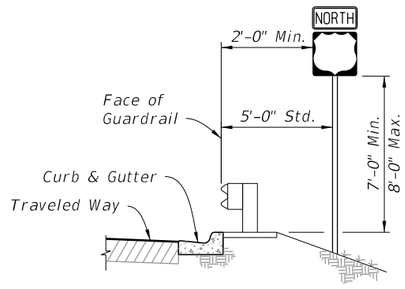
CASE IV

Use on Limited Access Roadways



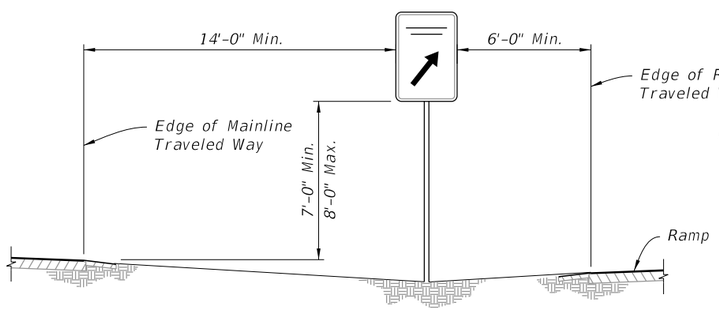
CASE V

Use in Business or Residential Areas Only



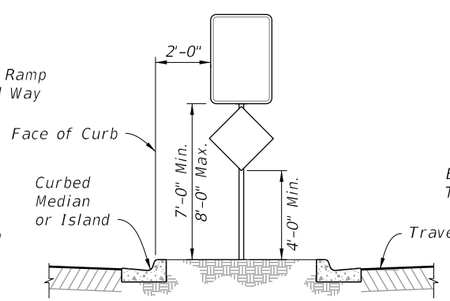
CASE VI

Use on Roadways With Signs Behind Guardrail



CASE VII

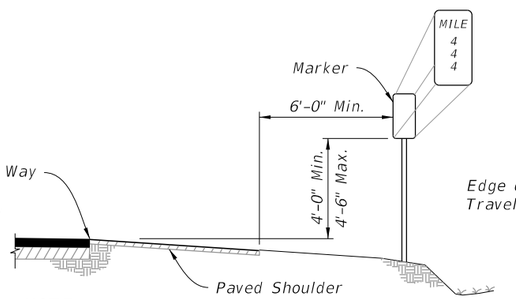
REST AREA AND EXIT GORE SIGNS
Use on Limited Access Roadways



NOTES:
1. For separators <6'-0", center the sign within the separator, center sign column on island.
2. Offset 6'-0" Std. (2'-0" Min.) from Median or Island Nose.

CASE VIII

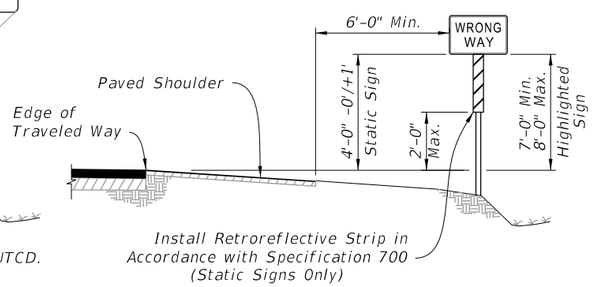
Use on Island or Curbed Median



NOTE:
For more information refer to Section 2H of the MUTCD.

CASE IX

MILE POST MARKER
Use on Limited Access Roadways



CASE X

WRONG-WAY SIGNS
(See Note 7)

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LAST REVISION	REVISION	DESCRIPTION:				
11/01/25			FDOT FY 2026-27 STANDARD PLANS	TYPICAL SECTIONS FOR PLACEMENT OF SINGLE AND MULTI-COLUMN SIGNS	INDEX 700-101	SHEET 2 of 2

GENERAL NOTES:

1. Sign dimensions are shown in width by height (W x H) throughout the Index.

2. See APPENDIX for previous sign numbering crosswalk.

NUMBERING CONVENTION:

FTP-AAA B/C-DD or TTC-AAA B/C-DD

AAA = Sign Type
B = Size Adjustments to Smallest Available Sign Size (A,B,C)
C = Left or Right (L or R)
DD = Year of update

Example 1: Size Adjustment - FTP-001A-25
Example 2: Direction Application - FTP-103R-25
Example 3: Size and Direction - FTP-037AR-25

SIGN TYPES (AAA):

FTP-001-199: Regulatory
FTP-200-399: Warning & Advisory
FTP-400-599: Motorist Service
FTP-600-799: Guide
FTP-800-899: Recreational & Cultural
FTP-900-999: Miscellaneous
TTC-001-199: Temporary Traffic Control

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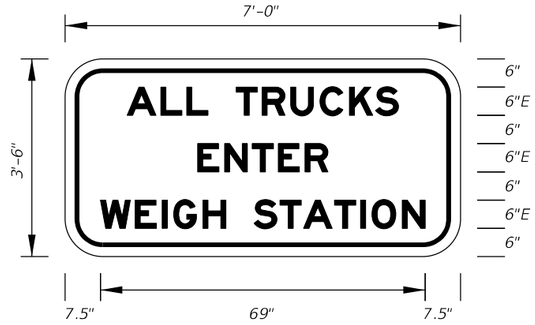
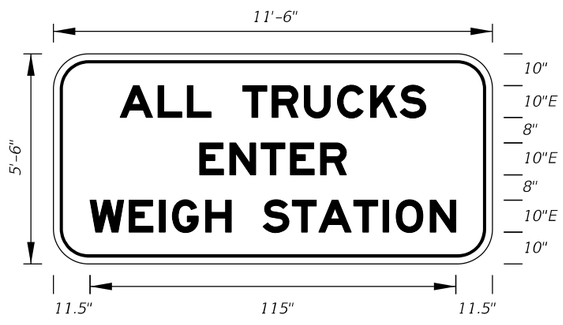
OTHER THAN FREEWAY USE



FTP-001-25
7'-0" X 3'-6"
3" Radii 1" Border

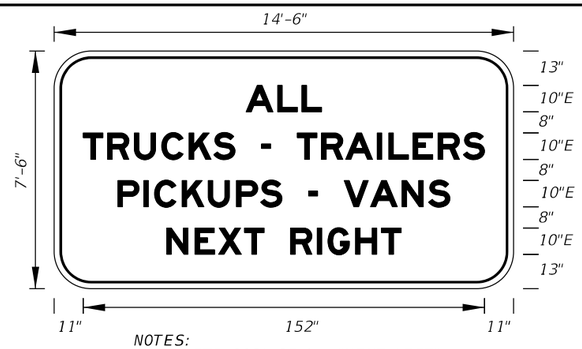
6" Series E Legend
White Background
Black Legend and Border

FREEWAY USE



FTP-001A-25
11'-6" X 5'-6"
9" Radii 2" Border

10" Series E Legend
White Background
Black Legend and Border

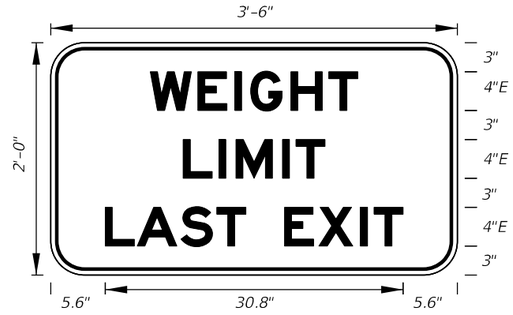


NOTES:
1. Use FTP-002L-25 for "NEXT LEFT".

2. On Interstate Station, delete PICKUPS-VANS, and reduce sign height accordingly.

FTP-002R-25
FTP-002L-25
14'-6" X 7'-6"
9" Radii 2" Border

10" Series E Legend
White Background
Black Legend and Border



FTP-003-25
3'-6" X 2'-0"
1.5" Radii ¾" Border

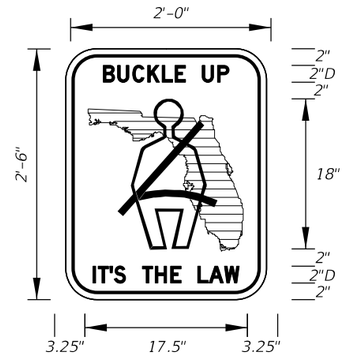
4" Series E Legend
White Background
Black Legend and Border

FTP-004-25
4'-0" X 3'-0"
1.5" Radii ¾" Border

4" Series C Legend
White Background
Black Legend and Border

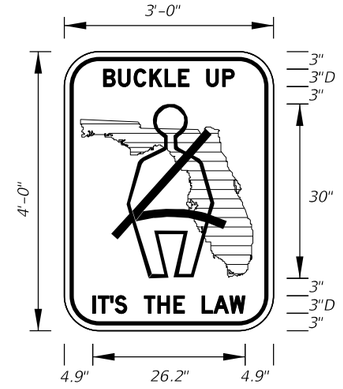
FTP-004A-25
9'-0" X 6'-0"
9" Radii ¾" Border

8" Series D Legend
White Background
Black Legend and Border



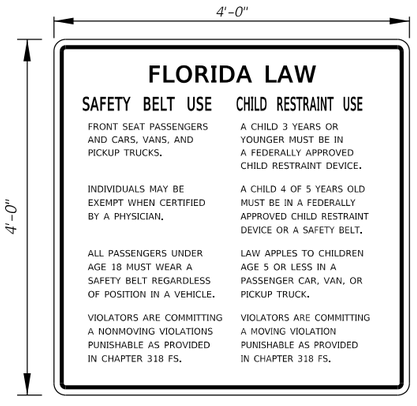
FTP-005-25
2'-0" X 2'-6"
1.5" Radii ⅝" Border

2" Series D Legend
White Background – Green Florida Symbol
Black Legend, Border and Man Belt Symbol



FTP-005A-25
3'-0" X 4'-0"
1.5" Radii ¾" Border

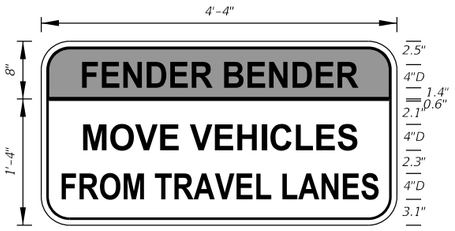
3" Series D Legend
White Background – Green Florida Symbol
Black Legend, Border and Man Belt Symbol



FTP-006-25
4'-0" X 4'-0"
1.5" Radii 0.4" Border

2.5" Series C Legend
2" Series C Legend
1.5" Series C Legend and
White Background
Black Legend and Border

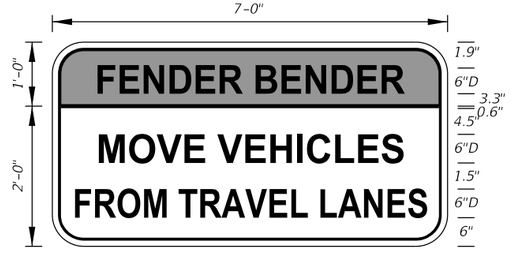
Non-Limited Access



FTP-007-25
4'-4" X 2'-0"
1.5" Radii 0.6" Border

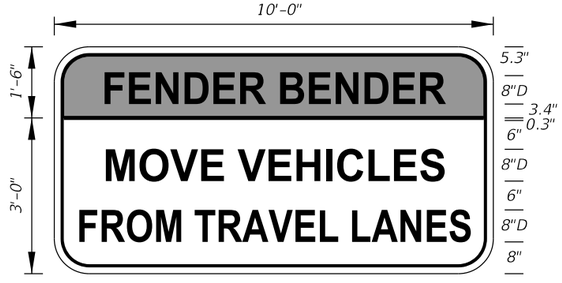
TOP:
4" Series D Legend
Yellow Background
Black Legend and Border
Bottom:
4" Series D Legend
White Background
Black Legend and Border

Non-Limited Access



FTP-007A-25
7'-0" X 3'-0"
3" Radii 0.9" Border

TOP:
6" Series D Legend
Yellow Background
Black Legend and Border
Bottom:
6" Series D Legend
White Background
Black Legend and Border



FTP-007B-25
10'-0" X 4'-6"
3" Radii X 0.8" Border

TOP:
8" Series D Legend
Yellow Background
Black Legend and Border
Bottom:
8" Series D Legend
White Background
Black Legend and Border

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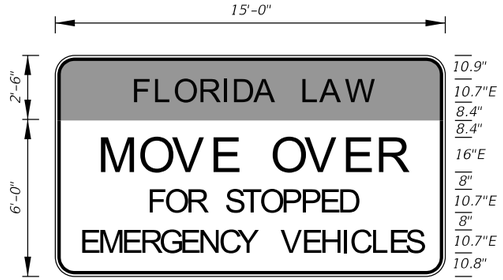
9/29/2025

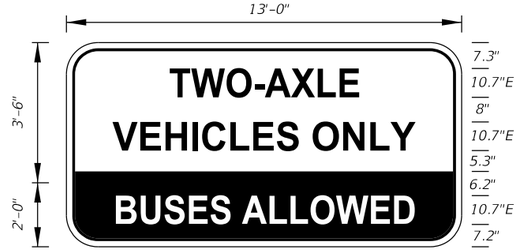
LAST REVISION 11/01/25	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	SPECIAL SIGN DETAILS	INDEX 700-102	SHEET 2 of 21



TOP:
10.7" Series E Legend
Yellow Background
Black Legend and Border
BOTTOM:
10.7" Series E Legend
White Background
Black Legend and Border

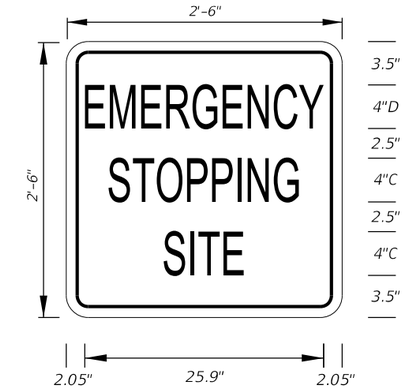
FTP-008-25
15'-0" X 8'-6"
9" Radii 1.5" Border

Limited Access



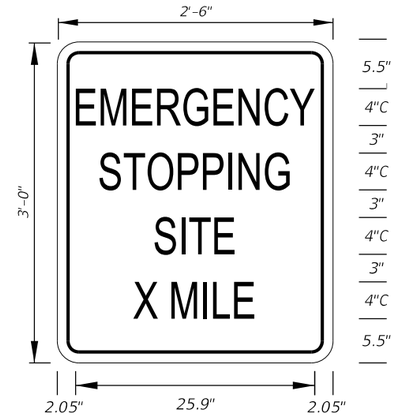
TOP:
10.7" Series E Legend
White Background
Black Legend and Border
BOTTOM:
10.7" Series E Legend
Black Background
White Legend

FTP-009-25
13'-0" X 5'-6"
6" Radii 1" Border



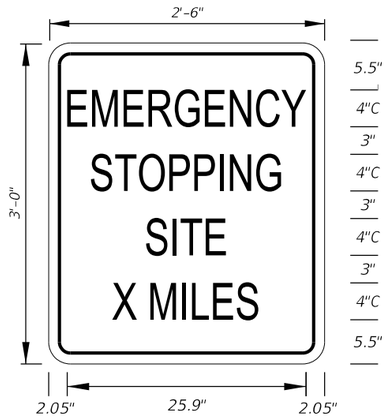
FTP-010-25
2'-6" X 2'-6"
1.5" Radii 0.625" Border

4" Series D and C Legend
White Background
Black Legend and Border



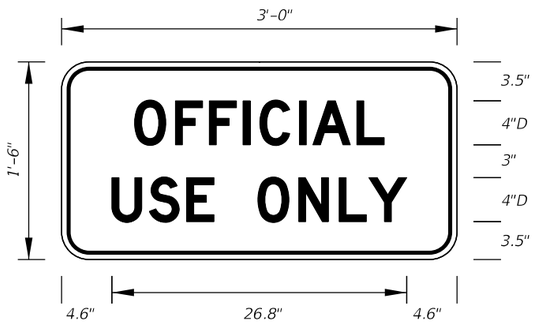
FTP-011-25
2'-6" X 3'-0"
1.5" Radii 3/4" Border

4" Series C Legend
White Background
Black Legend and Border



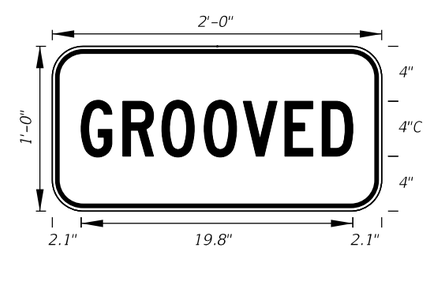
FTP-012-25
2'-6" X 3'-0"
1.5" Radii 3/4" Border

4" Series C Legend
White Background
Black Legend and Border



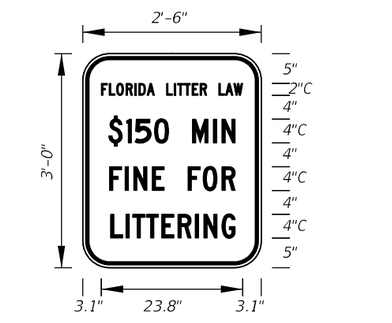
FTP-013-25
3'-0" X 1'-6"
1.5" Radii 3/4" Border

4" Series D Legend
White Background
Black Legend and Border



FTP-014-25
2'-0" X 1'-0"
1.5" Radii 5/8" Border

4" Series C Legend
Yellow Background
Black Legend and Border



FTP-015-25
2'-6"X 3'-0"
1.5" Radii 3/4" Border

2" and 4" Series C Legend
White Background
Black Legend and Border

FTP-015A-25
3'-6" X 4'-0"
1.5" Radii 3/4" Border

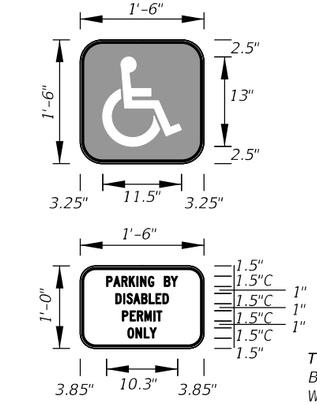
3" and 6" Series C Legend
White Background
Black Legend and Border

TOP:
4" Series D Legend
BOTTOM:
2" Series C Legend
White Background
Green Legend
and Border

FTP-016-25
1'-0" X 1'-6"
1.5" Radii 3/8" Border

TOP:
Blue Background
White Border
BOTTOM:
1" Series C Legend
White Background
Black Legend
and Border

FTP-017-25
1'-0" X 1'-6"
1.5" Radii 3/8" Border



TOP:
Blue Background
White Border
BOTTOM:
1.5" Series C Legend
White Background
Black Legend
and Border

FTP-018-25
1'-6" X 2'-6"
1.5" Radii 3/8" Border

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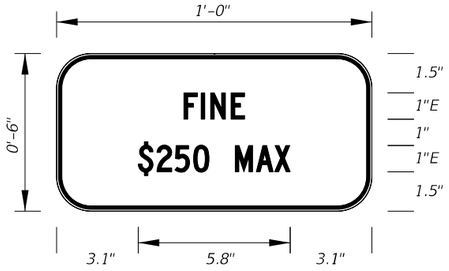
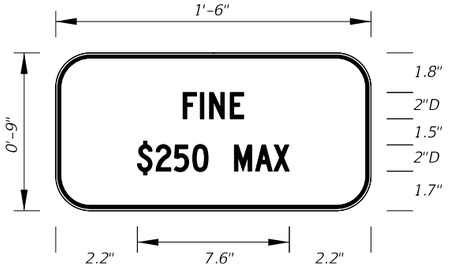
NOTE:
Supplemental Panel for the
FTP-016-25 sign



FTP-019-25
1'-0" X 6"
1.5" Radii 3/8" Border

1" Series E Legend
White Background
Black Legend and Border

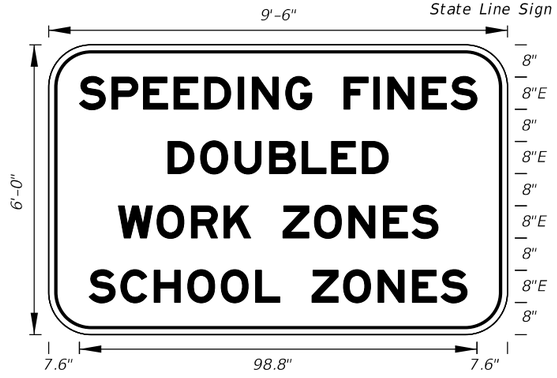
NOTE:
Supplemental Panel for the
FTP-017-25 sign



FTP-019A-25
1'-6" X 9"
1.5" Radii 3/8" Border

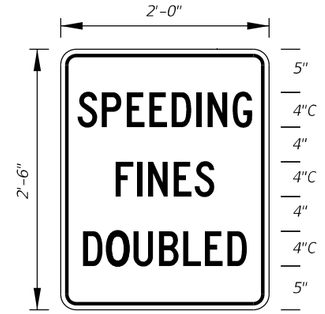
2" Series D Legend
White Background
Black Legend and Border

State Line Sign



FTP-020-25
9'-6"X 6'-0"
9" Radii 2" Border

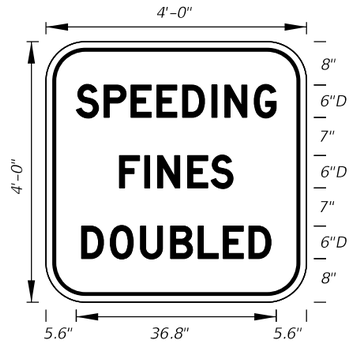
8" Series E Legend
White Background
Black Legend and Border



FTP-021-25
2'-0" X 2'-6"
1.5" Radii 1/2" Border

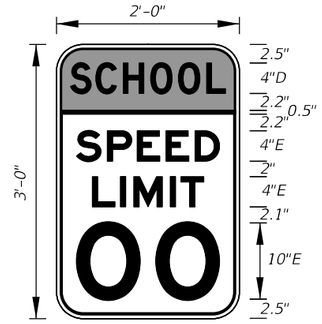
4" Series C Legend 80% Spacing
White Background
Black Legend and Border

Freeway Sign



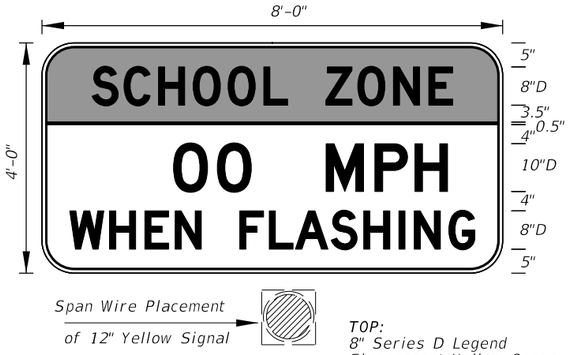
FTP-021A-25
4'-0" X 4'-0"
3" Radii 3/4" Border

6" Series D Legend
White Background
Black Legend and Border



FTP-022-25
2'-0" X 3'-0"
1.5" Radii 5/8" Border

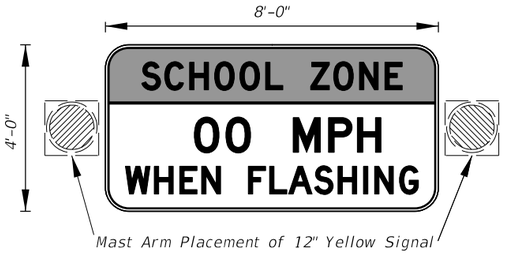
TOP:
4" Series D Legend
Fluorescent Yellow-Green
Background
Black Legend and Border
BOTTOM:
4" and 10" Series E Legend
White Background
Black Legend and Border



Span Wire Placement
of 12" Yellow Signal

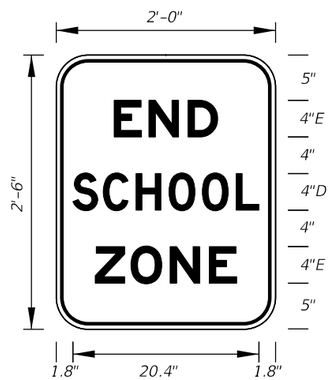
FTP-023-25
8'-0" X 4'-0"
3" Radii 3/4" Border

TOP:
8" Series D Legend
Fluorescent Yellow-Green
Background
Black Legend and Border
BOTTOM:
8" and 10" Series D Legend
White Background
Black Legend and Border



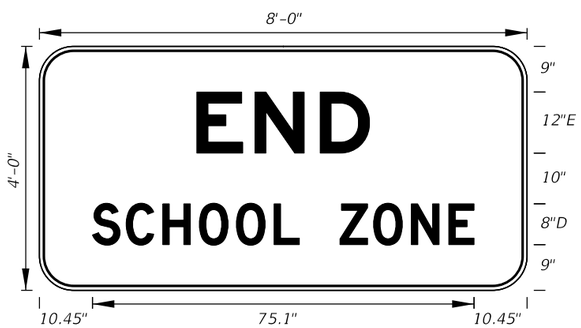
FTP-023A-25
8'-0" X 4'-0"
3" Radii 3/4" Border

TOP:
8" Series D Legend
Fluorescent Yellow-Green
Background
Black Legend and Border
BOTTOM:
8" and 10" Series D Legend
White Background
Black Legend and Border



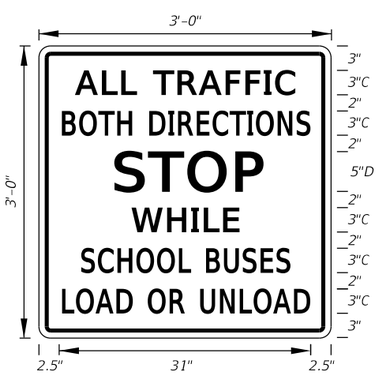
FTP-024-25
2'-0" X 2'-6"
1.5" Radii 5/8" Border

4" Series D and E Legend
White Background
Black Legend and Border



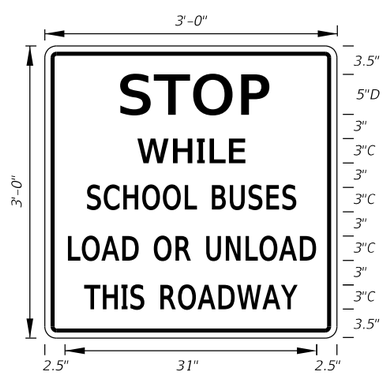
FTP-024A-25
8'-0" X 4'-0"
3" Radii 3/4" Border

12" Series E and
8" Series D Legend
White Background
Black Legend and Border



FTP-025-25
3'-0" X 3'-0"
1.5" Radii 3/4" Border

3" Series C Legend and
5" Series D Legend
White Background
Black Legend and Border



FTP-026-25
3'-0" X 3'-0"
1.5" Radii 3/4" Border

3" Series C Legend
5" Series D Legend
White Background
Black Legend and Border

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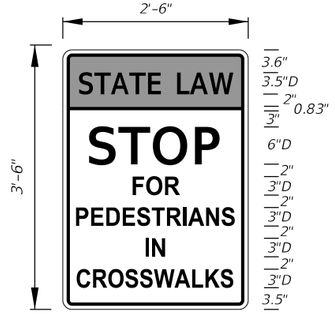
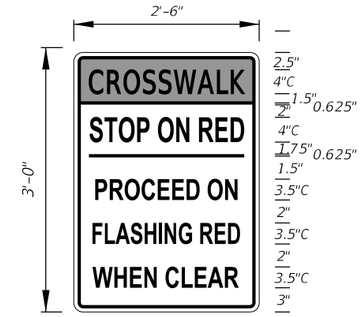


TOP:
Series D Legend
Fluorescent Yellow Green
Background
Black Legend and Border
Bottom:
Series D Legend
White Background
Black Legend and Border

FTP-027-25
2'-6" X 3'-6"
1.5" Radii 0.8" Border

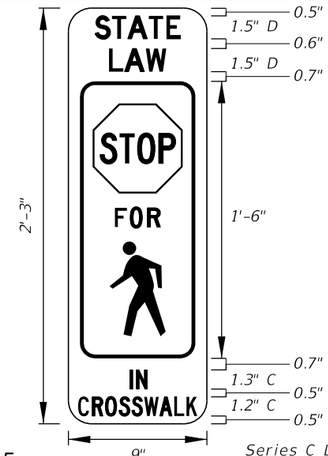
TOP:
Series D Legend
Fluorescent Yellow Green
Background
Black Legend and Border
Bottom:
Series E Legend
White Background
Black Legend and Border

FTP-027A-25
4'-0" X 5'-0"
3" Radii 0.8" Border



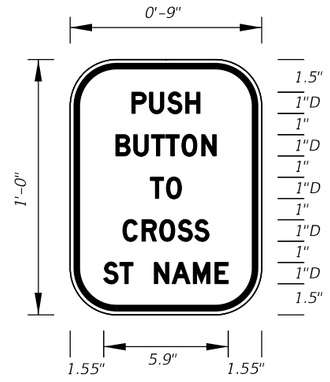
TOP:
Series C Legend
Yellow Background
Black Legend and Border
Bottom:
Series C Legend
White Background
Black Legend and Border

FTP-028-25
2'-6" X 3'-0"
1.5" Radii 0.625" Border



FTP-029-25
9" X 2'-3"
1.5" Radii No Border

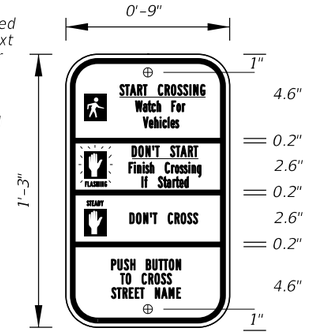
Series C Legend and
Series D Legend
White on Yellow
Black Legend and Border



FTP-030-25
9" X 1'-0"
1.5" Radii 3/8" Border

1" Series D Legend
White Background
Black Legend and Border

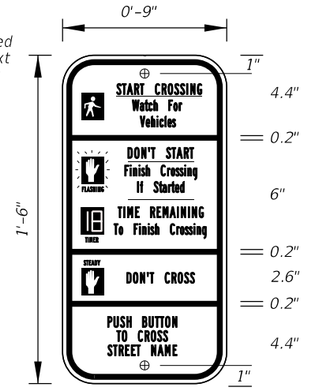
NOTES:
1. Sign mounting holes can be punched or field drilled with no obstruction to text or symbols from holes or bolts.
2. See MUTCD R10-3f for Letter Size, Spacing, and Symbol Sizes and Color



FTP-031-25
9" X 1'-3"
1.5" Radii 3/4" Border

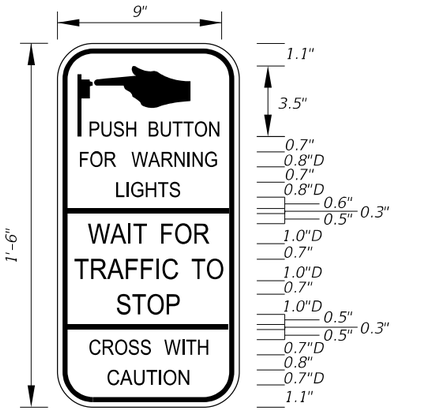
Series B Legend
White Background
Black Legend and Border

NOTES:
1. Sign mounting holes can be punched or field drilled with no obstruction to text or symbols from holes or bolts.
2. See MUTCD R10-3i for Letter Size, Spacing, and Symbol Sizes and Color



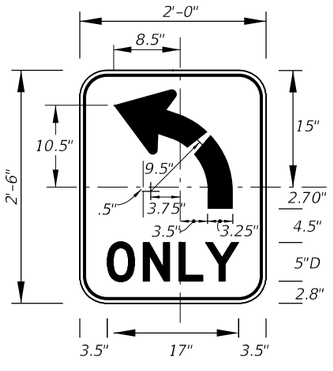
FTP-032-25
9" X 1'-6"
1.5" Radii 3/4" Border

Series B Legend
White Background
Black Legend and Border



FTP-033-25
9" X 1'-6"
1.5" Radii 1/4" Border

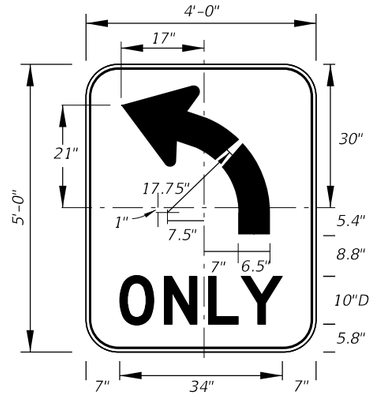
Series D Legend
White Background
Black Legend and Border



Note: Use FTP-033R for RIGHT TURN ONLY

FTP-034L-25
2'-0" X 2'-6"
1.5" Radii 3/8" Border

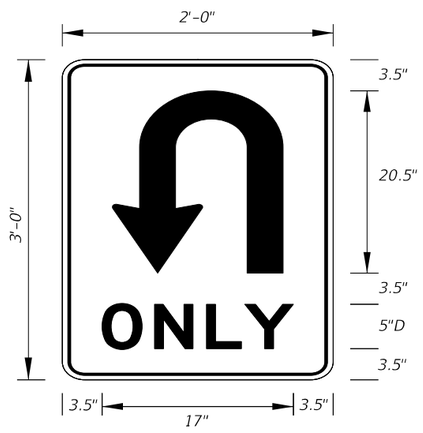
5" Series D Legend
White Background
Black Legend and Border



Note: Use FTP-033AR for RIGHT TURN ONLY

FTP-034AL-25
4'-0" X 5'-0"
3" Radii 3/4" Border

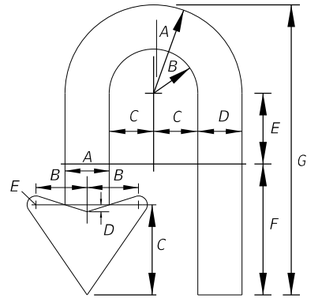
10" Series D Legend
White Background
Black Legend and Border



FTP-034U-25
2'-0" X 3'-0"
1.5" Radii
5" Series D Legend
White Background
Black Legend and Border

ARROW HEAD

A	3.125
B	3.625
C	6.375
D	.5
E	.625



ARROW BODY

A	B	C	D	E	F	G
6.25	3.125	3.125	3.125	5	9.25	20.5

DETAILS

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LAST REVISION	REVISION	DESCRIPTION:	FDOT	INDEX	SHEET
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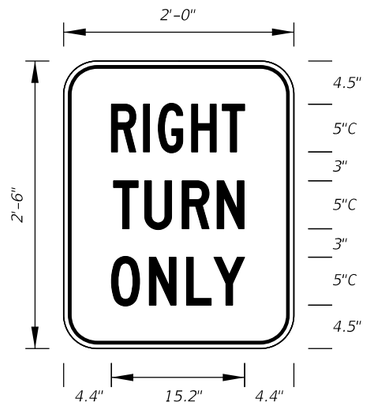
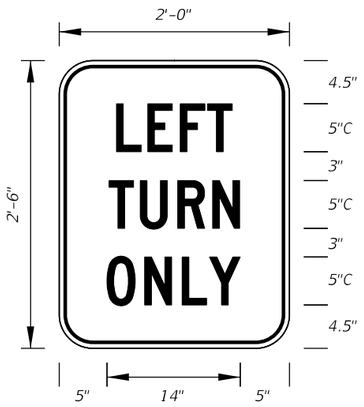
SPECIAL SIGN DETAILS



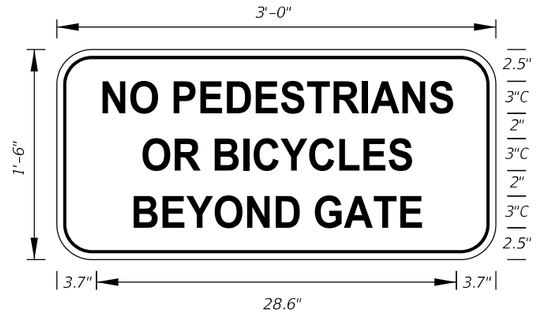
FTP-035R-25
2'-0" X 2'-6"
1.5" Radii 5/8" Border

5" Series C Legend
White Background
Black Legend and Border



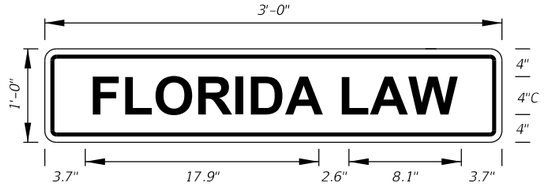
FTP-035L-25
2'-0" X 2'-6"
1.5" Radii 5/8" Border

5" Series C Legend
White Background
Black Legend and Border



FTP-036-25
3'-0" X 1'-6"
1.5" Radii 0.5" Border

3" Series C Legend and
White Background
Black Legend and Border



FTP-037-25
3'-0" X 1'-0"
1.5" Radii 0.4" Border

4" Series C Legend
Fluorescent Yellow Green
Background
Black Legend and Border

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LAST REVISION	REVISION	DESCRIPTION:				
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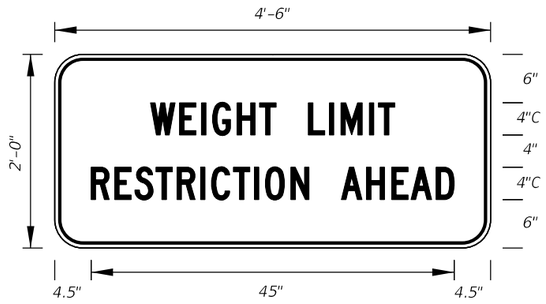
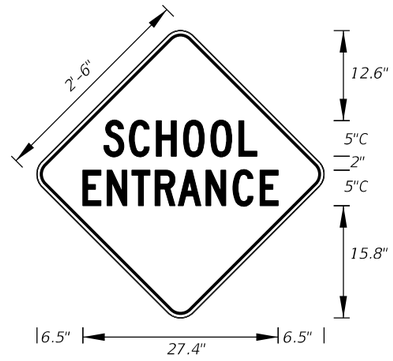


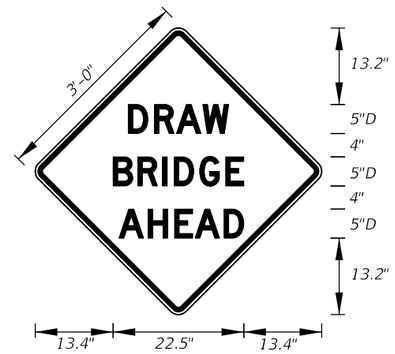
FTP-200-25
4'-6" X 2'-0"
1.5" Radii ¾" Border

4" Series C Legend
Yellow Background
Black Legend and Border



FTP-201-25
2'-6" X 2'-6"
1.5" Radii ¾" Border

5" Series C Legend
Fluorescent Yellow-Green
Background
Black Legend and Border

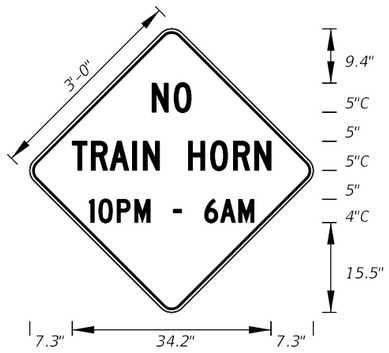


FTP-202-25
3'-0" X 3'-0"
1.5" Radii

5" Series D Legend
Yellow Background
Black Legend and Border

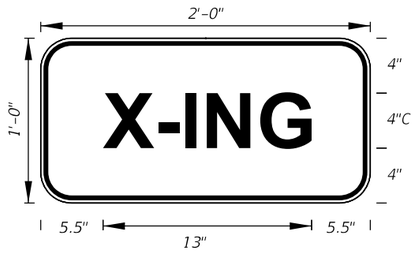
FTP-203-25
3'-0" X 2'-0"
1.5" Radii ¾" Border

4" and 3" Series C Legend
Yellow Background
Black Legend and Border



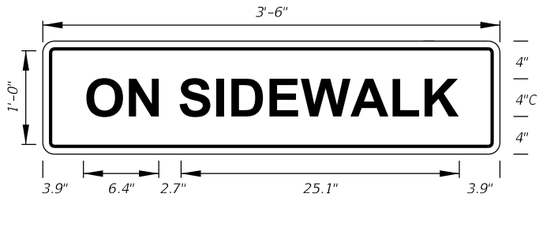
FTP-203A-25
3'-0" X 3'-0"
1.5" Radii ¾" Border

4" and 5" Series C Legend
Yellow Background
Black Legend and Border



FTP-204-25
2'-0" X 1'-0"
1.5" Radii ¾" Border

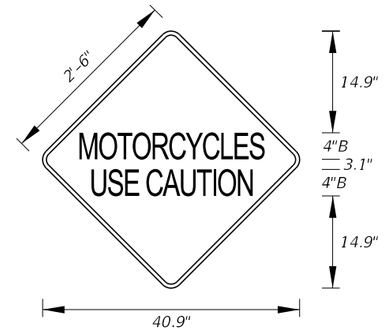
4" Series C Legend
Yellow Background
Black Legend and Border



FTP-205-25
3'-6" X 1'-0"
1.5" Radii ¾" Border

4" Series C Legend
Yellow Background
Black Legend and Border

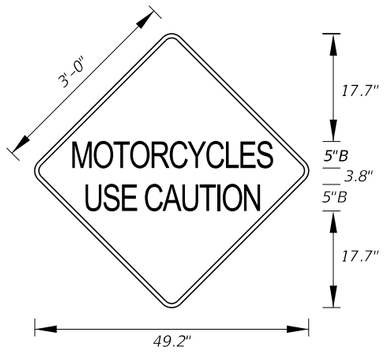
Single-Lane



FTP-206-25
2'-6"' X 2'-6"
1.5" Radii ¾" Border

4" Series B Legend
Yellow Background
Black Legend and Border

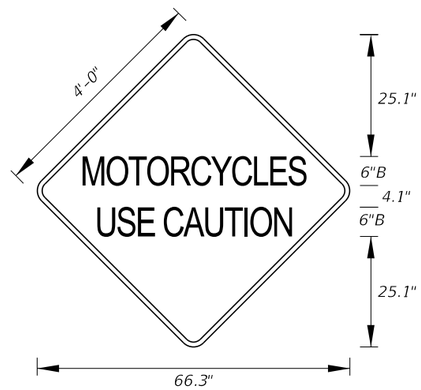
Multi-Lane



FTP-206A-25
3'-0" X 3'-0"
1.5" Radii ¾" Border

5" Series B Legend
Yellow Background
Black Legend and Border

Limited Acess



FTP-206B-25
4'-0" X 4'-0"
3" Radii ¾" Border

6" Series B Legend
Yellow Background
Black Legend and Border

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9/29/2025

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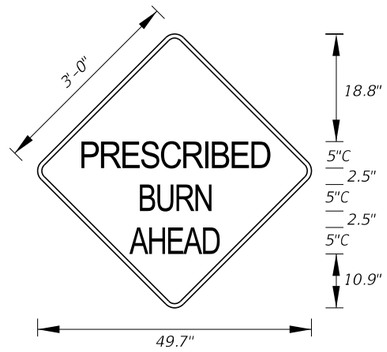
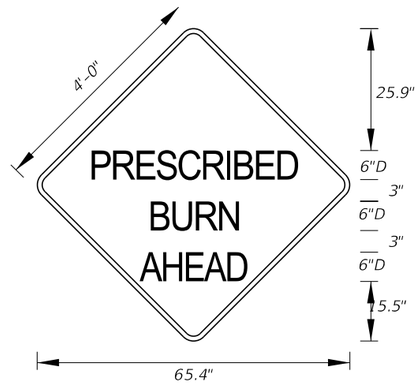
Non-Limited Access



FTP-207-25
3'-0" X 3'-0"
1.5" Radii 0.8" Border

5" Series C Legend
Yellow Background
Black Legend and Border

Limited Access



FTP-207A-25
4'-0" X 4'-0"
3" Radii 0.8" Border

6" Series D Legend
Yellow Background
Black Legend and Border

FTP-208-25
3'-0" X 3'-0"
1.5" Radii ¾" Border

6" Series C Legend
Yellow Background
Black Legend and Border

FTP-208A-25
4'-0" X 4'-0"
1.5" Radii ¾" Border

8" Series C Legend
Yellow Background
Black Legend and Border

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LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	SPECIAL SIGN DETAILS	INDEX	SHEET
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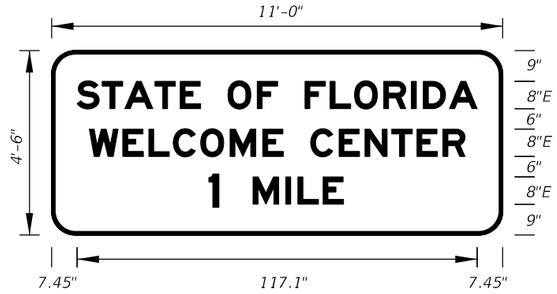
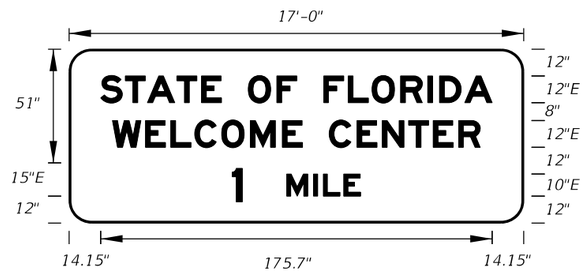


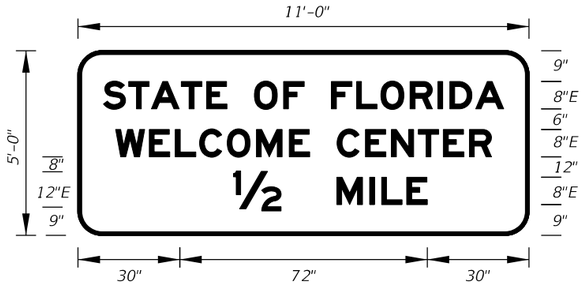
FTP-400-25
11'-0" X 4'-6"
6" Radii 2" Border

8" Series E Legend
Blue Background
White Legend and Border



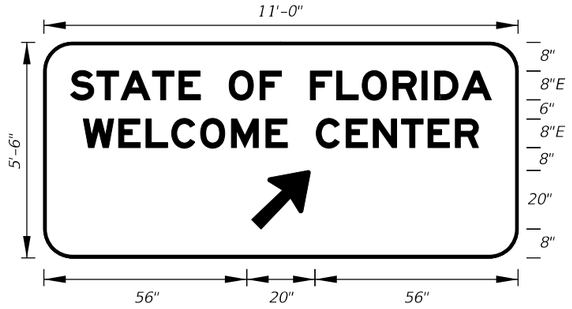
FTP-400A-25
17'-0" X 6'-6"
9" Radii 2" Border

12", 10" and 15" Series E Legend
Blue Background
White Legend and Border



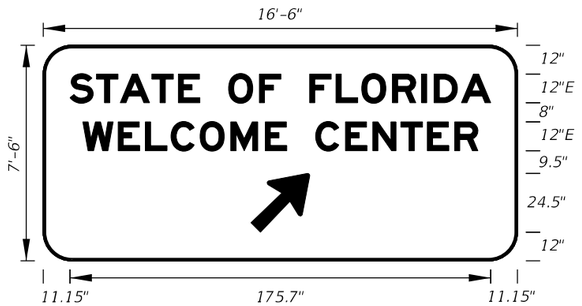
FTP-401-25
11'-0" X 5'-0"
9" Radii 2" Border

8" and 12" Series E Legend
Blue Background
White Legend and Border



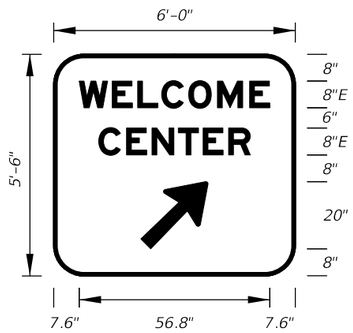
FTP-402-25
11'-0" X 5'-6"
9" Radii 2" Border

8" Series E Legend
Blue Background
White Legend and Border



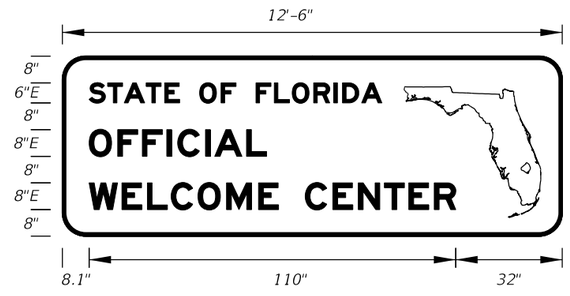
FTP-402A-25
16'-6" X 7'-6"
9" Radii 2" Border

12" Series E Legend
Blue Background
White Legend and Border



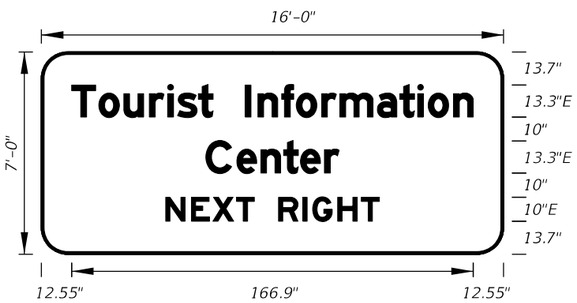
FTP-403-25
6' 0" X 5'-6"
6" Radii 2" Border

8" Series E Legend
Blue Background
White Legend and Border



FTP-404-25
12'-6" X 4'-6"
6" Radii 2" Border

6" and 8" Series E Legend
Blue Background
White Legend and Border

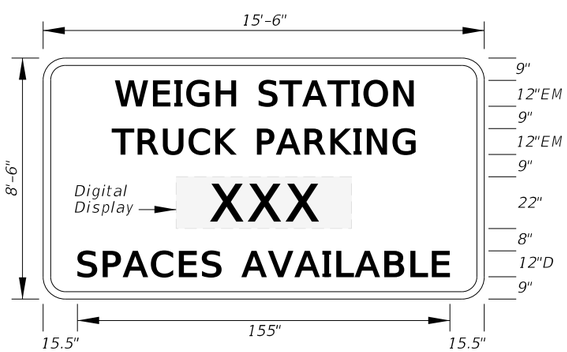


FTP-405-25
16'-0" X 7'-0"
9" Radii 2" Border

13.3 and 10" Series E Legend
Blue Background
White Legend and Border

FTP-406-25
15'-6" X 8'-6"
12" Radii 2" Border

Series D Legend
Series EM Legend
Blue Background
White Legend and Border

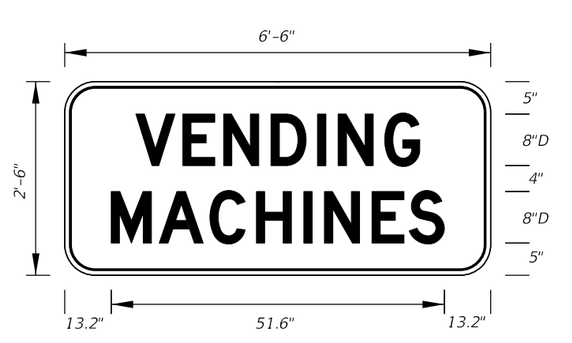


FTP-407-25
15'-6" X 8'-6"
12" Radii 2" Border

Series D Legend
Series EM Legend
Blue Background
White Legend and Border

FTP-408-25
16'-6" X 8'-6"
12" Radii 2" Border

Series D Legend
Series EM Legend
Blue Background
White Legend and Border

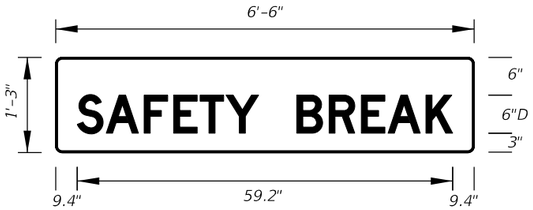


FTP-409-25
6'-6" X 2'-6"
3" Radii ¾" Border

8" Series D Legend
Blue Background
White Legend and Border

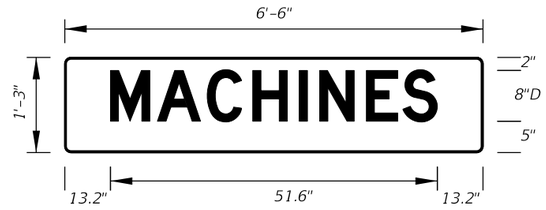
FTP-410-25
6'-6" X 2'-6"
3" Radii ¾" Border

6" Series D Legend
Blue Background
White Legend and Border



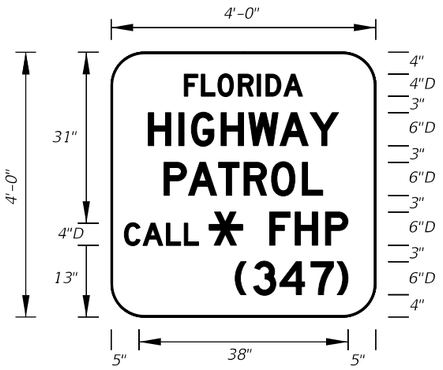
FTP-411-25
6'-6" X 1'-3"
1.5" Radii

6" Series D Legend
Blue Background
White Legend



FTP-412-25
6'-6" X 1'-3"
1.5" Radii

8" Series D Legend
Blue Background
White Legend



FTP-413-25
4'-0" X 4'-0"
3" Radii 1" Border

4" and 6" Series D Legend
Blue Background
White Legend and Border

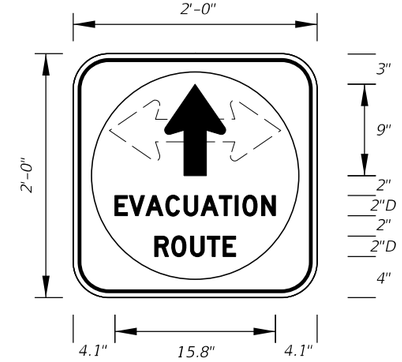
FTP-414-25
4'-0" X5'-0"
3" Radii 1" Border

6" Series D Legend
Blue Background
White Legend and Border

FTP-414A-25
5'-6" X 6'-0"
3" Radii 1" Border

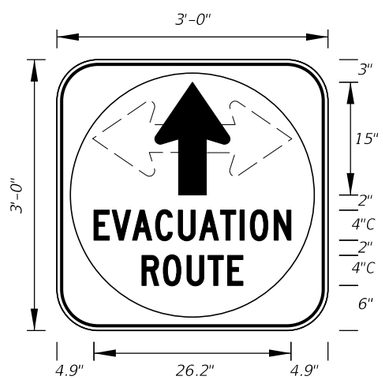
8" Series D Legend
Blue Background
White Legend and Border

DETAIL for **FTP-414-25** AND **FTP-414A-25**



FTP-415-25
2'-0" X 2'-0"
1.5" Radii ¾" Border

2" Series D Legend
White Background with Blue Circle Background
White Legend and Black Border



FTP-415A-25
3'-0" X 3'-0"
1.5" Radii ¾" Border

4" Series C Legend
White Background with Blue Circle Background
White Legend and Black Border

10:03:18 AM
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	SPECIAL SIGN DETAILS	INDEX	SHEET
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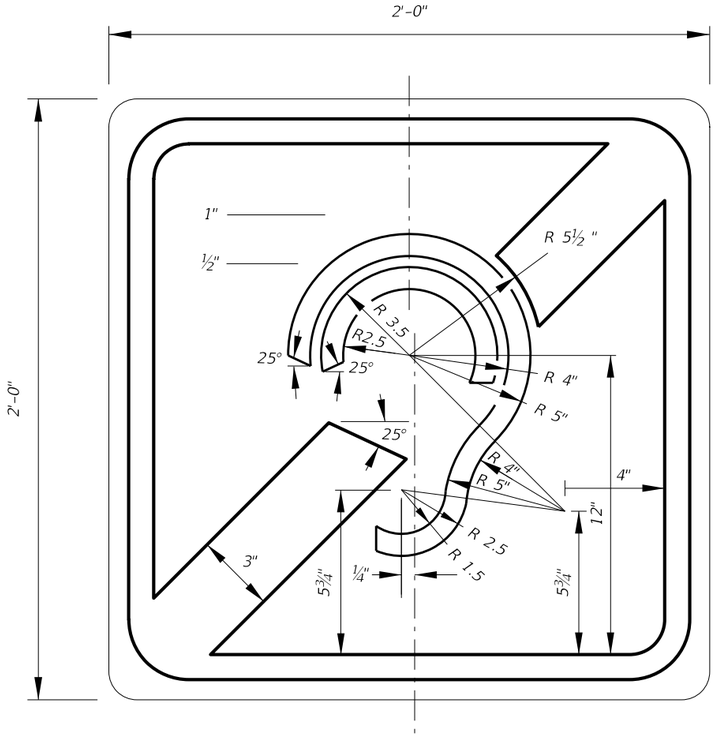
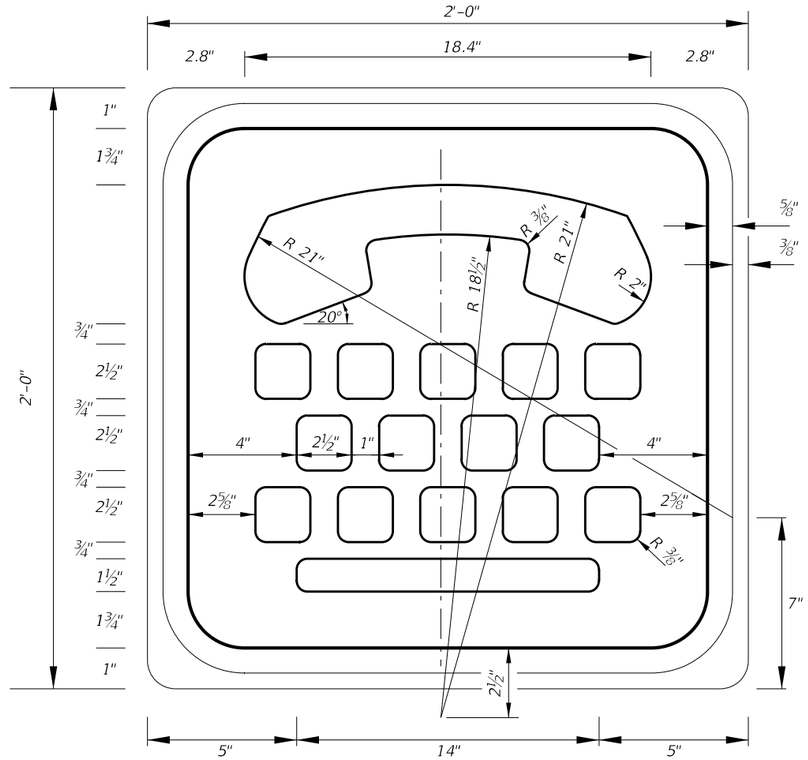


INTERNATIONAL SYMBOL OF ACCESS FOR HEARING LOSS

FTP-416-25
2'-0" X 2'-0"
1.5" Radii ⅜" Border

Blue Background
White Legend and Border



INTERNATIONAL TDD SYMBOL

FTP-417-25
2'-0" X 2'-0"
1.5" Radii ⅜" Border

Blue Background
White Legend and Border

9/29/2025 10:03:25 AM

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	SPECIAL SIGN DETAILS	INDEX	SHEET
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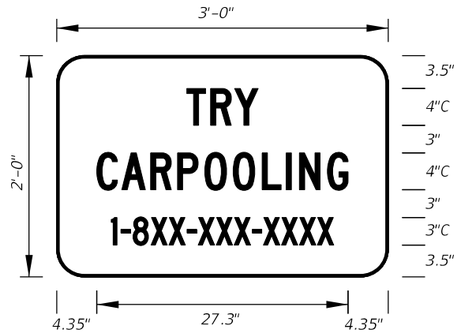
Non-Limited Access

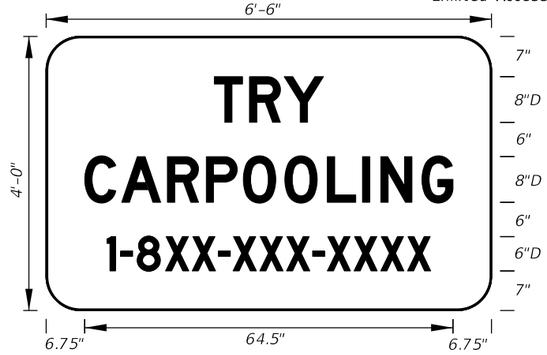


NOTE:
Design Project Manager or Transit Administrator will supply correct 1-8XX number.

FTP-418-25
3'-0" X 2'-0"
1.5" Radii

4" and 3" Series C Legend
Blue Background
White Legend and Border

Limited Access

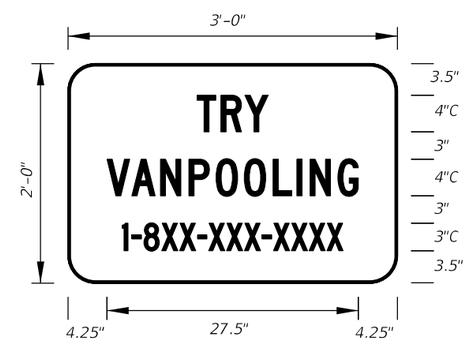


NOTE:
Design Project Manager or Transit Administrator will supply correct 1-8XX number.

FTP-418A-25
6'-6"X 4'-0"
3" Radii 3/4" Border

8" and 6" Series D Legend
Blue Background
White Legend and Border

Non-Limited Access

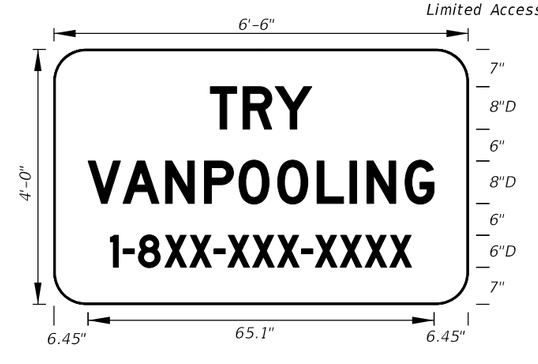


NOTE:
Design Project Manager or Transit Administrator will supply correct 1-8XX number.

FTP-419-25
3'-0" X 2'-0"
1.5" Radii

4" and 3" Series C Legend
Blue Background
White Legend and Border

Limited Access

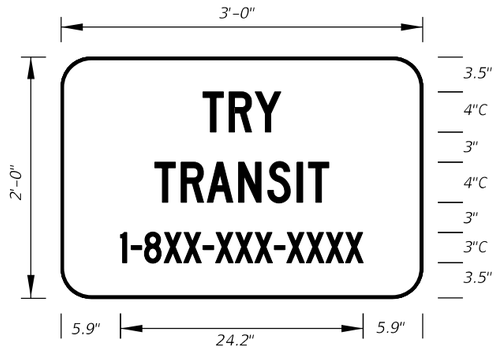


NOTE:
Design Project Manager or Transit Administrator will supply correct 1-8XX number.

FTP-419A-25
6'-6" X 4'-0"
3" Radii 3/4" Border

8"and 6" Series D Legend
Blue Background
White Legend and Border

Non-Limited Access

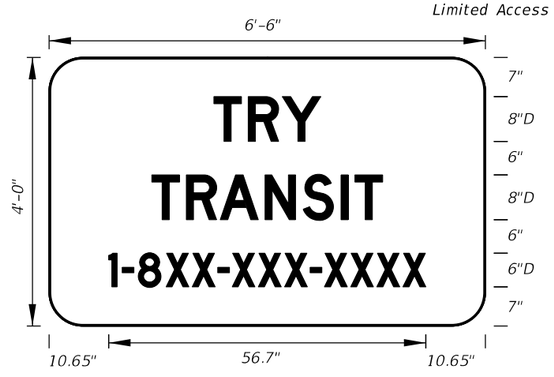


NOTE:
Design Project Manager or Transit Administrator will supply correct 1-8XX number.

FTP-420-25
3'-0" X 2'-0"
1.5" Radii

4"and 3" Series C Legend
Blue Background
White Legend and Border

Limited Access

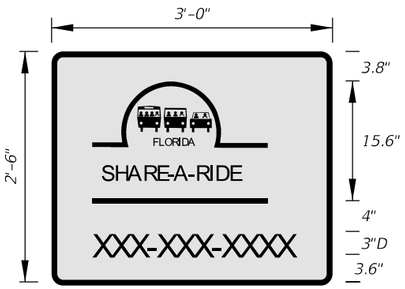


NOTE:
Design Project Manager or Transit Administrator will supply correct 1-8XX number.

FTP-420A-25
6'-6" X 4'-0"
3" Radii 3/4" Border

8" and 6" Series D Legend
Blue Background
White Legend and Border

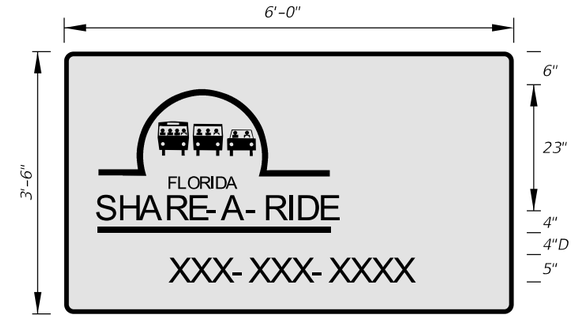
Non-Limited Access



FTP-421-25
3'-0" X 2'-6"
1.5" Radii 0.8" Border

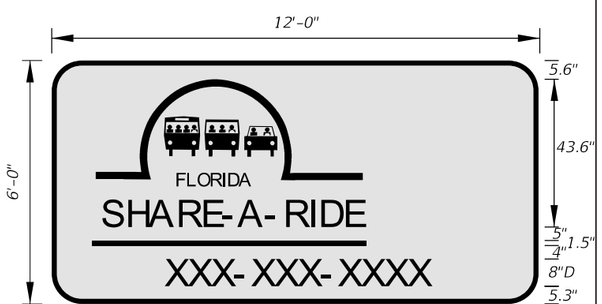
3" Series D Legend
Blue Background
White Legend and Border

Limited Access



FTP-421A-25
6'-0" X 3'-6"
1.5" Radii 0.8" Border

4" Series D Legend
Blue Background
White Legend and Border



FTP-421B-25
12'-0" X 6'-0"
9" Radii 1.5" Border

8" Series D Legend
Blue Background
White Legend and Border

FTP-422-25
2'-0" X 1'-6"
1.5" Radii 0.5" Border

3" and 4" Series C Legend
Blue Background
White Legend and Border

FTP-422A-25
3'-0" X 2'-0"
1.5" Radii 0.8" Border

4.5" and 6" Series C Legend
Blue Background
White Legend and Border

FTP-422B-25
3'-6" X 2'-6"
1.5" Radii 3/4" Border

5" and 7" Series C Legend
Blue Background
White Legend and Border

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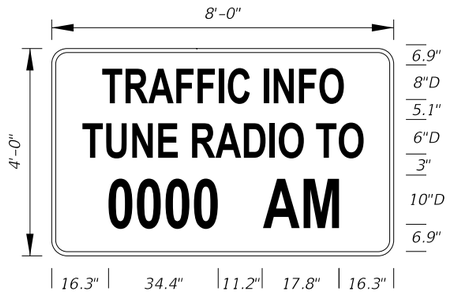
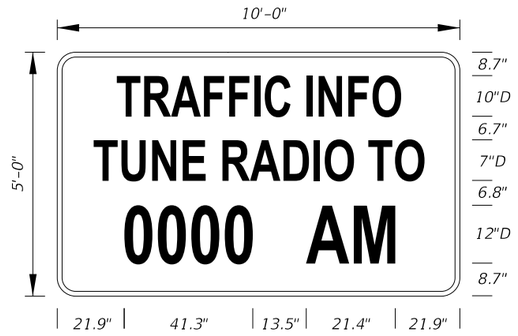


FTP-423-25
8'-0" X 4'-0"
3" Radii 3/4" Border

6", 8" and 10" Series D Legend
Blue Background
White Legend and Border



FTP-423A-25
10'-0" X 5'-0"
9" Radii 2" Border

7", 10" and 12" Series D Legend
Blue Background
White Legend and Border

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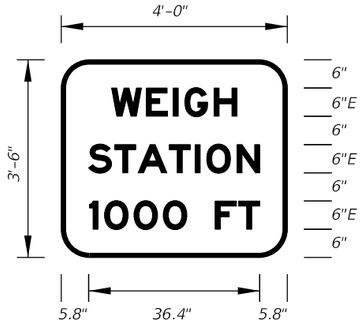
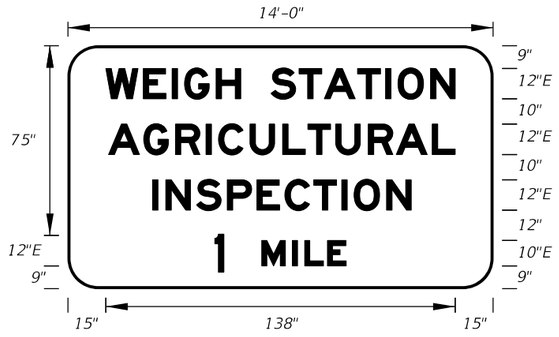
Other Than Freeway Use



FTP-600-25
4'-0" X 3'-6"
1.5" Radii 2" Border

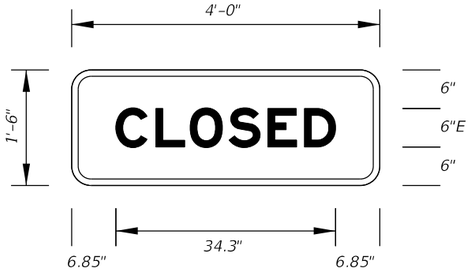
6" Series E Legend
Green Background
White Legend and Border



FTP-601-25
14'-0" X 8'-0"
9" Radii 2" Border

12" and 10" Series E Legend
Green Background
White Legend and Border

Other Than Freeway Use

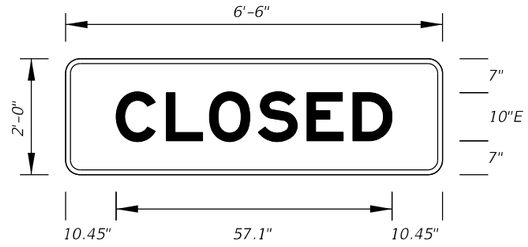


NOTE:
FTP-602-25 to be used with FTP-600-25

FTP-602-25
4'-0" X 1'-6"
1.5" Radii 2" Border

6" Series E Legend
Green Background
White Legend and Border

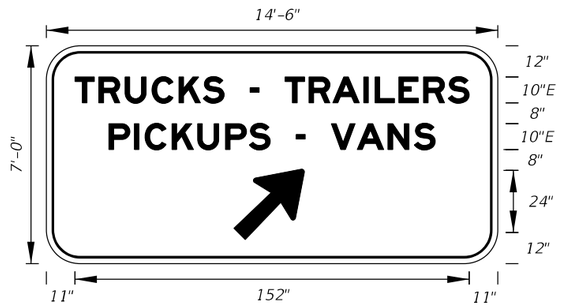
Freeway Use



NOTE:
FTP-620A-25 to be used with FTP-604R-25

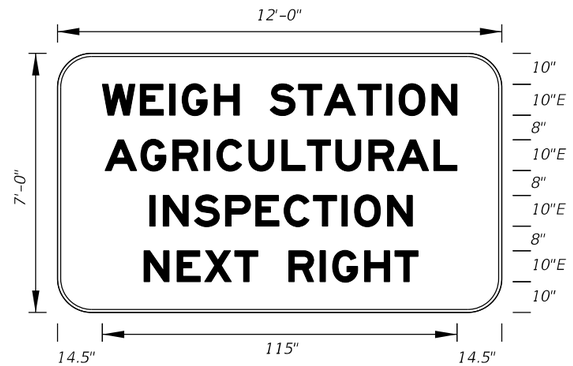
FTP-602A-25
6'-6"X 2'-0"
1.5" Radii 2" Border

10" Series E Legend
Green Background
White Legend and Border



FTP-603R-25
FTP-603L-25
14'-6" X 7'-0"
9" Radii 2" Border

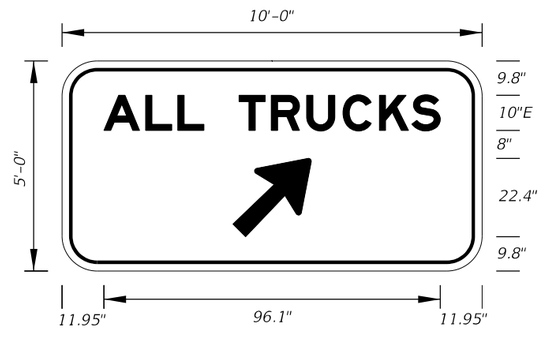
10" Series E Legend
Green Background
White Legend and Border



NOTE:
Use FTP-604L-25 for "NEXT LEFT".

FTP-604R-25
FTP-604L-25
12'-0" X 7'-0"
9" Radii 2" Border

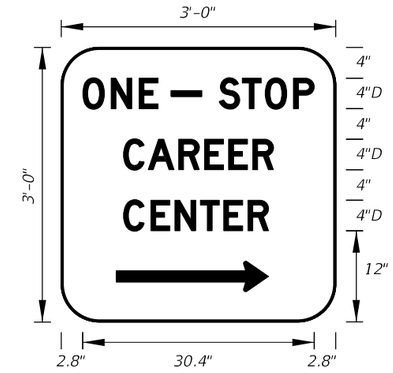
10" Series E Legend
Green Background
White Legend and Border



NOTE:
Use FTP-605L-25 for LEFT ARROW.

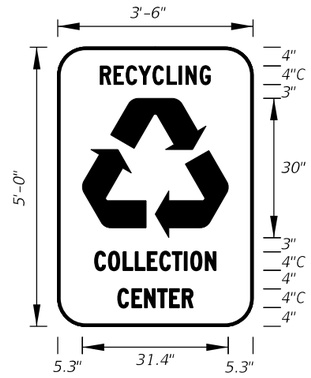
FTP-605R-25
10'-0" X 5'-0"
9" Radii

10" Series E Legend
Green Background
White Legend



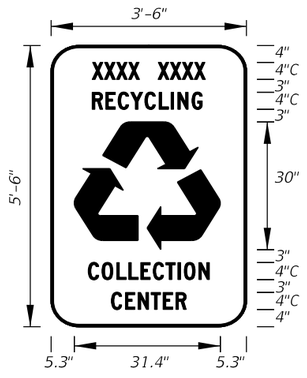
FTP-606-25
3'-0" X 3'-0"
1.5" Radii

4" Series D Legend
Green Background
White Legend and Border



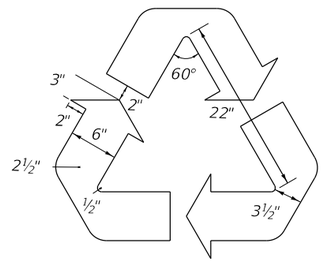
FTP-607-25
3'-6" X 5'-0"
1.5" Radii

4" Series C Legend
Green Background
White Legend, Border
and Symbol

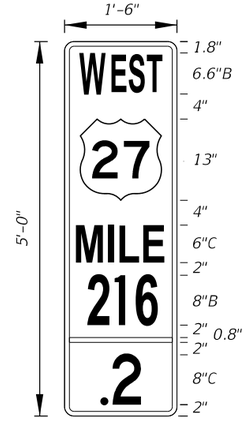


FTP-608-25
3'-6" X 5'-6"
3" Radii

4" Series C Legend
Green Background
Municipality Name Optional
White Legend,
Border and Symbol



Detail for **FTP-607-25** and **FTP-608-25**



FTP-609-25
1'-6" X 5'-0"
1.5" Radii 0.8" Border

6" Series B, 6" series C
8" Series B, and 8" Series C
Green Background
White Legend and Border

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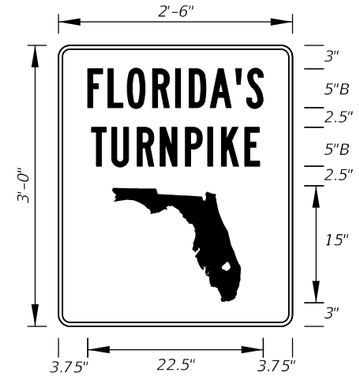


FTP-610-25
2'-6" X 3'-0"
1.5" Radii ¾" Border

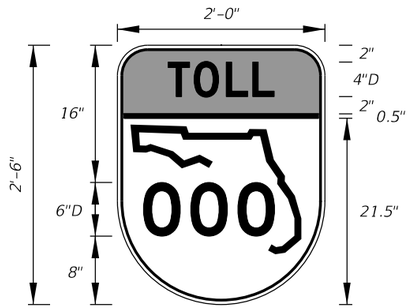
5" Series B Legend
Green Background
White Legend, Border,
and Florida Symbol

FTP-610A-25
3'-4" X 4'-0"
1.5" Radii ¾" Border

7" Series B Legned
Green Background
White Legend, Border,
and Florida Symbol

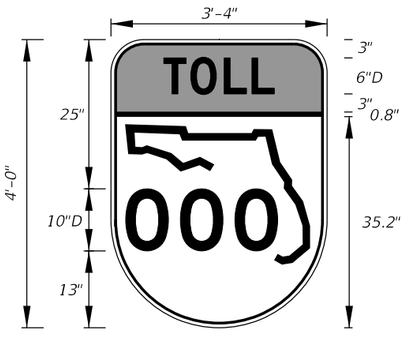
FTP-610B-25
4'-0" X 5'-0"
3" Radii 1 ¼" Border

8" Series B Legend
Green Background
White Legend, Border,
and Florida Symbol



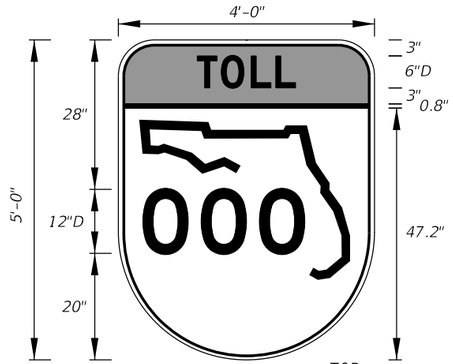
FTP-611-25
2'-0" X 2'-6"
1.5" Radii ¾" Border

TOP:
4" Series D Legend
Yellow Background
Black Legend and Border
BOTTOM:
6" Series D Legend
White Background
Black Legend and Border



FTP-611A-25
3'-4" X 4'-0"
3" Radii ¾" Border

TOP:
6" Series D Legend
Yellow Background
Black Legend and Border
BOTTTOM:
10" Series D Legend
White Background
Black Legend and Border



FTP-611B-25
4'-0" X 5'-0"
3" Radii ¾" Border

TOP:
6" Series D Legend
Yellow Background
Black Legend and Border
BOTTTOM:
12" Series D Legend
White Background
Black Legend and Border

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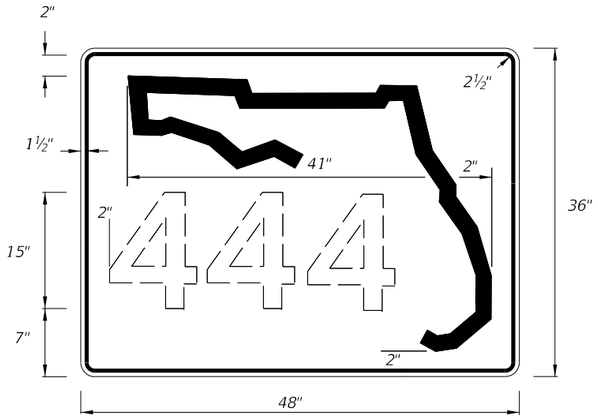
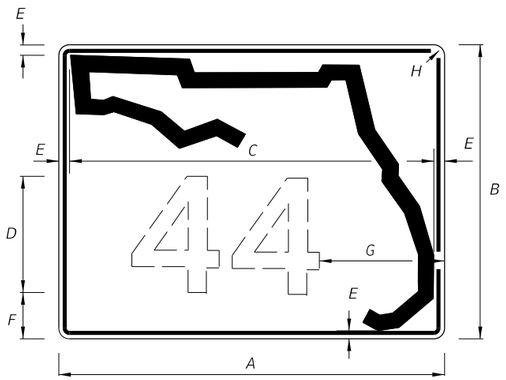


DIGITS	NUMERAL SIZE	SERIES LEGEND	PANEL SIZE
1–3	15"	C	48" x 36"
4	12"	C	48" x 36"

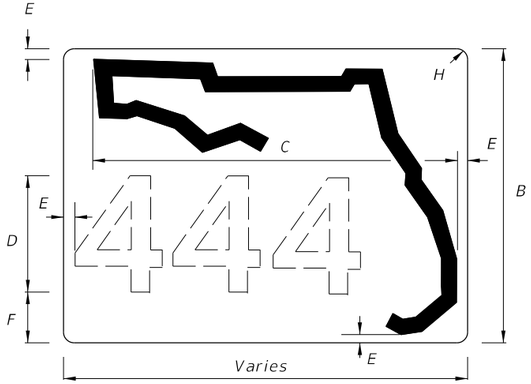
NOTES:

1. Stroke width of State Outline shall be 1".
2. 2½" Radii

INDEPENDENT USE FOR FREEWAY



1 OR 2 DIGITS



3 OR MORE DIGITS

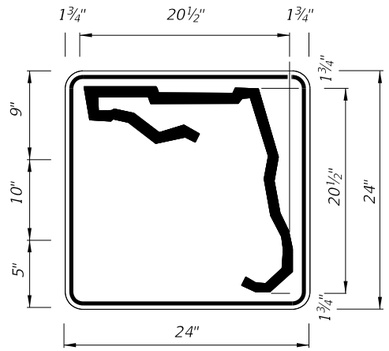
NOTES:

1. Florida marker shall have Black Legend with White Background.
2. Stroke width of State outline shall be 1¾" for Guide Sign.
3. Series D Legend.
4. Width varies with the number scheme combination, within a range of 48"–58.

A	B	C	D	E	F	G	H
30"	24"	26"	12"	1¼"	2¾"	8¼"	1¼"
36"	30"	32"	15"	1¼"	3¼"	8¾"	1¼"
42"	36"	38"	15"	1¼"	6¼"	11"	1¼"

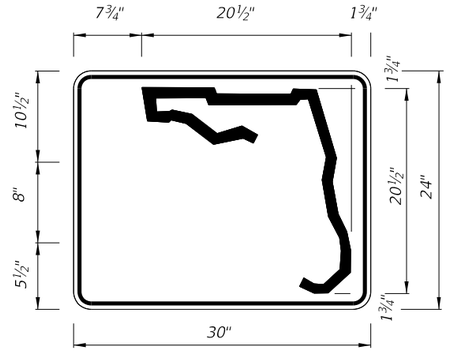
GUIDE SIGN USE

FTP-612-25 - FLORIDA ROUTE MARKER



1 or 2 DIGITS

DIGITS	NUMERAL SIZE	SERIES LEGEND	PANEL SIZE
1–2	10"	D	24" x 24"



3 or 4 DIGITS

DIGITS	NUMERAL SIZE	SERIES LEGEND	PANEL SIZE
3	8"	D	30" x 24"
4	8"	C	30" x 24"

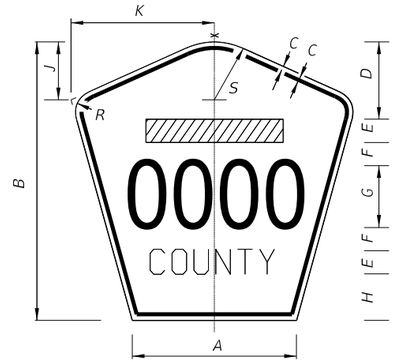
NOTES:

1. Stroke width of State Outline shall be 1".
2. The 24" X 24" panel shall only be used for a 3 digit route when the panel is to be used on a sign cluster with other 24" X 24" panels.
3. 1½" Radii

INDEPENDENT USE OTHER THAN FREEWAY

NOTES:

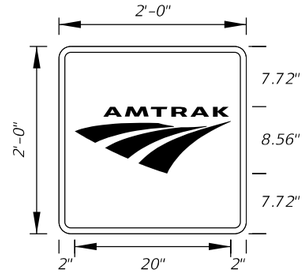
1. Series D Legend, all upper case.
2. Color: Yellow Legend and Border on Blue Background.
3. When used on a guide sign, marker must be overlaid on a square Yellow Background as shown in chart.
4. When two or more County Route Markers are mounted together, use the dimensions of the largest marker for all other markers.



SIGN	DIMENSIONS												Rectangular Yellow Background Dimensions (See Note 3)
	A	B	C	D	E	F	G	H	J	K	R	S	
4 DIGIT POST MOUNTED	25⅛"	42"	¾"	10"	4"	4"	8"	8"	8⅜"	22"	5"	8¾"	42"x 42"
2 DIGIT OVERHEAD	21½"	36"	½"	7½"	3"	3"	12"	4½"	7⅛"	18⅞"	4¼"	7½"	42"x 42"
3 DIGIT OVERHEAD	25⅛"	42"	¾"	8"	4"	4"	12"	6"	8⅜"	22"	5"	8¾"	48"x 48"
4 DIGIT OVERHEAD	29⅞"	48"	¾"	8"	5"	5"	12"	8"	9¾"	25⅝"	5¾"	10¼"	52"x 52"

FTP-613-25 - COUNTY ROUTE MARKER (M1-6)

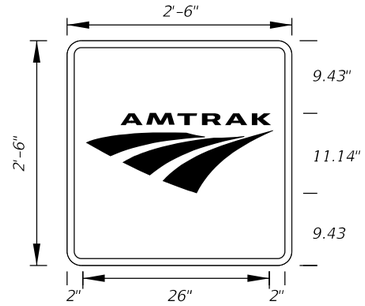
Non-Limited Access



FTP-614-25
2'-0" X 2'-0"
1.5" Radii 0.75" Border

Green Background
White Legend, Border
and Symbol

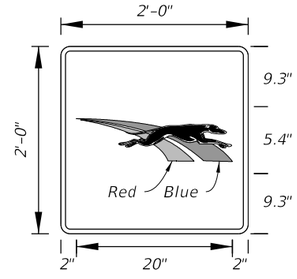
Limited Access



FTP-614A-25
2'-6" X 2'-6"
1.5" Radii 0.75" Border

Green Background
White Legend, Border
and Symbol

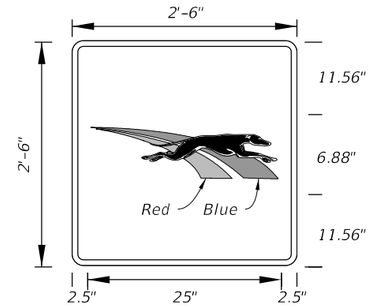
Non-Limited Access



FTP-615-25
2'-0" X 2'-0"
1.5" Radii 0.5" Border

Green Background
White Legend, Border
and Symbol

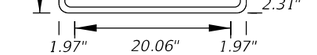
Limited Access



FTP-615A-25
2'-6" X 2'-6"
1.5" Radii 0.75" Border

Green Background
White Legend, Border
and Symbol

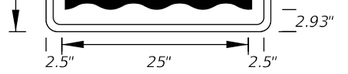
Non-Limited Access



FTP-616-25
2'-0" X 2'-0"
1.5" Radii 0.75" Border

Green Background
White Legend, Border
and Symbol

Limited Access



FTP-616A-25
2'-6" X 2'-6"
1.5" Radii 0.75" Border

Green Background
White Legend, Border
and Symbol

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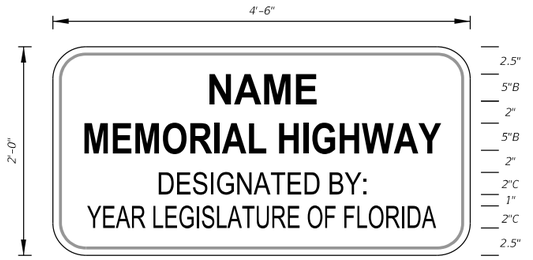
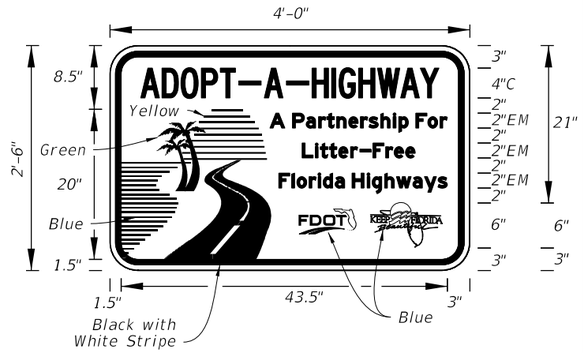


FTP-800-25
4'-6" X 2'-0"
1.5" Radii 0.5" Border

5" Series B Legend
2" Series C Legned
Brown Background
Yellow Legend and Border

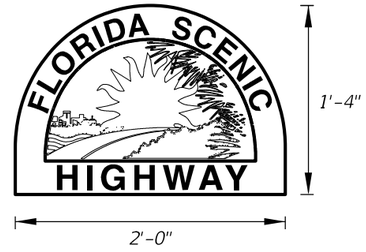
FTP-800A-25
4'-6" X 2'-6"
1.5" Radii 0.5" Border

5" Series B Legend
2" Series C Legned
Brown Background
Yellow Legend and Border



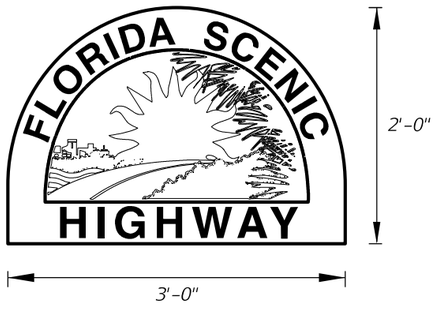
FTP-801-25
4'-0" X 2'-6"
1.5" Radii

4" Series C Legend and
2" Series EM Legend
White Background
Blue Legend and Border



FTP-802-25
2'-0" X 1'-4"

NOTE:
To be installed with Co-location
of route Confirmation Marker



FTP-802A-25
3'-0" X 2'-0"

NOTE:
Install at the Florida Scenic
Highway Entrance Points

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LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	SPECIAL SIGN DETAILS	INDEX	SHEET
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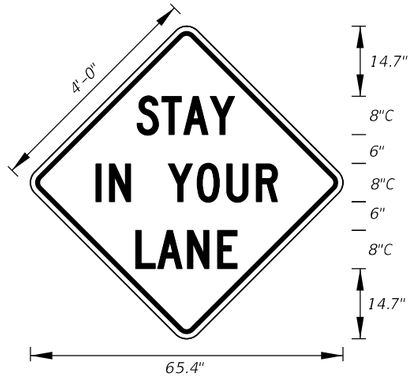
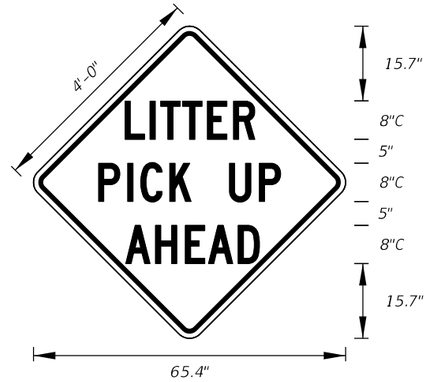


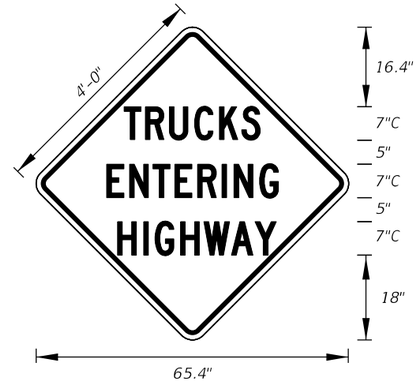
TTC-001-25
4'-0" X 4'-0"
3" Radii ¾" Border

8" Series C Legend
Orange Background
Black Legend and Border



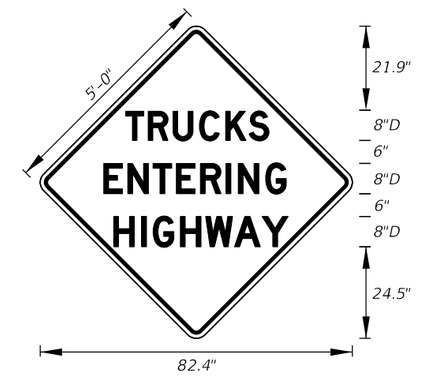
TTC-002-25
4'-0" X 4'-0"
3" Radii ¾" Border

8" Series C Legend
Orange Background
Black Legend and Border



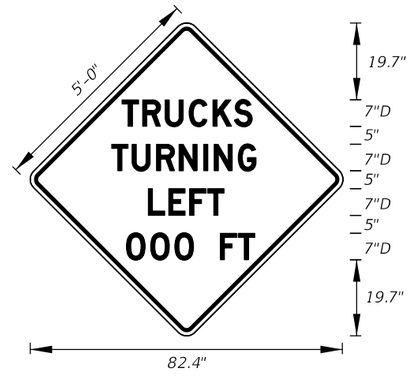
TTC-003-25
4'-0" X 4'-0"
3" Radii ¾" Border

7" Series C Legend
Orange Background
Black Legend and Border



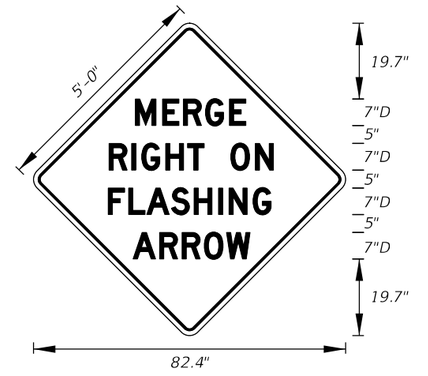
TTC-003A-25
5'-0" X 5'-0"
3" Radii ¾" Border

8" Series D Legend
Orange Background
Black Legend and Border



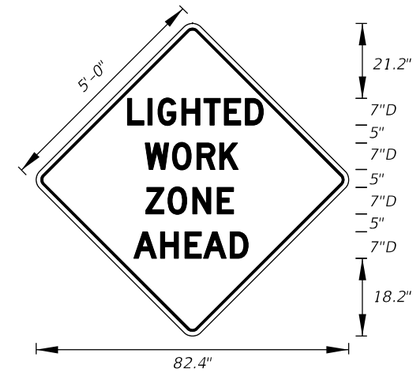
TTC-004-25
5'-0" X 5'-0"
3" Radii ¾" Border

7" Series D Legend
Orange Background
Black Legend and Border



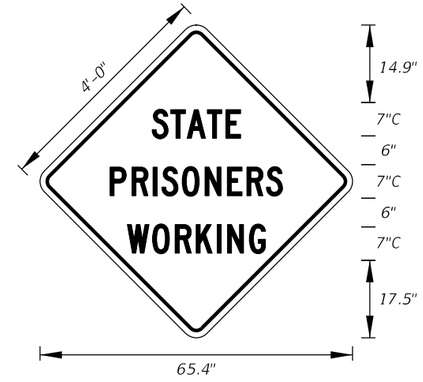
TTC-005-25
5'-0" X 5'-0"
3" Radii ¾" Border

7" Series D Legend
Orange Background
Black Legend and Border



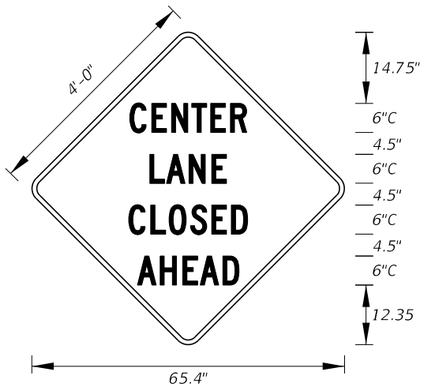
TTC-006-25
5'-0" X 5'-0"
3" Radii ¾" Border

7" Series D Legend
Orange Background
Black Legend and Border



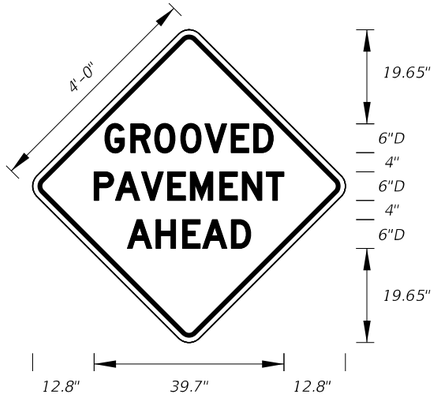
TTC-007-25
4'-0" X 4'-0"
3" Radii ¾" Border

7" Series C Legend
Orange Background
Black Legend and Border



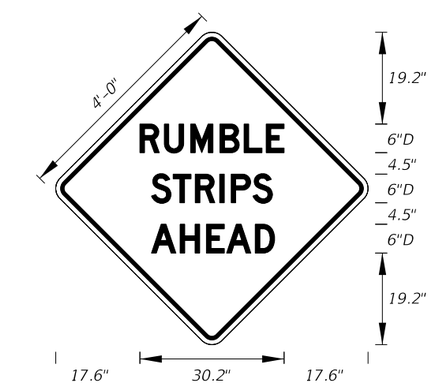
TTC-008-25
4'-0" X 4'-0"
3" Radii ⅝" Border

6" Series C Legend
Orange Background
Black Legend and Border



TTC-009-25
4'-0" X 4'-0"
3" Radii ¾" Border

6" Series D Legend
Orange Background
Black Legend and Border



TTC-010-25
4'-0" X 4'-0"
3" Radii ¾" Border

6" Series D Legend
Orange Background
Black Legend and Border

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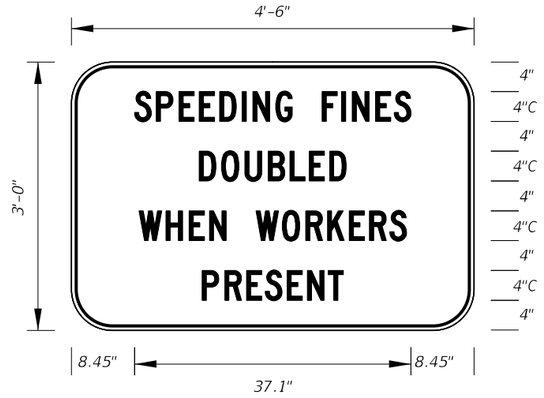
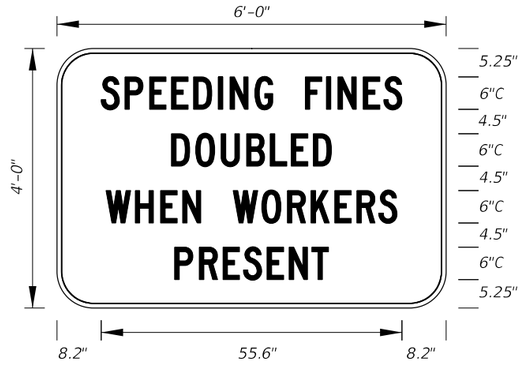


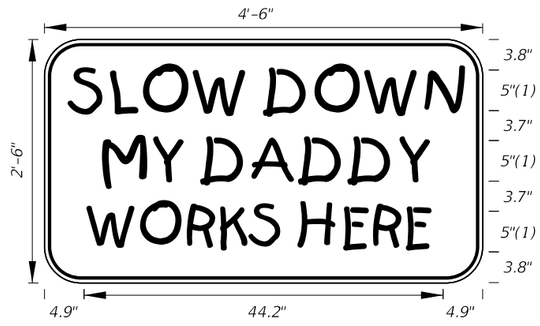
TTC-011-25
Arterial Sign
4'-6" X 3'-0"
1.5" Radii ¾" Border

4" Series C Legend
White Background
Black Legend and Border



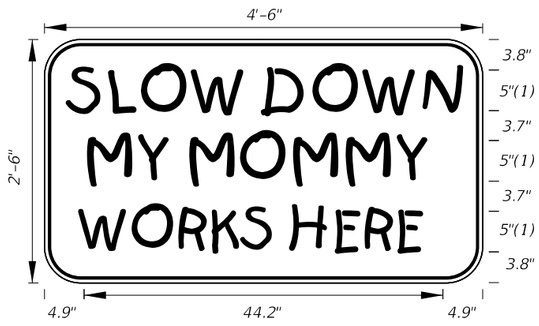
TTC-011A-25
Freeway Sign
6'-0" X 4'-0"
3" Radii ¾" Border

6" Series C Legend
White Background
Black Legend and Border



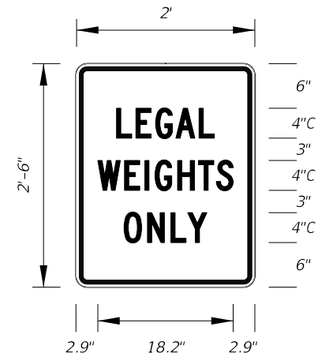
TTC-012-25
4'-6" X 2'-6"
3" Radii ¾" Border

5" Kids Series Legend
Orange Background
Black Legend and Border



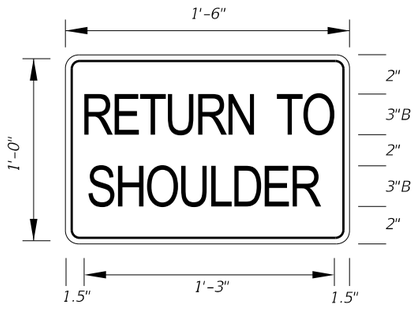
TTC-013-25
4'-6" X 2'-6"
3" Radii ¾" Border

5" Kids Series Legend
Orange Background
Black Legend and Border



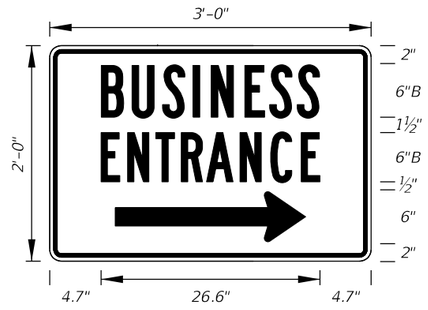
TTC-014-25
2'-0" X 2'-6"
1.5" Radii ¾" Border

4" Series C Legend
White Background
Red Legend and Border



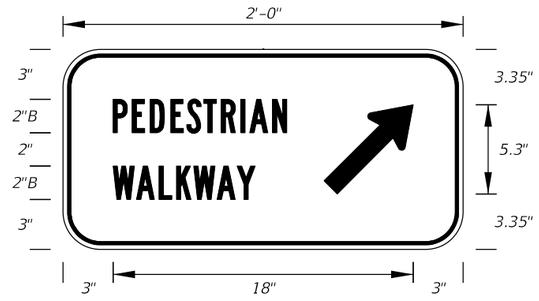
TTC-015-25
1'-6" X 1'-0"
1.5" Radii ¼" Border

3" Series B Legend
Orange Background
Black Legend and Border



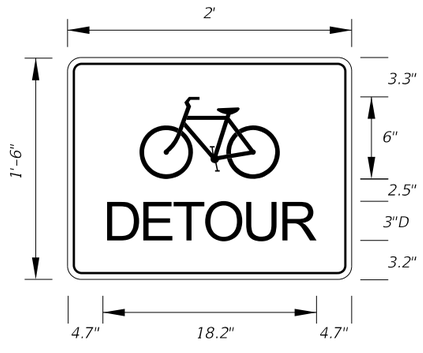
TTC-016R-25
TTC-016L-25
3'-0" X 2'-0"
1.5" Radii ¾" Border

6" Series B Legend
Blue Background
White Legend and Border



TTC-017R-25
TTC-017L-25
2'-0" X 1'-0"
1.5" Radii ¾" Border

2" Series B Legend
White Background
Black Legend and Border



TTC-018-25
2'-0" X 1'-6"
1.5" Radii ½" Border

3" Series D Legend
Orange Background
Black Legend and Border

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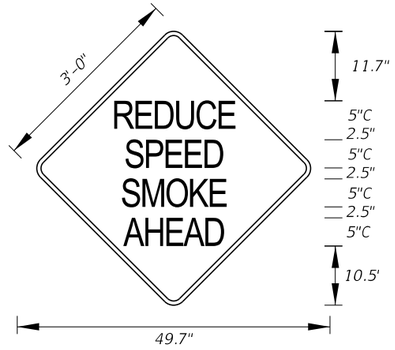
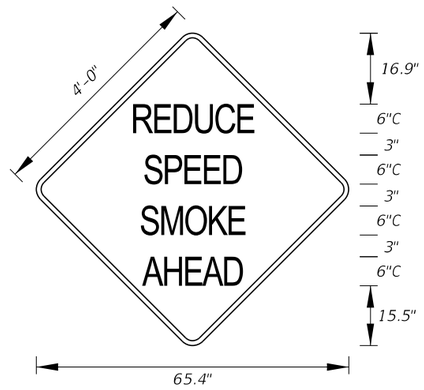


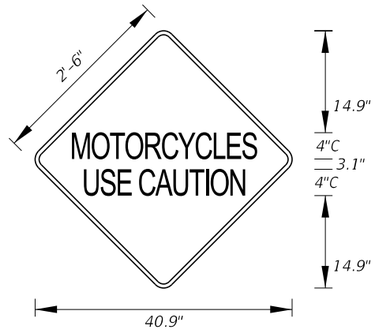
TTC-019-25
3'-0" x 3'-0"
1.5" Radii 0.8" Border

5" Series C Legend
Pink Background
Black Legend and Border



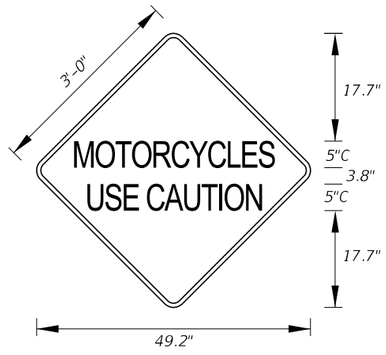
TTC-019A-25
3'-0" x 3'-0"
3" Radii 0.8" Border

6" Series C Legend
Pink Background
Black Legend and Border



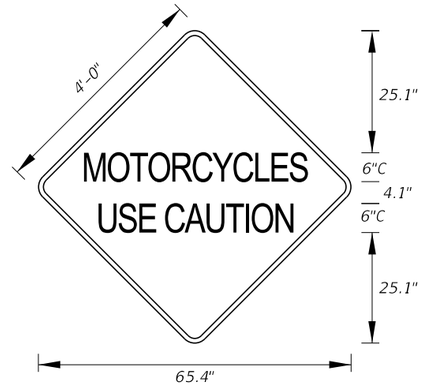
TTC-020-25
2'-6" x 2'-6""
1.5" Radii 0.75" Border

4" Series C Legend
Pink Background
Black Legend and Border



TTC-020A-25
3'-0" x 3'-0"
1.5" Radii 0.8" Border

5" Series C Legend
Pink Background
Black Legend and Border



TTC-020B-25
3'-0" x 3'-0"
1.5" Radii 0.8" Border

6" Series C Legend
Pink Background
Black Legend and Border

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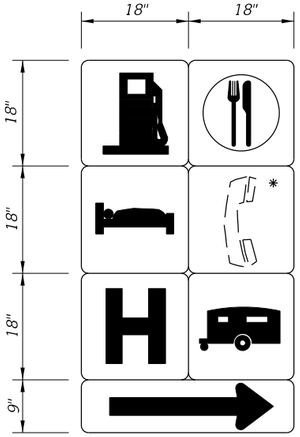
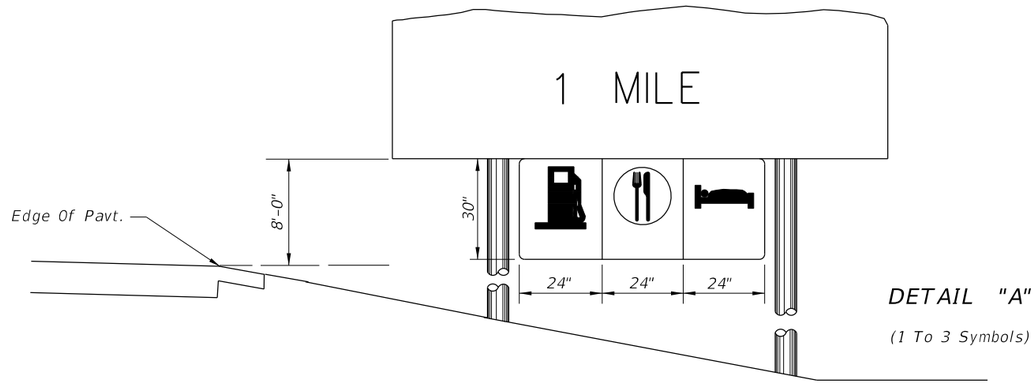
** Note:

Two assemblies are required; one for each side of the ramp, showing those services in each particular direction from the ramp terminal.

Ramp mounted signs shall be installed to avoid conflict with existing signs and in no case should they be placed within 100' of another sign.

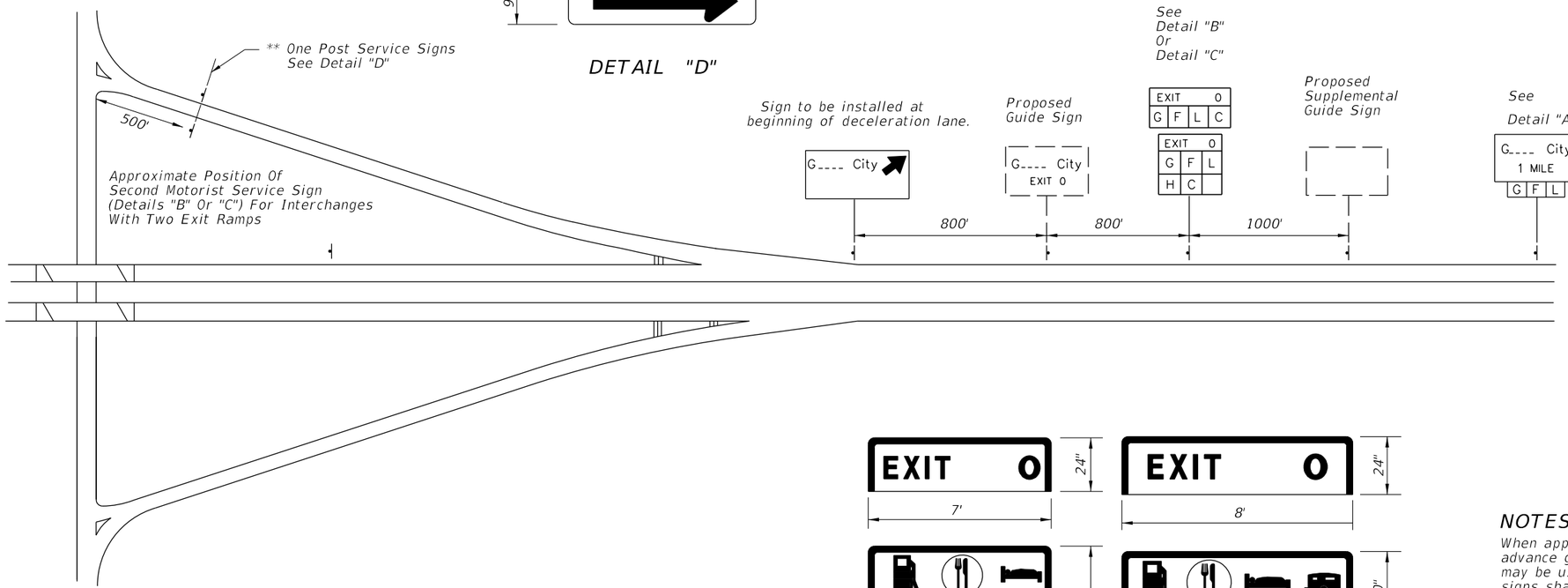


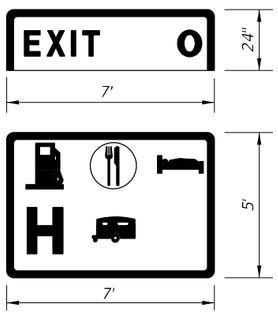
DETAIL "D"



DETAIL "A"

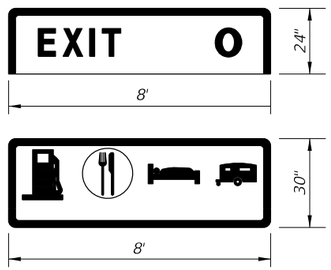
(1 To 3 Symbols)





DETAIL "B"

(4 To 6 Symbols)



DETAIL "C"

(4 Symbols)

GENERAL NOTES:

1. Only those services meeting criteria established by the Department and approved by the State Traffic Operations Engineer for each interchange shall be shown. Symbol signs for motorist services shall always appear in the following order reading from left to right and top to bottom: Gas, Food, Lodging, Phone * , Hospital, Camping.

   * The phone symbol shall not be shown whenever any Gas, Food, Lodging or Camping symbol appears.

2. Symbols shall appear consecutively on the sign with no positions left blank or reserved for intermediate symbols not currently approved for a particular interchange.

3. All motorist service signs to have White Legend and Border with Blue Background.

4. For mounting details see Index 700-010 for Single-column Ground Signs or Index 700-020 for Multi-column Ground Signs.

NOTES:

When approved for attachment to the advance guide signs, up to 3 services may be used for an exit. The symbol signs shall be suspended from the guide sign panel or existing wind beams. Symbol signs are not to be connected to existing sign posts.

The mounting height of the advance guide sign shall be increased, where necessary, to provide 8' between the level of the pavement edge and the bottom of the guide sign, prior to mounting the supplementary panel.

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LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	SIGNING FOR MOTORIST SERVICES	INDEX	SHEET
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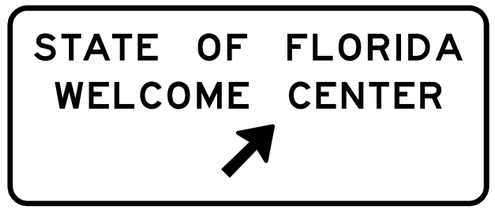
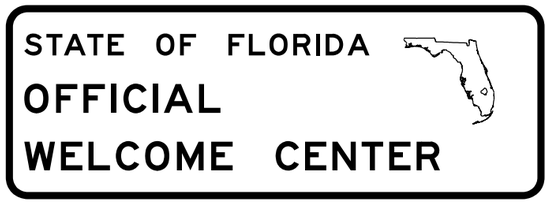
Sign FTP-402-25

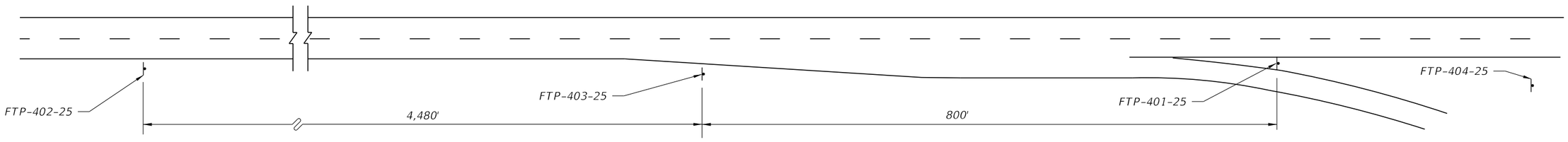


Sign FTP-403-25



Sign FTP-404-25

Sign FTP-401-25



Note: Roadway not drawn to scale
Distances shown are adequate for driver communication but may be altered slightly if conditions require.

Sign FTP-405-25

Note: Sign FTP-405-25 shall be used as a supplemental guide sign at interchanges which have a Tourist Information Center approved for such signing (locate half-way between normal guide signs)

Notes:

1. Signs and sign structures shall be erected in accordance with the details shown on Index 700-020.
2. Sign FTP-404-25 shall be located on the Welcome Center grounds in proximity to the building and as far from the main line roadway as possible (2 signs back to back).
3. Sign FTP-402-25, 403-25, and 404-25 shall be located as limited access highways only.
4. All legend to be Series E.
5. See Index 700-102 for sign details.

FOR LIMITED ACCESS HIGHWAYS

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LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	WELCOME CENTER SIGNING	INDEX	SHEET
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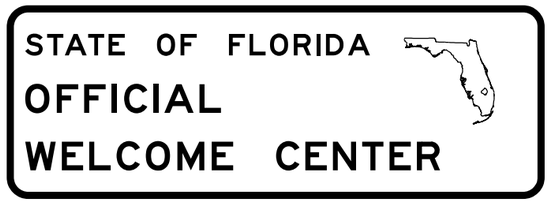
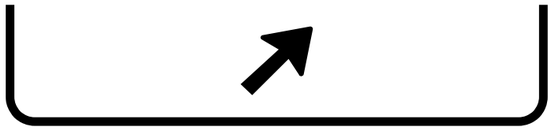
SIGN FTP-400-25

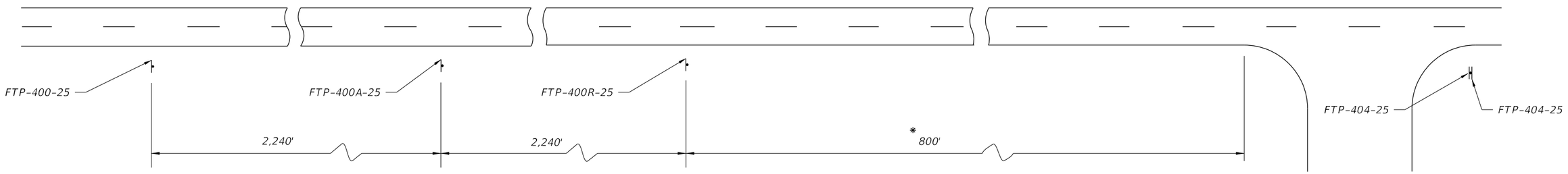


SIGN FTP-404-25

SIGN FTP-400A-25



SIGN FTP-400R-25



* 800' Maximum For Rural Conditions
50' Minimum For Rural Conditions

NOTES:

1. Signs and sign structures shall be erected in accordance with the details shown on Index 700-020.
2. Sign FTP-404-25 shall be located on the Welcome Center grounds in proximity to the building and as far from the Main Line Roadway as possible (2 signs back to back).
3. All legend to be Series E.
4. One sign FTP-400-25 or FTP-400A-25 should be used depending on speed, roadside development & geometric conditions.

FOR PRIMARY HIGHWAYS

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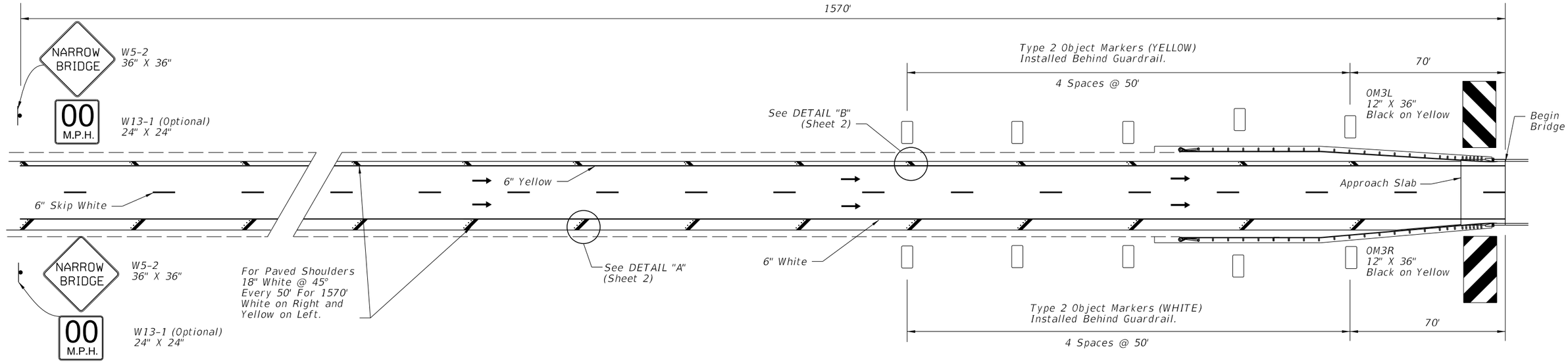
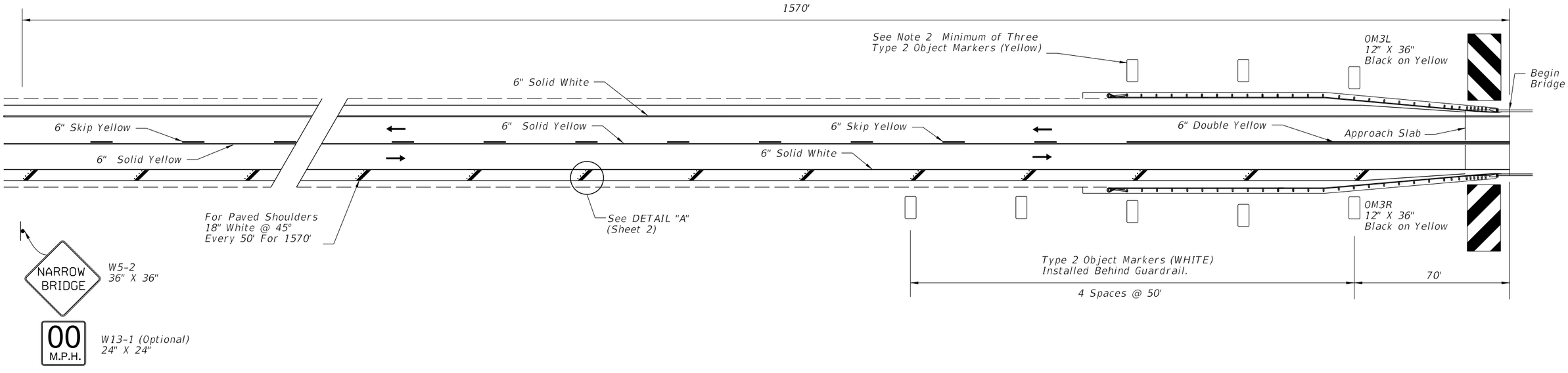


ONE-WAY TRAFFIC

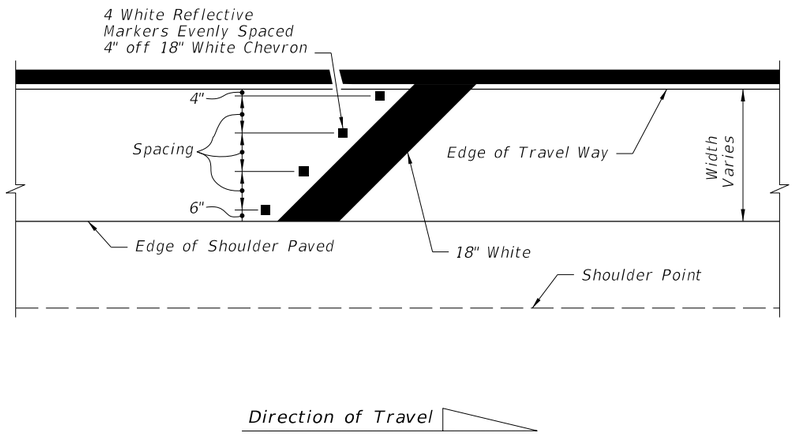


2-WAY TRAFFIC

10:05:03 AM

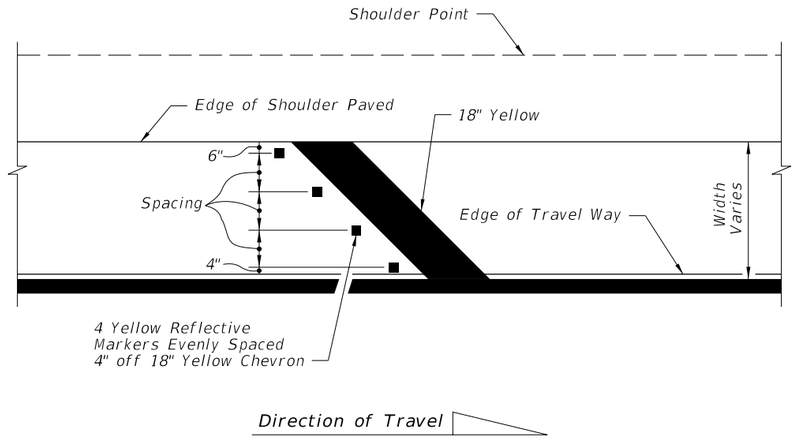
9/29/2025

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/20			FY 2026-27 STANDARD PLANS	RURAL NARROW BRIDGE TREATMENT	700-106	1 of 2



Outside Shoulder

DETAIL "A"



Median Shoulder

DETAIL "B"

NOTES:

1. Roadways with Two-Way Traffic:
   No passing zone should be extended 1570' in advance of narrow bridge.

2. If the bridge or the approach is on a curve, delineators shall be installed for a distance of 1570' in advance of narrow bridge on the outside portion of the roadway. Spacing shall be 100' between delineators. Delineators are to be placed not less than 2' or not more than 8' outside the outer edge of pavement.

3. Object markers and delineators on both sides of roadway shall face traffic approaching bridge

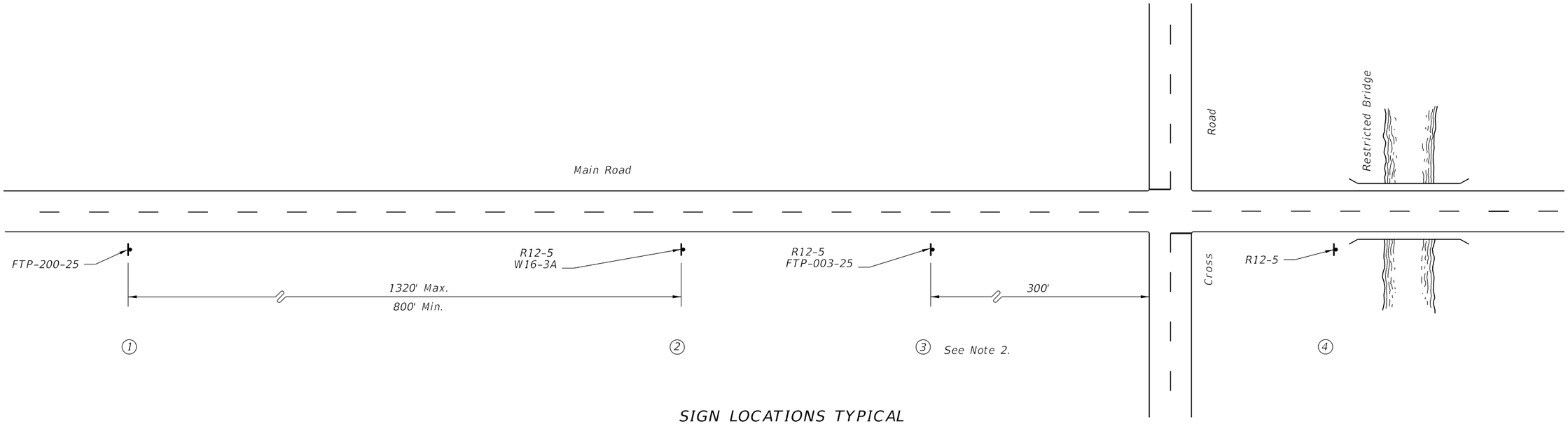
4. The OM-3R & OM-3L object markers shall be installed 4' above the roadway edge. The panels may be post mounted at the bridges.

5. Install Audible and Vibratory treatments (e.g., ground-in rumble strips or profiled thermoplastic) in accordance with the Plans.

Shoulder Width	No. of RPM's	Spacing
2'	2	14"
3'	3	13"
4'	3	19"
5'	4	16.67"

9/29/2025 10:05:11 AM

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/20			FY 2026-27 STANDARD PLANS	RURAL NARROW BRIDGE TREATMENT	700-106	2 of 2



SIGN LOCATIONS TYPICAL

① WEIGHT LIMIT RESTRICTION AHEAD

FTP-200-25

② WEIGHT LIMIT 8T 12T 16T

R12-5 (24" X 36")

X MILES

W 16-3A

③ WEIGHT LIMIT 8T 12T 16T

R12-5 (24" X 36")

WEIGHT LIMIT LAST EXIT

FTP-003-25

④ WEIGHT LIMIT 8T 12T 16T

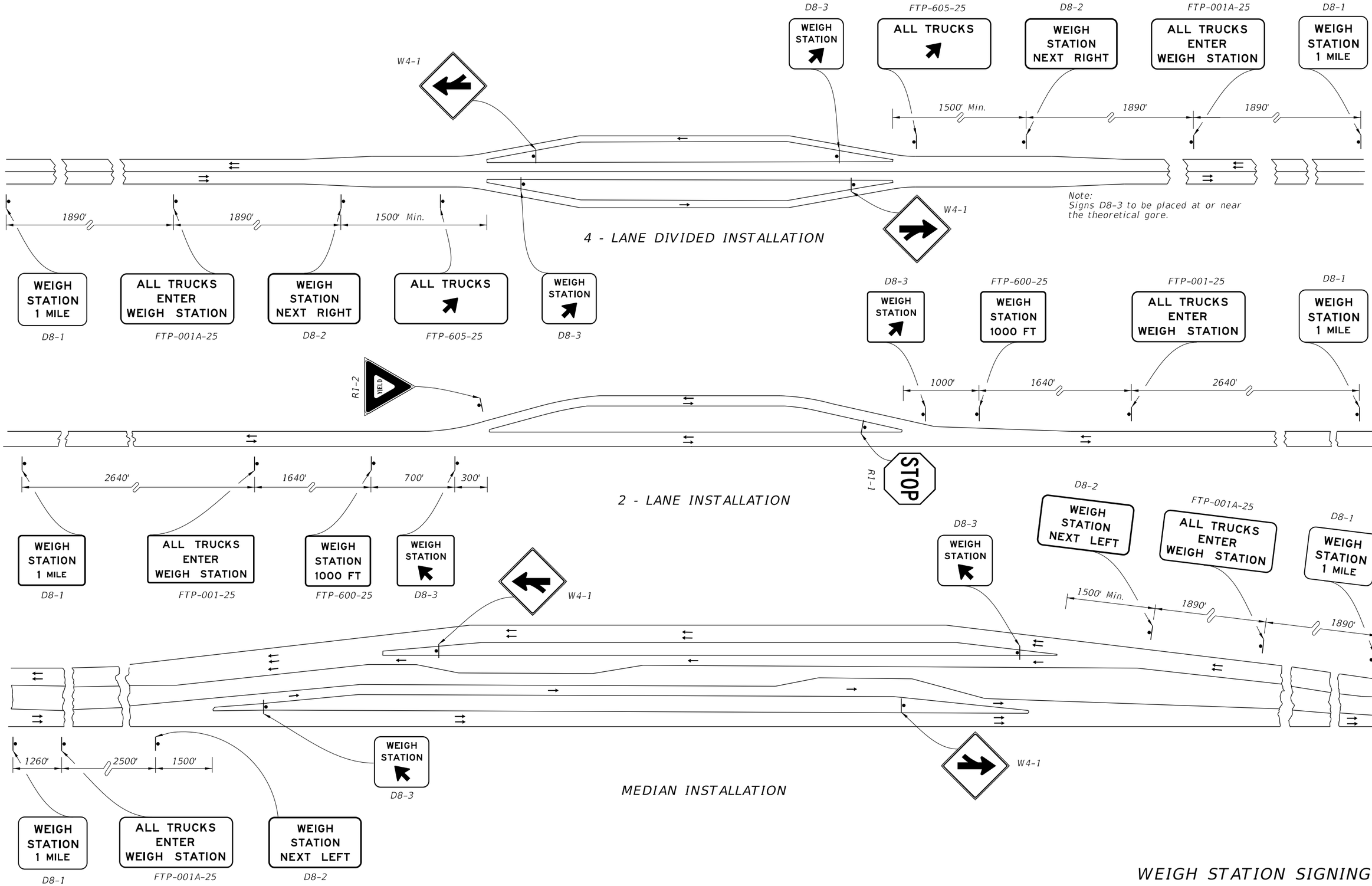
R12-5 (24" X 36")

NOTES:

1. See Standard Highway Signs for sign R12-5 and W16-3 details.
2. Location of Sign 3 may require some field adjustment.
3. The Cross Road is the last detour to route around the restricted bridge.
4. Location of Sign 2 should be established from the Cross Road the following approximate distances; Interstate-1 Mile Non- Interstate-1/2 Mile.
5. See Index 700-102 for sign details.

9/29/2025 10:05:18 AM

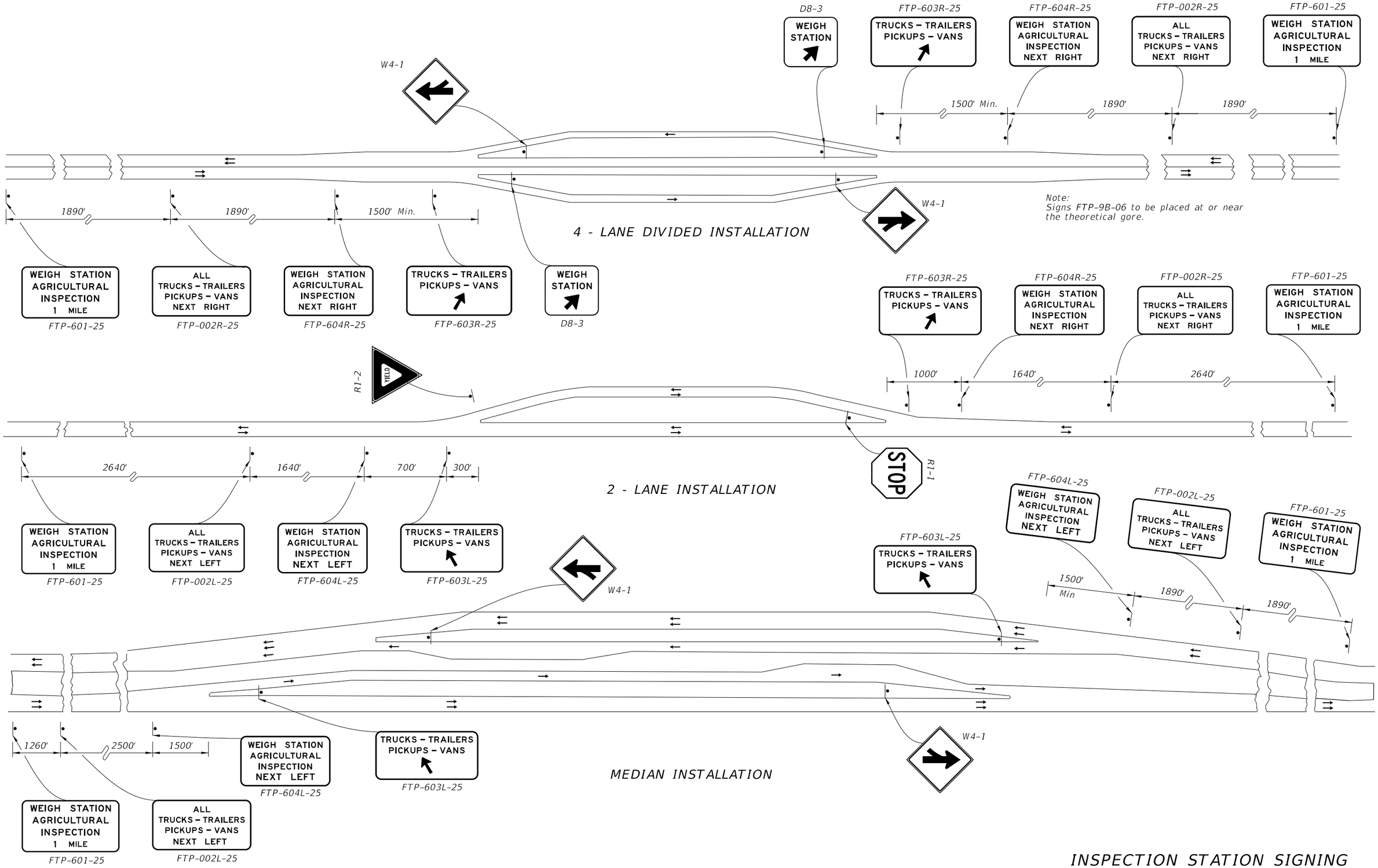
LAST REVISION	REVISION	DESCRIPTION:				
11/01/25			FY 2026-27 STANDARD PLANS	BRIDGE WEIGHT RESTRICTIONS	INDEX 700-107	SHEET 1 of 1



WEIGH STATION SIGNING

9/29/2025 10:05:25 AM

LAST REVISION	REVISION	DESCRIPTION:				
11/01/25			FY 2026-27 STANDARD PLANS	TYPICAL SIGNING FOR TRUCK WEIGH AND INSPECTION STATIONS	INDEX 700-108	SHEET 1 of 2



INSPECTION STATION SIGNING

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/25			FY 2026-27 STANDARD PLANS	TYPICAL SIGNING FOR TRUCK WEIGH AND INSPECTION STATIONS	700-108	2 of 2

9/29/2025 10:05:33 AM

GENERAL NOTES:

1. Meet the requirements of Specification 700.

2. Work with Indexes 700-020 and 700-030.

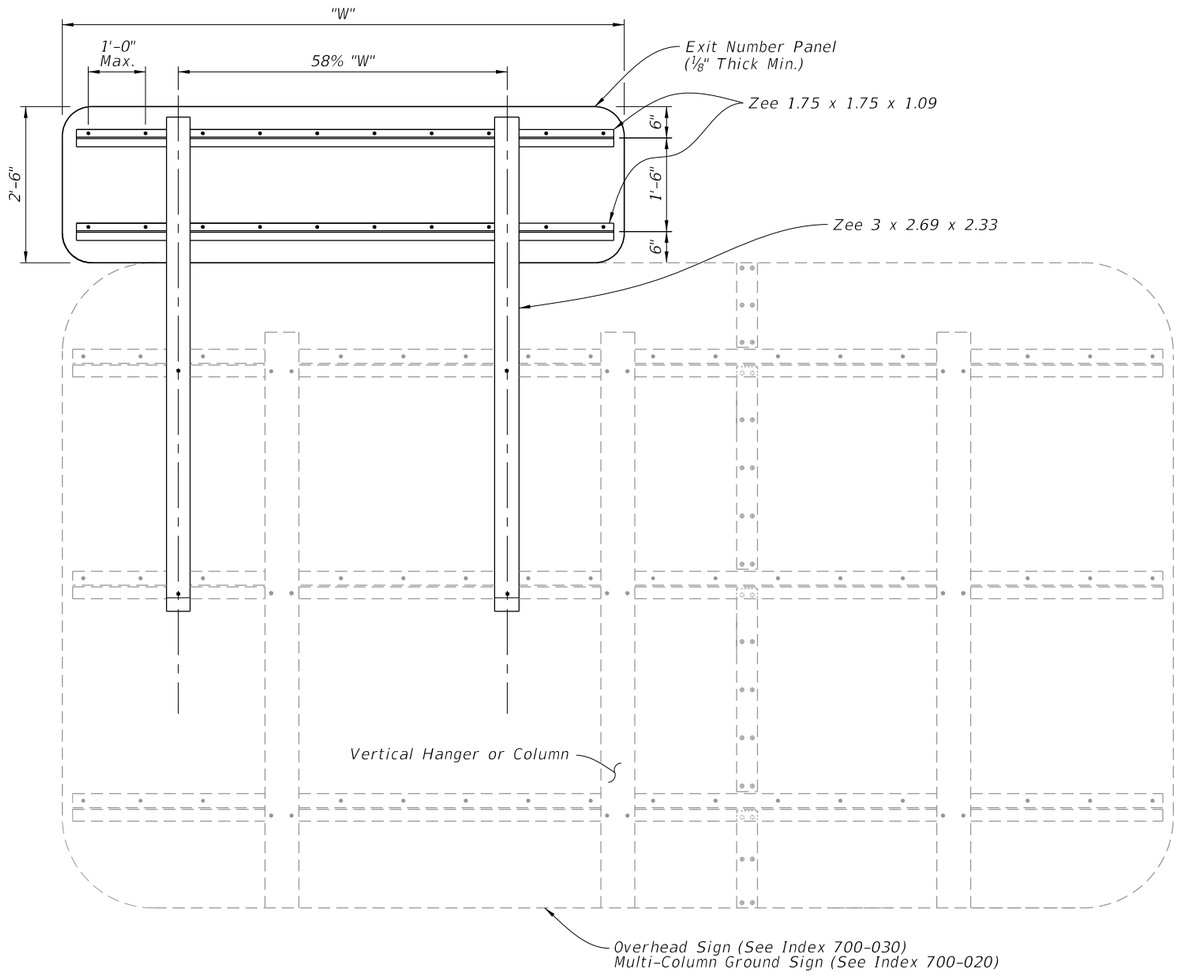
3. Fabrication:
   See sign layout sheet for dimension "W" and sign face details in the Plans.

4. For right exits, install the Exit Numbering Panel to the top right side of the Highway Sign.

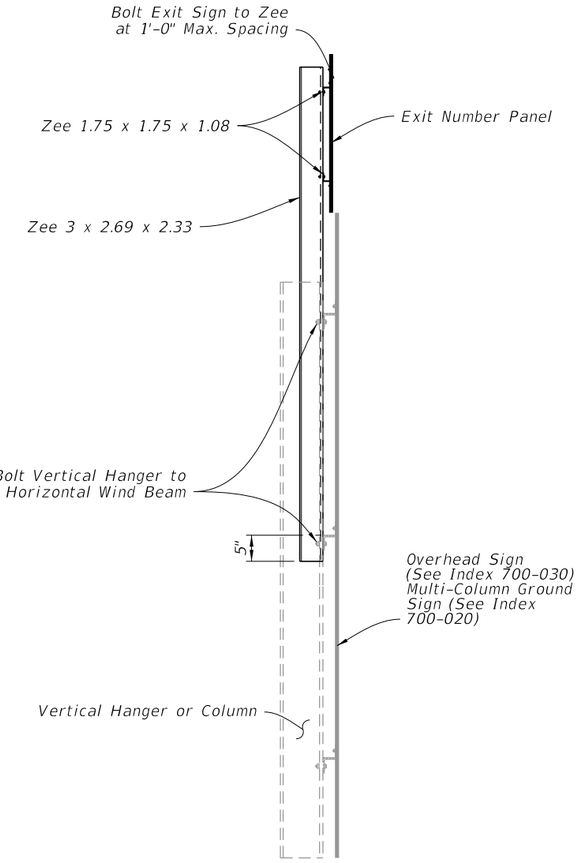
5. For left exits, install the Exit Numbering Panel to the top left side of the Highway Sign.

6. Materials (Aluminum):

   A Sheets and Plates: ASTM B209 Alloy 6061-T6
   B. Extruded and Standard Structural Shapes: ASTM B221 Alloy 6061-T6
   C. For Bolts, Nuts, and Washers requirements see Index 700-020 or 700-030.



BACK ELEVATION



SIDE ELEVATION

9/29/2025 10:05:40 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	MOUNTING EXIT NUMBER PANELS TO SIGNS	INDEX	SHEET
11/01/23					700-110	1 of 1

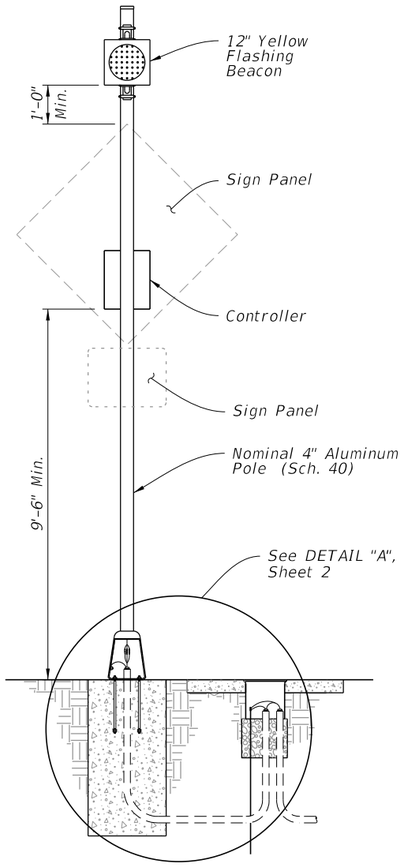
TABLE OF CONTENTS:	
Sheet	Description

GENERAL NOTES:

1. Meet the reqirements of Specifications 646 and 700.
2. Engage all threads on the transformer base and post unless the aluminum post is fully seated into base.
3. Install a concrete slab around all roadside assemblies on slopes 6:1 or greater. The minimum slab dimension is 6" by 4'-0" by 5'-0".
4. When wire entry holes are drilled in the sign column, use a bushing or rubber grommet to protect conductors.

POWER CONFIGURATION 'B' NOTES:

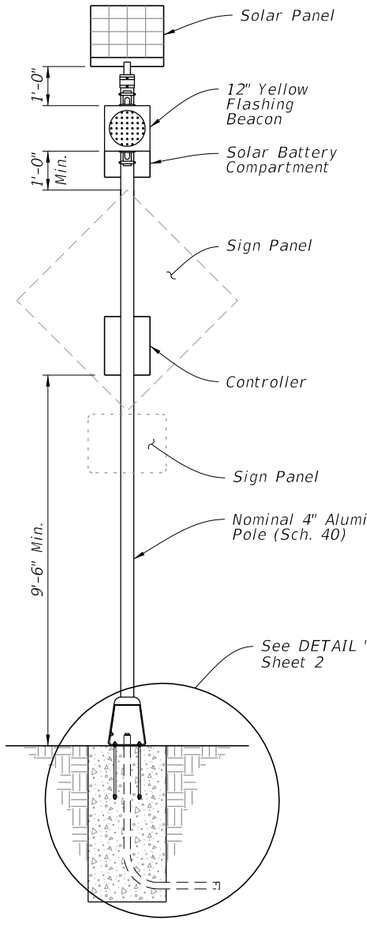
1. Install a separate pole for mounting the solar panel, controller and batteries for all roadside assemblies with solar panels, controllers and batteries weighing more than 170 lbs.
2. Install the auxiliary pole as close to the right of way boundary as possible.
3. Install the auxiliary pole so that the height is the same as the column for the roadside assembly.
4. Orient solar panel to face South for optimal exposure to sunlight.
5. The controller and the solar batteries may be located in the same compartment.



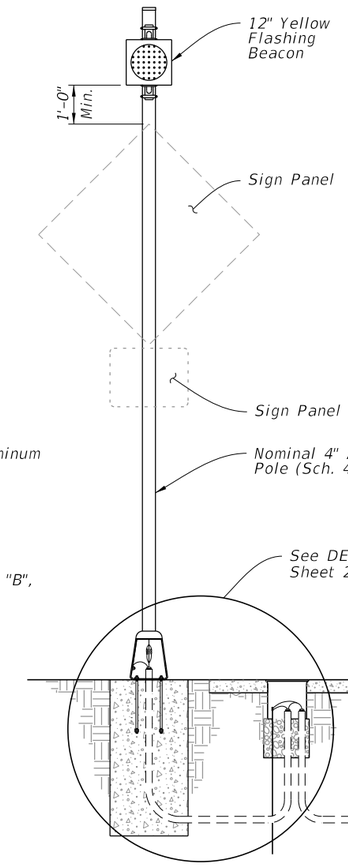
FRONT ELEVATION

WITHOUT AUXILIARY POLE

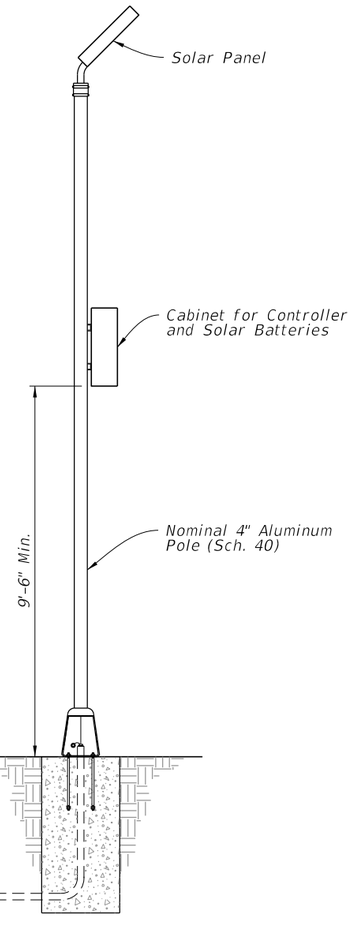
POWER CONFIGURATION 'A'
CONVENTIONALLY POWERED
(Type A1 Shown)



FRONT ELEVATION



SIGN ASSEMBLY FRONT ELEVATION



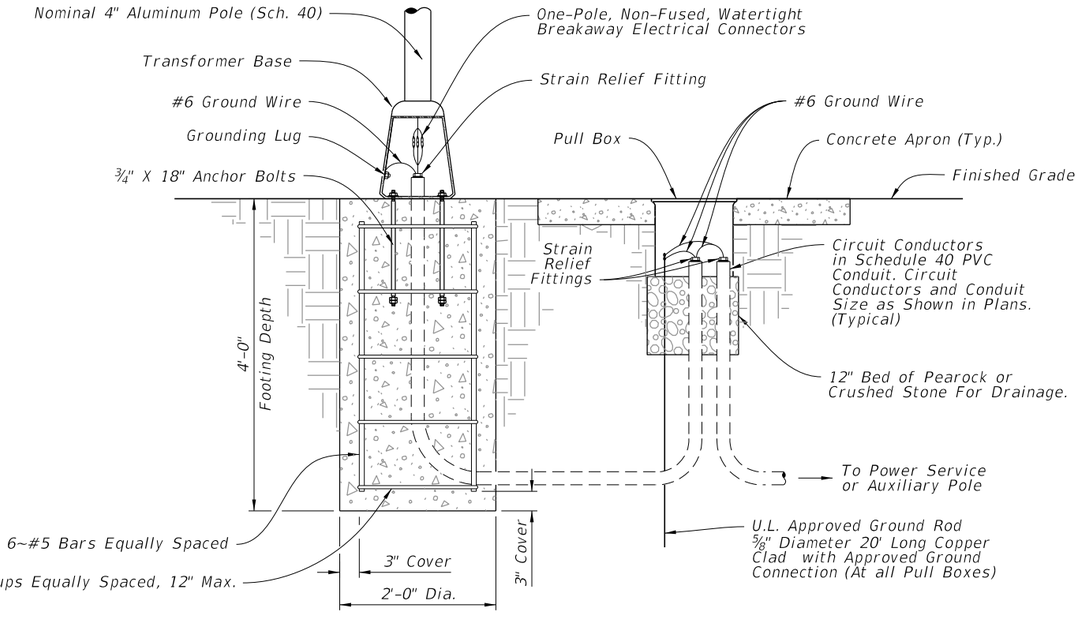
AUXILIARY POLE ELEVATION

WITH AUXILIARY POLE

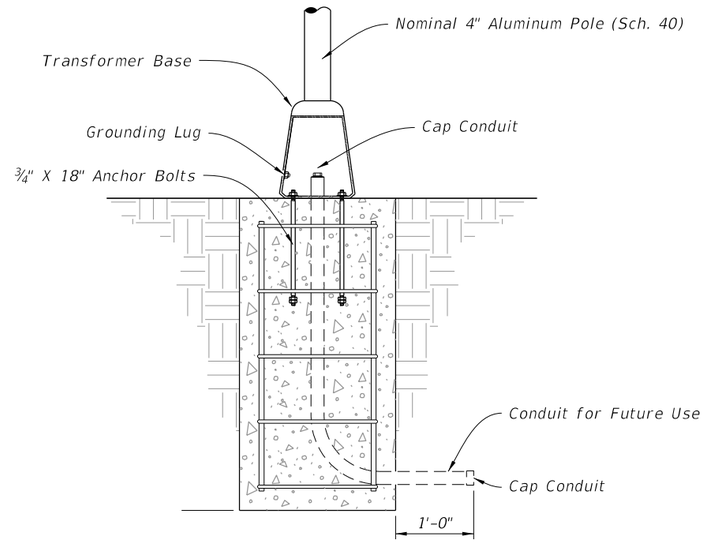
POWER CONFIGURATION 'B'
SOLAR POWERED
(Type B1 Shown)

9/29/2025 10:05:48 AM

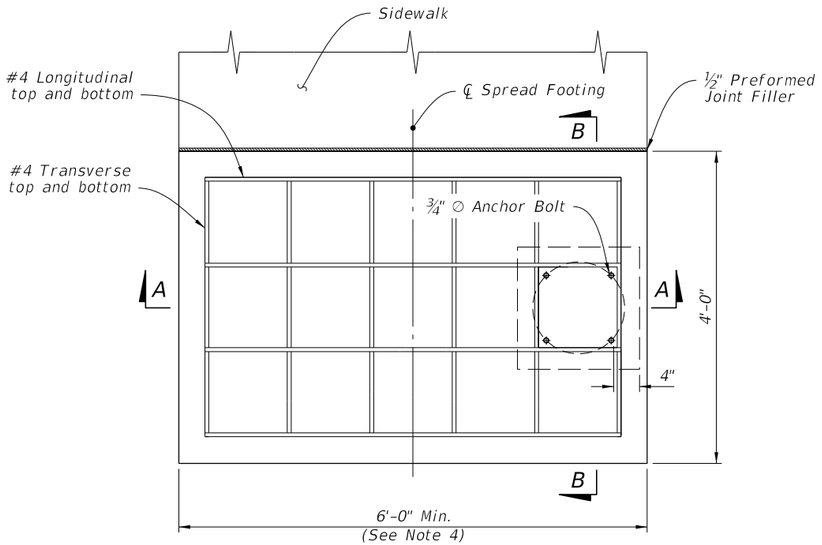
LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	ENHANCED HIGHWAY SIGNING ASSEMBLIES	INDEX	SHEET
11/01/24					700-120	1 of 13



DETAIL "A"



DETAIL "B"



PLAN

NOTES:

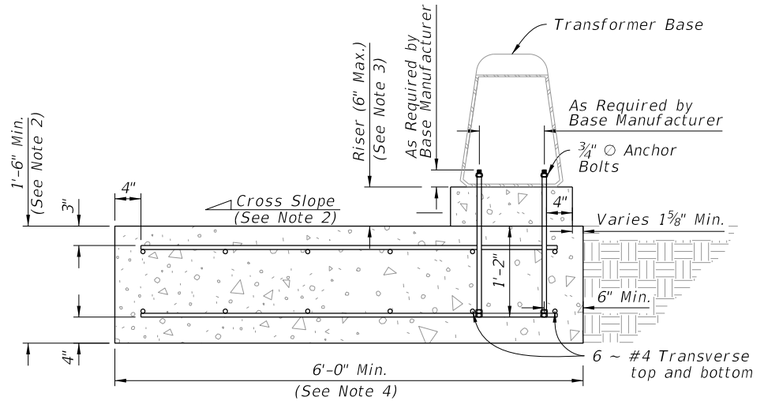
1. Install the Spread Footing Foundation only where called for in the Plans.

2. SIDEWALK:
   a. When abutting sidewalk, match the cross slope of the adjacent sidewalk or curb ramp where applicable. Maintain the minimum depth of footing.
   b. ½" expansion preformed joint filler required between sidewalk and spread footing.
   c. Apply concrete surface finish to the top of the spread footing in accordance with Specification 522-7.
   d. Sidewalk placed on the other side or both sides of the spread footing is permitted where shown in the Plans.

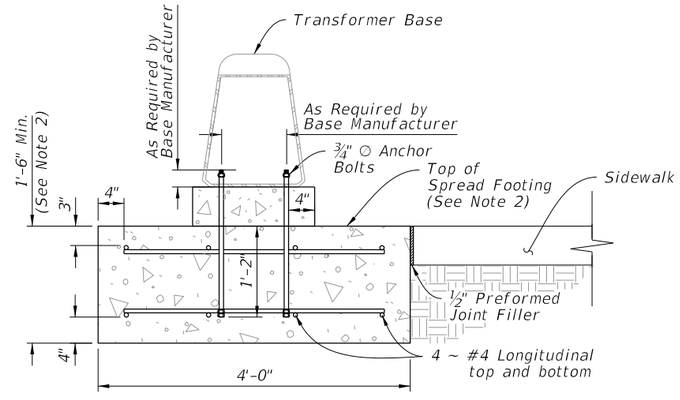
3. Only use concrete riser when installed in-line with sidewalk curb that results in a drop off to the adjacent sidewalk.

4. For sidewalks greater than 6', match sidewalk width. Add one #4 transverse bar, top and bottom, per additional foot of spread footing to maintain at minimum the same reinforcement area per foot.

5. Base location can vary on spread footing. Location shown in Plans.



SECTION A-A

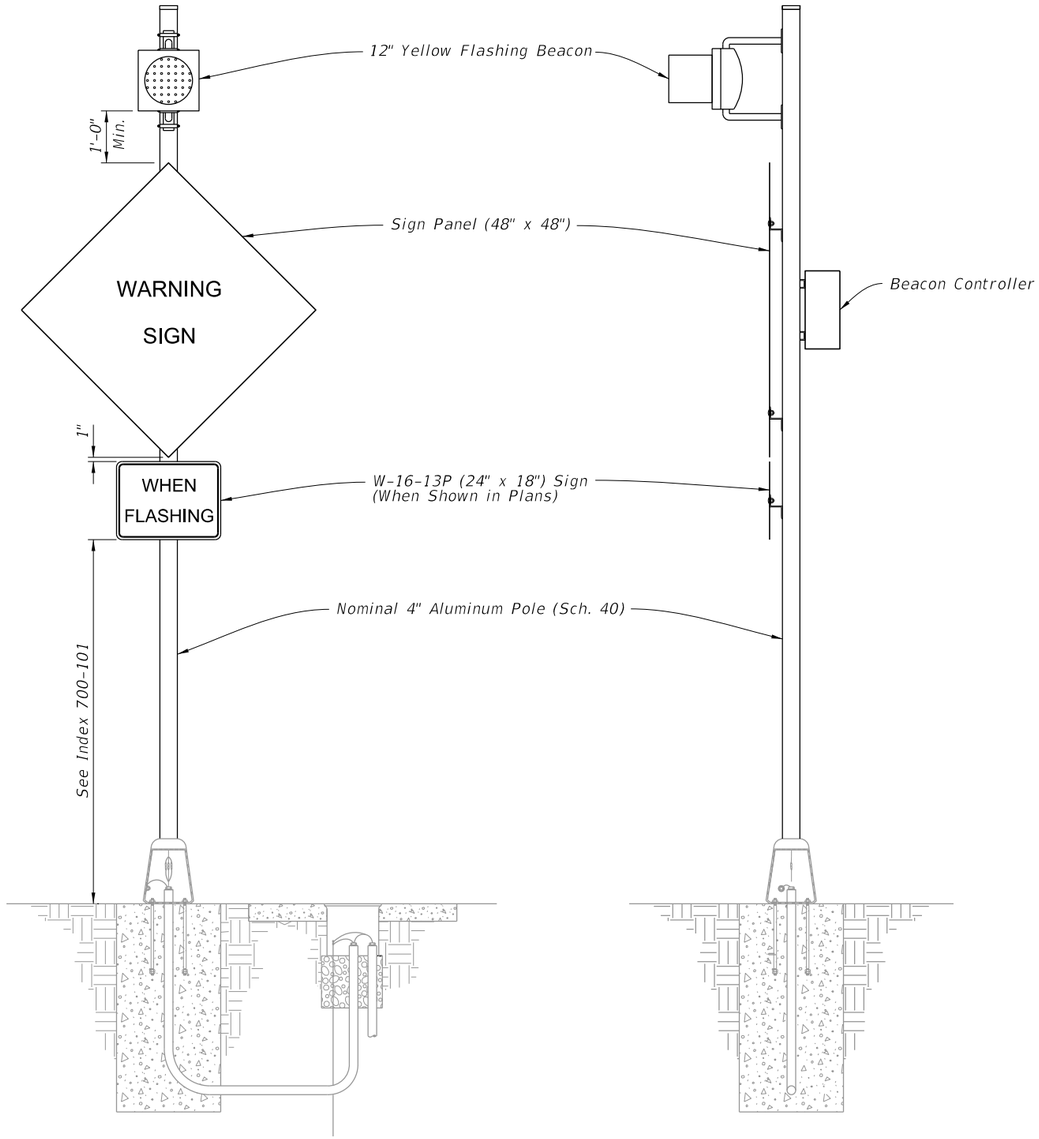


SECTION B-B

SPREAD FOOTING FOUNDATION

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/24			FDOT FY 2026-27 STANDARD PLANS	ENHANCED HIGHWAY SIGNING ASSEMBLIES	700-120	3 of 13

9/29/2025 10:06:02 AM



FRONT ELEVATION

SIDE ELEVATION

NOTES:

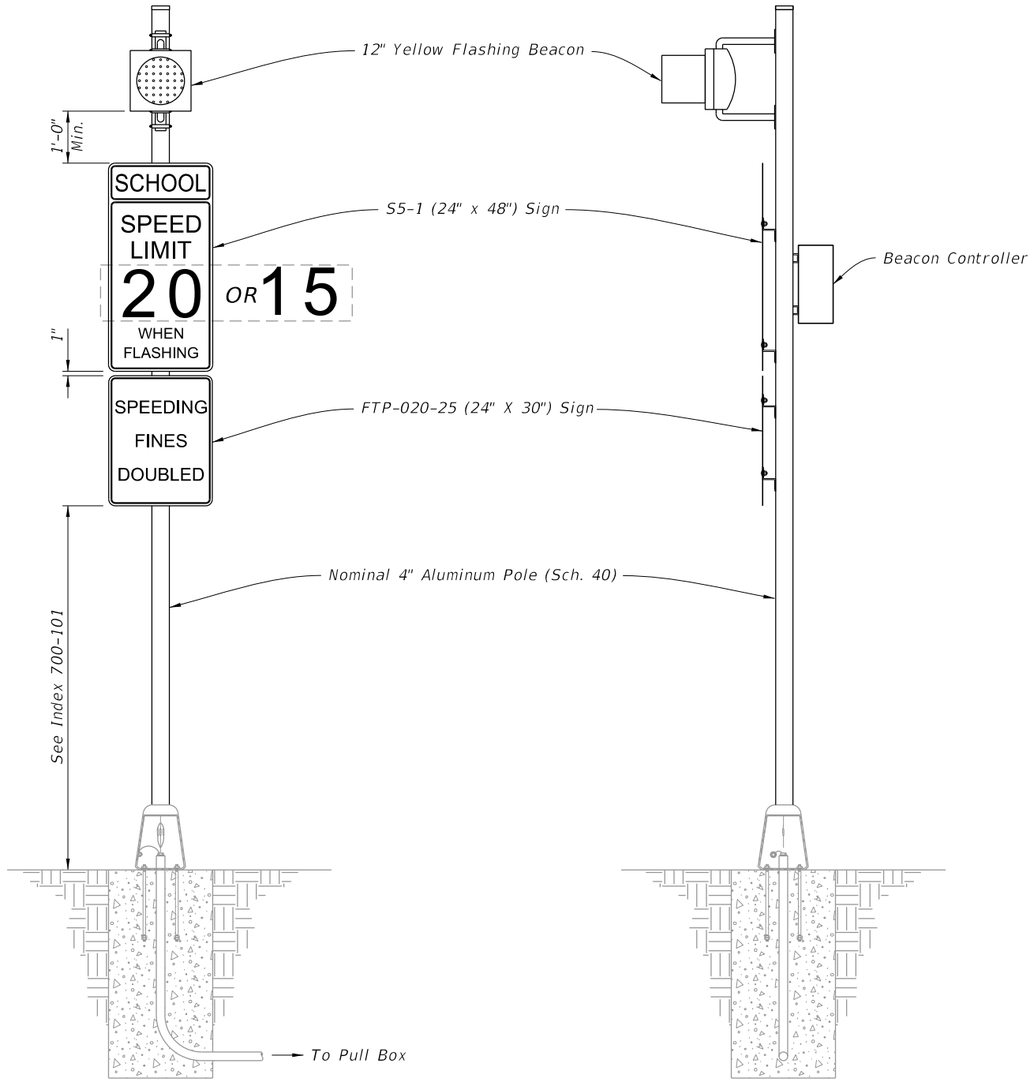
1. Type A1 Assembly (conventionally powered) is shown. Type B1 Assemblies (solar powered) similar.

2. Foundation reinforcement not shown.

9/29/2025 10:06:10 AM

ROADSIDE SIGN ASSEMBLY-1

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	ENHANCED HIGHWAY SIGNING ASSEMBLIES	INDEX	SHEET
11/01/24					700-120	4 of 13



FRONT ELEVATION

SIDE ELEVATION

NOTES:

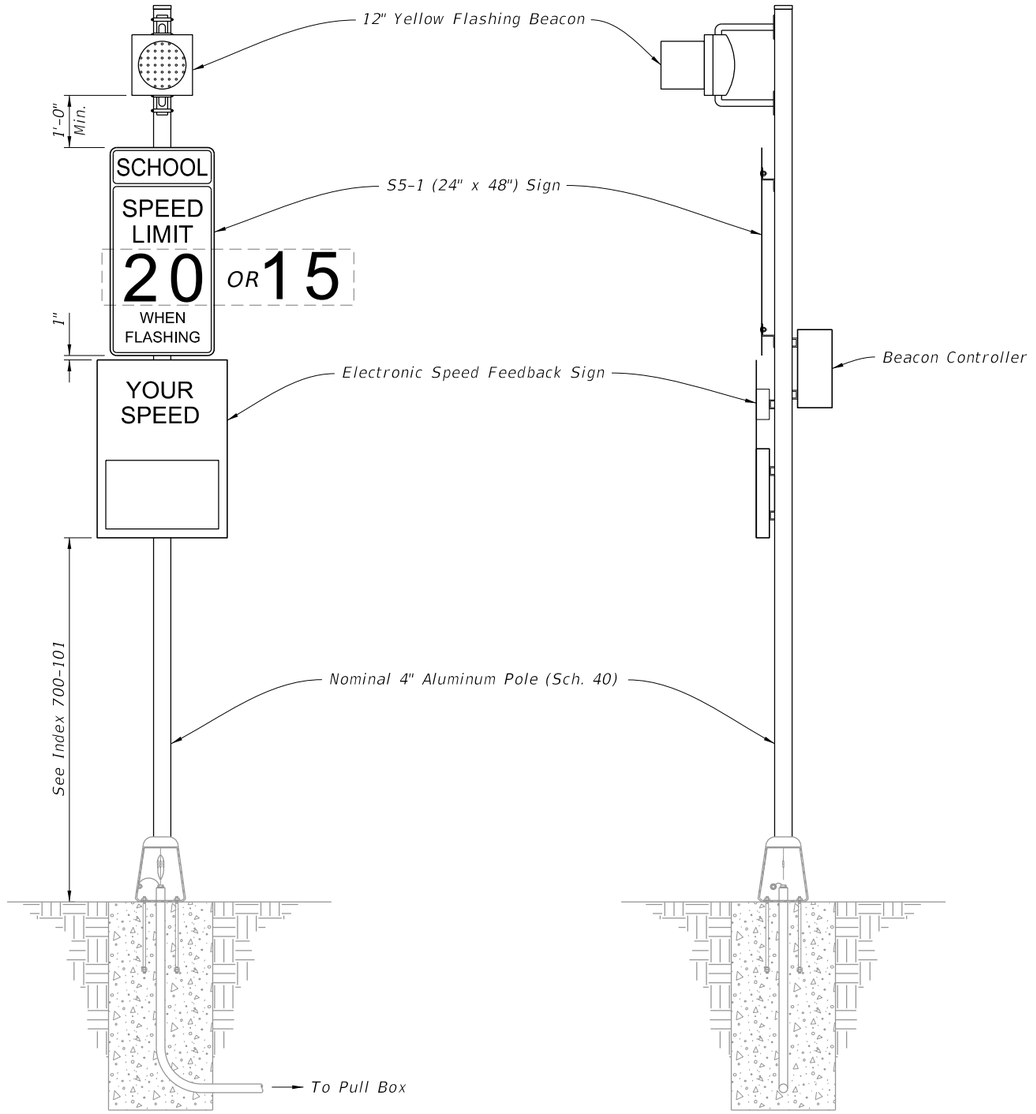
1. Type A2 Assembly (conventionally powered) is shown. Type B2 Assemblies (solar powered) similar.

2. Foundation reinforcement not shown.

9/29/2025 10:06:17 AM

ROADSIDE SIGN ASSEMBLY-2

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	ENHANCED HIGHWAY SIGNING ASSEMBLIES	INDEX	SHEET
11/01/25					700-120	5 of 13



FRONT ELEVATION

SIDE ELEVATION

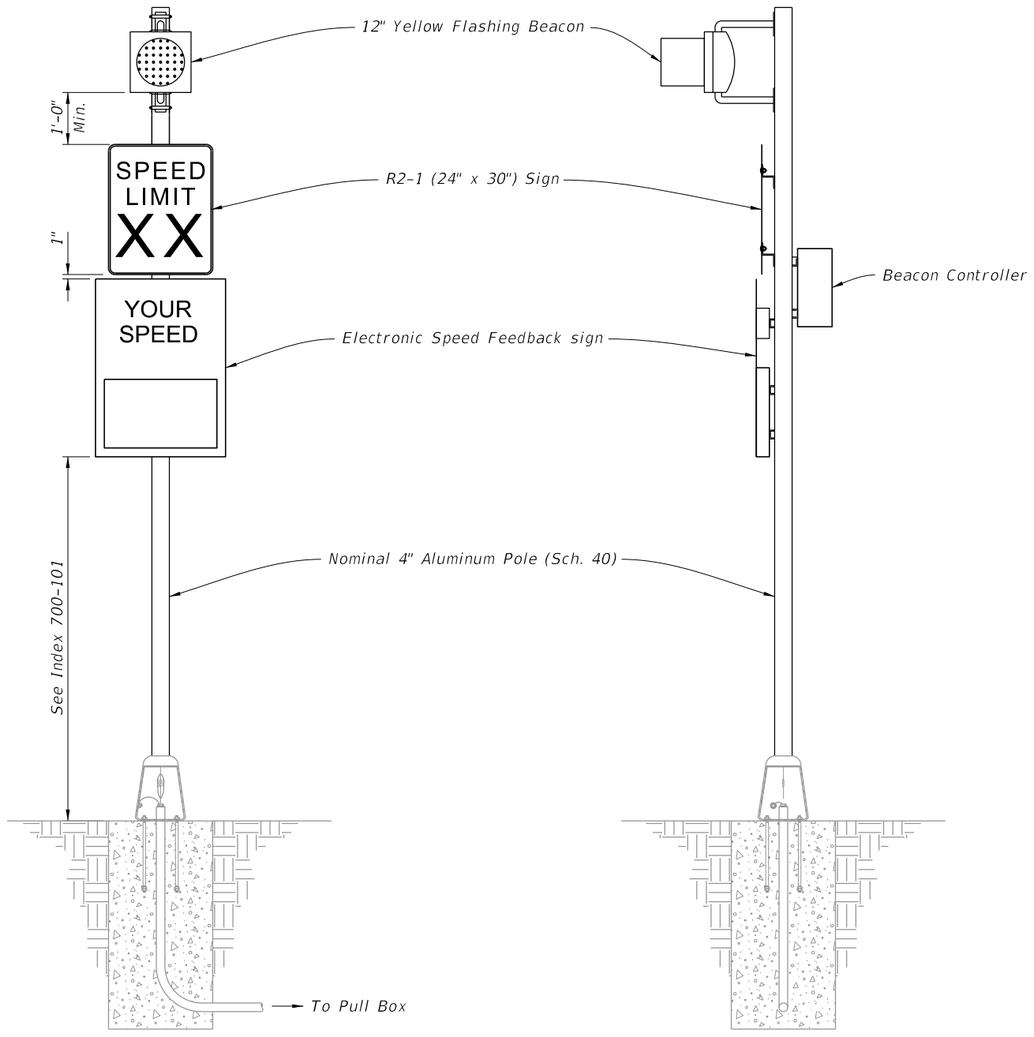
NOTES:

1. Type A3 Assembly (conventionally powered) is shown. Type B3 Assemblies (solar powered) similar.
2. Use electronic speed feedback sign with 15" high numerals for posted speed of 45 mph or less, and 18" high numerals for posted speeds greater than 45 mph.
3. Foundation reinforcement not shown.

9/29/2025 10:06:25 AM

ROADSIDE SIGN ASSEMBLY-3

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	ENHANCED HIGHWAY SIGNING ASSEMBLIES	INDEX	SHEET
11/01/24					700-120	6 of 13



FRONT ELEVATION

SIDE ELEVATION

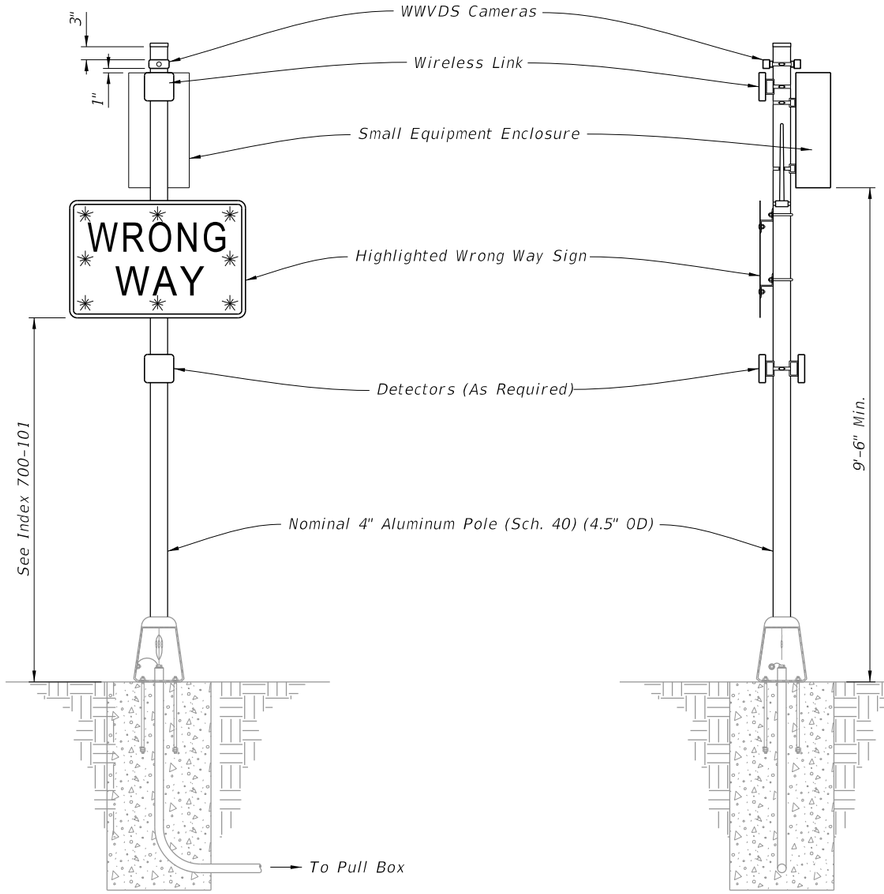
NOTES:

1. Type A6 Assembly (conventionally powered) is shown. Type B6 Assemblies (solar powered) similar.
2. Use electronic speed feedback sign with 15" high numerals for posted speed of 45 mph or less, and 18" high numerals for posted speeds greater than 45 mph.
3. Foundation reinforcement not shown.

9/29/2025 10:06:32 AM

ROADSIDE SIGN ASSEMBLY-4

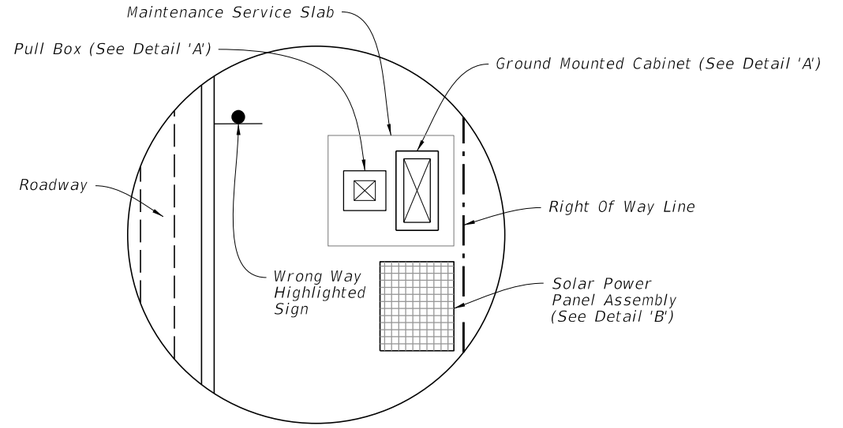
LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/24			FDOT FY 2026-27 STANDARD PLANS	ENHANCED HIGHWAY SIGNING ASSEMBLIES	700-120	7 of 13



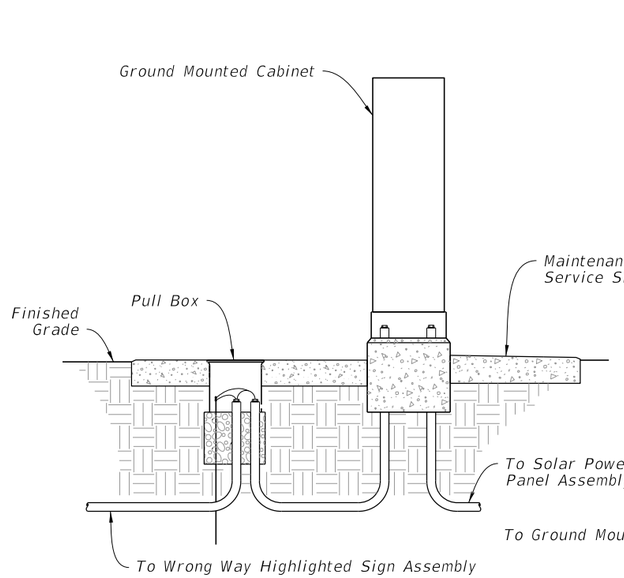
FRONT ELEVATION

SIDE ELEVATION

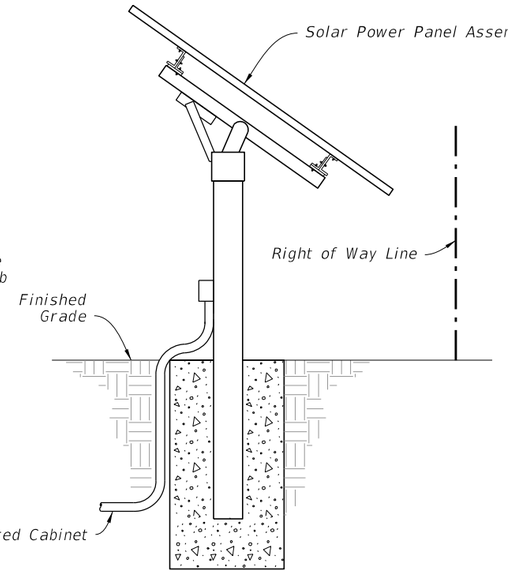
WRONG WAY HIGHLIGHTED SIGN ASSEMBLY



PLAN VIEW



DETAIL 'A'



DETAIL 'B'

SOLAR POWER ASSEMBLY

NOTES:

1. Install Wrong Way Vehicle Detection System (WWVDS) devices including cameras, detectors, wireless links, antennas, enclosures, and electronics in accordance with the manufacturer's instructions.

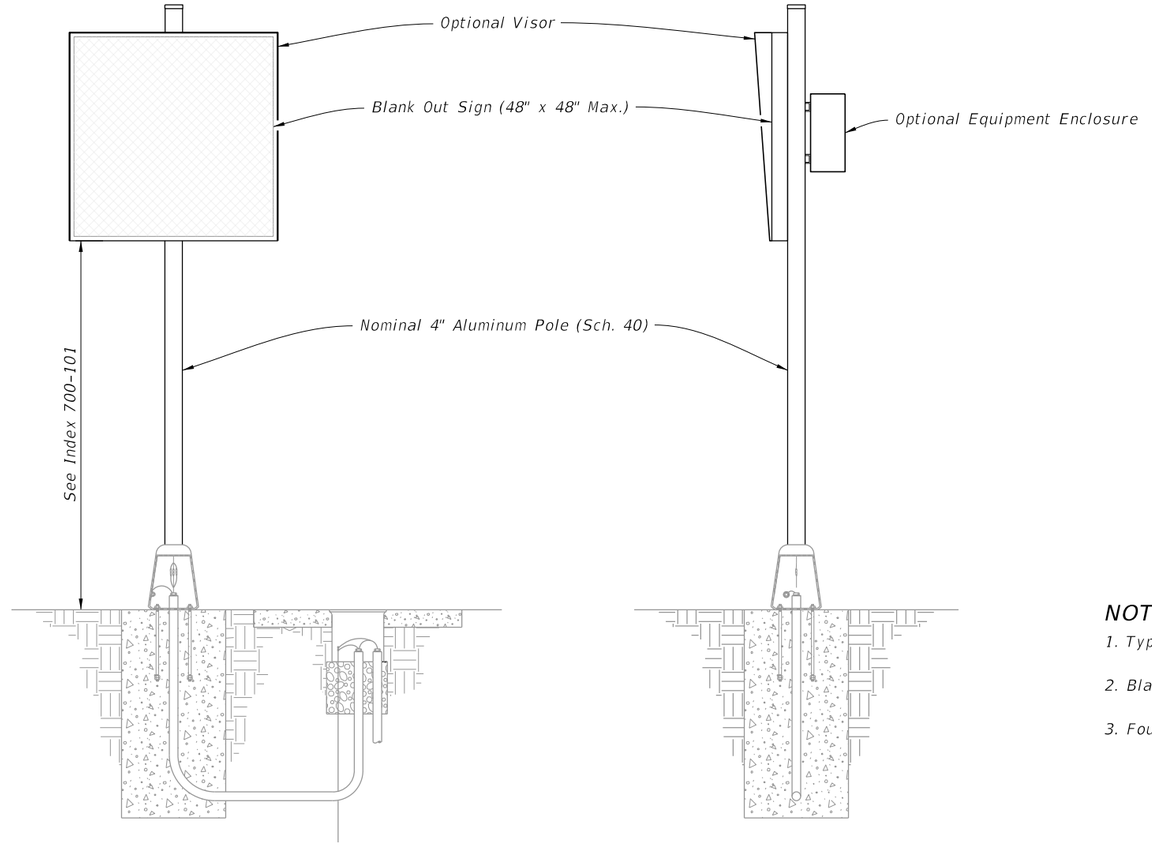
2. When a solar powered configuration (Type B7) is called for in the Plans, install a ground mounted cabinet and solar power panel assembly. Install the solar charge controller and batteries in the same ground mounted cabinet. Provide a separate pole for mounting the solar panel (DETAIL 'B' shown for illustration purposes only) and install in accordance with manufacturer's instructions. Locate the Solar Power Assembly as close to the right of way as possible. Orient the solar panel to face South.

3. Foundation reinforcement not shown.

4. Install cabinets in accordance with Index 676-010.

9/29/2025 10:06:40 AM

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/24			FY 2026-27 STANDARD PLANS	ENHANCED HIGHWAY SIGNING ASSEMBLIES	700-120	8 of 13



FRONT ELEVATION

SIDE ELEVATION

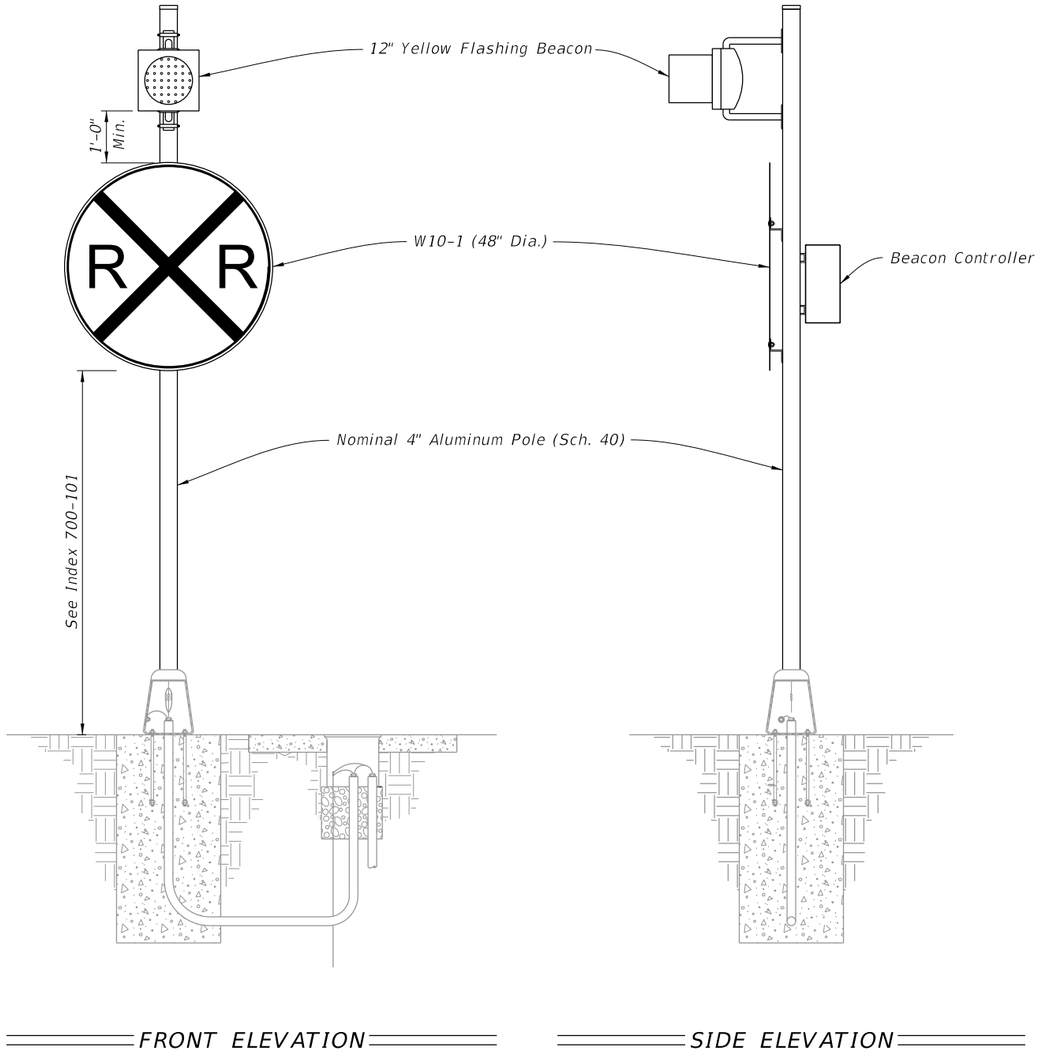
NOTES:

1. Type A8 Assembly (conventionally powered) is shown.
2. Blank Out Sign visors are optional.
3. Foundation reinforcement not shown.

9/29/2025 10:06:47 AM

ROADSIDE SIGN ASSEMBLY-6

LAST REVISION	REVISION	DESCRIPTION:				
11/01/24			FDOT FY 2026-27 STANDARD PLANS	ENHANCED HIGHWAY SIGNING ASSEMBLIES	INDEX 700-120	SHEET 9 of 13



FRONT ELEVATION

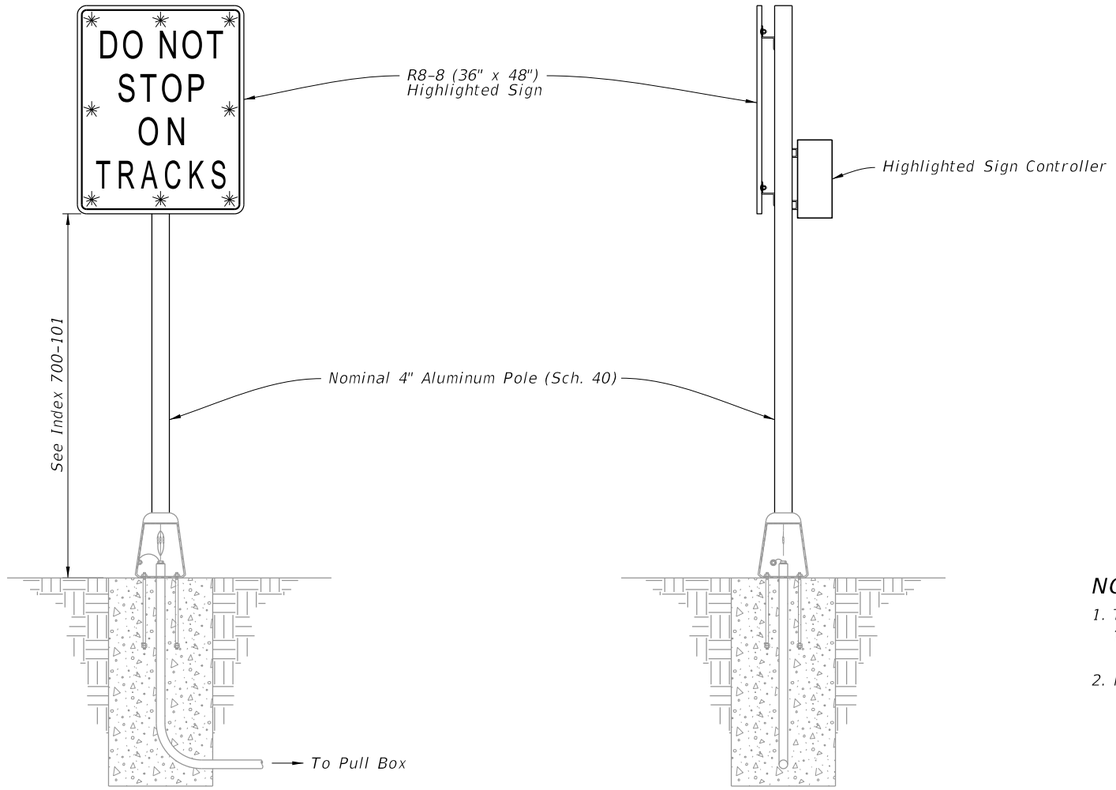
SIDE ELEVATION

NOTES:

1. Type A9 Assembly (conventionally powered) is shown. Type B9 Assemblies (solar powered) similar.

2. Foundation reinforcement not shown.

ROADSIDE SIGN ASSEMBLY-7



FRONT ELEVATION

SIDE ELEVATION

NOTES:

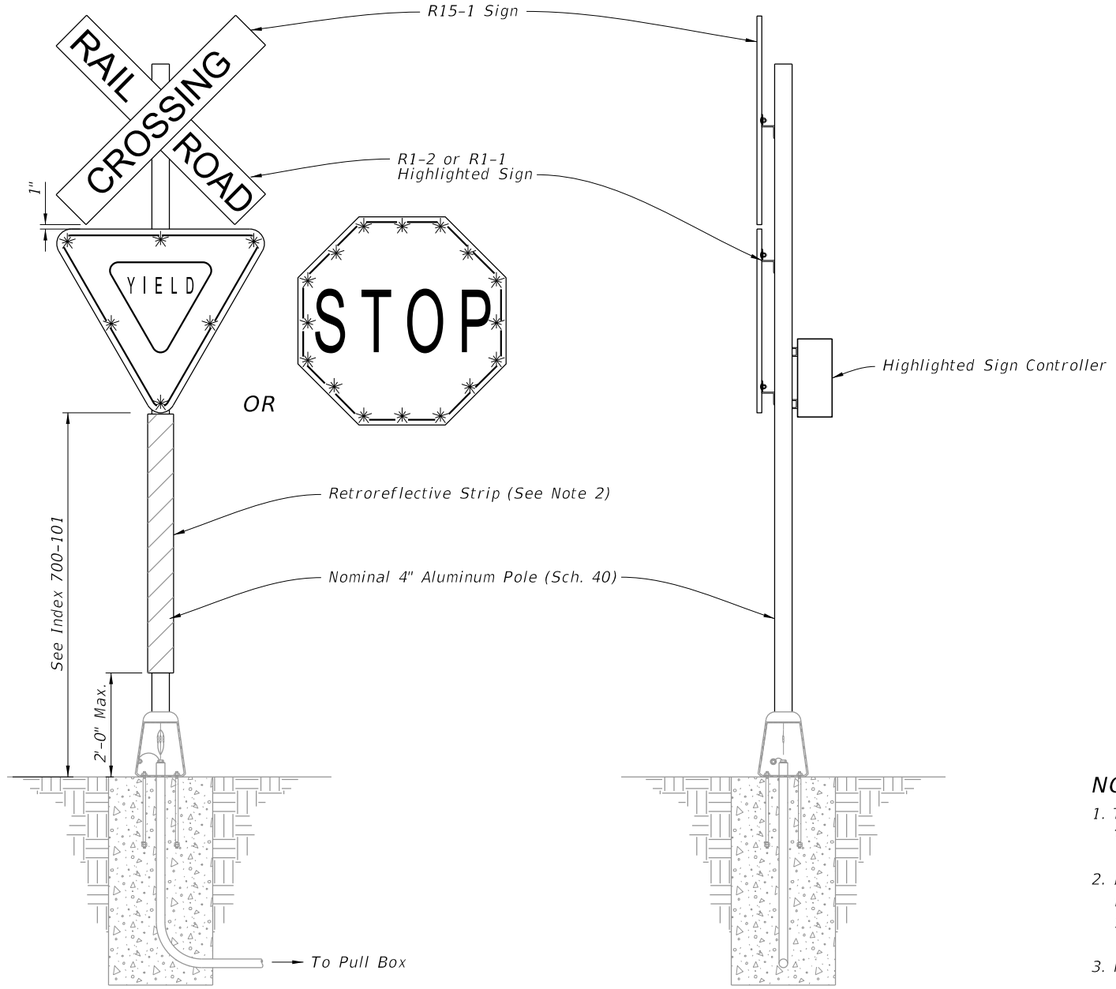
1. Type A10 Assembly (conventionally powered) is shown. Type B10 Assemblies (solar powered) similar.

2. Foundation reinforcement not shown.

9/29/2025 10:07:01 AM

ROADSIDE SIGN ASSEMBLY-8

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	ENHANCED HIGHWAY SIGNING ASSEMBLIES	INDEX	SHEET
11/01/24					700-120	11 of 13



FRONT ELEVATION

SIDE ELEVATION

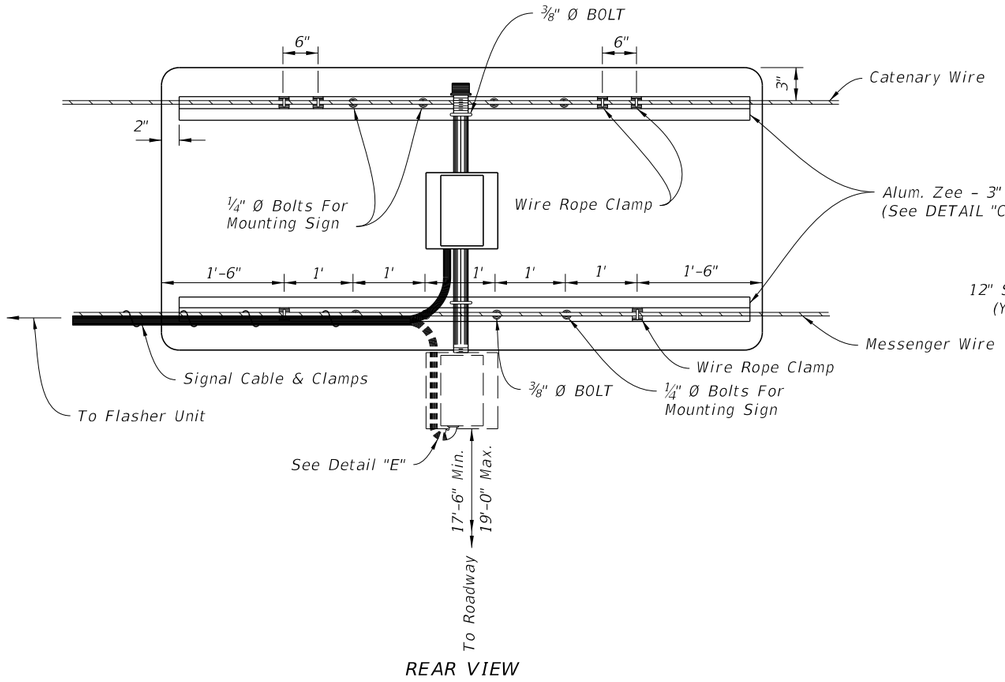
NOTES:

1. Type A11 Assembly (conventionally powered) is shown. Type B11 Assemblies (solar powered) similar.
2. Install red retroreflective strip on front and white retroreflective strip on back in accordance with Specification 700.
3. Foundation reinforcement not shown.

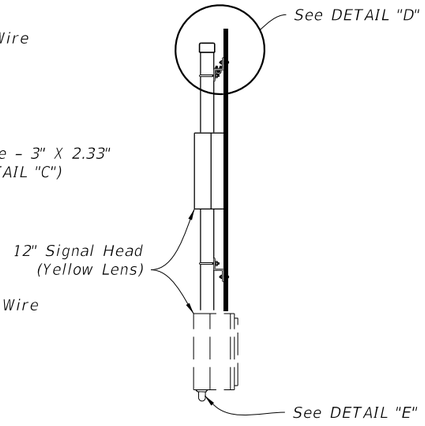
9/29/2025 10:07:08 AM

ROADSIDE SIGN ASSEMBLY-9

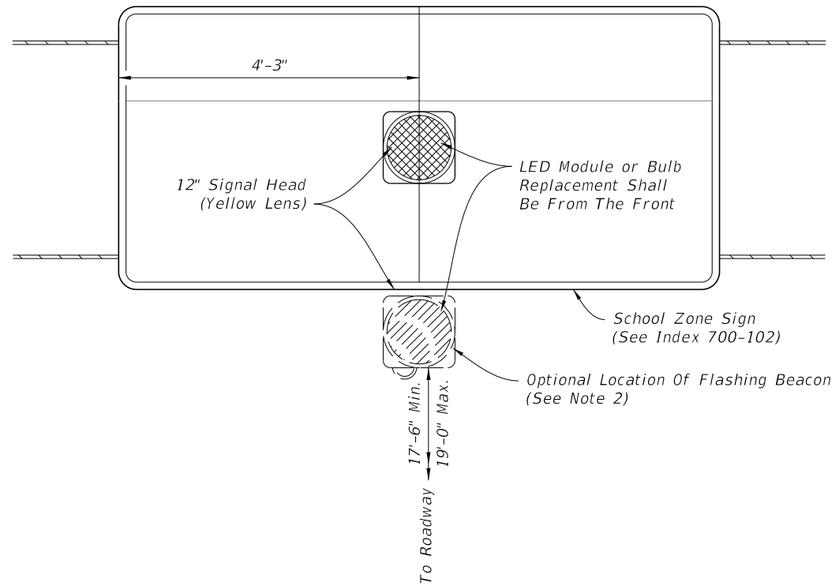
LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/24			FY 2026-27 STANDARD PLANS	ENHANCED HIGHWAY SIGNING ASSEMBLIES	700-120	12 of 13



REAR VIEW

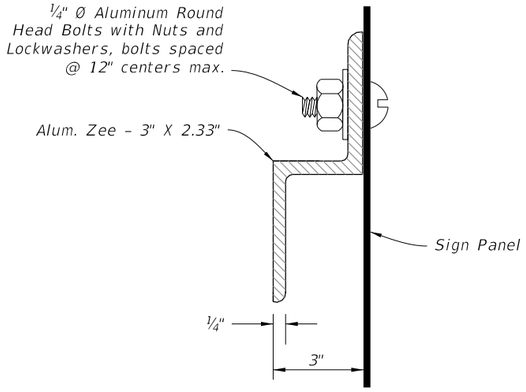


SIDE VIEW



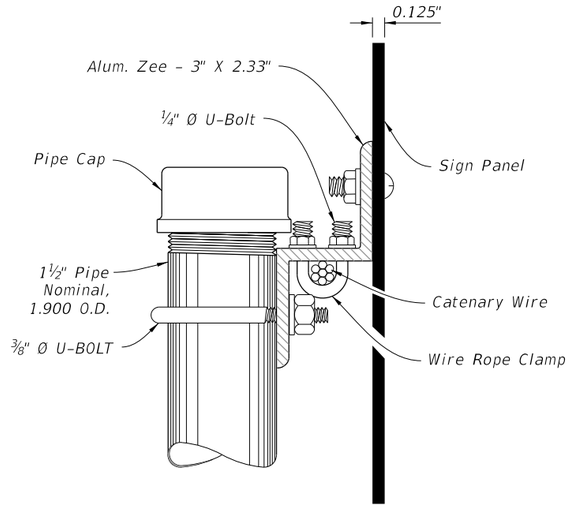
FRONT VIEW

OVERHEAD SCHOOL SIGN ASSEMBLY



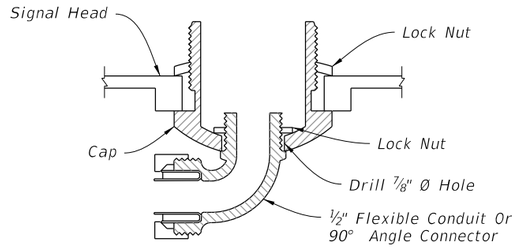
ZEE SECTION DETAIL

DETAIL "C"



MOUNTING DETAIL

DETAIL "D"



CABLE ENTRY DETAIL

DETAIL "E"

NOTES:

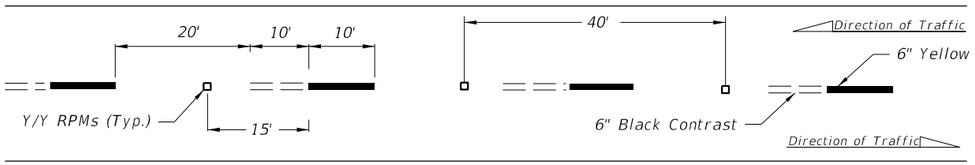
1. Flasher unit and cabinet to be placed on the strain pole supporting overhead sign assembly or on service pole. The flasher unit not to overhang private property or sidewalk.

2. Optional flashing beacon will be called for in the Plans. They may be placed within or below the panel, or face to the rear.

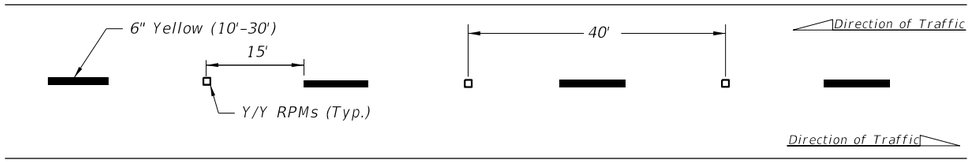
OVERHEAD SIGN ASSEMBLY

9/29/2025 10:07:15 AM

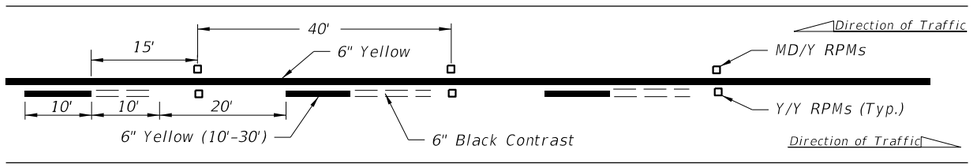
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	ENHANCED HIGHWAY SIGNING ASSEMBLIES	INDEX	SHEET
11/01/24						700-120	13 of 13



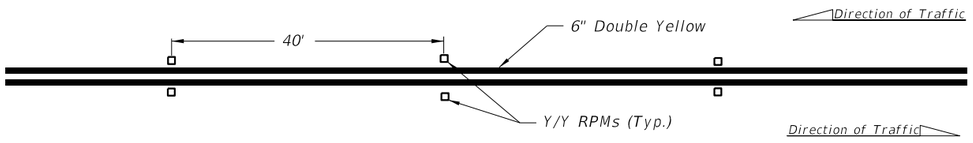
ALTERNATING SKIP LINE



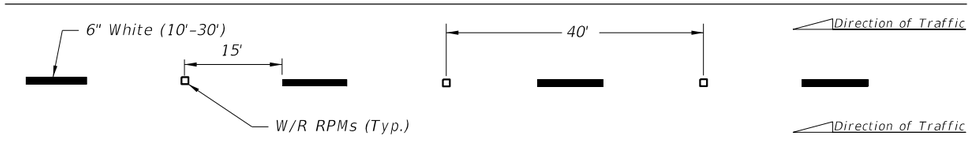
SKIP LINE



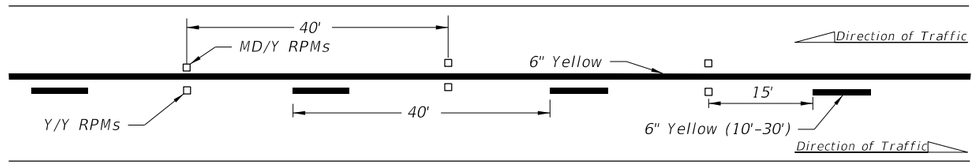
SOLID LINE WITH ALTERNATING SKIP



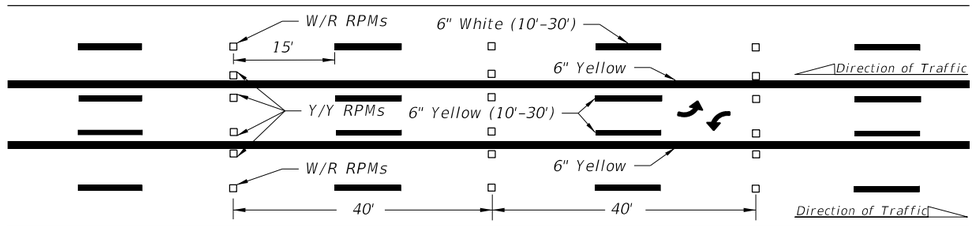
DOUBLE SOLID LINE



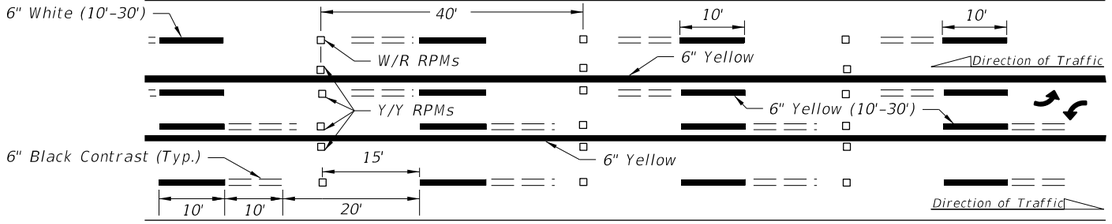
MULTILANE



SOLID LINE WITH SKIP



SKIP LINE WITH TWO-WAY LEFT TURN LANE



ALTERNATING SKIP LINE WITH TWO-WAY LEFT TURN LANE

NOTES:

1. Offset all RPMs 1" from solid longitudinal lines unless otherwise noted or shown.
2. Spacing may be reduced for sharp curves if required.
3. For placement of RPMs on ramps, see Index 711-003.
4. Make the traffic face of the RPM the same color as the pavement marking that it is supplementing.

LEGEND:

B/C = BACK OF CURB

EOP = EDGE OF PAVEMENT

RPM = RAISED PAVEMENT MARKER

W/R = WHITE/RED RPM

Y/Y = YELLOW/YELLOW RPM

Y/R = YELLOW/RED RPM

MD/Y = MONO-DIRECTIONAL YELLOW RPM

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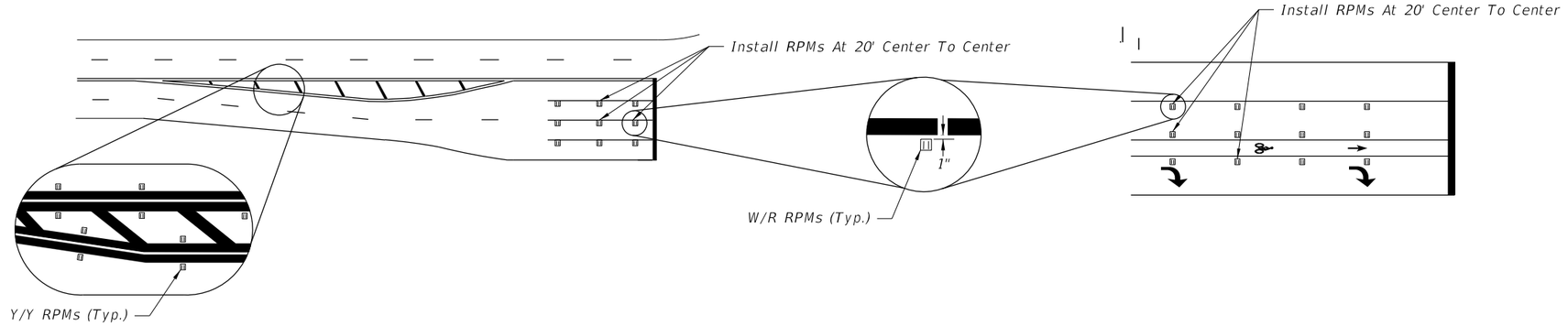
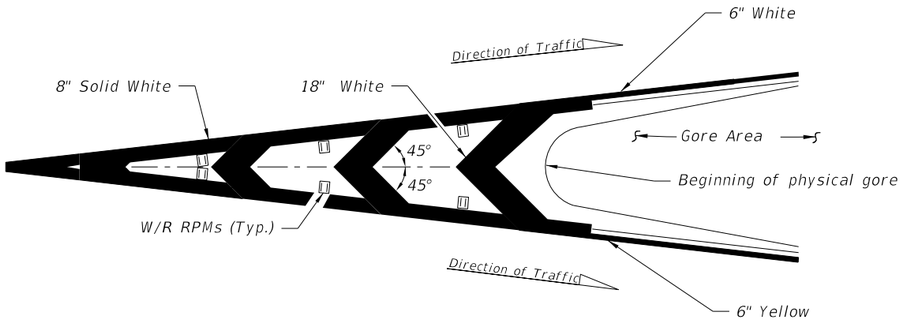
LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/18			FDOT FY 2026-27 STANDARD PLANS	TYPICAL PLACEMENT OF RAISED PAVEMENT MARKERS	706-001	1 of 6



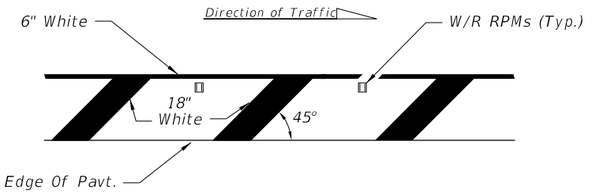
RPM PLACEMENT AT INTERSECTIONS



RPM PLACEMENT AT TRAFFIC CHANNELIZATION AT GORE
(Traffic Flows In Same Direction)

NOTE:

Center the Raised Pavement Markers between chevrons and crosshatching.



Right side of the roadway shown. For the left side of roadway, the pavement marking is yellow and oriented opposite hand.

RPM PLACEMENT AT ROADSIDE CROSSHATCHING

LEGEND:

B/C = BACK OF CURB

EOP = EDGE OF PAVEMENT

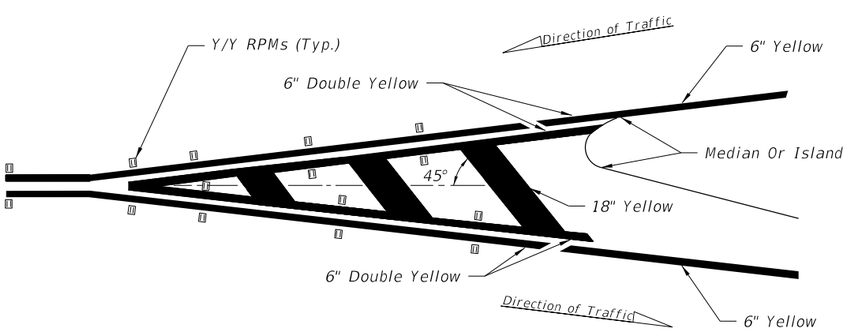
RPM = RAISED PAVEMENT MARKER

W/R = WHITE/RED RPM

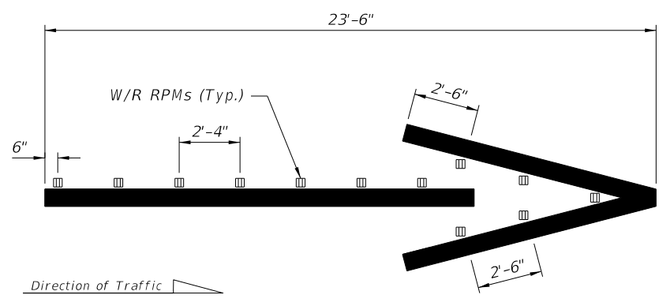
Y/Y = YELLOW/YELLOW RPM

Y/R = YELLOW/RED RPM

MD/Y = MONO-DIRECTIONAL YELLOW RPM



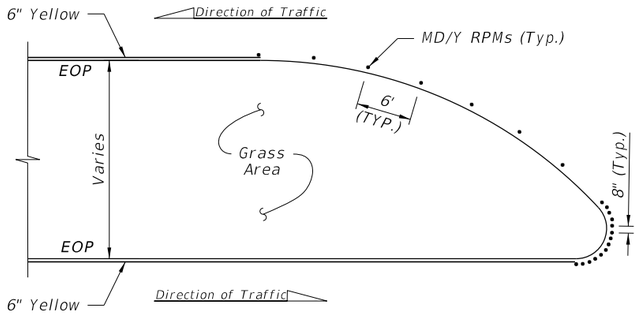
RPM PLACEMENT AT TRAFFIC SEPARATION
(Traffic Flows In Opposite Direction)



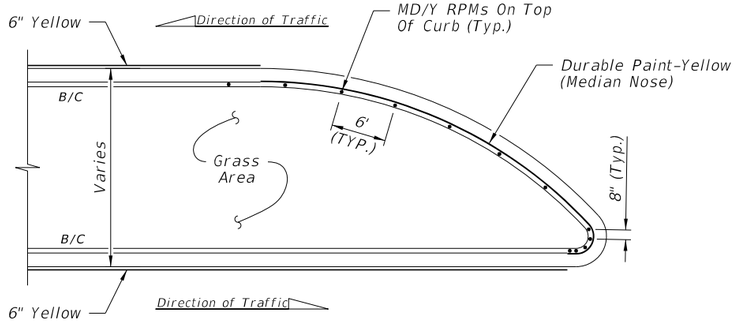
WRONG-WAY ARROW

9/29/2025 10:07:29 AM

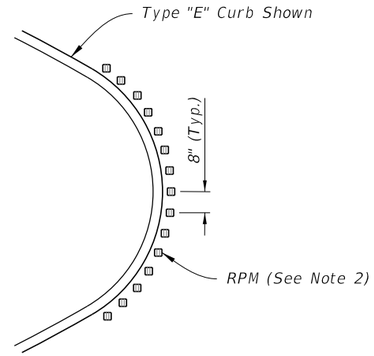
LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/25			FY 2026-27 STANDARD PLANS	TYPICAL PLACEMENT OF RAISED PAVEMENT MARKERS	706-001	2 of 6



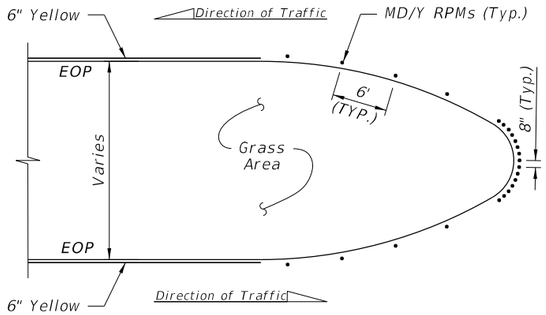
DETAIL "A"



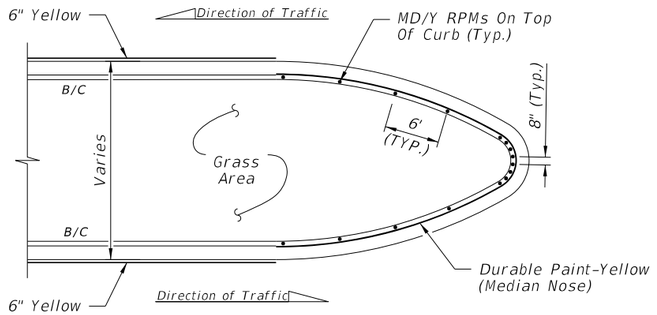
DETAIL "D"



RPM ORIENTATION DETAIL



DETAIL "B'



DETAIL "E"

POSTED SPEED LIMIT MPH	"Y" FEET
30 OR LESS	10
35	20
40	20
45	30
50 OR MORE	40

LEGEND:

B/C = BACK OF CURB

EOP = EDGE OF PAVEMENT

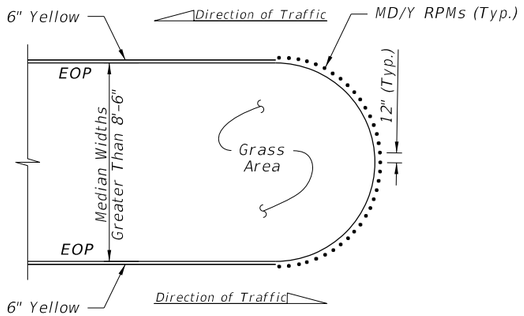
RPM = RAISED PAVEMENT MARKER

W/R = WHITE/RED RPM

Y/Y = YELLOW/YELLOW RPM

Y/R = YELLOW/RED RPM

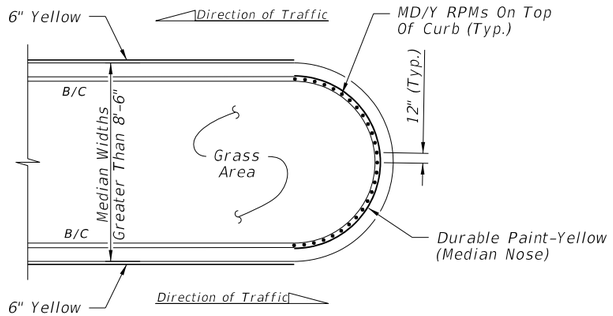
MD/Y = MONO-DIRECTIONAL YELLOW RPM



DETAIL "C"

FLUSH MEDIAN OPENINGS

(Type "E" Curb Similar. See Note 1)



DETAIL "F"

TYPE "D" OR "F" CURB

RPM PLACEMENT AT MEDIAN OPENINGS

(When called for in the Plans)

NOTES:

1. For Type "E" Curb, install RPMs along the pavement edge marking using the same spacing shown.
2. Orient traffic faces of RPMs in curb median radii to be parallel to direction of travel lanes.
3. Use epoxy adhesive to install RPMs on concrete median nose curbs.
4. Install RPMs on clean, unpainted surface. Do not paint curb surface where RPMs will be placed.

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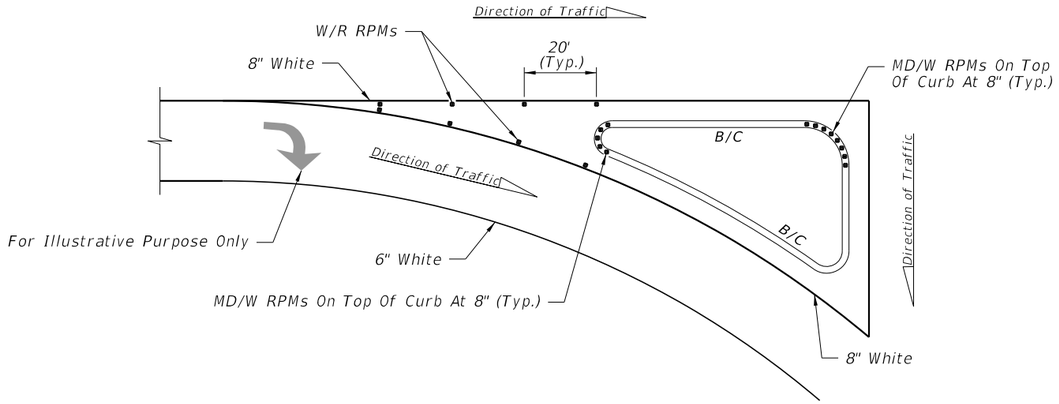
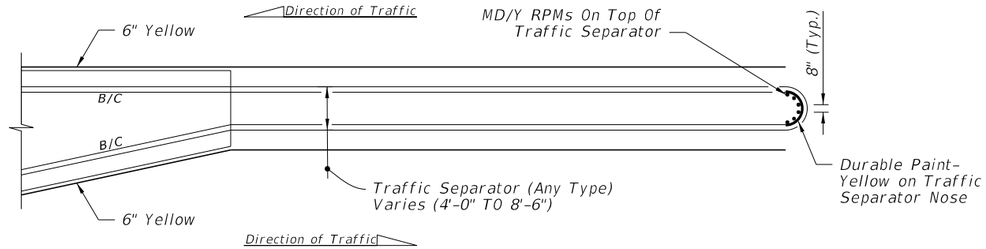
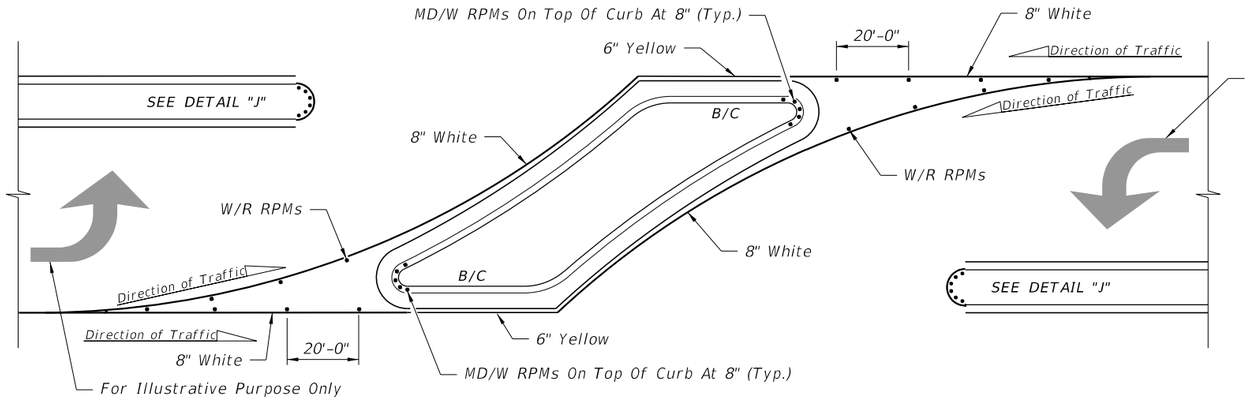
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	TYPICAL PLACEMENT OF RAISED PAVEMENT MARKERS	INDEX	SHEET
11/01/21						706-001	3 of 6



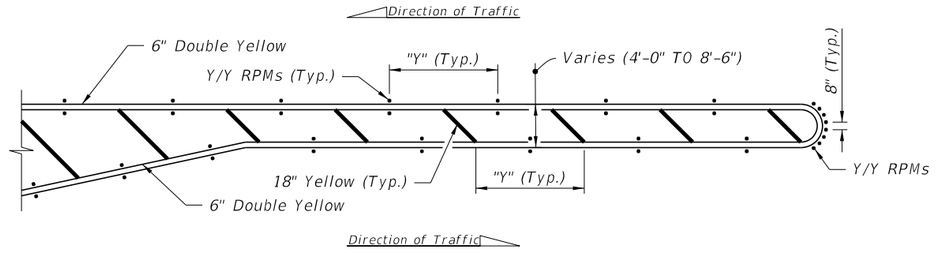
DETAIL "G"



DETAIL "J"



DETAIL "H"



DETAIL "K"

RPM PLACEMENT AT ISLANDS
(When called for in the Plans)

POSTED SPEED LIMIT MPH	"Y" FEET
30 OR LESS	10
35	20
40	20
45	30
50 OR MORE	40

RPM PLACEMENT AT TRAFFIC SEPARATORS
(When called for in the Plans)

NOTES:
1. For Type "E" Curb install RPMs along the pavement edge marking using the same spacing shown.
2. Orient traffic faces of RPMs in median radii to be parallel to direction of travel lanes.

LEGEND:
B/C = BACK OF CURB

EOP = EDGE OF PAVEMENT

RPM = RAISED PAVEMENT MARKER

W/R = WHITE/RED RPM

Y/Y = YELLOW/YELLOW RPM

Y/R = YELLOW/RED RPM

MD/Y = MONO-DIRECTIONAL YELLOW RPM

MD/W = MONO-DIRECTIONAL WHITE RPM

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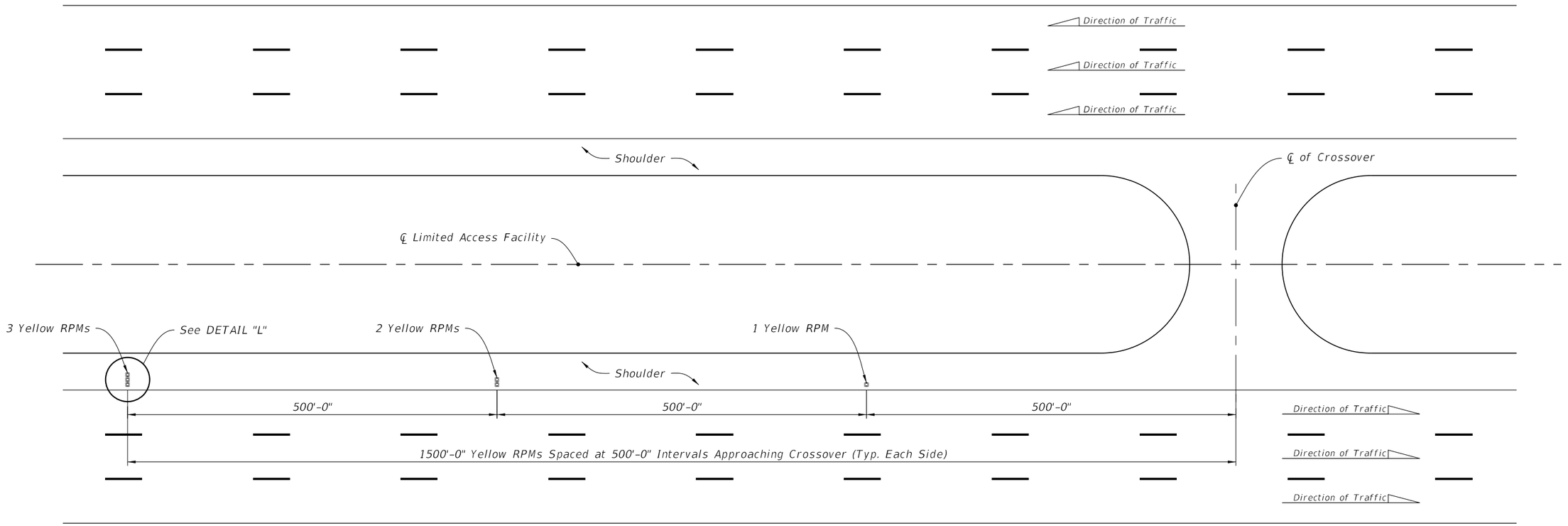
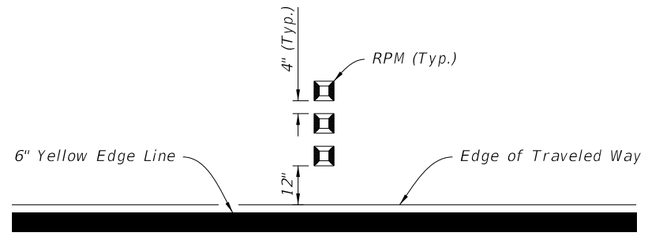
LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	TYPICAL PLACEMENT OF RAISED PAVEMENT MARKERS	INDEX	SHEET
11/01/21					706-001	4 of 6



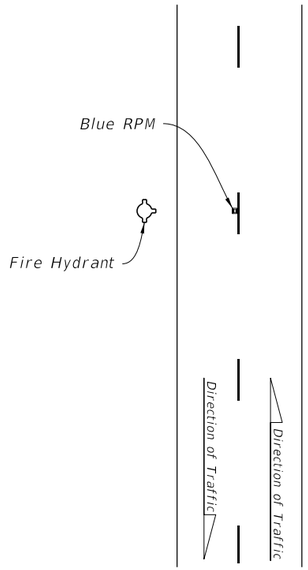
RPM PLACEMENT FOR CROSSOVERS ON LIMITED ACCESS ROADWAYS



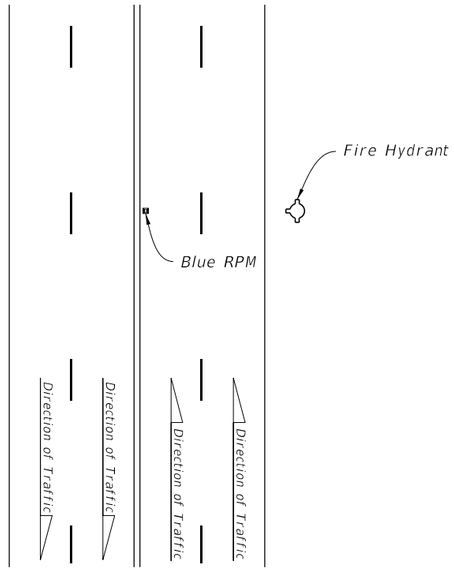
DETAIL "L"

9/29/2025 10:07:51 AM

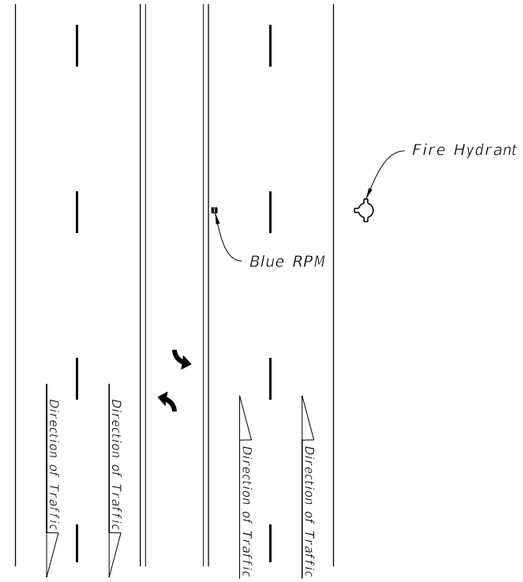
LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/18			FY 2026-27 STANDARD PLANS	TYPICAL PLACEMENT OF RAISED PAVEMENT MARKERS	706-001	5 of 6



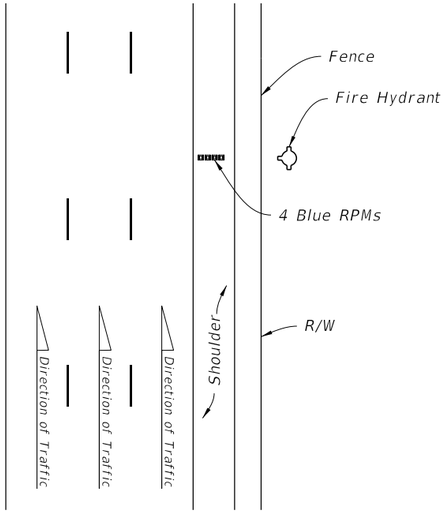
TWO-LANE ROADWAY



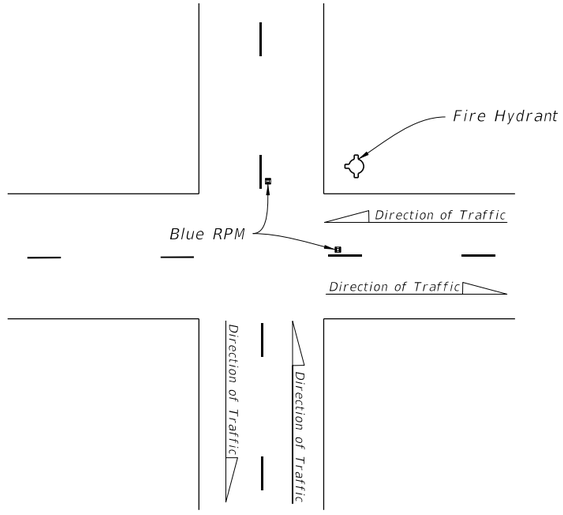
MULTILANE ROADWAY



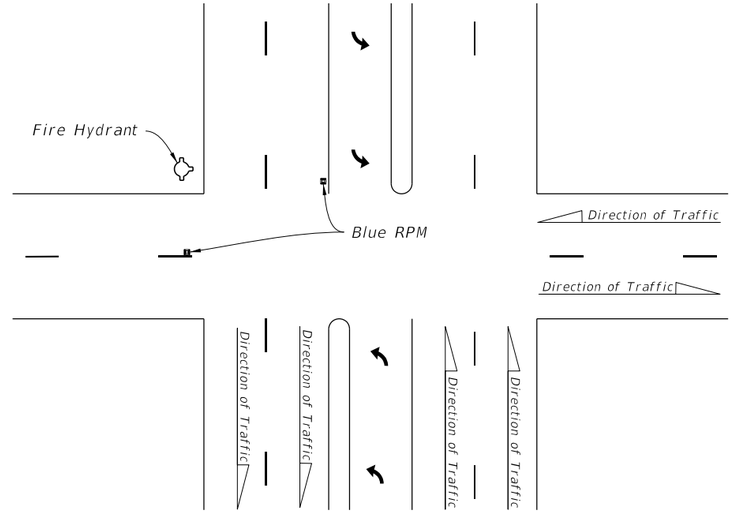
MULTILANE ROADWAY
WITH TURN LANE



LIMITED ACCESS ROADWAY



TWO-LANE ROADWAY
AT INTERSECTION



MULTILANE ROADWAY AT INTERSECTION

BLUE RPM PLACEMENT

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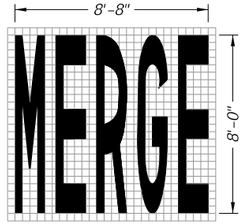
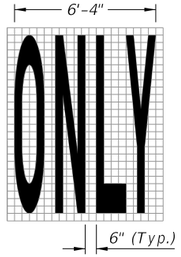
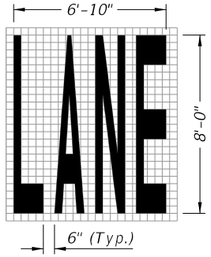
LAST REVISION	REVISION	DESCRIPTION:				
11/01/18			FDOT FY 2026-27 STANDARD PLANS	TYPICAL PLACEMENT OF RAISED PAVEMENT MARKERS	INDEX 706-001	SHEET 6 of 6



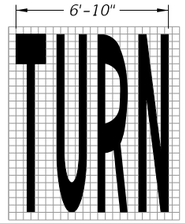
34 S.F.



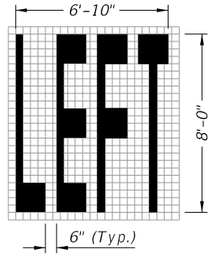
22 S.F.



23 S.F.



24 S.F.



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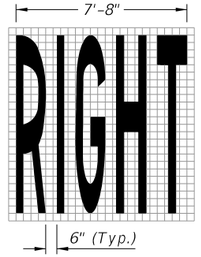
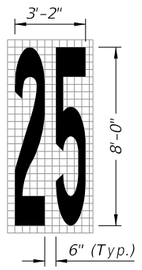


26 S.F.



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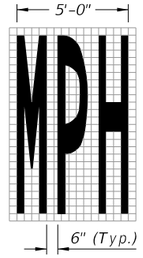

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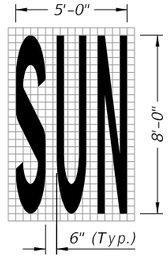

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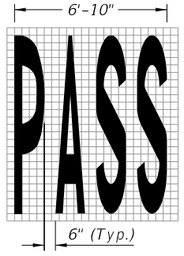
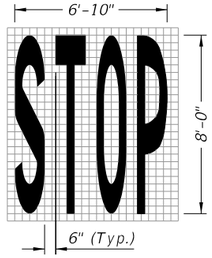
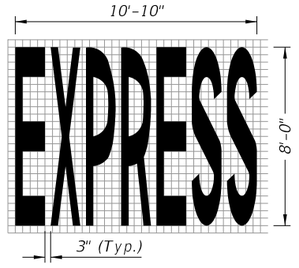


23 S.F.

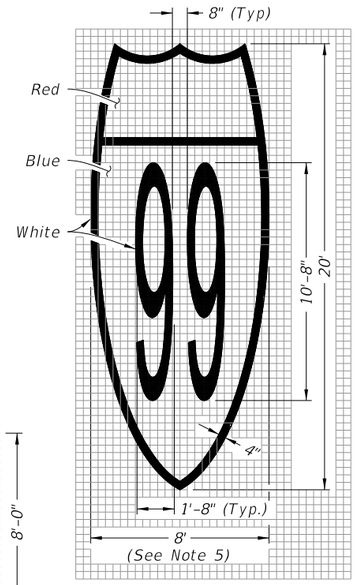


22 S.F.

20 S.F.

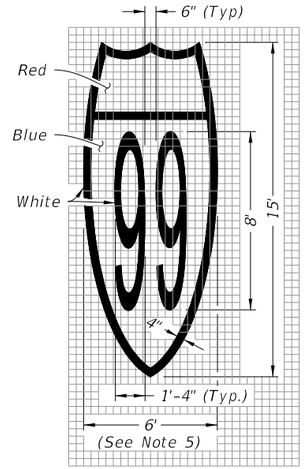


43 S.F.



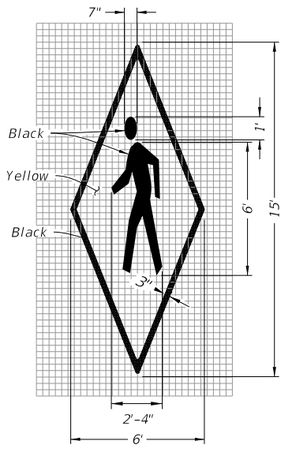
Route Shield for Limited Access Roadways (Interstate Route Shield Shown; U.S. and State Route Shield Similar)

128 S.F.



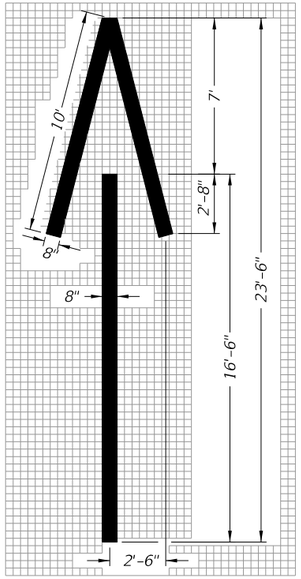
Route Shield for Arterials and Collectors (Interstate Route Shield Shown; U.S. and State Route Shield Similar)

72 S.F.



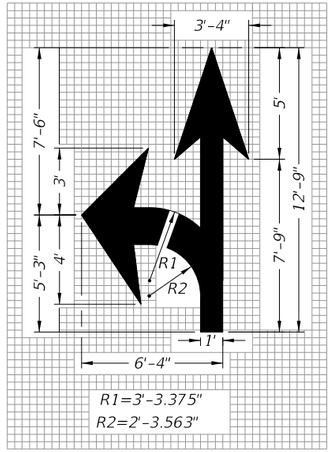
In Pavement Warning Marking

45 S.F.



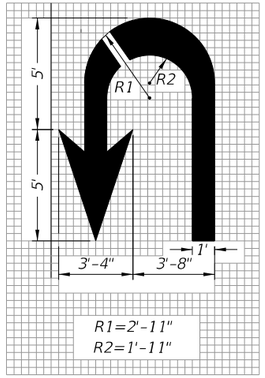
Wrong-Way Arrow

24 S.F.



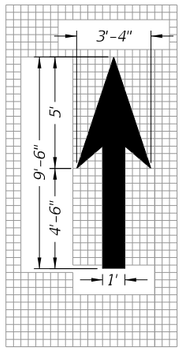
Turn and Through Lane-Use Arrow

29 S.F.



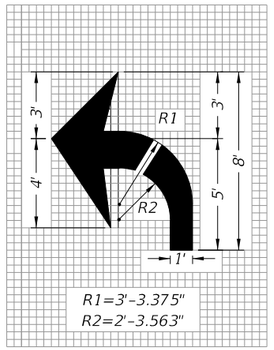
U Turn Lane-Use Arrow

27 S.F.



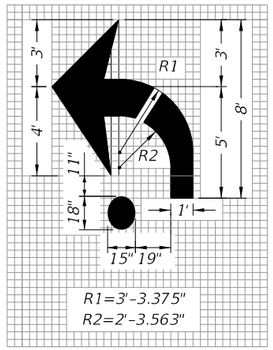
Through Lane-Use Arrow

12 S.F.



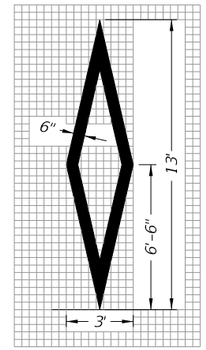
Turn Lane-Use Arrow (Left Turn Shown – Right Turn Similar)

17 S.F.



Roundabout Approach Arrow

19 S.F.



Preferential Lane Symbol

11 S.F.

PAVEMENT MESSAGES NOTES:

1. Place all pavement messages 25' back from the stop line.
2. Dimensions are within 1" ±.
3. All grids are 4" x 4".
4. All pavement messages must be white except Route Shields and In Pavement Warning Markings.
5. Increase width of route shield for routes with three digits.

PAVEMENT MESSAGE AND ARROW DETAILS

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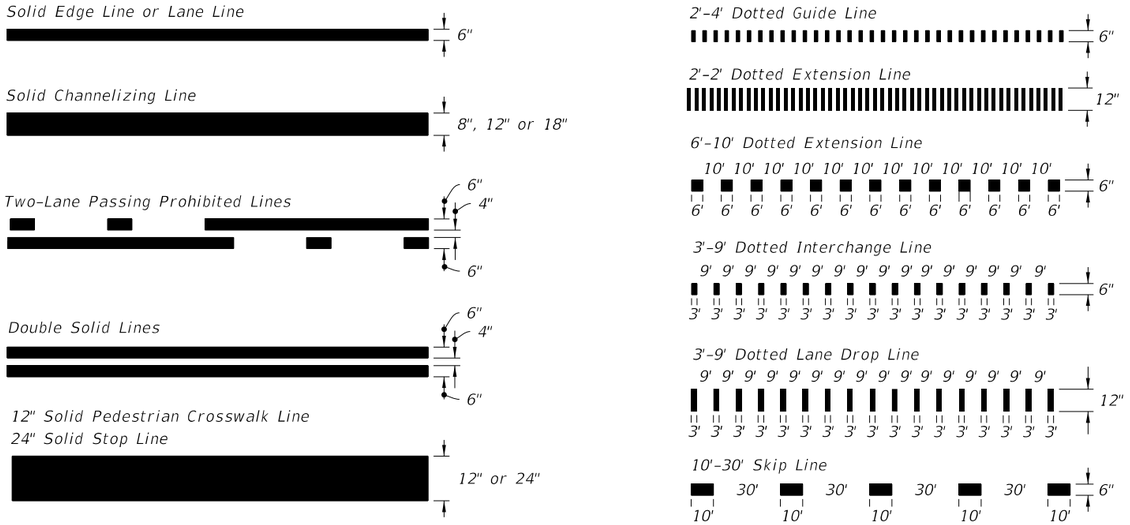
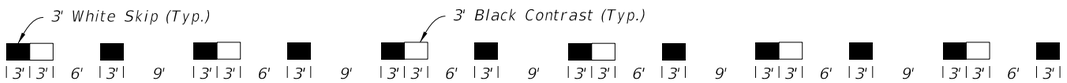


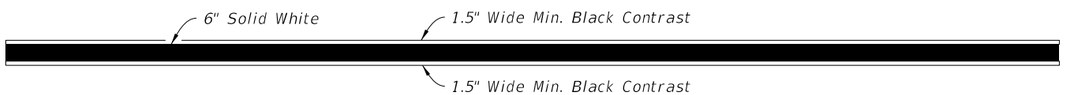
PAVEMENT MARKING LINES

10'-30' SKIP LINE WITH CONTRAST MARKINGS



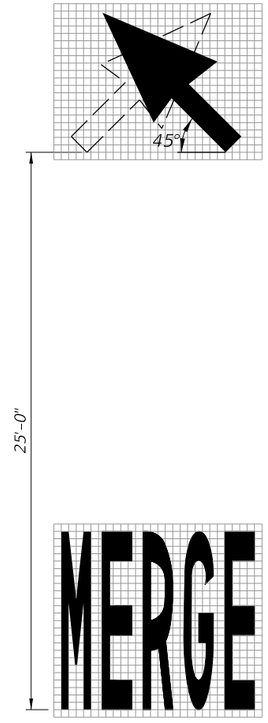
DOTTED LINE WITH ALTERNATING CONTRAST MARKINGS

(3'-9' Dotted Line Shown, Other Dotted Lines Similar)

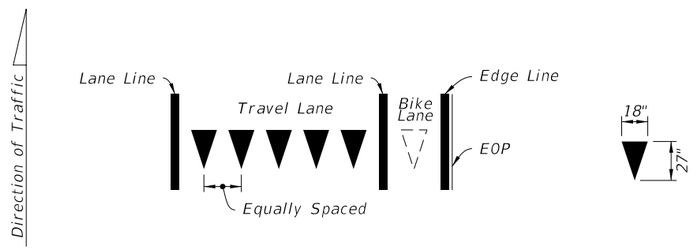


LONGITUDINAL SOLID LANE LINE WITH CONTRAST MARKINGS

(Not For Use On Edge Lines)

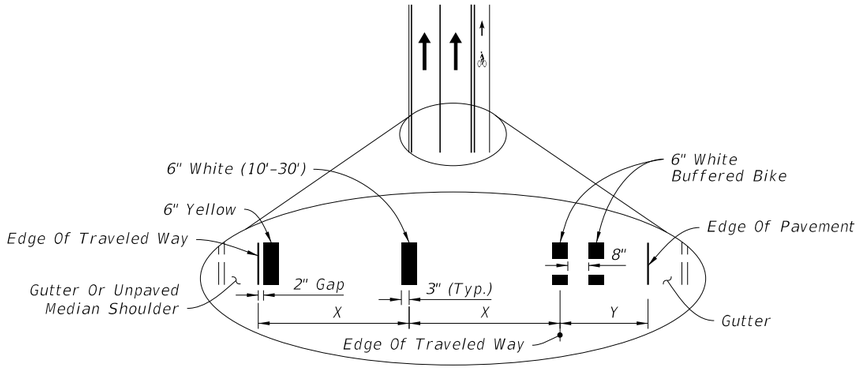


MARKINGS FOR MERGE

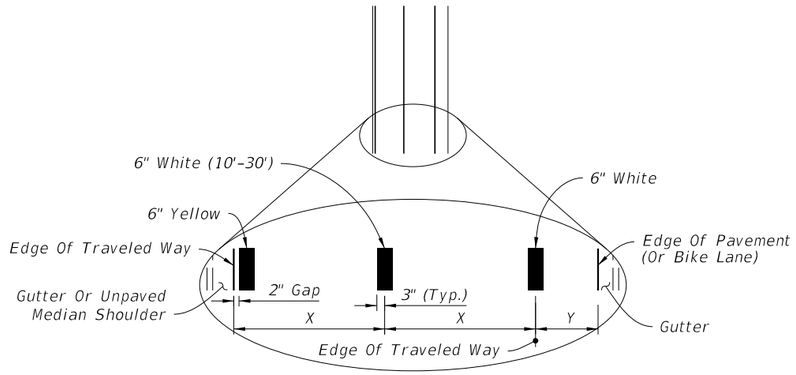


Yield Lines consist of five – 18" X 27" white triangles which face traffic. Equally space triangles within traffic lane. When a bike lane is present, add one additional triangle in the center of the bike lane.

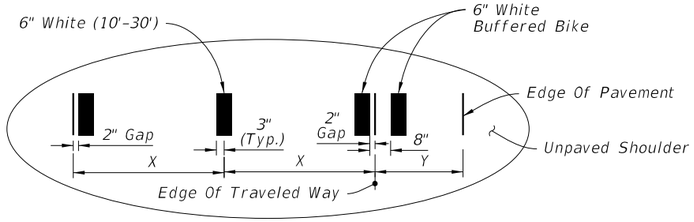
YIELD LINES



CURB AND GUTTER



CURB AND GUTTER

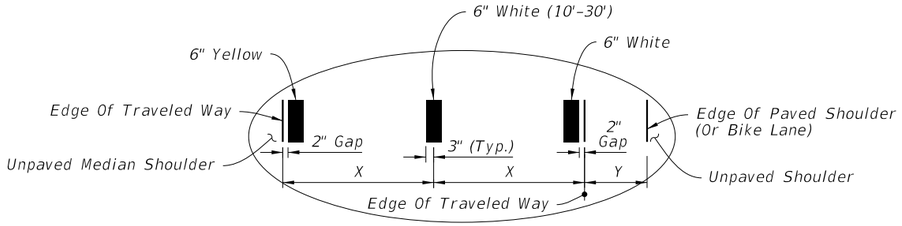


FLUSH SHOULDER

X = LANE WIDTH (FT.)

Y = BUFFERED BIKE LANE WIDTH (FT.)

STRIPING FOR BUFFERED BIKE LANE

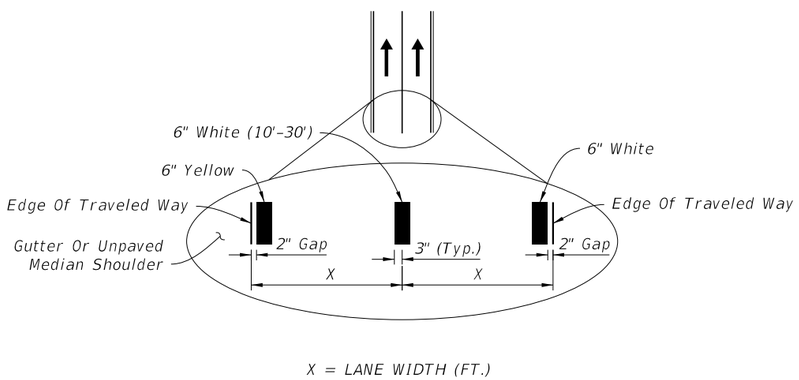


FLUSH SHOULDER

X = LANE WIDTH (FT.)

Y = PAVED SHOULDER / BIKE LANE

STRIPING WITH SHOULDER OR NON-BUFFERED BIKE LANE



X = LANE WIDTH (FT.)

STRIPING WITH NO SHOULDER OR BIKE LANE

NOTES:

1. Lane widths (X) may not be same for each lane in the section.
2. For placement of RPMs, see Index 706-001.

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

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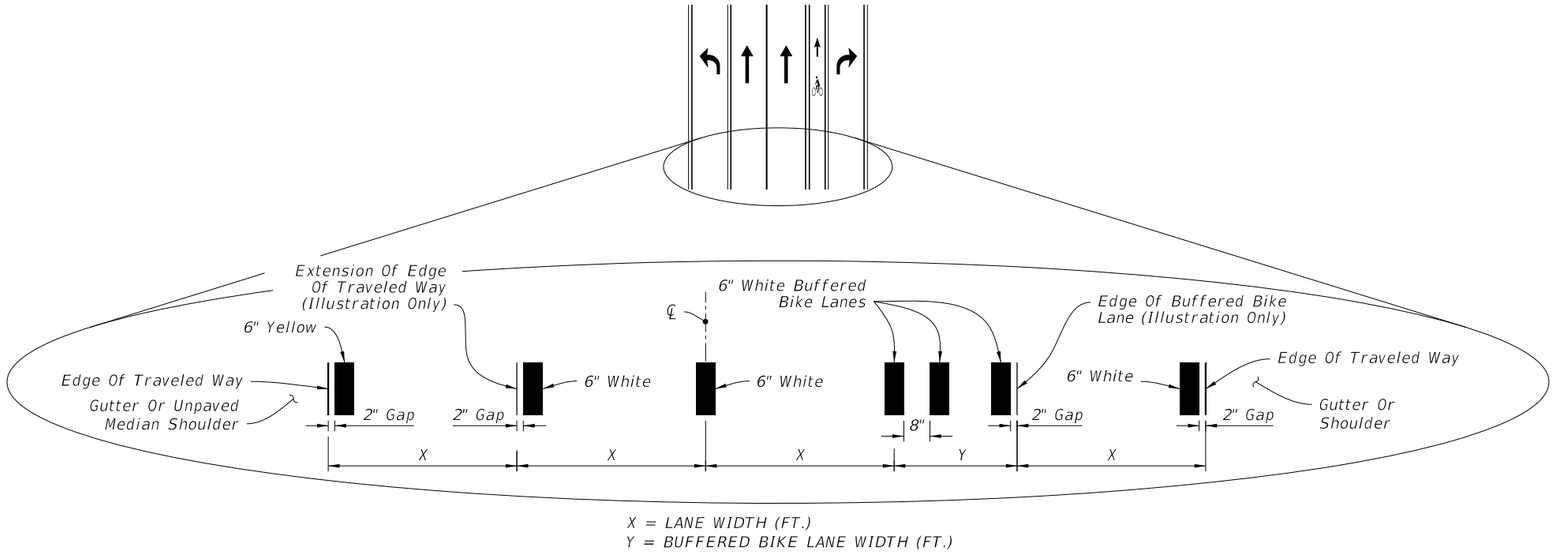
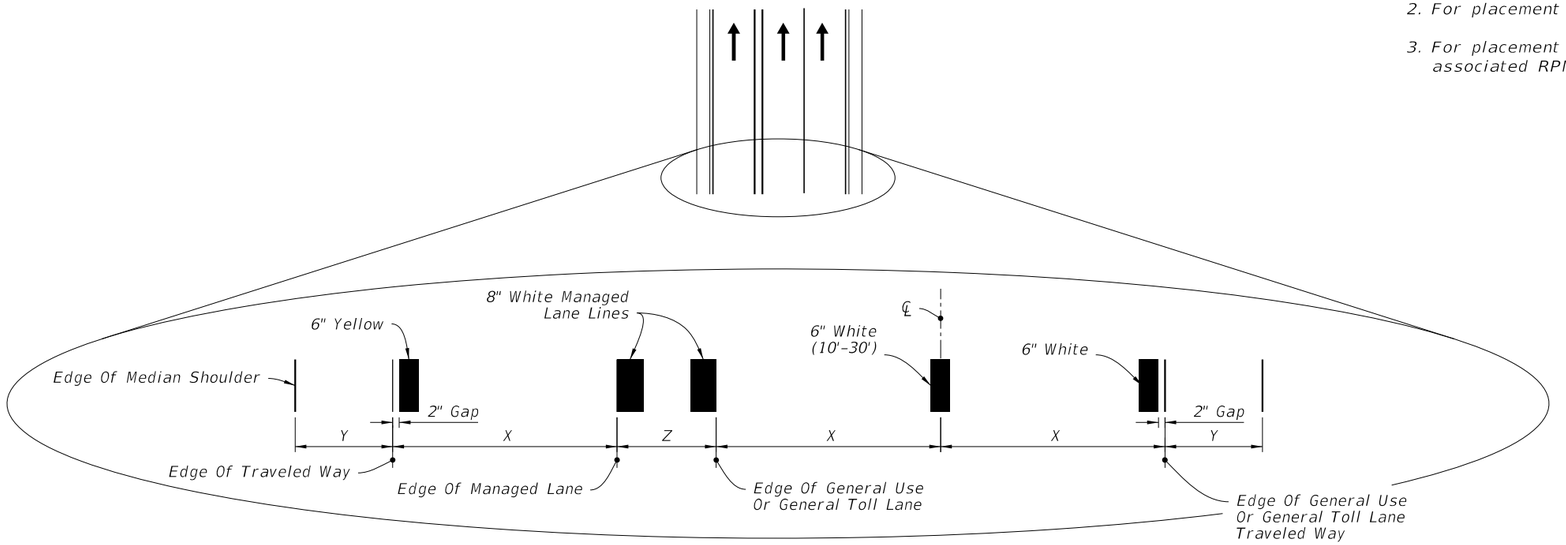


X = LANE WIDTH (FT.)
Y = BUFFERED BIKE LANE WIDTH (FT.)

INTERSECTION APPROACH STRIPING WITH TURN LANES AND BUFFERED BIKE LANE KEY HOLE



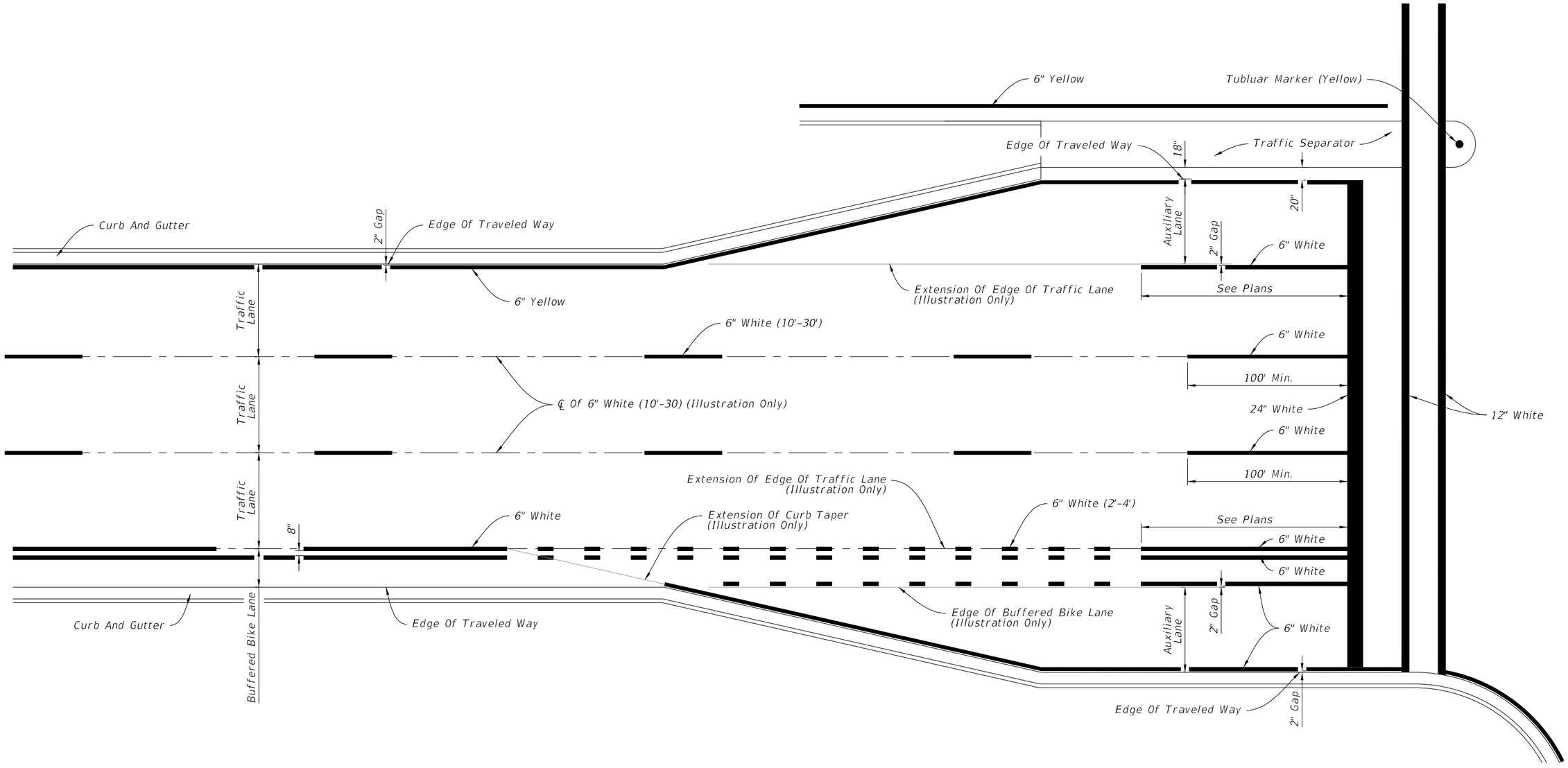
X = LANE WIDTH (FT.)
Y = PAVED SHOULDER
Z = MANAGED LANE SEPARATION

MANAGED LANE STRIPING

NOTES:

1. Lane widths (X) may not be same for each lane in the section.
2. For placement of RPMs, see Index 706-001.
3. For placement of tubular markers and associated RPMs, see the Plans.

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS



CURB AND GUTTER SHOWN

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

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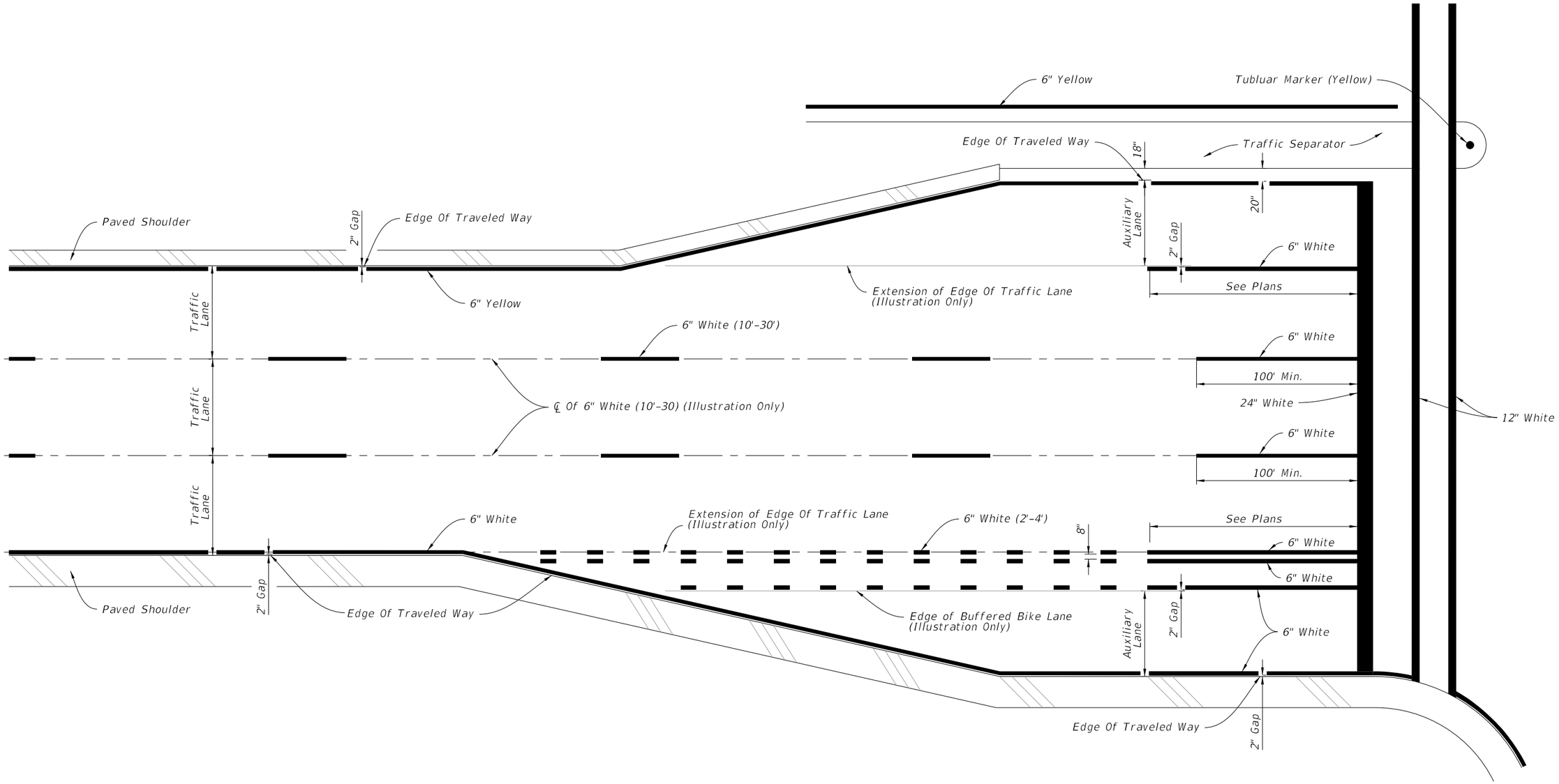

FLUSH SHOULDER SHOWN

PLACEMENT OF LONGITUDINAL PAVEMENT MARKINGS

LAST REVISION	REVISION	DESCRIPTION:				
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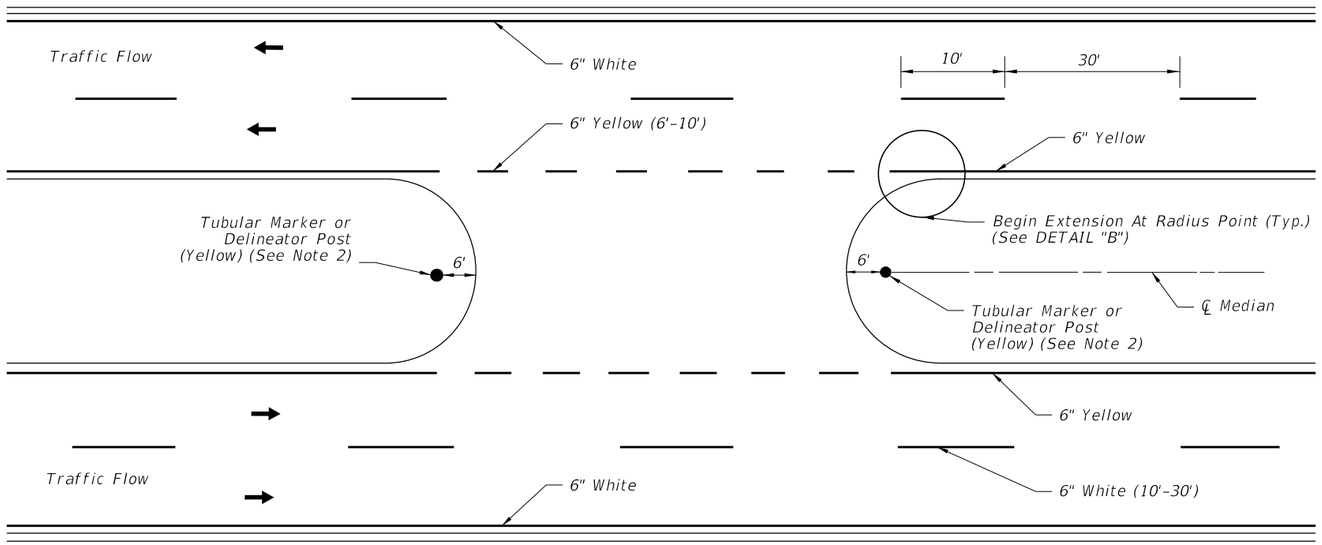
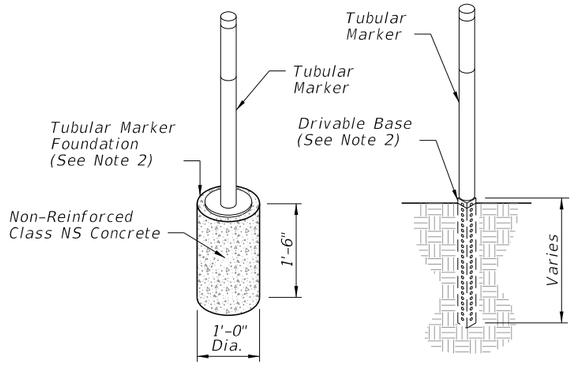
9/29/2025 10:08:42 AM



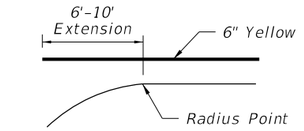
PAVEMENT MARKINGS AND DELINEATORS FOR MEDIAN CROSSOVER



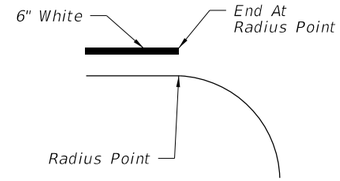
Non-Paved Surface Foundation

Drivable Base

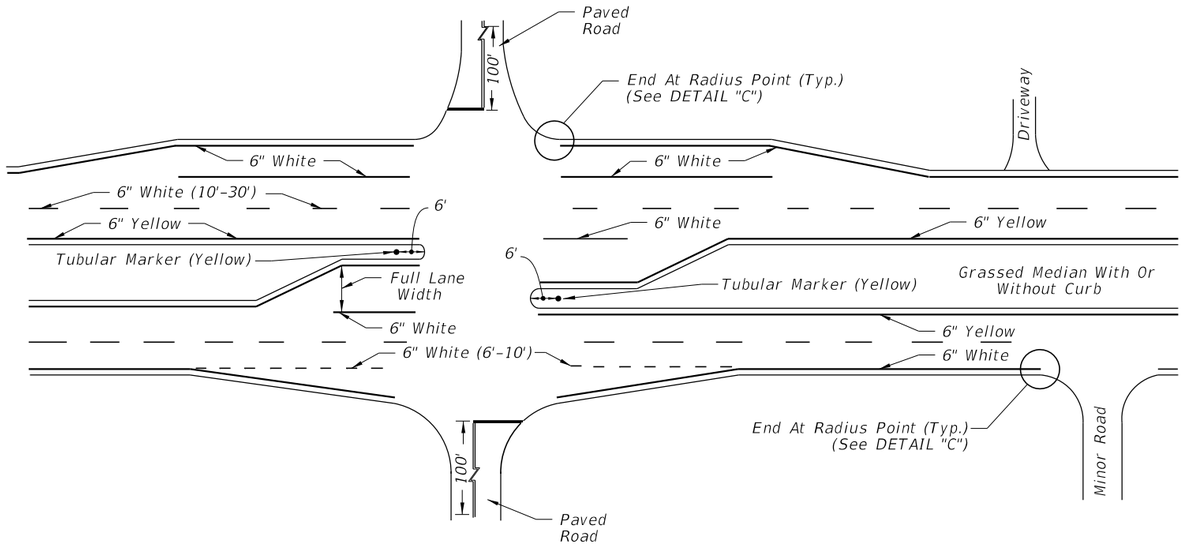
DETAIL "A"

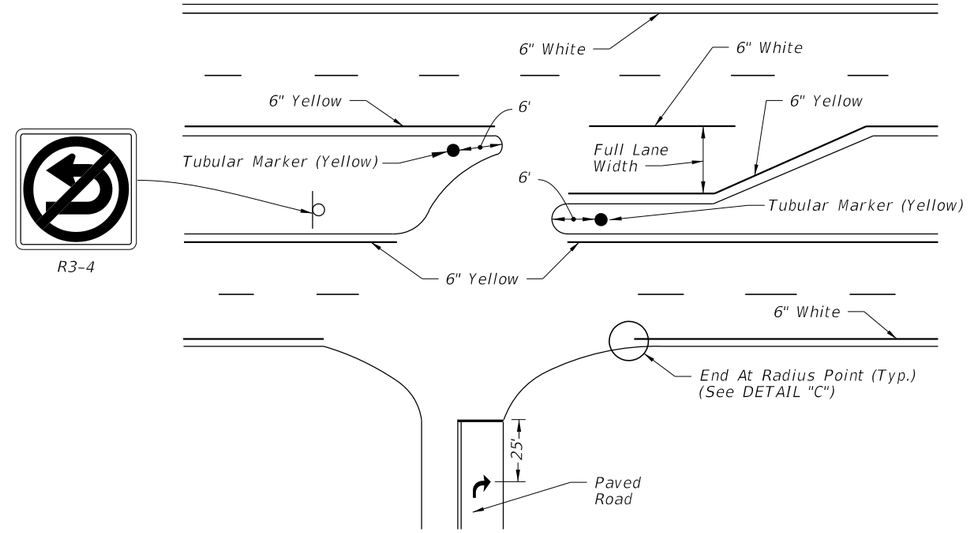


DETAIL "B"



DETAIL "C"





NOTES:

1. Apply yellow retroreflective durable paint to the noses of curbed medians, traffic separators, and raised islands; When applying yellow retroreflective paint in conjunction with Raised Pavement Markers, see Index 706-001.
2. Options for grassed medians:
   A. Option 1: Tubular Marker (Yellow). Attach Tubular Marker according to manufacturer's instructions. For grassed medians without a suitable mounting surface, use either a drivable base type, or provide a Non-Paved Surface Foundation (See Detail "A"). Install Non-Paved Surface Foundation flush with the surrounding ground surface.
   B. Option 2: Delineator Post. Use yellow retroreflective sheeting on both sides of the delineator. Install the post so that the top is 4'-0" above the grade at the edge of the pavement.
3. Extend double yellow centerlines 100' back from intersection on all approaches or 50' for unmarked cross roads.

PAVEMENT MARKINGS FOR INTERSECTIONS WITH MAJOR AND MINOR ROADS

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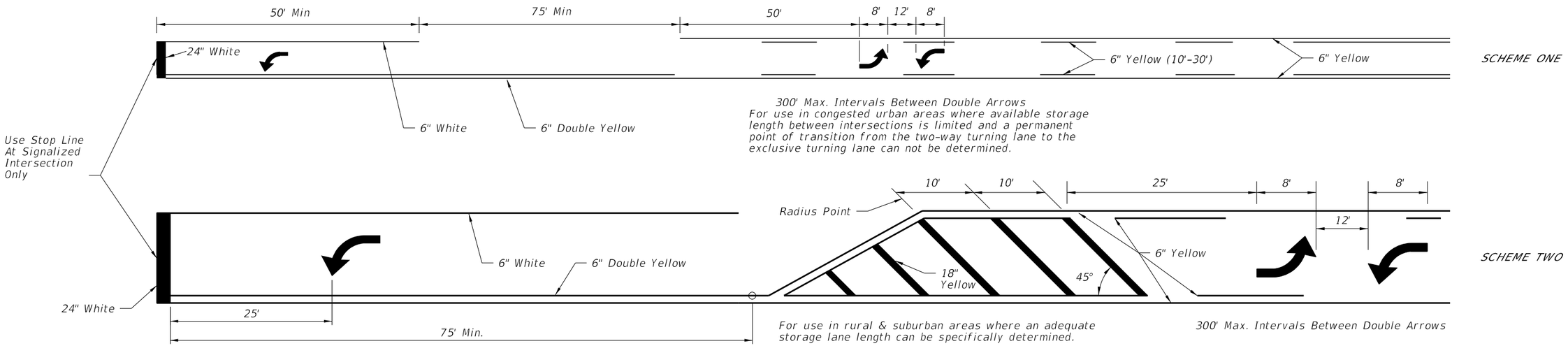
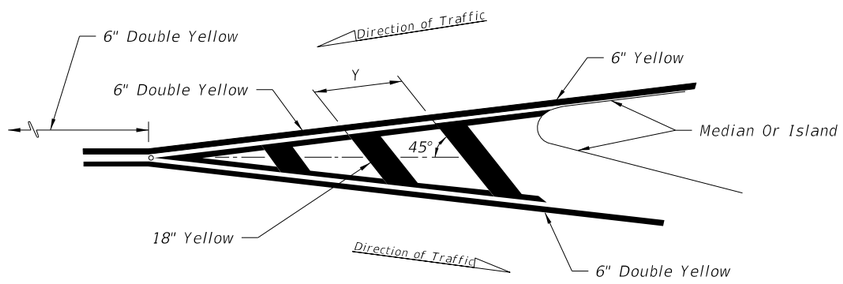
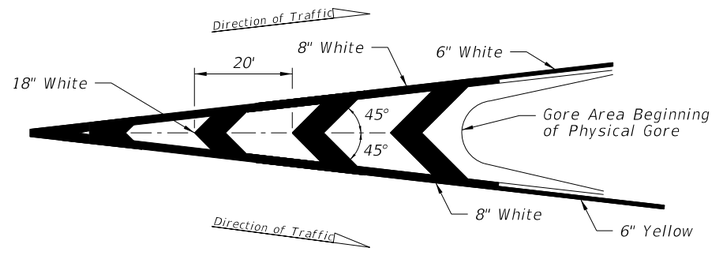


TWO WAY LEFT TURN LANE
(With Single Lane Left Turn Channelization)

POSTED SPEED LIMIT MPH	"Y" (FT.)
30 OR LESS	10
35	20
40	20
45	30
50 OR MORE	40



MARKINGS FOR TRAFFIC SEPARATION



TRAFFIC CHANNELIZATION AT GORE

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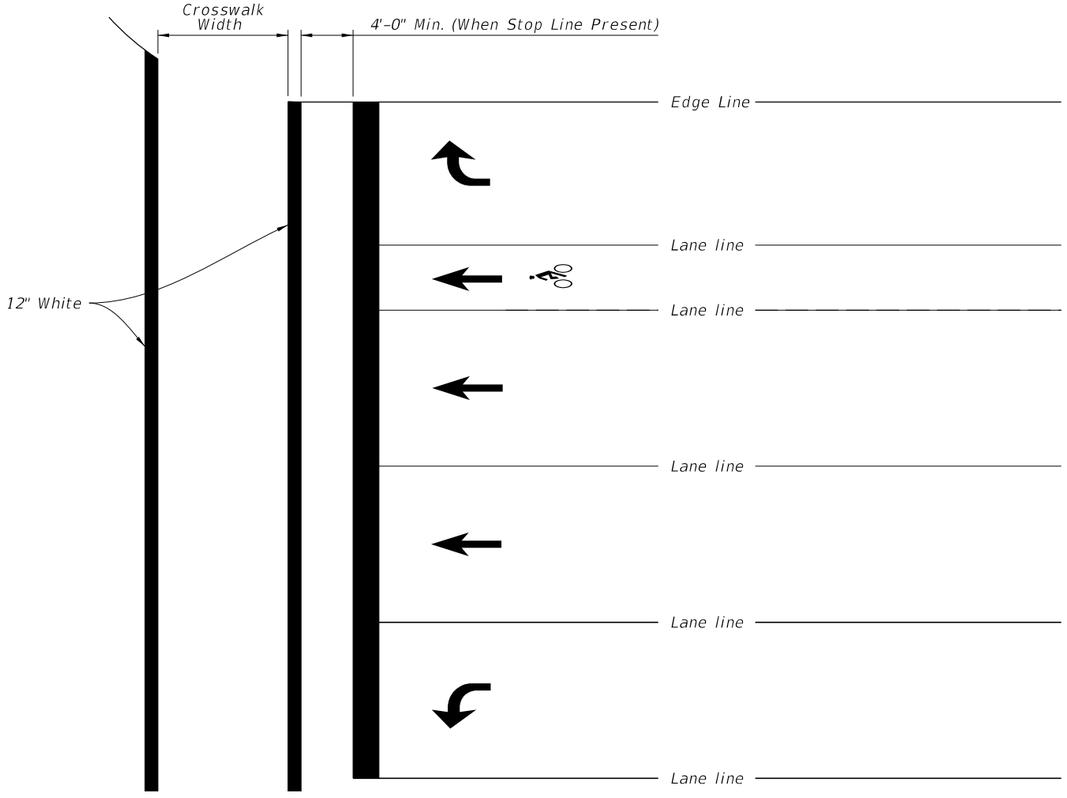
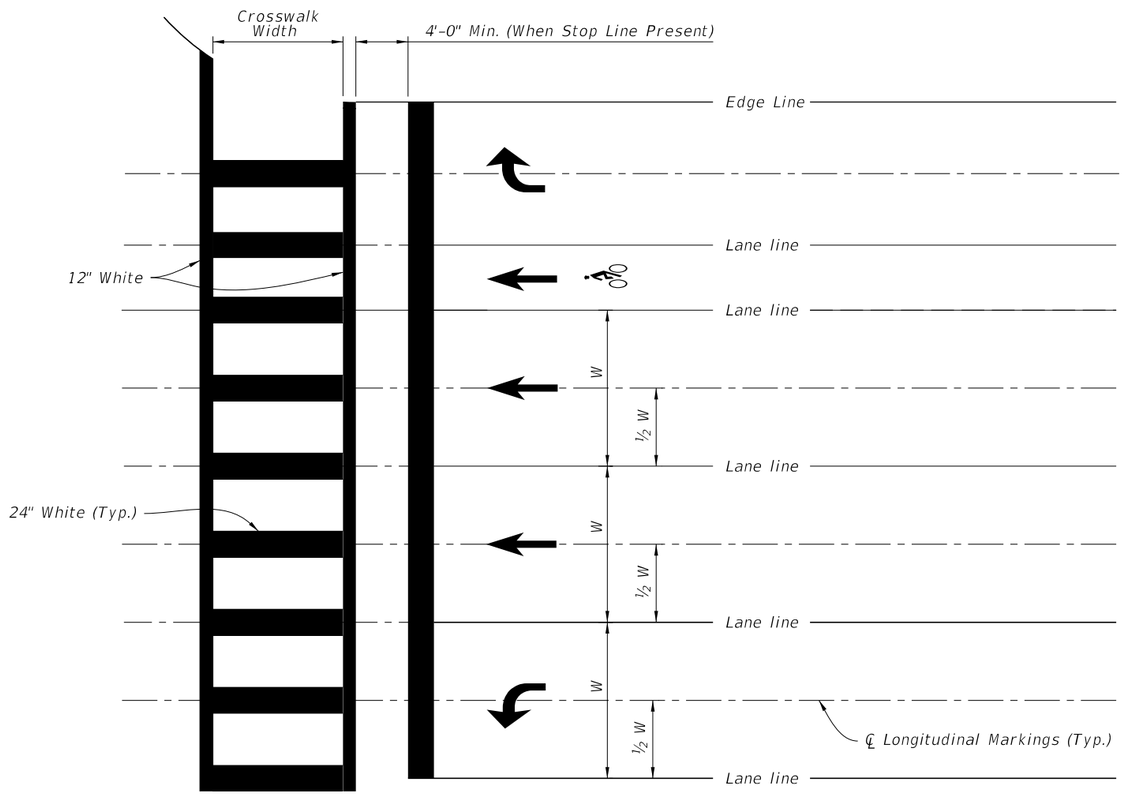


STANDARD CROSSWALK DETAILS



SPECIAL EMPHASIS CROSSWALK DETAILS

NOTES:

1. For crosswalk width, exceed width of the adjacent sidewalk, but do not make width less than 6' for intersection crosswalks and 10' for midblock crosswalks. Measure width from the inside of the transverse crosswalk markings.

2. When the Special Emphasis Crosswalk is not perpendicular to the lane lines, make the longitudinal markings parallel to the lane lines.

3. Refer to Index 522-002 when Curb Ramps are present.

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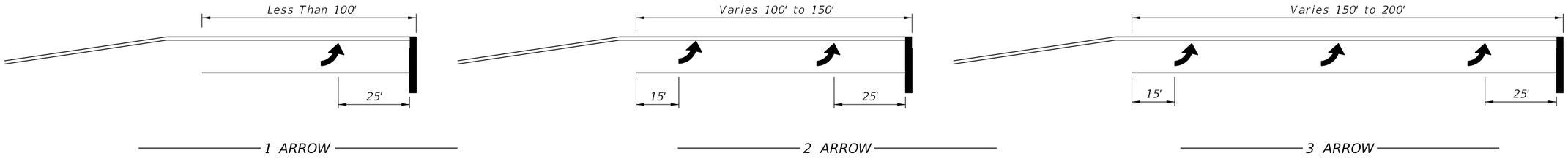
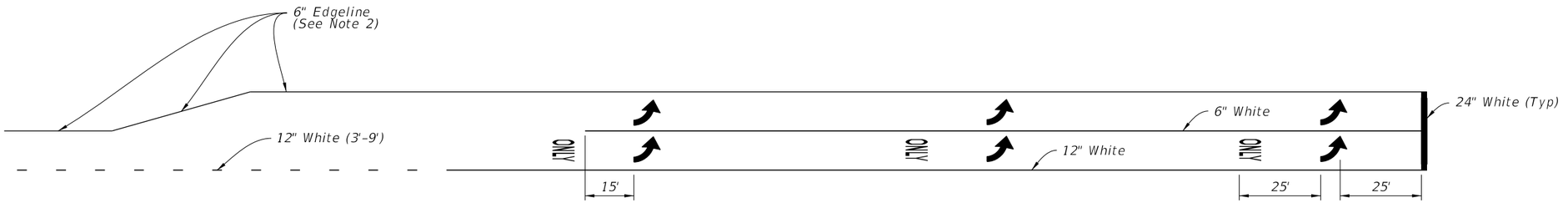


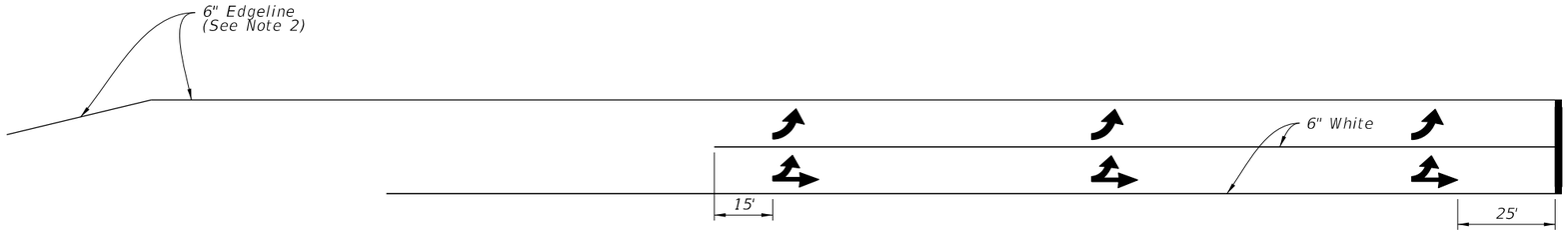
1 ARROW — 2 ARROW — 3 ARROW

Arrow should be evenly spaced between first and last arrow. Turn lanes longer than 200' add one arrow for each 100' additional length.

ARROW SPACING



Through Lane Becomes Exclusive Left Turn (Drop Lane)



Through Lane Becomes Optional Left Turn

TURNS LANE MARKINGS

NOTES:

1. This Index also applies to right turn lanes.
2. Make Edgeline pavement markings yellow for left-turn lanes and white for right-turn lanes.

ARROW SPACING AND TURN LANE MARKINGS

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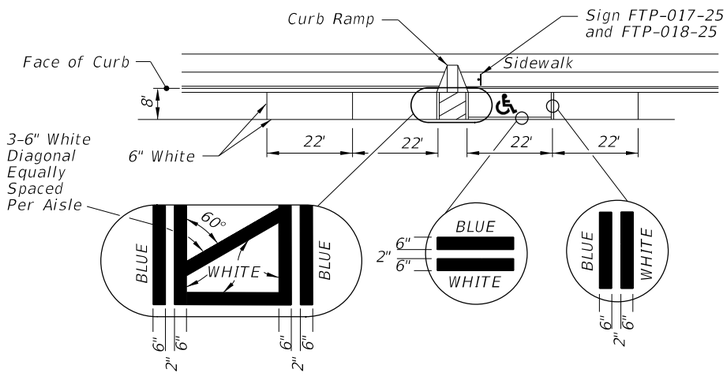
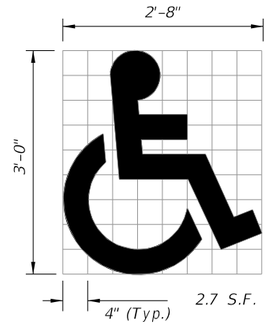
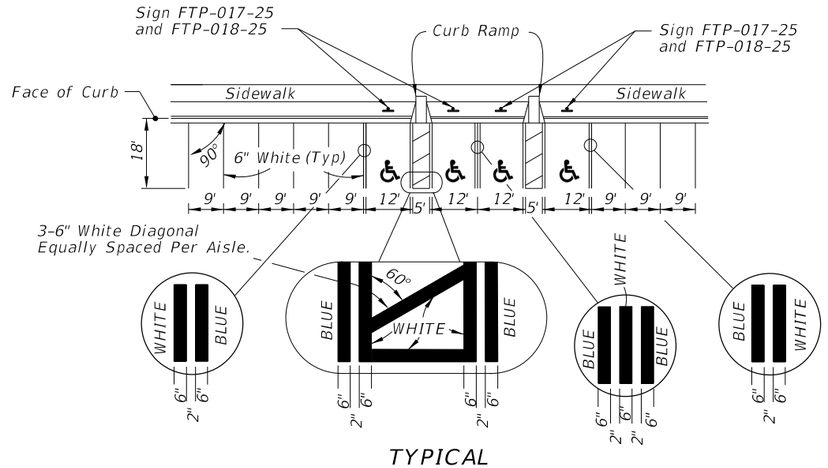
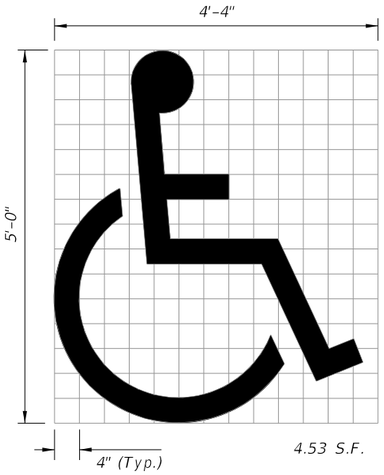




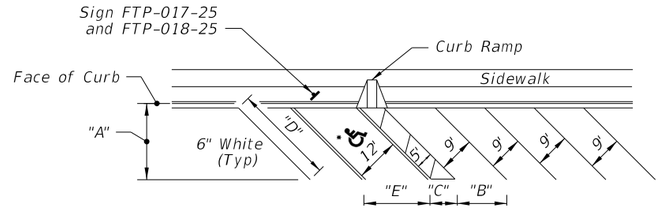


TYPICAL

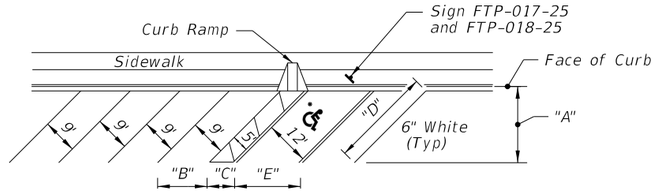


(See Note 5)

UNIVERSAL SYMBOL OF ACCESSIBILITY



FORWARD-IN PARKING



REVERSE-IN PARKING

*FOR ACCESSIBLE MARKINGS - SEE ABOVE

DIMENSIONS					
∠ θ	"A"	"B"	"C"	"D"	"E"
45°	17'-0"	12'-9"	7'-0"	24'-0"	17'-0"

PAVEMENT MARKING FOR PARKING

NOTES:

1. Dimensions are to the centerline of markings.
2. An Access Aisle is required for each accessible space when angle parking is used.
3. Criteria for pavement markings only, not public sidewalk curb ramp locations. For ramp locations refer to plans.
4. Mount FTP-018-25 sign below the FTP-017-25 sign.
5. Use of the pavement symbol in accessible parking spaces is optional. When pavement symbol is used, the symbol is either 3'-0" or 5'-0" high and white in color.

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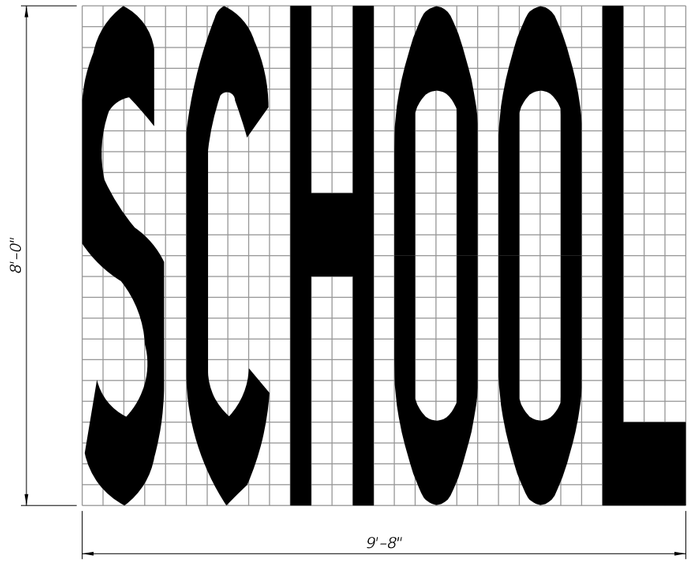
PAVEMENT MARKINGS

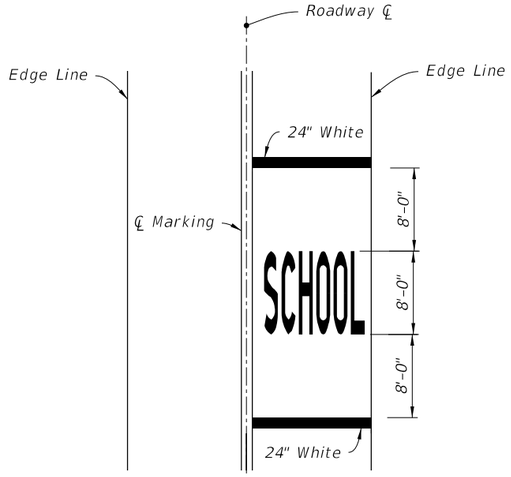
33 S.F.



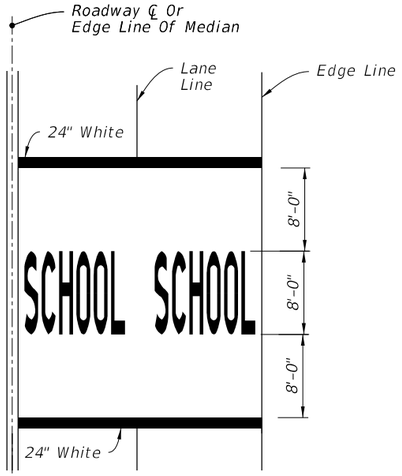
SCHOOL PAVEMENT MARKING

NOTES:

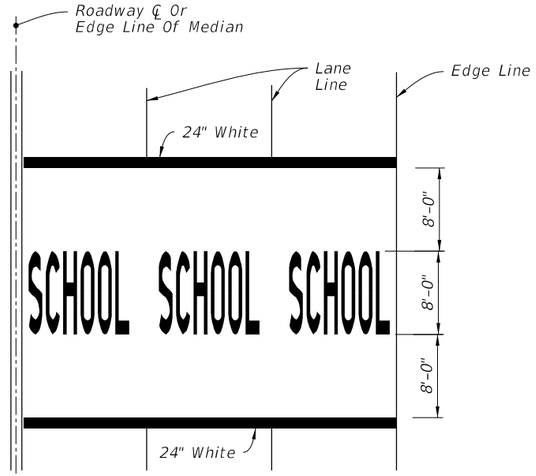
1. All grids are 4" x 4".
2. Pavement Marking Should Not Extend Into Opposing Lane.
3. Center School Pavement Marking in lane.



SINGLE-LANE APPROACH



TWO-LANE APPROACH



MULTI-LANE APPROACH
(Three or More)

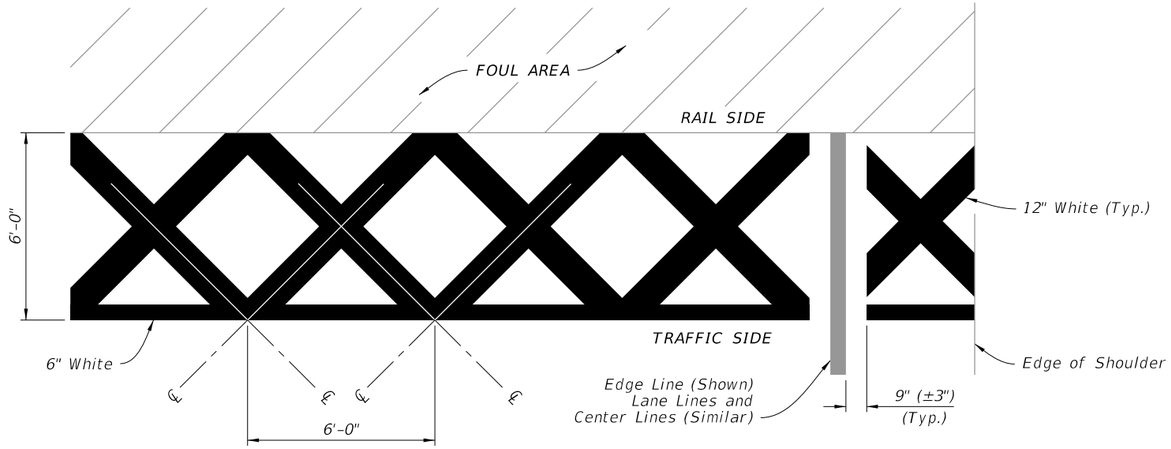
MARKINGS FOR SCHOOL ZONES

10:09:26 AM

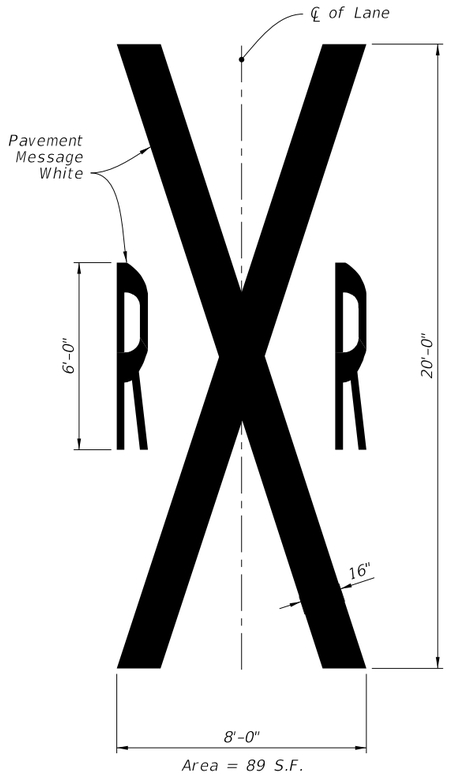
9/29/2025

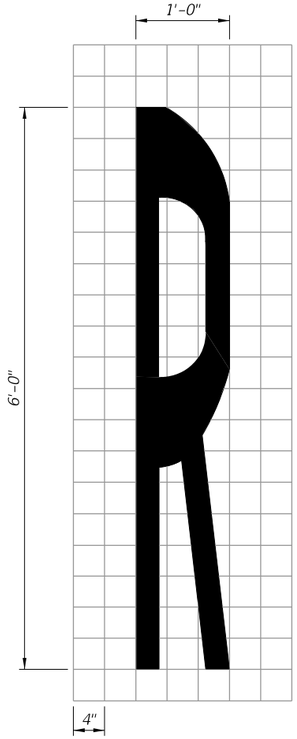
NOTE:

Orient Railroad Dynamic Envelope Marking as shown in the Plans.



RAILROAD DYNAMIC ENVELOPE (RDE) PAVEMENT MARKING DETAIL



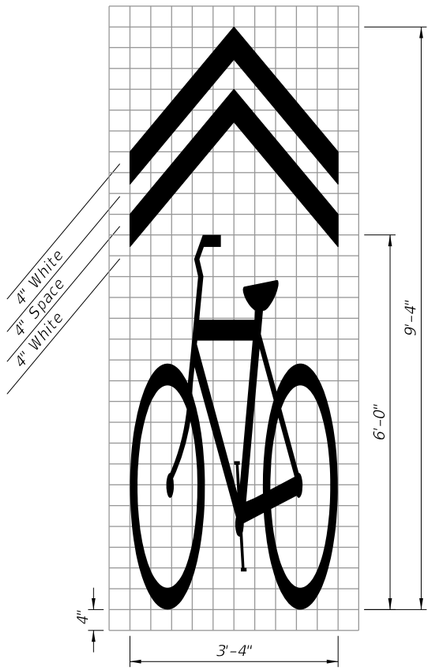


RAILROAD CROSSING PAVEMENT MESSAGE

9/29/2025 10:09:33 AM

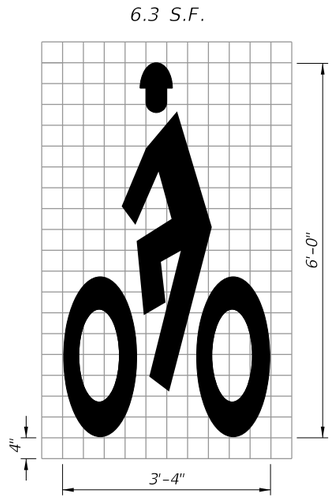
LAST REVISION	REVISION	DESCRIPTION:				
11/01/21			FDOT FY 2026-27 STANDARD PLANS	PAVEMENT MARKINGS	INDEX 711-001	SHEET 13 of 13

8.1 S.F.



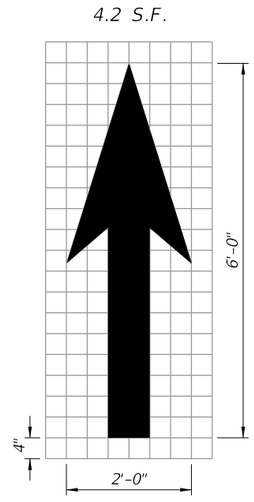
SHARED LANE MARKING (SLM)

6.3 S.F.



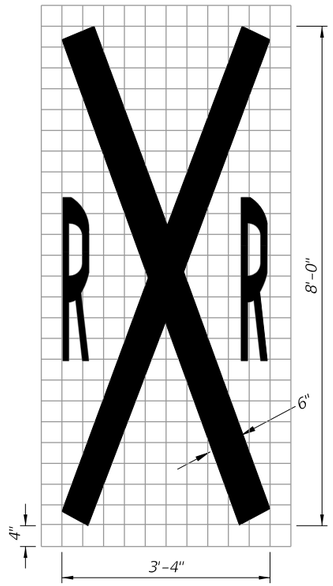
HELMETED BICYCLIST SYMBOL

4.2 S.F.



BIKE LANE ARROW

9.0 S.F.



RAILROAD CROSSING

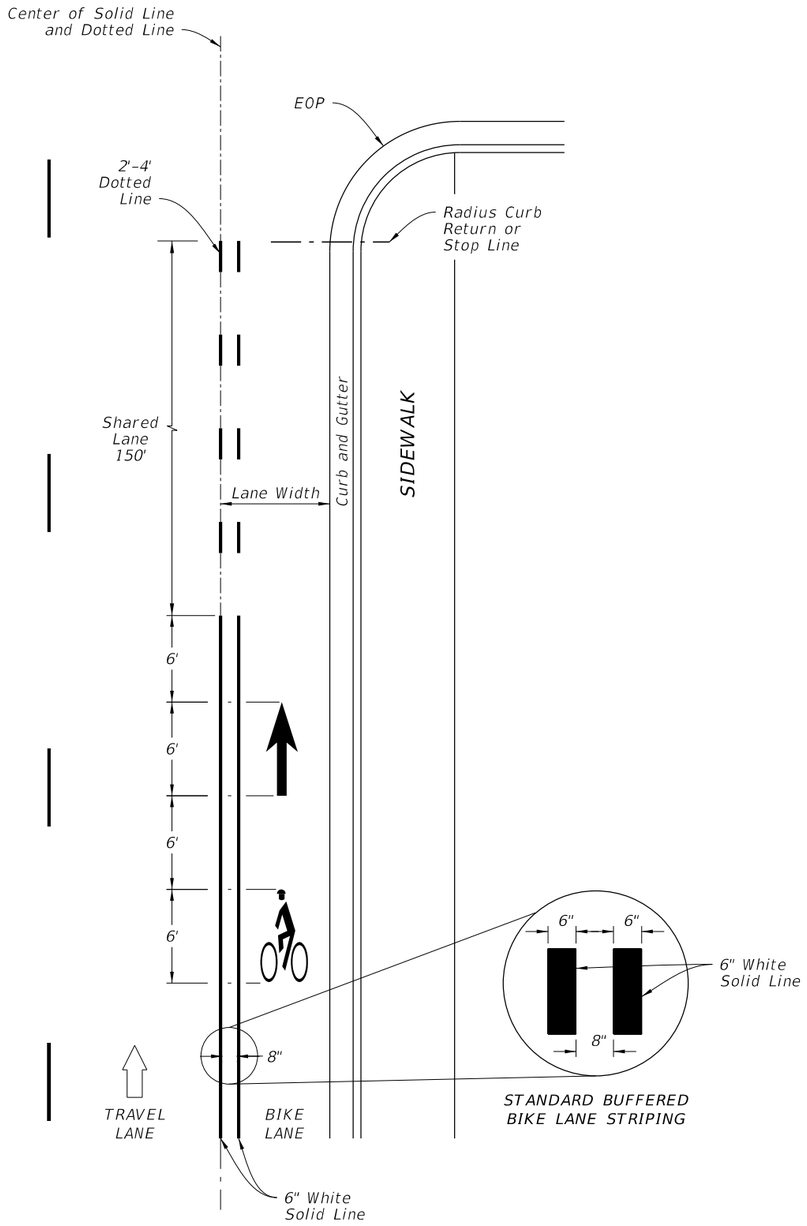
NOTES:

1. All bicycle markings and pavement messages shall be White.
2. All bicycle markings shall be preformed thermoplastic.
3. All grids are 4" x 4".

STANDARD PAVEMENT MARKING MESSAGE LAYOUTS

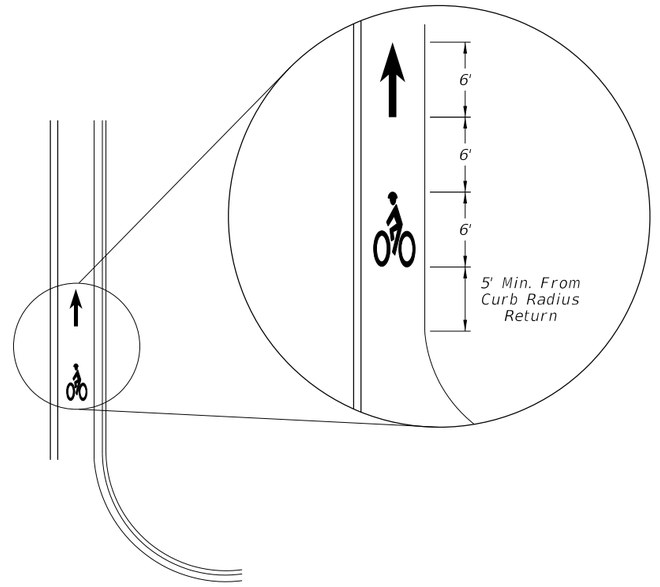
9/29/2025 10:09:40 AM

LAST REVISION	REVISION	DESCRIPTION:				
11/01/17			FDOT FY 2026-27 STANDARD PLANS	BICYCLE MARKINGS	INDEX 711-002	SHEET 1 of 2



STANDARD BUFFERED
BIKE LANE STRIPING

APPROACH TO INTERSECTIONS DETAILS

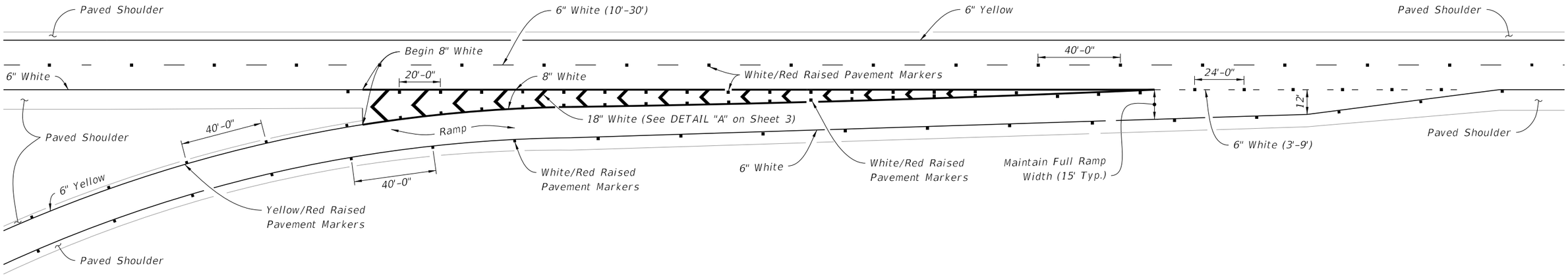


FAR SIDE OF INTERSECTION DETAIL

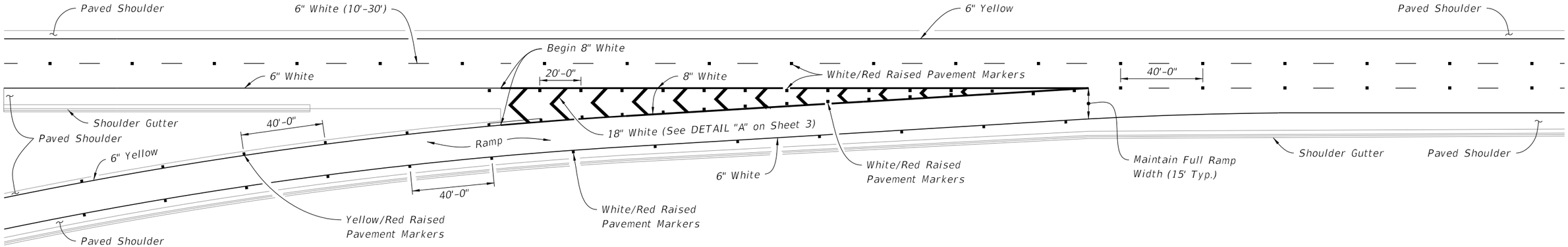
BUFFERED BIKE LANES

9/29/2025 10:09:47 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	BICYCLE MARKINGS	INDEX	SHEET
11/01/17					711-002	2 of 2



TAPER - TYPE ENTRANCE



PARALLEL - TYPE ENTRANCE

GENERAL NOTES:

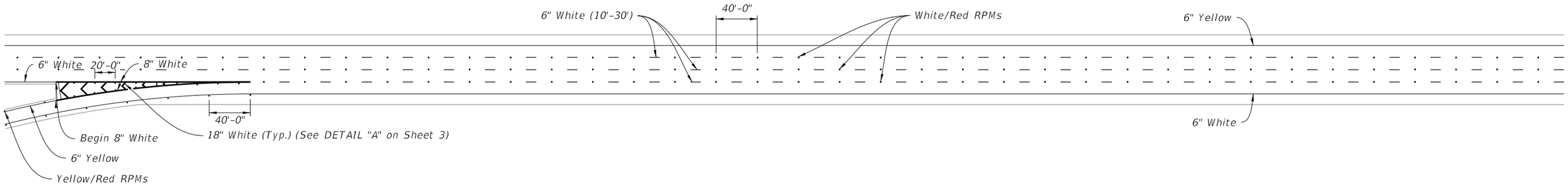
1. Make the traffic face of the raised pavement marker (RPM) the same color as the pavement marking that it is supplementing.

2. See Index 706-001 for additional Raised Pavement Markers (RPM) requirements.

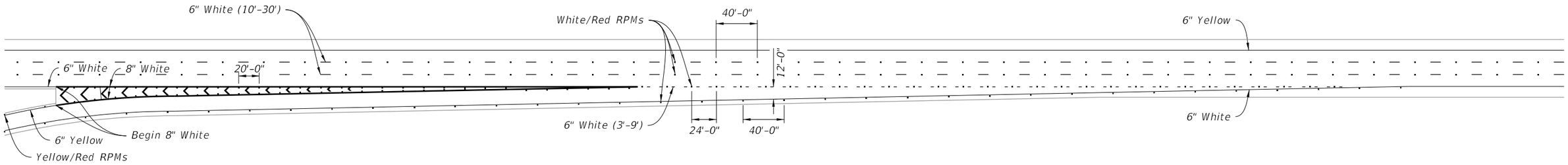
9/29/2025 10:09:54 AM

SINGLE LANE RAMPS - ENTRANCE TERMINALS

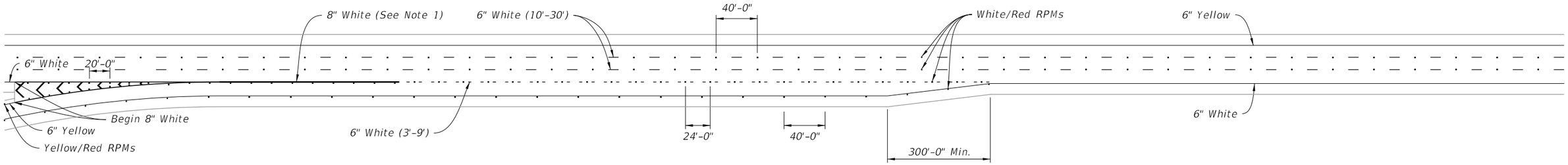
LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	INTERCHANGE MARKINGS	INDEX	SHEET
11/01/23					711-003	1 of 8



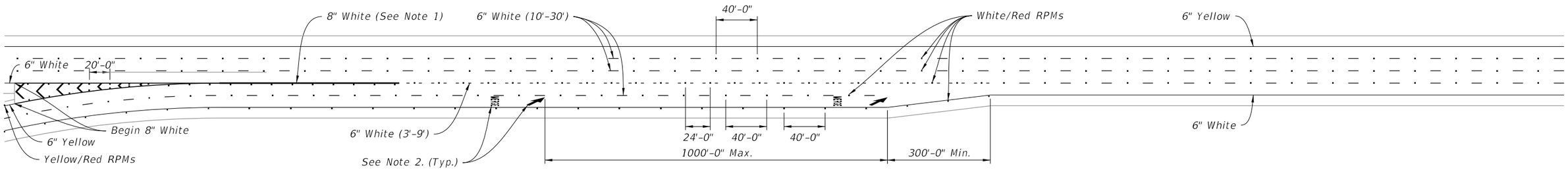
PARALLEL-TYPE ENTRANCE WITH ADDED LANE



TAPER-TYPE ENTRANCE



SINGLE-LANE PARALLEL-TYPE ENTRANCE WITHOUT ADDED LANE



TWO-LANE PARALLEL-TYPE ENTRANCE WITH ADDED LANE

NOTES:

1. Extend this 8" white Pavement Marker one–fourth the length of the acceleration lane from the gore markings.

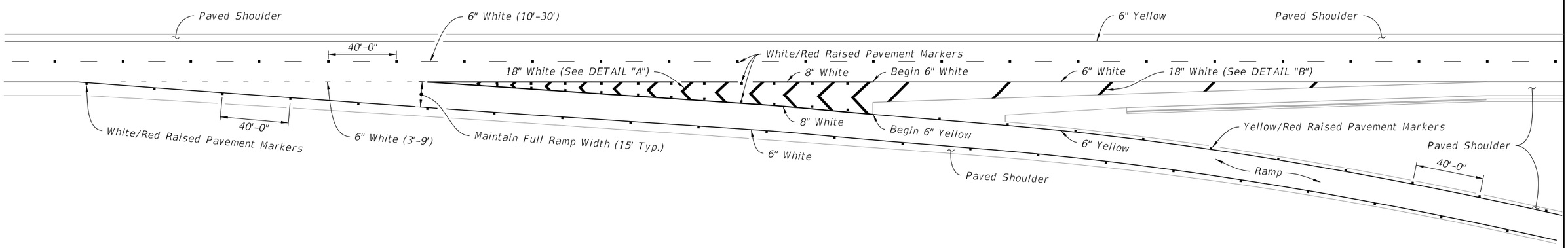
2. See Index 711–001 for pavement message dimensions and details.

3. Merge Pavement Message and Arrow only used for Two–Lane Entrances.

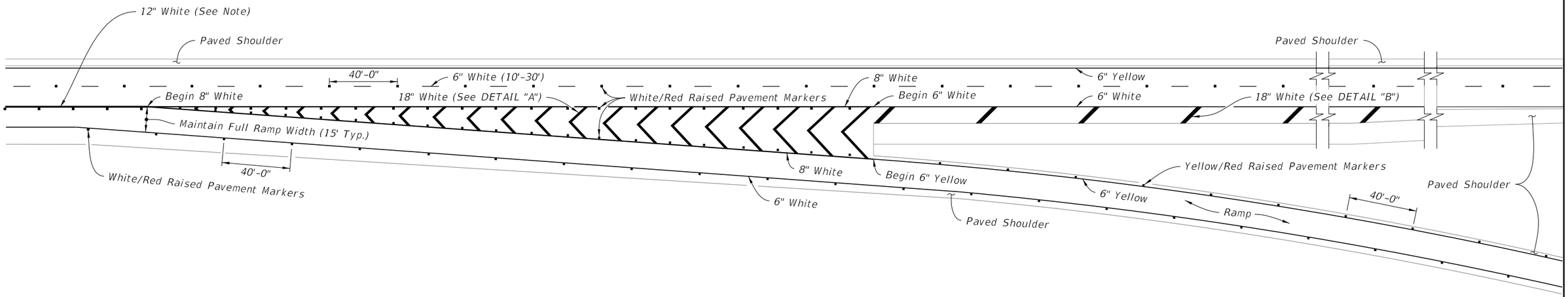
TYPICAL PAVEMENT MARKINGS AT ENTRANCE RAMPS

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/25			FY 2026-27 STANDARD PLANS	INTERCHANGE MARKINGS	711-003	2 of 8

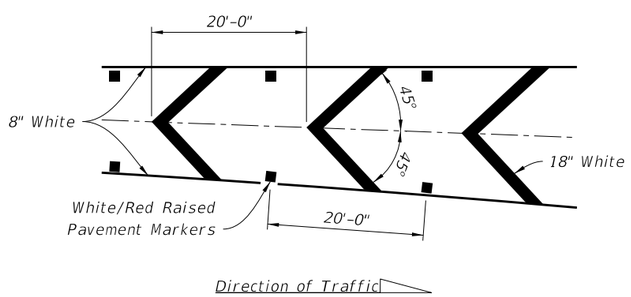
9/29/2025 10:10:02 AM



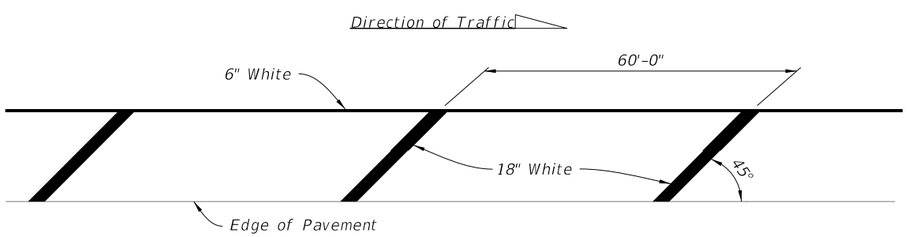
TWO THRU LANES



THREE APPROACH LANES - TWO THRU LANES



DETAIL "A"



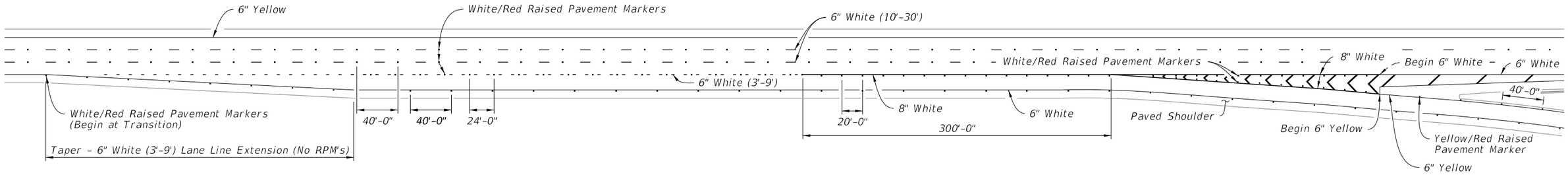
DETAIL "B"

NOTE:
Extend 12" White 300' from the gore markings.

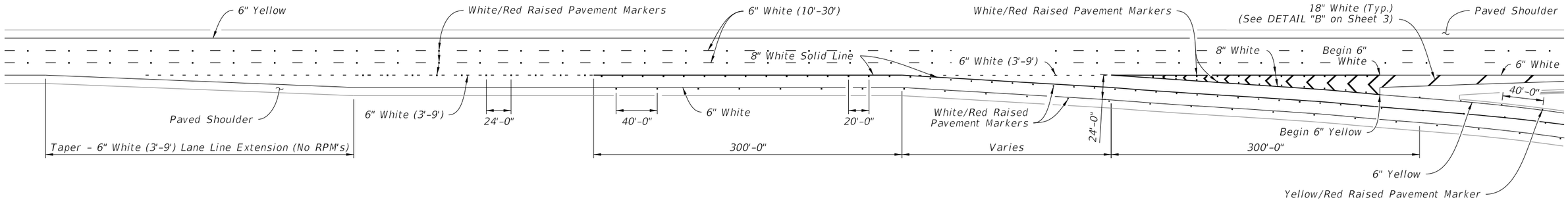
SINGLE LANE RAMPS - EXIT TERMINALS

9/29/2025 10:10:10 AM

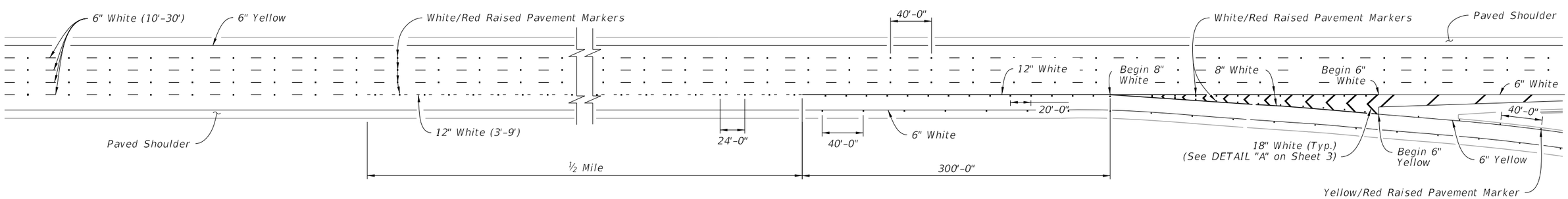
LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/21			FY 2026-27 STANDARD PLANS	INTERCHANGE MARKINGS	711-003	3 of 8



PARALLEL DECELERATION LANE



MARKINGS AT DUAL LANE EXITS



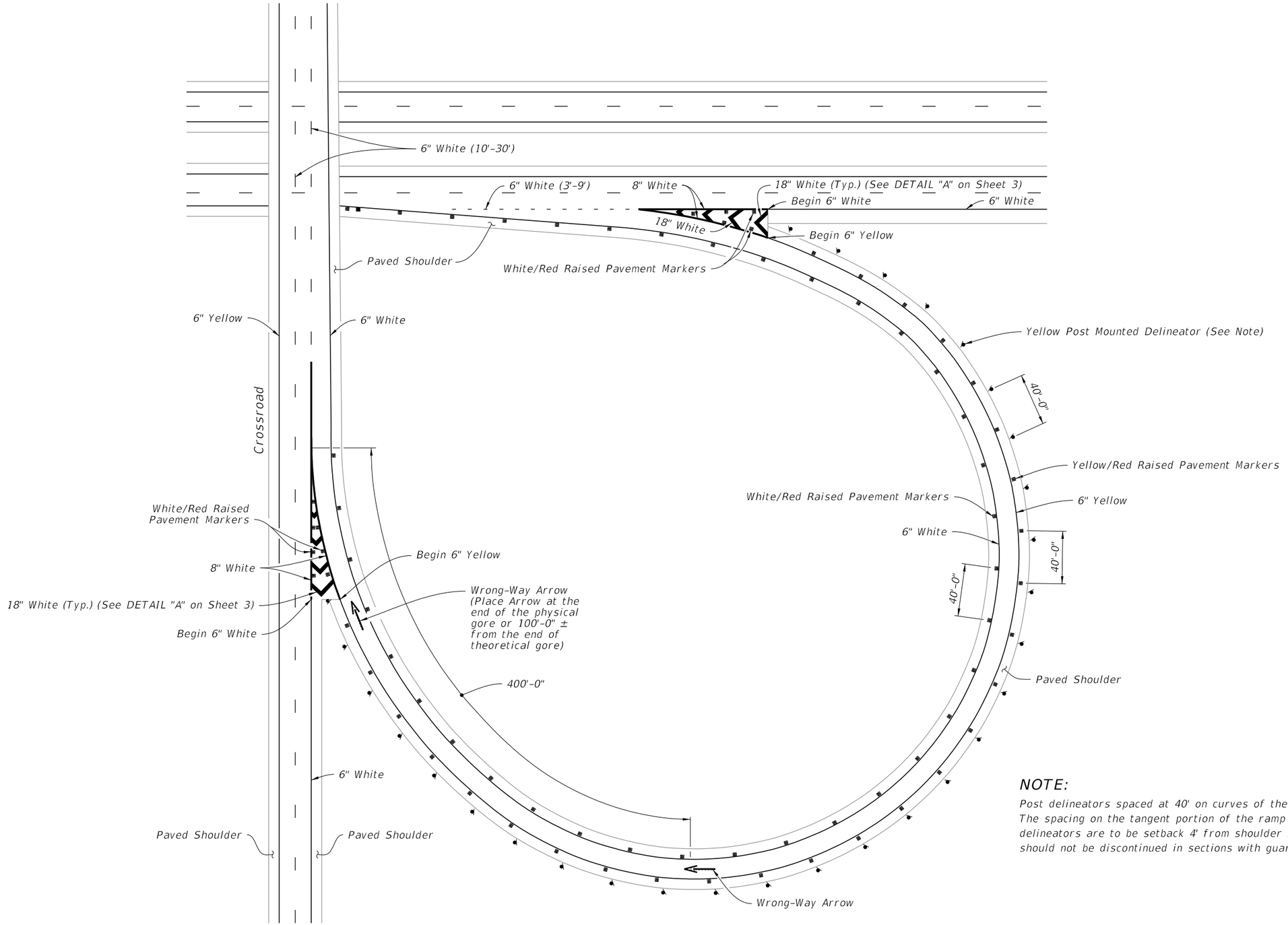
LANE DROP MARKINGS AT EXIT RAMPS

10:10:17 AM

9/29/2025

TYPICAL PAVEMENT MARKINGS AT EXIT RAMPS

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/21			FY 2026-27 STANDARD PLANS	INTERCHANGE MARKINGS	711-003	4 of 8

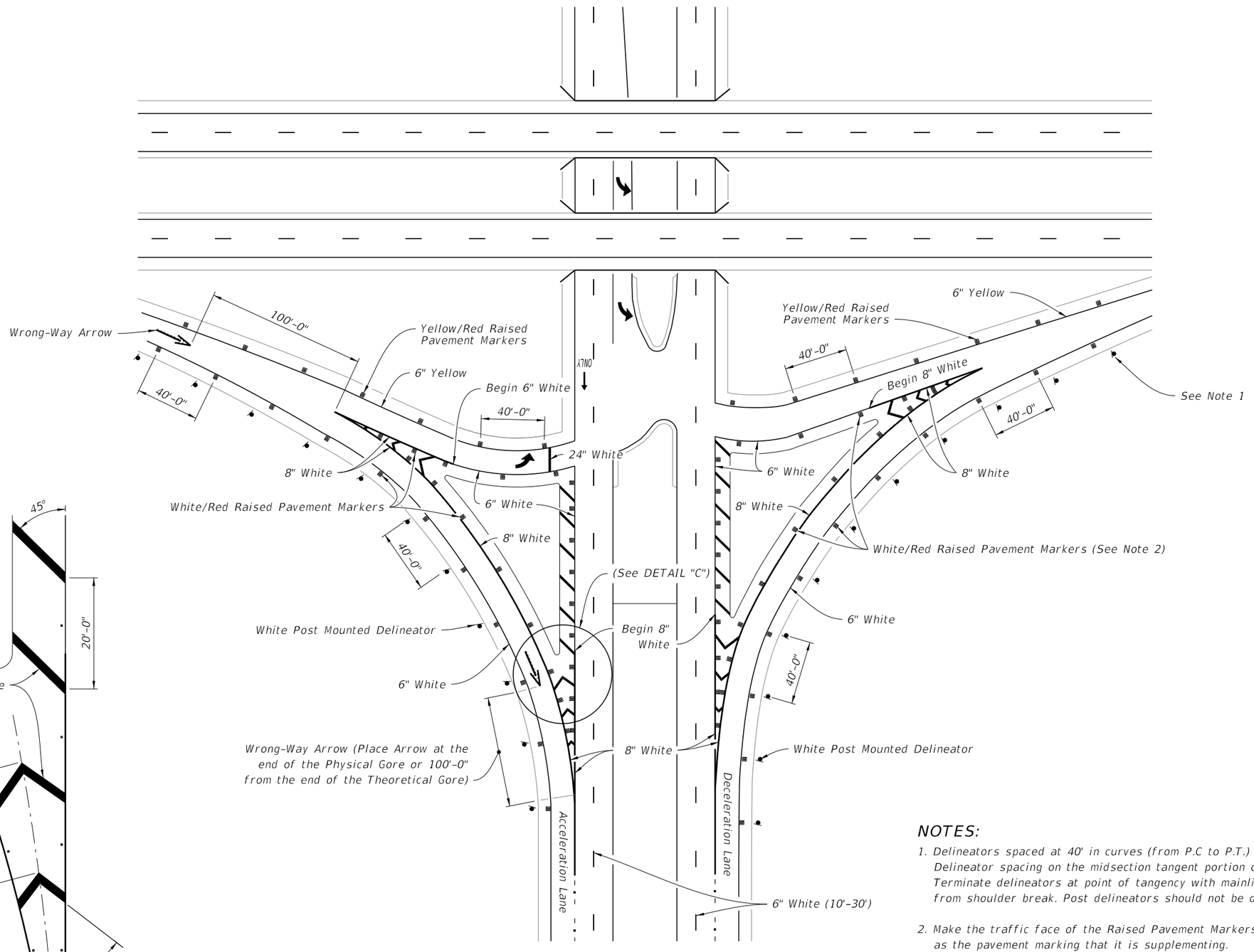


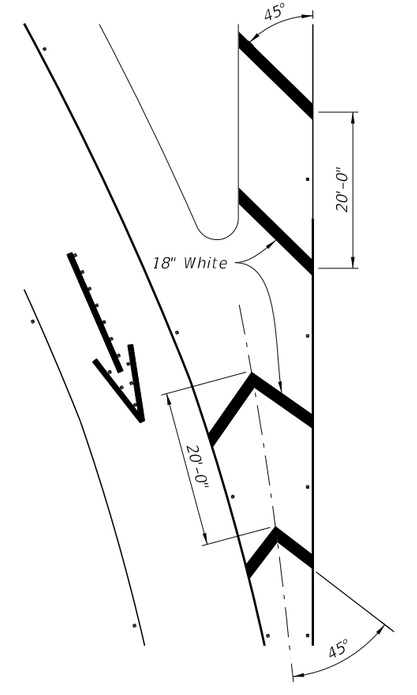
TYPICAL CURVED EXIT RAMP

NOTE:

Post delineators spaced at 40' on curves of the entrance and exit of ramps. The spacing on the tangent portion of the ramp section is 300'-0". All delineators are to be setback 4' from shoulder break. Post delineators should not be discontinued in sections with guardrail.

9/29/2025 10:10:24 AM





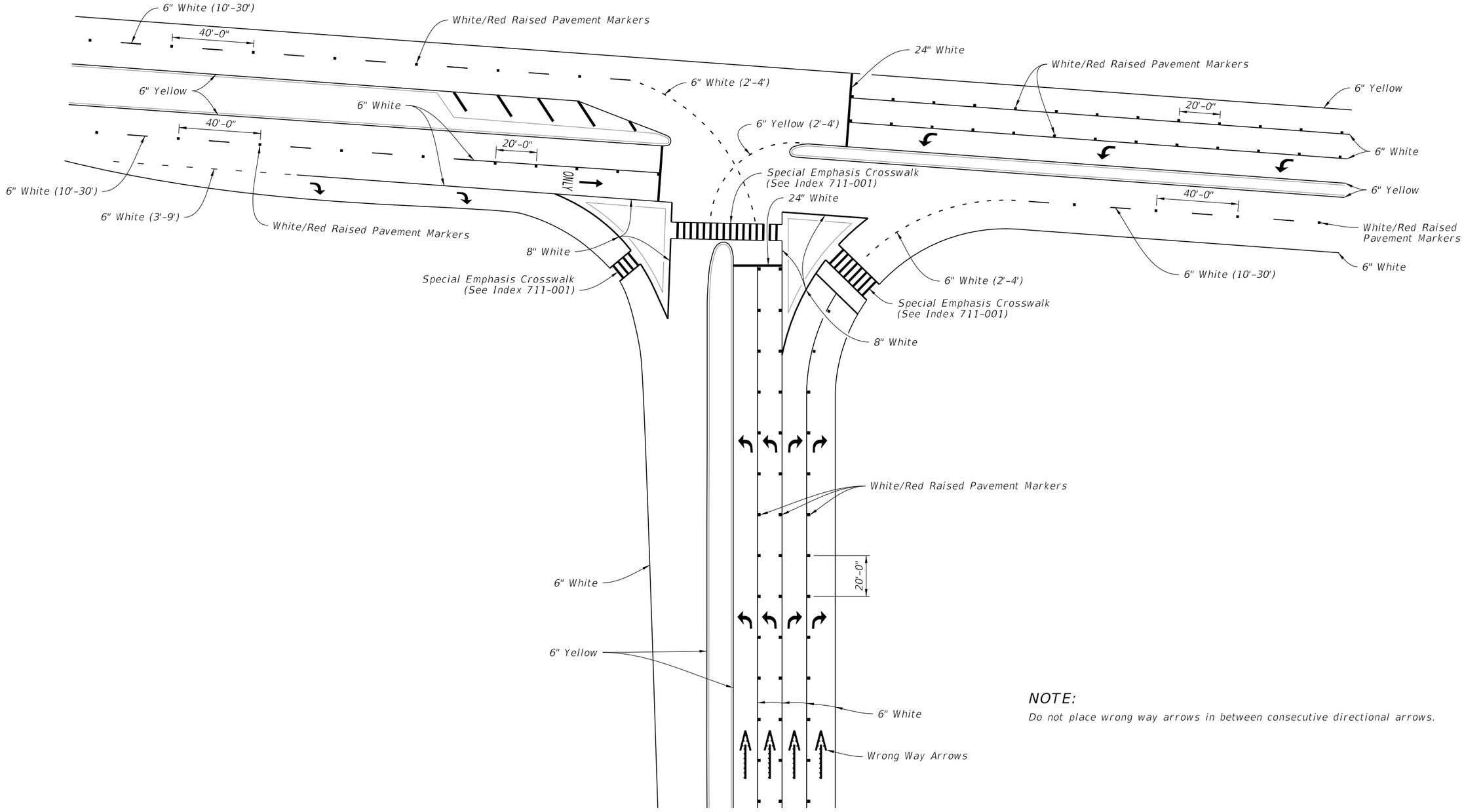
DETAIL "C"

NOTES:

1. Delineators spaced at 40' in curves (from P.C to P.T.) at both ends of ramps. Delineator spacing on the midsection tangent portion of ramps is 300'. Terminate delineators at point of tangency with mainline. All delineators are to be setback 4' from shoulder break. Post delineators should not be discontinued in sections with guardrail.

2. Make the traffic face of the Raised Pavement Markers the same color as the pavement marking that it is supplementing.

TYPICAL INTERSECTION



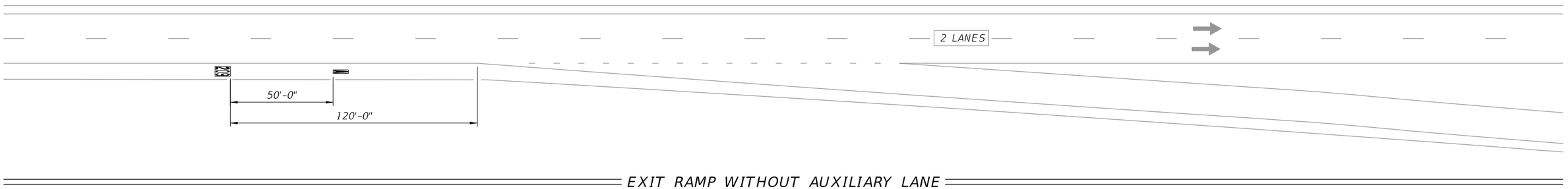
NOTE:

Do not place wrong way arrows in between consecutive directional arrows.

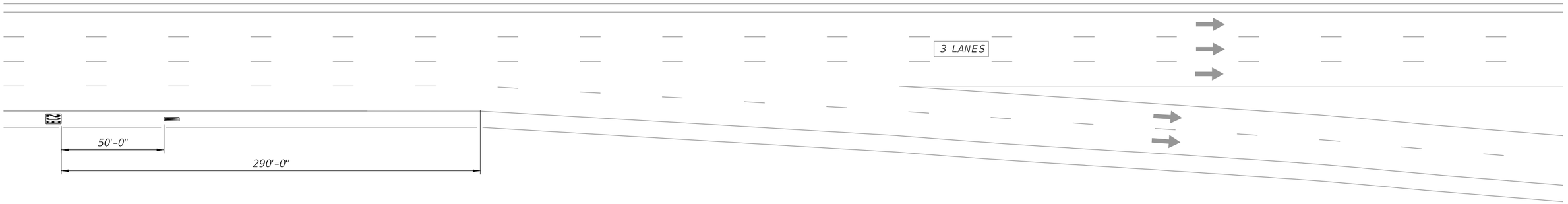
TYPICAL PARTIAL CLOVERLEAF/TRUMPET EXIT RAMP

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	INTERCHANGE MARKINGS	INDEX	SHEET
11/01/25						711-003	7 of 8

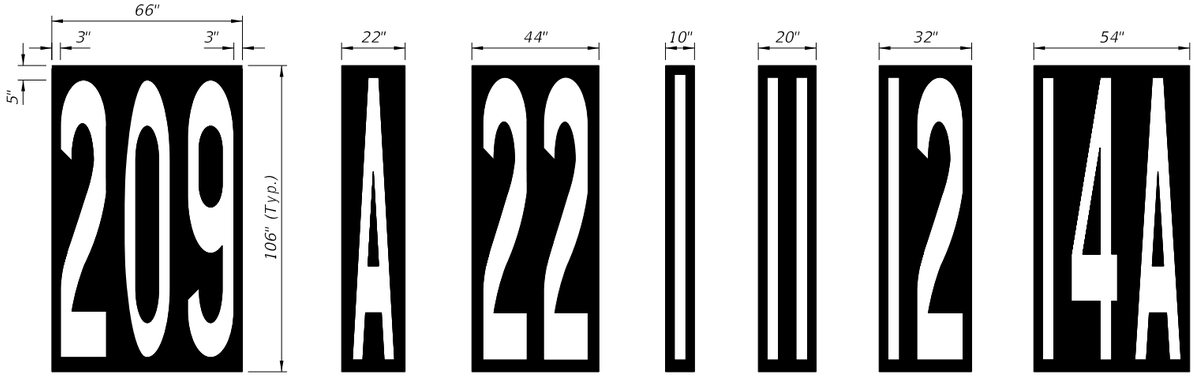
9/29/2025 10:10:39 AM



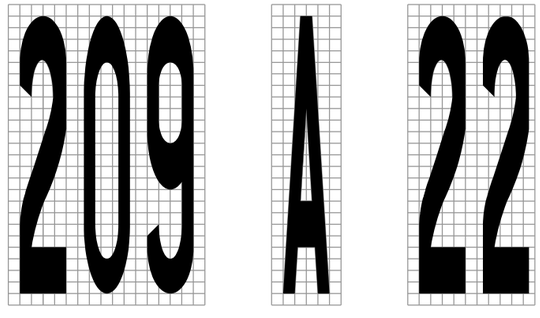
EXIT RAMP WITHOUT AUXILIARY LANE



EXIT RAMP WITH AUXILIARY LANE



MAT DIMENSIONS



MESSAGE SIZE AND SPACING

NOTES:

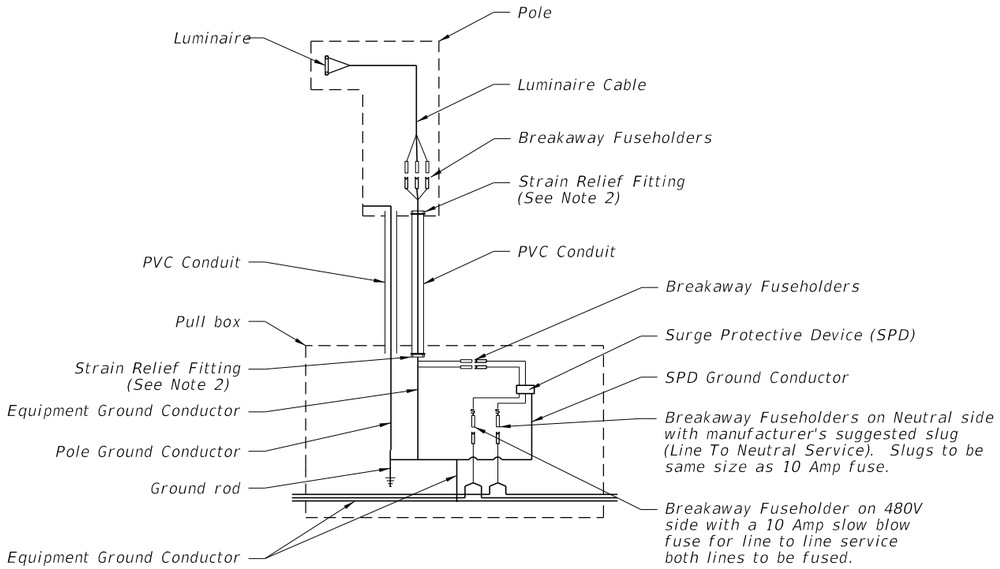
1. This Index shows layouts for 1, 2, and 3 digit numbers and letters.
2. The message consist of white letters and numbers with black contrasting material.
3. The "EXIT NUMBER" position remains the same distance from the beginning of taper regardless of the number of lines of information.
4. All Grids are 4" x4".

EXIT RAMP MESSAGING

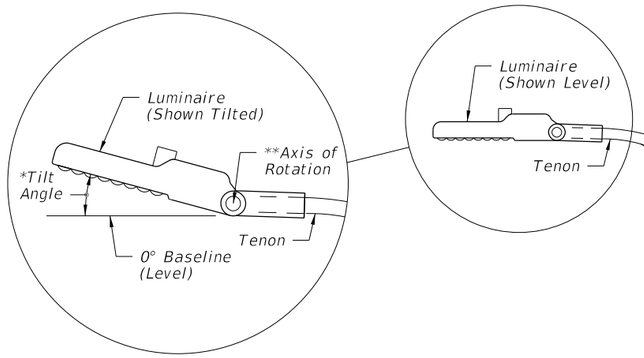
10:10:46 AM

9/29/2025

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/21			FY 2026-27 STANDARD PLANS	INTERCHANGE MARKINGS	711-003	8 of 8

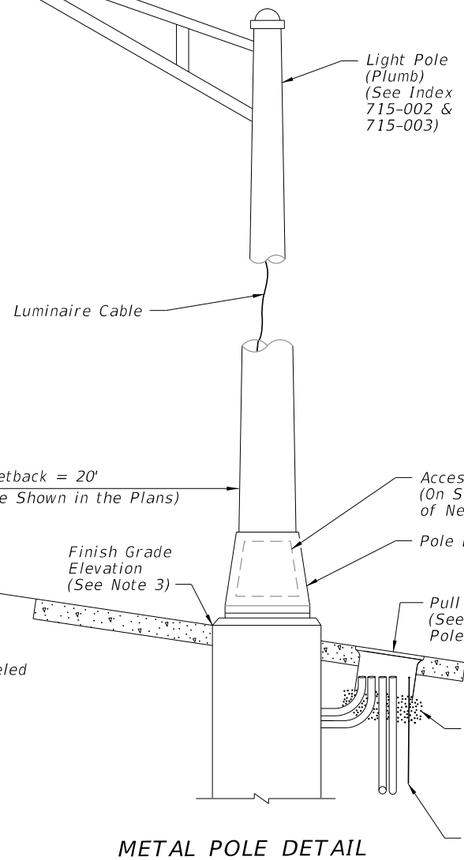


WIRING DIAGRAM

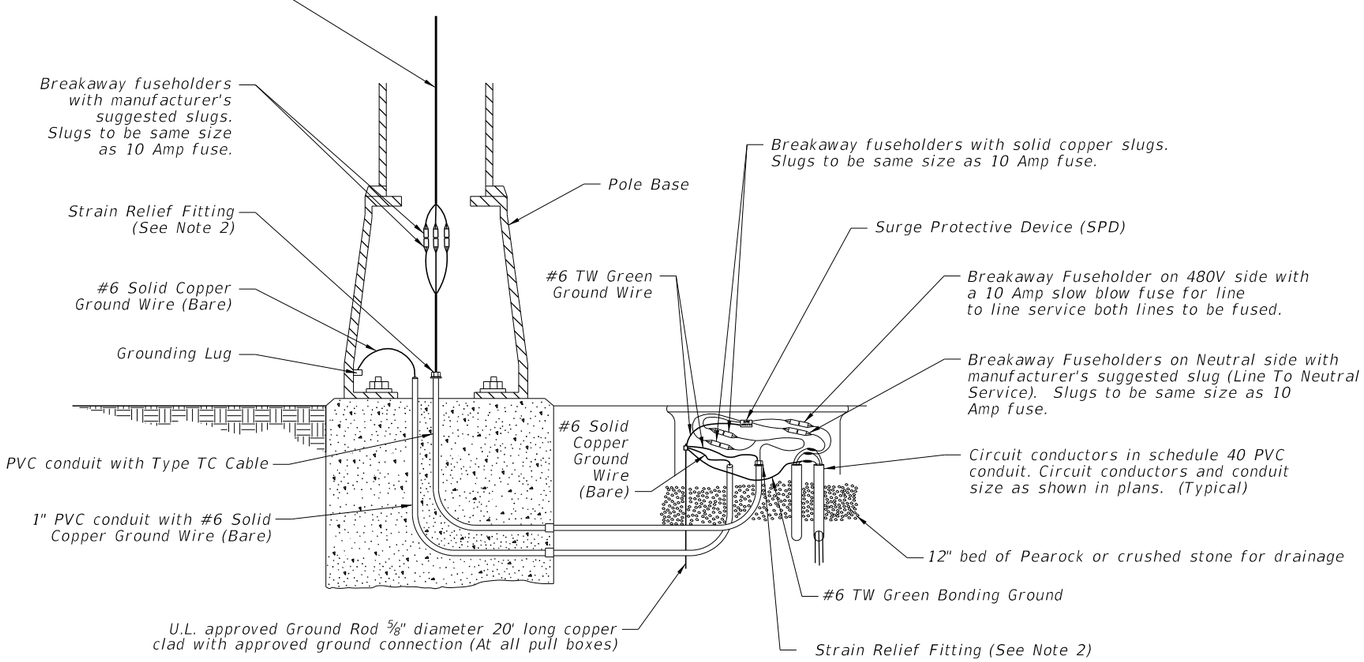


LUMINAIRE TILT DETAIL (Side View)

*Tilt angle is 0° (level) unless otherwise shown in the Plans
**Axis of rotation is level and perpendicular to the tenon. The location shown is approximate and may be either a hinge or a tenon connection adjustment.



METAL POLE DETAIL



METAL POLE WIRING DETAIL

NOTES:

1. Concrete Barrier and Bridge Mounted Poles: Place wiring system following conduit layouts and requirements of Index 715-002. Follow additional requirements of Specification 992. For wiring and devices shown inside of pull boxes on this sheet, place inside of embedded junction boxes instead. Place the vertical breakaway fuseholders inside the pole, at the handhole location.

2. Provide enough cable length to allow for removal of fuseholders from the transformer base, pole base, or pullbox for maintenance. Remove slack from the luminaire cable to provide tension on the fuseholders in breakaway pole designs. Pull excess cable into pull box tighten strain relief fittings or cable clamps at both ends of conduit to prevent cable from slipping.

3. Align the top, outside edge of the concrete foundation with the finish grade elevation on the side nearest the traffic lane. Relative to the finish grade elevation, this foundation alignment has a vertical tolerance of plus 2 inches to minus 0 inches.

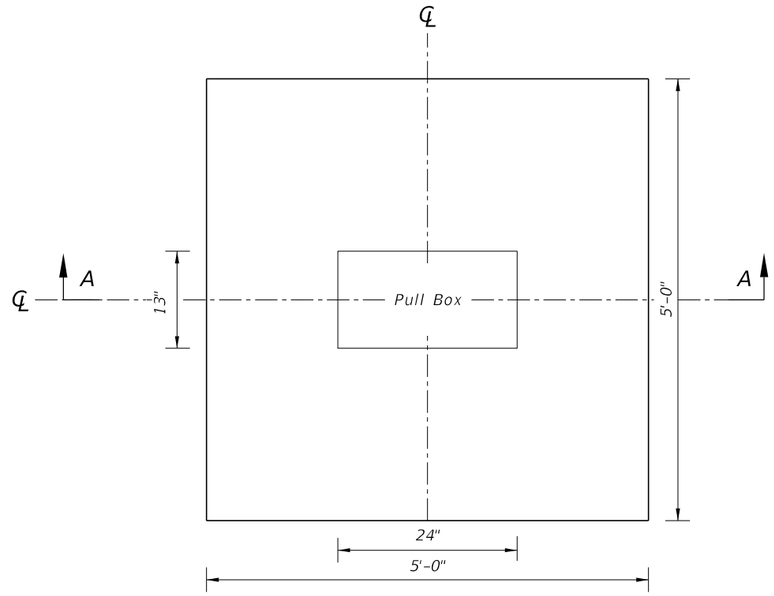
WIRING AND INSTALLATION DETAILS

9/29/2025 10:10:53 AM

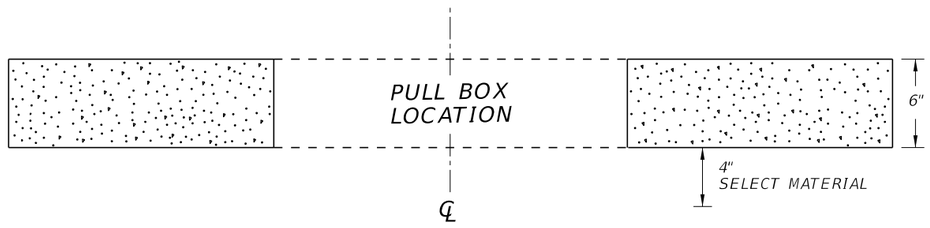
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	CONVENTIONAL LIGHTING	INDEX	SHEET
11/01/23						715-001	1 of 3

NOTES:

1. Use compacted select material in accordance with Index 120-001.
2. Concrete shall be Class NS with a minimum strength at 28 days of f'c=2.5 ksi.
3. Outside edge of slab shall be cast against formwork.
4. The pull box shown is 13" x 24"; others approved under Specification 635 may be used.
5. Slabs to be placed around all Poles and Pull Boxes in rural locations. In urban areas or where space is limited slab dimensions may be adjusted as shown in the plans.
6. Concrete for slabs around pull boxes shall be included in the price of pull box.



SLAB DIMENSIONS



SECTION A-A

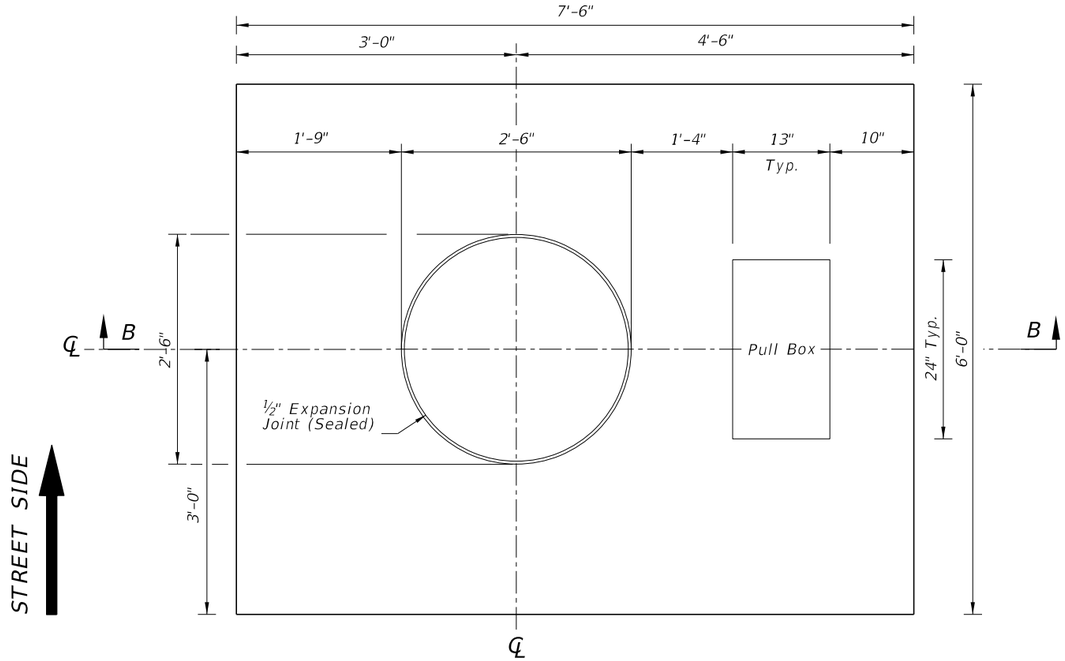
SLAB DETAILS FOR INTERMEDIATE PULLBOX LOCATIONS

9/29/2025 10:11:00 AM

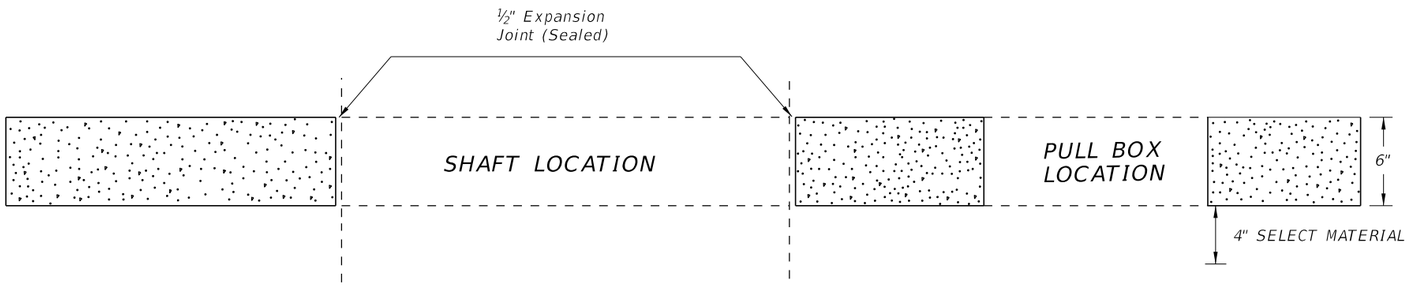
LAST REVISION	REVISION	DESCRIPTION:				
11/01/17			FDOT FY 2026-27 STANDARD PLANS	CONVENTIONAL LIGHTING	INDEX 715-001	SHEET 2 of 3

NOTES:

1. Use compacted select material in accordance with Index 120-001.
2. Concrete shall be Class NS with a minimum strength at 28 days of f'c=2.5 ksi.
3. Outside edge of slab shall be cast against formwork.
4. The pull box shown is 13" x 24"; others approved under Specification 635 may be used.
5. Slabs to be placed around all Poles and Pull Boxes. In urban areas or where space is limited slab dimensions may be adjusted as shown in the plans.
6. Concrete for slabs around poles and pull boxes shall be included in the price of pole or pull box.
7. The expansion joint shall consist of ½" of closed-cell polyethylene foam expansion material. The top ½" of expansion material shall be removed after pouring the slab and sealed with an APL approved Type A sealant meeting the requirements of Specification 932.



SLAB DIMENSIONS



SECTION B-B

SLAB DETAILS FOR POLE AND PULL BOX LOCATIONS

9/29/2025 10:11:07 AM

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/17			FY 2026-27 STANDARD PLANS	CONVENTIONAL LIGHTING	715-001	3 of 3

GENERAL NOTES:

1. LOADING: Poles are designed to support the following:
   a. Luminaire Effective Projected Area (EPA): 1.55 SF
   b. Weight: 75 lb.

2. SHOP DRAWINGS: This Index is considered fully detailed; only submit shop drawings for minor modifications not included in the Plans.

3. MATERIALS:
   a. Pole, Pole Connection Extrusions and Arm Extrusions: ASTM B221, Alloy 6063-T6 or Alloy 6061-T6
   b. Bars, Plates, Stiffeners and Backer Ring: ASTM B221, Alloy 6063-T6
   c. Caps and Covers: ASTM B-26, Alloy 319-F
   d. Steel Bearing Plate: ASTM A709 or ASTM A36 Grade 36
   e. Aluminum Weld Material: ER 4043
   f. Transformer and Frangible Base Materials: ASTM B26 or ASTM B108, Alloy 356-T6
   g. Bolts, Nuts and Washers:
      i. Shoe Base Bolts: ASTM F3125, Grade A325, Type 1
      ii. Nuts: ASTM A563 Grade DH Heavy-Hex
      iii. Washer: ASTM F436 Type 1
   h. Anchor Bolts, Nuts, and Washers:
      i. Anchor Bolts: ASTM F1554 Grade 55
      ii. Nuts: ASTM A563 Grade A Heavy-Hex
      iii. Plate Washer: ASTM A36
   i. Stainless Steel Fasteners: ASTM F593 Alloy Group 2, Condition A, CW1 or SH1
   j. Nut Covers: ASTM B26 (319-F)
   k. Concrete: Class II
   l. Reinforcing Steel: Specification 415

4. FABRICATION:
   a. Weld Arm and Pole (Alloy 6063) in the T4 temper using 4043 filler. Age the Arm and Pole artificially to the T6 temper after welding
   b. Transverse welds are only allowed at the base.
   c. Roadway Light Pole Taper: Taper as required to provide a round top O.D. of 6" and a base O.D. of 8" for 20' and 25' mounting heights and 10" O.D. for poles with 30' to 50' mounting heights. Portions of the pole near the base shoe and at the arm connections may be held to simplify fabrication.
   d. Median Barrier Mounted Light Pole Taper: Taper as required to provide a 6" O.D. round top with an 11" x 7" O.D. oblong base. Portions of the pole near the base and at the arm connections may be held constant at 11"x 7" oblong and 6" round respectively to simplify fabrication.
   e. Provide 'J', 'S' or 'C' hook at top of pole for electrical wires.
   f. Equip poles located on bridges, walls and concrete median barriers/Traffic Railings with a vibration damper.
   g. Perform all welding in accordance with AWS D1.2.
   h. Embedded Junction Box (EJB):
      i. Weld all seams continuously and grind smooth.
      ii. Hot Dip Galvanize after Fabrication.
      iii. Provide a watertight cover with neoprene gasket and secure cover with galvanized screws.

GENERAL NOTES (CONTINUED):

5. POLE CAPACITY: For Median Barrier Mounted Aluminum Light Poles, the fabricator must demonstrate the ability to produce a crack free pole.

   The fabricator's Department-approved QC Plan must contain the following information prior to fabrication:
   a. Tests demonstrating a pole with a ¼" wall thickness achieves and ultimate moment capacity of 36 kip*ft in the strong axis and 30 kip*ft in the weak axis.
   b. Tests demonstrating a pole with a 15/16" wall thickness achieves an ultimate moment capacity of 44 kip*ft in the strong axis and 37 kip*ft in the weak axis.
   c. Test results showing the pole does not buckle at the shape transition area under the ultimate moment capacity loads.
   d. Complete details and calculations for the reinforced 4"x 6" (Min.) handhole located 1'-6" above the base plate.

6. IDENTIFICATION TAG: (Submit details for approval.)
   a. 2" x 4" (Max.) aluminum identification tag.
   b. Locate on the inside of the transformer base and visible from the door opening.
   c. Secure to transformer base with ⅛" diameter stainless steel rivets or screws.
   d. Include the following information on the ID Tag:
      i. Financial Project ID
      ii. Pole Height
      iii. Manufacturer's Name

7. COATINGS/FINISH:
   a. Pole and Arm Finish: 50 grit satin rubbed.
   b. Galvanize Steel Bolts, Screws, Nuts and Washers: ASTM F2329
   c. Hot Dip Galvanize EJB and other steel items including poles and plate washers: ASTM A123

8. CONSTRUCTION:
   a. Foundation: Specification 455, except payment for the foundation is included in the cost of the pole.
   b. Frangible Base, Base Shoe, and Clamp:
      i. Certify that the Clamp, Frangible Transformer Base, and Base Shoe Design are capable of providing the required capacity.
      ii. Certify the Base conforms to the current FHWA required AASHTO Frangibility Requirements, tested under NCHRP Report 350 Guidelines (e.g. Akron Foundry TB1-17).
      iii. Do not erect pole without Luminaire attached.

9. EMBEDDED JUNCTION BOX (EJB): Install EJBs per Note 4 and in accordance with Specification 635, as shown on the following Sheets.

10. WIND SPEED BY COUNTY:

    120 MPH
    Alachua, Baker, Bradford, Calhoun, Clay, Columbia, Dixie, Duval, Gadsden, Gilchrist, Hamilton, Jackson, Jefferson, Lafayette, Leon, Liberty, Nassau, Madison, Putnam, Suwannee, Taylor, Union and Wakulla Counties.

    140 MPH
    Bay, Citrus, De Soto, Flagler, Franklin, Glades, Gulf, Hardee, Hendry, Hernando, Highlands, Hillsborough, Holmes, Lake, Levy, Manatee, Marion, Okaloosa, Okeechobee, Orange, Osceola, Pasco, Pinellas, Polk, Santa Rosa, Seminole, St. Johns, Sumter, Volusia, Walton and Washington Counties.

    160 MPH
    Brevard, Broward, Charlotte, Collier, Escambia, Indian River, Lee, Martin, Miami-Dade, Monroe, Palm Beach, Sarasota and St. Lucie Counties.

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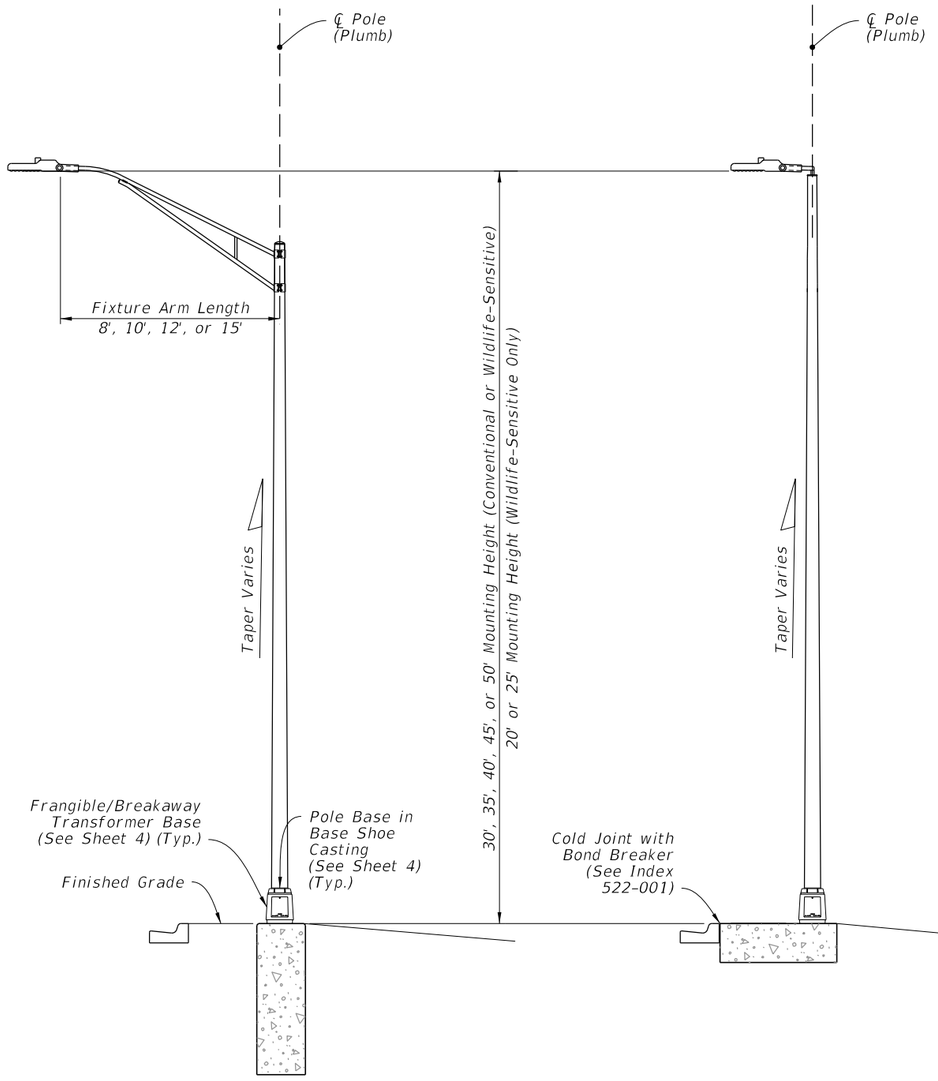
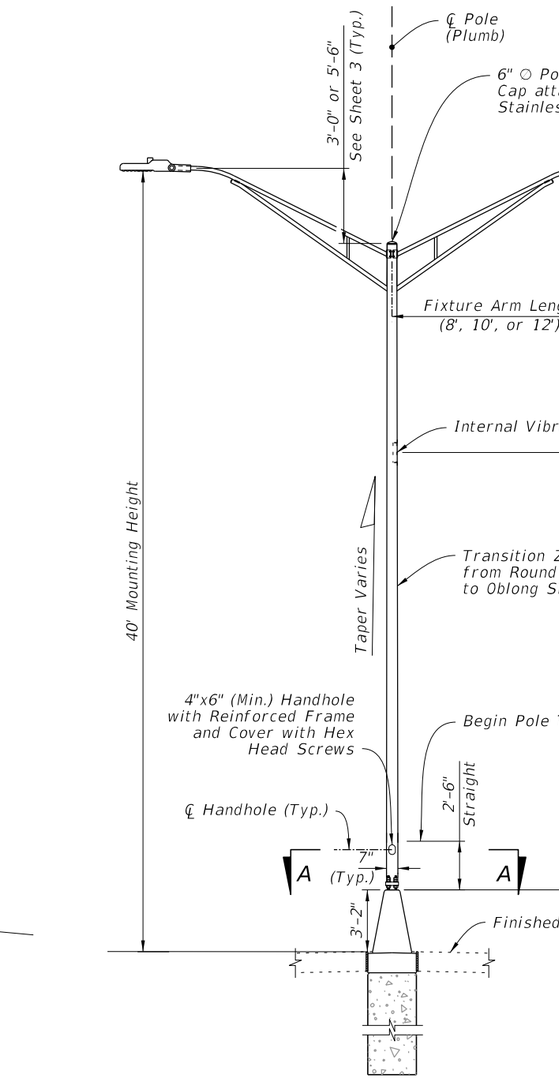
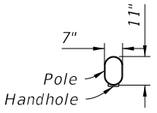


STANDARD ROADWAY ALUMINUM
LIGHT POLE WITH ARM
(Shaft Foundation Option Shown,
Spread Footing Option Similar)

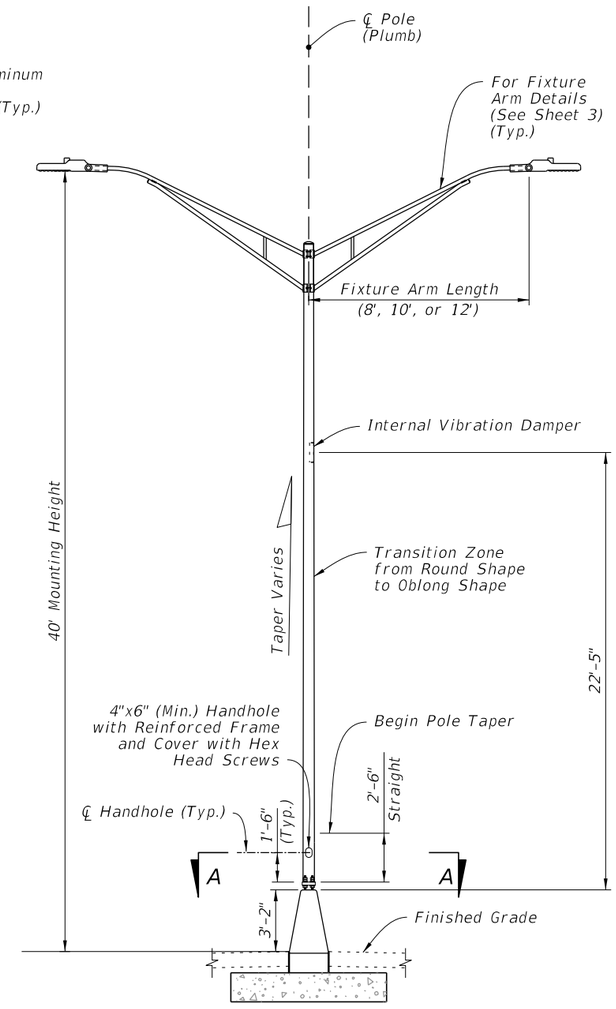


STANDARD ROADWAY ALUMINUM
LIGHT POLE WITH TOP MOUNT
(Spread Footing Option Shown,
Shaft Footing Option Similar)

MEDIAN BARRIER MOUNTED
ALUMINUM LIGHT POLE
ON CYLINDRICAL FOUNDATION
(Double-Arm Shown, Single-Arm
and Top Mount Similar)



SECTION A-A



MEDIAN BARRIER MOUNTED
ALUMINUM LIGHT POLE
ON SPREAD FOOTING FOUNDATION
(Double-Arm Shown, Single-Arm
and Top Mount Similar)

ELEVATIONS

9/29/2025 10:11:22 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	STANDARD ALUMINUM LIGHTING	INDEX	SHEET
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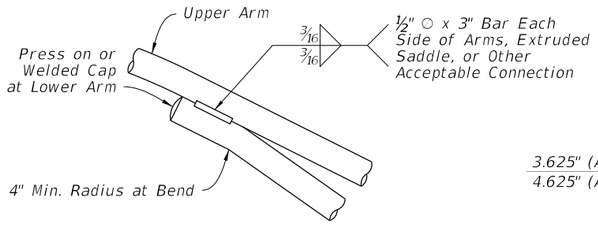
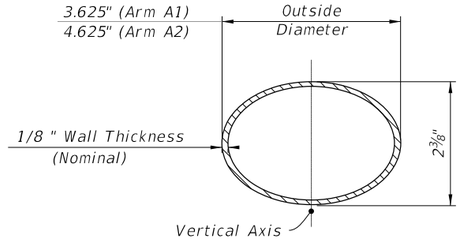
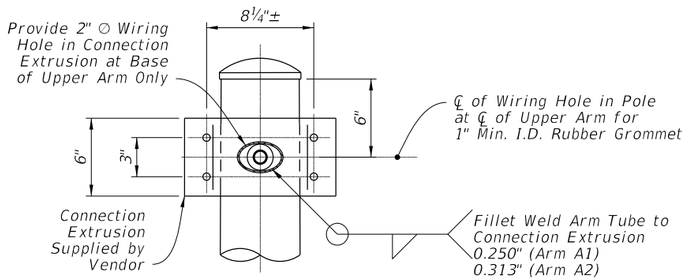


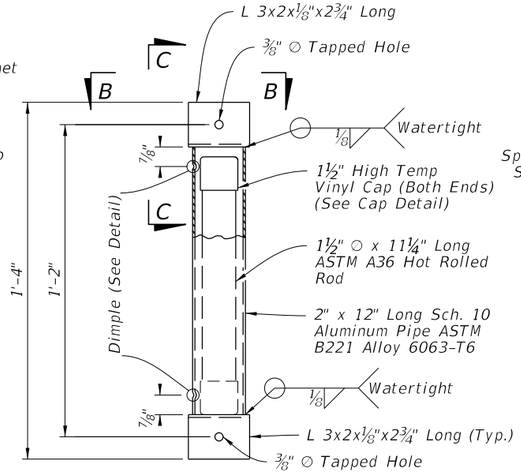
ARM CONNECTION DETAIL



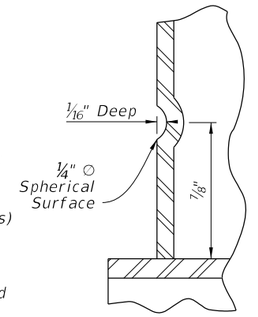
ARM SECTION



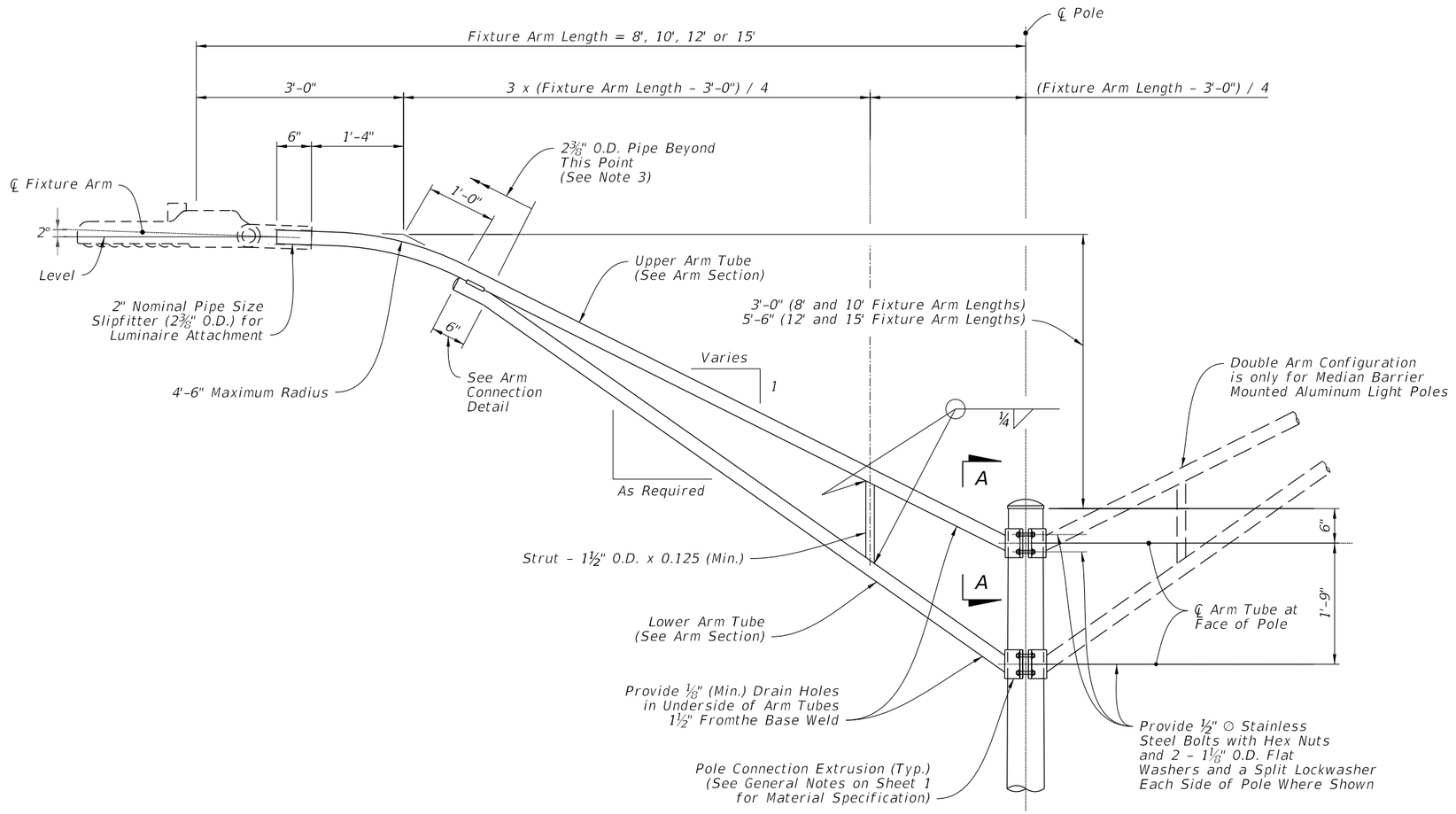
VIEW A-A
(Connection at Lower Arm Similar)



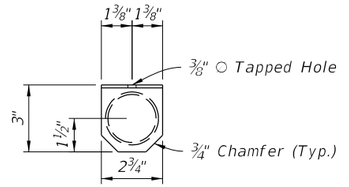
VIBRATION DAMPER ELEVATION



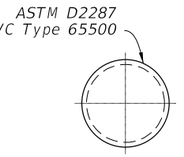
DIMPLE DETAIL



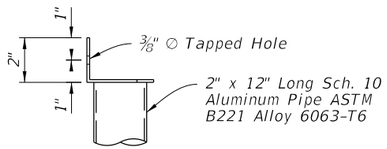
ARM ELEVATION



VIEW B-B



HIGH TEMP VINYL CAP DETAIL



VIEW C-C

NOTES:

1. At the pole connections, provide arm tube extrusions with dimensions as shown. Uniformly transition elliptical section to a cylindrical section at the arm connection.
2. The fabricator may substitute elliptical cross sections other than those tabulated, provided the section properties about the vertical axis and the area of the section equal or exceed that of the required section, and provide minimum wall thickness of ⅛" nominal and within the Aluminum Association Tolerances.
3. The outside diameter about the minor axis should be held at 2⅜" at the upper and lower arms.

ARM & DAMPER DETAILS

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LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
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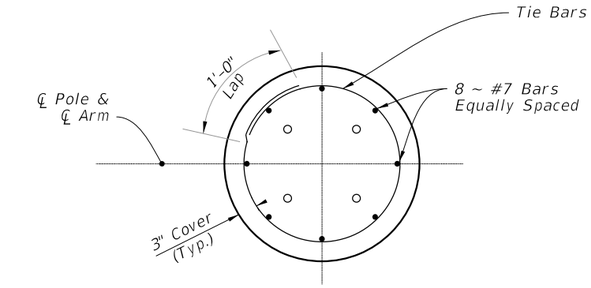
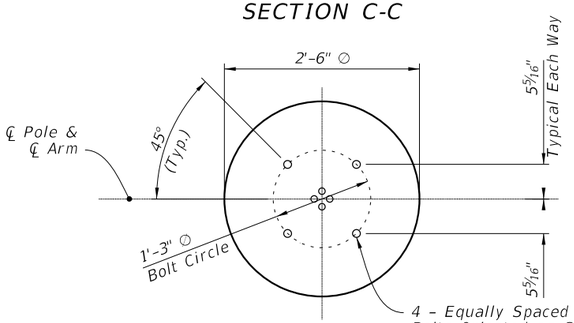
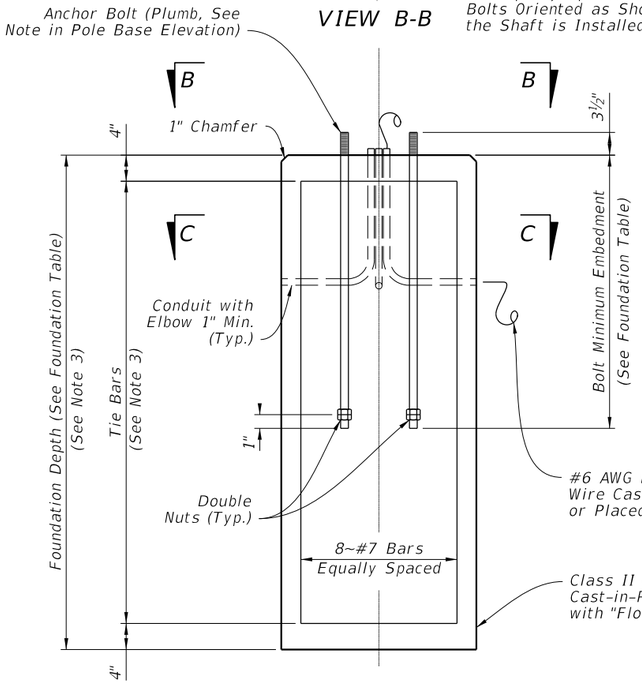


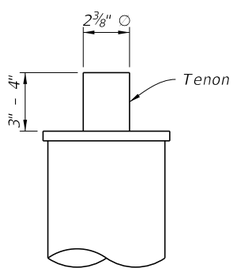
SECTION C-C



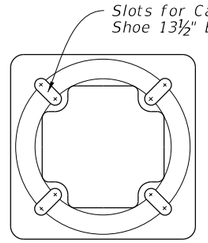
VIEW B-B



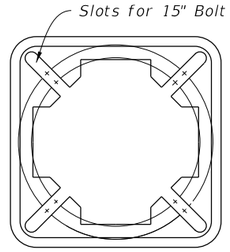
SHAFT FOUNDATION ELEVATION



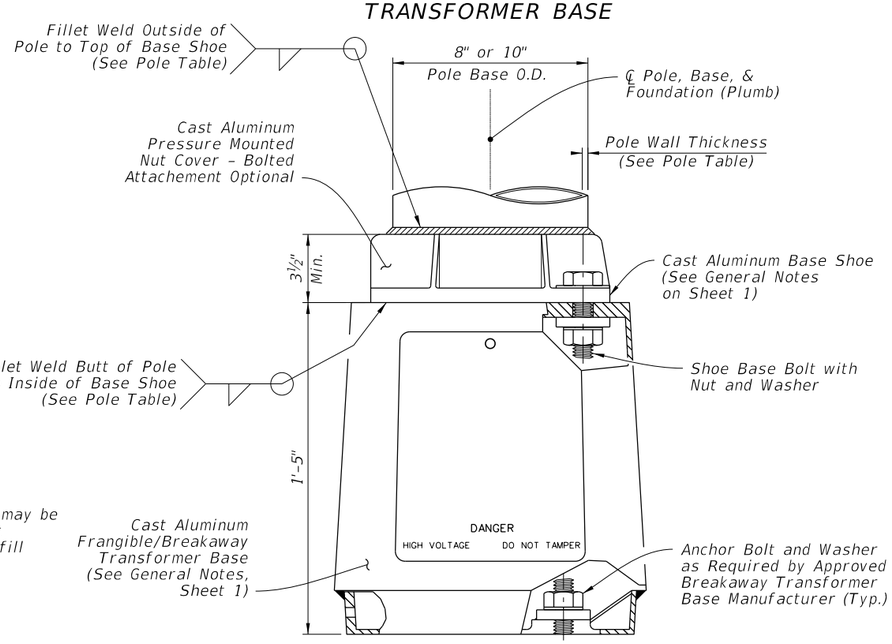
TOP MOUNT TENON



TOP VIEW
TRANSFORMER BASE



BOTTOM VIEW
TRANSFORMER BASE



POLE BASE ELEVATION

ARM-POLE TABLE

FOR STANDARD ALUMINUM LIGHT POLES WITH ARM

Mounting Height (Ft.)	Wind Speed and Arm Lengths (Ft.)				
	120 mph	140 mph		160 mph	
	8, 10, 12, 15	8, 10, 12	15	8, 10	12, 15
30	A1–P1	A1–P1	A2–P1	A1–P1	A2–P1
35					
40				A1–P2	A2–P2
45	A1–P2	A1–P2	A2–P2		
50				A1–P3	A2–P3

ARM POLE NOTES:

1. See ARM SECTION detail on Sheet 3 for all A1 and A2 Values.
2. See Pole Table for all P1, P2, and P3 values.
3. For Median Barrier Mounted Pole, Use Arm A1.
4. For 20' and 25' assembly heights use only 8' or 10' arm A1 with P0.

POLE TABLE

Pole	Pole Wall Thickness	Top of Base Shoe Weld	Inside of Base Shoe Weld
P0	0.156	3/16"	5/32"
P1	0.156	3/16"	5/32"
P2	0.250	1/4"	1/4"
P3	0.313	5/16"	5/16"

POLE NOTES:

1. Pole wall thicknesses shown are nominal and must be within the Aluminum Association tolerances.
2. Thicker walls are permitted and tapered walls may be used in accordance with the minimum Aluminum Association thicknesses.

TOP MOUNT POLE TABLE

FOR STANDARD ALUMINUM LIGHT POLES WITH TOP MOUNT

Mounting Height (Ft.)	Wind Speed		
	120 mph	140 mph	160 mph
20	Pole P0	Pole P0	Pole P0
25			
30	Pole P1	Pole P1	Pole P1
35			
40			Pole P2
45	Pole P2	Pole P2	
50			

SHAFT FOUNDATION TABLE

Pole	P0	P1	P2	P3
Depth	6'-0"	7'-0"	8'-0"	8'-0"
Bolt Min. Embedment	2'-6"	3'-6"	3'-6"	3'-6"

SHAFT FOUNDATION NOTES:

1. Depths shown are for slopes equal to or flatter than 1:4. For slope steeper than 1:4 and equal to or flatter than 1:2 add 2'-6" to foundation depths shown.
2. Foundation Tie Bars: #4 Tie Bars @ 12" centers (max.) or D10 (or W10) spiral @ 6" pitch, 3 flat turns top and 1 flat turn bottom.
3. For precast foundations, the circular cross section shown herein may be substituted with an octagon shape. The out-to-out distance between parallel edges of the octagon must be ≥ 2'-6". Use the same reinforcing diameter and centered placement with a minimum 3" cover.

SHAFT FOUNDATION OPTION WITH LIGHT POLE & BASE DETAILS

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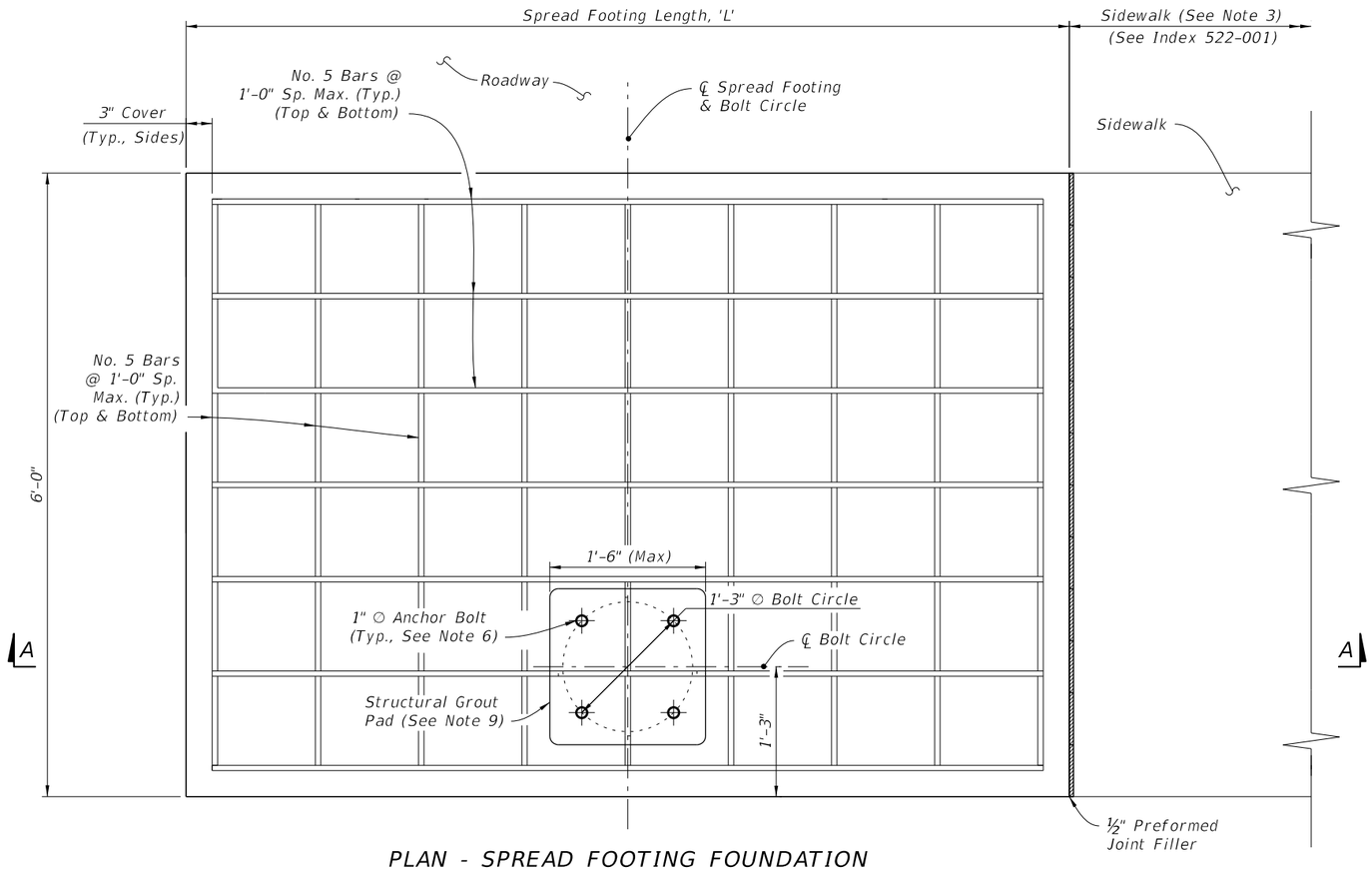
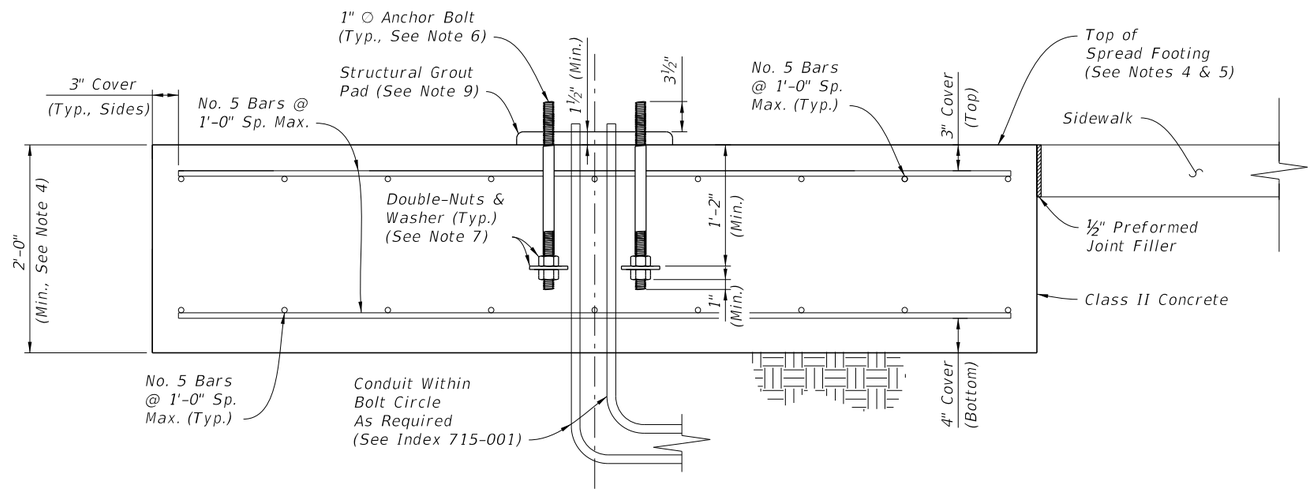
LAST REVISION	REVISION	DESCRIPTION:			
11/01/24			FY 2026-27 STANDARD PLANS	STANDARD ALUMINUM LIGHTING	INDEX 715-002 / SHEET 4 of 9



PLAN - SPREAD FOOTING FOUNDATION



SECTION A-A - SPREAD FOOTING FOUNDATION ELEVATION

SPREAD FOOTING LENGTH, 'L'			
Mounting Height (Ft.)	Wind Speed (All Arm Lengths)		
	120 mph	140 mph	160 mph
20	4'-6"	5'-0"	6'-0"
25	4'-6"	5'-0"	6'-0"
30	7'-0"	7'-0"	7'-0"
35	7'-0"	7'-0"	7'-0"
40	7'-0"	7'-0"	10'-0"
45	8'-6"	10'-0"	10'-0"
50	8'-6"	10'-0"	11'-6"

NOTES:

1. Install the Spread Footing Foundation Option only where called for in the Plans.
2. The Spread Footing Foundation Option is only permitted for use with single arm or top mount light poles. Where applicable, the pole arm must be oriented towards the roadway side of the footing as shown. Double arm configurations are not permitted.
3. Sidewalk placed on the other side or both sides of the spread footing is permitted where shown in the Plans. The sidewalk connection to spread footing requires the ½" expansion joint shown regardless of the side.
4. The top of the spread footing must match the cross slope of the adjacent sidewalk where applicable per the Plans. The nominal bottom of the spread footing must remain level.
5. Apply concrete surface finish to the top of the spread footing in accordance with Specification 522-7.
6. Mount the anchor bolts plumb. For the corresponding pole base details, see Sheet 4.
7. Place galvanized or zinc-plated steel washers with a minimum thickness of ¼". Use washers with a minimum size of 3½" ∅ round or 3"x3" square.
8. Where raised curb is called for in the Plans, provide a tooled cold joint with bond breaker between the foundation and back of raised curb. See Sheet 2 and the connection between concrete sidewalk and raised curb per Index 522-001.
9. Place a structural grout pad in accordance with Specification 934. The grout pad is square and centered on the bolt circle centerlines. Level the top of the grout pad and smooth the edges and corners per the approval of the Engineer. Install the transformer base in accordance with Sheet 4 and the manufacturer's specifications.

SPREAD FOOTING FOUNDATION OPTION

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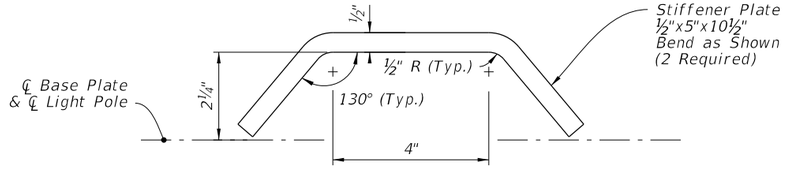
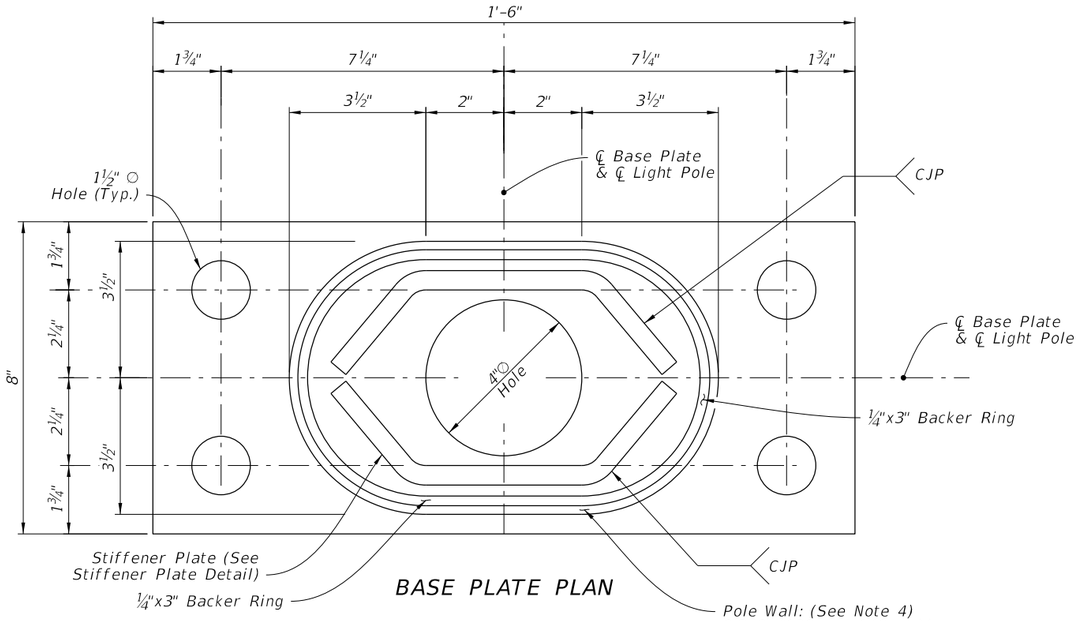
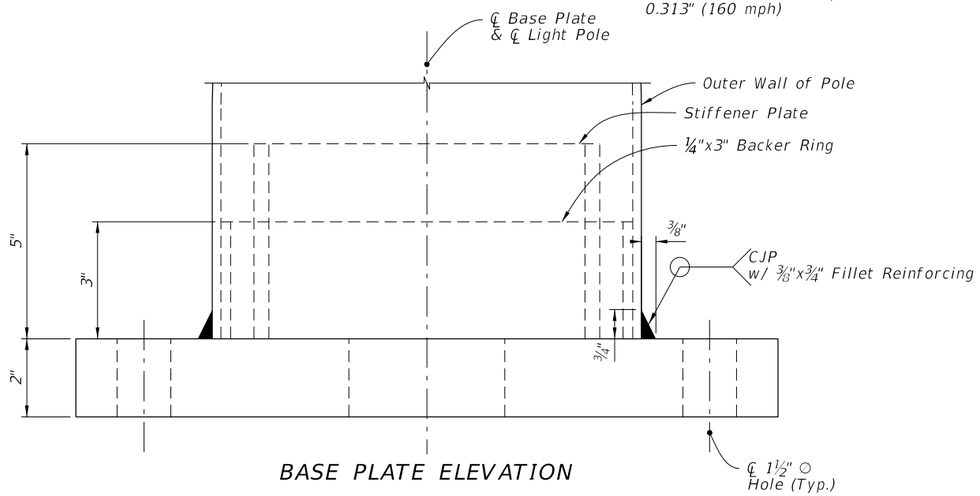


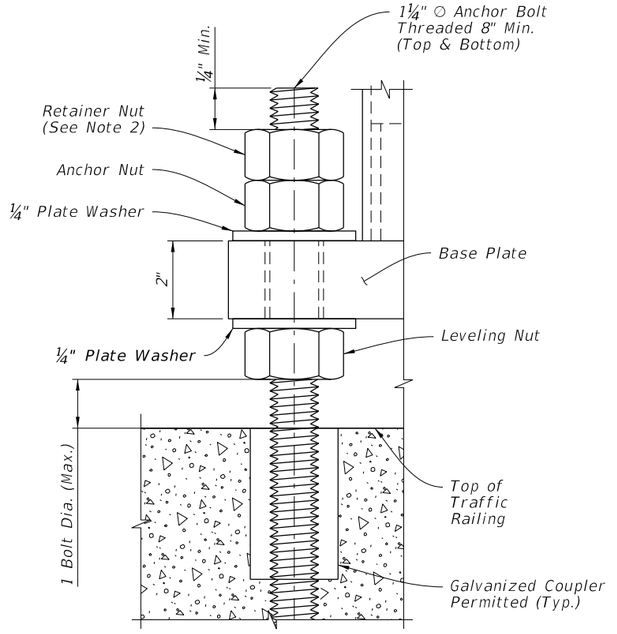
STIFFENER PLATE DETAIL



BASE PLATE PLAN



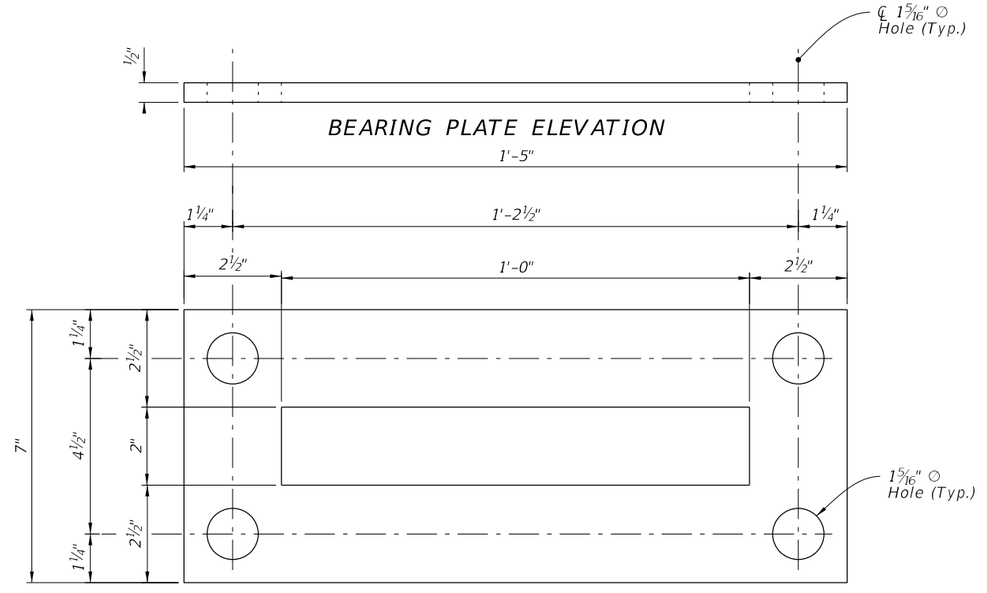
BASE PLATE ELEVATION



DETAIL 'A'

NOTES:

1. For locations of Bearing Plates, Base Plates and Detail 'A' see Sheets 7 thru 9.
2. The retainer nut may be substituted by a half-height nut.
3. Provide individual nut covers (not shown) for each bolt.
4. Pole wall thicknesses shown are nominal and shall be within the Aluminum Association Tolerances. Thicker walls are permitted and tapered walls may be used in accordance with the minimum Aluminum Association thicknesses.



BEARING PLATE PLAN

BASE PLATE DETAILS FOR MEDIAN BARRIER MOUNTED ALUMINUM LIGHT POLE

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	STANDARD ALUMINUM LIGHTING	INDEX	SHEET
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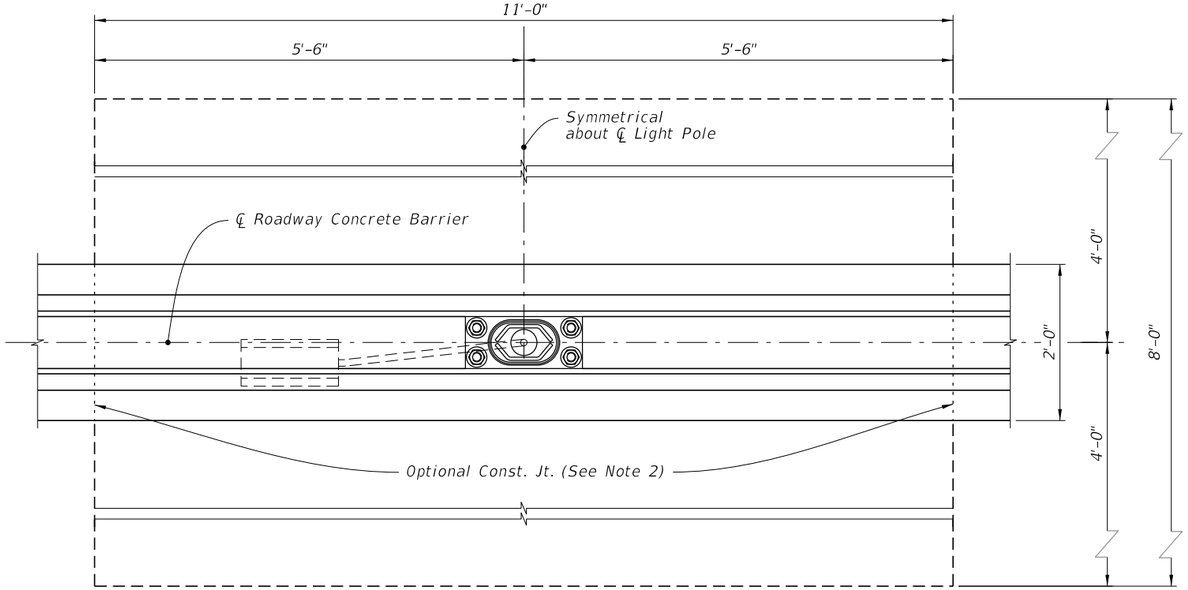
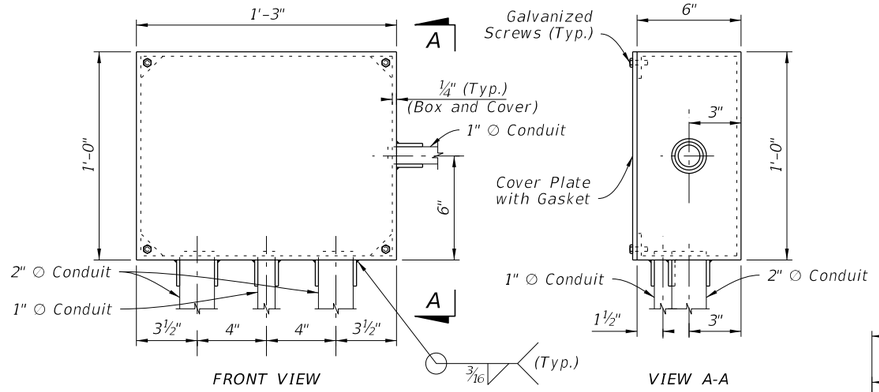
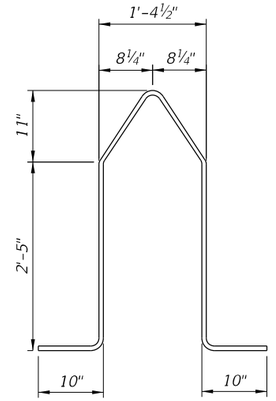


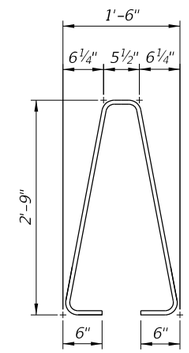
Plan
(Reinforcing Steel Not Shown)



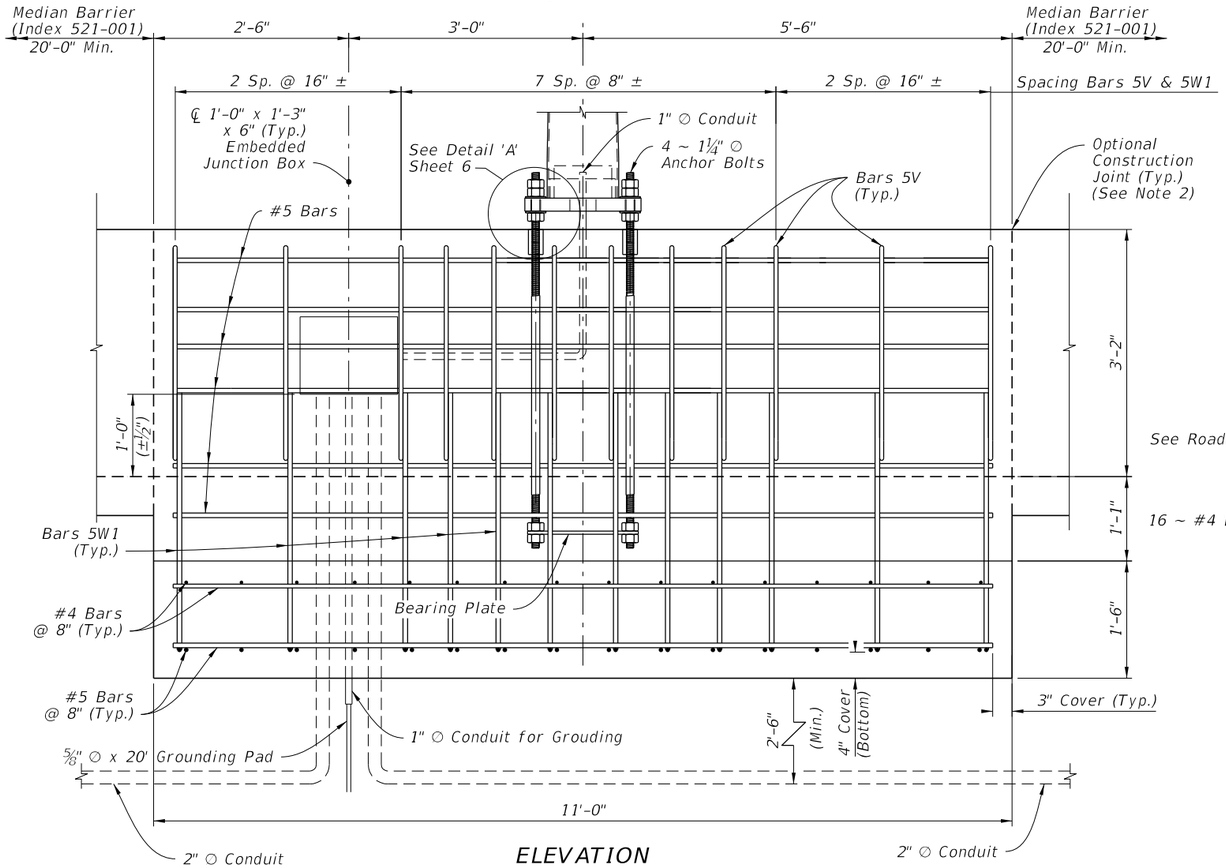
EMBEDDED JUNCTION BOX DETAILS



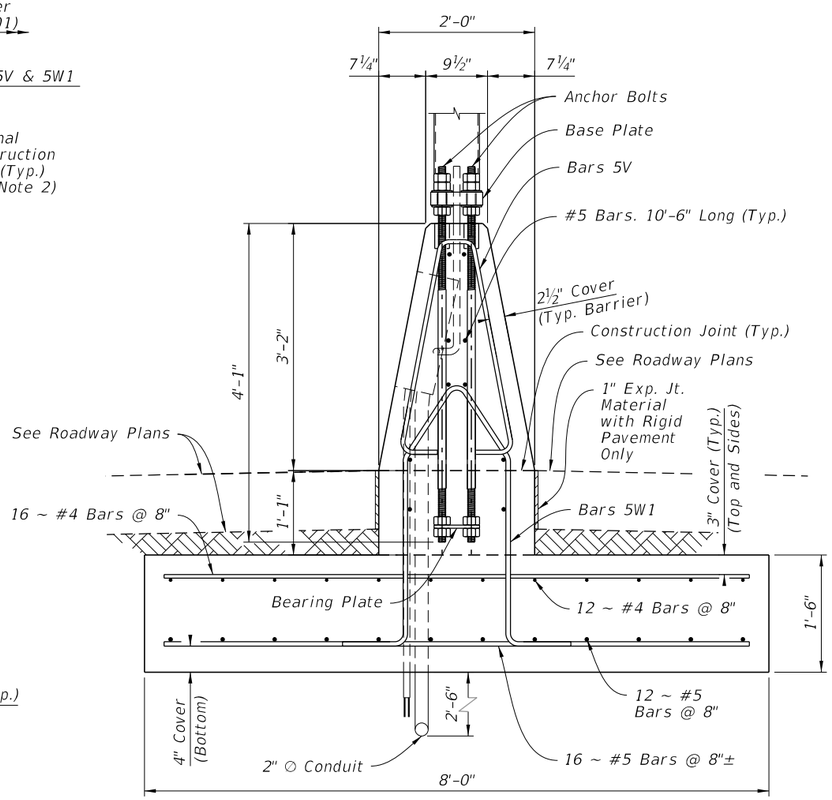
BAR 5W1



BAR 5V



ELEVATION



END VIEW

NOTES:

1. For Bearing Plate and Base Plate Details, see Sheet 6.
2. For connections to adjacent Median Barrier, use the Doweled Joint detail per Index 521-001. Alternatively, a continuous concrete pour or a construction joint may be substituted; these alternatives require the Median Barrier's longitudinal steel to lap a minimum of 2'-0" with the longitudinal steel shown herein.

SPREAD FOOTING DETAILS FOR MEDIAN BARRIER MOUNTED ALUMINUM LIGHT POLE

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LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2026-27 STANDARD PLANS	STANDARD ALUMINUM LIGHTING	INDEX	SHEET
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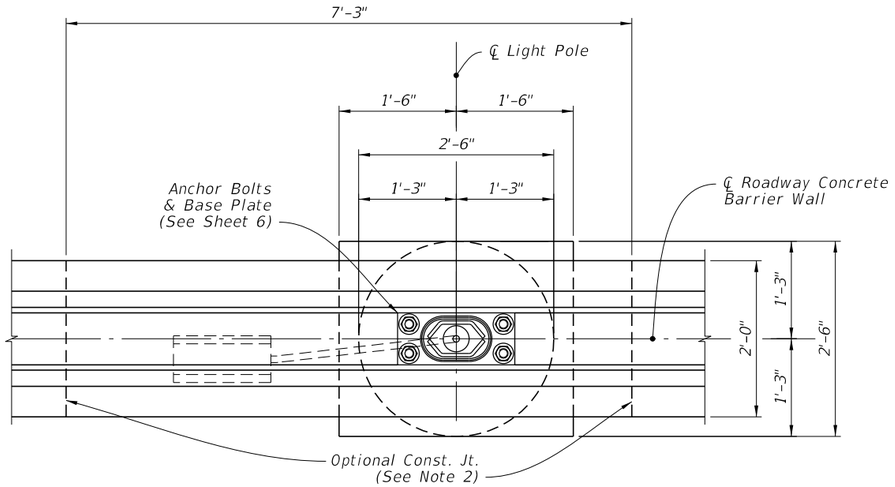
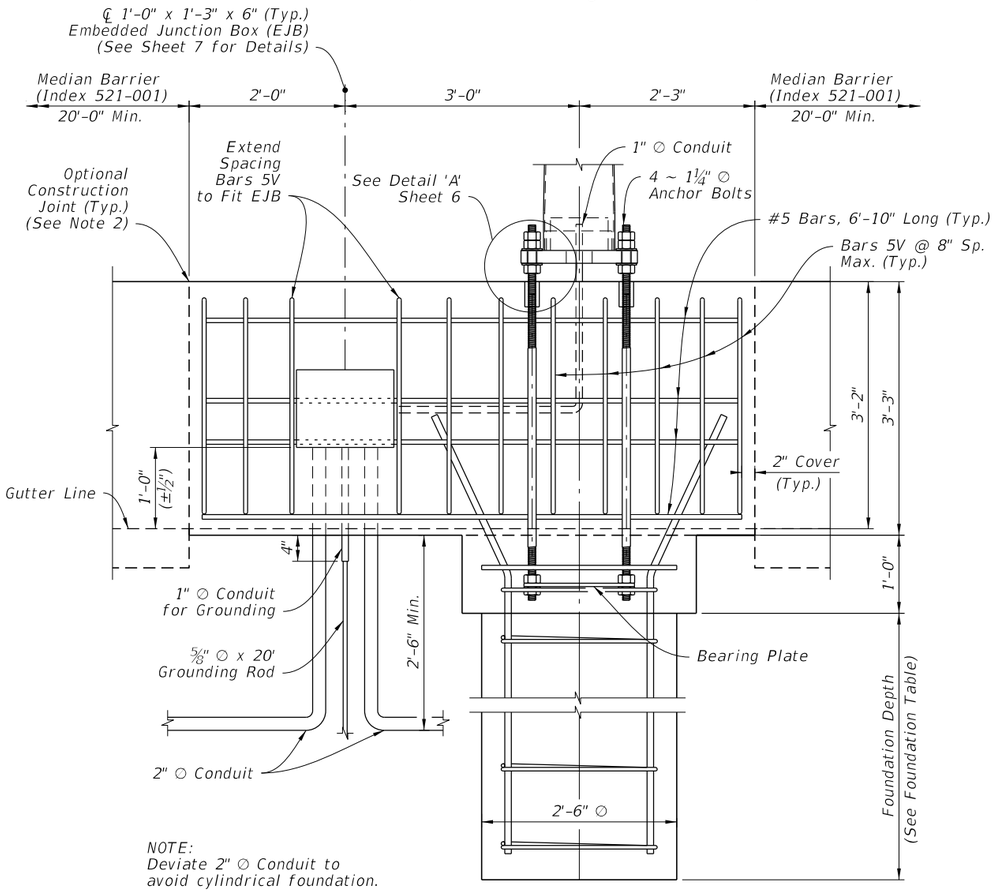
FOUNDATION TABLE		
WIND SPEED (MPH)	DESIGN MOUNTING HEIGHT (FT)	FOUNDATION DEPTH (FT)
120	40	8
140	40	9
160	40	9

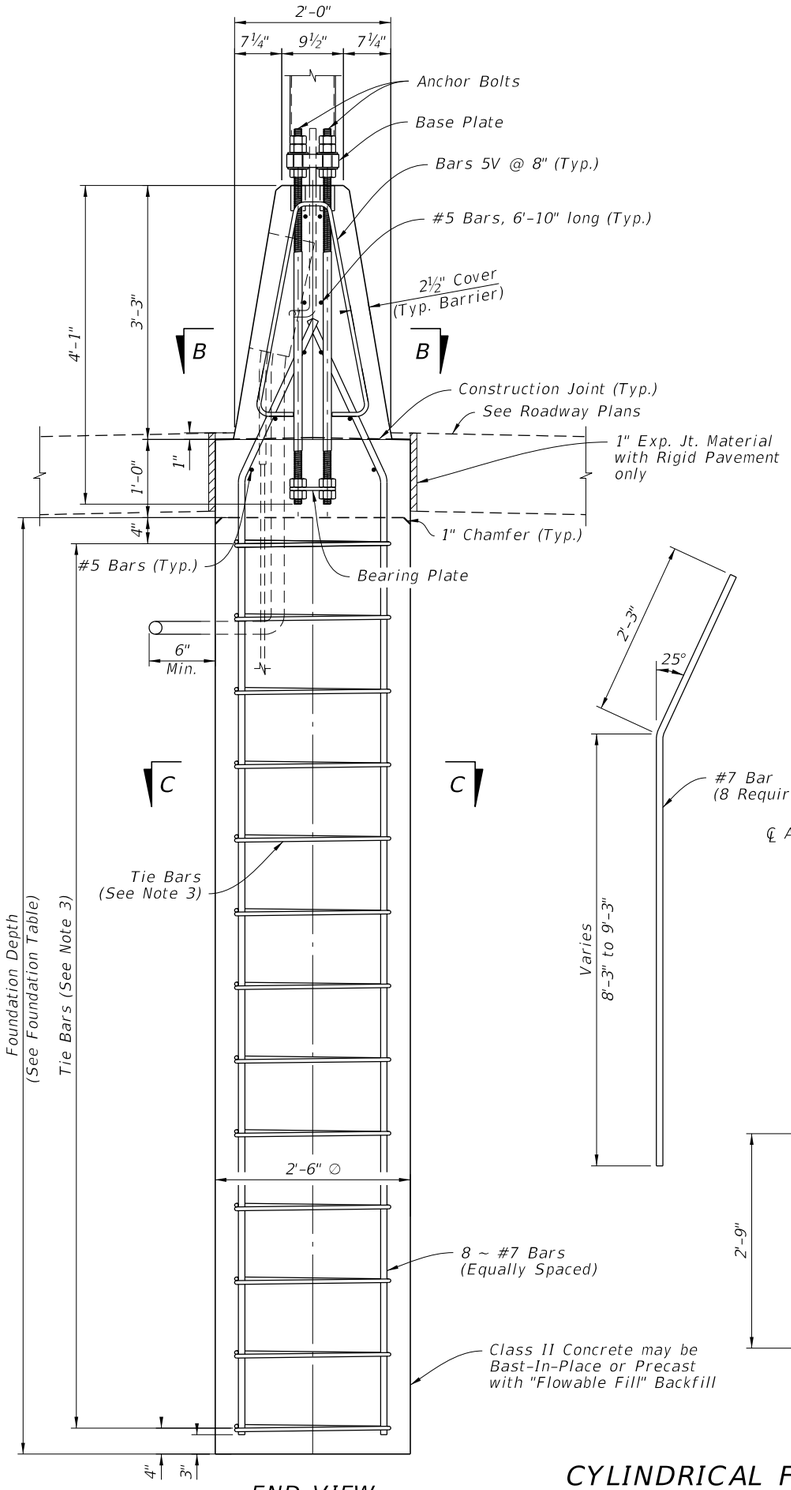


PLAN
(Reinforcing Steel Not Shown)
(Provide Dowel Bars @ Construction Joint)

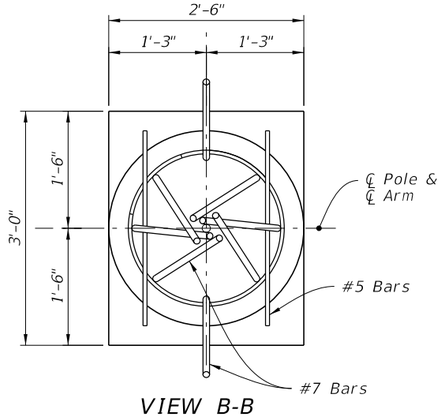


NOTE:
Deviate 2" ∅ Conduit to avoid cylindrical foundation.

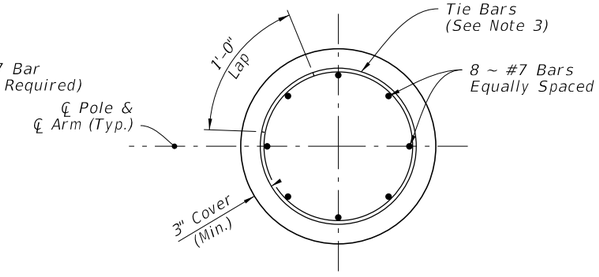
ELEVATION



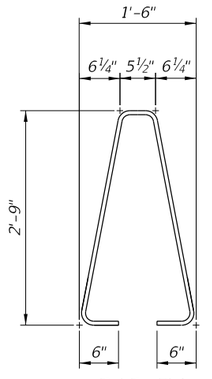
END VIEW



VIEW B-B
(Anchor Bolts and Barrier Longitudinal Steel & Stirrups Not Shown)



SECTION C-C

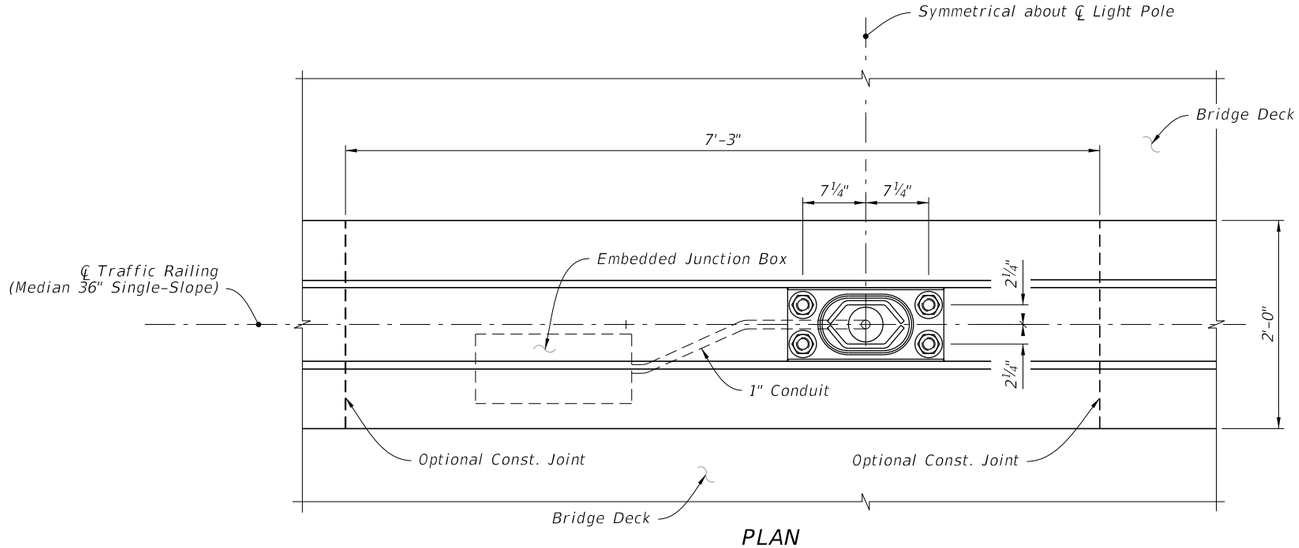


BAR 5V

NOTES:

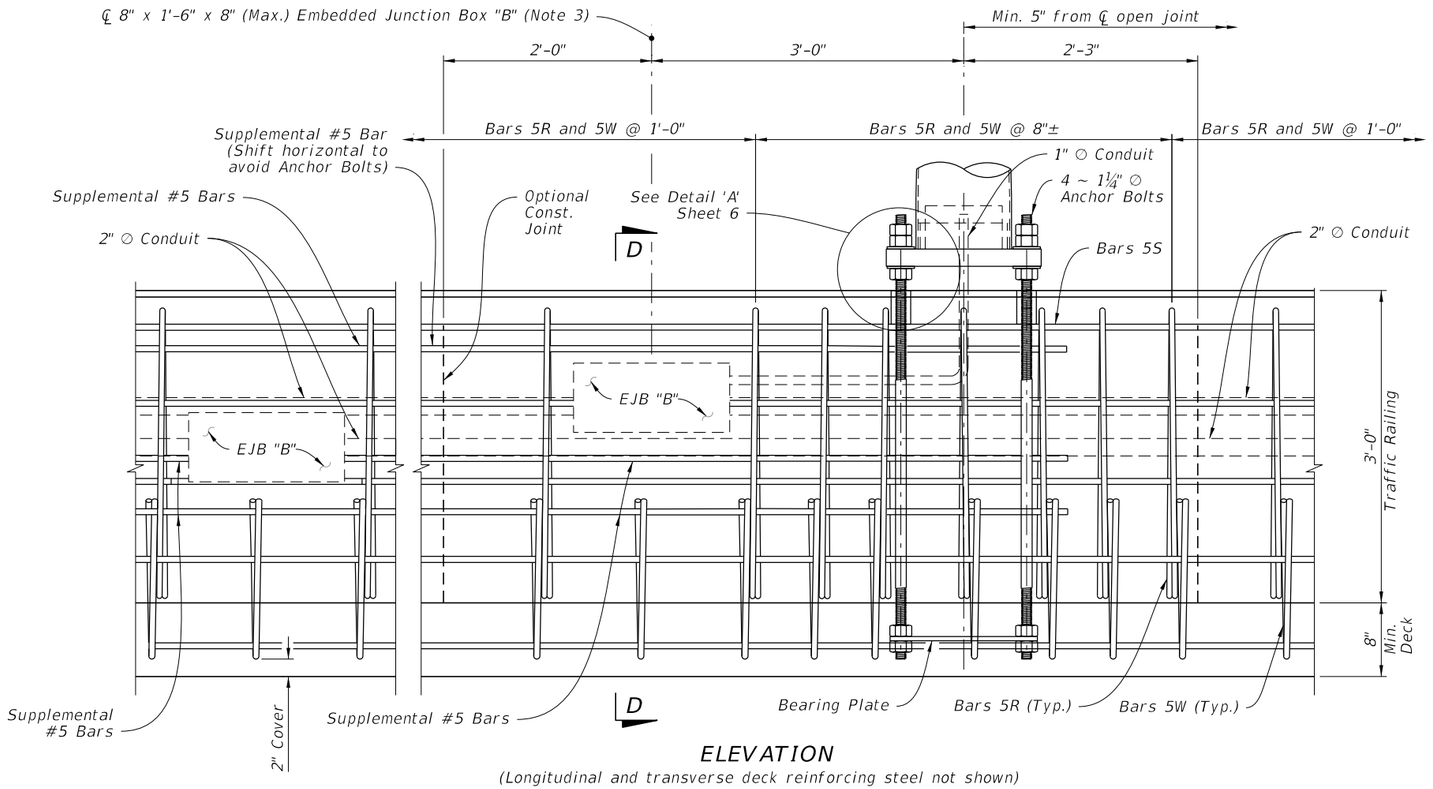
1. For Bearing Plate and Base Plate Details, see Sheet 6.
2. For connections to adjacent Median Barrier, use the Doweled Joint detail per Index 521-001. Alternatively, a continuous concrete pour or a construction joint may be substituted; these alternatives require the Median Barrier's longitudinal steel to lap a minimum of 2'-0" with the longitudinal steel shown herein.
3. #4 Tie Bars @ 12" centers (max.) or D10 (or W10) spiral @ 6" pitch, 3 flat turns top and 1 flat turn bottom.

CYLINDRICAL FOUNDATION DETAILS FOR MEDIAN BARRIER MOUNTED ALUMINUM LIGHT POLE



PLAN

(Reinforcing Steel and 2" ∅ Conduit Not Shown)

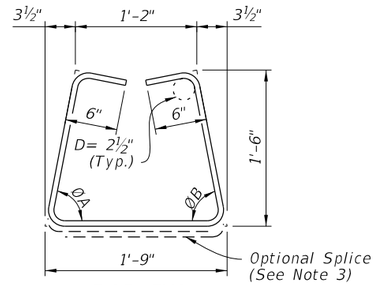


ELEVATION

(Longitudinal and transverse deck reinforcing steel not shown)

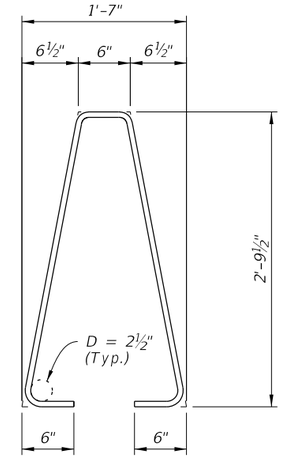
NOTES:

1. For Base Plate Details, Bearing Plate Details, and Detail 'A', see Sheet 6.
2. See Index 521-426 for details of adjacent Traffic Railing (Median 36" Single-Slope) and for angles ∅A and ∅B.
3. See Index 630-010 for Conduit, EJB and supplemental reinforcing details.
4. At the Contractor's option, Bars 5W may be fabricated as a two piece bar with a 1'-2" lap splice at the bottom legs.

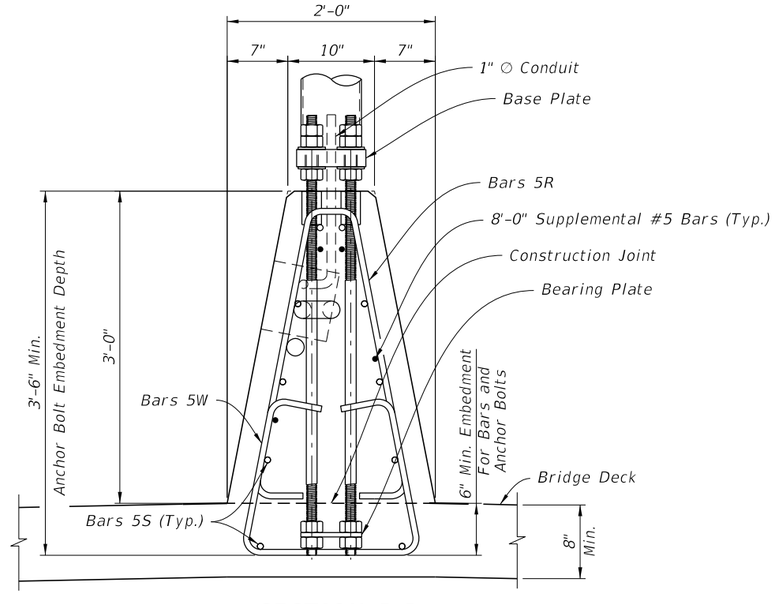


BAR 5W

(See Note 4)



BAR 5R



SECTION D-D

(Longitudinal and Transverse Deck Reinforcing Steel Not Shown)
(See Index 521-426 for Traffic Railing Reinforcing Positions)

DETAILS FOR TRAFFIC RAILING (MEDIAN 36" SINGLE-SLOPE) MOUNTED ALUMINUM LIGHT POLE

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GENERAL NOTES:

1. LUMINAIRE LOAD: Poles are designed to support the following:
   A. Luminaire Effective Projected Area (EPA): 1.55 SF
   B. Luminaire Weight: 75 lb.

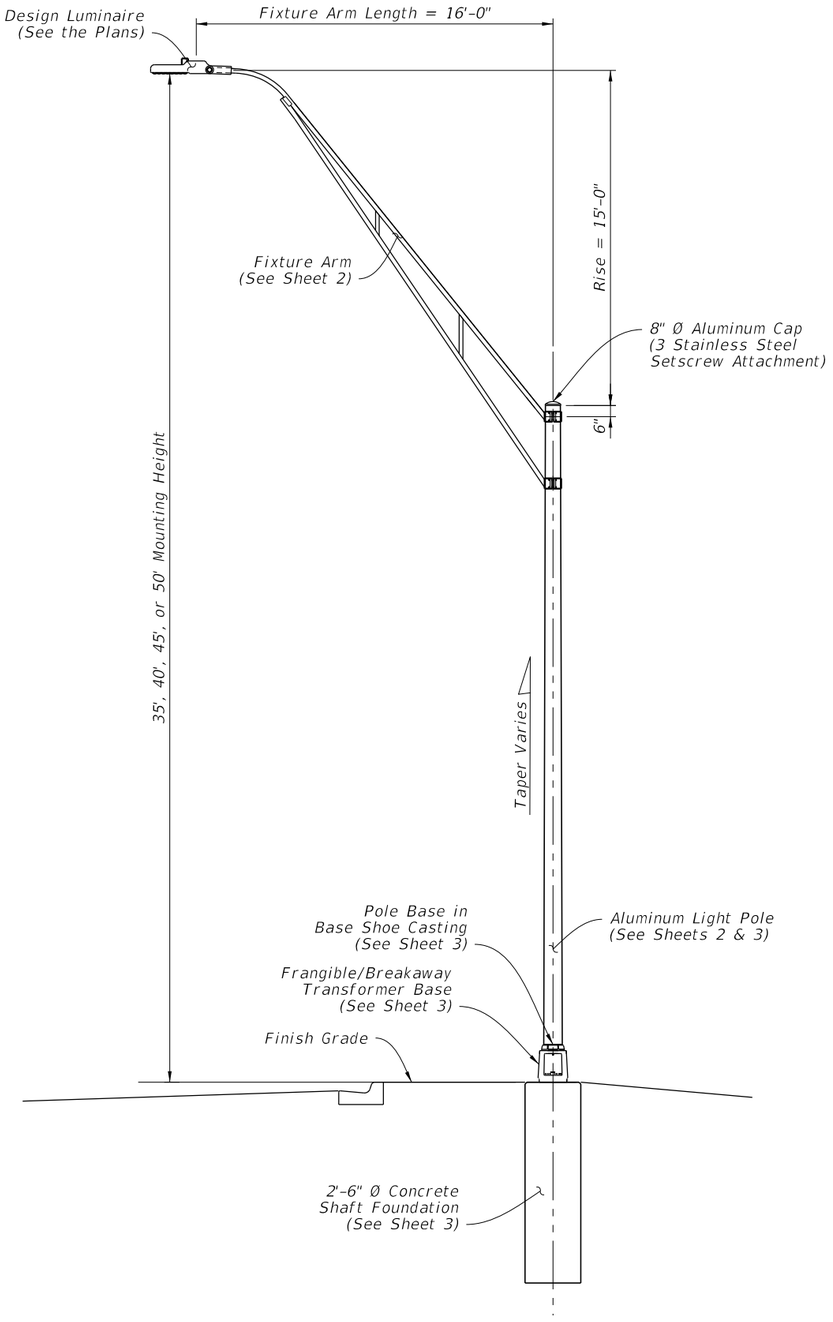
2. SHOP DRAWINGS: This Index is considered fully detailed; only submit shop drawings for minor modifications not included in the Plans.

3. MATERIALS:
   A. Pole, Arm Tubes, Strut Tubes, Bars, Plates, Stiffeners: ASTM B221, Alloy 6063-T6 or Alloy 6061-T6
   B. Pole Connection Extrusion Clamp: ASTM B221, Alloy 6061-T6
   C. Caps and Covers: ASTM B-26, Alloy 319-F
   D. Aluminum Weld Material: ER 4043
   E. Transformer and Frangible Base Materials: ASTM B26 or ASTM B108, Alloy 356-T6
   F. Base Bolts, Nuts and Washers:
      a. Shoe Base Bolts: ASTM F3125, Grade A325, Type 1
      b. Nuts: ASTM A563 Grade DH Heavy-Hex
      c. Washer: ASTM F436 Type 1
   G. Anchor Bolts, Nuts, and Washers:
      a. Anchor Bolts: ASTM F1554 Grade 55
      b. Nuts: ASTM A563 Grade A Heavy-Hex
   H. Clamp Hardware: See Sheet 2
   I. Stainless Steel Cap Fasteners: ASTM F593 Alloy Group 2, Condition A, CW1 or SH1
   J. Nut Covers: ASTM B26 (319-F)
   K. Concrete: Class II
   L. Reinforcing Steel: Specification 415

4. FABRICATION:
   A. Weld Arm and Pole Alloy in the T4 temper using 4043 filler. Age the Arm and Pole artificially to the T6 temper after welding.
   B. Transverse welds are only allowed at the base.
   C. Light Pole Properties: Taper as required to provide a round top O.D. of 8" and a base O.D. of 10" for all pole heights. Portions of the pole near the base shoe and at the arm connections may be held constant to simplify fabrication. Maintain pole wall thickness of 0.313" Min.
   D. Fixture Arm Tube Properties: See Sheet 2.
   E. Provide 'J', 'S' or 'C' hook at top of pole for electrical wires.
   F. Perform all welding in accordance with AWS D1.2.
   G. Identification Tag: (Submit details for approval.)
      a. 2" x 4" (Max.) aluminum identification tag.
      b. Locate on the inside of the transformer base and visible from the door opening.
      c. Secure to transformer base with ⅛" diameter stainless steel rivets or screws.
      d. Include the following information on the ID Tag:
         1. Financial Project ID
         2. Pole Height
         3. Manufacturer's Name

5. COATINGS/FINISH:
   A. Pole and Arm Finish: 50 grit satin rubbed.
   B. Galvanize Steel Bolts, Screws, Nuts and Washers: ASTM F2329
   C. Hot Dip Galvanize miscellaneous steel items: ASTM A123

6. CONSTRUCTION:
   A. Foundation: Specification 455, except payment for the foundation is included in the cost of the pole.
   B. Frangible Base, Base Shoe, and Pole Connection Extrusion Clamp:
      a. Certify that the Pole Connection Extrusion Clamp, Frangible Transformer Base, and Base Shoe Design are capable of providing the required capacity, assuming a design wind speed of 160 MPH.
      b. Certify the Base conforms to the FHWA required AASHTO Frangibility Requirements, tested under NCHRP Report 350 Guidelines (e.g. Akron Foundry TB1-17).
      c. Do not erect pole without Luminaire attached.



LIGHT POLE - ELEVATION

(Shaft Foundation Shown,
Spread Footing Foundation Similar)

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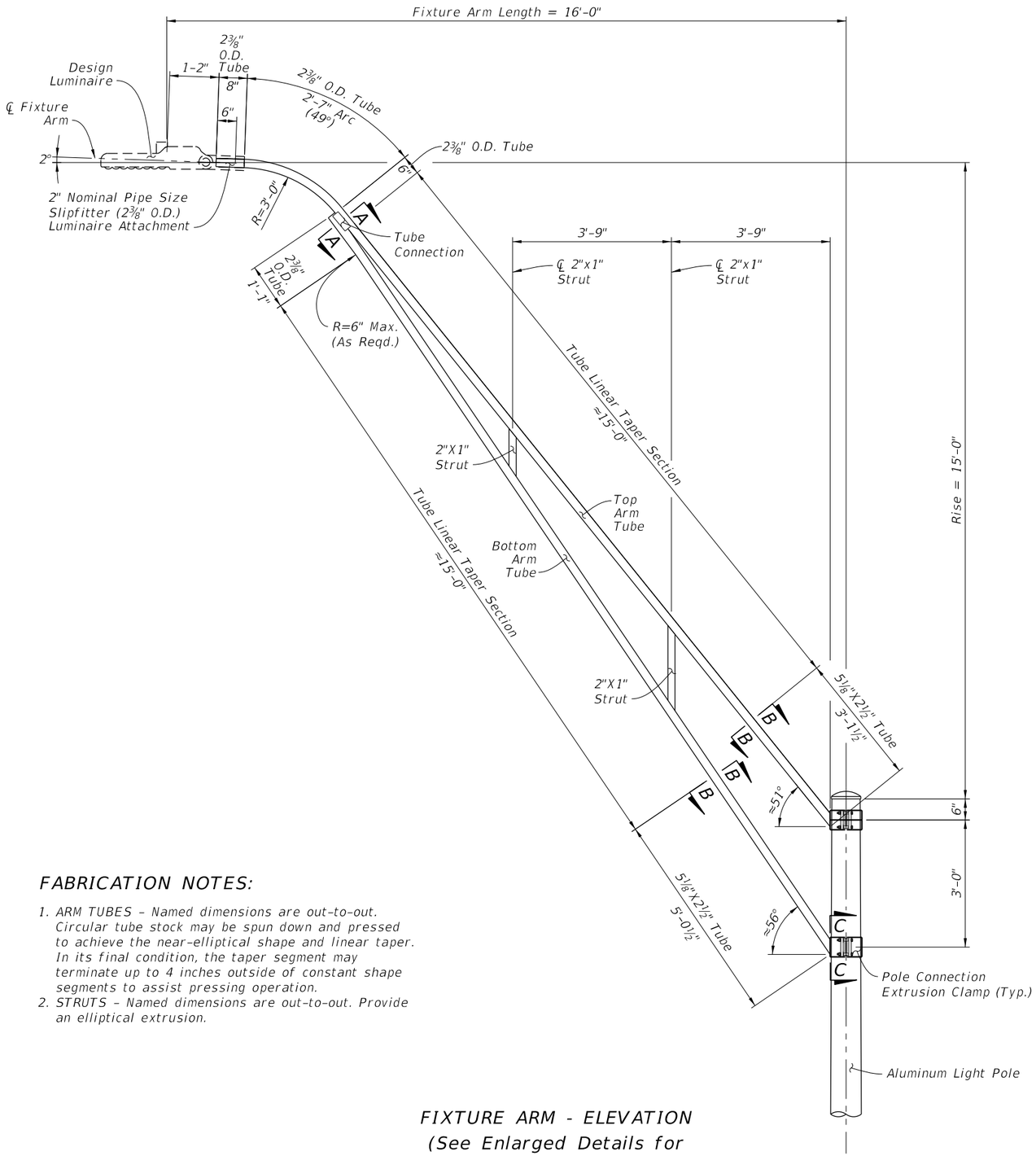
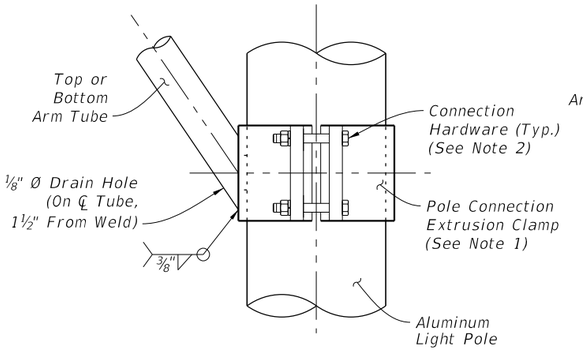


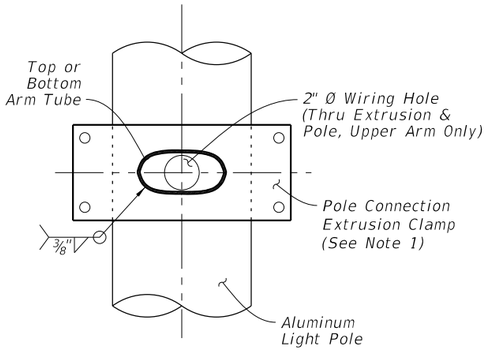
FIXTURE ARM - ELEVATION
(See Enlarged Details for Welding Requirements)

FABRICATION NOTES:

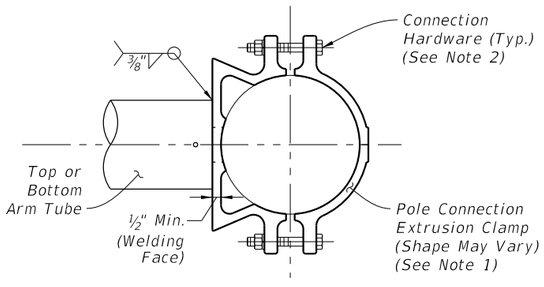
1. ARM TUBES – Named dimensions are out-to-out. Circular tube stock may be spun down and pressed to achieve the near-elliptical shape and linear taper. In its final condition, the taper segment may terminate up to 4 inches outside of constant shape segments to assist pressing operation.
2. STRUTS – Named dimensions are out-to-out. Provide an elliptical extrusion.



ELEVATION



SECTION C-C

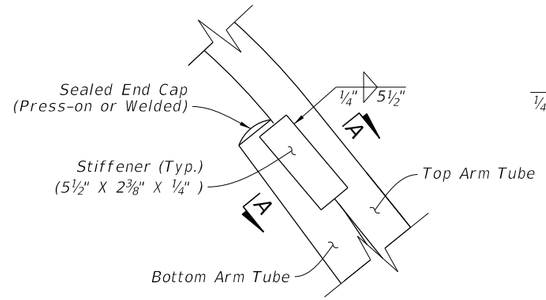


PLAN

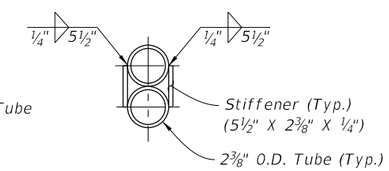
POLE CONNECTION NOTES:

1. The Pole Connection Extrusion Clamp shown may vary by manufacturer. Provide a design that meets the requirements of General Note 6.B.a., including the connection hardware sizing.
2. Provide connection hardware with 13NC AISI Grade 316 stainless steel ½" min. bolts, nuts, and spring lock washers. Use flat washers per ASTM F593G & F594G, Alloy Group 2, Condition CW1.

POLE CONNECTION DETAILS

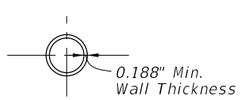


ELEVATION

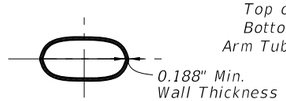


SECTION A-A

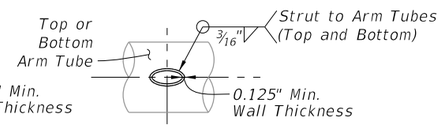
TUBE CONNECTION DETAILS



2⅜" O.D. TUBE



5⅛"X2½" TUBE
SECTION B-B



2"X1" STRUT
PLAN VIEW

TUBE SECTION DETAILS

FIXTURE ARM ASSEMBLY

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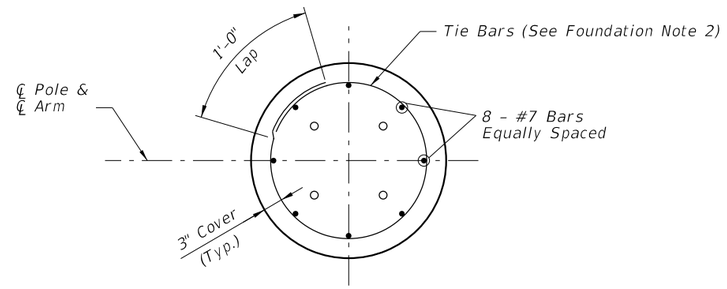
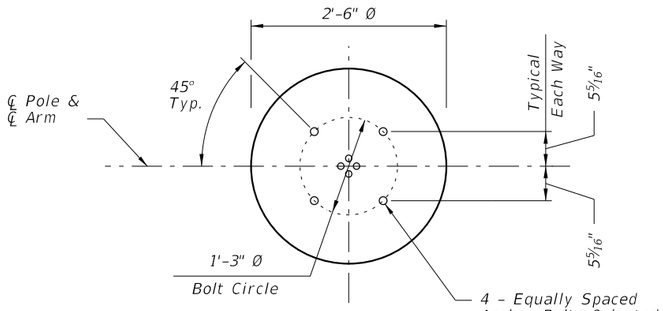
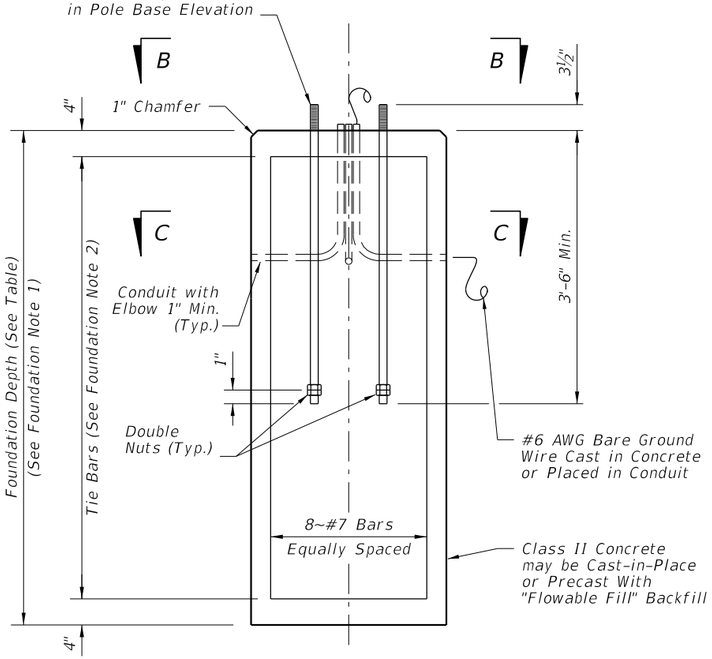


SECTION C-C



VIEW B-B

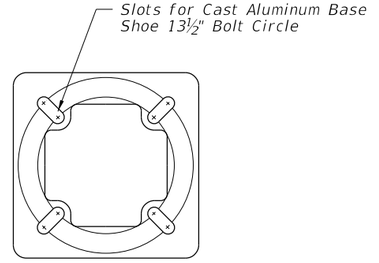


SHAFT FOUNDATION ELEVATION

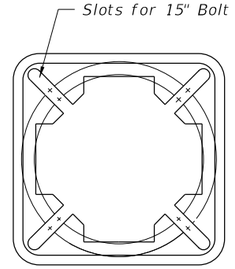
FOUNDATION DEPTHS		
Luminaire Mounting Height	≤ 40 Ft.	45-50 Ft.
Depth	8'-0"	9'-0"

FOUNDATION NOTES:

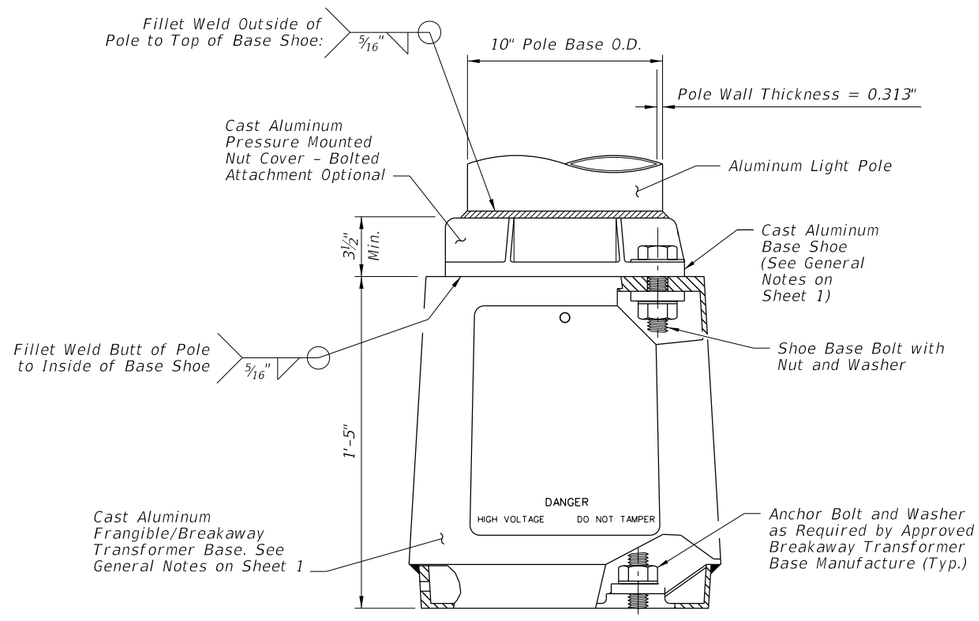
1. Depths shown are for slopes equal to or flatter than 1:4. For slopes steeper than 1:4 and equal to or flatter than 1:2 add 2'-6" to foundation depths shown.
2. Foundation Tie Bars: #4 Tie Bars @ 12" centers (max.) or D10 (or W10) spiral @ 6" pitch, 3 flat turns top and 1 flat turn bottom.
3. For precast foundations, the circular cross section shown may be substituted with an octagon shape. The out-to-out distance between parallel edges of the octagon must be ≥ 2'-6". Use the same reinforcing diameter and centered placement with a minimum 3" cover.



TOP VIEW
TRANSFORMER BASE

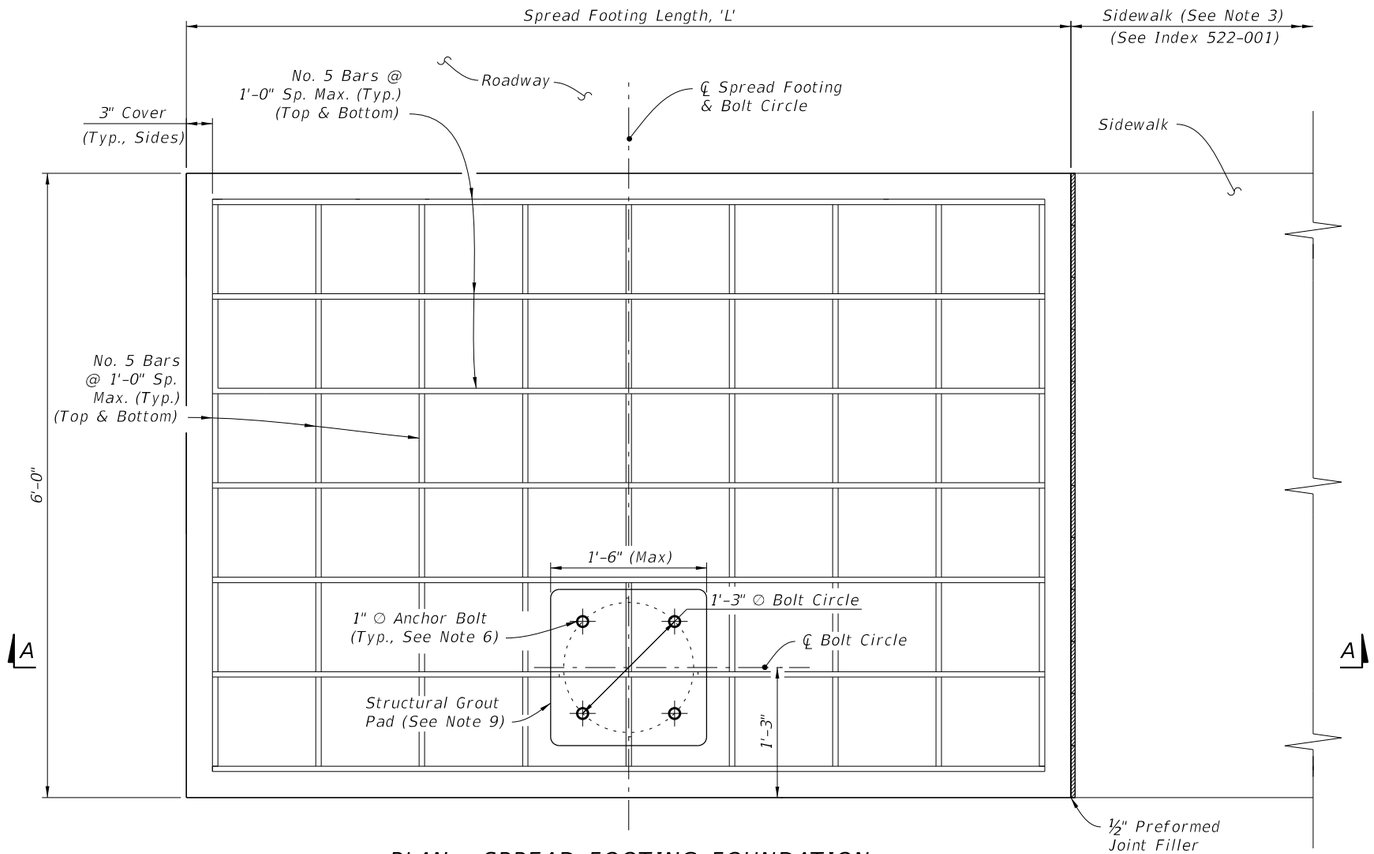


BOTTOM VIEW
TRANSFORMER BASE

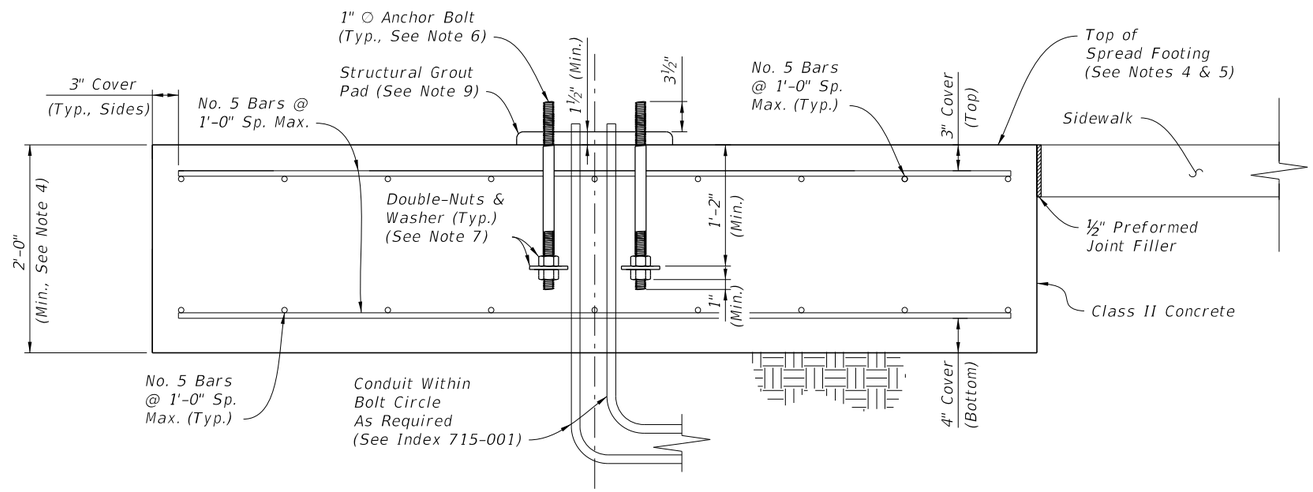


POLE BASE ELEVATION

SHAFT FOUNDATION OPTION AND BASE DETAILS



PLAN - SPREAD FOOTING FOUNDATION



SECTION A-A - SPREAD FOOTING FOUNDATION ELEVATION

SPREAD FOOTING LENGTH, 'L'			
Mounting Height (Ft.)	Wind Speed (All Arm Lengths)		
	120 mph	140 mph	160 mph
20	4'-6"	5'-0"	6'-0"
25	4'-6"	5'-0"	6'-0"
30	7'-0"	7'-0"	7'-0"
35	7'-0"	7'-0"	7'-0"
40	7'-0"	7'-0"	10'-0"
45	8'-6"	10'-0"	10'-0"
50	8'-6"	10'-0"	11'-6"

NOTES:

1. Install the Spread Footing Foundation Option only where called for in the Plans.
2. The Spread Footing Foundation Option is only permitted for use with single arm light poles. The pole arm must be oriented towards the roadway side of the footing as shown.
3. Sidewalk placed on the other side or both sides of the spread footing is permitted where shown in the Plans. The sidewalk connection to spread footing requires the ½" expansion joint shown regardless of the side.
4. The top of the spread footing must match the cross slope of the adjacent sidewalk where applicable per the Plans. The nominal bottom of the spread footing must remain level.
5. Apply concrete surface finish to the top of the spread footing in accordance with Specification 522-7.
6. Mount the anchor bolts plumb. For the corresponding pole base details, see Sheet 3.
7. Place galvanized or zinc-plated steel washers with a minimum thickness of ¼". Use washers with a minimum size of 3½" ∅ round or 3"x3" square.
8. Where raised curb is called for in the Plans, provide a tooled cold joint with bond breaker between the foundation and back of raised curb. See Sheet 1 and the connection between concrete sidewalk and raised curb per Index 522-001.
9. Place a structural grout pad in accordance with Specification 934. The grout pad is square and centered on the bolt circle centerlines. Level the top of the grout pad and smooth the edges and corners per the approval of the Engineer. Install the transformer base in accordance with Sheet 3 and the manufacturer's specifications.

SPREAD FOOTING FOUNDATION OPTION

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HIGHMAST LIGHTING NOTES:

1. Poles are designed to support the following:
   A. One (1) cylindrical head assembly with a maximum effective projected area of 6 sf and 340 lbs (Max.)
   B. Eight (8) cylindrical luminaires with a maximum effective projected are of 1.5 sf and 77 lbs each.

2. Shop Drawings: This Index is considered fully detailed, only submit shop drawings for minor modifications not detailed in the Plans.

3. High Mast Structure Materials:
   A. Poles and Backing Rings:
      a. Less than 3/16": ASTM A1011 Grade 50, 55, 60 or 65
      b. Greater than or equal to 3/16": ASTM A572 Grade 50, 55, 60 or 65
      c. ASTM A595 Grade A (55 ksi yield) or Grade B (60 ksi yield)
   B. Steel Plates: ASTM A709 or ASTM A36
   C. Pole Caps: ASTM A1011 Grade 50, 55, 60, or 65 or ASTM B209
   D. Weld Metal: E70XX
   E. Stainless Steel Screws: AISI 316
   F. Anchor Bolts, Nuts and Washers:
      a. Anchor Bolts: ASTM F1554 Grade 55
      b. Nuts: ASTM A563 Grade A Heavy-Hex (5 per anchor bolt)
      c. Plate Washer: ASTM A36 (2 per anchor bolt)
   G. Nut Covers: ASTM B26 (319-F)
   H. Concrete: Class IV (Drilled Shaft)
   I. Reinforcing Steel: Specification 415

4. Fabrication:
   A. Welding:
      a. Specification Section 460-6.4 and
      b. AASHTO LRFD Specification for Structural Supports for Highway Signs, Luminaires, and Traffic Signals Section 14.4.4
   B. Poles:
      a. Round or 16-sided (Min.)
      b. Taper pole diameter at 0.14 inches per foot
      c. Pole shaft may be up to three sections (using telescopic field splices)
      d. Circumferentially welded pole shafts and laminated pole shafts are not permitted
      e. Fabricate Pole longitudinal seam welds (2 maximum) with 60 percent minimum penetration or fusion welds except as follows:
         i. Use a complete joint penetration weld within 6 inches of the circumferential tube-to-plate connection and
         ii. Use complete joint penetration welds on the female end section of telescopic (i.e., slip type) field splices for a minimum length of 42 inches.
   C. Identification Tag: (Submit details for approval)
      a. 2"x 4" (Max.) aluminum tag
      b. Locate on the inside of the pole and visible from the handhole
      c. Secure with 1/8" diameter stainless steel rivets or screws.
      d. Include the following information on the ID Tag:
         1. Financial Project ID
         2. Pole Type
         3. Pole Height
         4. Manufacturers' Name
         5. Yield Strength (Fy of Steel)
         6. Base Wall Thickness
   D. Except for Anchor Bolts, bolt hole diameters are bolt diameter plus 1/16" and anchor bolts holes are bolt diameter plus ½" (Max) prior to galvanizing.
   E. Hot Dip Galvanize after fabrication

5. Coating:
   A. Galvanize Anchor Bolts, Nuts and Washers: ASTM F2329
   B. Hot Dip Galvanize all other steel items including plate washers: ASTM A123

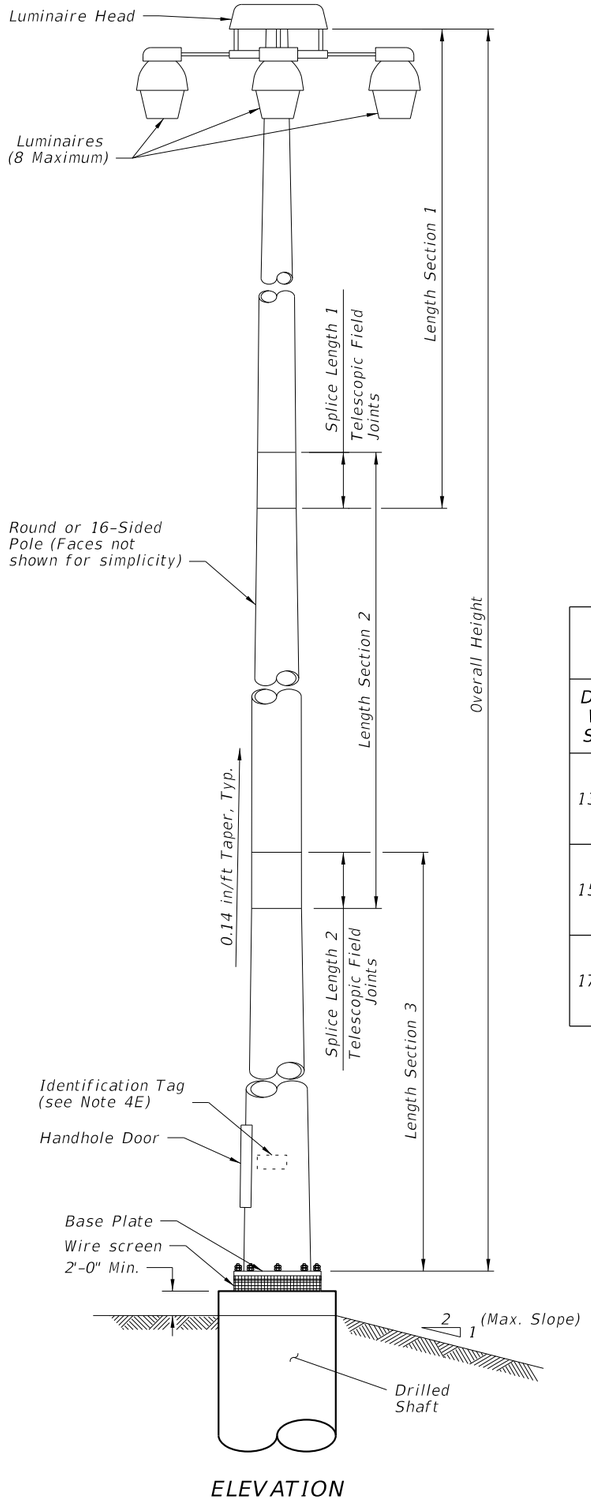
6. Construction:
   A. Foundation: Specification 455 Drilled Shaft, except that payment is included in the cost of the Structure.
   B. After Installation: Place wire screen between top of foundation and bottom of baseplate in accordance with Specification 649-6.

7. Wind Speed by County:

130 MPH
Alachua, Baker, Bradford, Calhoun, Clay, Columbia, Dixie, Duval, Gadsden, Gilchrist, Hamilton, Jackson, Jefferson, Lafayette, Leon, Liberty, Nassau, Madison, Putnam, Suwannee, Taylor, Union and Wakulla Counties.

150 MPH
Bay, Citrus, De Soto, Flagler, Franklin, Glades, Gulf, Hardee, Hendry, Hernando, Highlands, Hillsborough, Holmes, Lake, Levy, Manatee, Marion, Okaloosa, Okeechobee, Orange, Osceola, Pasco, Pinellas, Polk, Santa Rosa, Seminole, St. Johns, Sumter, Volusia, Walton and Washington Counties.

170 MPH
Brevard, Broward, Charlotte, Collier, Escambia, Indian River, Lee, Martin, Miami-Dade, Monroe, Palm Beach, Sarasota and St. Lucie Counties.



ELEVATION

TABLE 1

POLE DESIGN TABLE*

Design Wind Speed	Pole Overall Height (ft)	SECTION 1 (TOP)				SECTION 2				SECTION 3		
		Length	Wall Thickness (in.)	Minimum Splice Length 1	Base Dia. (in.)	Length	Wall Thickness (in.)	Minimum Splice Length 2	Base Dia. (in.)	Length	Wall Thickness (in.)	Base Dia. (in.)
130 mph	80	41'-0"	0.250	2'-0"	11	42'-0"	0.250	--	16	—	—	—
	100	23'-0"	0.179	2'-0"	10	41'-0"	0.250	2'-6"	15	43'-0"	0.250	20
	120	41'-0"	0.250	2'-0"	12	43'-0"	0.250	2'-9"	17	43'-0"	0.313	22
150 mph	80	41'-0"	0.250	2'-0"	11	42'-0"	0.313	--	16	—	—	—
	100	23'-0"	0.179	2'-0"	10	41'-0"	0.250	2'-6"	15	43'-0"	0.313	20
	120	41'-0"	0.250	2'-6"	16	43'-0"	0.250	3'-0"	21	44'-0"	0.375	26
170 mph	80	40'-0"	0.250	2'-3"	13	43'-0"	0.313	--	18	--	--	—
	100	23'-0"	0.250	2'-0"	11	42'-0"	0.313	2'-6"	16	44'-0"	0.375	21
	120	41'-0"	0.250	3'-0"	18	44'-0"	0.313	3'-6"	23	45'-0"	0.375	28

* Diameter Measured Flat to Flat

TABLE 2

BASE PLATE AND BOLTS DESIGN TABLE

Design Wind Speed	Pole Overall Height (ft)	Base Plate Diameter (in.)	Base Plate Thickness (in.)	Bolt Circle (in.)	No. Bolts	Bolt Diameter (in.)	Bolt Embedment (in.)
130 mph	80	30.0	3.000	23.0	8	1.75	38
	100	34.0	3.000	27.0	8	1.75	42
	120	38.0	3.875	30.0	8	2.00	48
150 mph	80	30.0	3.000	23.0	8	1.75	43
	100	36.0	3.875	28.0	8	2.00	47
	120	44.0	3.875	35.0	8	2.25	52
170 mph	80	32.0	3.000	25.0	8	1.75	47
	100	37.0	3.000	29.0	8	2.00	54
	120	46.0	3.875	37.0	10	2.25	58

TABLE 3

SHAFT DESIGN TABLE

Design Wind Speed	Pole Overall Height (ft)	Shaft Diameter	Shaft Length	Longitudinal Reinforcement
130 mph	80	4'-0"	13'-0"	14-#11
	100	4'-6"	14'-0"	16-#11
	120	4'-6"	16'-0"	16-#11
150 mph	80	4'-0"	14'-0"	14-#11
	100	4'-6"	16'-0"	16-#11
	120	5'-0"	18'-0"	18-#11
170 mph	80	4'-6"	15'-0"	16-#11
	100	4'-6"	17'-0"	16-#11
	120	5'-0"	20'-0"	18-#11

NOTE:
Shaft Design Table Shaft Length is based on level ground (flatter than 1:5). Increase the shaft depth in accordance with the Additional Shaft Depth Due to Ground Slope table for foundations with slopes 1:5 and steeper. Use the higher value for slope or diameter values that fall between those shown on the table.

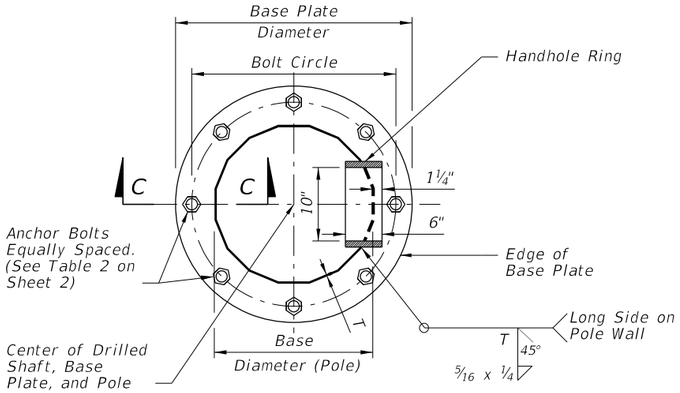
TABLE 4

ADDITIONAL SHAFT DEPTH DUE TO GROUND SLOPE

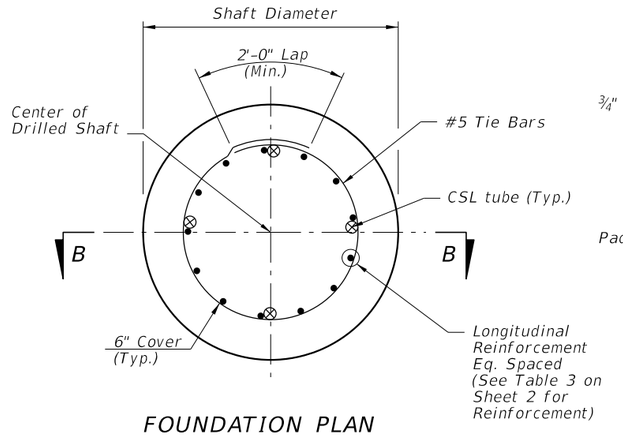
Ground Slope	4'-0" Shaft Diameter	5'-0" Shaft Diameter
1:5	3'-0"	4'-0"
1:4	4'-0"	5'-0"
1:3	5'-0"	6'-0"
1:2	7'-0"	9'-0"

9/29/2025 10:13:41 AM

POLE DESIGN TABLES

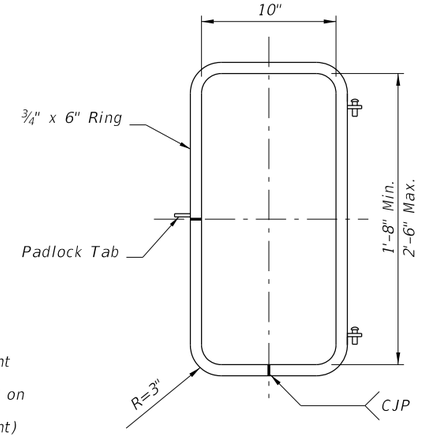


SECTION A-A

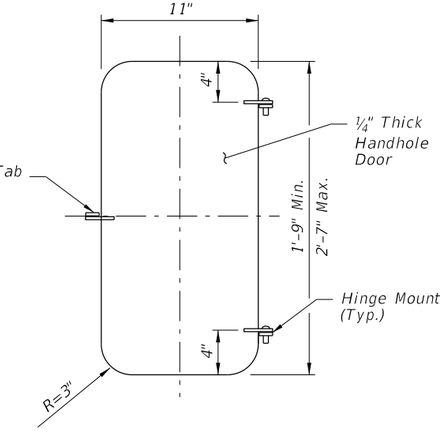


FOUNDATION PLAN

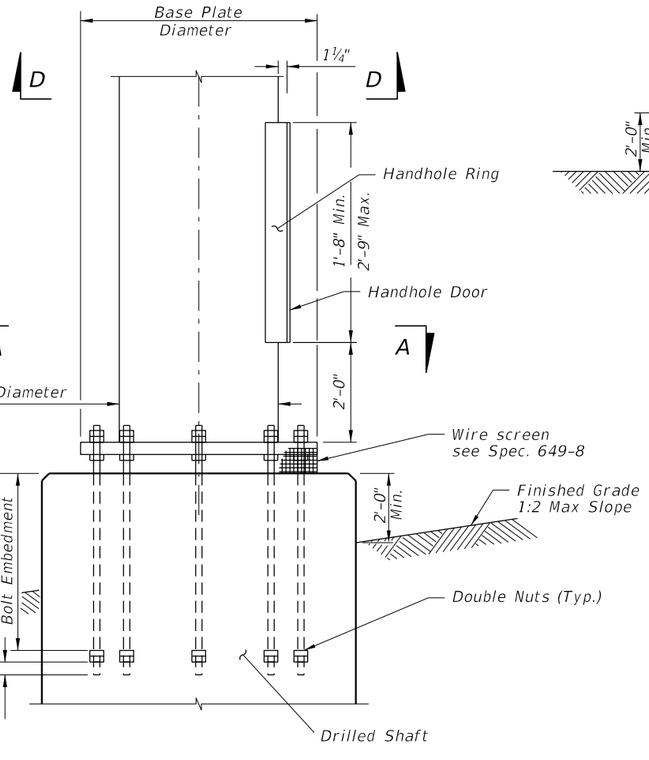
(Anchor Bolts and Conduits Not Shown)



HANDHOLE RING

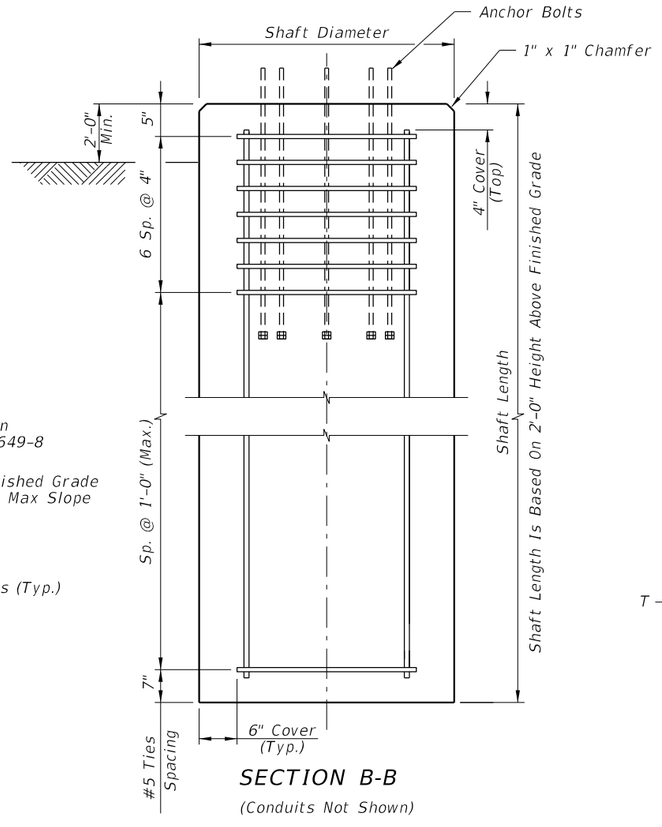


HANDHOLE DOOR



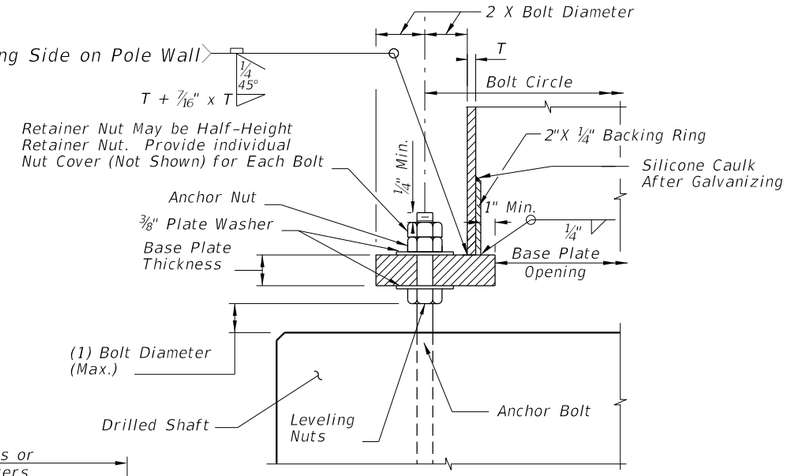
BASE PLATE AND ANCHORAGE ELEVATION

(Conduits Not Shown)

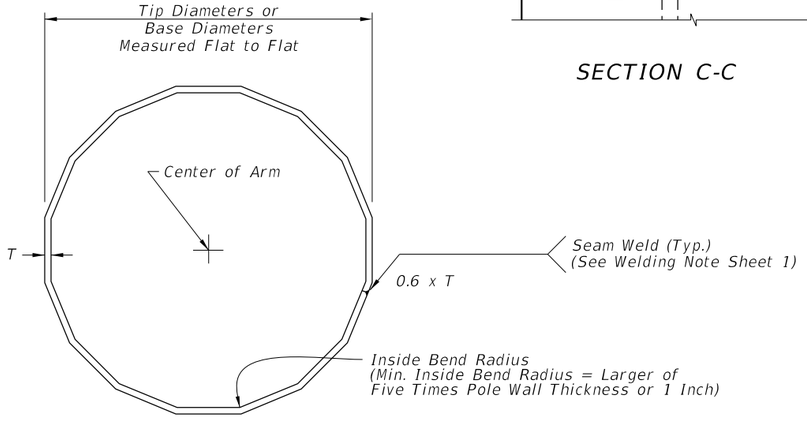


SECTION B-B

(Conduits Not Shown)



SECTION C-C

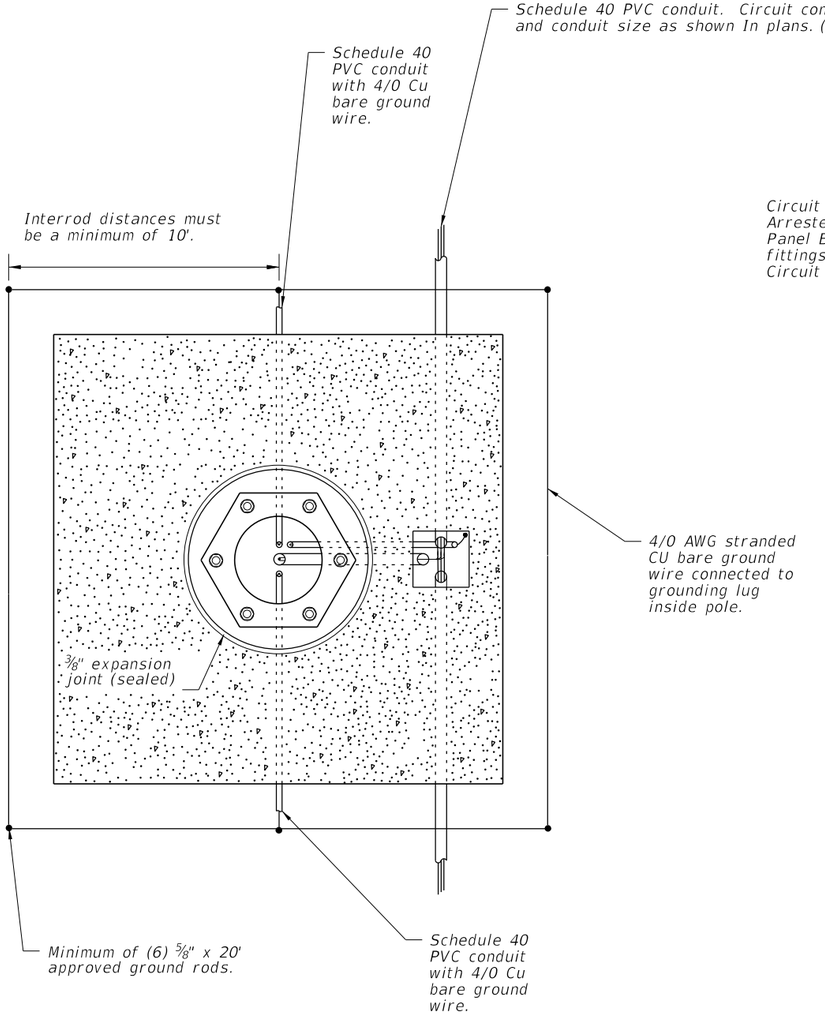


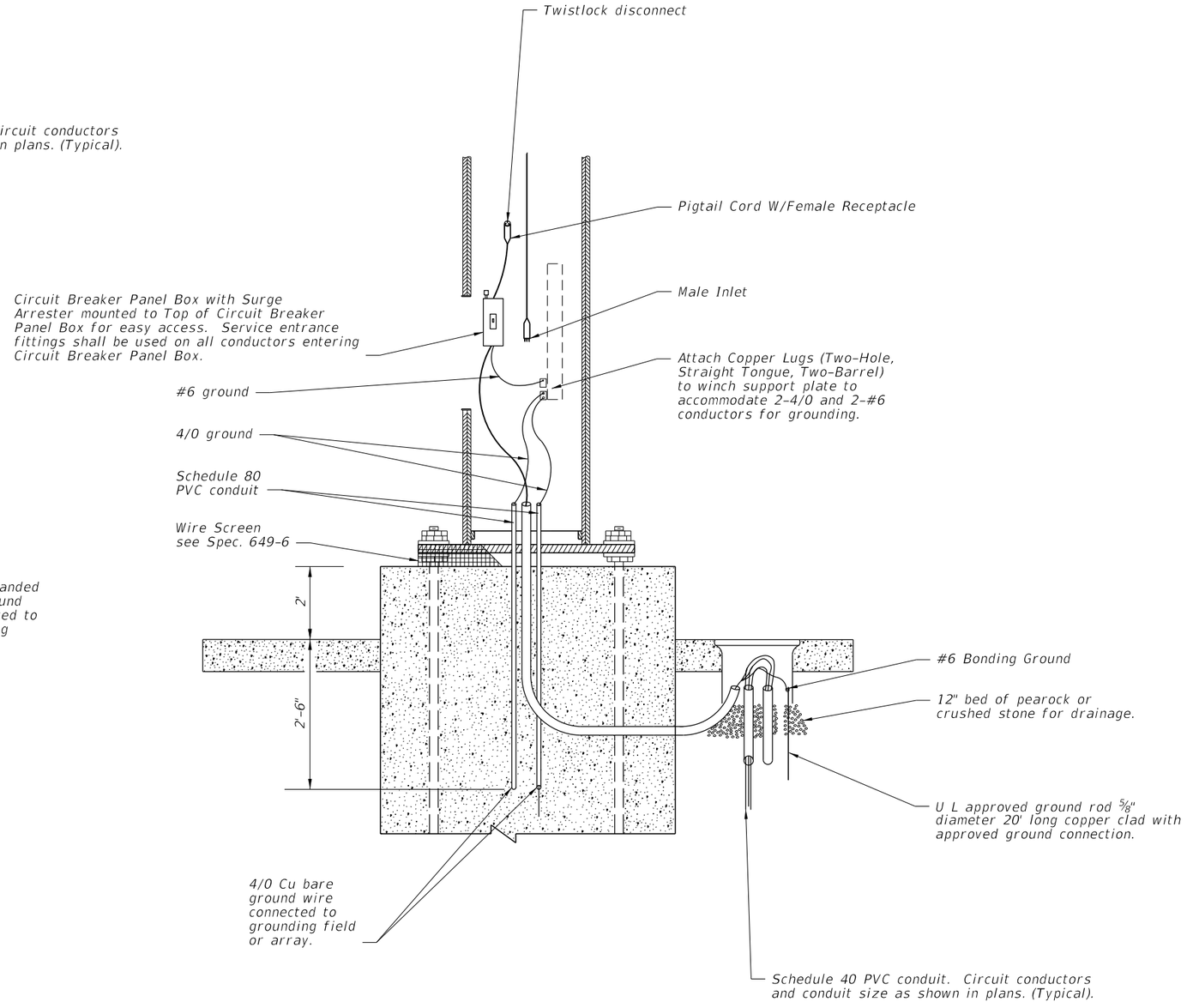
SECTION D-D

POLE FOUNDATION

9/29/2025 10:13:50 AM

LAST REVISION	REVISION	DESCRIPTION:	FY 2026-27 STANDARD PLANS	HIGH MAST LIGHTING	INDEX	SHEET
11/01/24					715-010	3 of 6





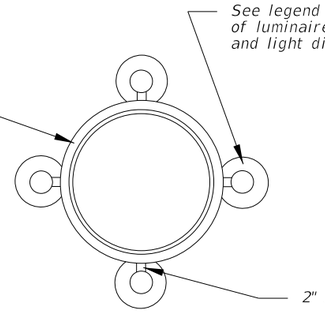
NOTES:

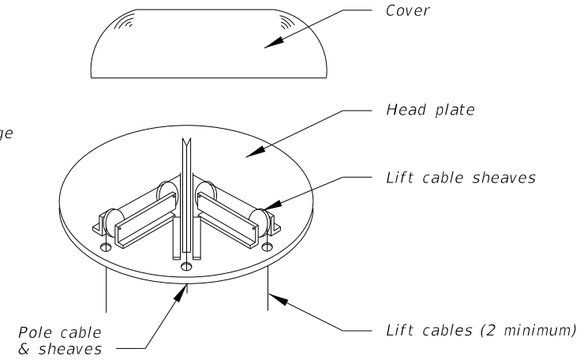
1. At all pull boxes and pole bases, ends of conduit shall be sealed in accordance with Specification 630.
2. Slabs to be placed around all Poles and Pull Boxes.
3. For Pull Boxes between Poles refer to Index 715-001.

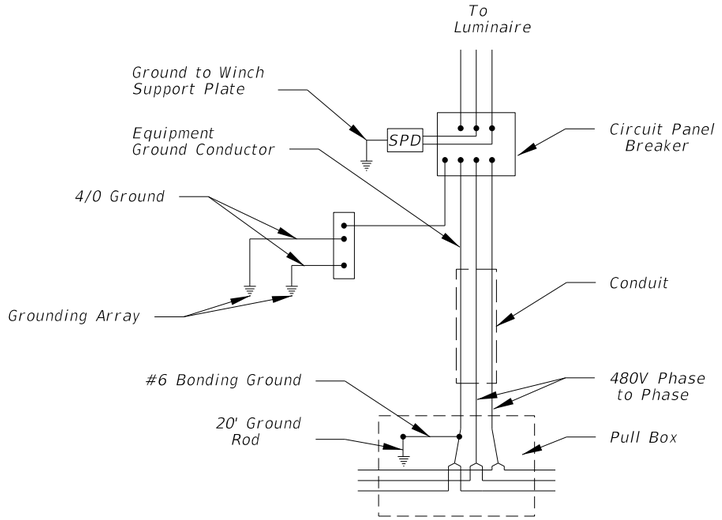
WIRING DETAILS

NOTE:

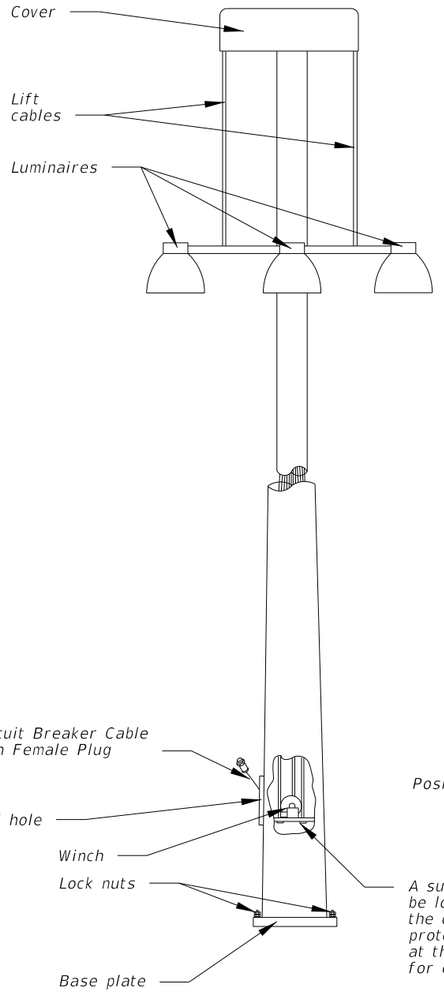
The contractor's attention is directed to those plan sheets detailing the mounting of luminaires at the pole top. Particular attention is directed to alignment of luminaire light distributions. Special attention must be exercised in the physical alignment of these luminaires to ensure that the approved photometric layout is physically produced at each lighting standard in the field. A marking shall be placed on the external face of the refractor to allow visual inspection of alignment. The marking shall correspond to the 0° axis of the refractor.

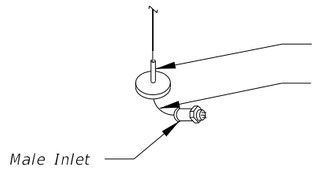


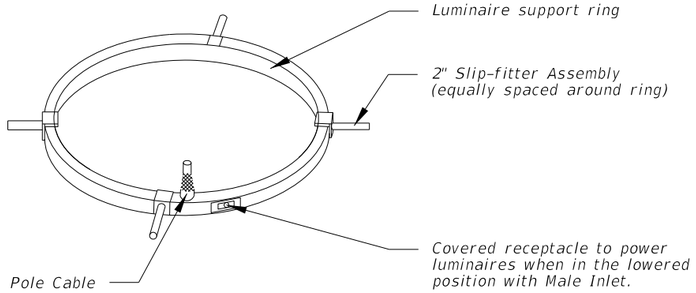


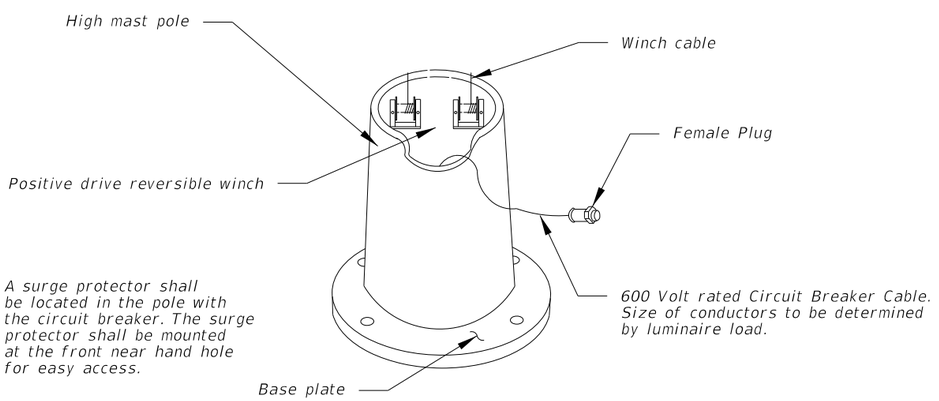


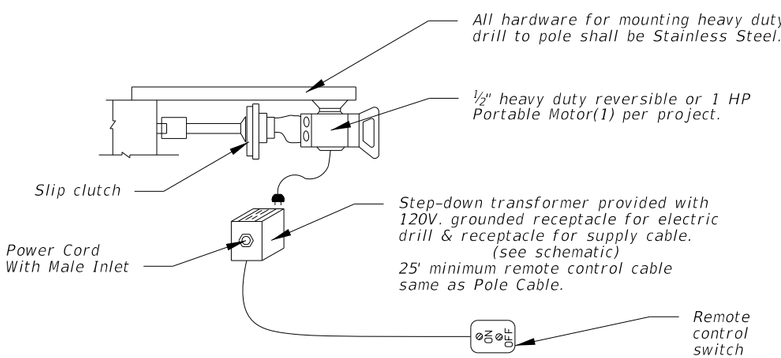
HIGH MAST POLE WIRING DIAGRAM

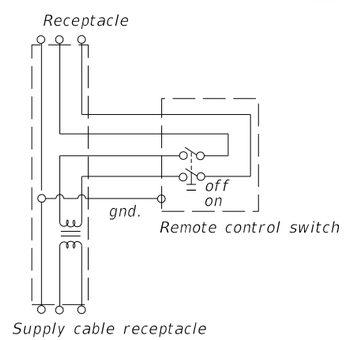












SCHEMATIC OF REMOTE AUXILIARY POWER UNIT

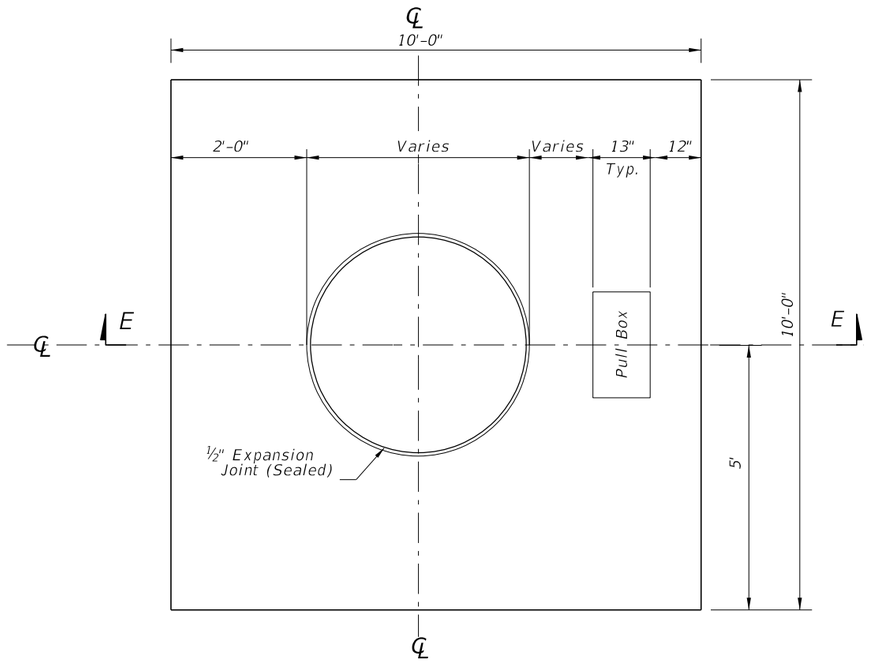
LOWERING DETAILS

9/29/2025 10:14:05 AM

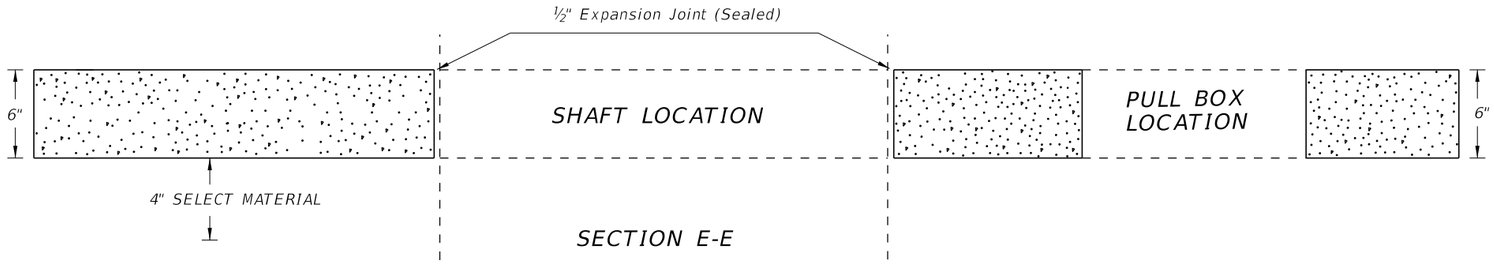
LAST REVISION	REVISION	DESCRIPTION:				
11/01/17			FDOT FY 2026-27 STANDARD PLANS	HIGH MAST LIGHTING	INDEX 715-010	SHEET 5 of 6

NOTES:

1. Use compacted select material in accordance with Index 120-001.
2. Concrete shall be Class NS with a minimum strength at 28 days of f'c=2.5 ksi.
3. Outside edge of slab shall be cast against formwork.
4. The pull box shown is 13" x 24"; others approved under Specification 635 may be used.
5. Slabs to be placed around all Poles and Pull Boxes. In urban areas or where space is limited slab dimensions may be adjusted as shown in the plans.
6. Concrete for slabs around poles and pull boxes shall be included in the price of pole or pull box.
7. The expansion joint shall consist of ½" of closed-cell polyethylene foam expansion material. The top ½" of expansion material shall be removed after pouring the slab and sealed with an APL approved Type A sealant meeting the requirements of Specification 932.



SLAB DIMENSIONS



SECTION E-E

SLAB DETAILS

9/29/2025 10:14:12 AM

LAST REVISION	REVISION	DESCRIPTION:				
11/01/17			FDOT FY 2026-27 STANDARD PLANS	HIGH MAST LIGHTING	INDEX 715-010	SHEET 6 of 6

CROSSING SURFACES	
Type	Definition
C	Concrete
R	Rubber
RA	Rubber/Asphalt
TA	Timber/Asphalt

STOP ZONE FOR RUBBER CROSSING	
Design Speed (mph)	Zone Length (Distance From Stop)
45 Or Less	250'
50 – 55	350'
60 – 65	500'
70	600'

Notes:

1. Type R Crossings are NOT to be used for multiple track crossings within zones for an existing or scheduled future vehicular stop. Zone lengths are charted above.

2. Single track Type R Crossings within the zones on the chart may be used unless engineering or safety considerations dictate otherwise.

GENERAL NOTES:

1. The Railroad Company will furnish and install all track bed (ballast), crossties, rails, crossing surface panels and accessory components. All pavement material, including that through the crossing, will be furnished and installed by the Department or its Contractor, unless negotiated otherwise.

2. When a railroad grade crossing is located within the limits of a highway construction project, a transition pavement will be maintained at the approaches of the crossing to reduce vehicular impacts to the crossing. The transition pavement will be maintained as appropriate to protect the crossing from low clearance vehicles and vehicular impacts until the construction project is completed and the final highway surface is constructed.

3. The Central Rail Office will maintain a list of currently used Railroad Crossing Products and will periodically distribute the current list to the District Offices as the list is updated.

4. The Railroad Company shall submit engineering drawings for the proposed crossing surface type to the Construction Project Engineer and/or the District Rail Office for concurrence along with the List of Railroad Crossing Products. The approved engineering drawings of the crossing surface type shall be made a part of the installation agreement.

5. Sidewalks shall be constructed through the crossing between approach sidewalks of the crossing. Sidewalks shall be constructed with appropriate material to allow unobstructed travel through the crossing in accordance with ADA requirements.

6. Install pavement in accordance with the Specifications.

7. The Department will participate in crossing work, that requires adjustments to rail outside of the crossing, no more than 50 feet from the edge of the travel way.

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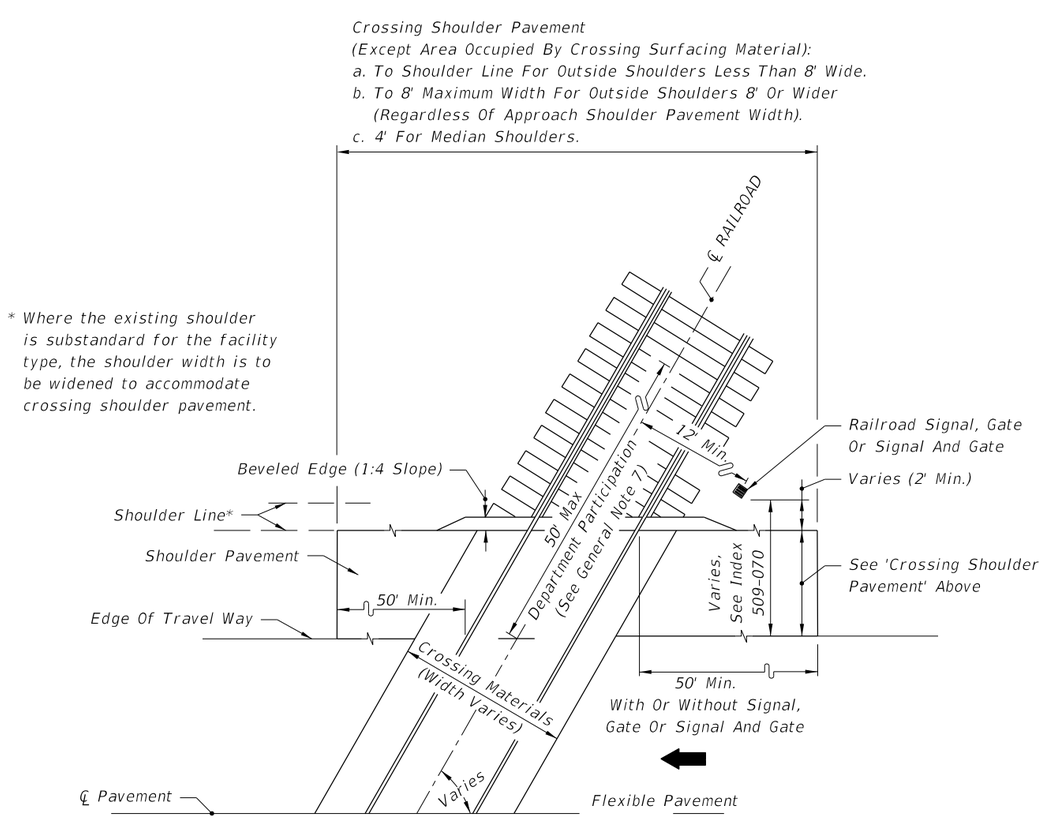
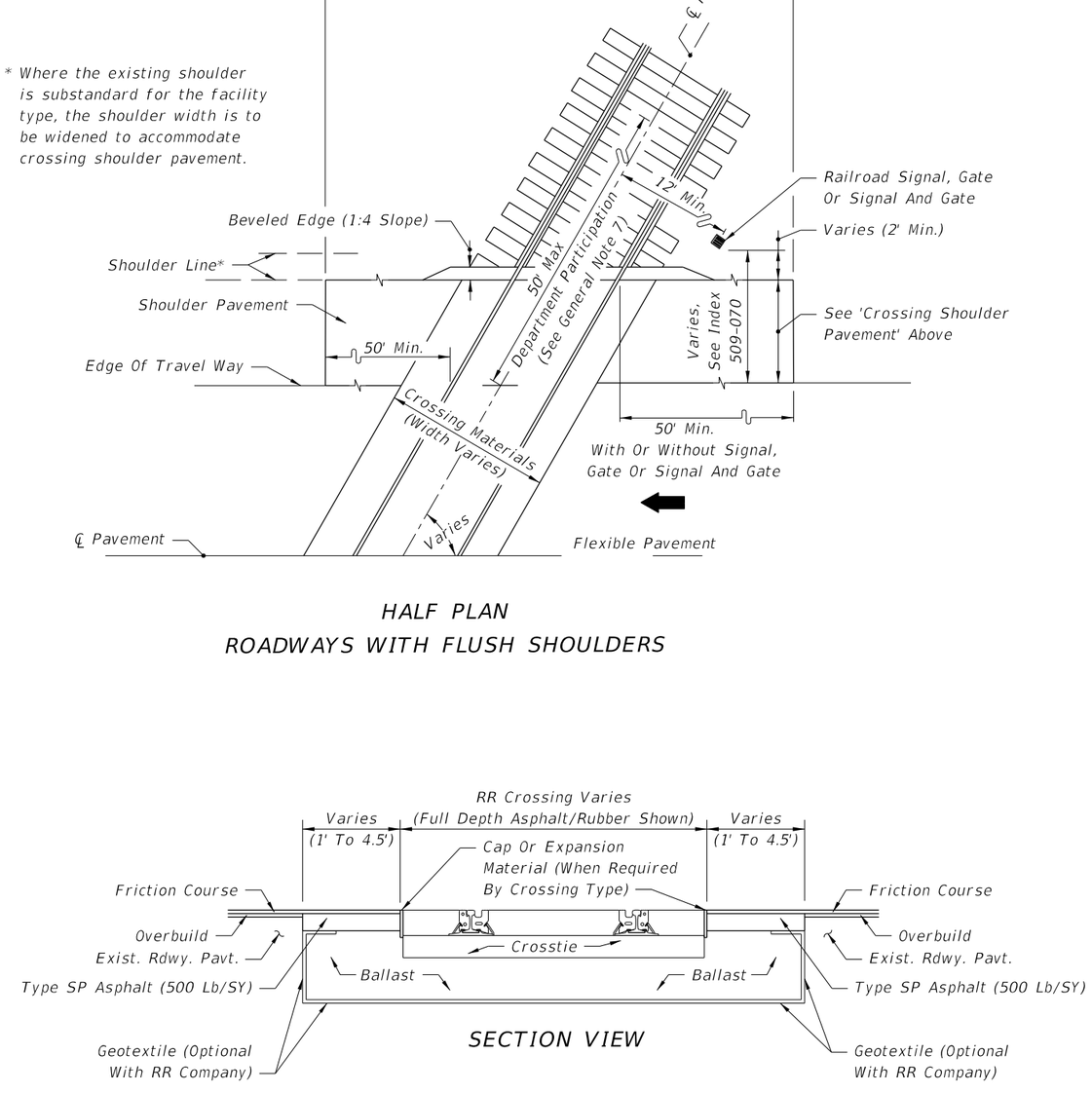


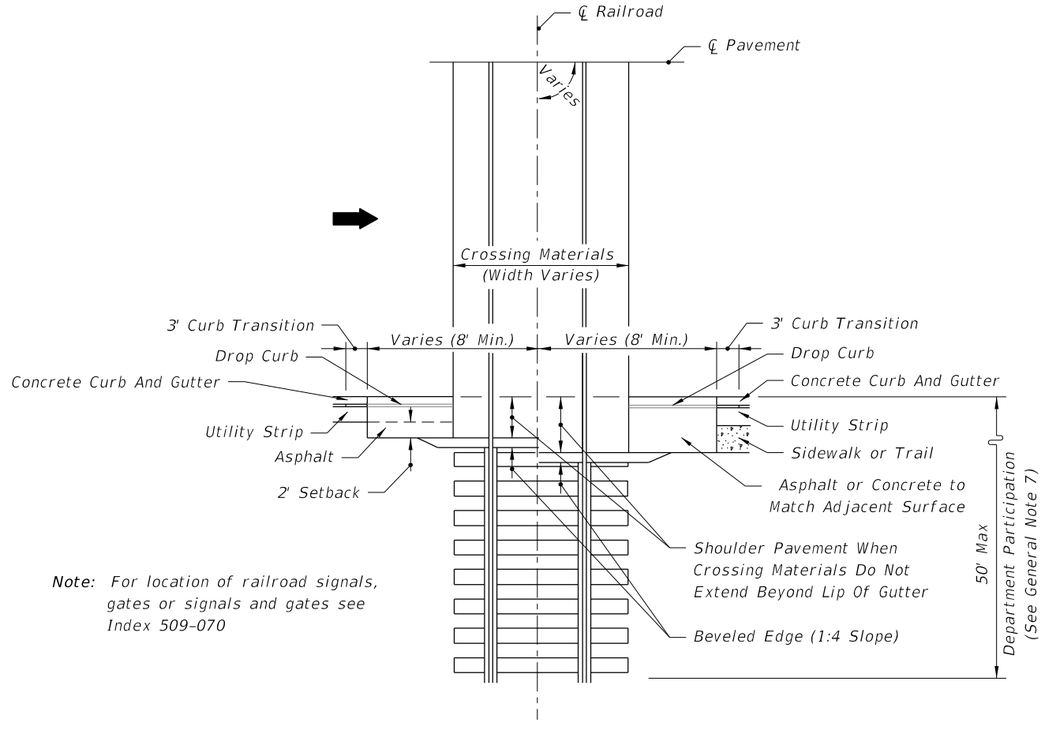
HALF PLAN

ROADWAYS WITH FLUSH SHOULDERS



SECTION VIEW

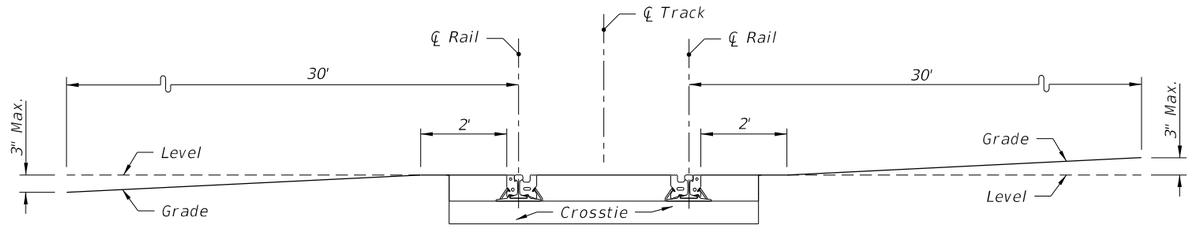
TYPICAL CROSSING MATERIAL REPLACEMENT AT RR CROSSINGS



Note: For location of railroad signals, gates or signals and gates see Index 509-070

HALF PLAN

CURBED ROADWAYS



To prevent low-clearance vehicles from becoming caught on the tracks, the crossing surface should be at the same plane as the top of the rails for a distance of 2 feet outside the rails. The surface of the highway should also not be more than 3 inches higher or lower than the top of the nearest rail at a point 30 feet from the rail unless track superelevation makes a different level appropriate. Vertical curves should be used to traverse from the highway grade to a level plane at the elevation of the rails. Rails that are superelevated, or a roadway approach section that is not level, will necessitate a site specific analysis for rail clearances.

VERTICAL ROADWAY ALIGNMENT THROUGH A RAILROAD CROSSING

9/29/2025 10:14:26 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2026-27 STANDARD PLANS	RAILROAD (GRADE) CROSSING	INDEX	SHEET
11/01/19						830-T01	2 of 2