Origination Form
Proposed Revisions to a Standard Plans Index

Originator:	Turley, Joshua	**Index Number:**	521-650
Date:	4/11/2024	**Sheet Number(s):**	1,3
E-mail:	Joshua.Turley@dot.state.fl.us	**Index Title:**	LIGHT POLE PEDESTAL - WALL COPING

Summary of the changes:

Sheet 1: Removed anchor bolt table; Revised note 1 to now include maximum deck height, pole height, and pole arm length
Sheet 3: Added labeling to the Anchor bolt nuts in DETAIL "A"

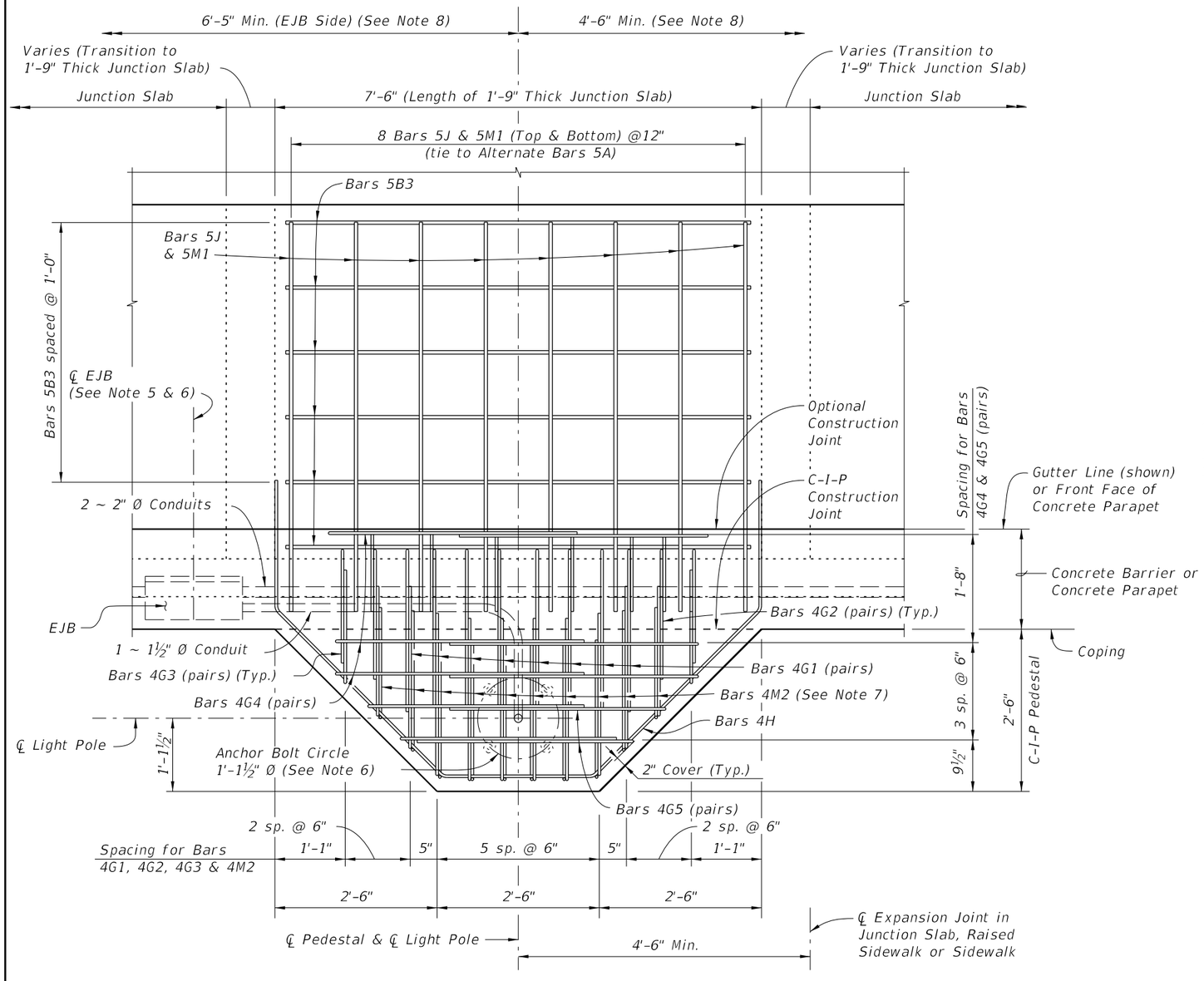
Commentary/Background:

Sheet 1: The anchor bolt table was removed so that this Index will only address the standardized pole and pedestal capacities. The pole mounting height is limited to 40 feet for an elevated structure mount.
Sheet 3: Labels were added to correspond correctly with upcoming spec change to Spec 649.

Other Affected Documents/Offices	Person Contacted	Affected (Yes/No)
Other Standard Plans	Joshua Turley	Yes
FDOT Design Manual		No
Standard Specifications		No
Basis of Estimates Manual		No
Approved Product List		No
Construction Office		No
Maintenance Office		No

Implementation

["FY-Standard Plans (Next Release)"]



PLAN VIEW
(Junction Slab reinforcing not shown for clarity)
(Junction Slab Shown, Raised Sidewalk or Sidewalk Similar)

LIGHT POLE PEDESTAL NOTES:

1. ANCHOR BOLTS:
   Anchor Bolt design is based on the standard Roadway Aluminum Light Pole configurations shown on Index 715-002 ~~with top of pedestal 75' or less above ground or MLW.~~
   ~~Anchor Bolt Diameter: See Table 1~~
2. MATERIALS:
   Anchor Bolts: ASTM F1554 Grade 55.
   Nuts: ASTM A563 Grade A, Heavy-Hex.
   Washers: ASTM F436 Type 1.
   Anchor Plate: ASTM A709 (Grade 36) or ASTM A36.
   Coating: Galvanize all Nuts, Bolts Washers, and plates in accordance with ASTM F2329.
3. The Contractor is responsible for ensuring the anchor bolt design is compatible with the light pole base plate. Modifications to the anchor bolt design shown must be signed and sealed by the Contractor's Specialty Engineer and submitted to the Engineer for approval prior to construction.
4. Install Anchor Bolts plumb.
5. For conduit, EJB and expansion/deflection fitting details, see Utility Conduit Detail Drawings and Index 630-010.
6. The cost of anchor bolts, nuts, washers and anchor plates will be included in the Bid Price for Light Poles. Include the cost of all labor, concrete and reinforcing steel required for construction of the pedestals, and miscellaneous hardware required for the completion of the electrical system in the Bid Price for either the Concrete Barrier or Concrete Parapet that the pedestal is behind.
7. Field Cut Bars 4M2 as required to maintain clearance.
8. Slip Forming Method of construction requires the Engineer's approval within the limits shown.
9. Reinforcing shown for light pole pedestals is in addition to typical reinforcing for Junction Slabs and Raised Sidewalks.
10. Work this Index with the following as appropriate:
    - Index 521-512
    - Index 521-610
    - Index 521-611
    - Index 521-620
    - Index 521-630
11. Pedestal may be precast in one section with Coping. Minimum Precast Coping section length is 10 ft. or 12 ft for combination Precast Concrete Barrier and Coping section.
12. For Estimated Quantities, see Sheet 3.
13. Unless otherwise noted, Concrete Barrier (36" Single-Slope) is shown in all Views and Sections. The Pedestal details for other Concrete Barriers or pedestrian/bicycle railings are similar.

with a maximum 40 ft luminaire mounting height and a maximum 12 ft arm length. Use 1" Ø anchor bolt for up to 75 ft bridge deck height above natural ground or MLW.

TABLE 1 DESIGN LIMITATION FOR ANCHOR BOLTS (1" Dia.)

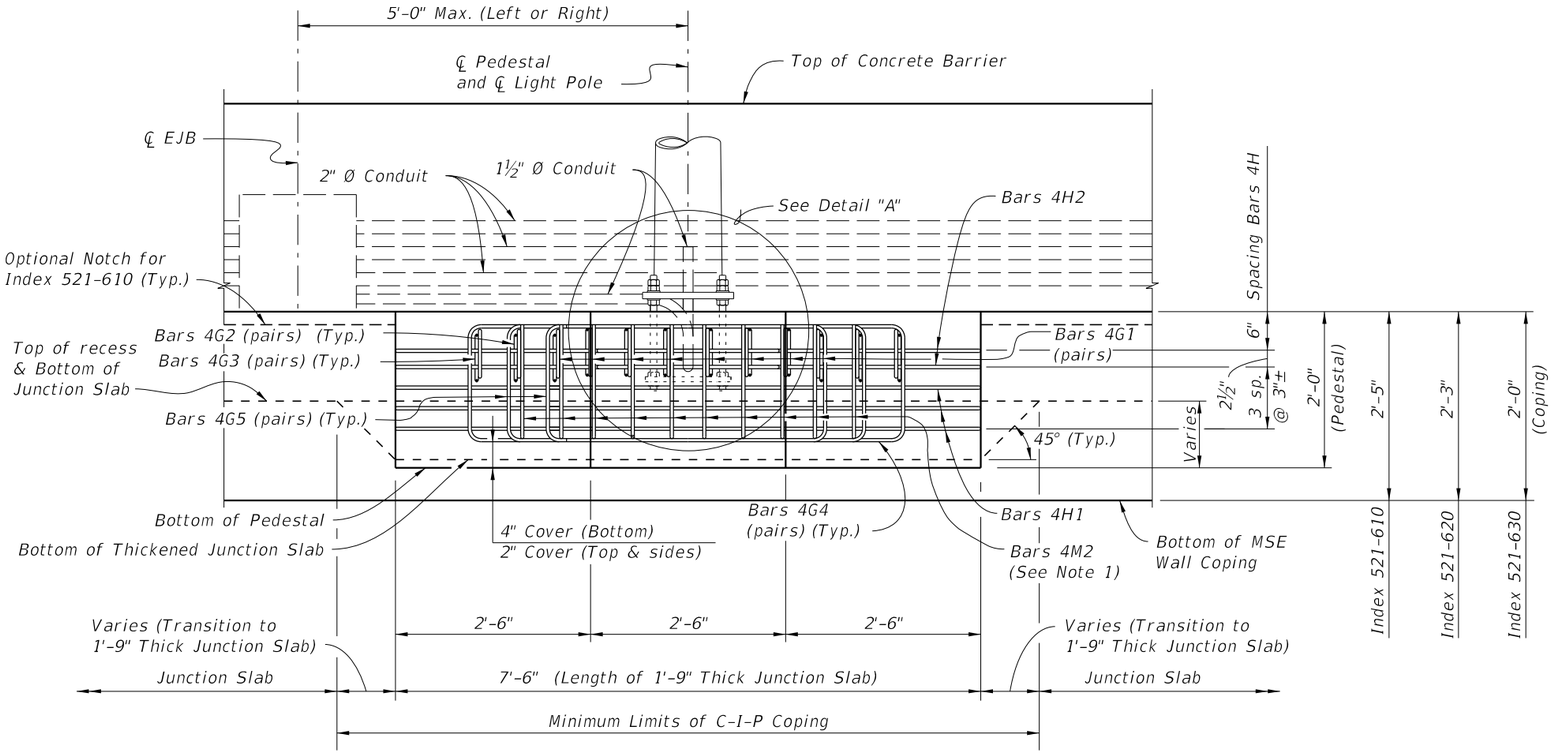
Wind Speed (MPH)	Arm Length (Ft.)	Top of Pedestal Height (Ft.)* Luminaire Mounting Height 40 Ft.	45 Ft.	50 Ft.
120	ALL	75	75	75
140	ALL	75	75	75
160	8 & 10	75	75	45**
160	12 & 15	75	75	25**

* Above Natural Ground

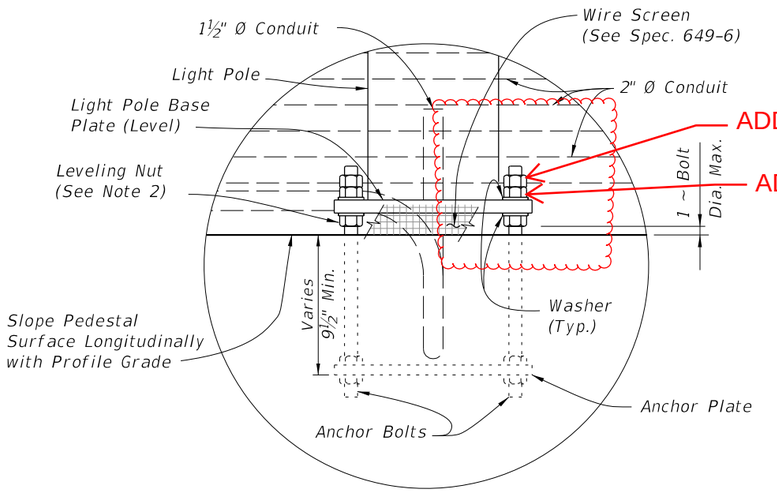
** Use 1¼" Ø Anchor bolts for wall heights greater than the height shown and less than 75'

10/3/2023 1:19:16 PM

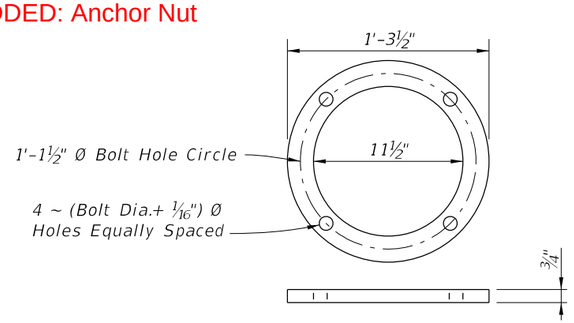
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2024-25 STANDARD PLANS	LIGHT POLE PEDESTAL - WALL COPING	INDEX	SHEET
11/01/23						521-650	1 of 3



ELEVATION VIEW
(Junction Slab Reinforcing & Bars 4J not Shown for Clarity)
(Junction Slab Shown, Raised Sidewalk or Sidewalk Similar)



DETAIL "A"



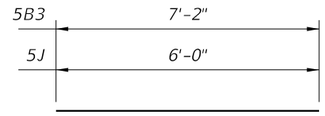
ANCHOR PLATE DETAIL

NOTES:
1. *Field Cut Bars 4M2 as required to maintain minimum cover.*
2. *Maximum clearance between leveling nut and top of pedestal will not exceed anchor bolt diameter.*

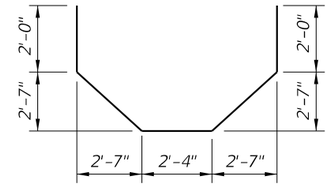
REINFORCING STEEL BENDING DIAGRAMS - LIGHT POLE PEDESTAL

BILL OF REINFORCING STEEL

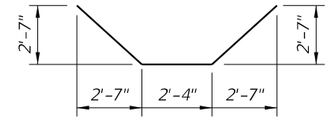
MARK	SIZE	NO. REQD.	LENGTH
B3	5	7	7'-2"
G1	4	16	5'-8"
G2	4	4	4'-8"
G3	4	4	4'-2"
G4	4	6	8'-10"
G5	4	4	7'-4"
H1	4	3	9'-8"
H2	4	2	13'-8"
J	5	8	6'-0"
M1	5	8	5'-10"
M2	4	10	3'-8"



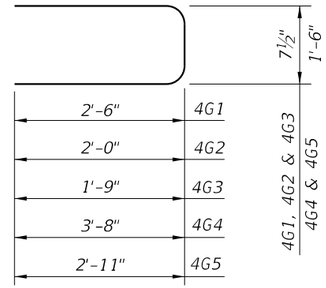
BARS 5B3 & 5J



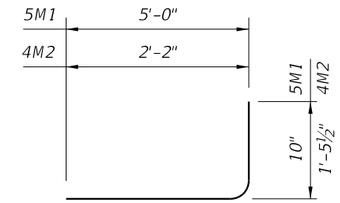
BAR 4H2



BAR 4H1



BARS 4G1, 4G2, 4G3, 4G4 & 4G5



BAR 5M1 & 4M2

REINFORCING STEEL NOTES:
1. *All bar dimensions in the bending diagrams are out to out.*
2. *Lap splices for Bars 4G1, 4G2, 4G3, 4G4 & 4G5 will be a minimum of 1'-4".*
3. *The Contractor may use Welded Wire Reinforcement (WWR) when approved by the Engineer. WWR must consist of deformed wire meeting the requirements of Specification Section 931.*

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
Concrete (Pedestal)	CY	0.926
Concrete (Thickened Junction Slab)	CY	1.222
Reinforcing Steel	LB	334.09

(The quantities above are for one C-I-P Light Pole Pedestal. The concrete quantity for the thickened junction slab is based on a 5'-0" length, 9" increase in thickness and a 5" wide retaining wall panel. Adjust thickened concrete quantity as required.

10/3/2023 1:19:29 PM

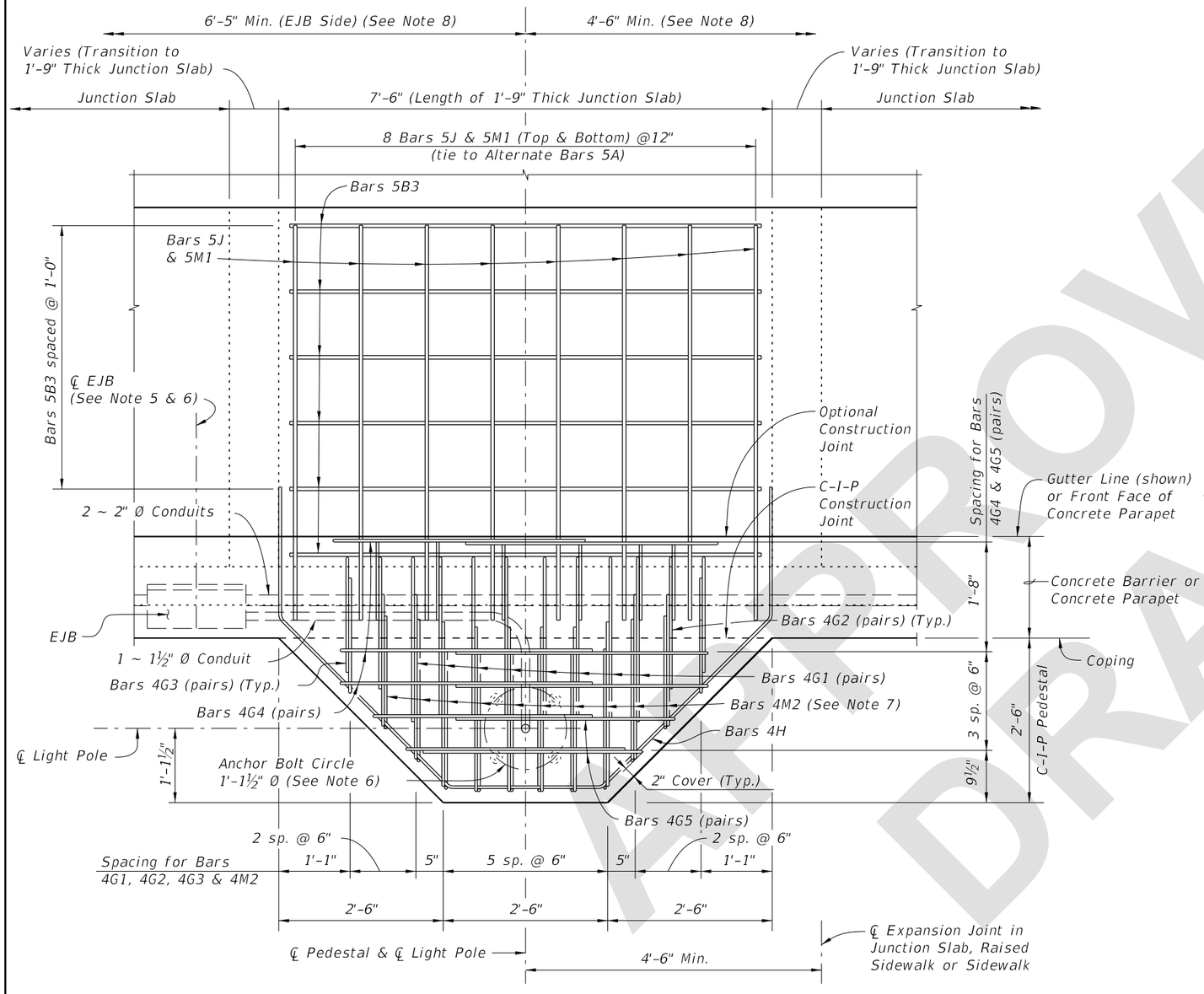
LAST REVISION	REVISION	DESCRIPTION:
~~11/01/23~~		11/01/24

FDOT FY 2024-25 STANDARD PLANS

LIGHT POLE PEDESTAL - WALL COPING

INDEX 521-650

SHEET 3 of 3



PLAN VIEW
(Junction Slab reinforcing not shown for clarity)
(Junction Slab Shown, Raised Sidewalk or Sidewalk Similar)

LIGHT POLE PEDESTAL NOTES:

1. *ANCHOR BOLTS:*
   Anchor Bolt design is based on the standard Roadway Aluminum Light Pole configurations shown on Index 715-002 with a maximum 40 ft. luminaire mounting height and maximum 12 ft. arm length. Use 1" Ø anchor bolt for up to 75 ft bridge deck height above ground or MLW.

2. *MATERIALS:*
   Anchor Bolts: ASTM F1554 Grade 55.
   Nuts: ASTM A563 Grade A, Heavy-Hex.
   Washers: ASTM F436 Type 1.
   Anchor Plate: ASTM A709 (Grade 36) or ASTM A36.
   Coating: Galvanize all Nuts, Bolts Washers, and plates in accordance with ASTM F2329.

3. *The Contractor is responsible for ensuring the anchor bolt design is compatible with the light pole base plate. Modifications to the anchor bolt design shown must be signed and sealed by the Contractor's Specialty Engineer and submitted to the Engineer for approval prior to construction.*

4. *Install Anchor Bolts plumb.*
5. *For conduit, EJB and expansion/deflection fitting details, see Utility Conduit Detail Drawings and Index 630-010.*

6. *The cost of anchor bolts, nuts, washers and anchor plates will be included in the Bid Price for Light Poles. Include the cost of all labor, concrete and reinforcing steel required for construction of the pedestals, and miscellaneous hardware required for the completion of the electrical system in the Bid Price for either the Concrete Barrier or Concrete Parapet that the pedestal is behind.*

7. *Field Cut Bars 4M2 as required to maintain clearance.*

8. *Slip Forming Method of construction requires the Engineer's approval within the limits shown.*

9. *Reinforcing shown for light pole pedestals is in addition to typical reinforcing for Junction Slabs and Raised Sidewalks.*

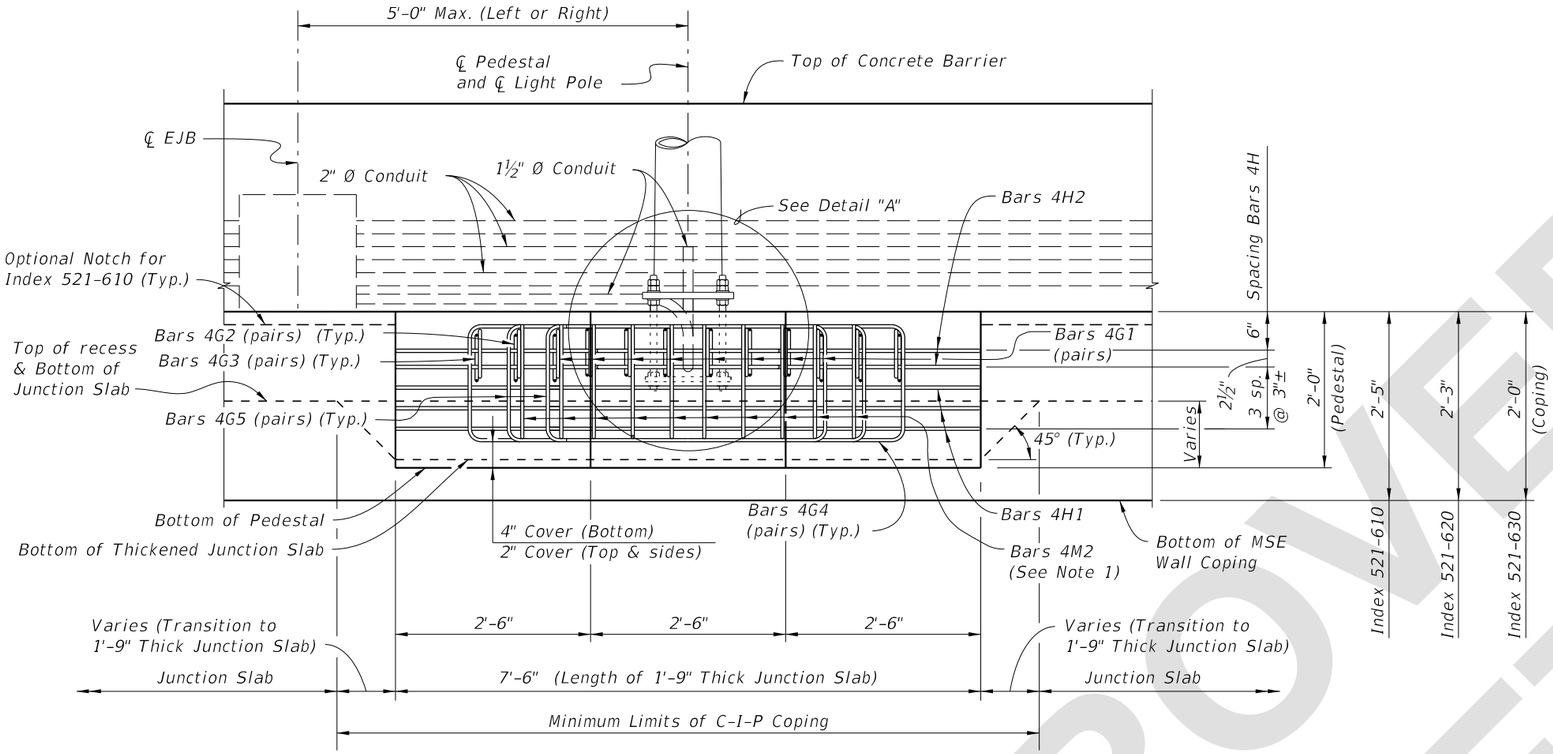
10. *Work this Index with the following as appropriate:*
    Index 521-512
    Index 521-610
    Index 521-611
    Index 521-620
    Index 521-630

11. *Pedestal may be precast in one section with Coping. Minimum Precast Coping section length is 10 ft. or 12 ft for combination Precast Concrete Barrier and Coping section.*
12. *For Estimated Quantities, see Sheet 3.*

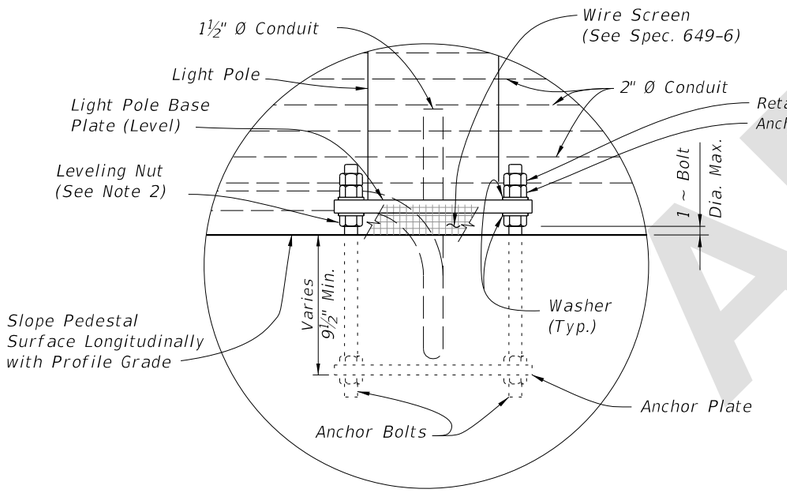
13. *Unless otherwise noted, Concrete Barrier (36" Single-Slope) is shown in all Views and Sections. The Pedestal details for other Concrete Barriers or pedestrian/bicycle railings are similar.*

7/30/2024 1:11:32 PM

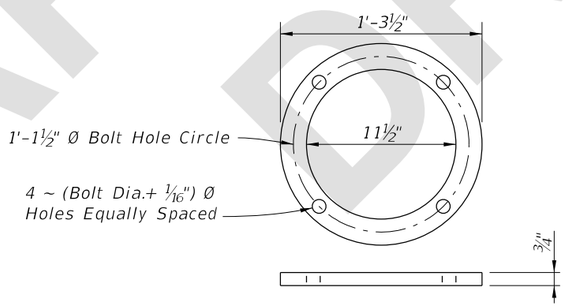
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2025-26 STANDARD PLANS	LIGHT POLE PEDESTAL - WALL COPING	INDEX	SHEET
11/01/24						521-650	1 of 3



ELEVATION VIEW
(Junction Slab Reinforcing & Bars 4J not Shown for Clarity)
(Junction Slab Shown, Raised Sidewalk or Sidewalk Similar)



DETAIL "A"



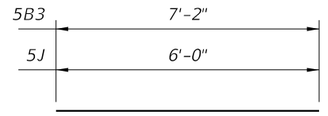
ANCHOR PLATE DETAIL

NOTES:
1. *Field Cut Bars 4M2 as required to maintain minimum cover.*
2. *Maximum clearance between leveling nut and top of pedestal will not exceed anchor bolt diameter.*

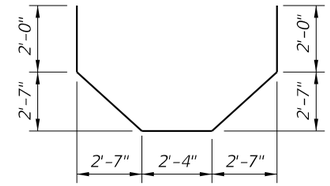
REINFORCING STEEL BENDING DIAGRAMS - LIGHT POLE PEDESTAL

BILL OF REINFORCING STEEL

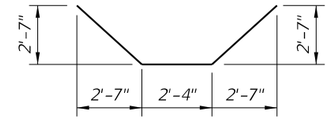
MARK	SIZE	NO. REQD.	LENGTH
B3	5	7	7'-2"
G1	4	16	5'-8"
G2	4	4	4'-8"
G3	4	4	4'-2"
G4	4	6	8'-10"
G5	4	4	7'-4"
H1	4	3	9'-8"
H2	4	2	13'-8"
J	5	8	6'-0"
M1	5	8	5'-10"
M2	4	10	3'-8"



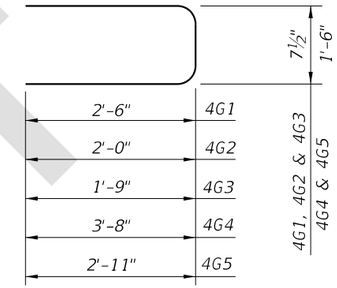
BARS 5B3 & 5J



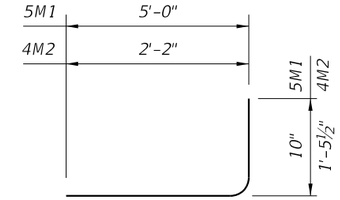
BAR 4H2



BAR 4H1



BARS 4G1, 4G2, 4G3, 4G4 & 4G5



BAR 5M1 & 4M2

REINFORCING STEEL NOTES:
1. *All bar dimensions in the bending diagrams are out to out.*
2. *Lap splices for Bars 4G1, 4G2, 4G3, 4G4 & 4G5 will be a minimum of 1'-4".*
3. *The Contractor may use Welded Wire Reinforcement (WWR) when approved by the Engineer. WWR must consist of deformed wire meeting the requirements of Specification Section 931.*

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
Concrete (Pedestal)	CY	0.926
Concrete (Thickened Junction Slab)	CY	1.222
Reinforcing Steel	LB	334.09

(The quantities above are for one C-I-P Light Pole Pedestal. The concrete quantity for the thickened junction slab is based on a 5'-0" length, 9" increase in thickness and a 5" wide retaining wall panel. Adjust thickened concrete quantity as required.

7/30/2024 1:11:40 PM

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2025-26 STANDARD PLANS	LIGHT POLE PEDESTAL - WALL COPING	INDEX	SHEET
11/01/24					521-650	3 of 3