

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION

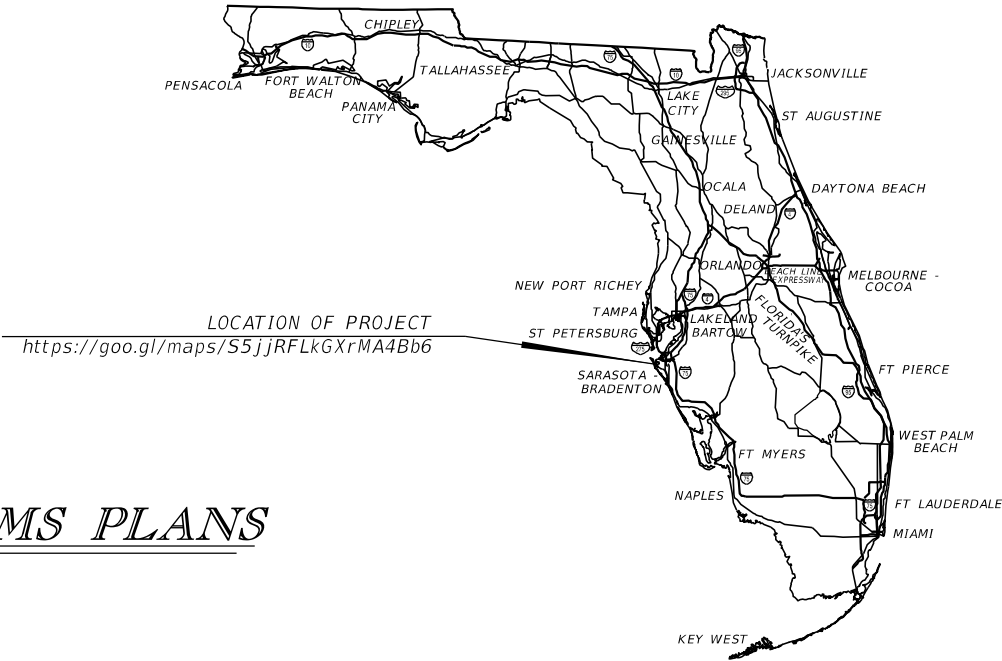
CONTRACT PLANS

FINANCIAL PROJECT ID 430204-2-52-01  
(FEDERAL FUNDS)  
MANATEE COUNTY (13040)  
STATE ROAD NO. 684  
BRIDGE REPLACEMENT PROJECT

INTELLIGENT TRANSPORTATION SYSTEMS PLANS

INDEX OF ITS PLANS

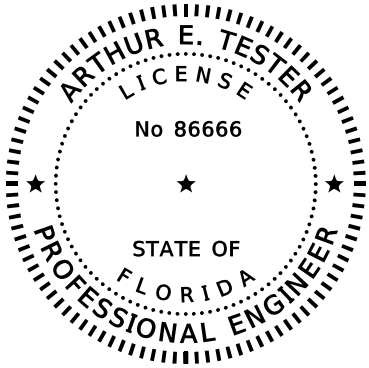
SHEET NO.	SHEET DESCRIPTION
IT-1	KEY SHEET
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IT-4	GENERAL NOTES
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IT-19 - IT-20	REPORT OF CORE BORINGS



PHASE IV SUBMITTAL  
MAY 2025

INTELLIGENT TRANSPORTATION  
SYSTEMS PLANS  
ENGINEER OF RECORD:  
ARTHUR E. TESTER P.E. NO.: 86666  
VIBE  
6914 WEST LINEBAUGH AVENUE  
TAMPA, FL 33625  
(813) 264-2508  
CONTRACT NO.: C9V47  
VENDOR NO.: 46-2667875  
FDOT PROJECT MANAGER:  
AMY E. BLAIR, PE, CPM

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
TBD	26	IT-1



THIS ITEM HAS BEEN DIGITALLY  
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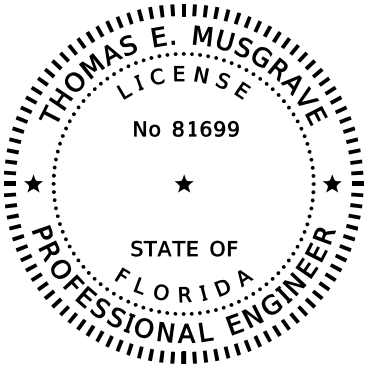
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ARTHUR E. TESTER, P.E.  
P.E. LICENSE NUMBER 86666  
VIBE  
6914 WEST LINEBAUGH AVE.  
TAMPA, FL 33625

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING  
SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
IT-1	KEY SHEET
IT-2	SIGNATURE SHEET
IT-3	TABULATION OF QUANTITIES
IT-4	GENERAL NOTES
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IT-6 - IT-9	ITS PLANS
IT-10	SPLICING DIAGRAM
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IT-12	ITS CABINET DETAILS
IT-13	WIRING DIAGRAM
IT-14	POWER SERVICE DETAILS
IT-15	ROUTE MARKER DETAILS
IT-16 - IT-17	ITS CROSS SECTION
IT-18	MAINTENANCE OF COMMUNITCATIONS



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THOMAS E. MUSGRAVE, P.E.  
P.E. LICENSE NUMBER 81699  
TIERRA, INC.  
TEMPLE TERRACE HIGHWAY  
TAMPA, FL 33637

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING  
SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

<u>SHEET NO.</u>	<u>SHEET DESCRIPTION</u>
IT-2	SIGNATURE SHEET
IT-19 - IT-20	REPORT OF CORE BORINGS

REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SIGNATURE SHEET	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 684	MANATEE	430204-2-52-01		IT-2

TABULATION OF QUANTITIES																				
PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS														TOTAL THIS SHEET		GRAND TOTAL	
			IT-6		IT-7		IT-8		IT-9											
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL
611-1-1	ITSFM SUBSURFACE DOCUMENTATION- PROJECT LENGTH	MI																	0.9	
611-2-1	ITSFM LOCATION DOCUMENTATION- INTERSECTION	EA	1														1		1	
611-2-2	ITSFM LOCATION DOCUMENTATION- ITS SITE	EA	1							1							2		2	
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	611				80		307								998		998	
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	111						417								528		528	
630-2-14	CONDUIT, FURNISH & INSTALL, ABOVEGROUND	LF	5						5								10		10	
633-1-121	FIBER OPTIC CABLE, F&I, UNDERGROUND,2-12 FIBERS	LF	261						646								907		907	
633-1-123	FIBER OPTIC CABLE, F&I, UNDERGROUND,49-96 FIBERS	LF	1400		1400		1361		737								4898		4898	
633-2-31	FIBER OPTIC CONNECTION, INSTALL, SPLICE	EA	32						86								118		118	
633-3-11	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE ENCLOSURE	EA	2						1								3		3	
633-3-12	FIBER OPTIC CONNECTION HARDWARE, F&I, SPLICE TRAY	EA	2						1								3		3	
633-3-13	FIBER OPTIC CONNECTION HARDWARE, F&I, PRETERMINATED CONNECTOR ASSEMBLY	EA	2						1								3		3	
633-3-16	FIBER OPTIC CONNECTION HARDWARE, F&I, PATCH PANEL- FIELD TERMINATED	EA	2						1								3		3	
633-6	FIBER OPTIC CABLE LOCATOR	DA																	1095	
635-2-12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA	2				1		2								5		5	
635-2-13	PULL & SPLICE BOX, F&I, 30" X 60" RECTANGULAR OR 36" ROUND COVER SIZE	EA	2						1								3		3	
635-2-14	PULL & SPLICE BOX, F&I, 17" X 30" COVER SIZE	EA	1						1								2		2	
635-3-13	JUNCTION BOX, FURNISH & INSTALL, EMBEDDED	EA			1												1		1	
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS	1						1								2		2	
639-1-620	ELECTRICAL POWER SERVICE, REMOVE UNDERGROUND	AS					1										1		1	
639-2-1	ELECTRICAL SERVICE WIRE, FURNISH & INSTALL	LF	79						65								144		144	
639-3-11	ELECTRICAL SERVICE DISCONNECT, F&I, POLE MOUNT	EA	1						1								2		2	
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA	1						1								2		2	
641-2-80	PRESTRESSED CONCRETE POLE, COMPLETE POLE REMOVAL- POLE 30' AND GREATER	EA					1										1		1	
641-3-263	CONCRETE CCTV POLE, FURNISH & INSTALL WITHOUT LOWERING DEVICE, 63'	EA	1						1								2		2	
641-3-800	CONCRETE CCTV POLE, COMPLETE POLE REMOVAL	EA					1										1		1	
660-3-11	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL CABINET EQUIPMENT	EA	1														1		1	
660-3-12	VEHICLE DETECTION SYSTEM- MICROWAVE, FURNISH & INSTALL, ABOVE GROUND EQUIPMENT	EA	1														1		1	
660-6-121	VEHICLE DETECTION SYSTEM- AVI, BLUETOOTH, FURNISH & INSTALL, CABINET EQUIPMENT	EA							1								1		1	
660-6-122	VEHICLE DETECTION SYSTEM- AVI, BLUETOOTH, FURNISH & INSTALL, ABOVE GROUND EQUIPMENT	EA							1								1		1	
660-6-600	VEHICLE DETECTION SYSTEM- AVI, REMOVE COMPLETE SYSTEM	EA	1				1										2		2	
660-11-60	TRAFFIC DATA DETECTION SYSTEM- LIDAR, REMOVE COMPLETE SYSTEM	EA					1										1		1	
676-2-122	ITS CABINET, FURNISH & INSTALL, POLE MOUNT WITH SUNSHIELD, 336S, 24" W X 46" H X 22" D	EA	1						1								2		2	
676-2-600	ITS CABINET- REMOVE	EA					1										1		1	
682-1-113	ITS CCTV CAMERA, F&I, DOME PTZ ENCLOSURE - PRESSURIZED, 1P, HIGH DEFINITION	EA	1						1								2		2	
682-1-600	ITS CCTV CAMERA, REMOVE & DISPOSAL	EA					1										1		1	
684-1-1	MANAGED FIELD ETHERNET SWITCH, FURNISH & INSTALL	EA	1						1								2		2	
684-2-1	DEVICE SERVER, FURNISH & INSTALL	EA	1														1		1	
684-6-60	WIRELESS COMMUNICATION DEVICE, REMOVE	EA	1				1										2		2	
685-1-11	UNINTERRUPTIBLE POWER SUPPLY, FURNISH AND INSTALL, LINE INTERACTIVE	EA	1						1								2		2	
924-681-1	CONNECTED VEHICLE ROADSIDE EQUIPMENT, RSU	EA	1														1		1	

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REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TABULATION OF QUANTITIES		SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID			
					SR 684	MANATEE	430204-2-52-01			IT-3

GENERAL NOTES

1. BENCHMARK ELEVATIONS SHOWN ON THE PLANS ARE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

2. ALL R/W CONTROL POINTS ARE MEASURED FROM ȡ SURVEY SR 684 OR ȡ SURVEY SR 789. ALL PROPOSED FEATURES ARE MEASURED FROM Ȣ CONST. SR 684, ȡ SURVEY/CONST. SR 789 OR Ȣ CONST OF SIDE STREET.

3. ALL SURVEY INFORMATION WAS OBTAINED FROM A LICENSED FLORIDA PROFESSIONAL SURVEYOR AND MAPPER AND UTILIZED AS SUPPORTING DATA IN THE PRODUCTION OF DESIGN PLANS AND FOR CONSTRUCTION ON SUBJECT PROJECT.  
THE PROFESSIONAL SURVEYOR AND MAPPER OF RECORD IS:  
THOMAS M. HALSTEAD, P.S.M.  
P.S.M. NO: 5770  
MCKIM & CREED, INC.  
5701 DIVISION DR, SUITE A  
FORT MYERS, FL 33905  
CERTIFICATE OF AUTHORIZATION: 7917

4. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNATED Vv, Vh, AND Vvh) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED.

5. UTILITY/AGENCY OWNERS: COMPANYCONTACTTELEPHONE NUMBERS  
  
BRIGHT HOUSE NETWORKS TOM WRIGHT 941-345-1348  
FPL GREG COKER 941-723-4430  
VERIZON DENISE HUTTON 941-906-6722  
MANATEE COUNTY TRAFFIC MUKUNDA GOPALAKRISHNA, P.E. 941-749-3500 EXT. 7813  
MANATEE COUNTY UTILITIES KATHLEEN McMAHON 941-792-8811 EXT. 5075  
TECO PEOPLES GAS DANNY SHANAHAN 941-342-4006

6. SEE ROADWAY PLANS FOR SPECIAL EVENT DAYS.

7. ALL SALVAGE MATERIAL SHALL BE THE PROPERTY OF THE MAINTAINING AGENCY AND DELIVERED TO THEIR DESIRED LOCATION.  
  
TRAFFIC ENGINEERING DIVISION  
MUKUNDA GOPALAKRISHNA, P.E., TRAFFIC SYSTEMS ENGINEER  
2101 47TH TERRACE E  
BRADENTON, FL 34203  
941-749-3500 EXT 7813  
  
FDOT TRAFFIC OPERATIONS  
CASSIE LEE, TSM&O FMS SPECIALIST IV  
801 N. BROADWAY AVE  
P.O. BOX 1249  
BARTOW, FL 33830-1249  
CASSIE.LEE@DOT.STATE.FL.US

8. AT THE COMPLETION OF THE PROJECT, PROVIDE AS-BUILT PLANS IN ELECTRONIC FORM (PDF) TO:  
  
FDOT TRAFFIC OPERATIONS  
BELINDA M. THOMAS, TSM&O FMS SPECIALIST IV  
801 N. BROADWAY AVE  
P.O. BOX 1249  
BARTOW, FL 33830-1249  
BELINDA.THOMAS@DOT.STATE.FL.US  
863-519-2726

9. A COPY OF THE COMPLETED ITSFM DATA SHALL BE SUBMITTED FOR REVIEW AT LEAST 4 WEEKS PRIOR TO FINAL ACCEPTANCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL TRAINING AND CERTIFICATIONS NECESSARY TO COLLECT AND SUBMIT THE ITSFM DATA. DOCUMENTATION SHOWING THE NECESSARY TRAINING AND CERTIFICATIONS HAVE BEEN OBTAINED AND/OR SCHEDULED SHALL BE SUBMITTED WITHIN 2 WEEKS OF BEGINNING WORK ON THE ATMS INFRASTRUCTURE. CONTACT D1-ITSFM@DOT.STATE.FL.US FOR ITSFM INFORMATION.  
  
AT MINIMUM, THE FOLLOWING ITSFM ATTRIBUTE FORMS SHALL BE COMPLETED:  
ITSFM031  
ITSFM034  
ITSFM035  
ITSFM036  
ITSFM056  
ITSFM057  
  
AT MINIMUM, THE FOLLOWING ITSFM FEATURE IMPORT TEMPLATES SHALL BE COMPLETED:  
ITSFM5002  
ITSFM5006

10. THE LOCATION OF THE POLES, CONDUCTORS, CONDUITS, AND PULL BOXES ARE APPROXIMATE AND MAY BE SHIFTED BY THE ENGINEER TO ACCOMMODATE LOCAL CONDITIONS AND EXISTING UTILITY CONFLICTS.

PAY ITEM NOTES

633-1-121: SHALL BE A 12-COUNT SINGLE MODE FIBER OPTIC CABLE.  
  
633-1-123: SHALL BE A 72-COUNT SINGLE MODE FIBER OPTIC CABLE.  
  
633-3-13: PROVIDE A 12 FIBER PRE-TERMINATED CONNECTOR ASSEMBLY WITH SC CONNECTORS AT ALL DEVICE AND CONTROLLER CABINETS.  
  
635-2-12: PULL BOX DIMENSIONS SHALL BE 24" X 36" X 36" AND THE LID SHALL BE STAMPED "MANATEE COUNTY FIBER OPTIC SYSTEM" ON THE COVER. PULL BOXES ARE TO BE LOAD BEARING, POLYMER TYPE.  
  
635-2-13: PULL BOX DIMENSIONS SHALL BE 30" X 60" X 48" AND THE LID SHALL BE STAMPED "MANATEE COUNTY FIBER OPTIC SYSTEM" ON THE COVER. PULL BOXES ARE TO BE LOAD BEARING, POLYMER TYPE.  
  
635-2-14: PULL BOX LIDS SHALL BE STAMPED "MANATEE COUNTY TRAFFIC SIGNAL" ON THE COVER. PULL BOXES ARE TO BE LOAD BEARING, POLYMER TYPE.  
  
660-3-11 AND 660-3-12: VEHICLE DETECTION SHALL BE WAVETRONIX SMARTSENSOR HD UNLESS OTHERWISE APPROVED BY THE MANATEE COUNTY TRAFFIC ENGINEERING DIVISION.  
  
660-6-121 AND 660-6-122: PROVIDE BLUETOOTH TRAVEL-TIME MEASURING SENSOR, BLUETOAD SPECTRA RSU.  
  
682-1-113: PROVIDE ONE (1) CCTV CAMERA, BOSCH ITS 7000 STARLITE SERIES - 1080P 30X40.  
  
685-1-11: PROVIDE ONE (1) UNINTERRUPTABLE POWER SUPPLY (UPS) MODEL NO. ALPHA FXM 650 EQUIPPED WITH AN ETHERNET PORT. ALL UPS'S SHALL SUPPORT SNMP (PROTOCOL) FOR REMOTE MONITORING AND MANAGEMENT.  
  
684-1-1: PROVIDE A RUGGEDCOM SWITCH MODEL NUMBER RSG920P (6GK6092-0PS23-0BA0-Z A05+B05+C02+D02) AND ALL OF THE NECESSARY SYSTEM COMPONENTS FOR INTEGRATION INTO AN ETHERNET-BASED FIBER OPTIC NETWORK.

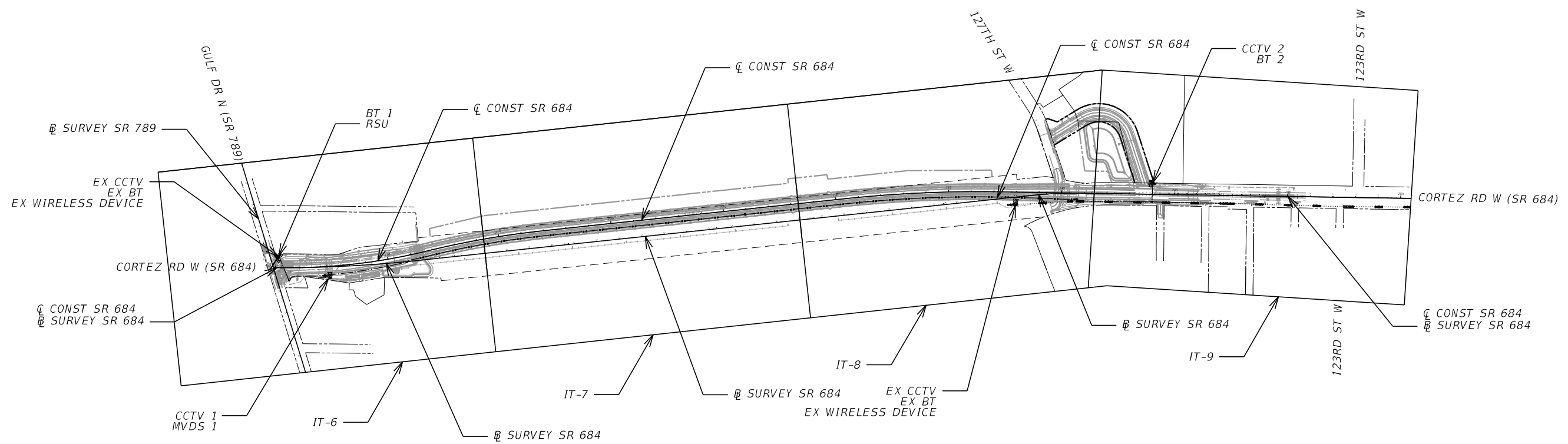
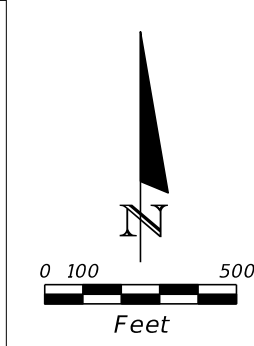
REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			GENERAL NOTES	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-4
					SR 684	MANATEE	430204-2-52-01		

ArtTester

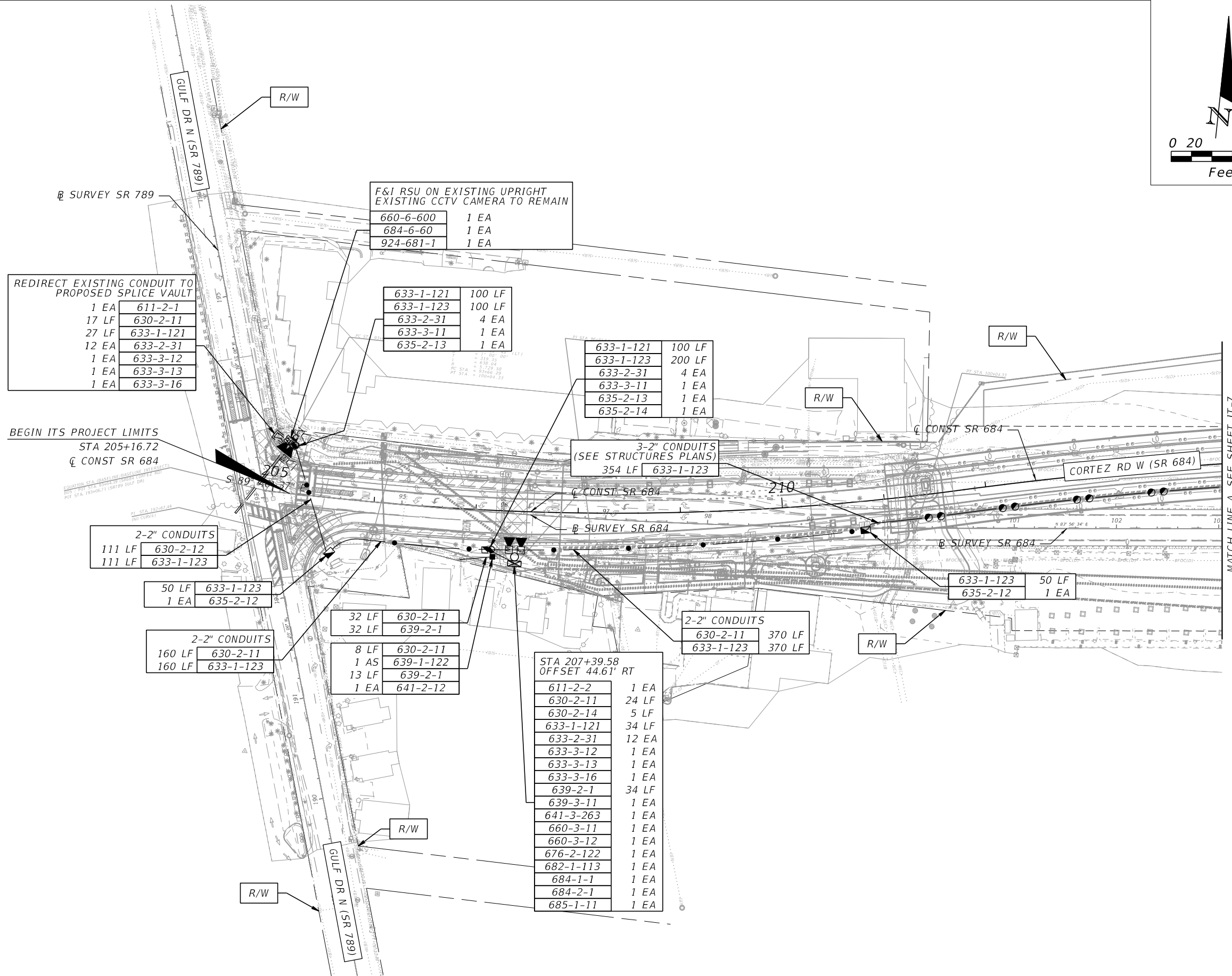
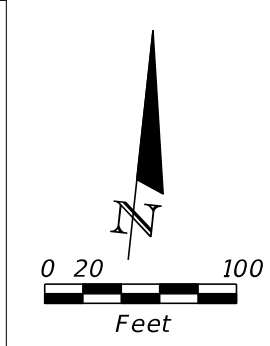
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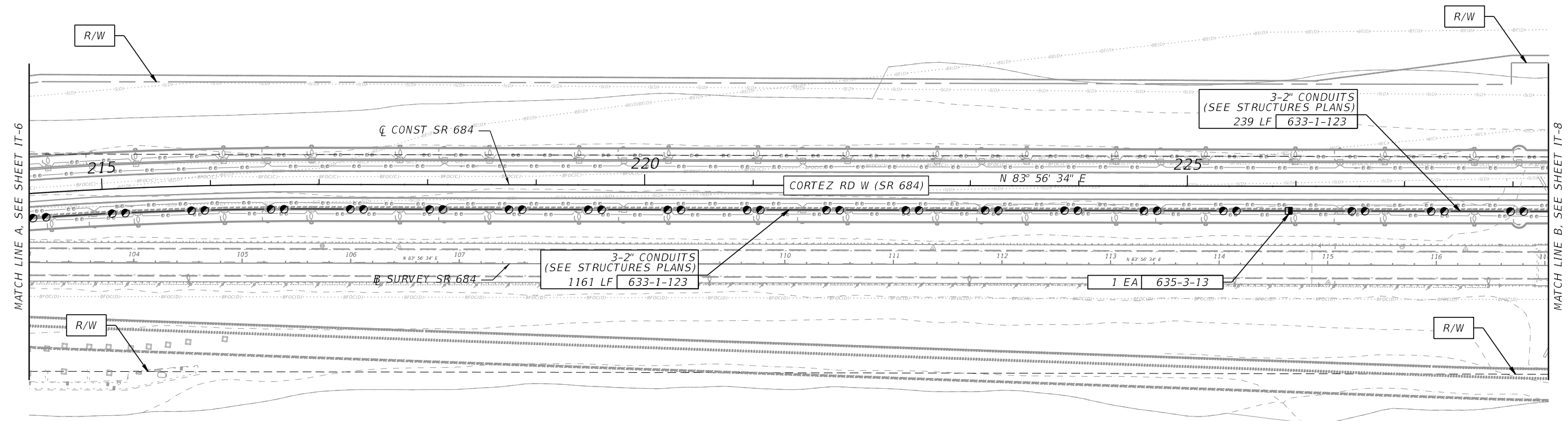
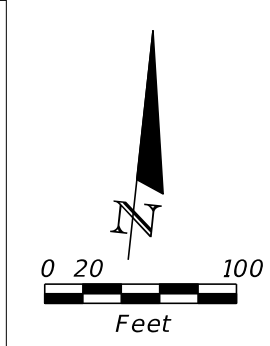
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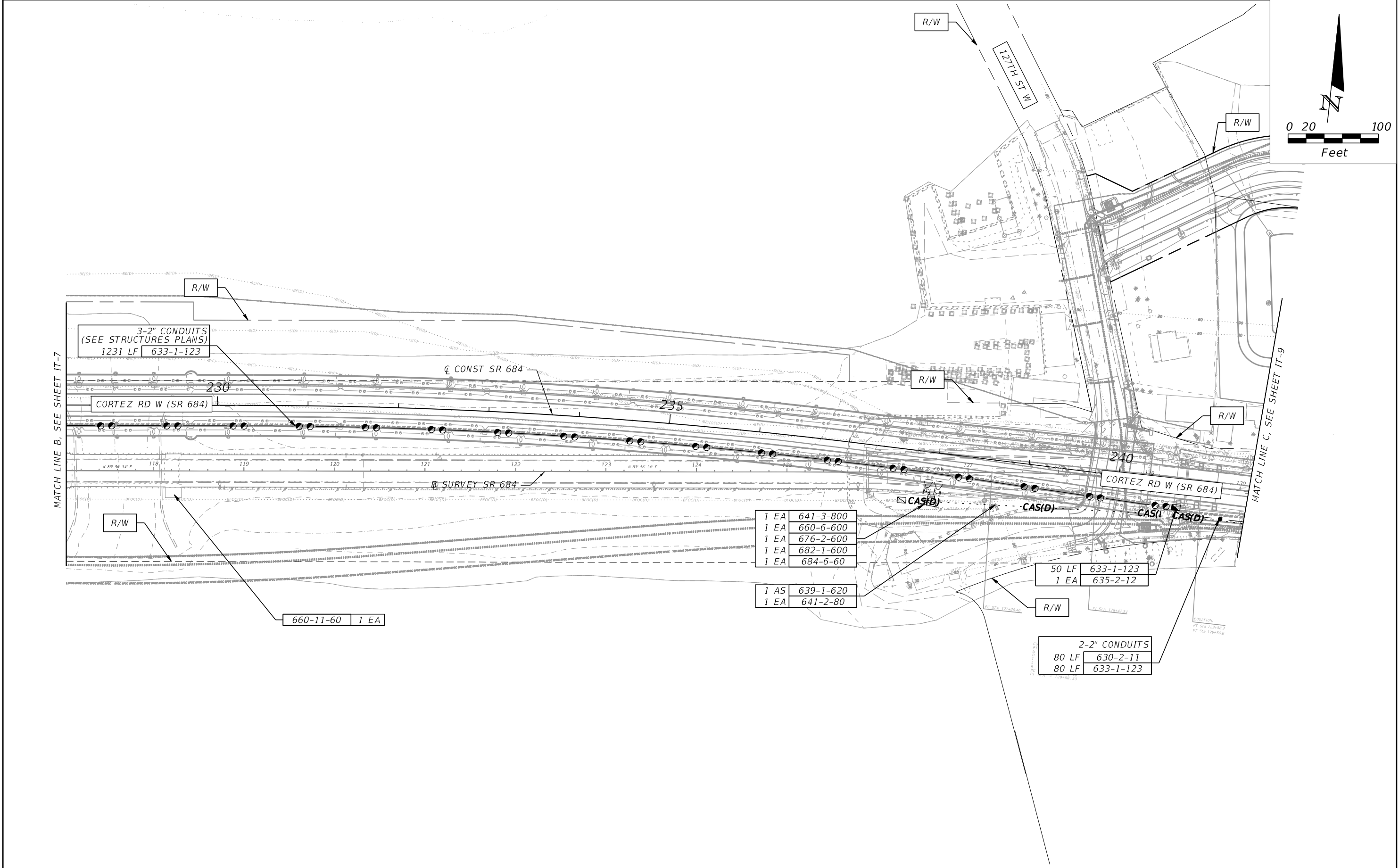
REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			PROJECT LAYOUT	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-5
					SR 684	MANATEE	430204-2-52-01		
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REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			ITS PLANS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 684	MANATEE	430204-2-52-01		IT-6

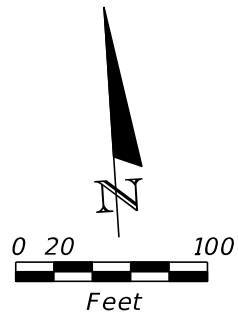


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DATE	DESCRIPTION	DATE	DESCRIPTION					
					ROAD NO.	COUNTY	FINANCIAL PROJECT ID	IT-7
					SR 684	MANATEE	430204-2-52-01	



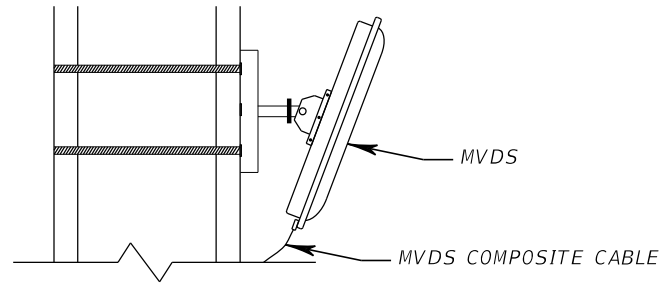
REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			ITS PLANS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 684	MANATEE	430204-2-52-01		IT-8



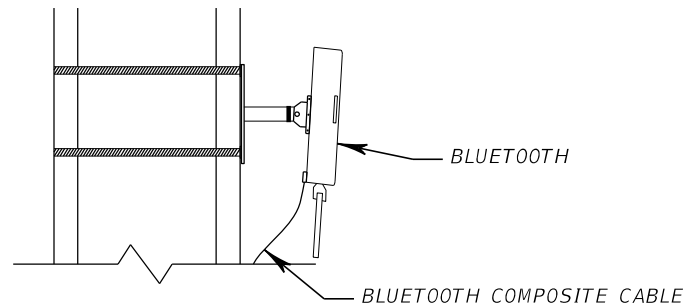


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DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-9
					SR 684	MANATEE	430204-2-52-01		





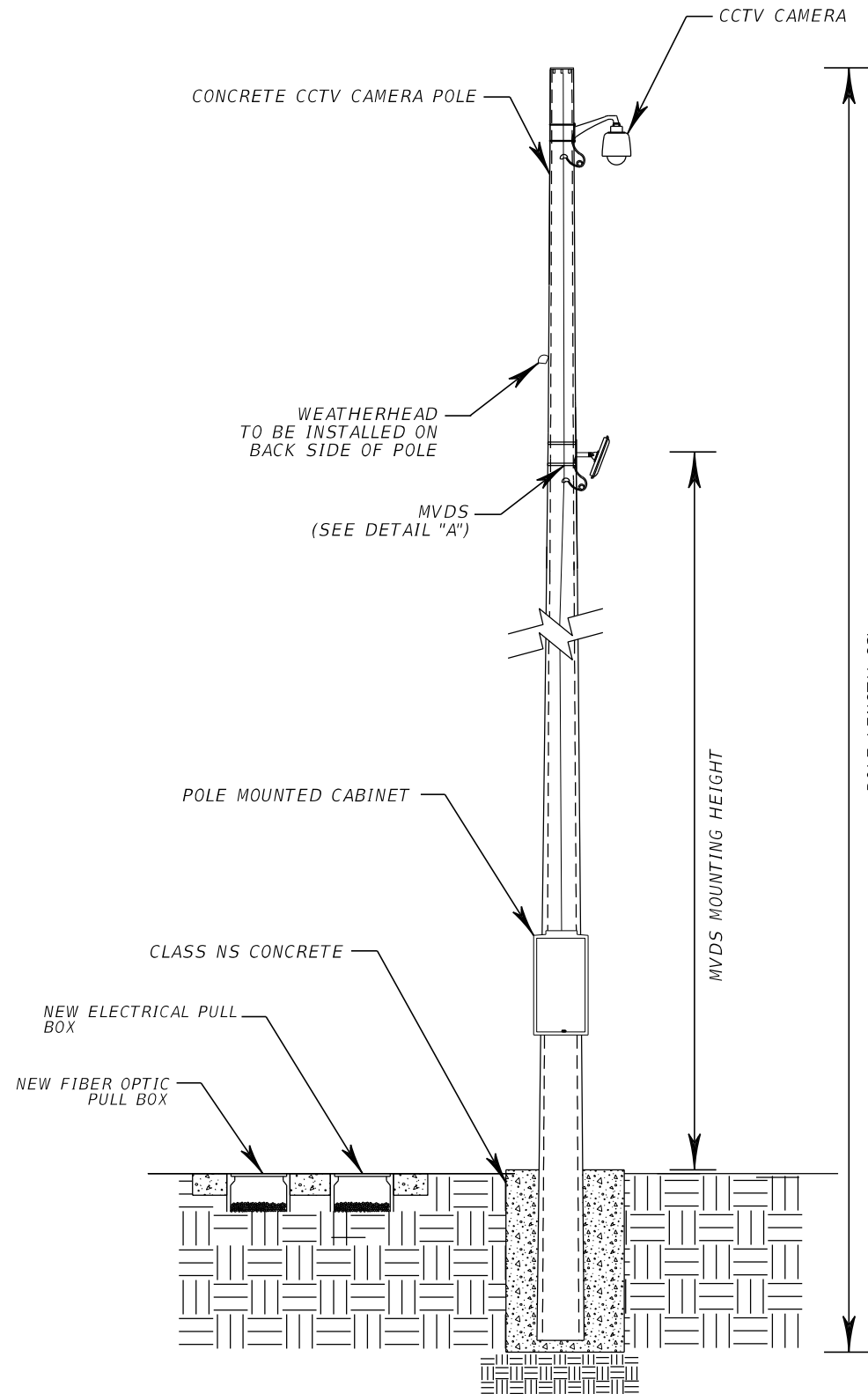
DETAIL "A", FRONT VIEW



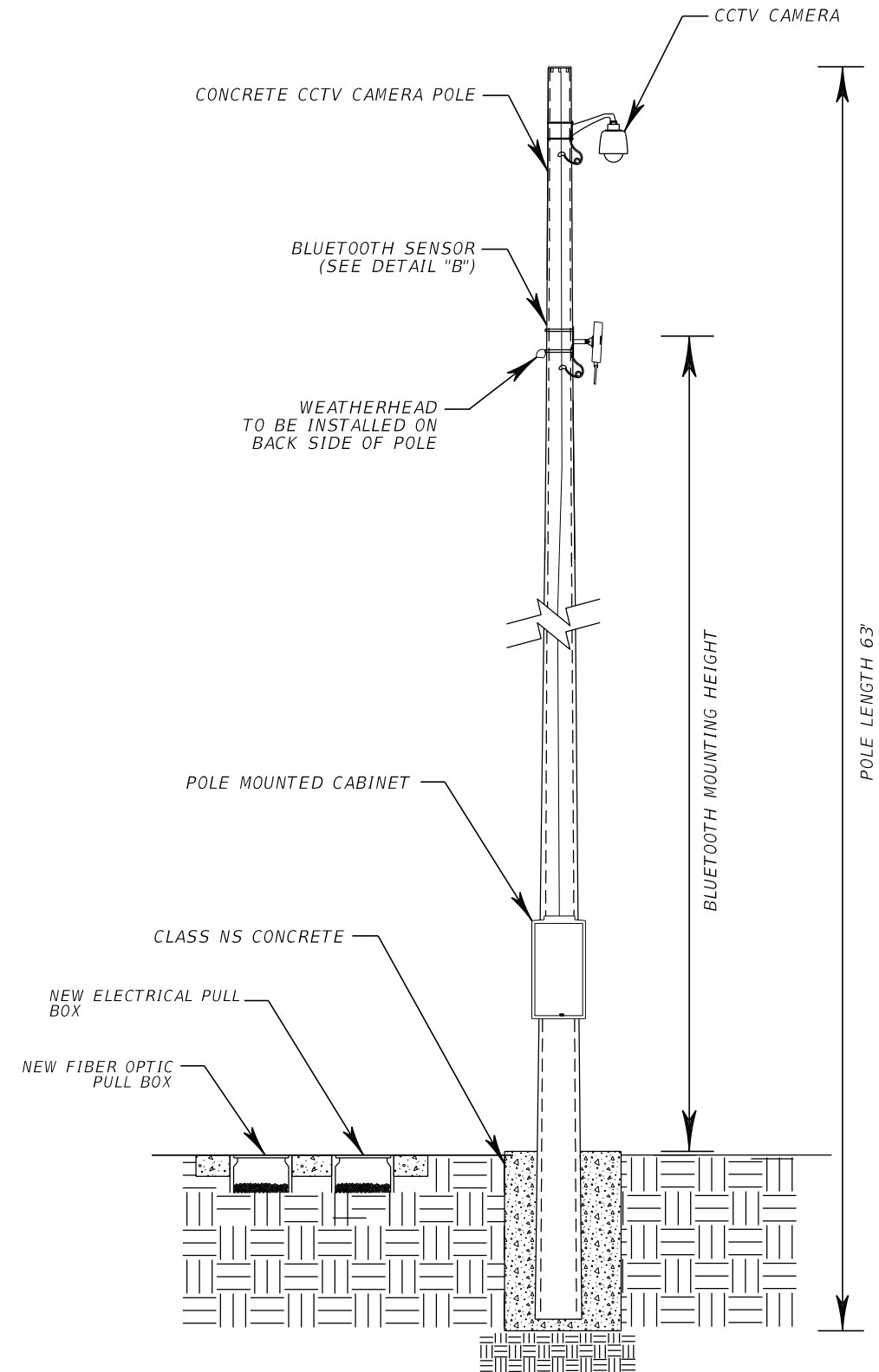
DETAIL "B", FRONT VIEW

NOTES:

1. ALL EQUIPMENT CONNECTIONS TO THE CONCRETE POLE SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE ENGINEER. NO FIELD DRILLING SHALL BE ALLOWED.
2. WEATHERHEAD MUST BE WITHIN 24 INCHES OF THE DEVICE MOUNTING HEIGHTS.
3. INSTALL CABINET DOWNSTREAM OF THE TRAFFIC FLOW WITH THE HINGES NEXT TO THE POLE.
4. ENSURE CABINET MOUNTING BANDS DO NOT BLOCK THE POLE HANDHOLE.
5. FOR ADDITIONAL DESIGN CRITERIA REFER TO FDOT STANDARD PLANS INDEX 641-020 AND 659-020.
6. CONFIRM MANUFACTURER RECOMMENDATIONS FOR ALL EQUIPMENT AND MOUNTING HEIGHT DIMENSIONS PRIOR TO INSTALLATION.

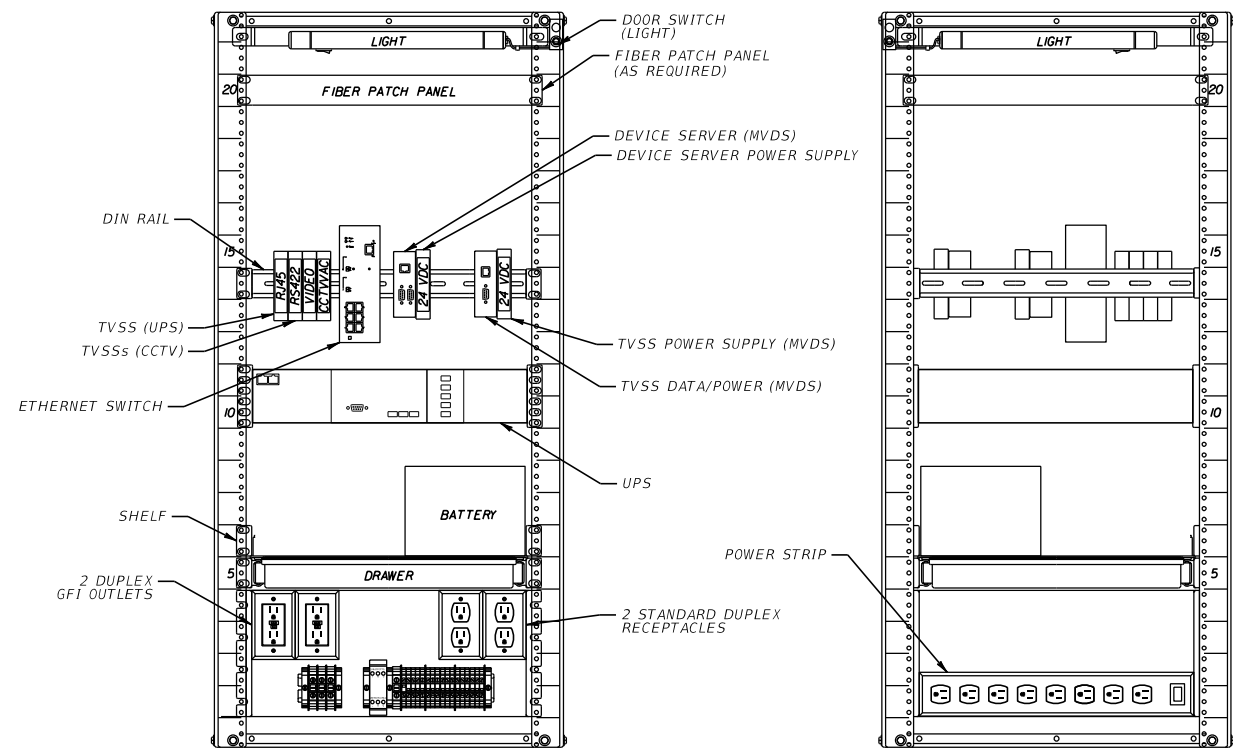


CCTV CAMERA AND MVDS POLE ASSEMBLY

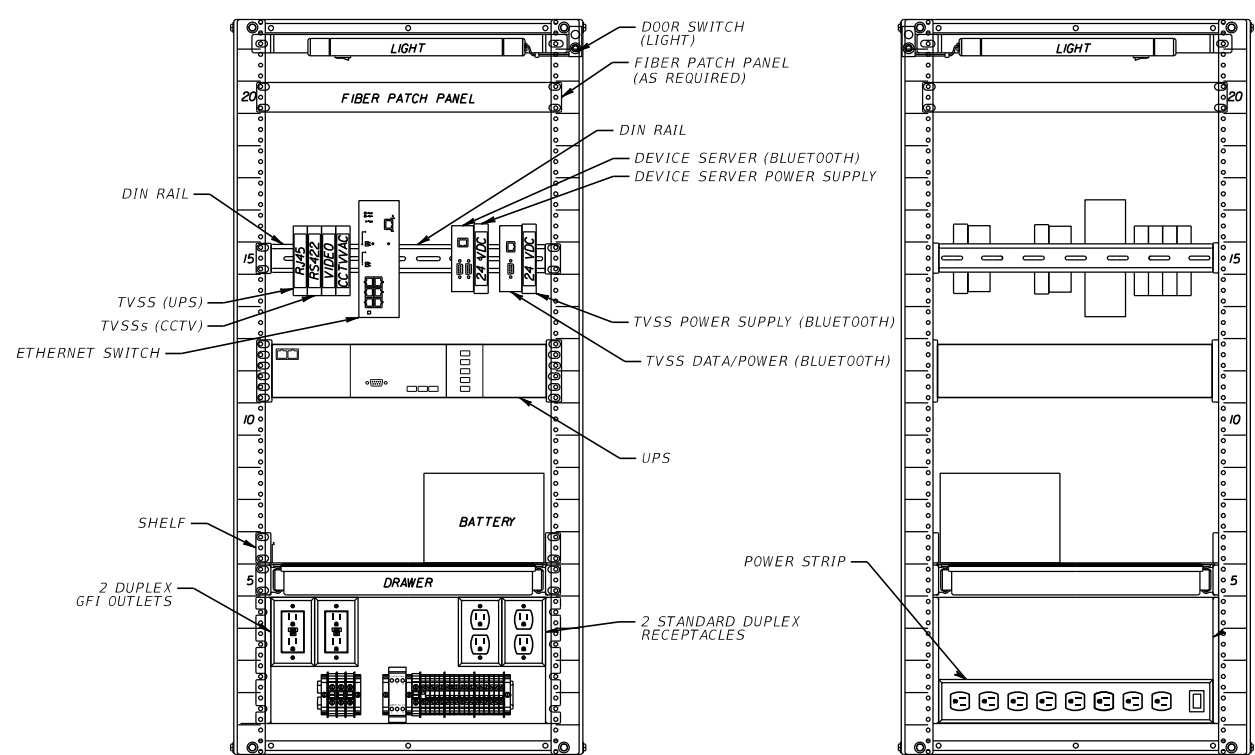


CCTV CAMERA AND BLUETOOTH SENSOR POLE ASSEMBLY

REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			CCTV AND VDS INSTALLATION DETAILS	SHEET NO.  IT-11
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 684	MANATEE	430204-2-52-01		

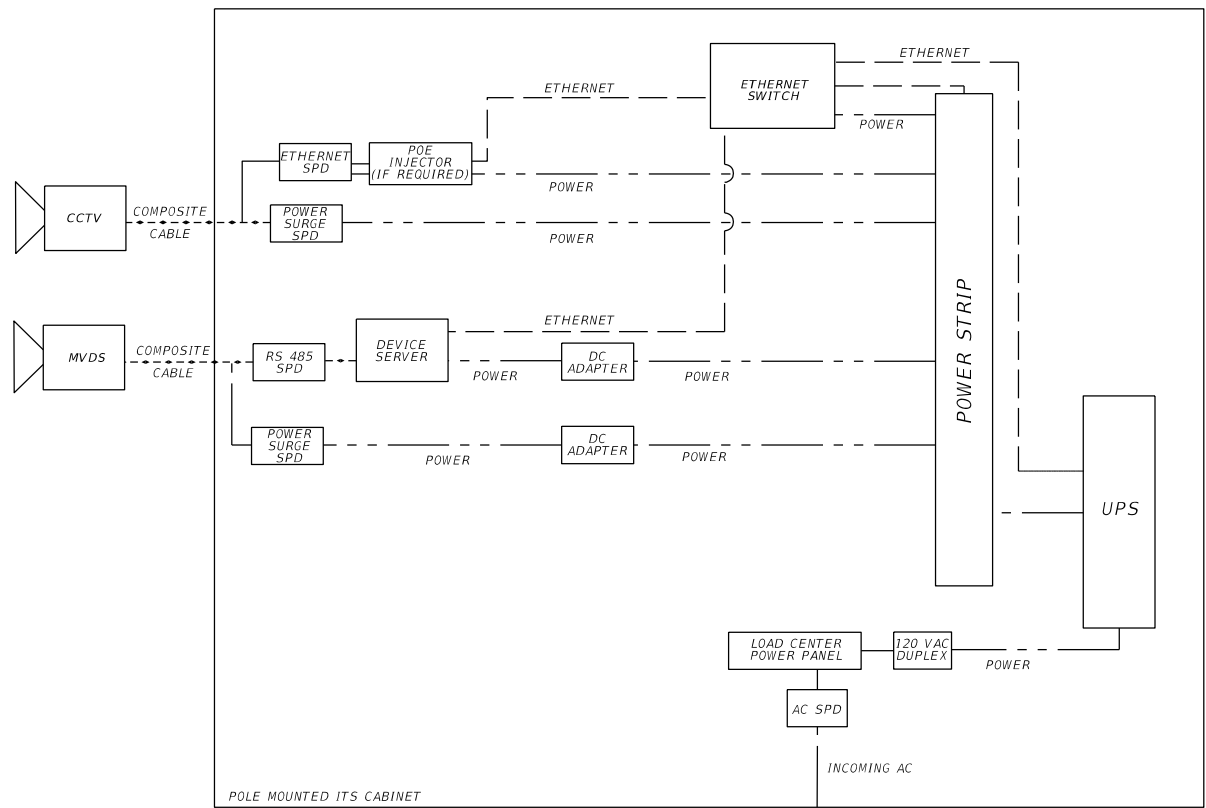


TYPICAL POLE MOUNTED 336S CABINET  
1-CCTV CAMERA, 1-MVDS DEVICE

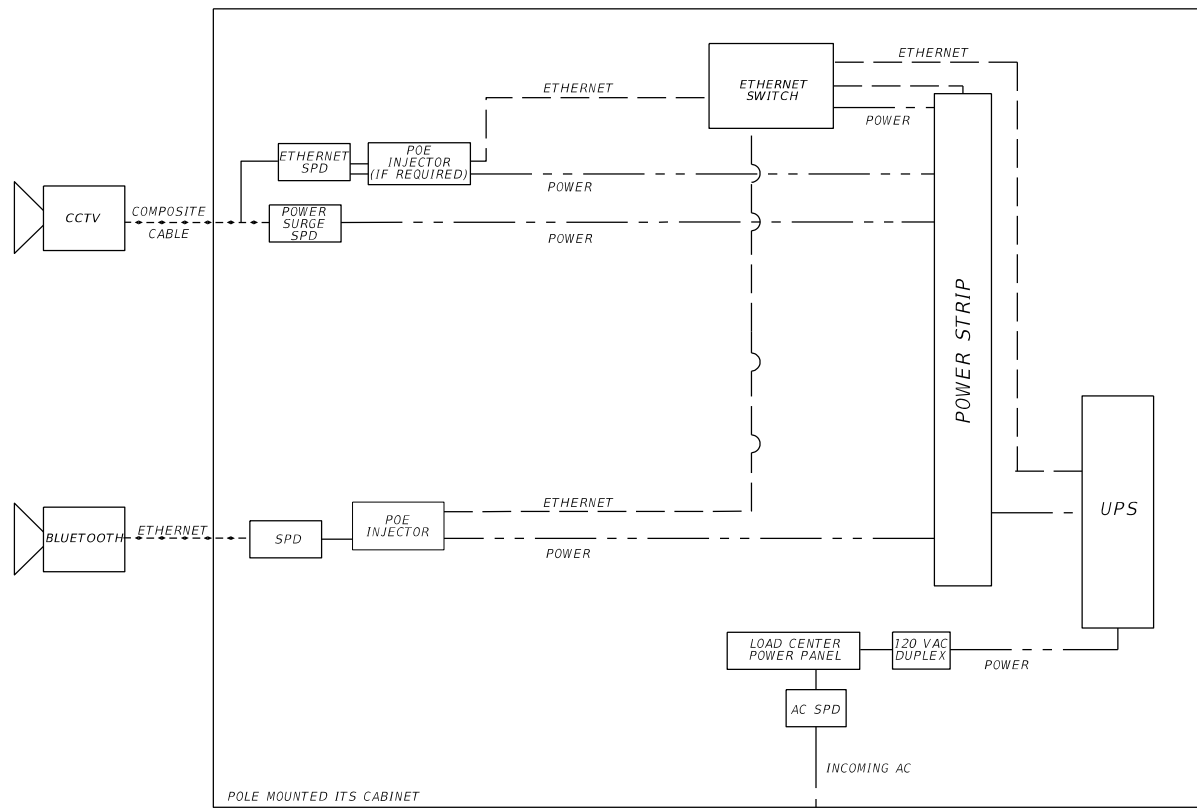


TYPICAL POLE MOUNTED 336S CABINET  
1-CCTV CAMERA, 1-BLUETOOTH SENSOR

REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			ITS CABINET DETAILS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 684	MANATEE	430204-2-52-01		IT-12

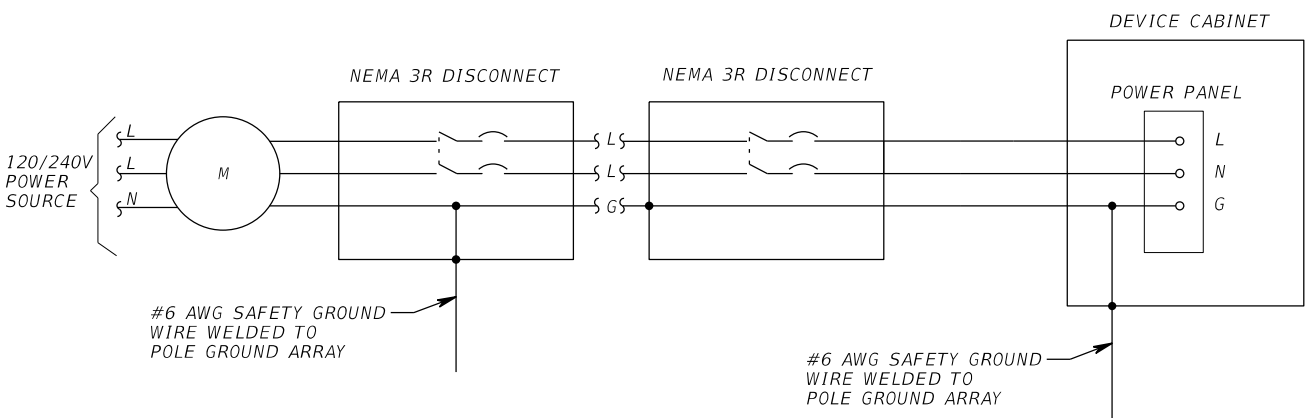


CCTV CAMERA AND MVDS



CCTV CAMERA AND BLUETOOTH SENSOR

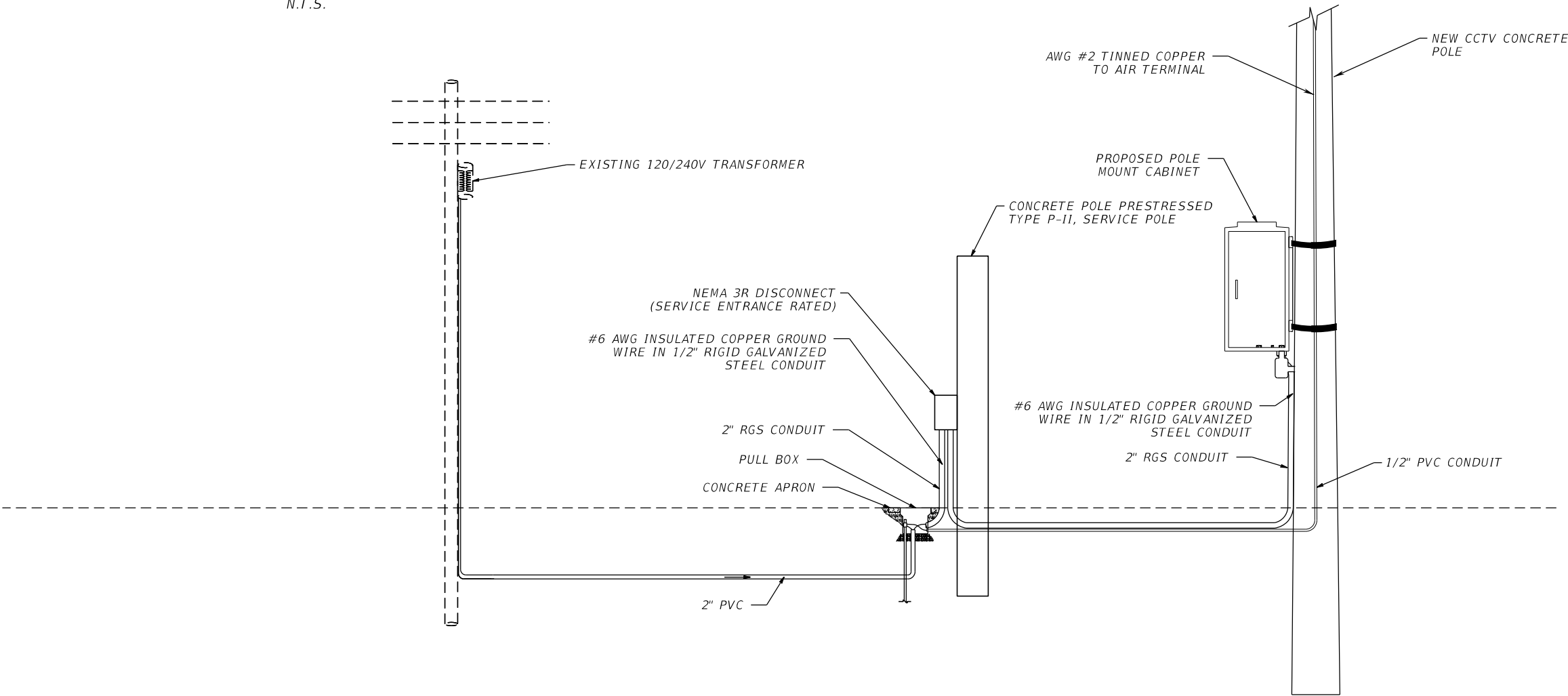
REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			WIRING DIAGRAM	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 684	MANATEE	430204-2-52-01		IT-13



WIRING SCHEMATIC FOR CCTV CAMERA  
N.T.S.

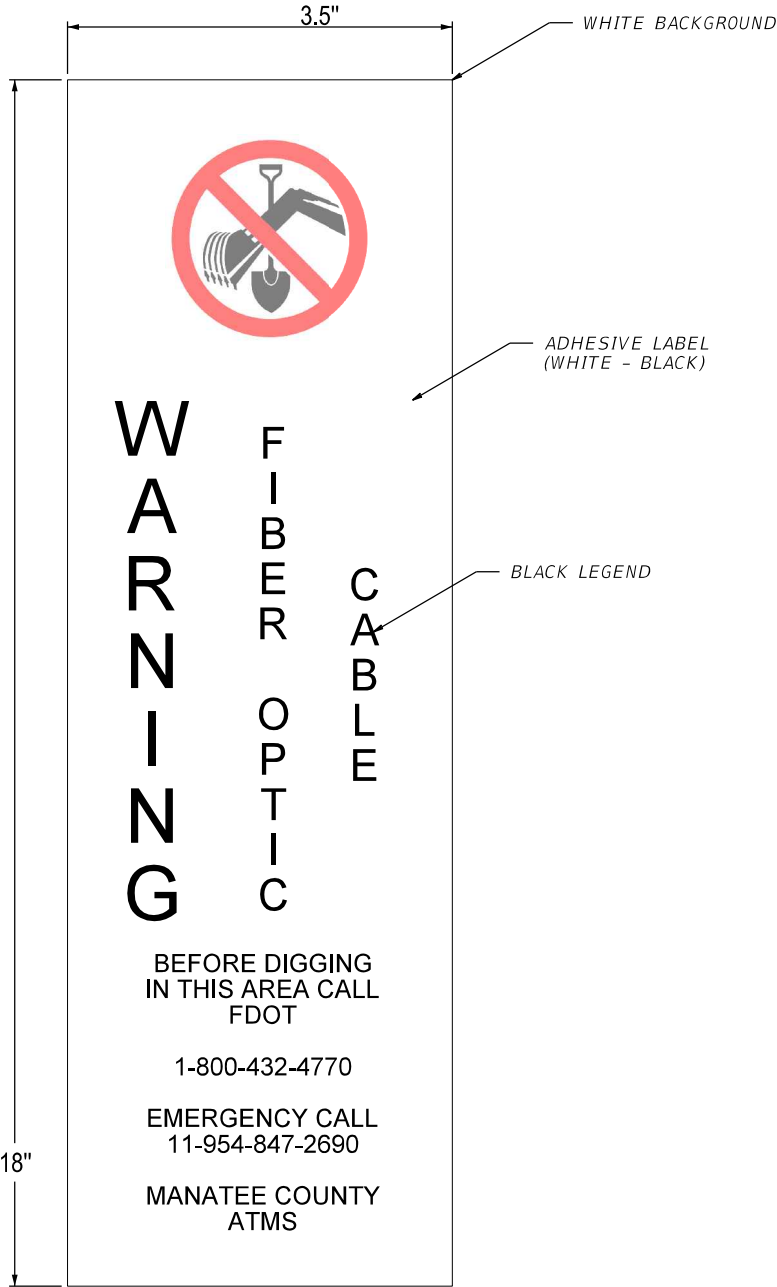
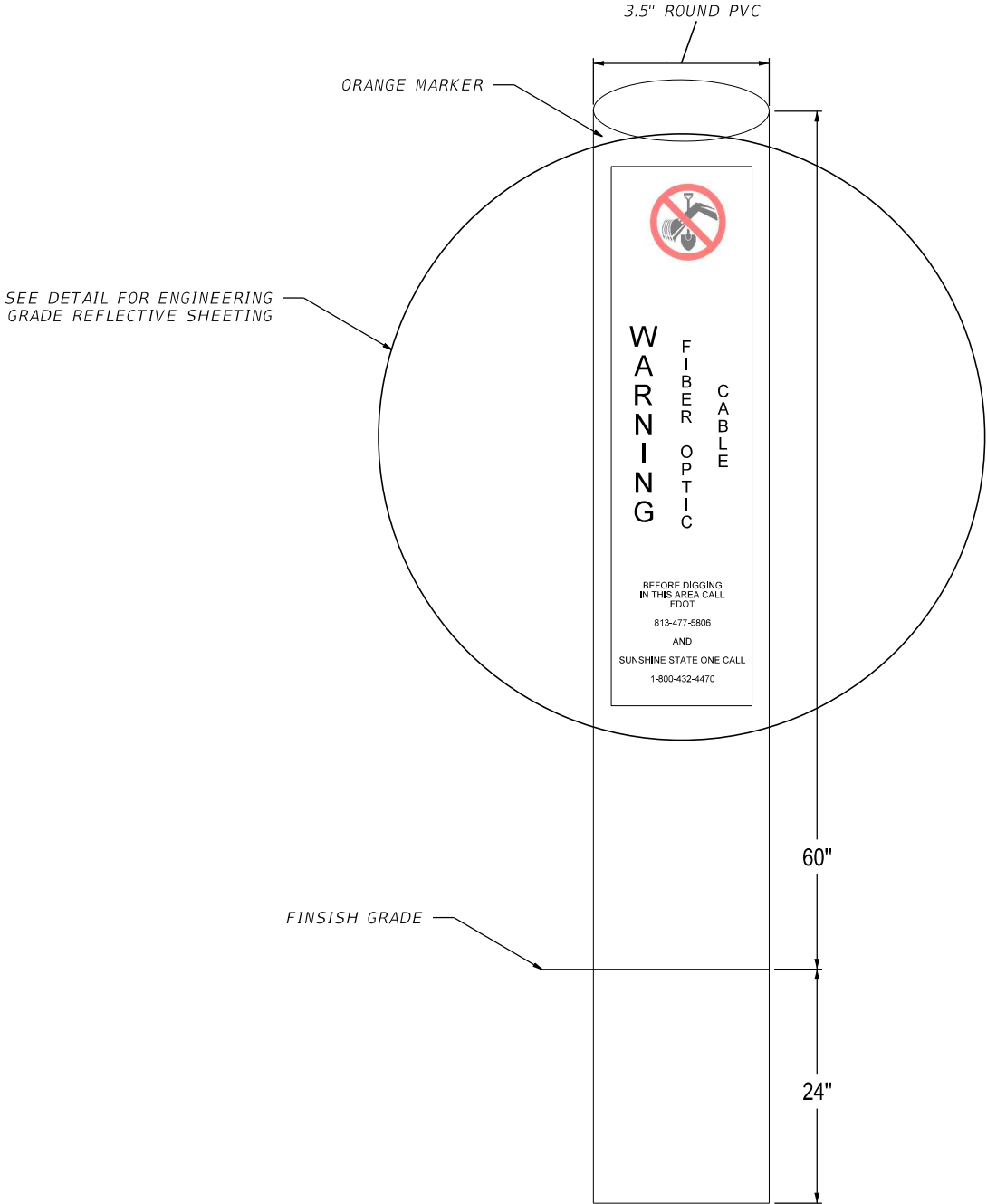
SERVICE SPECIFICATION

1. THE ENCLOSURE SHALL BE NEMA 3R, POLE MOUNTED, RAIN-TIGHT.
2. THE ENCLOSURE DOOR SHALL BE LOCKABLE BY PADLOCK AND FOUR KEYS PROVIDED TO THE MAINTAINING AGENCY. THE DOOR SHALL HAVE A MINIMUM OF THREE HINGES AND BE LATCHABLE. NO SCREWS TO BE USED TO ATTACH DOOR.
3. 480 VOLT MINIMUM RATING BOLT-IN TYPE BREAKERS SHALL BE USED.
4. BUSBAR TO BE COPPER COATED AND HAVE A MINIMUM RATING OF 100 AMPS. WHEN MAIN BREAKER EXCEEDS 100 AMPS BUSBAR TO MATCH BREAKER AMPERAGE.
5. THE ENCLOSURE TO BE RIGIDLY ATTACHED TO THE POLE FACE.
6. A 600 VOLT LIGHTNING PROTECTOR SHALL BE WIRED INSIDE THE SERVICE DISCONNECT ENCLOSURE.
7. A MAIN BREAKER IS REQUIRED IN ALL SERVICE PANELS WITH 2 OR MORE FEEDER BREAKERS.
8. ALL SERVICE EQUIPMENT SHALL BE UL APPROVED.



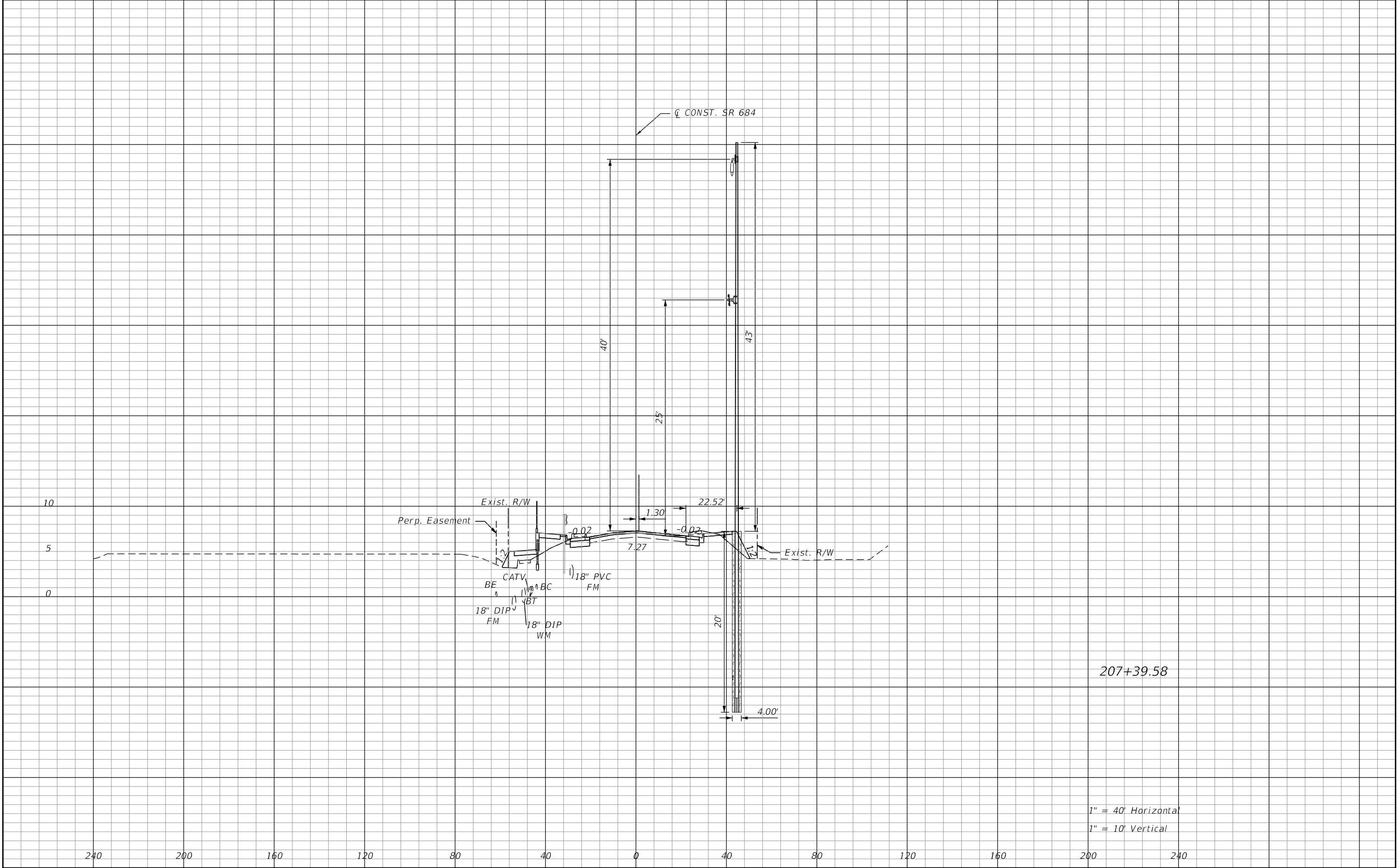
NEW POWER SERVICE DETAILS FOR CCTV CAMERA  
N.T.S.

REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			POWER SERVICE DETAILS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 684	MANATEE	430204-2-52-01		IT-14



FRONT VIEW  
N.T.S.

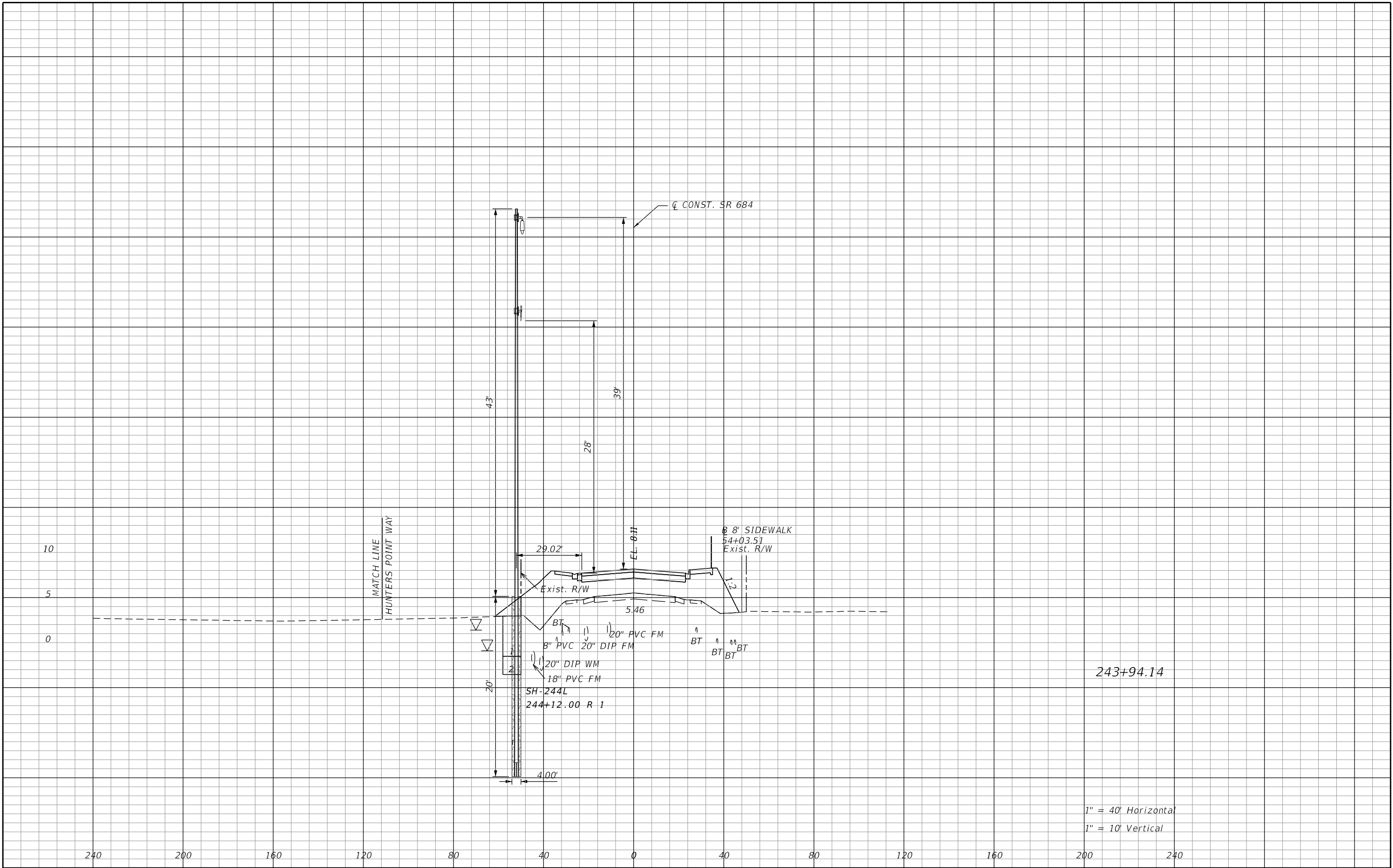
REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			ROUTE MARKER DETAILS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 684	MANATEE	430204-2-52-01		IT-15



REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			ITS CROSS SECTION	SHEET NO.  IT-16
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 684	MANATEE	430204-2-52-01		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.





REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			ITS CROSS SECTION	SHEET NO.  IT-17
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 684	MANATEE	430204-2-52-01		

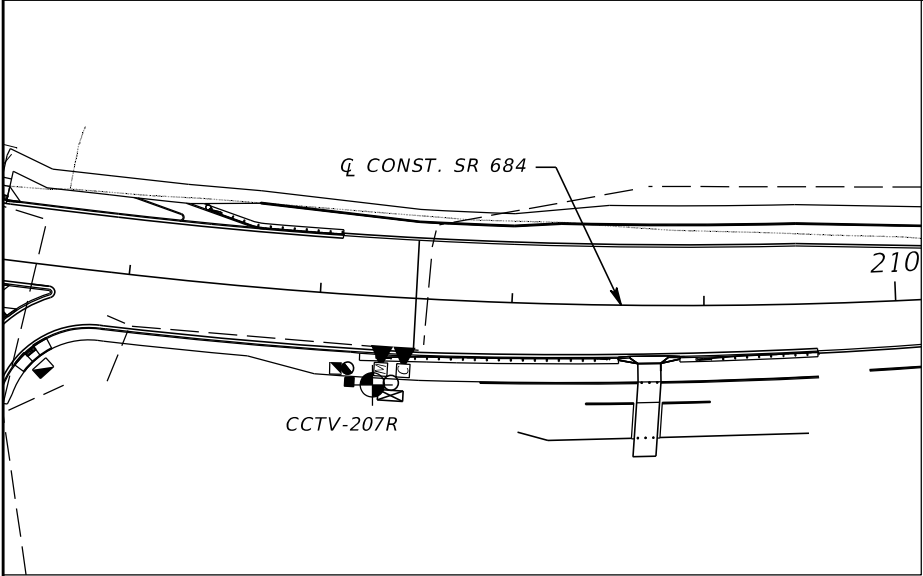
THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

MAINTENANCE OF COMMUNICATIONS (MOC)

1. FOR ALL EXISTING COMMUNICATIONS AND DEVICES OUTSIDE THE PROJECT LIMITS AFFECTED BY THE PROPOSED WORK IN THIS PROJECT, COORDINATION WITH THE FDOT DISTRICT 1 ITS MAINTENANCE CONTRACTOR AND MANATEE COUNTY TRAFFIC ENGINEERING SHALL BE COMPLETED TO ENSURE CONTINUITY AND WORKING CONDITION OF THE COMMUNICATIONS AND DEVICES.
2. PROVIDE A METHOD OF PROCEDURE (MOP) FOR THE DEPARTMENT'S REVIEW AND APPROVAL. THE PROCEDURE SHALL INCLUDE BUT NOT LIMITED TO CUT-OVER PLAN, SEQUENCE OF STEPS, FIELD PROCEDURES, ANTICIPATED OUTAGE TIMES, TESTING PROCEDURES WITH TESTING LOCATIONS, AND ANY OTHER NECESSARY COMMUNICATIONS. THE TESTING LOCATIONS CAN BE COORDINATED WITH MANATEE COUNTY. THE DOWNTIME OF THE ITS INFRASTRUCTURE IS TO BE KEPT TO A MINIMUM.
3. NOTIFY MUKUNDA GOPALAKRISHNA AT MANATEE COUNTY AT MUKUNDA.GOPALAKRISHNA@MYMANATEE.ORG AND DIITS.ITSTAFF@DOT.STATE.FL.US A MINIMUM OF 14 WORKING DAYS IN ADVANCE OF DISCONNECTING ANY ITS COMPONENTS OR RELOCATION OF ANY FIBER OPTIC CABLING. DO NOT DISCONNECT ANY ITS COMPONENTS OR RELOCATE FIBER OPTIC CABLING UNTIL WRITTEN APPROVAL IS GRANTED. PROVIDE THE FOLLOWING WHEN PROVIDING ADVANCE NOTIFICATION OF SCHEDULED DOWNTIME:

PROJECT FPID AND CONTRACT NUMBER  
OUTAGE REQUEST CONTACT NAME AND CONTACT INFORMATION  
PLANNED OUTAGE DATE  
PLANNED OUTAGE START TIME  
PLANNED OUTAGE STOP TIME  
REASON FOR DOWNTIME  
PRIME CONTRACTOR NAME AND CONTACT INFORMATION  
ITS SUBCONTRACTOR NAME AND CONTACT INFORMATION  
FIBER SUBCONTRACTOR NAME AND CONTACT INFORMATION  
FACILITY DESCRIPTION AND LOCATION OF MODIFICATION

REVISIONS				ARTHUR E. TESTER, P.E. P.E. LICENSE NUMBER 86666 VIBE 6914 WEST LINEBAUGH AVENUE TAMPA, FL 33625	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			MAINTENANCE OF COMMUNICATIONS	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		IT-18
					SR 684	MANATEE	430204-2-52-01		



BORING LOCATION PLAN

ENVIRONMENTAL CLASSIFICATION:

- SUBSTRUCTURE CONCRETE: EXTREMELY AGGRESSIVE (WATER-RESISTIVITY=24 OHM-CM, CHLORIDES=30,000 PPM, SULFATES=2,700 PPM)
- SUBSTRUCTURE STEEL: EXTREMELY AGGRESSIVE (WATER-RESISTIVITY=24 OHM-CM, CHLORIDES=30,000 PPM, SULFATES=2,700 PPM)
- SUPERSTRUCTURE EXTREMELY AGGRESSIVE (WATER-CHLORIDES=30,000 PPM)

SOIL TEST RESULTS:  
RESISTIVITY 1,000 TO 18,000 OHM-CM  
CHLORIDES 15 TO 60 PPM  
SULFATES 72 TO 660 PPM  
pH 6.5 TO 8.6

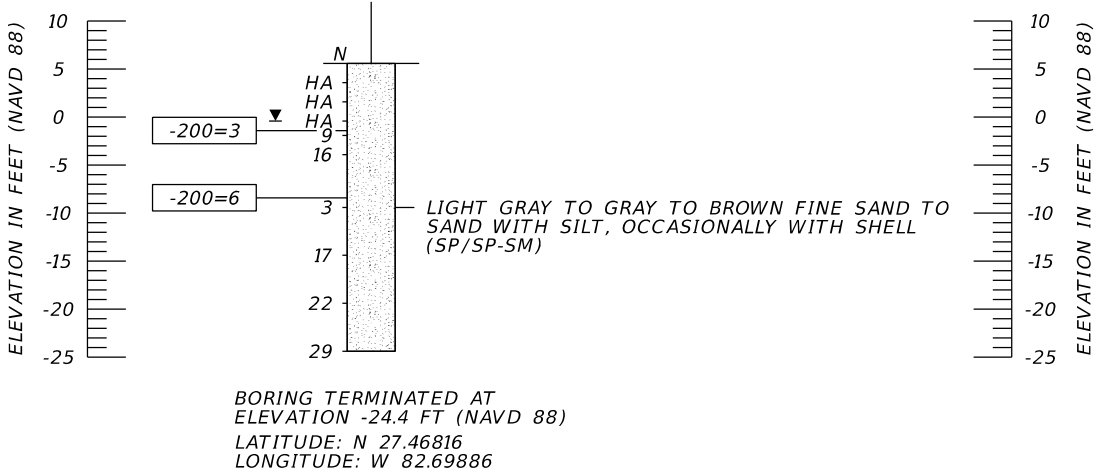
WATER TEST RESULTS:  
RESISTIVITY 24 TO 25 OHM-CM  
CHLORIDES 30,000 PPM  
SULFATES 2,400 TO 2,700 PPM  
pH 7.1 TO 7.3

- NOTES:
- THE BORINGS WERE LOCATED IN THE FIELD BY A REPRESENTATIVE OF TIERRA USING GARMIN ETREX®HAND-HELD, NON-SURVEY GRADE GLOBAL POSITIONING SYSTEM (GPS) EQUIPMENT WITH A MANUFACTURER'S REPORTED ACCURACY OF ±10 FEET. STATION, OFFSET AND ELEVATION OF THE BORING LOCATIONS WERE DETERMINED USING THE GPS COORDINATES OBTAINED IN THE FIELD IN CONJUNCTION WITH PROJECT DESIGN FILES. THEREFORE, THESE BORING LOCATIONS AND ELEVATIONS SHOULD BE CONSIDERED APPROXIMATE.
  - BASED ON A REVIEW OF THE "UPPER FLORIDAN AQUIFER POTENTIOMETRIC MAPS" PUBLISHED BY THE USGS, THE POTENTIOMETRIC SURFACE ELEVATION IN THE PROJECT VICINITY RANGES FROM APPROXIMATELY +10 TO +20 FEET, NGVD 29. ARTESIAN FLOW CONDITIONS WITH A WATER HEAD OF +3.4 TO +9.4 FEET, NAVD 88 WERE ENCOUNTERED WITHIN BRIDGE BORINGS BB-118L AND BB-129L PERFORMED AT THE TIME OF OUR FIELD ACTIVITIES; THEREFORE, THE CONTRACTOR SHOULD BE PREPARED TO ADDRESS ARTESIAN LEVELS UP TO A HEAD OF +20 FEET NGVD 29.
  - LOOSE SANDY SOILS WERE ENCOUNTERED IN THE BORINGS. ANTICIPATE CONCRETE VOLUME OVERRUNS DURING THE FOUNDATION INSTALLATION PROCESS.
  - TEMPORARY CASING BEYOND WHAT IS REQUIRED IN THE FDOT SPECIFICATIONS MAY BE REQUIRED TO PREVENT THE COLLAPSE OF SANDY SOILS AND/OR GROUNDWATER INTRUSION DURING THE FOUNDATION INSTALLATION PROCESS.

LEGEND

- BROWN SHELLY SAND TO SHELL (SP)
- LIGHT GRAY TO GRAY TO BROWN FINE SAND TO SAND WITH SILT, OCCASIONALLY WITH SHELL (SP/SP-SM)
- LIGHT GRAY TO GRAY SILTY SAND WITH SHELL (SM)
- SP UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
- N NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).
- HA HAND AUGERED TO VERIFY UTILITY CLEARANCE
- 200 PERCENT PASSING #200 SIEVE
- NMC NATURAL MOISTURE CONTENT (%)
- OC ORGANIC CONTENT (%)
- NAVD 88 NORTH AMERICAN VERTICAL DATUM OF 1988
- APPROXIMATE SPT BORING LOCATION
- GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS

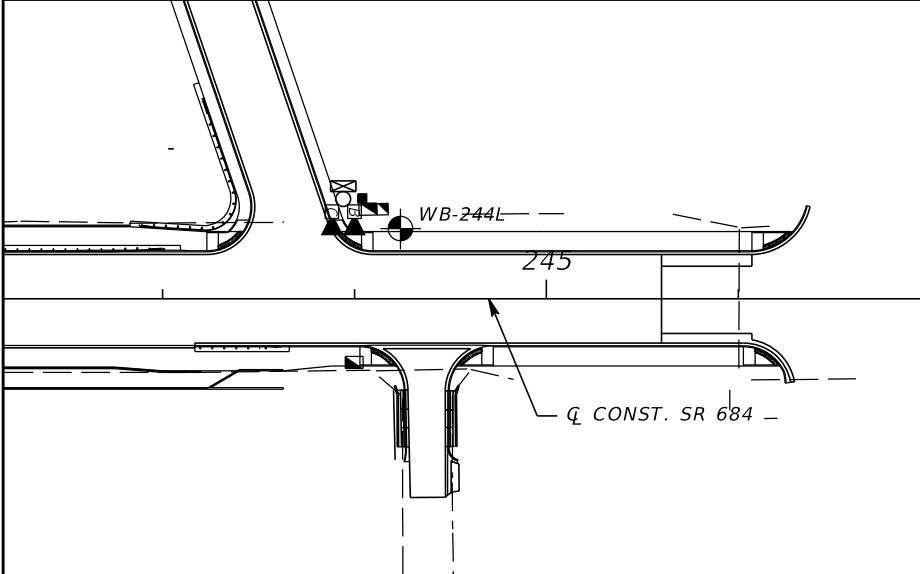
BOR # CCTV-207R  
STA. 207+31  
REF. Q CONST. SR 684  
OFF. 48' RT.  
ELEV. 5.6  
DATE 6/24/2024  
DRILLER C. VIRGEN  
HAMMER AUTOMATIC  
RIG D-25



	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	LESS THAN 4 4 to 10 10 to 30 30 to 50 GREATER THAN 50	LESS THAN 3 3 to 8 8 to 24 24 to 40 GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT SOFT FIRM STIFF VERY STIFF HARD	LESS THAN 2 2 to 4 4 to 8 8 to 15 15 to 30 GREATER THAN 30	LESS THAN 1 1 to 3 3 to 6 6 to 12 12 to 24 GREATER THAN 24

CCTV POLE

REVISIONS				THOMAS E. MUSGRAVE, JR., P.E. P.E. LICENSE NUMBER 81669 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			REPORT OF CORE BORINGS (1)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 684	MANATEE	430204-2-52-01		IT-19



BORING LOCATION PLAN

ENVIRONMENTAL CLASSIFICATION:

SUBSTRUCTURE	CONCRETE: EXTREMELY AGGRESSIVE (WATER-RESISTIVITY=24 OHM-CM, CHLORIDES=30,000 PPM, SULFATES=2,700 PPM)
SUBSTRUCTURE	STEEL: EXTREMELY AGGRESSIVE (WATER-RESISTIVITY=24 OHM-CM, CHLORIDES=30,000 PPM, SULFATES=2,700 PPM)
SUPERSTRUCTURE	EXTREMELY AGGRESSIVE (WATER-CHLORIDES=30,000 PPM)

SOIL TEST RESULTS:	
RESISTIVITY	1,000 TO 18,000 OHM-CM
CHLORIDES	15 TO 60 PPM
SULFATES	72 TO 660 PPM
pH	6.5 TO 8.6

WATER TEST RESULTS:	
RESISTIVITY	24 TO 25 OHM-CM
CHLORIDES	30,000 PPM
SULFATES	2,400 TO 2,700 PPM
pH	7.1 TO 7.3

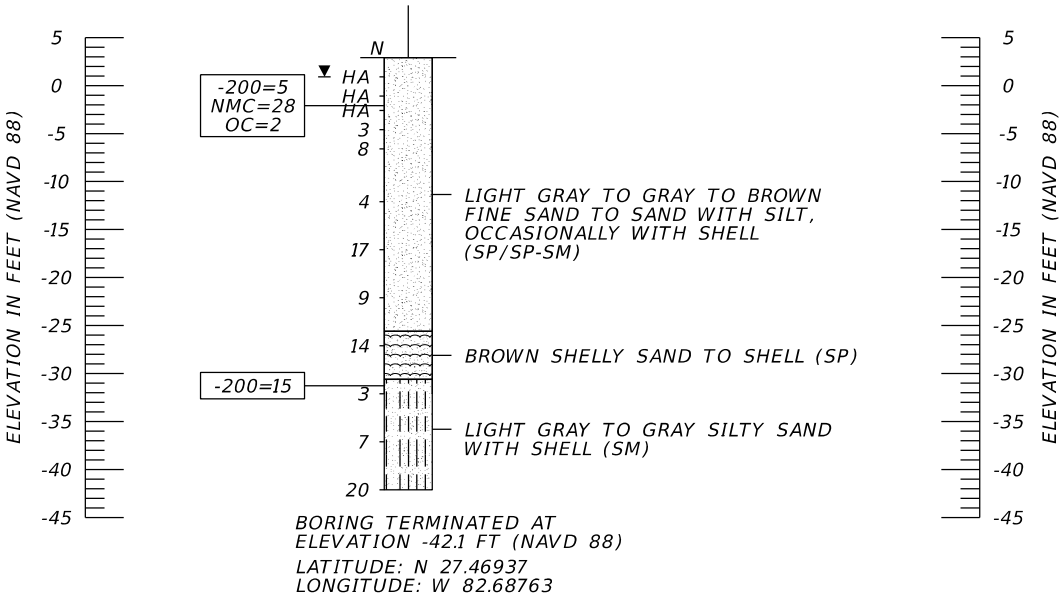
NOTES:

- THE BORINGS WERE LOCATED IN THE FIELD BY A REPRESENTATIVE OF TIERRA USING GARMIN ETREX®HAND-HELD, NON-SURVEY GRADE GLOBAL POSITIONING SYSTEM (GPS) EQUIPMENT WITH A MANUFACTURER'S REPORTED ACCURACY OF ±10 FEET. STATION, OFFSET AND ELEVATION OF THE BORING LOCATIONS WERE DETERMINED USING THE GPS COORDINATES OBTAINED IN THE FIELD IN CONJUNCTION WITH PROJECT DESIGN FILES. THEREFORE, THESE BORING LOCATIONS AND ELEVATIONS SHOULD BE CONSIDERED APPROXIMATE.
- BASED ON A REVIEW OF THE "UPPER FLORIDAN AQUIFER POTENTIOMETRIC MAPS" PUBLISHED BY THE USGS, THE POTENTIOMETRIC SURFACE ELEVATION IN THE PROJECT VICINITY RANGES FROM APPROXIMATELY +10 TO +20 FEET, NGVD 29. ARTESIAN FLOW CONDITIONS WITH A WATER HEAD OF +3.4 TO +9.4 FEET, NAVD 88 WERE ENCOUNTERED WITHIN BRIDGE BORINGS BB-118L AND BB-129L PERFORMED AT THE TIME OF OUR FIELD ACTIVITIES; THEREFORE, THE CONTRACTOR SHOULD BE PREPARED TO ADDRESS ARTESIAN LEVELS UP TO A HEAD OF +20 FEET NGVD 29.
- LOOSE SANDY SOILS WERE ENCOUNTERED IN THE BORINGS. ANTICIPATE CONCRETE VOLUME OVERRUNS DURING THE FOUNDATION INSTALLATION PROCESS.
- TEMPORARY CASING BEYOND WHAT IS REQUIRED IN THE FDOT SPECIFICATIONS MAY BE REQUIRED TO PREVENT THE COLLAPSE OF SANDY SOILS AND/OR GROUNDWATER INTRUSION DURING THE FOUNDATION INSTALLATION PROCESS.

LEGEND

	BROWN SHELLY SAND TO SHELL (SP)
	LIGHT GRAY TO GRAY TO BROWN FINE SAND TO SAND WITH SILT, OCCASIONALLY WITH SHELL (SP/SP-SM)
	LIGHT GRAY TO GRAY SILTY SAND WITH SHELL (SM)
SP	UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D 2487) GROUP SYMBOL AS DETERMINED BY VISUAL REVIEW AND LABORATORY TESTING ON SELECTED SAMPLES FOR CONFIRMATION OF VISUAL REVIEW.
N	NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12 INCHES OF PENETRATION (UNLESS OTHERWISE NOTED).
HA	HAND AUGERED TO VERIFY UTILITY CLEARANCE
-200 NMC OC	PERCENT PASSING #200 SIEVE NATURAL MOISTURE CONTENT (%) ORGANIC CONTENT (%)
NAVD 88	NORTH AMERICAN VERTICAL DATUM OF 1988
	APPROXIMATE SPT BORING LOCATION
	GROUNDWATER LEVEL ENCOUNTERED DURING FIELD EXPLORATIONS

BOR # WB-244L  
STA. 244+24  
REF. Q CONST. SR 684  
OFF. 37' LT.  
ELEV. 2.9  
DATE 6/3/2022  
DRILLER C. VIRGEN  
HAMMER AUTOMATIC  
RIG D-25



	SAFETY HAMMER	AUTOMATIC HAMMER
GRANULAR MATERIALS- RELATIVE DENSITY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY LOOSE LOOSE MEDIUM DENSE DENSE VERY DENSE	LESS THAN 4 4 to 10 10 to 30 30 to 50 GREATER THAN 50	LESS THAN 3 3 to 8 8 to 24 24 to 40 GREATER THAN 40
SILTS AND CLAYS CONSISTENCY	SPT N-VALUE (BLOWS/FT.)	SPT N-VALUE (BLOWS/FT.)
VERY SOFT SOFT FIRM STIFF VERY STIFF HARD	LESS THAN 2 2 to 4 4 to 8 8 to 15 15 to 30 GREATER THAN 30	LESS THAN 1 1 to 3 3 to 6 6 to 12 12 to 24 GREATER THAN 24

CCTV POLE

REVISIONS				THOMAS E. MUSGRAVE, JR., P.E. P.E. LICENSE NUMBER 81669 TIERRA, INC. 7351 TEMPLE TERRACE HIGHWAY TAMPA, FLORIDA 33637	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			REPORT OF CORE BORINGS (2)	SHEET NO.
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR 684	MANATEE	430204-2-52-01		IT-20