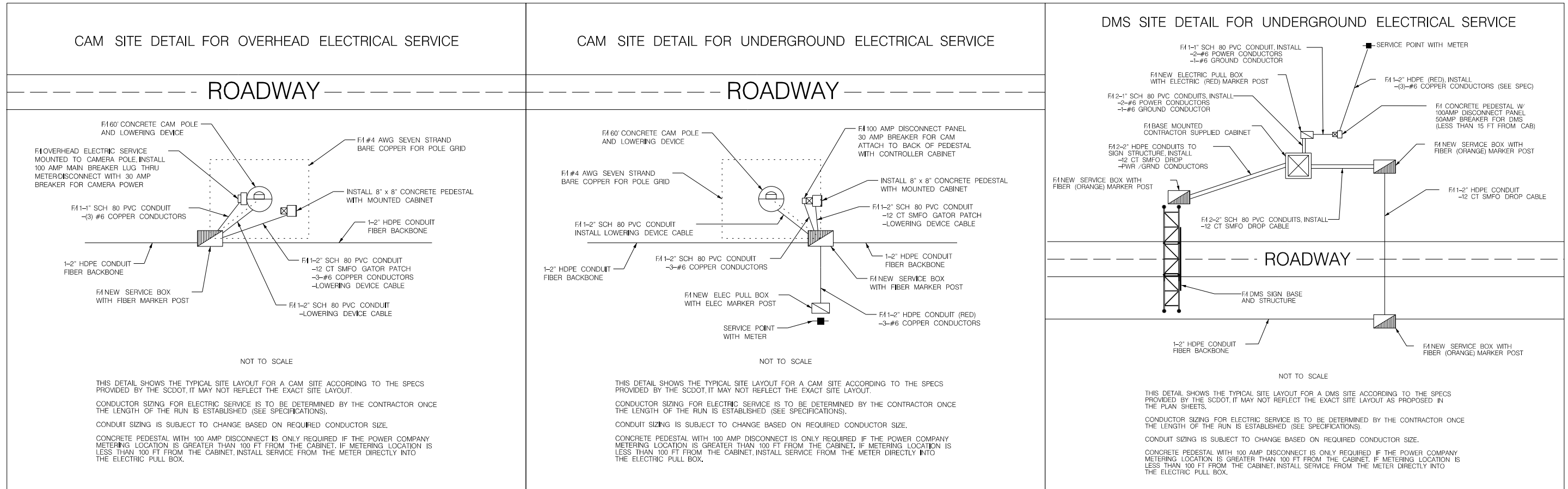




DETAIL DRAWINGS



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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

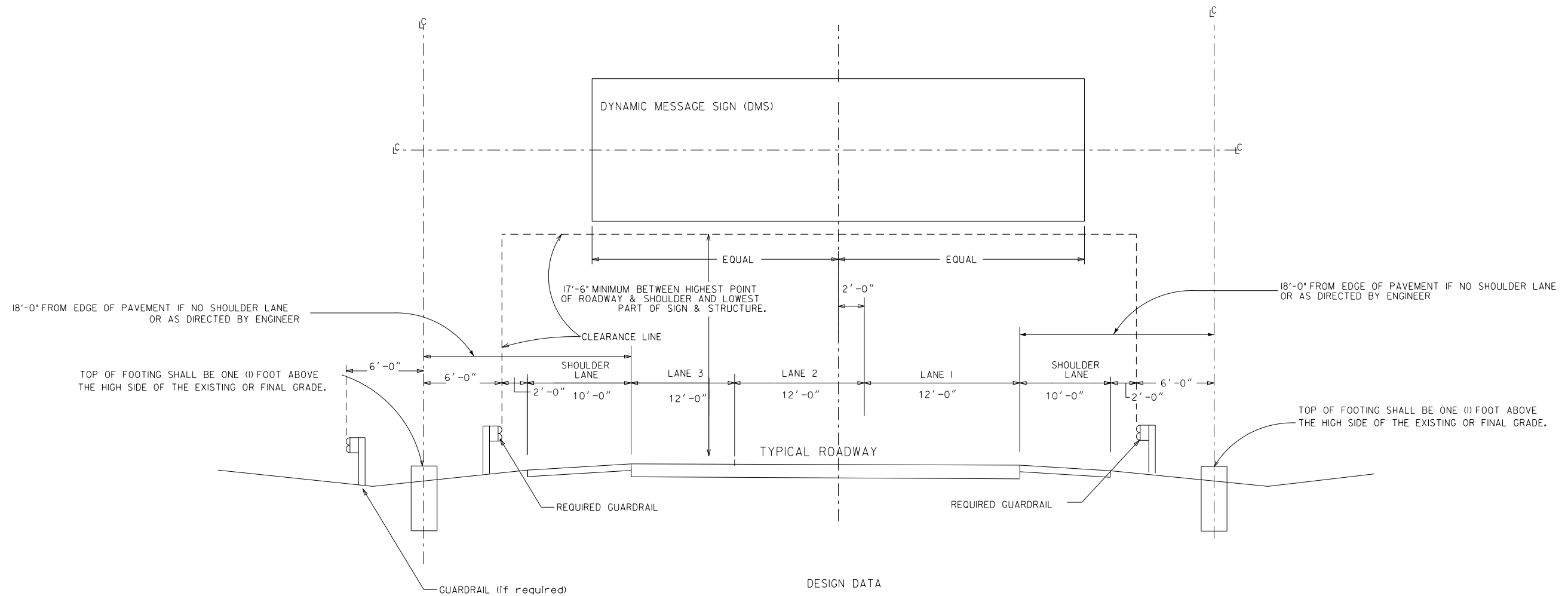
I.T.S. INSTALLATION

SCALE: NO SCALE

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FED. ROAD DIV. NO.	STATE	COUNTY	FILE NO.	PROJECT NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
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DETAILS & CLEARANCE DIAGRAM FOR OVERHEAD SIGNS



DESIGN DATA

DESIGN WIND VELOCITY PER A.A.S.H.T.O. SPECS.
 HEIGHT ABOVE GENERAL GROUND ELEVATION 17' - 30'
 STRUCTURE LENGTH VARIES

NOTE:
 MAINTENANCE WALKWAY SHALL EXTEND FROM RIGHT SIDE OF THE SIGN TO THE UPRIGHT SUPPORT AND BE CONTINUOUS TO ALL SIGNS AND SHALL EXTEND A MINIMUM OF 1'-0" OUTSIDE THE EDGE OF ALL SIGNS.

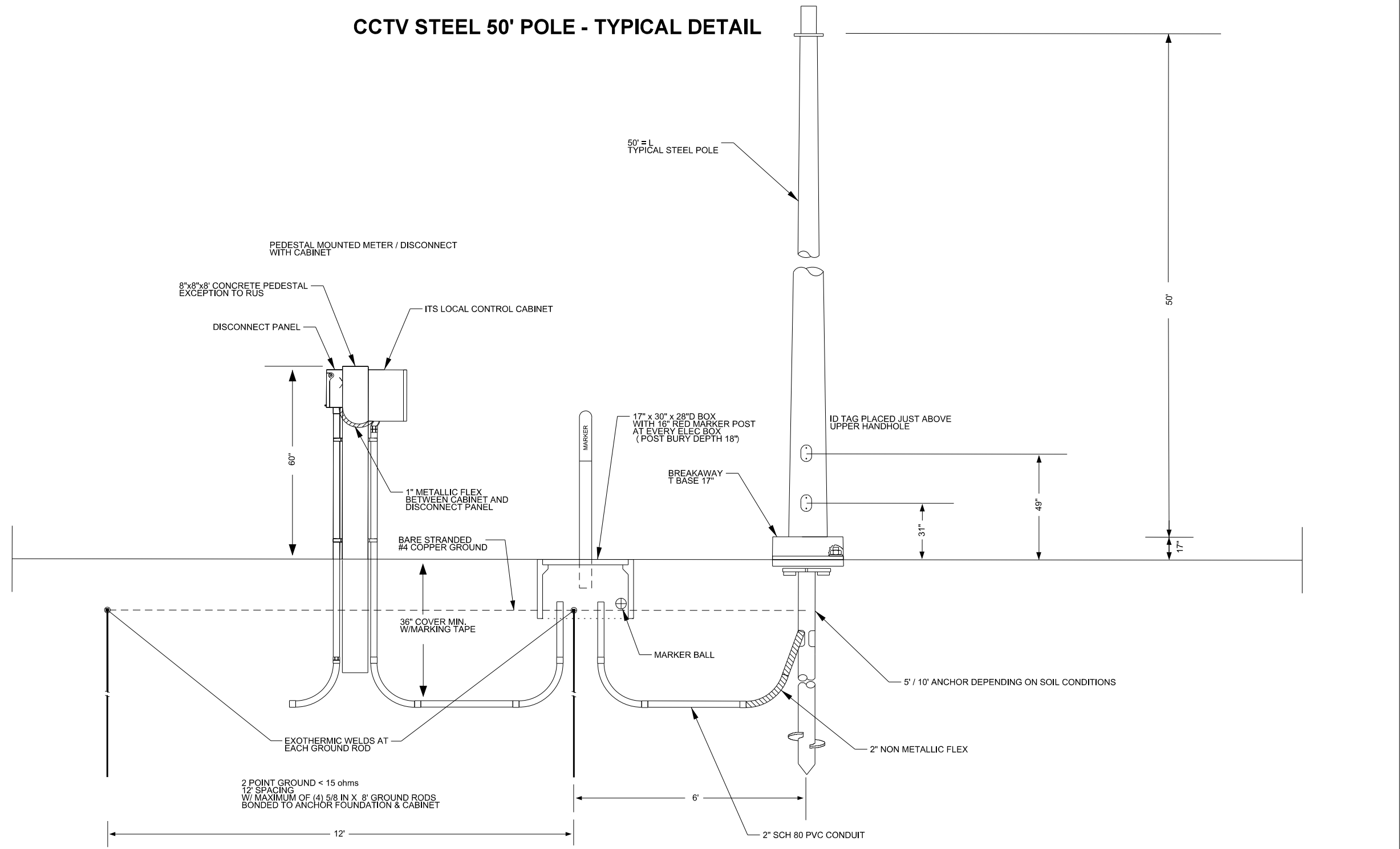
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3/07	REVISED STND				
SUBJECT TITLE		DYNAMIC MESSAGE SIGN (DMS) CLEARANCE DETAIL			
SPECIFIC LOCATION					
CITY		COUNTY			
DESIGNED	APPROVED BY	APPROVED BY			
DRAWN	DIP. OF TRAFFIC ENGINEERING		ENGINEER		
CHECKED	SCALE	DATE	SHEET NO.	INDEX NO.	
REVIEWED	NO SCALE		OF		
RECOMMENDED					

FED. RD. DIV. NO.	STATE	COUNTY	FILE NO.	PROJECT NO.	ROUTE NO.	SHEET NO.
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DETAIL DRAWINGS

CCTV STEEL 50' POLE - TYPICAL DETAIL



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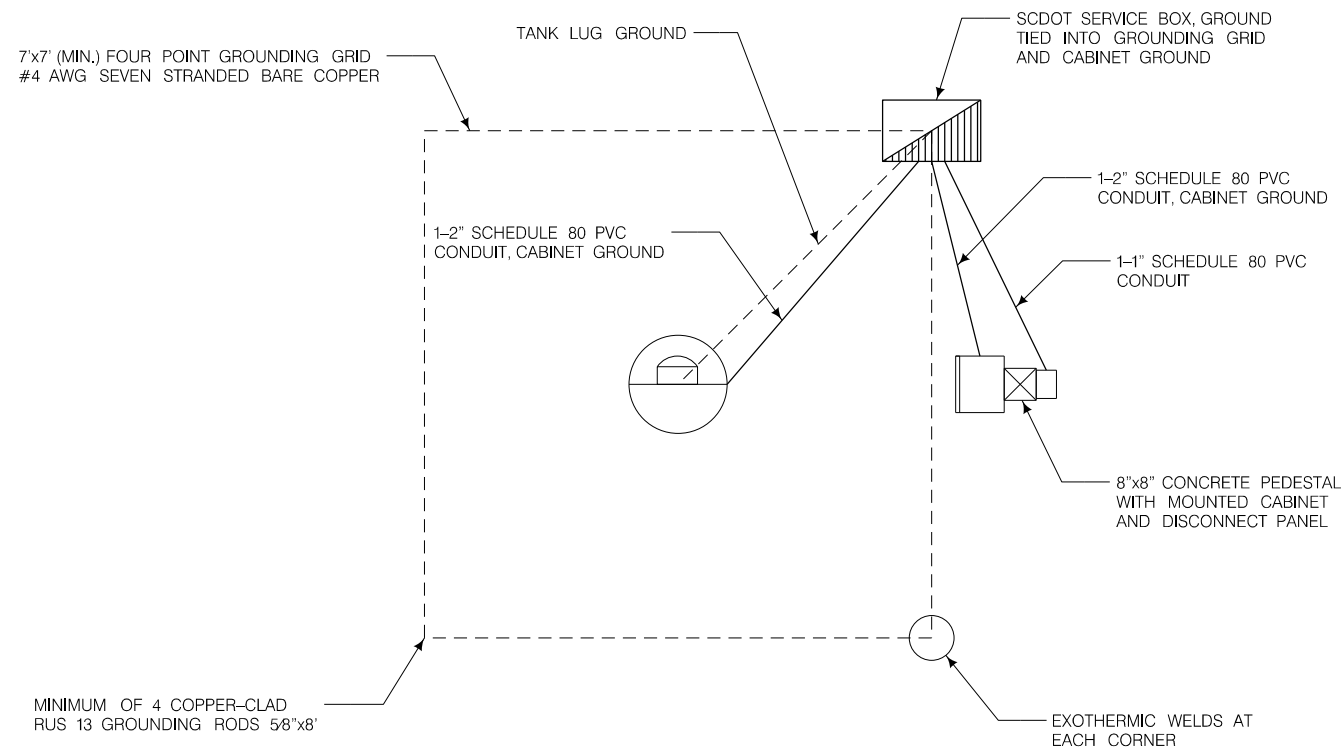
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SCALE: NTS



DETAIL DRAWINGS

TYPICAL GROUNDING GRID / SITE LAYOUT



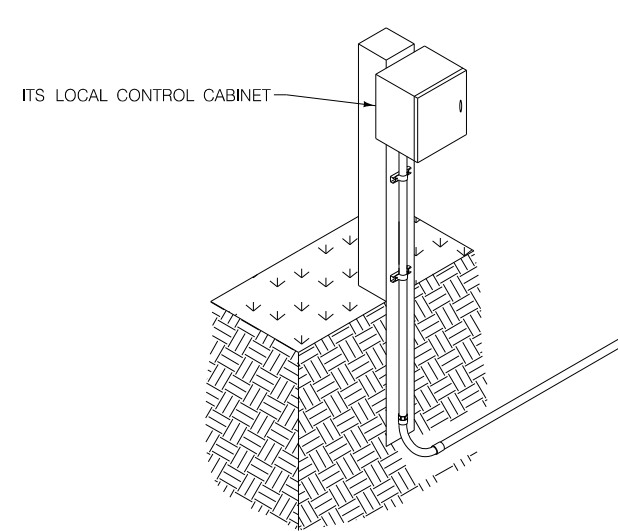
GROUND ROD-

ONE OR MORE GROUND RODS SHALL BE INSTALLED AT THE SERVICE POLE; AND WHERE APPLICABLE, AT THE CONTROLLER ITSELF. THE GROUND ROD SHALL BE MIN. 16MM BY 2.4 METERS (5/8 IN BY 8 FT), COPPER-CLAD RUS 13, WITH BRASS OR BRONZE GROUND ROD CLAMP. ADDITIONAL GROUND RODS MAY BE NEEDED TO ACHIEVE PROPER RESISTANCE TO GROUND. THE CONTROLLER GROUND ROD SHALL BE EXOTHERMICALLY WELDED (BY PERSONNEL PROPERLY TRAINED TO MAKE EXOTHERMIC WELDS). GROUNDING SYSTEM SHALL BE NO GREATER THAN 15 OHMS. GROUNDING SYSTEMS SHALL BE TESTED USING THE FALL OF POTENTIAL METHOD AND SHALL BE OVERSEEN BY THE ENGINEER.

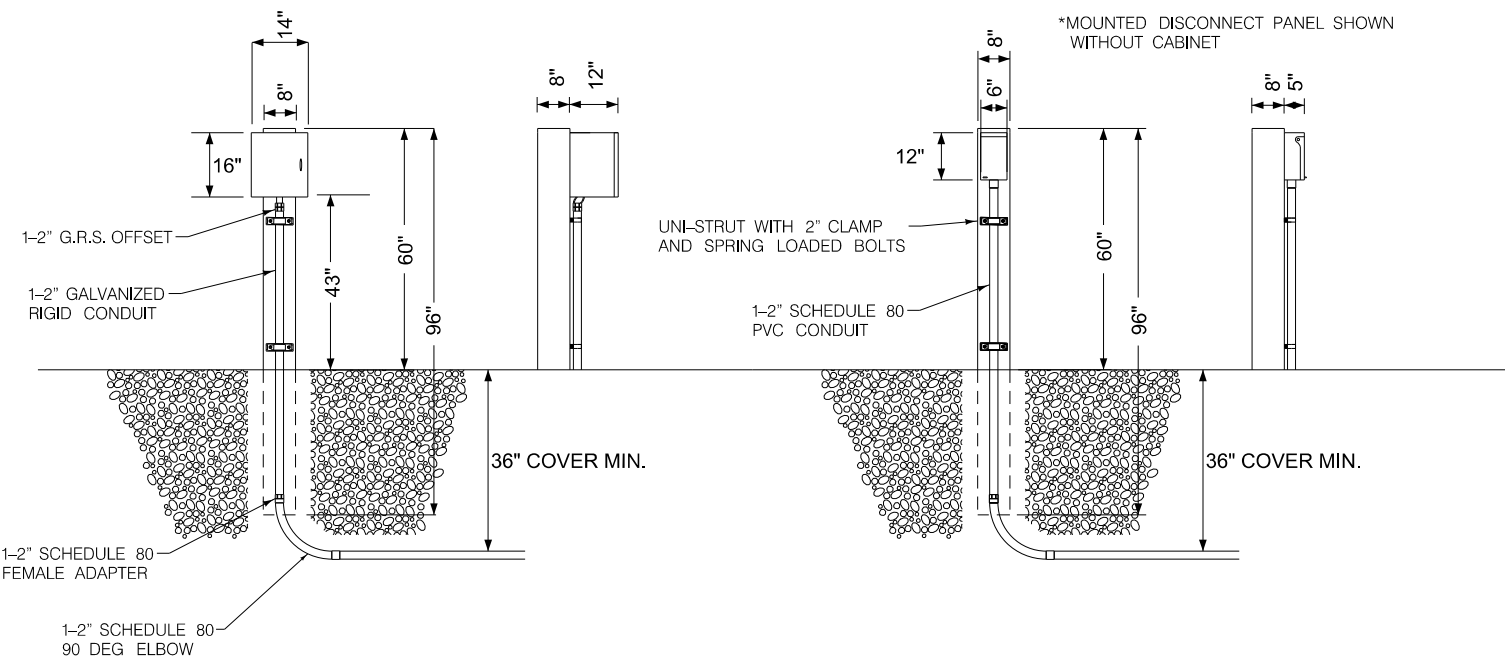
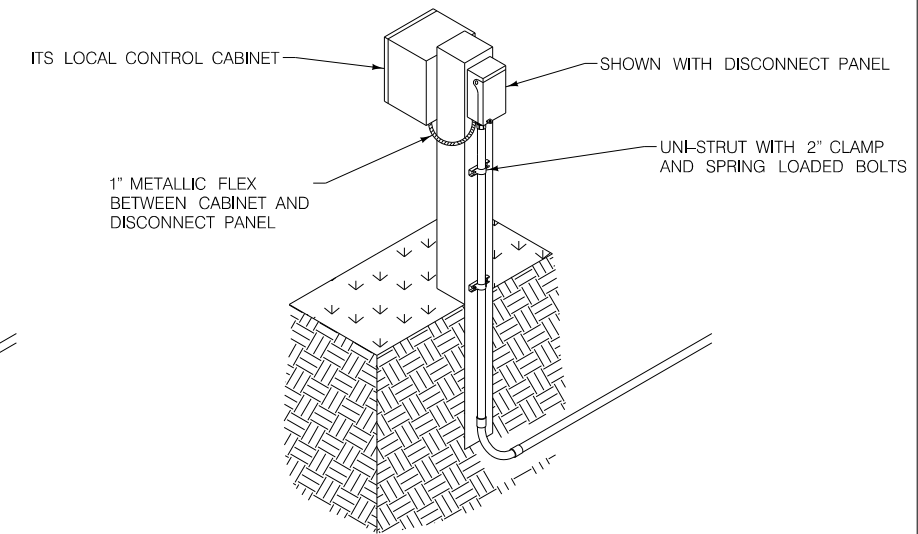
GROUND WIRE-

THE GROUNDING WIRE FOR THE SERVICE SHALL BE NO. 6 AWG, BARE, 7 STRANDED WIRE. (NOTE THAT THIS IS IN ADDITION TO THE SOLID GROUNDING WIRE RUNNING DOWN EACH WOODEN POLE AND SHALL BE STAPLED AT A MIN OF EVERY 16 INCHES WITH A COIL OF SOLID COPPER WIRE AT THE BOTTOM AND TOP OF THE POLE.) FOR GRIDS THE GROUND WIRE SHALL BE #4 AWG (7) SEVEN STRANDED OR LARGER AROUND CONCRETE POLES AND #2 OR LARGER AROUND HUB BUILDING. THE GROUNDING FOR THE SERVICE SHALL BE CONNECTED TO THE CABINET GROUND ROD WITH AWG 6 AND THE POLE GROUNDING GRID SHALL BE CONNECTED TO THE CABINET GROUND ROD IN THE ELECTRIC SERVICE PULL BOX, (LOCATED AT THE CABINET) TO MAKE UP A COMPLETE GROUNDING SYSTEM.

PEDESTAL MOUNTED CABINET



PEDESTAL MOUNTED METER / DISCONNECT WITH CABINET



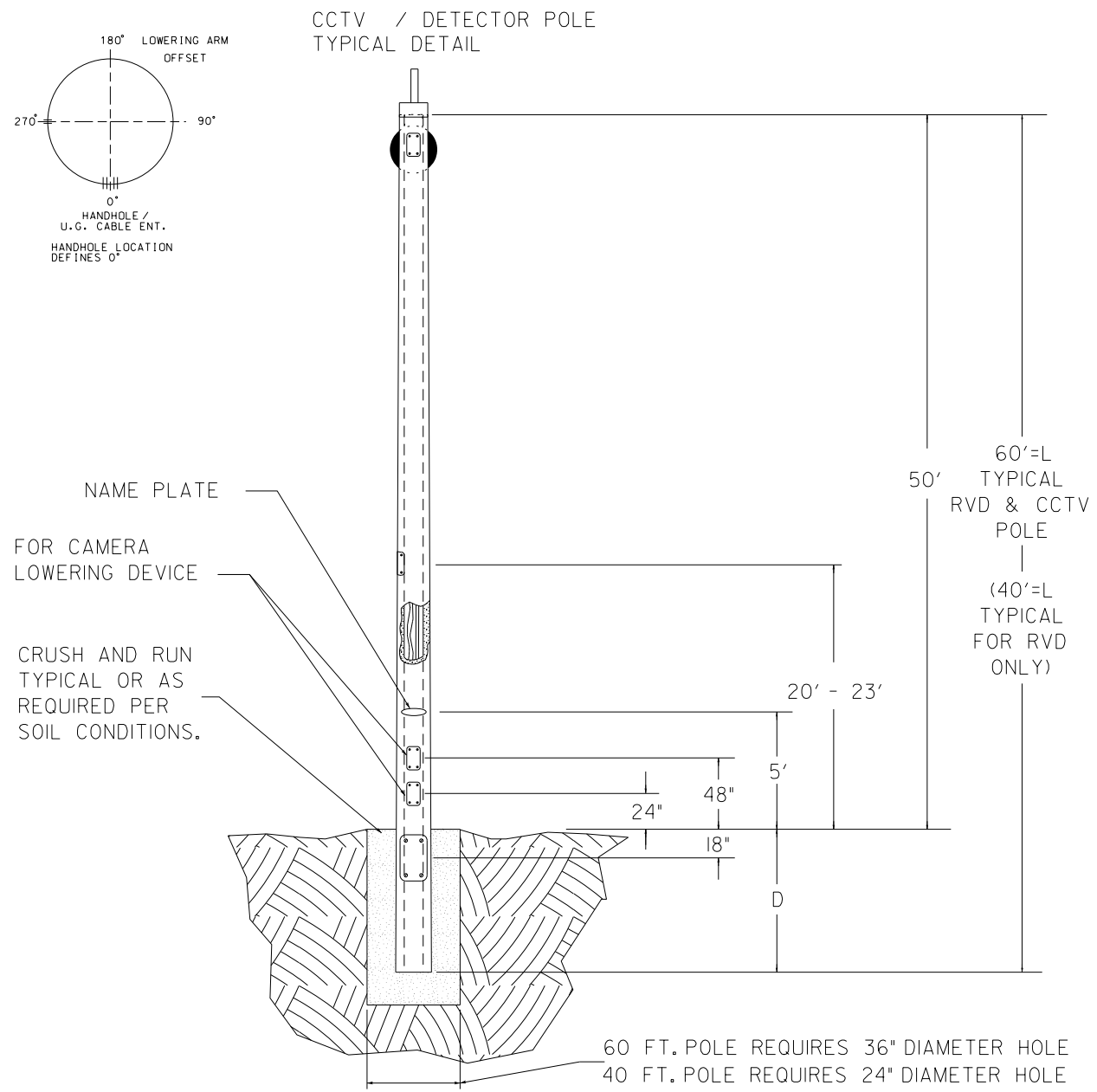
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SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

I.T.S. INSTALLATION

SCALE: NO SCALE

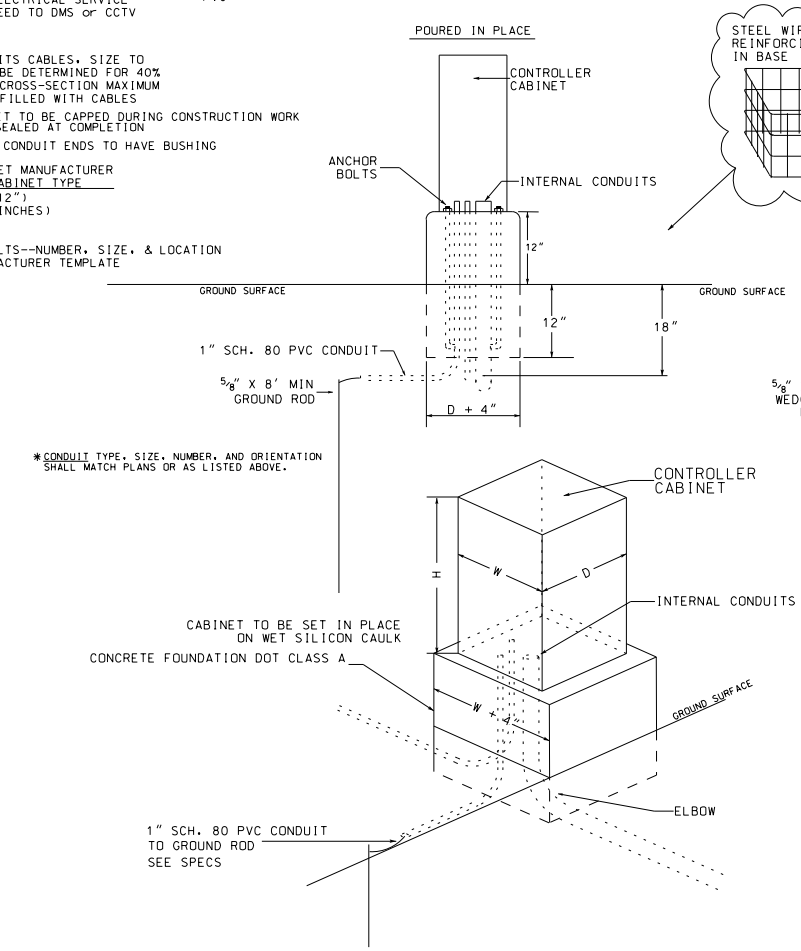
CONCRETE POLE



D=DEPTH WHICH IS APPROXIMATELY 10% OF LENGTH PLUS 4 FEET MINIMUM OR AS REQUIRED BY SOIL ANALYSIS CONDUCTED BY CONTRACTOR

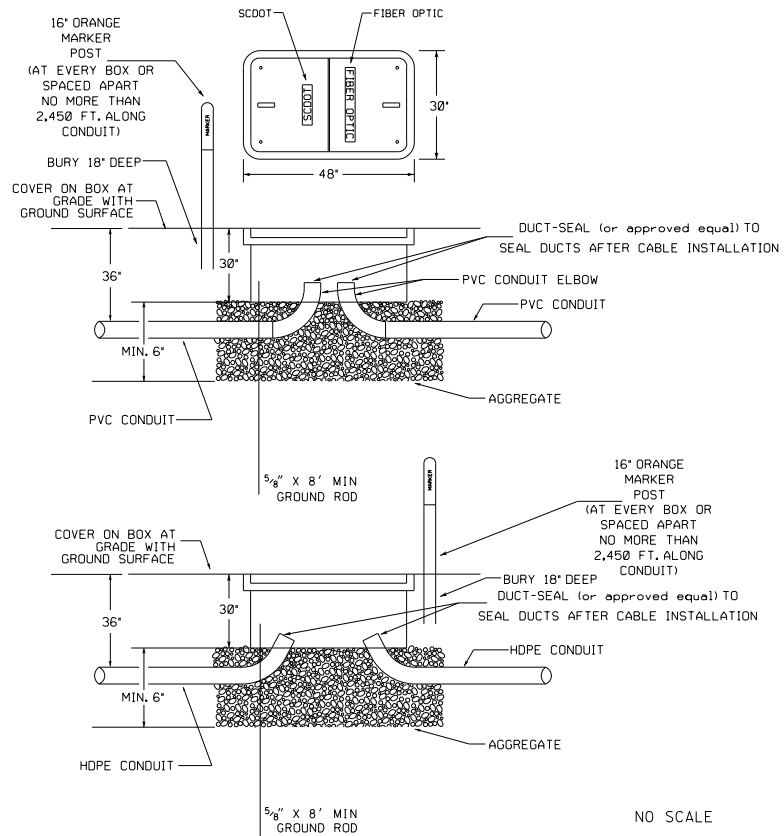
NO SCALE

- CONDUIT SCHEDULE
- 1" FOR GROUNDING
 - 1" TELEPHONE SERVICE
 - 2" TYP. ELECTRICAL SERVICE
 - 2" TYP. FEED TO DMS or CCTV
 - 2" SPARE
 - 2" SPARE
- 2" MIN. ITS CABLES, SIZE TO BE DETERMINED FOR 40% CROSS-SECTION MAXIMUM FILLED WITH CABLES
- 3" TYP. BE DETERMINED FOR 40% CROSS-SECTION MAXIMUM FILLED WITH CABLES
- ALL CONDUIT TO BE CAPPED DURING CONSTRUCTION WORK AND DUCT-SEALED AT COMPLETION
- ALL RIGID CONDUIT ENDS TO HAVE BUSHING
- PER CABINET MANUFACTURER AND DOT CABINET TYPE
- R=RISER (12")
- D=DEPTH (INCHES)
- W=WIDTH
- H=HEIGHT
- ANCHOR BOLTS--NUMBER, SIZE, & LOCATION PER MANUFACTURER TEMPLATE

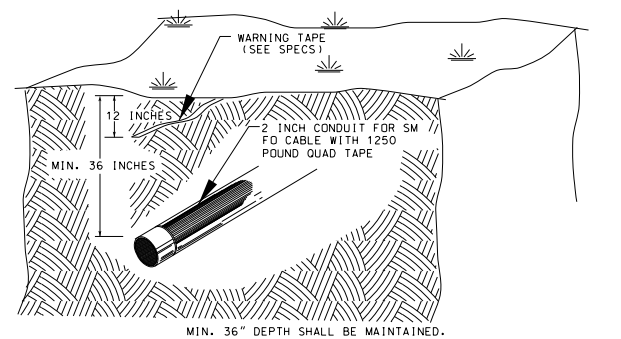


ELEVATED BASE FOUNDATION DETAILS FOR BASE MOUNTED CABINET

NO SCALE



NO SCALE



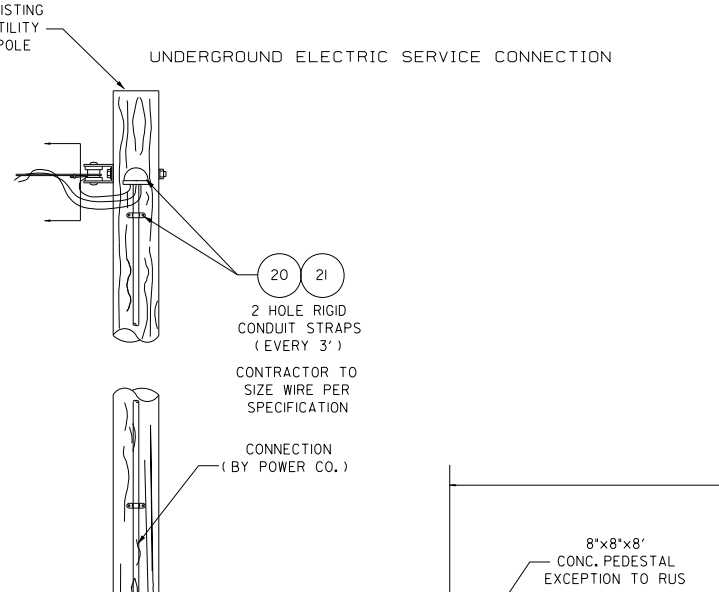
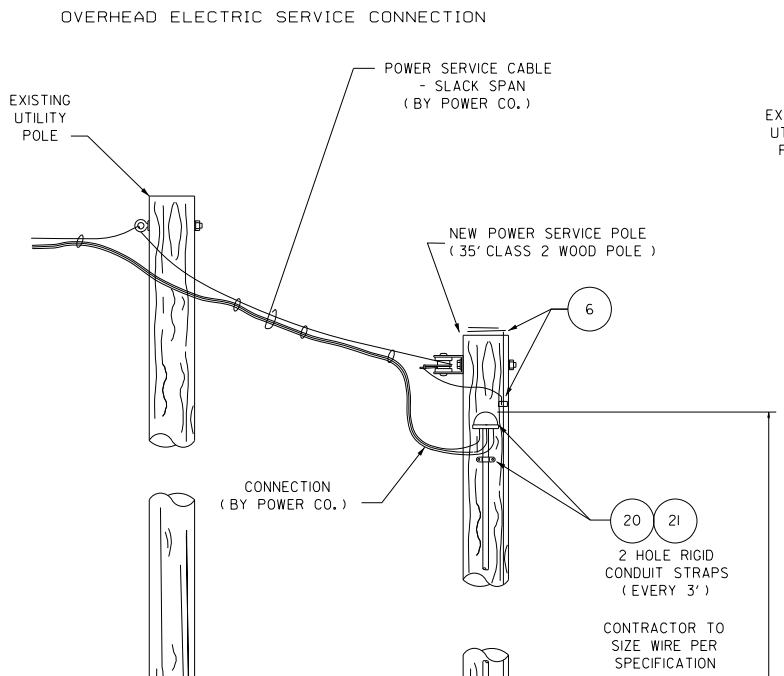
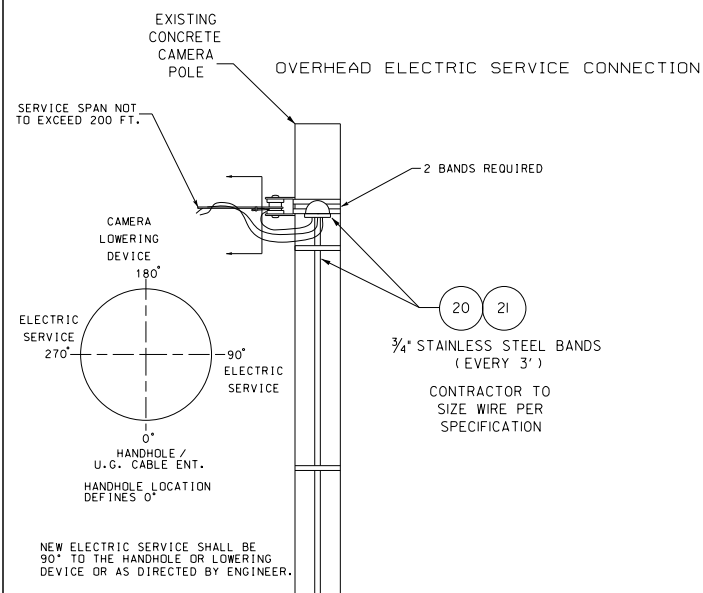
(1) 2" HDPE SCH 80

NO SCALE

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DATE	REVISIONS	SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION COLUMBIA S.C.	
3/07	REVISED STND		
		SUBJECT TITLE	
		SPECIFIC LOCATION	
		CONCRETE CAMERA/DETECTOR POLE DETAIL and MISC. DETAILS	
		CITY	COUNTY
DESIGNED	APPROVED BY	APPROVED BY	
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		SCALE	DATE
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FED. ROAD DIV. NO.	STATE	COUNTY	FILE NO.	PROJECT NO.	ROUTE NO.	SHEET NO.	TOTAL SHEETS
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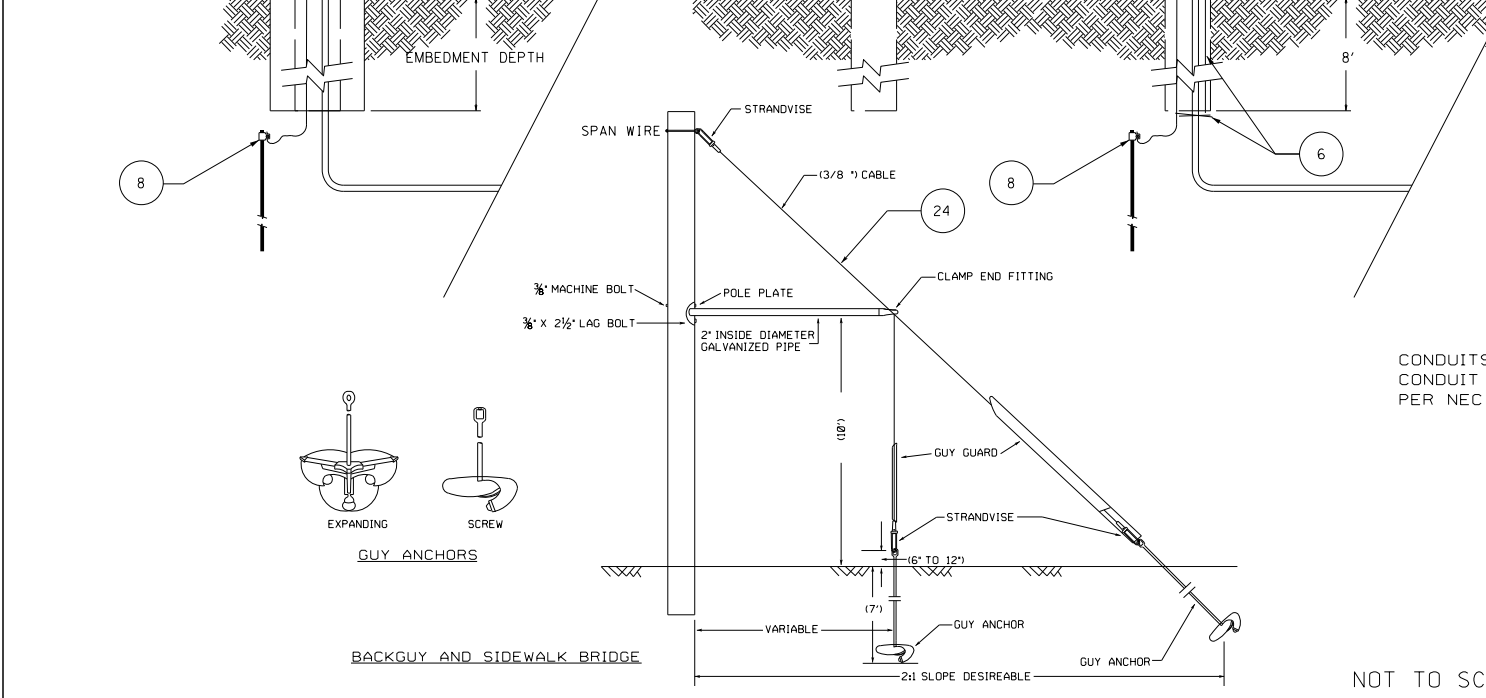
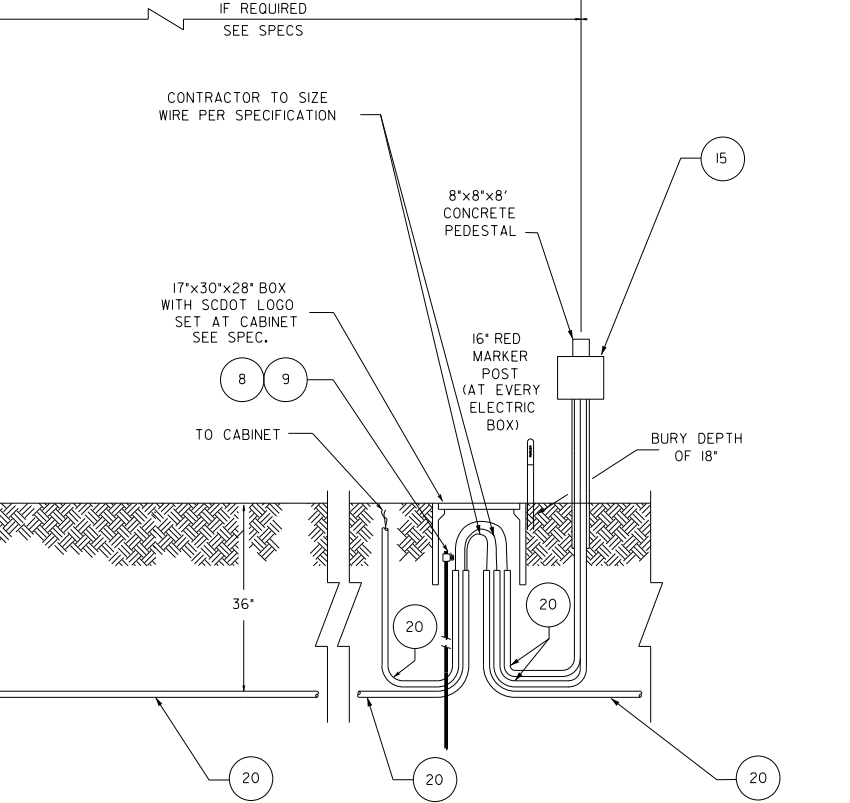
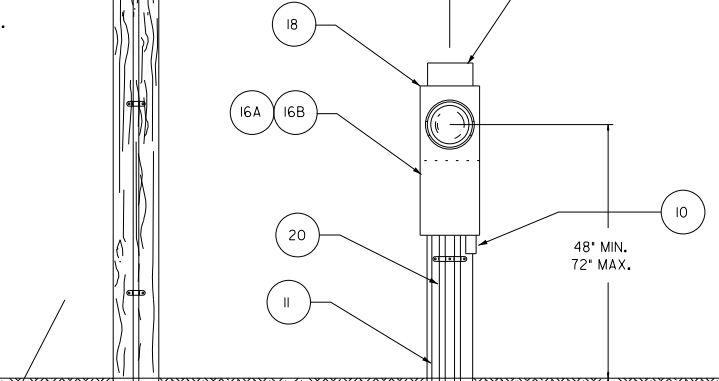
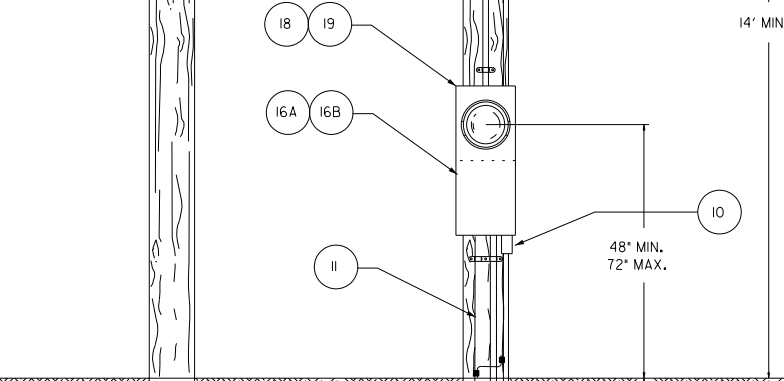
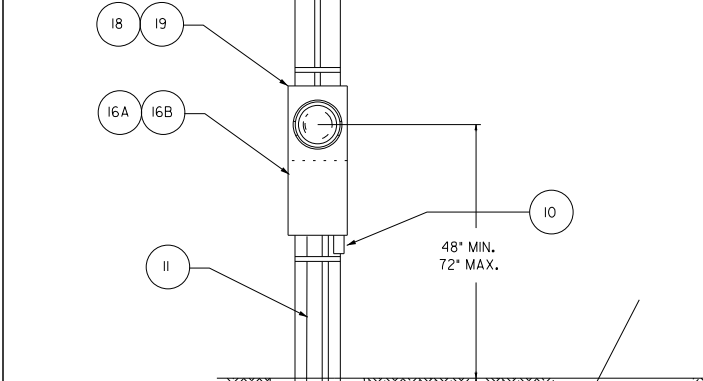


PARTS LIST AND DESCRIPTION

1. GUY HOOK (CHANGE P/N 5004)	18. METER BASE/DISCONNECT PANEL (MID WEST 102EN)
2. EYE BOLT (CHANGE P/N 5510)	19. HUB. (1") (MID WEST B10)
3. STRANDVISE (RELIABLE P/N 5102) FOR (3/8") SPAN WIRE	20. CONDUIT. (1") MIN. CONDUIT
4. JUMPER CLAMP OF LIKE MATERIAL	21. WEATHER-HEAD. (1") CONDUIT
5. BONDING CABLE	22. CONDUIT BUSHING (1")
6. NO. 6 AWG. BARE, SOLID COPPER WIRE. RUNNING FULL LENGTH OF ALL WOOD POLES. WITH (2') COIL AT TOP AND BOTTOM OF POLE. FOR GROUND WIRE.	23. CONDUIT LOCKNUT (1")
7. SCREW ANCHOR (18") (JUSLYN P/N JESSONCA)	24. STEEL CABLE. GALV. 13/8" STRANDED FOR SPAN WIRE & GUY CABLE
8. GROUND ROD-(5/8"x8") MIN. COPPERCLAD	
9. EXOTHERMIC WELD REQUIRED PER CABINET GROUND	
10. SURGE PROTECTOR (EDCO EMC-240B)	
11. NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	

CABLE: (3-WIRE W.B.L.RD.) TYPE THHN/THWN 600 V. STRANDED

12. RESERVED
13. RESERVED
14. RESERVED
15. BREAKER DISCONNECT 100 AMP RATED
16A. ONE PIECE DISCONNECT/METER BASE RATED AT 100 AMP FOR CCTV, 200 AMP FOR HUB.
16B. CIRCUIT BREAKER 30 AMP FOR CCTV
16C. CIRCUIT BREAKER 50 AMP FOR SIGN
16D. CIRCUIT BREAKER 200 AMP FOR HUB
17. HUB. 25mm (1") (50-D P/N B-100)

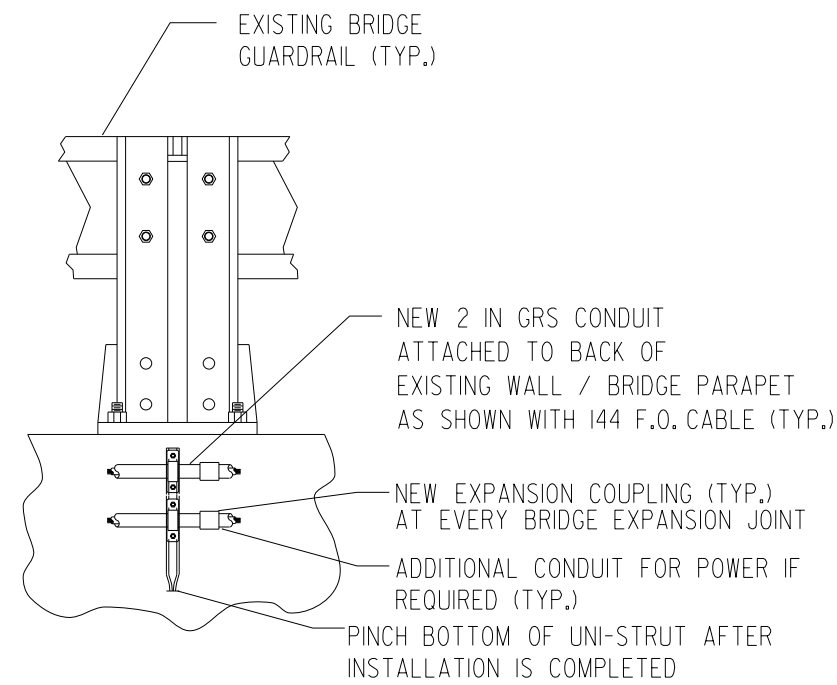


CONDUITS ARE SHOWN AS MINIMUM SIZE. CONDUIT SIZE SHALL INCREASE AS NEEDED PER NEC REQUIREMENTS.

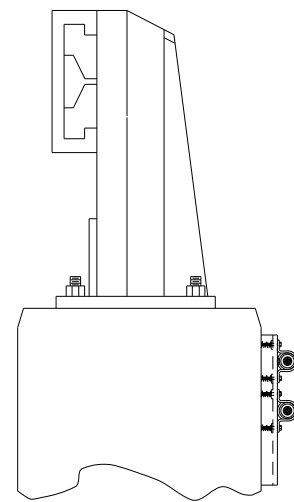
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DATE	REVISIONS	SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION COLUMBIA S.C.	
3/07	REVISED STND.		
SUBJECT TITLE		POWER SERVICE CONNECTION for OVERHEAD and UNDERGROUND DETAIL	
SPECIFIC LOCATION		CITY COUNTY	
DESIGNED	APPROVED BY	APPROVED BY	
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RECOMMENDED		SCALE	DATE SHEET NO. INDEX NO.
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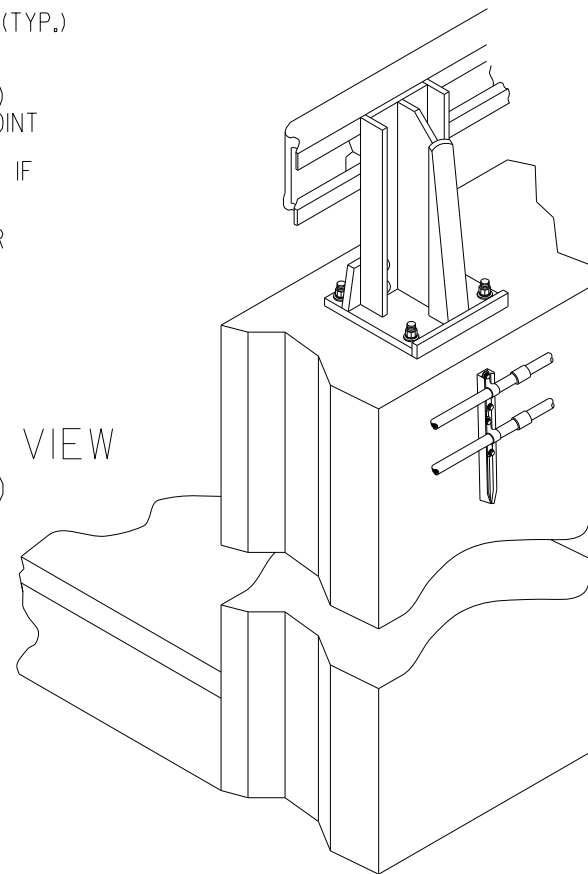


BACK VIEW (NTS)



SIDE VIEW (NTS)

ISOMETRIC VIEW (NTS)



TYPICAL CONDUIT ATTACHMENT

NOTE:
CONTRACTOR TO REQUEST SPECIFICATIONS OF ATTACHMENT DEVICE FROM DEVICE MANUFACTURER

NOTES:

- INSTALL (1) 2 IN GRS CONDUIT WITH EXPANSION COUPLINGS AT EVERY BRIDGE JOINT
- CONDUIT MOUNTING TO EXISTING BRIDGE PARAPET WALL
- CONDUIT MOUNTING EQUIPMENT SHALL BE KINDORF. THE FOLLOWING PART NO.'S SHALL APPLY FOR CHANNEL ASSEMBLY:
- CHANNEL (12" LONG) -STAINLESS STEEL
- 2" PIPE STRAP -STAINLESS STEEL
- 3/8" x 2" WEDGE ANCHOR -STAINLESS STEEL
- 3/8" FLAT WASHER -STAINLESS STEEL
- 3/8" LOCK WASHER -STAINLESS STEEL
- DRILL 3/8" DIA. HOLE IN OUTSIDE PARAPET WALL TO ACCOMMODATE CHANNEL INSTALLATION. KINDORF CHANNEL EQUIPMENT SHALL BE PLACED EVERY 5 FT MIN ALONG BRIDGE LENGTH. EPOXY SHALL BE USED WITH WEDGE ANCHORS

DATE	REVISIONS	SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION COLUMBIA S.C.	
3/07	REVISED STND		
SUBJECT TITLE		BRIDGE ATTACHMENT	
SPECIFIC LOCATION		CITY COUNTY	
DESIGNED	APPROVED BY	APPROVED BY	
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SOUTH CAROLINA
DEPARTMENT OF TRANSPORTATION
GENERAL CONSTRUCTION NOTE

- | | |
|---|--|
| <p>1) INTELLIGENT TRANSPORTATION SYSTEM (ITS) TO BE CONSTRUCTED UNDER THE STATEWIDE ITS REPAIR & INSTALLATION CONTRACT.</p> <p>2) APPROXIMATE LOCATION OF CAMERA POLES IS SPECIFIED ON THE PLAN SHEET. APPROXIMATE LOCATION OF SERVICE BOXES/LOCAL CONTROLLER CABINETS IS SHOWN ON THE PLAN SHEET, EXACT LOCATION TO BE DETERMINED DURING CONSTRUCTION. CONTACT THE SCDOT FIELD OPERATIONS MANAGER IF SUBSURFACE OR OTHER CONDITIONS WARRANT LOCATING EQUIPMENT/DEVICES ELSEWHERE.</p> <p>3) CONTRACTOR SHALL INSTALL (1) 2" HDPE ORANGE CONDUIT, WITH A MINIMUM OF 36" OF COVER. ALL CONDUITS ARE TO BE PLACED AT LEAST 30' FROM THE EDGE OF TRAVEL WAY, UNLESS FIELD CONDITIONS DICTATE OTHERWISE. IF CONDUITS ARE PLACED NEAR A RIGHT OF WAY LINE, PLACE A MINIMUM OF 5' INSIDE RIGHT OF WAY LINE UNLESS FIELD CONDITIONS DICTATE OTHERWISE.</p> <p>4) CONTRACTOR SHALL INSTALL 96 CT SINGLEMODE FIBER OPTIC CABLE WITHIN DESIGNATED CONDUIT, UNLESS DICTATED DIFFERENTLY ON PLAN SHEET. REEL END SPLICES ARE NOT SHOWN ON THE PLAN SHEET. THE CONTRACTOR SHALL SUBMIT REEL END SPLICE LOCATIONS TO THE SCDOT FIELD OPERATIONS MANAGER FOR APPROVAL.</p> <p>5) NON-METALLIC WARNING TAPE SHALL BE BURIED 12" BELOW GRADE WHERE ELECTRIC AND COMMUNICATION CONDUIT IS INSTALLED. ADDITIONALLY, DETECTABLE MULE TAPE IS TO BE INSTALLED INSIDE CONDUIT WITH FIBER OPTIC CABLE.</p> <p>6) CONTRACTOR TO INSTALL NEW FIBER OPTIC SERVICE BOX EVERY 2450' OR AS INDICATED ON THE PLAN SHEET. COILED SLACK TO BE PLACED IN EACH SERVICE BOX, 200' SLACK FOR ALL SERVICE BOXES WITH OR WITHOUT A SPLICE ENCLOSURE. PLACE 100' OF SLACK FOR DROP CABLES IN SERVICE BOX FOR MID SPANS.</p> <p>7) ALL PULL BOXES SHALL BE ARMORCAST OR HIGHLINE. SERVICE BOX COVERS USED FOR COMMUNICATIONS SHALL HAVE 'SCDOT FIBER' EMBEDDED IN THE COVERS, PULL BOX COVERS USED FOR ELECTRIC SHALL HAVE 'SCDOT ELEC' EMBEDDED IN THE COVER, AND PULL BOX COVERS USED FOR TRAFFIC SIGNALS SHALL HAVE 'SCDOT TRAFFIC' EMBEDDED IN THE COVER.</p> <p>8) CONTRACTOR TO PROVIDE FIBER OPTIC MARKER POSTS AT ALL NEW SERVICE BOX LOCATIONS AND DEFLECTIONS IN THE CONDUIT ALIGNMENT, AT A MAXIMUM OF 2450'.</p> <p>9) ALL BORES INDICATED ON PLAN SHEET ARE APPROXIMATE VALUES, TRUE VALUES MAY VARY. ANY LOCATION MARKED AS CONVENIENCE BORES ARE CONSIDERED PLOWABLE.</p> <p>10) ITS DEVICES/SYMBOLGY (CAMERA, SERVICE BOX, DMS, CABINET, ETC.) ARE SCALED UP FOR VISIBILITY ON PLANS, THEY ARE NOT TO THE SCALE OF THE DRAWING.</p> | <p>11) CONTRACTOR IS RESPONSIBLE FOR CONTACTING PUPS/811 FOR LOCATION OF EXISTING UTILITIES.</p> <p>12) ALL PLANS ARE SCHEMATIC IN NATURE. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD.</p> <p>13) BELOW IS A LEGEND THAT IS APPLICABLE TO THIS PROJECT. ADDITIONAL DRAWINGS MAY BE NEEDED AS DETERMINED IN FIELD DURING CONSTRUCTION.</p> <p>14) CAMERA POLES SHALL BE 18 1/2' FROM WHITE LINE WITH GUARD RAIL INSTALLED IN FRONT.</p> |
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ITS ELEMENTS

ITS-CAMERA POLE	
ITS-EXISTING FIBER OPTIC SERVICE BOX (EX FOSB)	
ITS-LOCAL CONTROLLER CABINET, BASE-MOUNTED	
ITS-NEW FIBER OPTIC SERVICE BOX (FOSB)	
ITS-NEW ELECTRIC PULL-BOX	
EXISTING CONDUIT (COMM. IN CONDUIT)	— FOC
PROPOSED CONDUIT (COMM./ELEC. IN CONDUIT)	—————
ROADWAY BORE (COMM./ELEC. IN CONDUIT)	- - - - -
RIGID GALVANIZED CONDUIT (IDENTIFIED ON PLAN SHEET, COMM. IN CONDUIT)	— ■ — ■ —

	SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
	I.T.S. INSTALLATION
	SCALE: NO SCALE

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