
ORINATION FORM

Proposed Revisions to a Standard Plans Index

(Please provide all information — Incomplete forms will be returned)

Contact Information:

Date: March 24, 2023

Originator: Joshua Turley

Phone: (850) 414-4475

Email: joshua.turley@dot.state.fl.us

Standard Plans:

Index Number: 641-020

Sheet Number (s): 2, 3 of 5

Index Title: CONCRETE CCTV POLE

Summary of the changes:

Sheet 2: Added note allowing additional strand pattern and updated associated tables.

Sheet 3: Added a new strand pattern.

Commentary / Background:

Sheet 2: See sheet 3 comments

Sheet 3: A fabricator of 12 sided poles had an approved strand pattern in their QC plan which differed from the Standard. The difference allowed the fabricator to mount the hand hole on the flat of the pole and maintain reinforcement cover. We have adopted this in the Standard to provide consistency between the QC plan and the Standard.

Other Affected Offices / Documents: (Provide name of person contacted)

- | Yes | No | |
|--------------------------|-------------------------------------|-----------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Other Standard Plans – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | FDOT Design Manual – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Basis of Estimates Manual – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Standard Specifications – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Approved Product List – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Construction – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Maintenance – |

Origination Package Includes: (Submit package to Rick Jenkins)

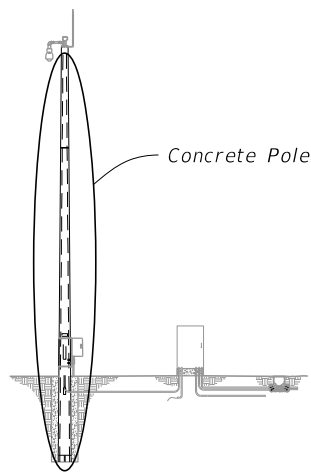
- | Yes | N/A | |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Redline Mark-ups |
| <input type="checkbox"/> | <input type="checkbox"/> | Revised or Proposed Standard Plan Instruction (SPI) |
| <input type="checkbox"/> | <input type="checkbox"/> | Other Support Documents |

Implementation:

- | | |
|-------------------------------------|----------------------------------|
| <input type="checkbox"/> | Design Bulletin (Interim) |
| <input type="checkbox"/> | DCE Memo |
| <input type="checkbox"/> | Program Mgmt. Bulletin |
| <input checked="" type="checkbox"/> | FY-Standard Plans (Next Release) |

Contact the Roadway Design Office for assistance in completing this form

Email to: Rick Jenkins rick.jenkins@dot.state.fl.us and Darren Martin darren.martin@dot.state.fl.us



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. Couplings may be positioned at locations other than 90° as long as required reinforcement cover is maintained.

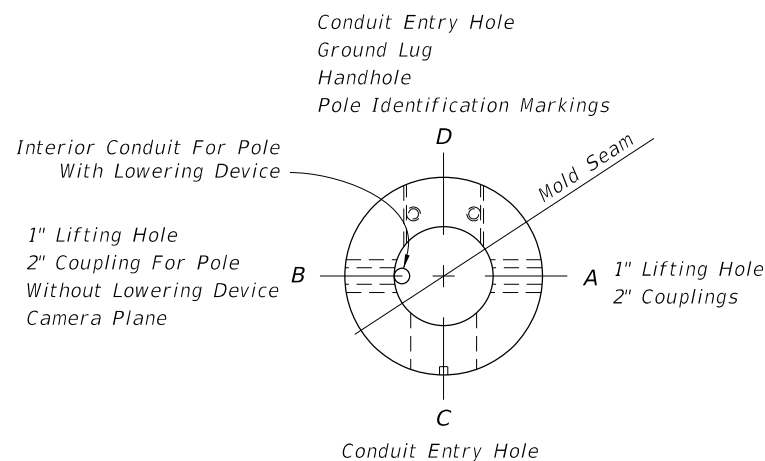
ADDITIONAL BURIAL DEPTH DUE TO GROUND SLOPE	
Ground Slope	Additional Burial Depth (feet)
1:5	3
1:4	4
1:3	5
1:2	7

5. Strand Pattern 1 may be used in lieu of Strand Pattern 2 where required by fabrication to facilitate Handhole construction.

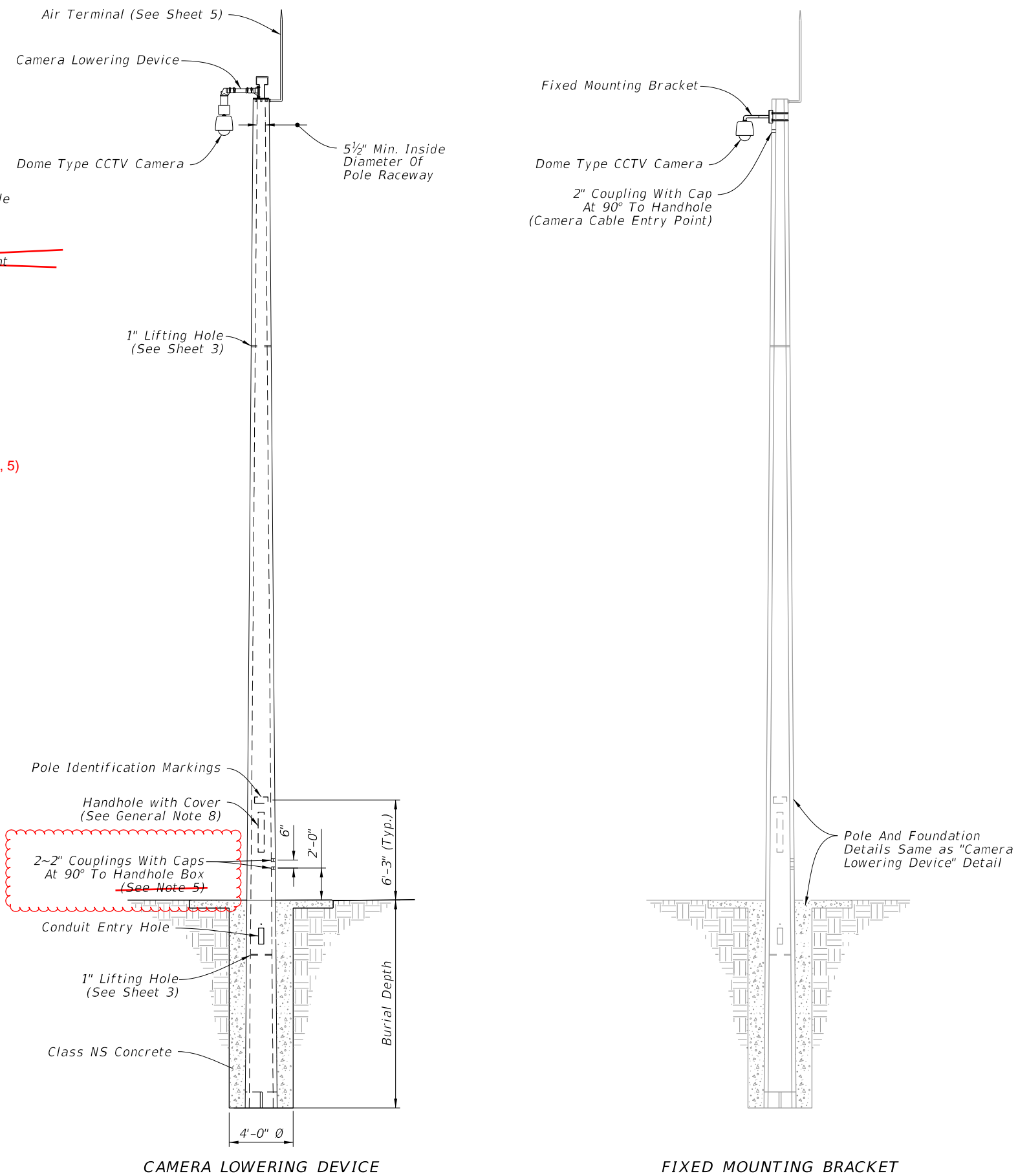
12-SIDED POLE DESIGN TABLE (See Note 1)										
Pole Length (ft)	Pole Height (ft)	Burial Depth (ft)	Total Taper (in/ft) (See Note 2)	Void Taper (in/ft)	Min. Wall Thickness Tip (in)	Min. Wall Thickness Butt (in)	Tip Diameter (in)	Butt Diameter (in)	Strand Pattern	Strand Diameter
63	50	13	0.18	0.18	3	3	12	23.34	1 2	0.6"
69	55	14	0.18	0.18	3	3	12	24.42	1 2	0.6"
75	60	15	0.18	0.18	3	3	12	25.50	2 3	0.6"
80	65	15	0.18	0.18	3	3	12	26.40	2 3	0.6"
86	70	16	0.18	0.18	3	3	12	27.48	3 3	0.6"

(See Note 1, 5)

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	3 4	0.5"
			Option 2	0.180	0.172	3	3.50	12.00	23.34	4 5	0.5"
69	55	14	Option 1	0.216	0.192	3	3.83	12.15	27.05	3 4	0.5"
			Option 2	0.180	0.173	3	3.50	12.00	24.42	4 5	0.5"
75	60	15	Option 1	0.216	0.192	3	3.90	12.15	28.35	3 4	0.5"
			Option 2	0.180	0.173	3	3.50	12.00	25.50	4 5	0.5"
80	65	15	Option 1	0.216	0.192	3	3.96	12.15	29.43	3 4	0.5"
			Option 2	0.180	0.174	3	3.50	12.00	26.40	4 5	0.5"
86	70	16	Option 1	0.216	0.192	3	4.03	12.15	30.73	3 4	0.5"
			Option 2	0.180	0.174	3	3.50	13.00	28.48	4 5	0.5"



PLAN VIEW



CAMERA LOWERING DEVICE

FIXED MOUNTING BRACKET

ELEVATION

4/18/2023 10:31:18 AM

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

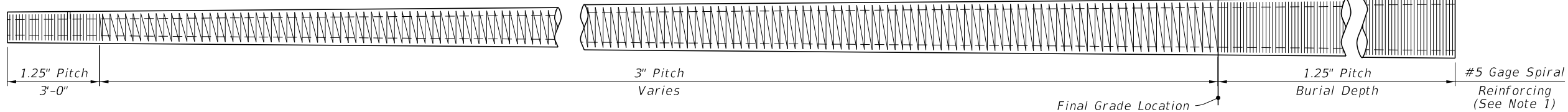
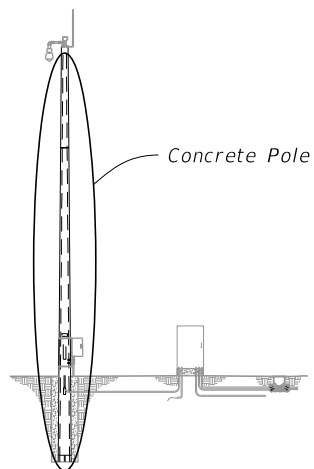


FY 2024-25
STANDARD PLANS

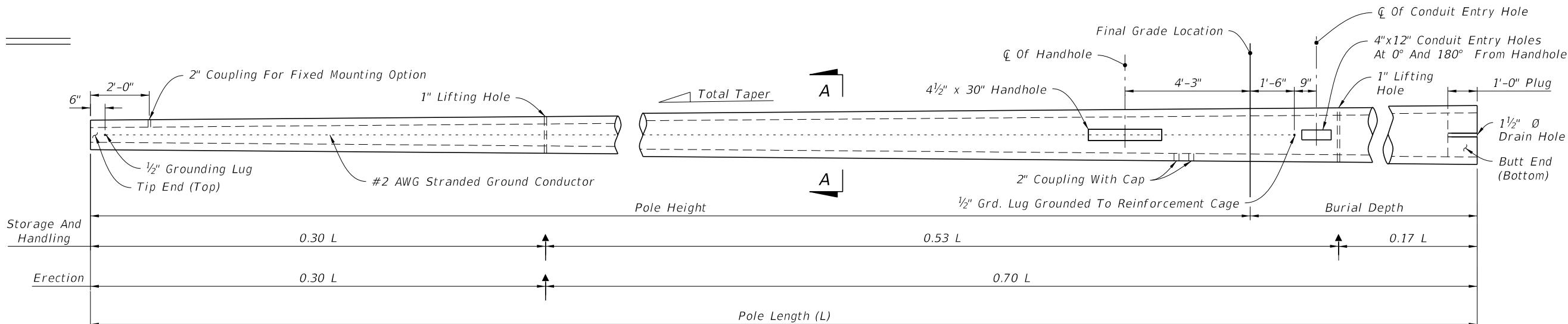
CONCRETE CCTV POLE

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SHEET
2 of 5



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



POLE ELEVATION
(Strands And Reinforcing Not Shown)

NOTES:

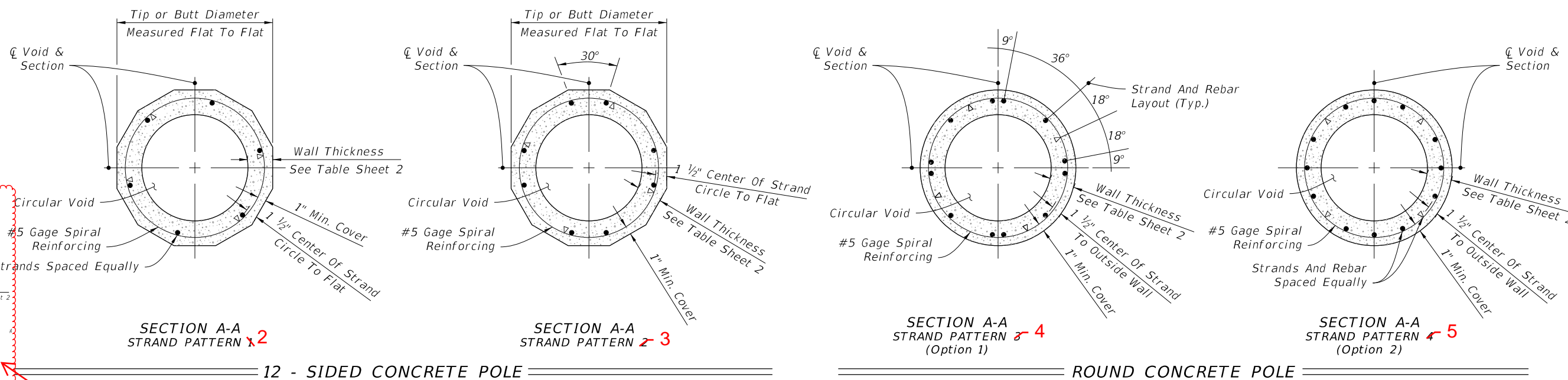
1. Spiral wire may be wrapped in two directions given that an equivalent area of spiral wire is provided to that shown in this Index and the cover requirements are met.

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
- △ (4) #5 Rebar (Shown) or (6) #4 Rebar
- ↑ Lift Points



Added New Strand Pattern Detail

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LAST REVISION	DESCRIPTION:
11/01/21	11/01/23



FY 2023-24
STANDARD PLANS

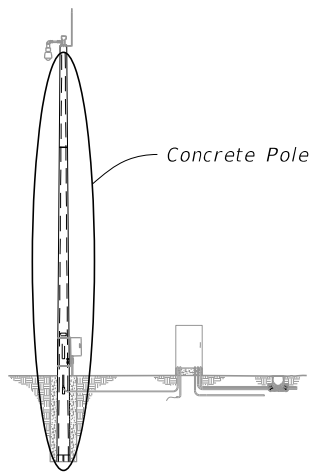
CONCRETE CCTV POLE

INDEX
641-020

SHEET
3 of 5

NOTES:

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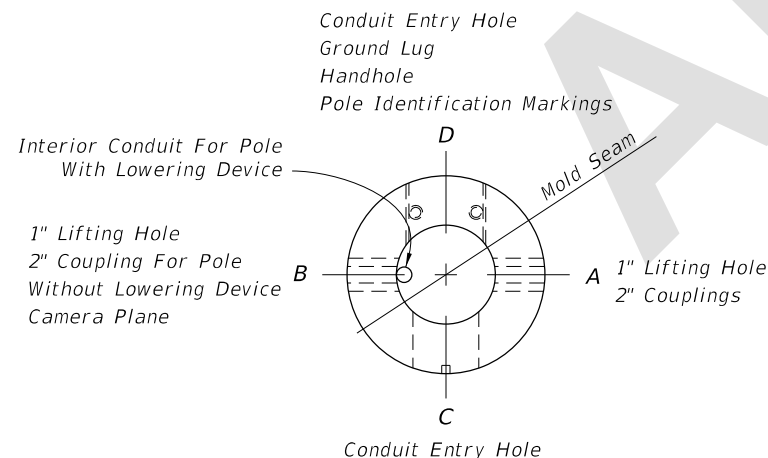


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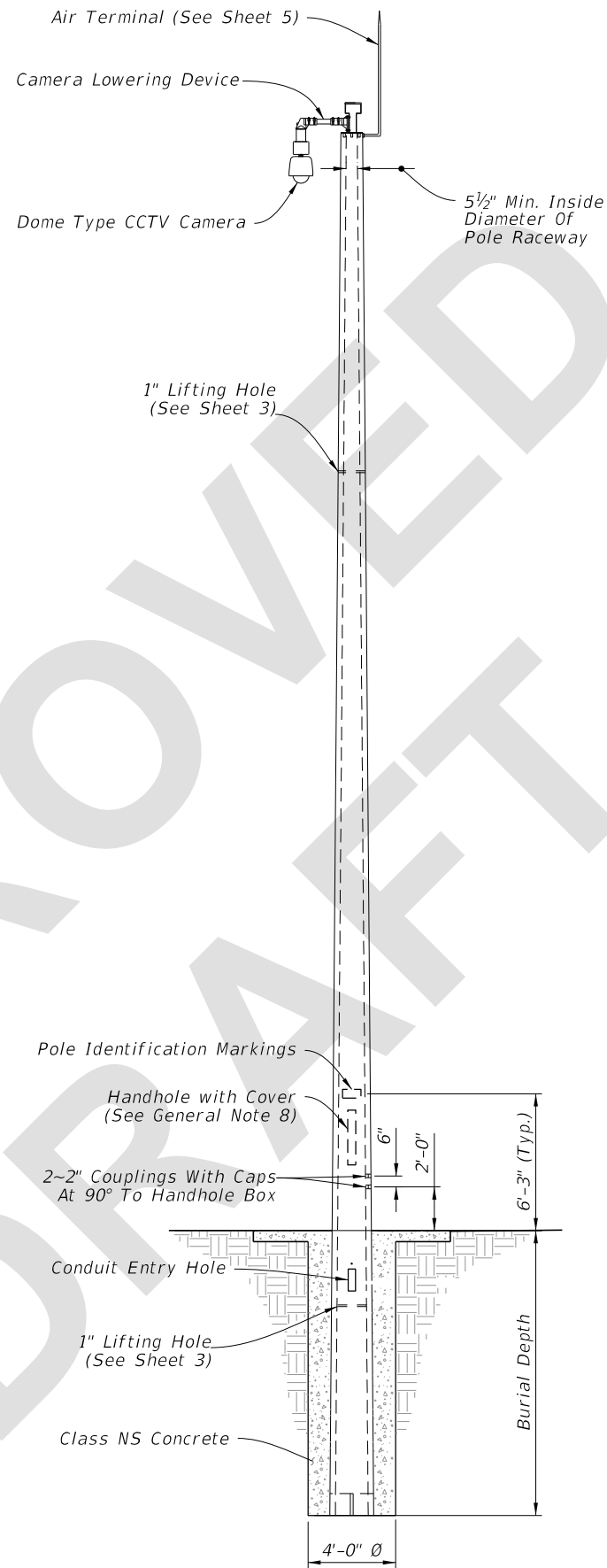
ADDITIONAL BURIAL DEPTH DUE TO GROUND SLOPE	
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75	60	15	0.18	0.18	3	3	12	25.50	3	0.6"
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86	70	16	0.18	0.18	3	3	12	27.48	3	0.6"

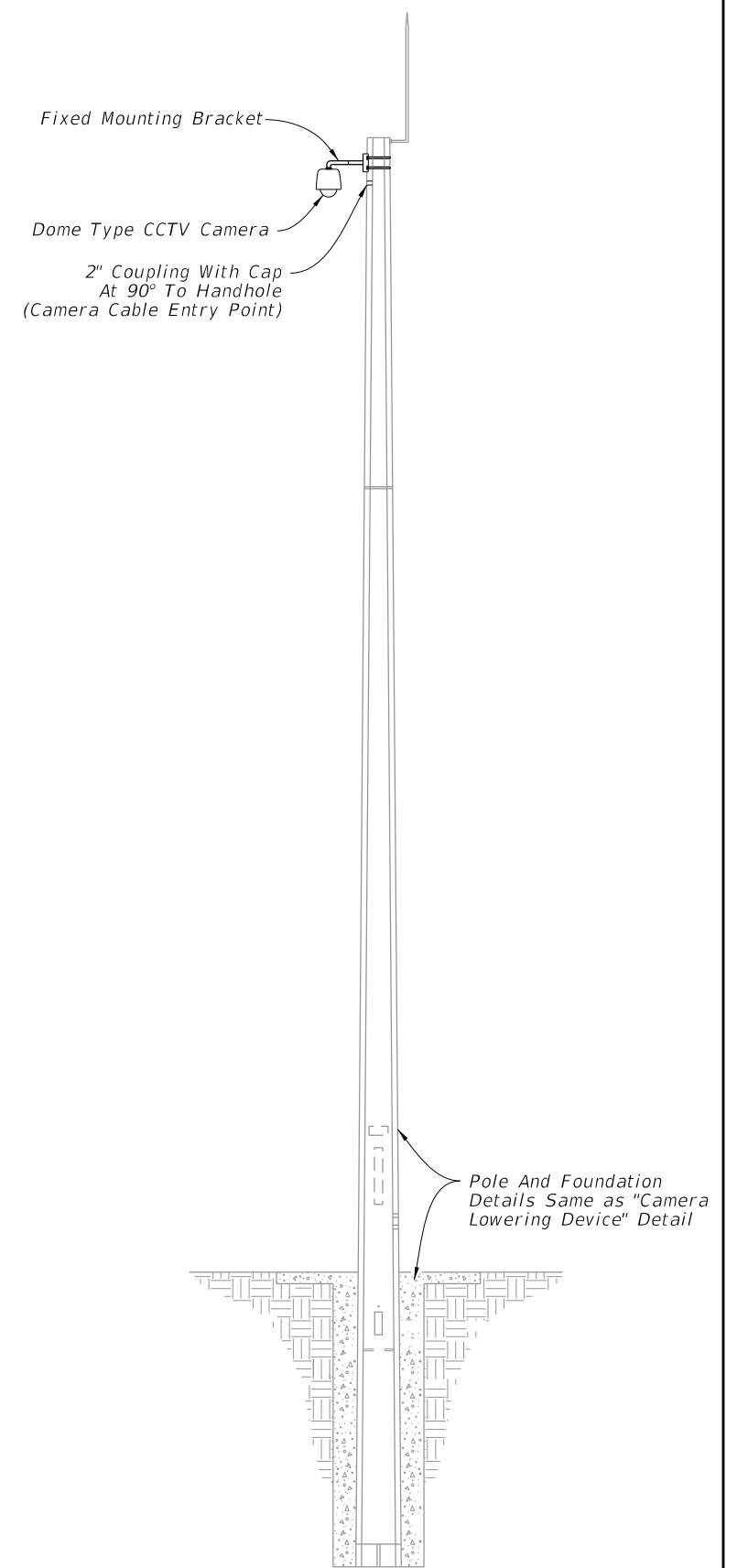
ROUND POLE DESIGN TABLE											
Pole Length (ft)	Pole Height (ft)	Burial Depth (ft)	Design Option	Total Taper (in/ft) (See Note 2)	Void Taper (in/ft)	Min. Wall Thickness Tip (in)	Min. Wall Thickness Butt (in)	Tip Diameter (in)	Butt Diameter (in)	Strand Pattern	Strand Diameter
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			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

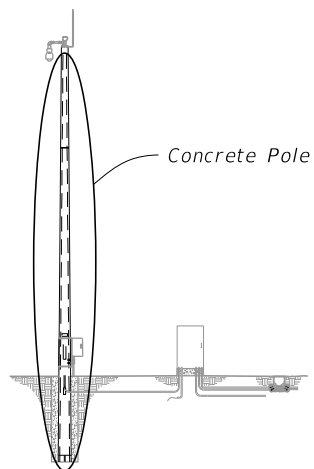
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LAST REVISION 11/01/23	DESCRIPTION:
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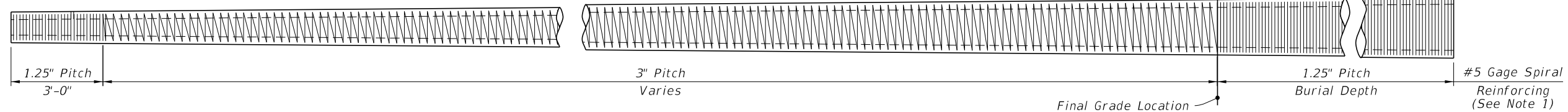
FY 2024-25
STANDARD PLANS

CONCRETE CCTV POLE

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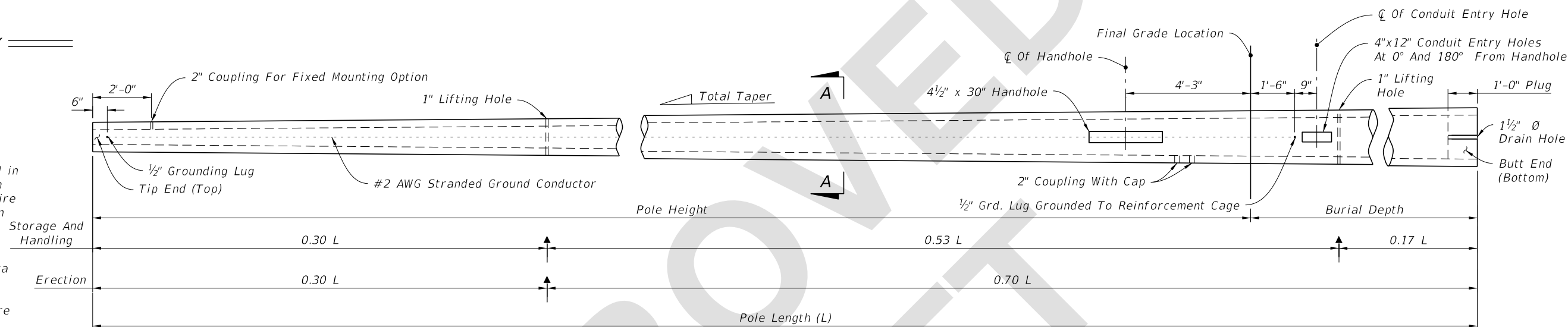
ASSEMBLY



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

NOTES:

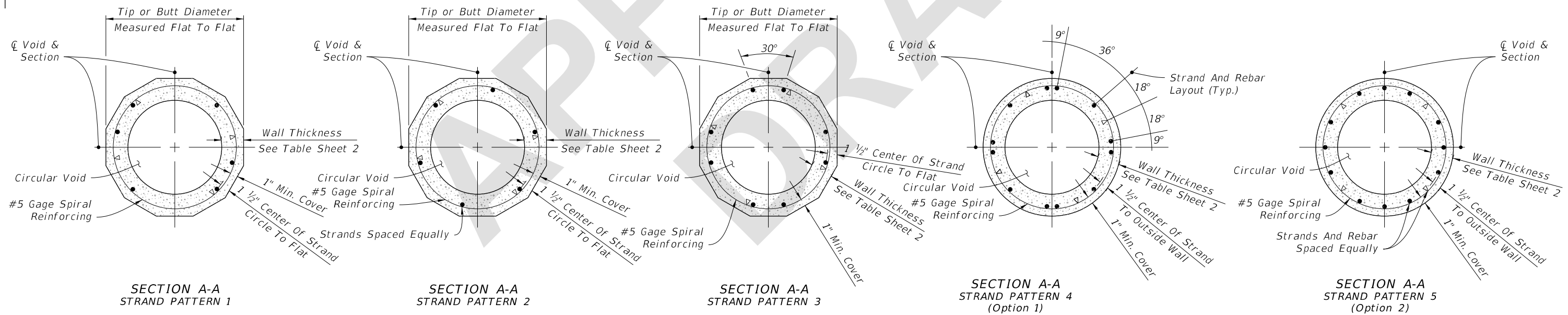
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POLE ELEVATION
(Strands And Reinforcing Not Shown)

LEGEND:

- Prestressed Strand
- △ (4) #5 Rebar (Shown) or (6) #4 Rebar
- ↑ Lift Points



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

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LAST REVISION 11/01/23	REVISION	DESCRIPTION:		FY 2024-25 STANDARD PLANS	CONCRETE CCTV POLE	INDEX 641-020	SHEET 3 of 5
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