

TABULATION OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBERS												TOTAL THIS SHEET		GRAND TOTAL		
			80		81		82												
			PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	PLAN	FINAL	
630-2-11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	4465		4490		4600										13555		13555
630-2-12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	292		687		257										1236		1236
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24" COVER SIZE	EA	37		50		36										123		123
639-1-122	ELECTRICAL POWER SERVICE, F&I, UNDERGROUND, METER PURCHASED BY CONTRACTOR	AS					1										1		1
641-2-12	PRESTRESSED CONCRETE POLE, F&I, TYPE P-II SERVICE POLE	EA					1										1		1
715-1-12	LIGHTING CONDUCTORS, F&I, INSULATED, NO. 8 - 6	LF	16839		19211		16774										52824		52824
715-1-13	LIGHTING CONDUCTORS, F&I, INSULATED, NO. 4 - 2	LF					1686										1686		1686
715-4-13	LIGHT POLE COMPLETE, FURNISH & INSTALL STANDARD POLE, STANDARD FOUNDATION, 40' MOUNTING HEIGHT	EA	27		40		17										84		84
715-4-851	LIGHT POLE COMPLETE, F&I UTILITY CONFLICT POLE, INDEX 715-002 FOUND, 40' HT	EA	6				14										20		20
715-7-11	LOAD CENTER, F&I, SECONDARY VOLTAGE	EA					1										1		1
715-500-1	POLE CABLE DISTRIBUTION SYSTEM, CONVENTIONAL	EA	33		40		31										104		104

DESIGNED BY:	INITIALS/EMP. NO.	DATE
DRAWN BY:		
CHECKED BY:		
CONTRACT ADMIN. BY:		
WM APPROVED BY:		



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CLIENT: MANATEE COUNTY PUBLIC WORKS DEPARTMENT
 PROJECT: MOCCASIN WALLOW ROAD SEGMENT 1

DATE: 06/2022
 HORIZONTAL SCALE: NONE
 VERTICAL SCALE: NONE

TITLE: TABULATION OF QUANTITIES

FRANCISCO B. DOMINGO, P.E.
 P.E. LICENSE No. 51601
 INDEX NUMBER: 75 of 103

LIGHTING GENERAL NOTES:

1. THE MAINTAINING AGENCY IS MANATEE COUNTY. ALL MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE FDOT STANDARD PLANS, FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE MANATEE COUNTY TRAFFIC ENGINEERING MANUAL.
2. SPARE CONDUIT AT PAVEMENT CROSSINGS SHALL BE CAPPED AT BOTH ENDS.
3. SUBMIT DESIGN DATA AND SHOP DRAWINGS FOR ALL EQUIPMENT TO MANATEE COUNTY FOR REVIEW AND APPROVAL PRIOR TO ORDERING EQUIPMENT:

MR. TAHA S. ATAYA, P.E.
PROJECT MANAGER
MANATEE COUNTY PUBLIC WORKS
1022 26th AVENUE EAST
BRADENTON, FLORIDA 34208-3916
PH. 941-708-7450, EXT. 7329
4. PROVIDE SHOP DRAWINGS OF THE PHOTOMETRIC CALCULATIONS FOR LUMINAIRES OTHER THAN THE BASIS OF DESIGN. THE LUMINAIRE BASIS OF DESIGN FOR MOCCASIN WALLOW ROAD, TWO SIGNALIZED INTERSECTIONS, AND THE US-301 ROUNDABOUT IS THE GE EVOLVE LED LUMINAIRE, 4000K COLOR TEMPERATURE WITH EITHER TYPE II (WIDE) OR TYPE IV DISTRIBUTION. SEE POLE DATA AND LEGEND SHEET FOR PHOTOMETRIC CURVES, WATTAGES, AND ADDITIONAL INFORMATION. MEET ALL PHOTOMETRIC REQUIREMENTS IN THE CONTRACT DOCUMENTS.
5. LOCATIONS OF EXISTING UTILITIES, AS SHOWN ON THE PLANS ARE APPROXIMATE AND BASED ON INFORMATION FURNISHED BY THE UTILITY OWNERS, AND SERVE AS NOTICE TO THE CONTRACTOR THAT UNDERGROUND UTILITIES EXIST. NOTIFY UTILITY OWNERS FOR LOCATION AND STAKING OF UNDERGROUND FACILITIES BEFORE EXCAVATING.
6. BEFORE EXCAVATING, IT IS REQUIRED THAT NOTICE BE GIVEN TO SUNSHINE STATE ONE CALL OF FLORIDA, INC. (SSOCOF) AT 800-432-4770 A MINIMUM OF TWO (2) FULL BUSINESS DAYS BEFORE WORK BEGINS. NOT ALL UTILITY OWNERS ARE MEMBERS OF SSOCOF.
7. LOCATIONS OF POLES, CONDUCTORS, CONDUITS, PULL AND JUNCTION BOXES, AND SERVICE POLES ARE DIAGRAMMATIC ONLY AND MAY BE SHIFTED WITHIN THE RIGHT-OF-WAY BY THE CONTRACTOR WITH APPROVAL FROM THE ENGINEER TO ACCOMMODATE EXISTING CONDITIONS AND UTILITY LOCATIONS.
8. ALUMINUM POLES, LUMINAIRES, AND BASES SHALL BE FABRICATED IN ACCORDANCE WITH AASHTO'S " STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", AND SHALL HAVE BEEN TESTED BY FHWA APPROVED METHODS (LATEST EDITION). CERTIFICATION FOR TESTS SHALL BE SUBMITTED WITH THE SHOP DRAWINGS.
9. ALL ELECTRICAL WORK SHALL MEET THE REQUIREMENTS OF THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC), THE NATIONAL ELECTRICAL SAFETY CODE (NEC), AND THE FLORIDA DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. ALL COMPONENTS SHALL BE PROPERLY GROUNDED AND BONDED PER NEC REQUIREMENTS.
10. INSTALL LIGHTNING ARRESTORS, PROPERLY GROUNDED, IN POWER (SECONDARY) ENTRANCES ON THE OUTSIDE OF THE ENCLOSURE.
11. IN ACCORDANCE WITH NEC, IDENTIFY ALL CIRCUITS AND EQUIPMENT WITH "LAMACOID TAGS". INSTALL SIMILAR TAGS OF STAINLESS STEEL IDENTIFYING CIRCUIT FOR EACH LUMINAIRE AT ACCESS HANDHOLE ON EACH POLE.
12. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE POWER COMPANY AT LEAST THREE (3) FULL BUSINESS DAYS PRIOR TO ANY INSTALLATION THAT IS WITHIN THE DISTANCE PER OSHA'S CURRENT REQUIREMENTS OF ANY ENERGIZED ELECTRICAL CONDUCTORS. THE POWER COMPANY, AT IT'S OPTION, SHALL ASSIST THE CONTRACTOR TO COVER THE ENERGIZED CONDUCTORS AT INSTALLATION SITES OR TAKE OTHER SAFETY PRECAUTIONS AS NECESSARY. EXREME CAUTION SHALL BE EXERCISED AT ALL TIMES IN PERFORMANCE OF WORK AROUND THE PRIMARY HIGH VOLTAGE COMPONENTS.

TABLE A - MINIMUM CLEARANCE DISTANCES SPECIFIED IN SUBPART CC OF OSHA RULE 1926 (AS THEY PERTAIN TO CRANE/DERRICK OPERATIONS), AND/OR THOSE MINIMUM DISTANCES SPECIFIED IN 29 CFR 1910.333(c)(3)(i)(A) AND iii(i)(A) FOR WORK INPROXIMITY TO POWER LINES NOT COVERED BY THIS SUBPART CC, ARE TO BE MAINTAINED.
13. FINAL OFFSETS FOR THE STREET LIGHT POLES OR ARMS SHALL BE A MINIMUM OF 10 FEET FROM OVERHEAD CONDUCTORS.
14. CONTACT THE APPROPRIATE POWER COMPANY TO DETERMINE IF A SERVICE PROCESSING OR OTHER FEES ARE REQUIRED. ANY FEES SHALL BE INCLUDED AS PART OF THE PAYMENT FOR THE LOAD CENTER. OBTAIN ALL PERMITS AND INSPECTIONS FOR THE POWER SERVICE AND LOAD CENTER. COORDINATE THE CONSTRUCTION INSPECTION AND ENERGIZING OF THE NEW LOAD CENTER IN A TIMELY MANNER IN ORDER TO PROMOTE PROJECT COMPLETION WITHIN THE CONTRACT TIME.
15. COORDINATE WITH THE APPROPRIATE POWER COMPANY REPRESENTATIVE PRIOR TO CONSTRUCTION FOR THE FINAL SERVICE POINT LOCATION.
16. COORDINATE WITH THE APPROPRIATE POWER COMPANY ON SCHEDULES INVOLVING INSTALLATIONS LIGHT POLES AND FOUNDATIONS AT LOCATIONS IN CLOSE PROXIMITY TO OVERHEAD POWER LINES. USE ANY SPECIAL EQUIPMENT NEEDED FOR DRILLING AND/OR INSTALLING THE FOUNDATION AND LIGHT POLE TO AVOID DE-ENERGIZING THE POWER LINES WHERE POSSIBLE. A LOW PROFILE RIG SHALL BE USED AT LOCATIONS WHERE POWER LINES ARE IN CLOSE PROXIMITY BASED ON OSHA REQUIREMENTS.
17. PULLING REQUIREMENTS: CONNECT PULLING DEVICES TO COPPER WIRE AND NOT TO JACKET PER MANUFACTURER'S REQUIREMENTS. USE PULLING COMPOUND PER MANUFACTURER'S REQUIREMENTS. ALL BENDS SHALL NOT NE LESS THAN RECOMMENDED BY THE NEC OR THE NESC FOR CABLE USED.
18. STAKE ALL POLE LOCATIONS AND REQUEST UTILITY COMPANIES TO LOCATE AND STAKE UNDERGROUND UTILITIES PRIOR TO EXCAVATING. THIS INCLUDES NOTIFYING THE APPROPRIATE POWER COMPANY ON REVIEWING THE STAKED LOCATIONS WITH RESPECT TO OVERHEAD POWER LINES.
19. ALL CONDUITS UNDER ROADWAY, CONCRETE DRIVEWAYS AND/OR SIDEWALK SHALL BE INSTALLED PRIOR TO INSTALLATION OF ROADWAY BASE, DRIVEWAY CONCRETE AND SIDEWALK CONCRETE, EXCEPT WHERE OTHERWISE NOTED IN THE PLANS.
20. DIRECTIONAL BORE OPERATIONS SHALL MEET THE REQUIREMENTS OF FDOT'S UTILITY ACCOMMODATION MANUAL, LATEST EDITION.
21. AT LOCATIONS WHERE UNDERGROUND UTILITIES ARE WITHIN TWO (2) FEET OF LIGHT POLE FOUNDATIONS OR CONDUIT RUNS, HAND DIG THE FIRST FOUR (4) FEET OF THE HOLE OR TRENCH FOR THE FOUNDATION OR CONDUIT RUN.
22. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE PROVISION THAT REQUIRES THE PREPARATION AND APPROVAL OF AN EROSION CONTROL PLAN THAT ADDRESSES PREVENTION, CONTROL, AND ABATEMENT OF WATER POLLUTION.

23. NO TEST BORINGS WERE MADE WHERE CONDUIT OR PULL BOXES ARE TO BE INSTALLED. CONTRACTOR IS RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS PRIOR TO SUBMITTING BID PROPOSALS.
24. ALL CONDUIT TRENCHES SHALL BE BACKFILLED COMPLETELY TO PROVIDE SAFE CROSSING BY THE END OF EACH WORKING DAY, OR WHENEVER THE WORK ZONE BECOMES INACTIVE. DO NOT OPEN ANY AREA THAT CANNOT BE BACKFILLED IN THE SAME WORKING PERIOD.
25. MAINTAIN ACCESS TO ALL SIDE STREETS, PRIVATE, AND COMMERCIAL DRIVEWAYS AT ALL TIMES.
26. NO SCREW TYPE BASE FOUNDATIONS SHALL BE USED ON THIS PROJECT.
27. NOTIFY MANATEE COUNTY BEFORE AND TRENCHING OR DIGGING AT SIGNALIZED INTERSECTIONS SO THAT ALL UNDERGROUND FACILITIES CAN BE IDENTIFIED AND MARKED APPROPRIATELY.
28. THE LIGHTING SYSTEM WILL BE MAINTAINED BY MANATEE COUNTY UPON FINAL ACCEPTANCE. NOTIFY THE TRAFFIC ENGINEERING DIVISION (MR. VISHAL S. KAKKAD, 941-749-3502) AT LEAST TWO (2) BUSINESS DAYS IN ADVANCE TO SCHEDULE THE FINAL INSPECTION. UPON PASSING THE FINAL INSPECTION, SEND A WRITTEN REQUEST TO TRANSFER MAINTENANCE FROM THE CONTRACTOR TO MANATEE COUNY TO THE FOLLOWING:

MR. AARON BURKETT
MANATEE COUNTY TRAFFIC OPERATIONS DIVISION
1204 12th STREET COURT EAST
BRADENTON, FLORIDA 34208
EMAIL: AARONBURKETT@MYMANATEE.ORG

THE COUNTY WILL RESPOND WITHIN FIVE (5) WORKING DAYS TO ESTABLISH A TIME TABLE FOR TRANSFER OF MAINTENANCE RESPONSIBILITY.

29. WHEN CONSTRUCTION IS COMPLETE, A HARD COPY AND ELECTRONIC PDF SET OF AS-BUILT PLANS IS TO BE SUBMITTED TO:

MANATEE COUNTY PUBLIC WORKS
ATTN: MR. VISHAL KAKKAD, PE, PTOE
TRAFFIC DESIGN DIVISION MANAGER
2101 47th TERRACE EAST
BRADENTON, FLORIDA 34203
EMAIL: VISHALKAKKAD@MYMANATEE.ORG

RECORD DRAWINGS AND INSPECTION FORMS MUST BE DELIVERED TO THE COUNTY AT LEAST TWO (2) BUSINESS DAYS PRIOR TO SCHEDULING THE FINAL INSPECTION.

30. HANDHOLE COVERS FOR POLES SHALL BE LOCATED OPPOSITE APPROACHING TRAFFIC EXCEPT FOR POLES LOCATED IN GRAVITY WALLS. THESE POLES SHALL HAVE THE HANDHOLE COVERS LOCATED TOWARDS THE SIDEWALK.
31. ALL EXISTING UTILITIES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED IN THE PLANS.
32. THE WIRES AT THE POLE HANDHOLES AND PULL BOXES SHALL BE LOOPED WITH SUFFICIENT LENGTH TO COMPLETELY REMOVE CONNECTORS AND SPLICES ONE (1) FOOT OUTSIDE OF THE HANDHOLE OR PULL BOX. THE SLACK IS FOR MAKING CONNECTIONS AND SPLICES ACCESSIBLE FOR CHANGING FUSES AND TROUBLE SHOOTING THE SYSTEM.
33. LIGHT POLES AND PULL BOXES SHALL NOT BE LOCATED IN DRAINAGE SWALES, DITCHES, WETLANDS, DRIVEWAYS, SURFACE WATER, PAVED SHOULDERS, OR PEDESTRIAN RAMPS. COORDINATE WITH THE ENGINEER FOR AN APPROVED OFFSET ADJUSTMENT IF NECESSARY.
34. FOR LOCATIONS WHERE THE LIGHT POLE IS WITHIN OR ADJACENT TO PROPOSED SIDEWALK, TOP OF POLE FOUNDATION ELEVATION SHALL MATCH THE PROPOSED SIDEWALK GRADE.

ΔREV. NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	WM APPROVED BY:

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CLIENT:	MANATEE COUNTY PUBLIC WORKS DEPARTMENT	DATE:	06/2022	TITLE:	GENERAL NOTES	FRANCISCO B. DOMINGO, P.E. P.E. LICENSE No. 51601
PROJECT:	MOCCASIN WALLOW ROAD SEGMENT 1	HORIZONTAL SCALE:	NONE	INDEX NUMBER:		
		VERTICAL SCALE:		SHEET NUMBER:	76	of 103
		SEC: 19 TWP: 33S RGE: 19E	CROSS REFERENCE FILE NO.:	PROJECT NUMBER:	215615900	

LIGHTING PAY ITEM NOTES:

630-2-11:

INCLUDES CONDUIT, ELBOWS, SWEEPS, CONNECTING HARDWARE, TRENCHING, AND BACKFILL AS INDICATED IN THE FDOT DESIGN STANDARDS. THE LINEAR FOOT PRICE FOR CONDUIT SHALL ALSO INCLUDE THE COST OF RESTORING CUT PAVEMENT, SIDEWALK, SOD, ETC., TO IT'S ORIGINAL CONDITION. SOD SHALL BE REPLACED IN LIKE KIND OF THE ADJACENT SURROUNDINGS. CONDUIT SHALL BE SCHEDULE 40 PVC WITH A MINIMUM SIZE OF 2 INCHES. MEET NEC CONDUIT FILL CRITERIA WITH RESPECT TO THE SIZE AND NUMBER OF CONDUCTORS INSIDE.

PAYMENT FOR CONDUIT PLACED UNDERGROUND WILL BE BASED ON THE HORIZONTAL LENGTH OF THE TRENCH MEASURED IN A STRAIGHT LINE BETWEEN THE CENTERS OF PULL BOXES, CABINETS, POLES, ETC., IN LINEAR FEET REGARDLESS OF THE LENGTH OR NUMBER OF CONDUITS INSTALLED. NO ADDITIONAL PAYMENT WILL BE MADE FOR MULTIPLE CONDUITS IN THE SAME TRENCH.

630-2-12:

ALL CONDUITS INSTALLED BY DIRECTIONAL BORE SHALL BE HDPE SDR-11 WITH A MINIMUM SIZE OF 2 INCHES. MEET NEC CONDUIT FILL CRITERIA WITH RESPECT TO THE SIZE AND NUMBER OF CONDUCTORS INSIDE. CONDUIT AND TRANSITION COUPLING SHALL BE UL LISTED. ALL DIRECTIONAL BORES SHALL INCLUDE A SPARE 2 INCH CONDUIT WITH BOTH ENDS SWEEPING UP INTO A STREET LIGHTING PULL BOX. CAP BOTH ENDS OF THE SPARE CONDUIT WITH WATER TIGHT CAPS. SPARE CONDUIT SHALL BE POPULATED WITH A PULL CORD.

PAYMENT FOR CONDUIT PLACED BY DIRECTIONAL BORE WILL BE BASED ON THE HORIZONTAL LENGTH OF THE BORE MEASURED IN A STRAIGHT LINE BETWEEN THE CENTERS OF PULL BOXES, CABINETS, POLES, ETC., IN LINEAR FEET REGARDLESS OF THE LENGTH OR NUMBER OF CONDUITS INSTALLED. NO ADDITIONAL PAYMENT WILL BE MADE FOR MULTIPLE CONDUITS IN THE SAME BORE.

635-2-11:

USE FDOT APPROVED COMPOSITE PULL BOXES MEASURING 24"L x 13"W x 18"D MINIMUM WITH HEAVY DUTY NON-METALLIC COVERS. GROUNDING IS NOT REQUIRED FOR PULL BOXES. COVERS SHALL BE STAMPED "STREET LIGHTING" IN RAISED LETTERS. INCLUDES THE COST OF THE CONCRETE APRON PER FDOT STANDARD PLANS INDEX 715-001. ITEM ALSO INCLUDES THE COST OF MANATEE COUNTY APPROVED SECURITY BOLTS FOR THE COVERS. SECURITY BOLTS SHALL BE INSTALLED UPON FINAL ACCEPTANCE.

639-1-122:

POWER SERVICE ASSEMBLY INCLUDES ALL EQUIPMENT AND MATERIALS NECESSARY FOR A COMPLETE AND ACCEPTABLE INSTALLATION AS INDICATED IN THE FDOT STANDARD PLANS, SPECIFICATIONS, AND POWER COMPANY REQUIREMENTS.

715-1-12:

ITEM INCLUDES CONDUCTORS AS INDICATED IN THE PLANS AND THE FDOT STANDARD PLANS. PAYMENT IS BASED ON THE LINEAR FEET OF A SINGLE CONDUCTOR.

715-4-13 & 715-4-851:

ITEM INCLUDES A STANDARD ALUMINUM LIGHT POLE, BRACKET ARM, LUMINAIRE WITH LAMP, ANCHOR BOLTS WITH WASHERS AND LOCK NUTS, VIBRATION DAMPENING DEVICE, FRANGIBLE BREAKAWAY TRANSFORMER BASE AND FOUNDATION PER FDOT STANDARD PLANS INDEX 715-002. COST OF BREAK-AWAY WATERTIGHT, IN-LINE FUSE HOLDERS, STRAIN RELIEF, AND SURGE ARRESTOR SHALL BE PAID UNDER ITEM 715-500-1. ITEM ALSO INCLUDES EXTERNAL HOUSE SIDE, AND 6-INCH TALL LIGHT TRESPASS SHIELD ACCESSORIES. UTILITY CONFLICT POLE PER FDOT STANDARD PLANS INDEX 715-003 AND INCLUDES ALL OF THE ABOVE .

LUMINAIRES INCLUDED UNDER THIS ITEM SHALL BE GE EVOLVE LED WITH 4000K COLOR AND EITHER TYPE II WIDE OR TYPE IV DISTRIBUTION. SEE LEGEND AND POLE DATA SHEET FOR WATTAGES, PHOTOMETRIC CURVES, AND ADDITIONAL DETAILS.

ITEM ALSO INCLUDES THE MAINTENANCE SLAB AND PULL BOX AS SPECIFIED IN FDOT STANDARD PLANS INDEX 715-001. THE ORIENTATION OF THE SLAB MAY BE ADJUSTED BY THE CONTRACTOR UNDER APPROVAL OF THE ENGINEER. IF THE SLAB CONFLICTS WITH THE PROPOSED SIDEWALK OR RIGHT-OF-WAY LINE, THE SLAB SHALL BE MODIFIED BY ENDING THE SLAB ADJACENT TO THE EDGE OF SIDEWALK OR AT THE RIGHT-OF-WAY LINE. THERE SHOULD BE NO GAP BETWEEN THE SLAB AND THE EDGE OF SIDEWALK. SLAB ELEVATION SHALL MATCH THE BACK OF SIDEWALK ELEVATION.

715-7-11:

THE UNDERGROUND ELECTRICAL POWER SERVICE SHALL BE IN ACCORDANCE WITH THE FDOT STANDARD PLANS AND SPECIFICATIONS TO FURNISH AND INSTALL THE LIGHTING LOAD CENTER. MATERIALS INCLUDE, BUT ARE NOT LIMITED TO: FUSED CONTROL POWER TRANSFORMERS, CABINET, ADDITIONAL ENCLOSURES, PANEL BOARDS, MAIN BREAKER, BRANCH CIRCUIT BREAKERS, FUSES, LIGHTNING ARRESTOR, PHOTO-ELECTRIC ASSEMBLY, CONTACTOR, H.O.A. SWITCH, AND ALL MISCELLANEOUS HARDWARE REQUIRED FOR A COMPLETE INSTALLATION.

THE LOAD CENTER SHALL BE THREE WIRE, SINGLE PHASE, 240/480V POWER SERVICE ASSEMBLY.

715-1-111:

FURNISH AND INSTALL LUMINAIRES INDICATED ON THE POLE DATA SHEET ON EXISTING MAST ARM POLE MOUNTED BRACKET ARMS. ITEM INCLUDES ALL MATERIALS REQUIRED TO CONNECT THE LUMINAIRES TO THE DEDICATED CIRCUIT BREAKER AND PHOTO-ELECTRIC CELL INSIDE THE TRAFFIC SIGNAL CONTROLLER CABINET.

715-500-1:

INCLUDES COST OF BREAKAWAY WATERTIGHT IN-LINE FUSE HOLDERS, STRAIN RELIEF, AND SURGE ARRESTOR AS INDICATED IN FDOT STANDARD PLANS INDEX 715-001.

							ACTIVITY	INITIALS/EMP. NO.	DATE	 <p>6900 Professional Parkway East, Sarasota, FL 34240-8414 Phone 941-907-6900 • Fax 941-907-6910 Certificate of Authorization #27013 • www.stantec.com</p>	<small>The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.</small>	CLIENT:	MANATEE COUNTY PUBLIC WORKS DEPARTMENT		DATE:	06/2022		TITLE:	PAY ITEM NOTES		FRANCISCO B. DOMINGO, P.E. P.E. LICENSE No. 51601
			DESIGNED BY:			HORIZONTAL SCALE:	NONE		INDEX NUMBER:												
			DRAWN BY:			VERTICAL SCALE:															
			CHECKED BY:			SEC:	TRP:	RGE:	CROSS REFERENCE FILE NO.:			PROJECT NUMBER:	215615900	SHEET NUMBER:	77 of 103						
			CONTRACT ADMIN. BY:			19	33S	19E													
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POLE DATA

POLE NO.	CIRCUIT	STATION	DIST. OR ARM	LUMINAIRE WATTAGE	MOUNTING HEIGHT	POLE SETBACK	PAY ITEM
100	A-2	173+24	15'	111	40'	43.0'	715-4-13
101	A-1	172+49	15'	111	40'	20.0'	715-4-13
102	A-2	174+69	15'	111	40'	43.0'	715-4-13
103	A-1	173+94	15'	111	40'	20.0'	715-4-13
104	A-2	176+14	15'	111	40'	BACK OF SIDEWALK	715-4-13
105	A-1	175+39	15'	111	40'	20.0'	715-4-13
106	A-2	177+59	15'	111	40'	BACK OF SIDEWALK	715-4-13
107	A-1	176+84	15'	111	40'	20.0'	715-4-13
108	A-2	179+04	16'	111	40'	BACK OF SIDEWALK	715-4-851
109	A-1	178+29	15'	111	40'	20.0'	715-4-13
110	A-2	180+49	16'	111	40'	BACK OF SIDEWALK	715-4-851
111	A-1	179+74	15'	111	40'	BACK OF SIDEWALK	715-4-13
112	A-2	181+94	16'	111	40'	BACK OF SIDEWALK	715-4-851
113	A-1	181+19	15'	111	40'	BACK OF SIDEWALK	715-4-13
114	A-2	183+39	16'	111	40'	10.0'	715-4-851
115	A-1	182+64	15'	111	40'	BACK OF SIDEWALK	715-4-13
116	A-2	184+84	16'	111	40'	10.0'	715-4-851
117	A-1	184+09	15'	111	40'	BACK OF SIDEWALK	715-4-13
118	A-2	186+29	16'	111	40'	10.0'	715-4-851
119	A-1	185+54	15'	111	40'	BACK OF SIDEWALK	715-4-13
120	A-2	187+47	15'	111	40'	9.0'	715-4-13
121	A-1	186+87	15'	111	40'	BACK OF SIDEWALK	715-4-13
122	A-2	188+67	15'	111	40'	9.0'	715-4-13
123	A-1	188+07	15'	111	40'	BACK OF SIDEWALK	715-4-13
124	A-2	189+85	15'	149	40'	7.0'	715-4-13
125	A-1	189+18	15'	111	40'	BACK OF SIDEWALK	715-4-13
126		~ NOT USED ~					
127		~ NOT USED ~					
128	A-2	191+51	15'	149	40'	54.0'	715-4-13
129		~ NOT USED ~					
130		~ NOT USED ~					
131	A-1	192+96	15'	149	40'	10.0'	715-4-13
132	A-2	192+66	15'	111	40'	BACK OF SIDEWALK	715-4-13
133	A-1	194+42	15'	149	40'	10.0'	715-4-13
134	A-2	193+85	15'	111	40'	BACK OF SIDEWALK	715-4-13
135	A-1	195+64	15'	111	40'	8.0'	715-4-13
136	A-2	195+05	15'	111	40'	BACK OF SIDEWALK	715-4-13
137	A-1	196+84	15'	111	40'	8.0'	715-4-13
138	A-2	196+27	16'	111	40'	BACK OF SIDEWALK	715-4-13
139	A-1	198+29	15'	111	40'	8.0'	715-4-13
140	A-2	197+58	16'	111	40'	BACK OF SIDEWALK	715-4-13
141	A-1	199+74	15'	111	40'	8.0'	715-4-13
142	A-2	199+01	16'	177	40'	BACK OF SIDEWALK	715-4-13
143	A-1	201+19	15'	111	40'	8.0'	715-4-13
144	A-2	200+48	16'	82	40'	4.0' FRONT OF SIDEWALK	715-4-13
145	A-1	202+39	15'	111	40'	8.0'	715-4-13
146	A-2	201+62	16'	82	40'	4.0' FRONT OF SIDEWALK	715-4-13
147	A-1	203+59	15'	111	40'	8.0'	715-4-13

CONVENTIONAL LIGHTING DESIGN CRITERIA

Average Horizontal Fc 1.5 Foot Candles
 Uniformity Ratio Avg./Min. 4:1 Or Less
 Max./Min. 10:1 Or Less
 Veiling Luminance Ratio 0.3:1 Or Less
 Wind Speed 140 mph

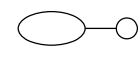
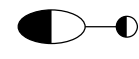
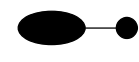
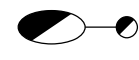

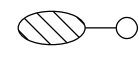
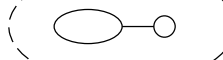
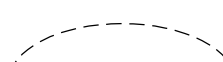

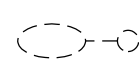



SIGNALIZED INTERSECTION LIGHTING DESIGN CRITERIA

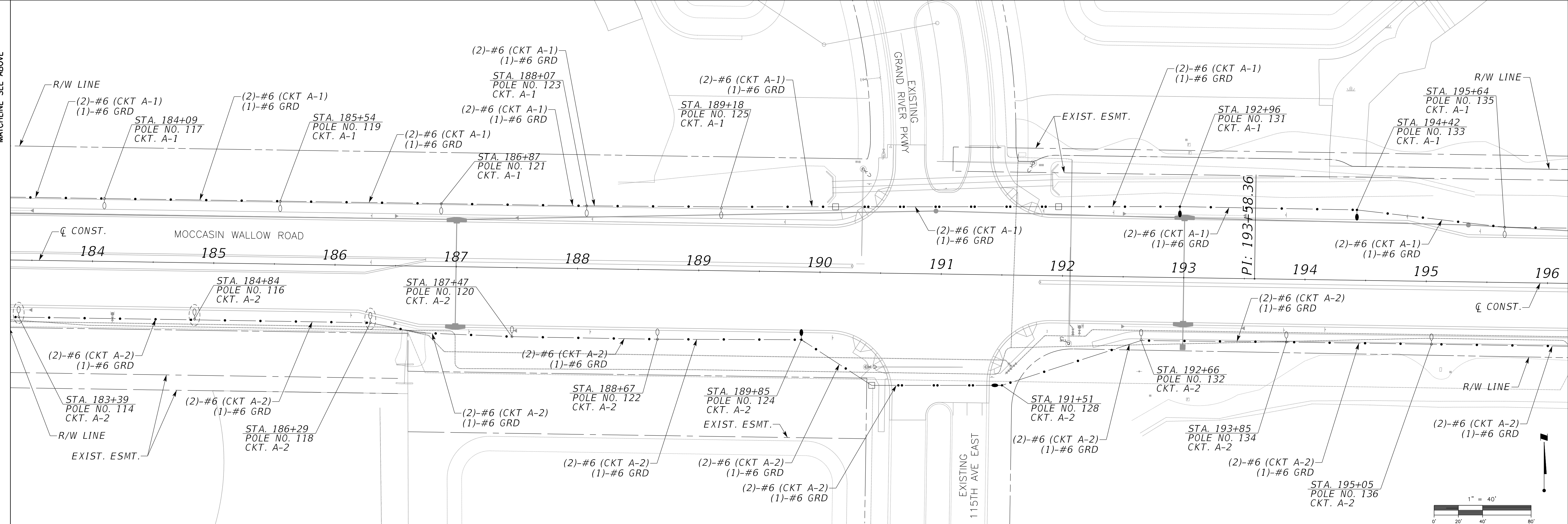
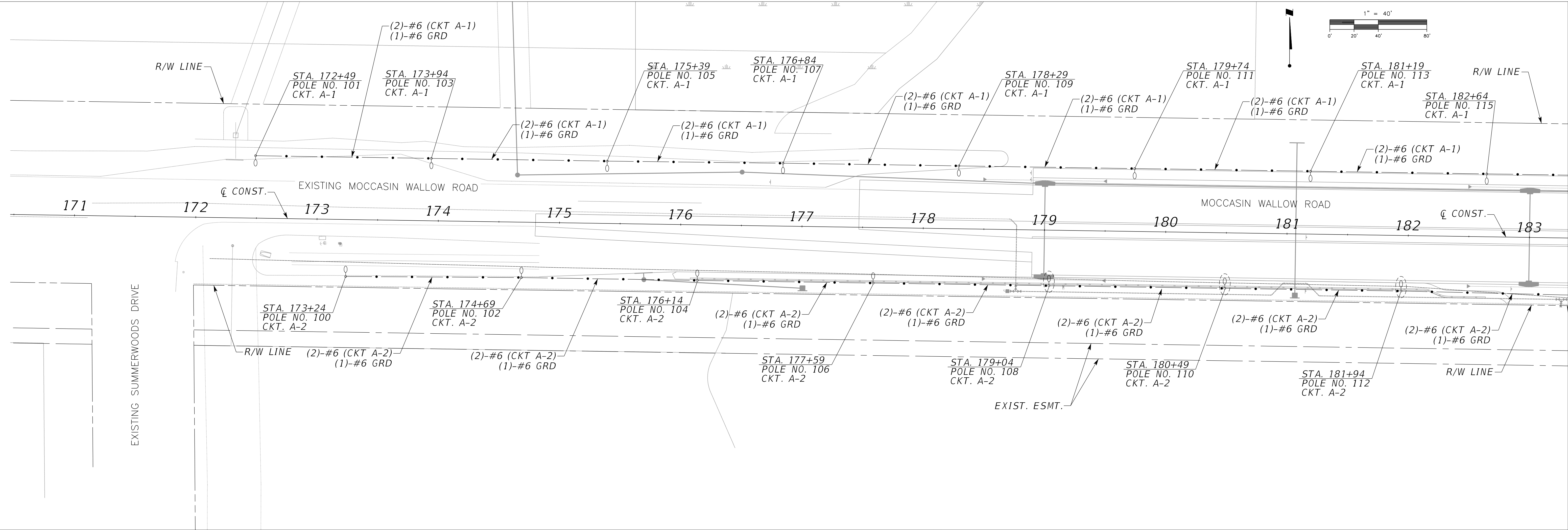
Average Horizontal Fc 3.0 Foot Candles (1.5 fc Min.)
 Uniformity Ratio Avg./Min. 4:1 Or Less
 Max./Min. 10:1 Or Less
 Average Vertical Fc 1.5 Foot Candles (1.2 fc Min.)
 Wind Speed 140 mph

LEGEND

SYMBOLS

DESCRIPTION

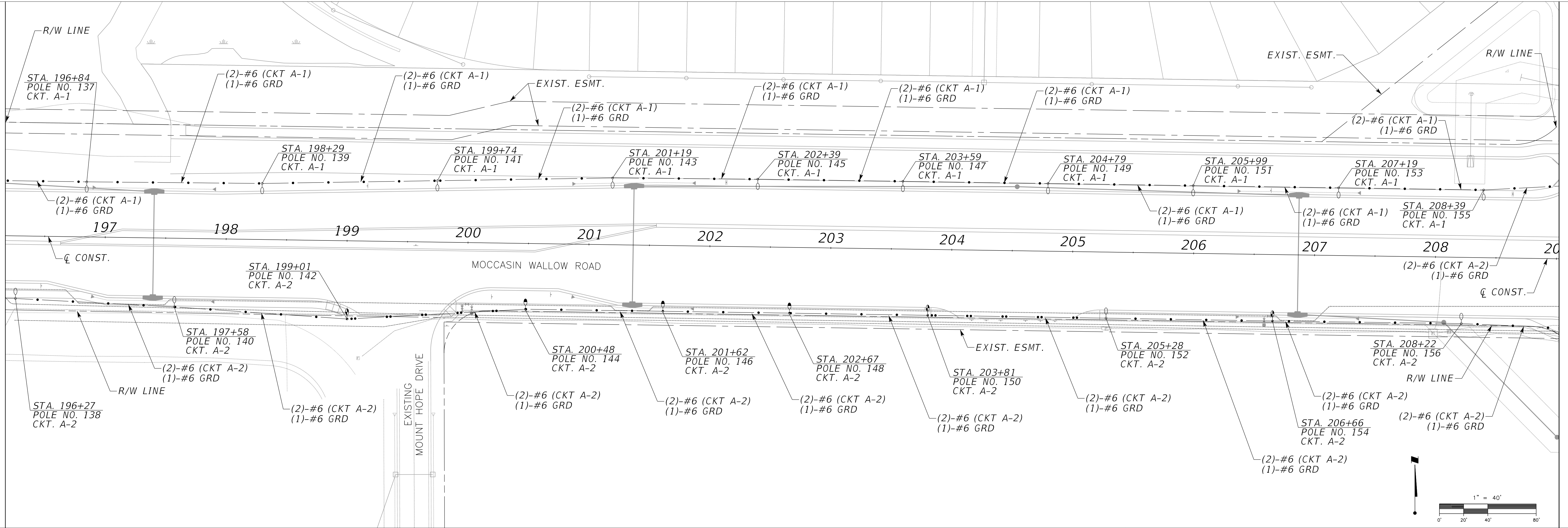
-  111W LED luminaire with single 15' arm. GE Evolve ERLH designed for Type II (Wide) distribution and wired for 480 volt operation. Pole mounting height 40 ft. Use curve ERLH_13B340 or equal. Symbol includes concrete slab and pull box.
-  82W LED luminaire with single 15' arm. GE Evolve ERLH designed for Type II (Wide) distribution and wired for 480 volt operation. Pole mounting height 40 ft. Use curve ERLH_10B340 or equal. Symbol includes concrete slab and pull box.
-  149W LED luminaire with single 15' arm. GE Evolve ERLH designed for Type II (Wide) distribution and wired for 480 volt operation. Pole mounting height 40 ft. Use curve ERLH_16B340 or equal. Symbol includes concrete slab and pull box.
-  278W LED luminaire with single 15' arm. GE Evolve ERL2 designed for Type II (Wide) distribution and wired for 480 volt operation. Pole mounting height 40 ft. Use curve ERL2_30B340 or equal. Symbol includes concrete slab and pull box.
-  177W LED luminaire with single 15' arm. GE Evolve ERL2 designed for Type II (Wide) distribution and wired for 480 volt operation. Pole mounting height 40 ft. Use curve ERL2_21B340-347-480V or equal. Symbol includes concrete slab and pull box.
-  278W LED luminaire with single 15' arm. GE Evolve ERL2 designed for Type IV distribution and wired for 480 volt operation. Pole mounting height 40 ft. Use curve ERL2_30D340 or equal. Symbol includes concrete slab and pull box.
-  214W LED luminaire with single 15' arm. GE Evolve ERL2 designed for Type IV distribution and wired for 480 volt operation. Pole mounting height 40 ft. Use curve ERL2_25D340 or equal. Symbol includes concrete slab and pull box.
-  196W LED luminaire with single 15' arm. GE Evolve ERL2 designed for Type IV distribution and wired for 480 volt operation. Pole mounting height 40 ft. Use curve ERL2_23D340-347-480V or equal. Symbol includes concrete slab and pull box.
-  Utility conflict pole per Standard Plans Index 715-003 with 111W LED luminaire. GE Evolve ERLH designed for Type II (Wide) distribution and wired for 480 volt operation. Pole mounting height 40 ft. Use curve ERLH_13B340 or equal. Symbol includes concrete slab and pull box.
-  Utility conflict pole per Standard Plans Index 715-003 with 177W LED luminaire. GE Evolve ERL2 designed for Type II (Wide) distribution and wired for 480 volt operation. Pole mounting height 40 ft. Use curve ERL2_21B340-347-480V or equal. Symbol includes concrete slab and pull box.
-  Utility conflict pole per Standard Plans Index 715-003 with 149W LED luminaire. GE Evolve ERLH designed for Type II (Wide) distribution and wired for 480 volt operation. Pole mounting height 40 ft. Use curve ERLH_16B340 or equal. Symbol includes concrete slab and pull box.
-  Existing single arm pole to remain.
-  Existing dual arm pole to remain.
-  Schedule 40 PVC conduit with THW or THWN conductors inside (conduit and conductor size as shown on plan sheets). Run one (1) copper bond conductor (TW green insulation) inside conduit with other conductors.
-  Schedule 40 PVC conduit directional bored under pavement with THW or THWN conductors inside (conduit and conductor size as shown on plan sheets). Run one (1) copper bond conductor (TW green insulation) inside conduit with other conductors.
-  Pull box. For specifications see Section 635 of the FDOT Standard Specifications For Road And Bridge Construction.
-  Service point. For requirements see Standard Plans Index No. 639-001.



<table border="1"> <tr> <th>REV. NO.</th> <th>REVISION</th> <th>DATE</th> <th>DRAWN BY / EMP. NO.</th> <th>CHECKED BY / EMP. NO.</th> <th>WM APPROVED BY:</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REV. NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	WM APPROVED BY:							<table border="1"> <tr> <th>ACTIVITY</th> <th>INITIALS/EMP. NO.</th> <th>DATE</th> </tr> <tr> <td>DESIGNED BY:</td> <td> </td> <td> </td> </tr> <tr> <td>DRAWN BY:</td> <td> </td> <td> </td> </tr> <tr> <td>CHECKED BY:</td> <td> </td> <td> </td> </tr> <tr> <td>CONTRACT ADMIN. BY:</td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	ACTIVITY	INITIALS/EMP. NO.	DATE	DESIGNED BY:			DRAWN BY:			CHECKED BY:			CONTRACT ADMIN. BY:						<p>6900 Professional Parkway East, Sarasota, FL 34240-8414 Phone 941-907-8900 • Fax 941-907-6910 Certificate of Authorization #27013 • www.stantec.com</p>	<p>CLIENT: MANATEE COUNTY PUBLIC WORKS DEPARTMENT PROJECT: MOCCASIN WALLOW ROAD SEGMENT 1</p>	<p>DATE: 06/2022 HORIZONTAL SCALE: 1" = 40' VERTICAL SCALE: 1" = 40'</p>	<p>TITLE: LIGHTING PLAN</p>	<p>FRANCISCO B. DOMINGO, P.E. P.E. LICENSE NO. 51601</p>
REV. NO.	REVISION	DATE	DRAWN BY / EMP. NO.	CHECKED BY / EMP. NO.	WM APPROVED BY:																															
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<p>CROSS REFERENCE FILE NO.: PROJECT NUMBER: 215615900 SHEET NUMBER: 80 OF 103</p>						<p>INDEX NUMBER: 80 OF 103</p>																														

MATCHLINE SEE PREVIOUS SHEET

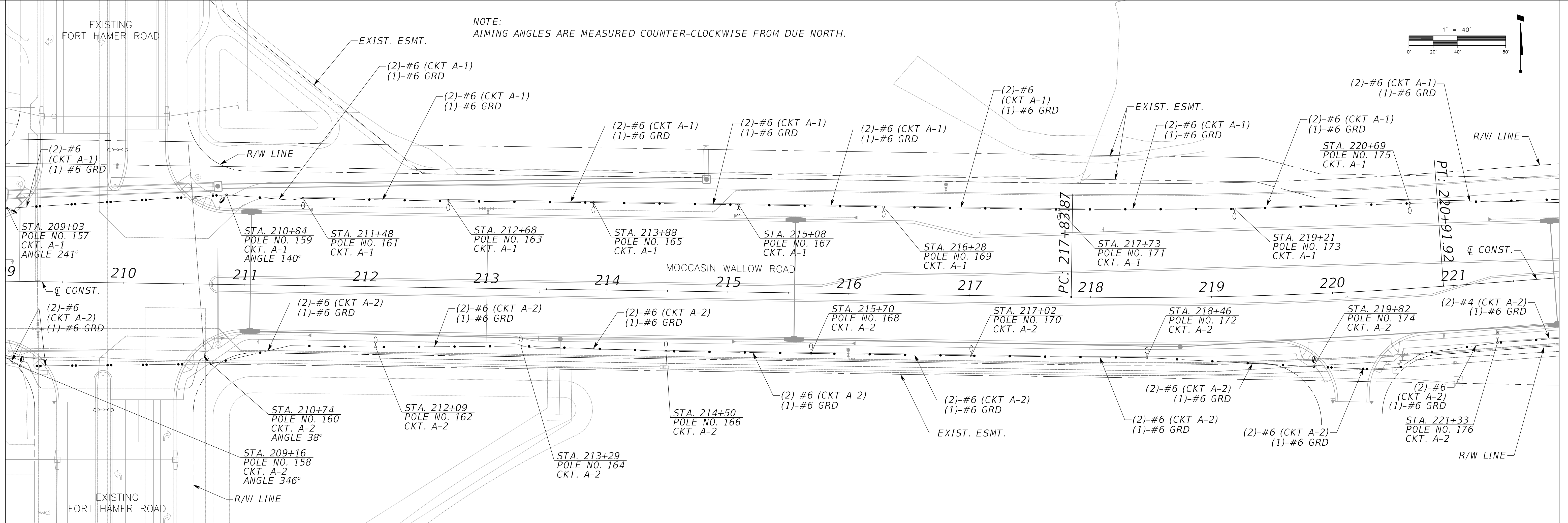
MATCHLINE SEE BELOW



NOTE:
AIMING ANGLES ARE MEASURED COUNTER-CLOCKWISE FROM DUE NORTH.

MATCHLINE SEE ABOVE

MATCHLINE SEE NEXT SHEET



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CLIENT: MANATEE COUNTY PUBLIC WORKS DEPARTMENT
 PROJECT: MOCCASIN WALLOW ROAD SEGMENT 1

DATE: 06/2022
 HORIZONTAL SCALE: 1" = 40'
 VERTICAL SCALE: 1" = 40'

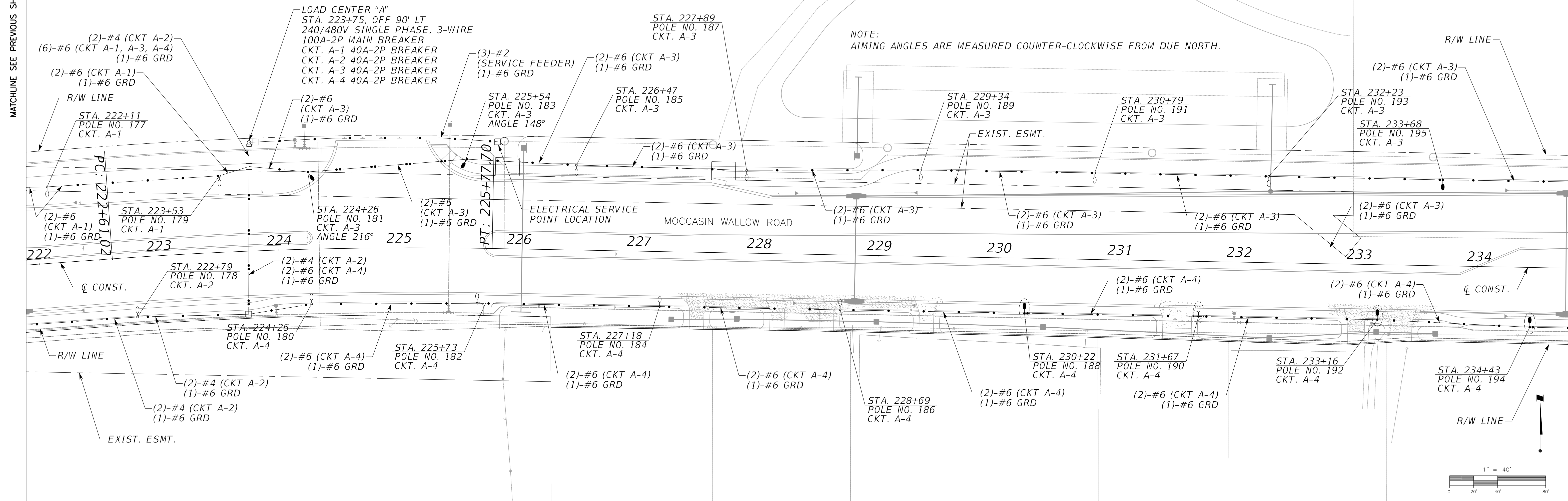
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 PROJECT NUMBER: 215615900

FRANCISCO B. DOMINGO, P.E.
 P.E. LICENSE No. 51601
 INDEX NUMBER:
 SHEET NUMBER: 81 OF 103

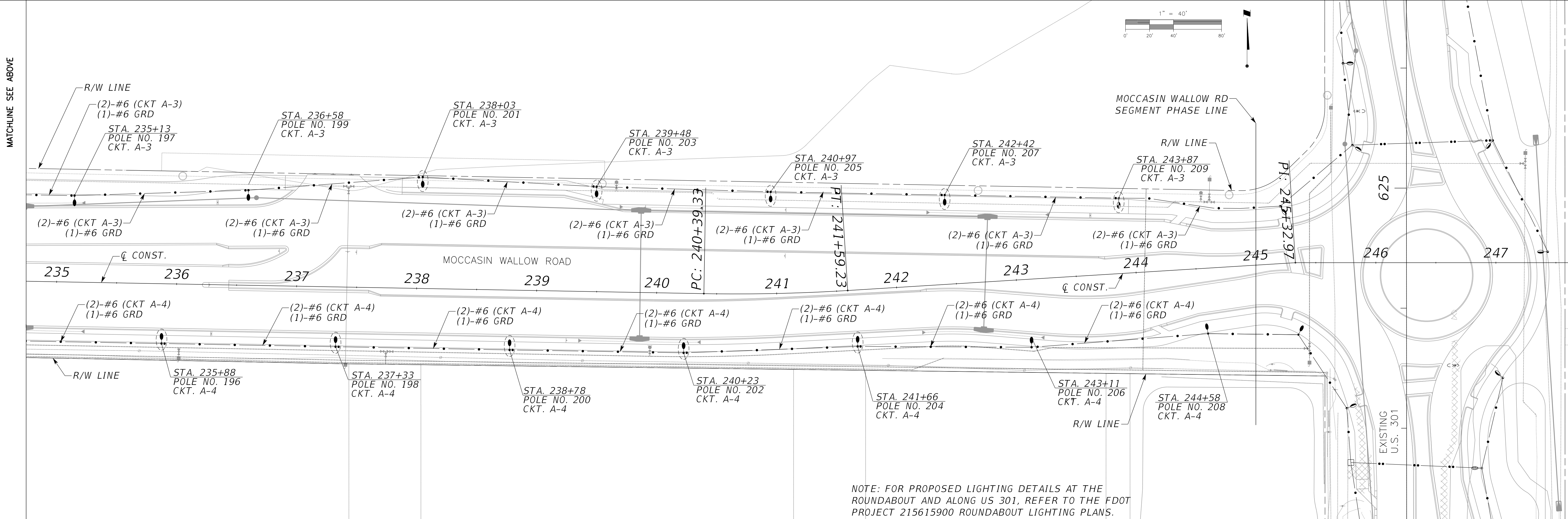
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MATCHLINE SEE PREVIOUS SHEET

MATCHLINE SEE BELOW



MATCHLINE SEE ABOVE



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 PROJECT NUMBER: 215615900

FRANCISCO B. DOMINGO, P.E.
 P.E. LICENSE NO. 51601
 INDEX NUMBER:
 SHEET NUMBER: 82 OF 103

NOTE: FOR PROPOSED LIGHTING DETAILS AT THE ROUNDABOUT AND ALONG US 301, REFER TO THE FDOT PROJECT 215615900 ROUNDABOUT LIGHTING PLANS.

PANEL SCHEDULE A					
NEMA-4X SST: 1Ø,3W, 240/480V, XX AIC, (2P - 100A Main Ckt. Breaker)					
CKT.	SERVING	KVA	AMPS	C. BKR.	WIRE/ CONDUCT
A-1	LIGHTING	4.56	9.50	2P/40A	(2) - 6 AWG. (1) - 6 AWG.
A-2	LIGHTING	4.75	9.90	2P/40A	(2) - 4 AWG. (1) - 6 AWG.
A-3	LIGHTING	4.22	8.80	2P/40A	(2) - 6 AWG. (1) - 6 AWG.
A-4	LIGHTING	2.69	5.60	2P/40A	(2) - 6 AWG. (1) - 6 AWG.
A-5	SPACE				
A-6	SPACE				

DEMAND LOAD ANALYSIS

BASED ON 480V/240V, 1Ø, 3W

TOTAL DEMAND LOAD:

CONTINUOUS LOAD = 16.22 KVA
 25% CONT. LOAD = 4.06 KVA
 TOTAL = 20.28 KVA

$$AMP = \frac{KVA}{KV} = \frac{20.28 KVA}{0.480 KV} = 42 AMP$$

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CLIENT:	MANATEE COUNTY PUBLIC WORKS DEPARTMENT
PROJECT:	MOCCASIN WALLOW ROAD SEGMENT 1

DATE:	06/2022
HORIZONTAL SCALE:	NONE
VERTICAL SCALE:	NONE
SEC:	19
TWP:	33S
RGE:	19E

TITLE:	PANEL SCHEDULE
CROSS REFERENCE FILE NO.:	
PROJECT NUMBER:	215615900

FRANCISCO B. DOMINGO, P.E. P.E. LICENSE No. 51601
INDEX NUMBER:
SHEET NUMBER:
83 of 103