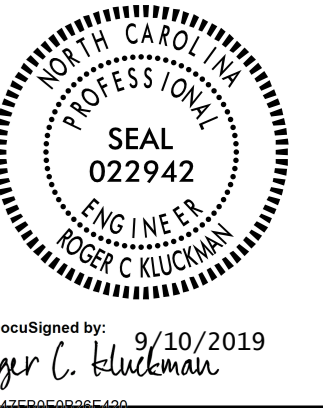


PLANS AND DETAILS FOR PROPOSED LIGHTING /ELECTRICAL CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



NOTES

- 1 AT THESE LOCATIONS, PROVIDE ELECTRICAL DUCT IN ACCORDANCE WITH NEC REQUIREMENTS FOR AN APPROVED RACEWAY FOR ELECTRICAL CIRCUITS. SEE TABLE "C"
- 2 INSTALL ALL BORE PITS OUTSIDE THE CLEAR ZONE, AS DEFINED BY THE 2011 AASHTO ROADSIDE DESIGN GUIDE OR AS DIRECTED BY THE ENGINEER.
- 3 LOCATE ALL JUNCTION BOXES OUTSIDE CLEAR ZONE AND IN AN AREA UNLIKELY TO BE USED BY TRAFFIC.
- 4 LOCATE PROPOSED CONTROL SYSTEM IN AN AREA ACCESSIBLE FOR MAINTENANCE VEHICLES AND OUTSIDE OF CLEAR ZONE AS DEFINED BY THE 2011 AASHTO ROADSIDE DESIGN GUIDE.
- 5 INSTALL RIGID GALVANIZED CONDUIT (RGC) ABOVE GROUND, AND POLYVINYL CHLORIDE (PVC) SCHEDULE 40 CONDUIT UNDERGROUND, EXCEPT AS MODIFIED ON THESE PLANSHEETS OR IN APPLICABLE SECTIONS OF THE ROADWAY STANDARD DRAWINGS FOR THIS PROJECT.
- 6 ALL JUNCTION BOXES SHALL BE 18" HIGH, UNLESS OTHERWISE NOTED.
- 7 CONTRACTOR SHALL RECORD THE GPS COORDINATES OF EACH JUNCTION BOX IN THE JUNCTION BOX SUMMARY, TABLE C. PROVIDE A COPY OF THE JUNCTION BOX SUMMARY WITH THESE COORDINATES TO THE LIGHTING ENGINEER DURING PROJECT INSPECTION.
- 8 POLE NUMBERING CONVENTION: CONTROL SYSTEM-POLE #-CKT # (A-3-2).
- 9 JUNCTION BOXES SHOWN NEAR LIGHT STANDARDS (LSJB & HMJB) ARE SHOWN FOR CLARITY. THESE JUNCTION BOXES ARE TO BE USED AS A TEE POINT FOR CIRCUITRY TO THE STANDARD, AND SHALL BE INSTALLED FOR BEST ALIGNMENT OF CIRCUITRY WHILE MAINTAINING THE OFFSETS SHOWN IN TABLE "C". SEE STANDARD DRAWINGS 1401.01 AND 1406.01 FOR INSTALLATION DETAILS.
- 10 CONTRACTOR SHALL COORDINATE WITH THE RDU AIRPORT AUTHORITY FOR ACCESS TO THE CONTROL SERVICE BOX BEFORE INTERCEPTING THE SERVICE TO THE RDU HIGH MAST BEING REMOVED AND CONNECTING SERVICE TO THE NEW REPLACEMENT RDU HIGH MAST. THE SERVICE TO THE RDU HIGH MAST IS RUN UNDERGROUND THROUGH THE MEDIAN. THE CONTRACTOR SHALL AVOID ALL OTHER UTILITIES RUN THROUGH THE MEDIAN.
- 11 INTERCEPT EXISTING CONDUIT AND INSTALL ELBOW TO TURN CONDUIT INTO JUNCTION BOX. INSTALL NEW SAME TYPE CONDUCTORS IN EXISTING CONDUIT BETWEEN THE NEW HIGH MAST JUNCTION BOX AND LOCATION OF REPLACEMENT RDU HIGH MAST POLE AND BETWEEN THE HIGH MAST JUNCTION BOX TO EXISTING JUNCTION BOX (HH).
- 12 REMOVE AND STORE EXISTING LUMINAIRES AND THE FAA DUAL RED OBSTRUCTION LIGHT (FAA BEACON) ALONG WITH ITS 480V-120V TRANSFORMER (BOTH MOUNTED ON THE CARRIER RING). REINSTALL THESE LUMINAIRES AND THE FAA BEACON, WITH TRANSFORMER, ON THE REPLACED RDU HIGH MAST POLE. SEE SECTION 9.00 OF THE "LIGHTING" SPECIAL PROVISIONS.

SCOPE OF WORK

PLACE ROADWAY LIGHTING SYSTEM INTO SERVICE BY PROVIDING AND INSTALLING 100' AND 80' HIGH MOUNT STANDARDS, LIGHT STANDARDS AND UNDERPASS LIGHTING WITH LIGHT EMITTING DIODE LUMINAIRES, UNDERGROUND CIRCUITRY, CONTROL SYSTEM AND JUNCTION BOXES.

DESIGN CRITERIA

- 0.8 AVERAGE FOOTCANDLE ON TRAVEL LANES
- 4:1 AVERAGE TO MINIMUM UNIFORMITY RATIO ON TRAVEL LANES
- 0.3 MAXIMUM VEILING LUMINANCE
- 2018 AASHTO ROADWAY LIGHTING DESIGN GUIDE
- 2013 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 6TH EDITION AND LATEST INTERIM SPECIFICATIONS VALID AT THE TIME OF LETTING (HANDHOLE SHAFT DIAMETER REQUIREMENT AND HANDHOLE PLACEMENT REQUIREMENT WAIVED)
- FATIGUE CATEGORY II SHALL BE USED IN DESIGN
- DESIGN HIGH MOUNT SUPPORT FOR BASIC WIND SPEED OF 100 MPH
- DESIGN HIGH MOUNT STANDARD FOUNDATION FOR BASIC WIND SPEED OF 110 MPH. ANY CONTRACTOR-DESIGNED SITE SPECIFIC FOUNDATION DESIGN SHALL BE DESIGNED FOR THE SAME WIND SPEED
- 2017 NATIONAL ELECTRICAL CODE
- 2011 AASHTO ROADSIDE DESIGN GUIDE

ROADWAY STANDARDS

THE FOLLOWING ROADWAY ENGLISH STANDARDS AS APPEAR IN "NCDOT ROADWAY STANDARD DRAWINGS", ROADWAY DESIGN UNIT-N.C. DEPARTMENT OF TRANSPORTATION RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD NO.	TITLE
1401.01	HIGH MOUNT STANDARD
1404.01	LIGHT STANDARDS
1405.01	STANDARD FOUNDATION
1407.01	ELECTRIC SERVICE POLE AND LATERAL LIGHT CONTROL SYSTEM (USE ATTACHED DETAIL SHEET 1408D01 IN LIEU OF STANDARD DRAWING 1408.01, SHEETS 1 & 2)
1408.01	ELECTRICAL DUCT
1410.01	FEEDER CIRCUITS
1411.01	ELECTRICAL JUNCTION BOXES
1412.01	UNDERPASS LIGHTING

ALL WORK SHALL BE IN CONFORMANCE WITH DIVISION 14 OF THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, DATED JANUARY 2018.

PLAN SYMBOL	DESCRIPTION	CONTRACT ITEM
8	2 #8 Ø 1 #10G 1.5" P	2 - 8 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*8	2 #8 Ø 1 #10G	2 - 8 W/G FEEDER CIRCUIT
6	2 #6 Ø 1 #8G 1.5" P	2 - 6 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*6	2 #6 Ø 1 #10G	2 - 6 W/G FEEDER CIRCUIT
4	2 #4 Ø 1 #6G 1.5" P	2 - 4 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*4	2 #4 Ø 1 #6G	2 - 4 W/G FEEDER CIRCUIT
2	2 #2 Ø 1 #4G 1.5" P	2 - 2 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*2	2 #2 Ø 1 #4G	2 - 2 W/G FEEDER CIRCUIT

LEGEND

- NEW 100' RDU AIRPORT HIGH MAST STANDARD (FIELD ID # HM1-CPI) WITH A CARRIER RING FOR 5 LUMINAIRES AND FAA BEACON. REFER TO SHEET E4. WITH PROPOSED HM JUNCTION BOX. SEE TABLE C.
- ORIGINAL LOCATION OF RDU HIGH MAST STANDARD (FIELD ID # HM1-CPI) THAT IS IN CONFLICT WITH CONSTRUCTION. TO BE REMOVED AS SHOWN ON PLAN SHEET E4. REMOVE OR ABANDON FOUNDATION. REMOVE AND REUSE LUMINAIRES AND FAA BEACON.
- PROPOSED 100' HIGH MAST STANDARD W/ HM FOUNDATION, JUNCTION BOX & 6 HM LED LUMINAIRES. 560W MAX, 54,000 MIN. MAINTAINED DELIVERED LUMENS, TYPE V. MAXIMUM BUG RATING 5-0-5.
- PROPOSED 80' HIGH MAST STANDARD W/ HM FOUNDATION, JUNCTION BOX & 8 HM LED LUMINAIRES. 335W MAX, 27,000 MIN. MAINTAINED DELIVERED LUMENS, TYPE V. MAXIMUM BUG RATING 5-0-5.
- PROPOSED LIGHT STANDARD TYPE MTLT 45' WITH 15' SINGLE ARM. INCLUDES STANDARD FOUNDATION TYPE R1 OR R2, JUNCTION BOX & 285W MAX LED ROADWAY LUMINAIRE. IES DISTRIBUTION: TYPE II OR III AS REQUIRED. MAXIMUM BUG RATING 3-0-3.
- PROPOSED CONTROL SYSTEM WITH JUNCTION BOX. SIZE BREAKERS AS SHOWN IN LOAD SCHEDULE. SEE SHEET E3.
- REPRESENTS EXISTING ELECTRICAL JUNCTION BOX USED ON THE RDU AIRPORT AUTHORITY HIGH MAST LIGHTING SYSTEM.
- PROPOSED ELECTRICAL JUNCTION BOX SEE DETAILS & TABLE C, SHEET E1A.
- PROPOSED UNDERPASS LUMINAIRE, TYPE WM, 50W MAX, 2800 LUMENS MIN., LED
- PROPOSED UNDERPASS BREAKER PANEL
- REFERENCE TO CORRESPONDING NOTE AS NUMBERED.
- PROPOSED FEEDER CIRCUIT CONTROL SYSTEM(A), CIRCUIT(1) PLAN SYMBOL (6) SEE TABLE A, THIS SHEET.
- EXISTING FEEDER CIRCUIT OF THE RDU AIRPORT HIGH MAST LIGHTING SYSTEM SEE SHEET E4.
- EXISTING FEEDER CIRCUIT OF THE RDU AIRPORT HIGH MAST LIGHTING SYSTEM WITH NEW CONDUCTORS OF THE SAME TYPE REPLACING EXISTING CONDUCTORS AND USING THE EXISTING CONDUIT. SEE SHEET E4.
- PROPOSED 30' CLASS 4 SERVICE POLE AND LATERAL 3 #1/0 USE CONDUCTORS 2" CONDUIT
- PROPOSED ELECTRICAL DUCT SIZE 2", 3" OR 4" TYPE (JA) OR (BD) LOCATION: SEE TABLE B, THIS SHEET


ABBREVIATIONS

BD	BURIED	PVC	PVC SCHEDULE 40 CONDUIT
LT	LIGHT	RGC	RIGID GALVANIZED STEEL CONDUIT
JA	JACKED	C	CONDUIT
MH	MOUNTING HEIGHT	CKT	CIRCUIT
Ø	PHASE	N	NEUTRAL
SER LAT	SERVICE LATERAL	G	GROUND
IGJB	IN GROUND JUNCTION BOX	HM	HIGH MAST
LED	LIGHT EMITTING DIODE	LSJB	LIGHT STANDARD JUNCTION BOX
HMJB	HIGH MAST JUNCTION BOX	CSJB	CONTROL SYSTEM JUNCTION BOX

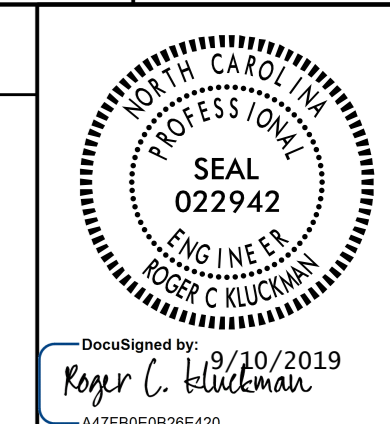
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TABLE "C"
JUNCTION BOX SUMMARY


SHEET	LABEL	LOCATION AND OFFSET	CONTROL SYSTEM "B"									GPS LOCATION 			
			IGJB			LSJB			HMJB			CSJB	BRJB	SWJB	LAT/LONG
			SIZE	SIZE	SIZE	SIZE	SIZE	SIZE	SIZE	SIZE	SIZE				
18"X12"	30"X17"	36"X24"	18"X12"	30"X17"	36"X24"	18"X12"	30"X17"	36"X24"	36"X24"	18"X12"	18"X12"				
E2	CSBJB	2' FROM CS "B"										X			
E2	HMJBB1	10' FROM HM B-1-1							X						
E2	HMJBB2	10' FROM HM B-2-4							X						
E2	HMJBB3	10' FROM HM B-3-1								X					
E2	HMJBB4	10' FROM HM B-4-3								X					
E2	HMJBB5	10' FROM HM B-5-4							X						
E2	HMJBB6	10' FROM HM B-6-5							X						
E2	HMJBB7	10' FROM HM B-7-4							X						
E2	LSJBB8	5' FROM LS B-8-1					X								
E2	LSJBB9	5' FROM LS B-9-1					X								
E2	LSJBB10	5' FROM LS B-10-1					X								
E2	LSJBB11	5' FROM LS B-11-4					X								
E2	LSJBB12	5' FROM LS B-12-4					X								
E2	LSJBB13	5' FROM LS B-13-4					X								
E3	LSJBB14	5' FROM LS B-14-3					X								
E3	LSJBB15	5' FROM LS B-15-3					X								
E3	LSJBB16	5' FROM LS B-16-3					X								
E3	LSJBB17	5' FROM LS B-17-5					X								
E3	LSJBB18	5' FROM LS B-18-5					X								
E3	LSJBB19	5' FROM LS B-19-5					X								
E4	LSJBB20	5' FROM LS B-20-4					X								
E2	LSJBB21	5' FROM LS B-21-3					X								
E2	LSJBB22	5' FROM LS B-23-3					X								
E2	JBB1	-L- STA. 35+60 - 70' RT		X											
E2	JBB2	-RPD SPUR- STA. 14+30 - 30' LT		X											
E2	JBB3	-RPD SPUR- STA. 11+56 - 22' LT		X											
E2	JBB4	-RPD- STA. 23+65 - 35' LT		X											
E2	JBB5	-RPD- STA. 20+00 - 25' LT		X											
E2	JBB6	-RPD- STA. 16+76 - 34' LT		X											
E2	JBB7	-RPD- STA. 22+25 - 55' RT		X											
E2	JBB8	-Y- STA. 69+15 - 75' RT		X											
E2	JBB9	-Y- STA. 69+15 - 85' LT		X											
E2	JBB10	-C01- STA. 47+17 - 41' RT		X											
E2	JBB11	-RPA- STA. 20+68 32' LT		X											
E2	JBB12	-RPA- STA. 20+68 - 75' RT		X											
E2	JBB13	-RPA- STA. 15+85 - 18' LT		X											
E2	JBB14	-RPA- 15+85 - 43' RT		X											
E2	JBB15	-RPC- STA. 19+64 - 55' RT		X											
E2	JBB16	-RPC- STA. 16+20 - 41' RT		X											
E2	JBB17	-Y- STA. 60+16 - 85' RT		X											
E2	JBB18	-Y- STA. 60+16 - 118' LT		X											
E2	JBB19	-RPB- STA. 16+69 - 26' LT		X											
E2	JBB20	-RPB- STA. 13+20 - 26' LT		X											
E2	JBB21	-Y- STA. 60+16 - 5' RT		X											
E2	JBB22	-Y- 65+00 - 5' RT		X											
E4	JB FOR RDU HM	10' FROM RELOCATED RDU HM							X						
CSB TOTALS			17	5		15			6	2		1			


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DocuSigned by:
Roger C. Eickman
09/10/2019
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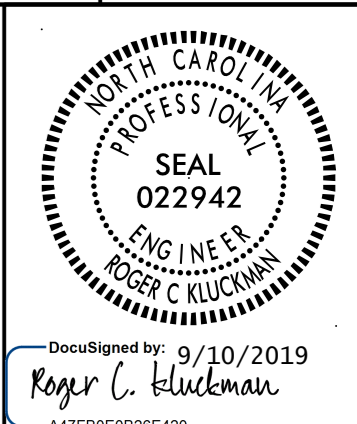
TABLE "B"
ELECTRICAL DUCT SUMMARY
(ESTIMATED LENGTH IN FEET)

LOCATION	RACEWAY 	SHEET	TYPE							
			JACKED (JA) FEET				BURIED (BD) FEET			
			SIZE 2"	SIZE 3"	SIZE 4"	SIZE 6"	SIZE 2"	SIZE 3"	SIZE 4"	SIZE 6"
-L- STA. 35+60		E2			150					
-L- STA. 35+60	CSBJB - JBB1	E2					190			
-RPD- STA. 23+65		E2		65						
-RPD- STA. 23+65	JBB4 - HMB-4JB	E2					100			
-Y- STA. 69+15		E2		180						
-Y- STA. 69+15	JBB8 - JBB9	E2					200			
-RPA- STA. 20+68		E2		105						
-RPA- STA. 15+85		E2		70						
-RPC- STA. 16+20		E2		55						
-RPC- STA. 16+20	JBB16 - HMB-1JB	E2					100			
-Y- STA. 60+16		E2		170						
-RPB- STA. 16+69		E2		40						
CSB TOTALS				385	450		590			

SEE SHEET "E1" FOR
LEGEND &  NOTES

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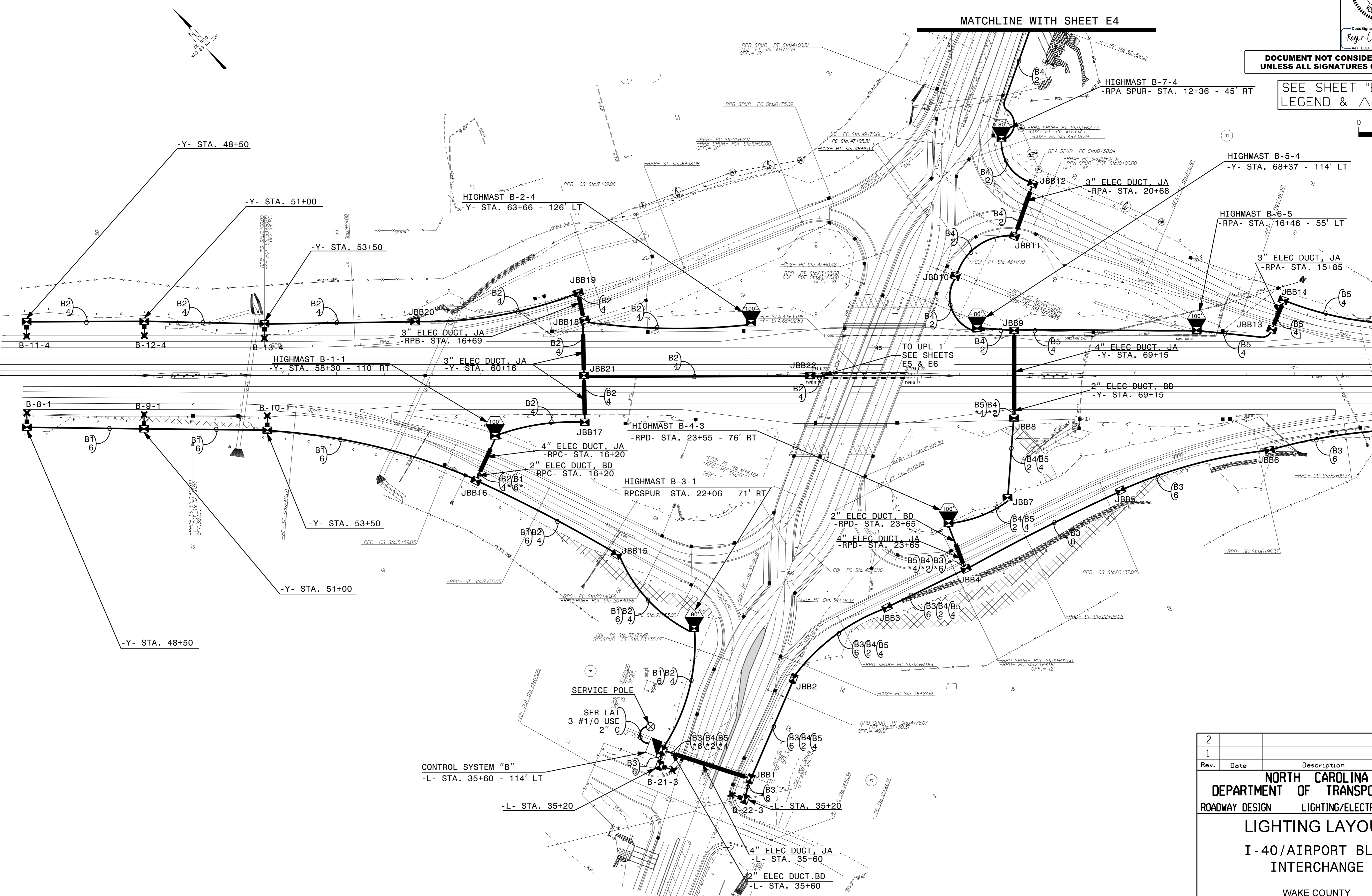


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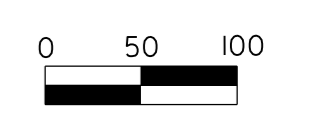
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Drawn By:	AB	Approved By:	Dwg No.:

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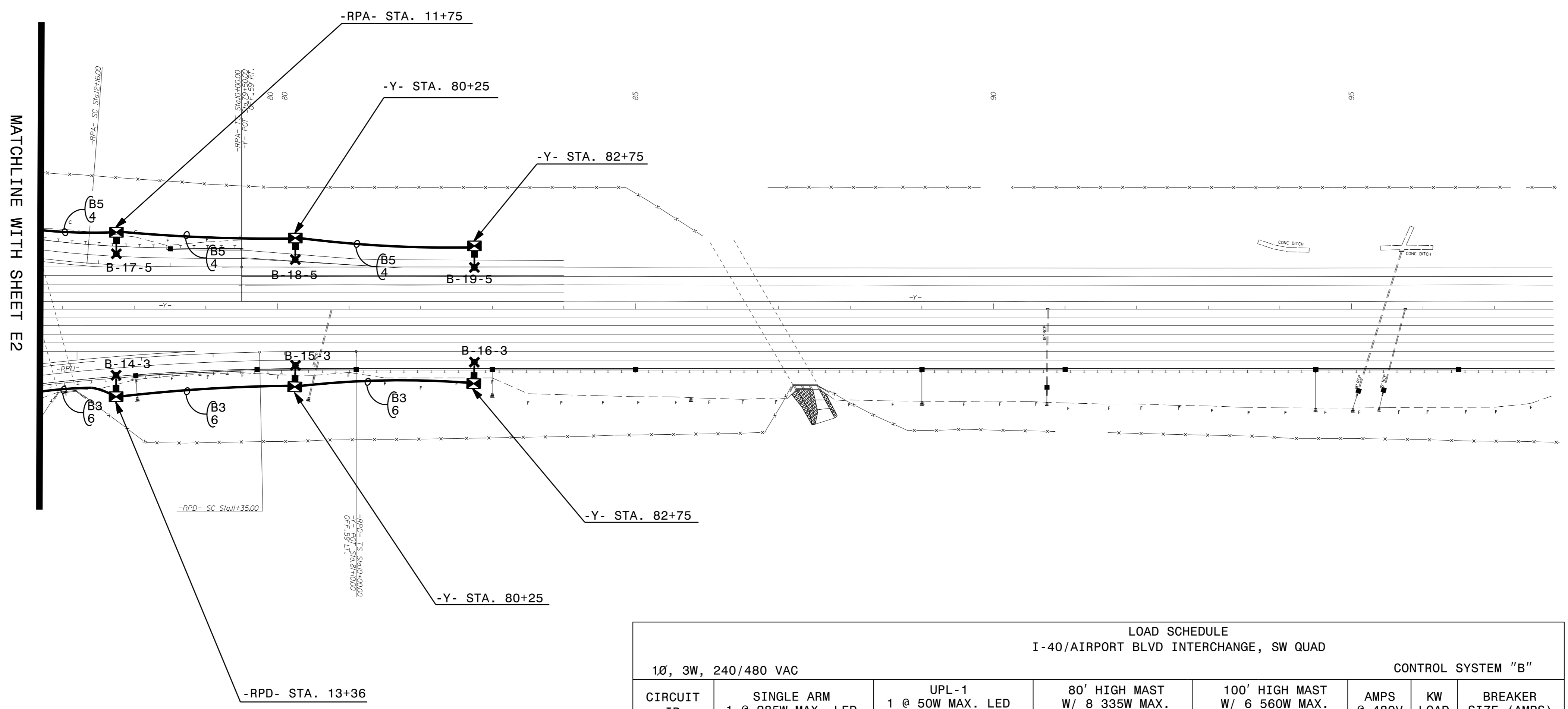
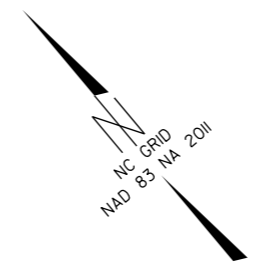


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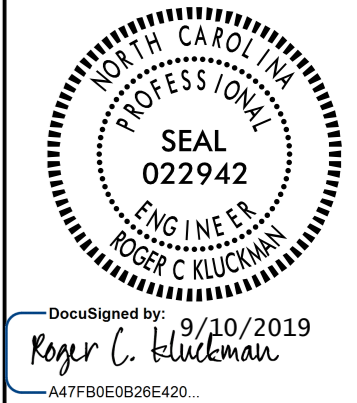


LOAD SCHEDULE I-40/AIRPORT BLVD INTERCHANGE, SW QUAD							
1Ø, 3W, 240/480 VAC				CONTROL SYSTEM "B"			
CIRCUIT ID	SINGLE ARM 1 @ 285W MAX. LED	UPL-1 1 @ 50W MAX. LED 2800 LUMENS MIN.	80' HIGH MAST W/ 8 335W MAX. LED LUMINAIRES	100' HIGH MAST W/ 6 560W MAX. LED LUMINAIRES	AMPS @ 480V	KW LOAD	BREAKER SIZE (AMPS)
B1	B-8, B-9, B-10		B-3	B-1	14.4	6.9	20
B2	B-11, B-12, B-13	WM1, WM2, WM3, WM4 WM5, WM6, WM7, WM8		B-2	9.6	4.6	15
B3	B-14, B-15, B-16 B-21, B-22			B-4	10.0	4.8	15
B4	B-20		B-5, B-7		11.8	5.7	15
B5	B-17, B-18, B-19			B-6	8.8	4.2	15
SPARE							20
TOTAL	15	8	3	4	54.6	26.2	

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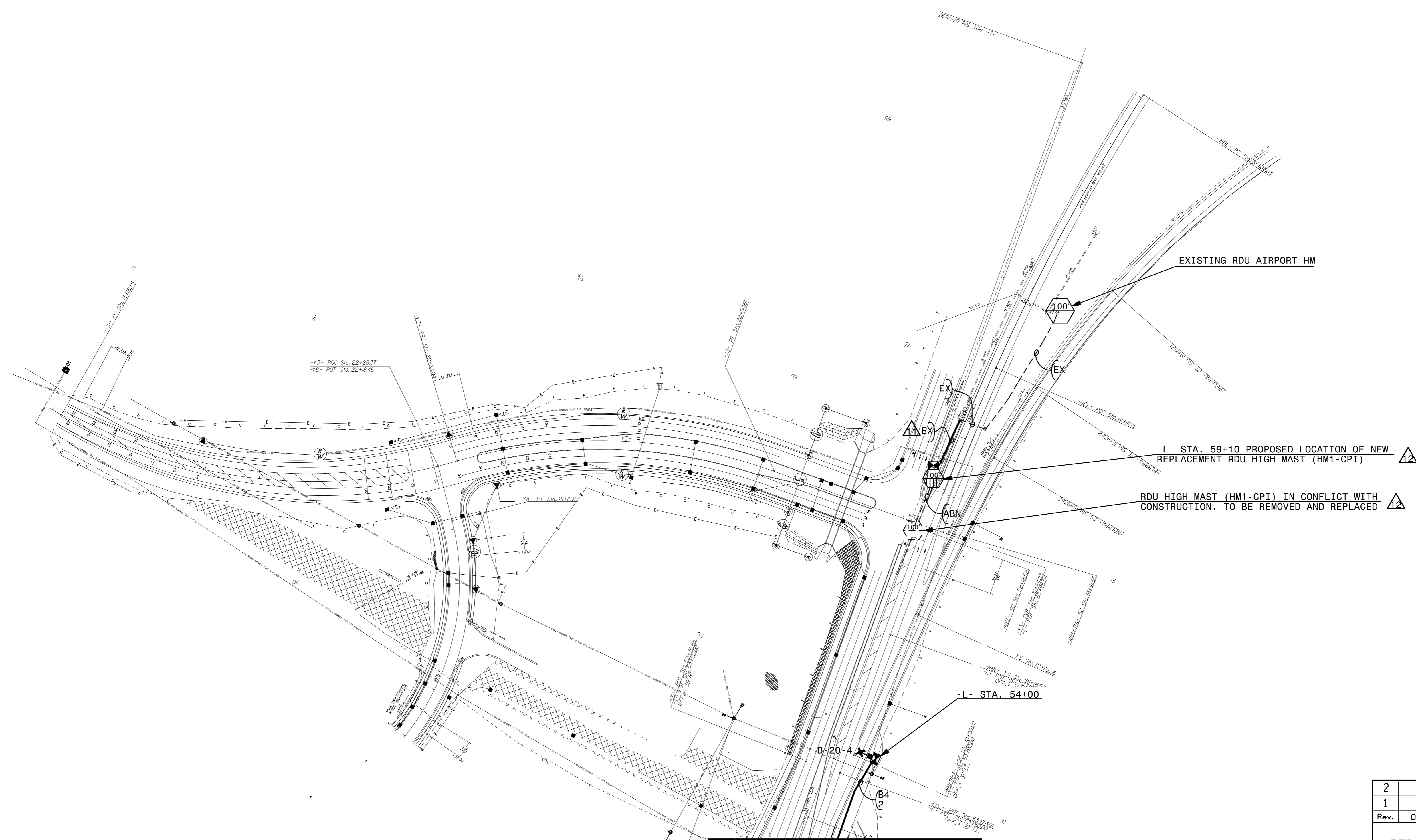
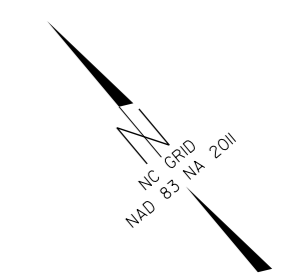
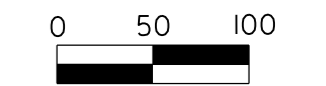
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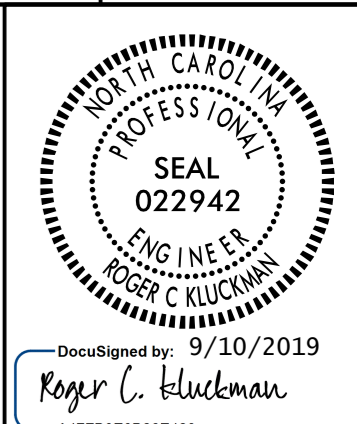


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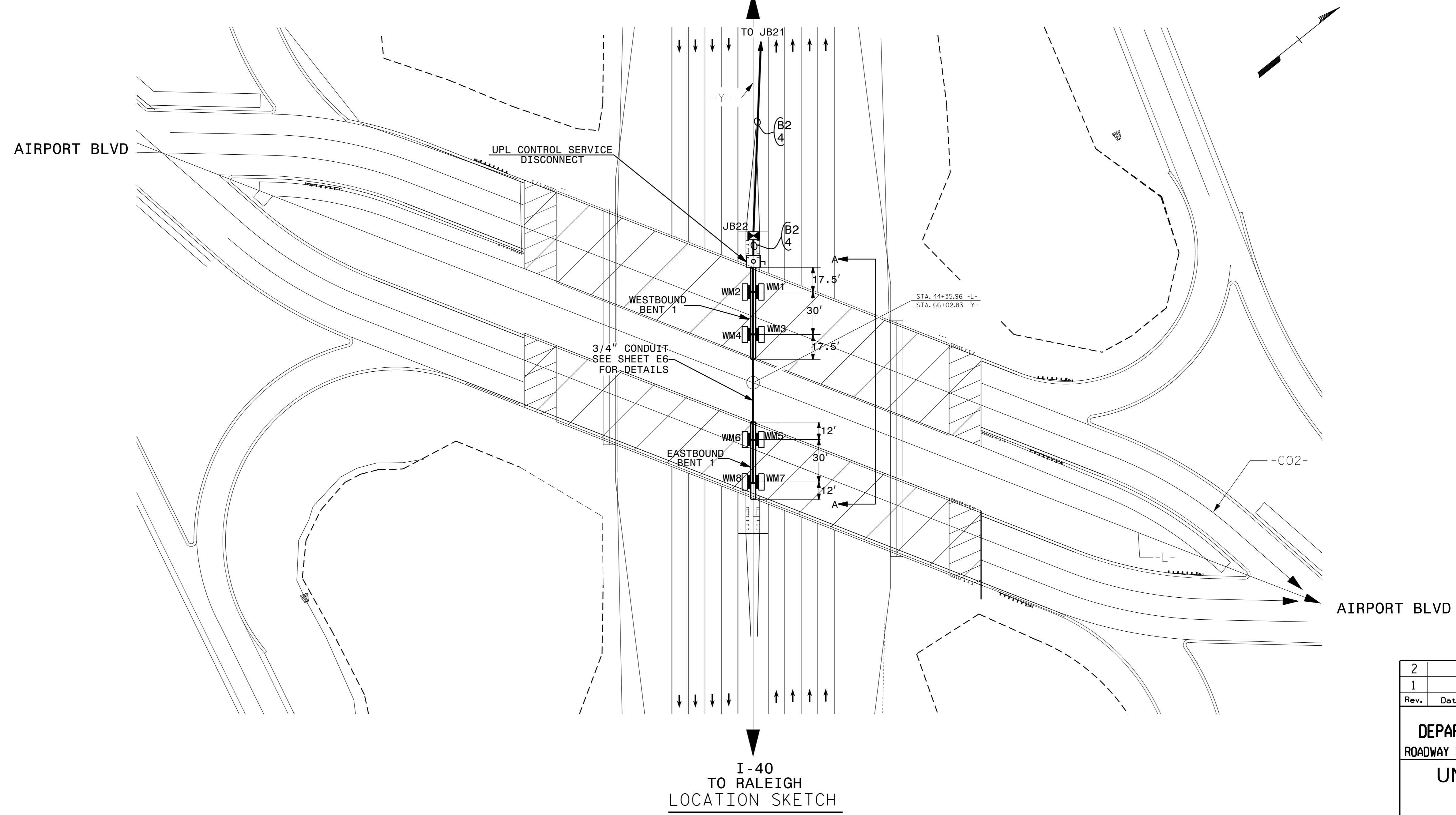
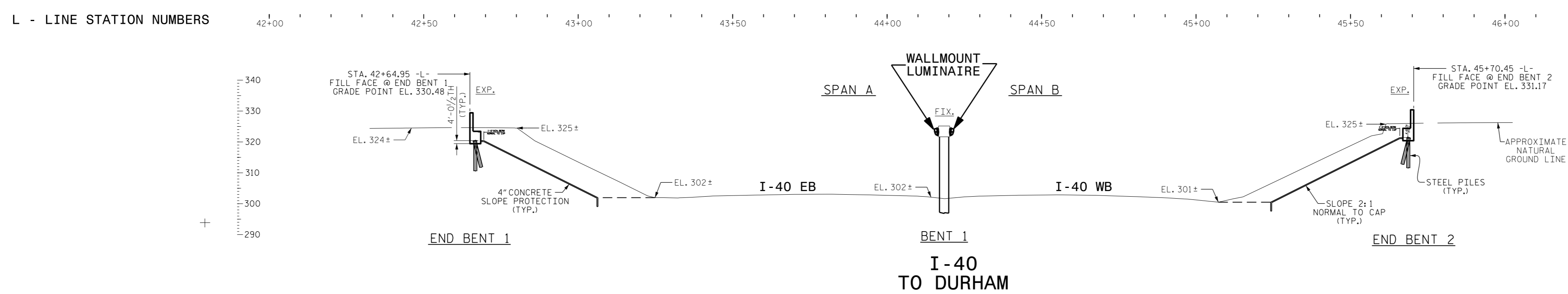
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Drawn By:	AB	Approved By:	Dwg No.:

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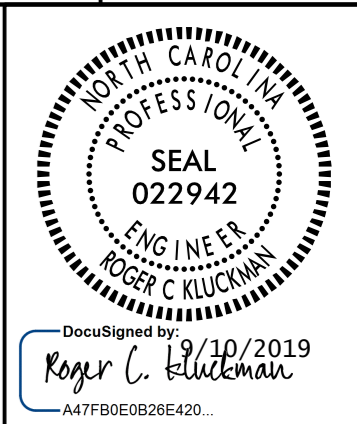
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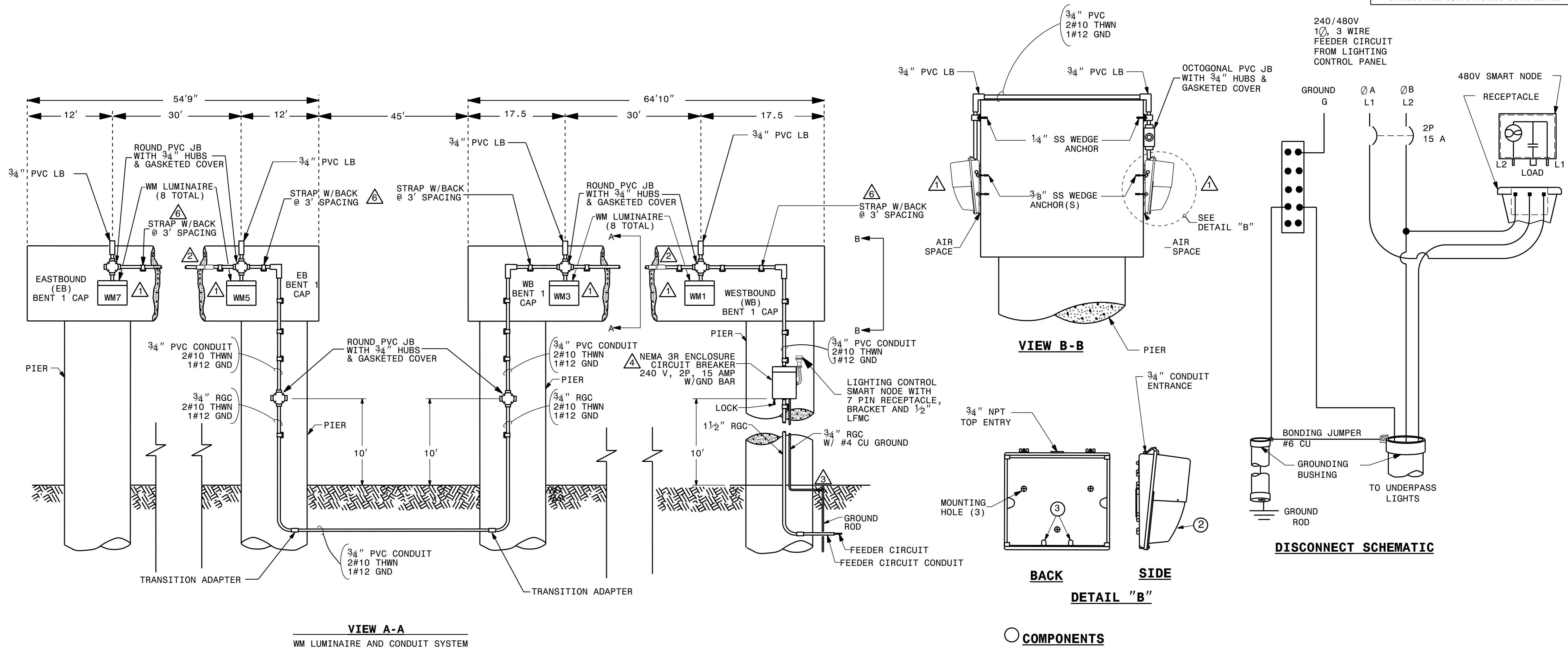
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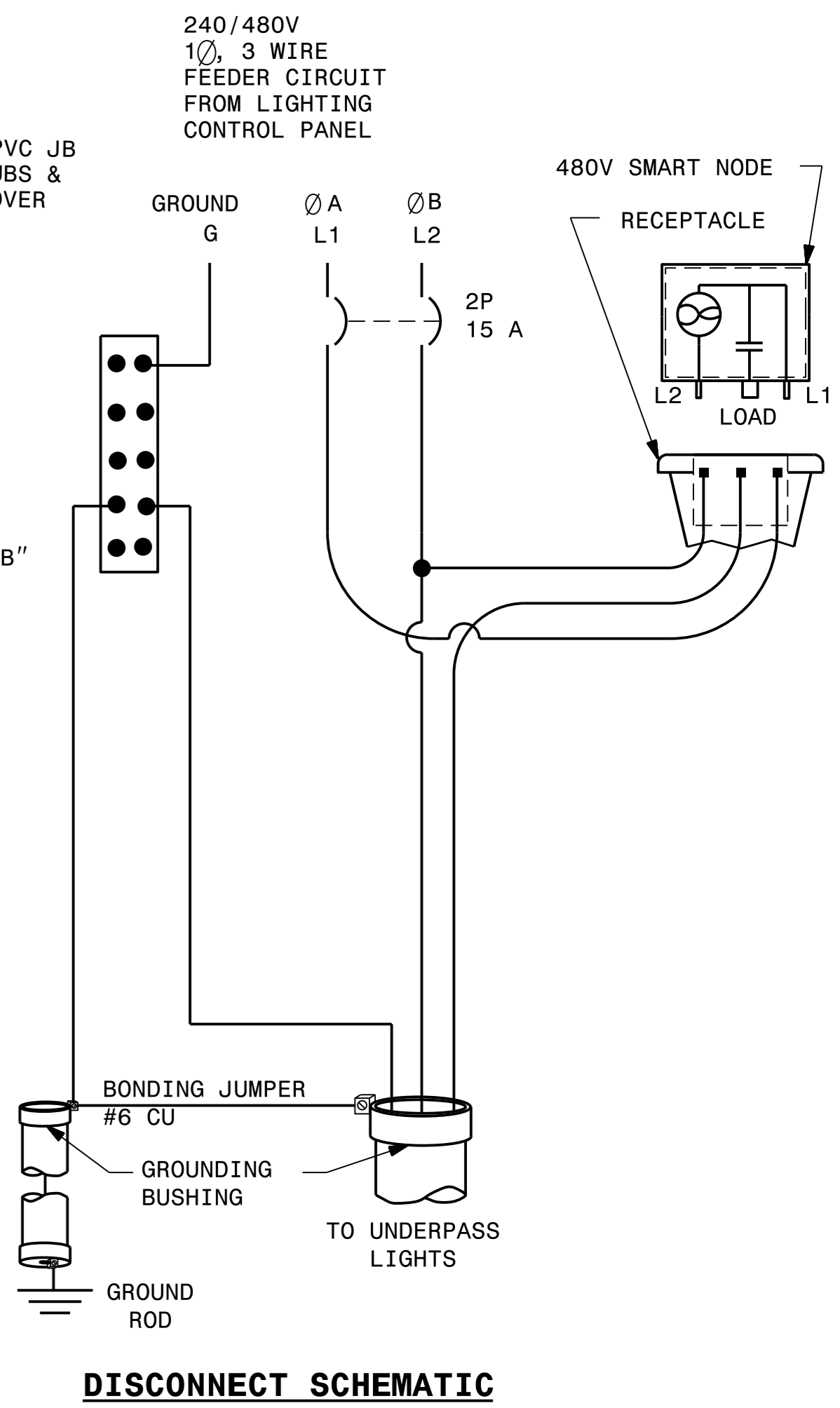


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- NOTES**
- ▲ MOUNT WM LED LUMINAIRE AT VERTICAL CENTER OF BENT CAP.
 - ▲ PROVIDE EXPANSION FITTINGS IN EACH SECTION OF CONDUIT THAT IS GREATER THAN 20' LONG BETWEEN TERMINALS AT JUNCTION BOXES ON PIER CAP.
 - ▲ EXTEND AWAY FROM PIER SO THAT GROUND ROD WILL MISS FOOTING.
 - ▲ INSTALL INSULATED GROUNDING BUSHING FOR INCOMING FEEDER CIRCUIT IN RGS CONDUIT.
 - ▲ CAP ANY UNUSED PART OF THE ROUND GASKETED HUB.
 - ▲ ATTACH CONDUIT TO BENT CAP USING STRAPS WITH BACKS SECURELY FASTENED WITHIN 3' OF EACH OUTLET BOX OR LIGHT FIXTURE, AND INTERVALS NOT EXCEEDING 10' THEREAFTER.
 - ▲ SEE STANDARD DRAWING SECTION 1412.01 FOR OTHER INSTALLATION DETAILS EXCEPT AS MODIFIED ON THESE PLAN SHEETS.

- COMPONENTS**
- ① DIE CAST ALUMINUM HOUSING, DOOR & HINGE
 - ② PRISMATIC REFRACTOR
 - ③ TWO SCREW LATCH



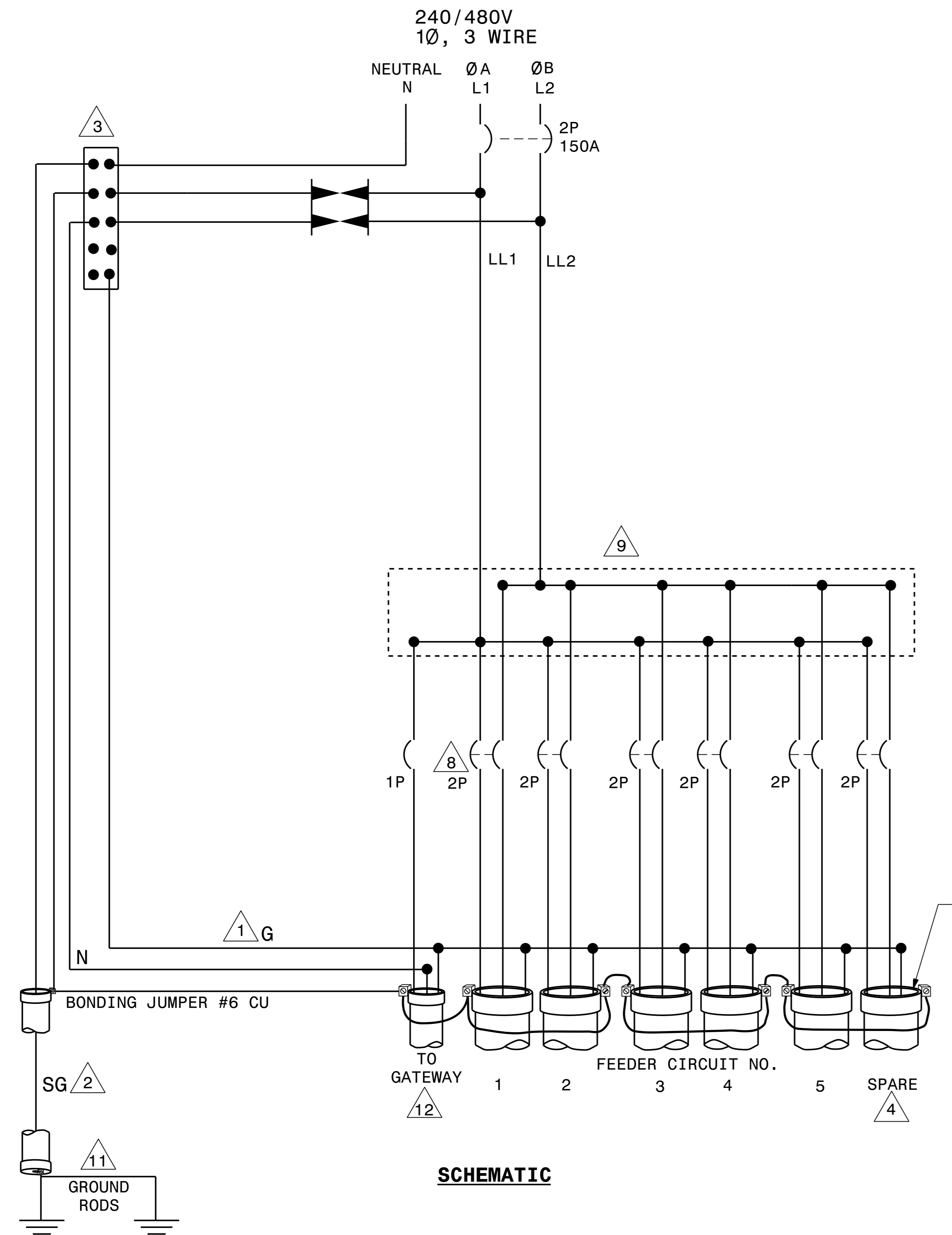
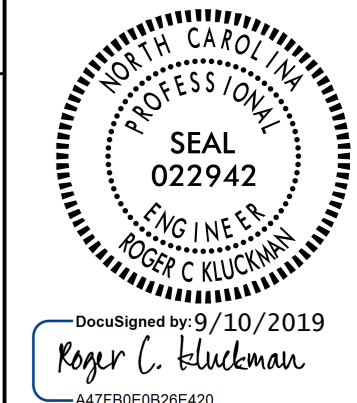
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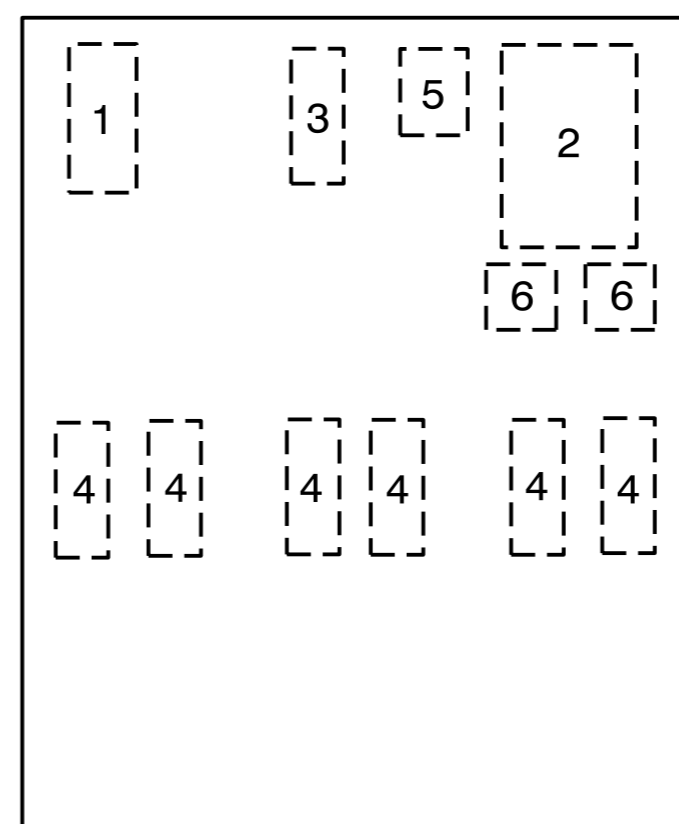
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SCHEMATIC



**INTERIOR PANEL
COMPONENT LAYOUT**



- NOTES**
- 1 EQUIPMENT GROUNDS (G) SHALL BE SIZED ACCORDING TO CIRCUIT DESCRIPTION. SEE PLANS.
 - 2 SYSTEM GROUND (SG) SHALL BE CONTINUOUS FROM THE NEUTRAL BAR TO THE GROUNDING ELECTRODE (GROUND ROD).
 - 3 THE NEUTRAL BAR SHALL BE BONDED TO THE PANEL.
 - 4 INSTALL 6 FEEDER CIRCUIT CONDUITS AS SHOWN. UNUSED CONDUIT SHALL BE CAPPED IN THE CONTROL SYSTEM JUNCTION BOX.
 - 5 INSTALL A GROUNDING BUSHING ON EACH METAL CONDUIT. CONNECT BONDING JUMPER AS REQUIRED BY NEC.
 - 6 SEE STANDARD DRAWING 1408.01 SHEET 3 OF 3 FOR ENCLOSURE.
 - 7 THE CONTROL SYSTEM MUST BE LABELED "SUITABLE FOR USE AS SERVICE EQUIPMENT." REFER TO STANDARD SPECIFICATION 1408-2 FOR OTHER REQUIREMENTS.
 - 8 SEE PLANS FOR LIGHTING CIRCUIT BREAKER SIZES.
 - 9 PROVIDE MULTI-TAP LOAD LUGS OR POWER DISTRIBUTION BLOCKS.
 - 10 PROVIDE MANUFACTURER SUPPLIED MOUNTING BRACKETS OR SCREW STUDS PERMANENTLY ATTACHED TO THE BACK PANEL, FOR MOUNTING COMPONENTS.
 - 11 PROVIDE AND INSTALL A CONDUIT CHOKE ON THE UNDERGROUND END OF THE 3/4" RGS SYSTEM GROUND CONDUIT.
 - 12 INSTALL #12 THWN CONDUCTOR FROM ENCLOSURE TO GATEWAY.

COMPONENT LIST			
#	QTY	DESCRIPTION	SPECIFICATIONS
1	1	NEUTRAL BAR	
2	1	SERVICE CIRCUIT BREAKER	2P, 480V, 150A
3	1	GATEWAY CIRCUIT BREAKER	1P, 240V, 15A
4	**	FEEDER CIRCUIT BREAKERS	2P, 480V, 50A MAX
5	1	TYPE 1 SURGE PROTECTION DEVICE	20,000A RATED
6	2	POWER DISTRIBUTION LUGS OR BLOCKS	
		MOUNTING BRACKETS OR SCREW STUDS	

**PROVIDE THE NUMBER OF BREAKERS SHOWN IN THE LOAD SCHEDULE ON THE PLANS. INCLUDE SPARE BREAKER AS WELL.

Rev.	Date	Description	Approved
2			
1			

**NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**
ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION

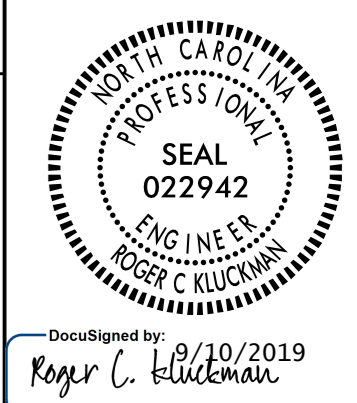
CONTROL SYSTEM DETAILS
1408D01, SHEET 1
CONTROL SYSTEM SCHEMATIC

WAKE COUNTY

Drawn By: AB Approved By: Dwg No.:

05-SEP-2019 10:35 R:\Lighting\1408D01\Lighting Design\1-5700 DETAILS - CONTROL SYSTEM Schematic.psh.e7.dgn

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

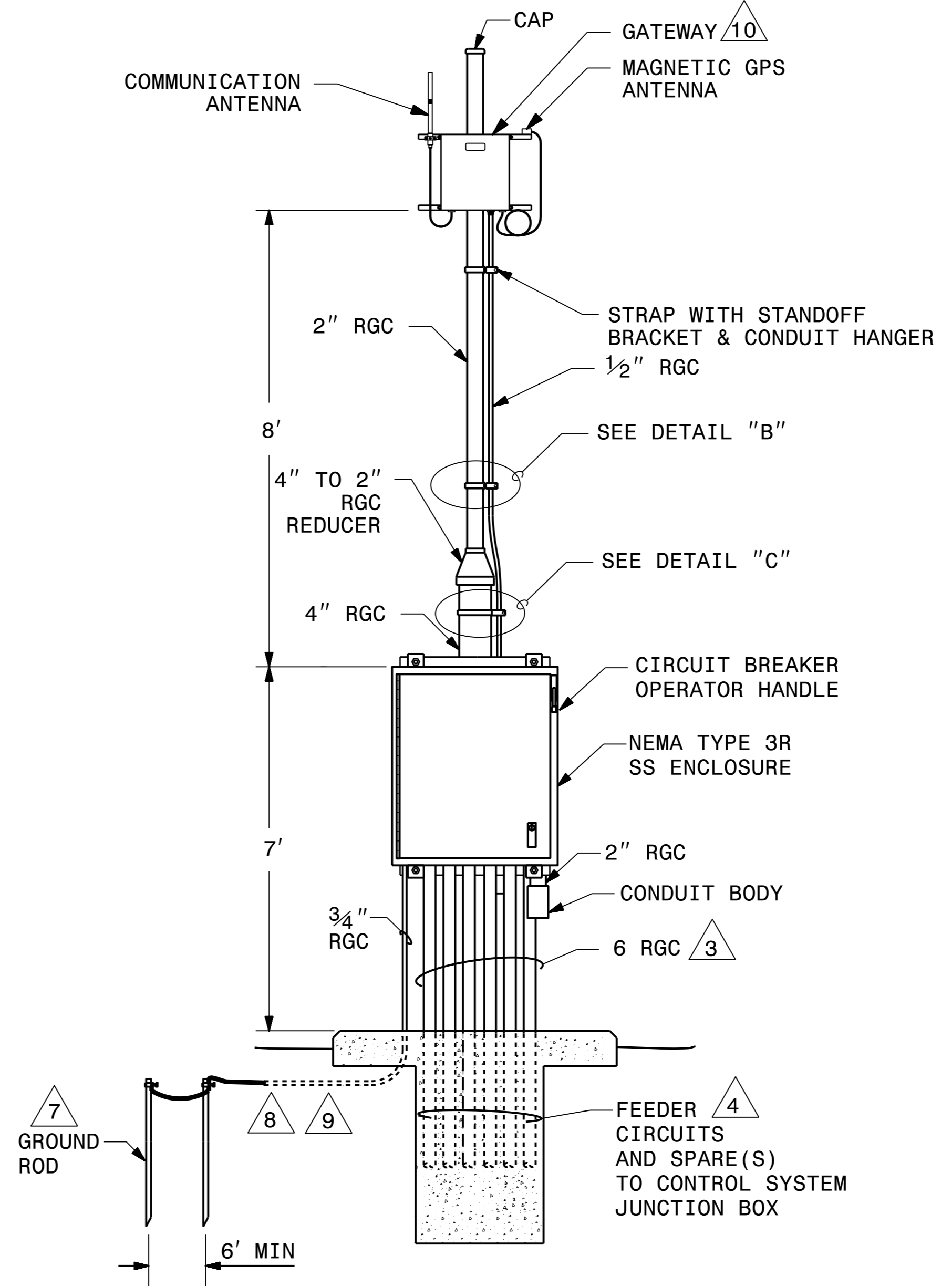
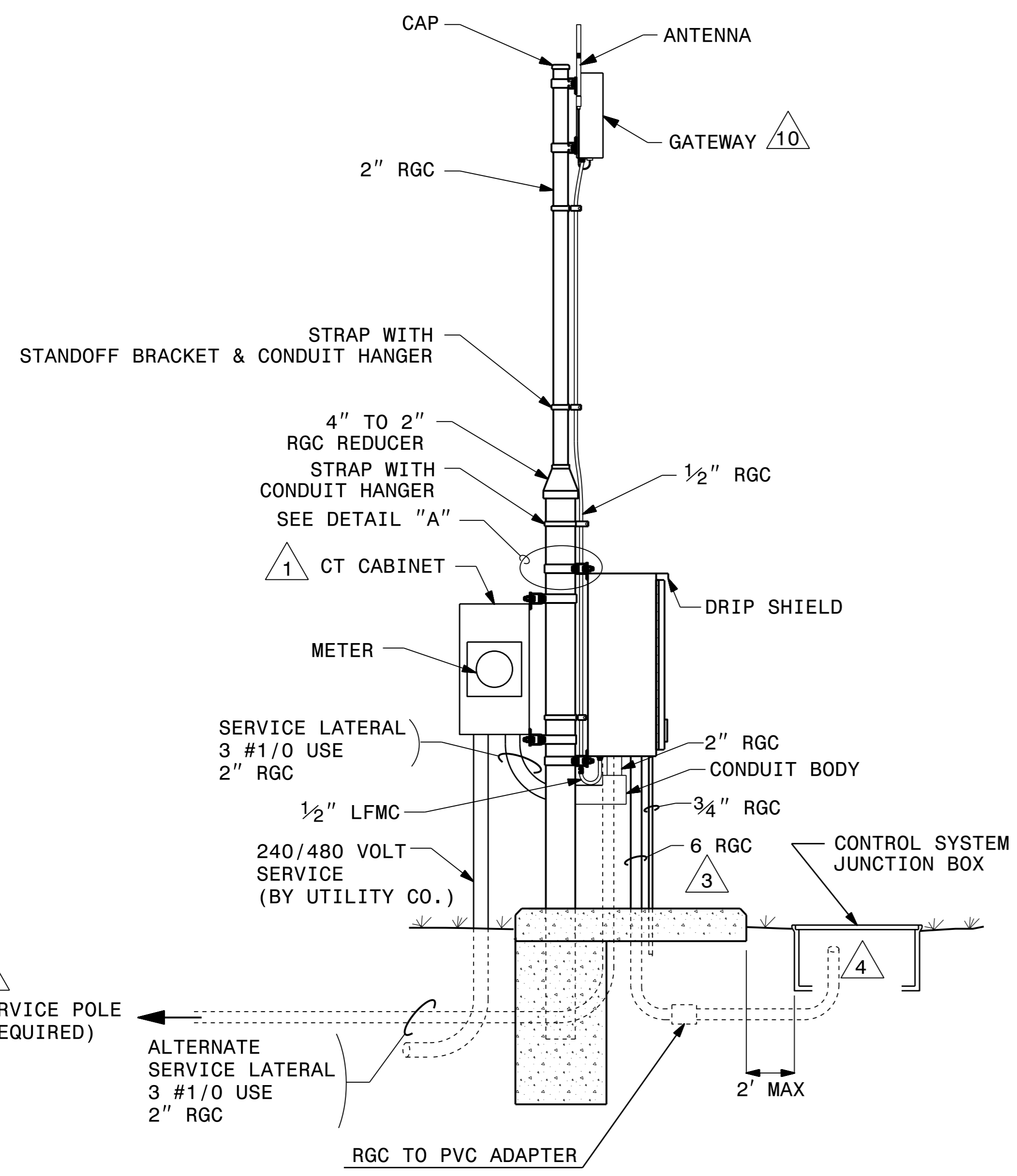
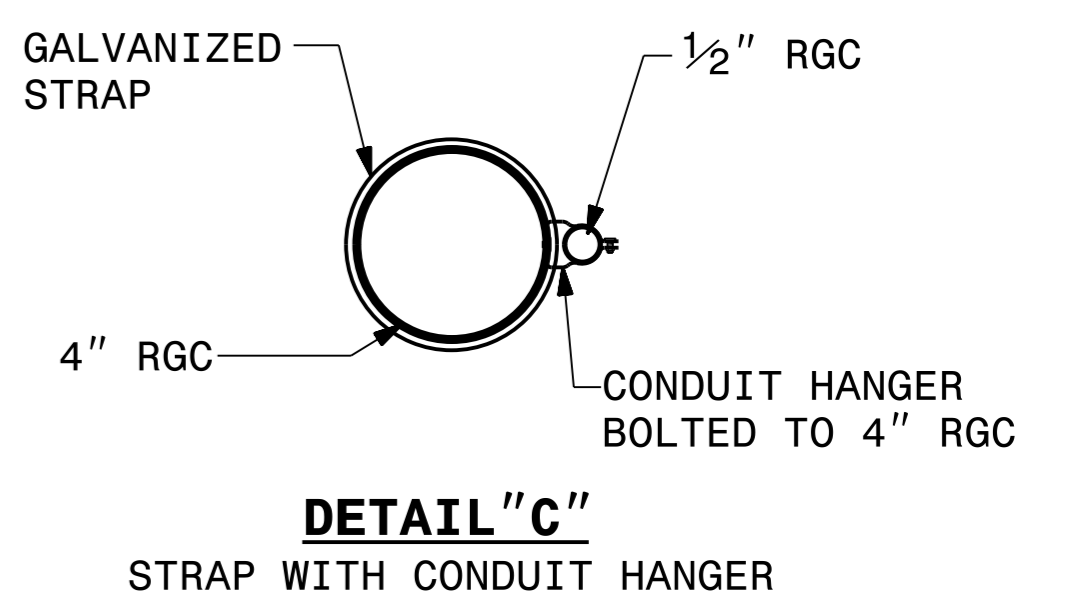
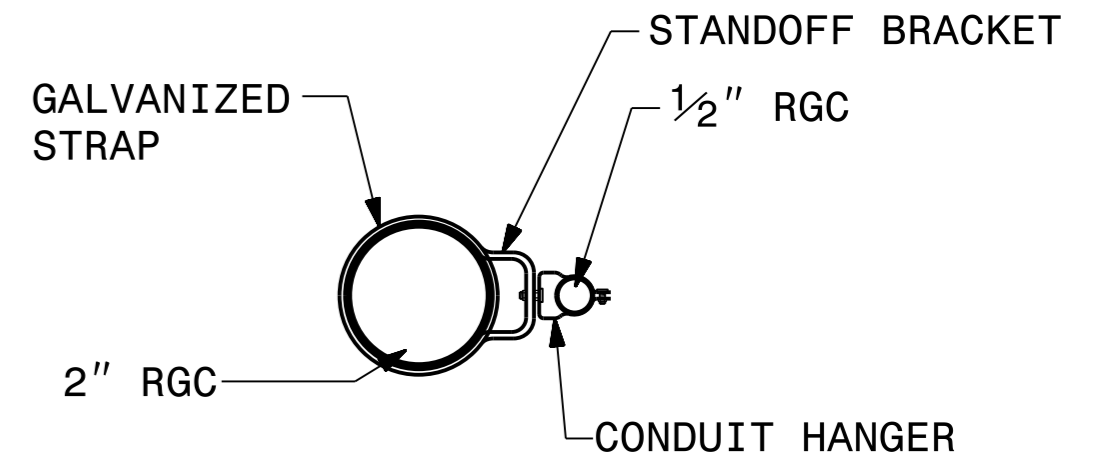
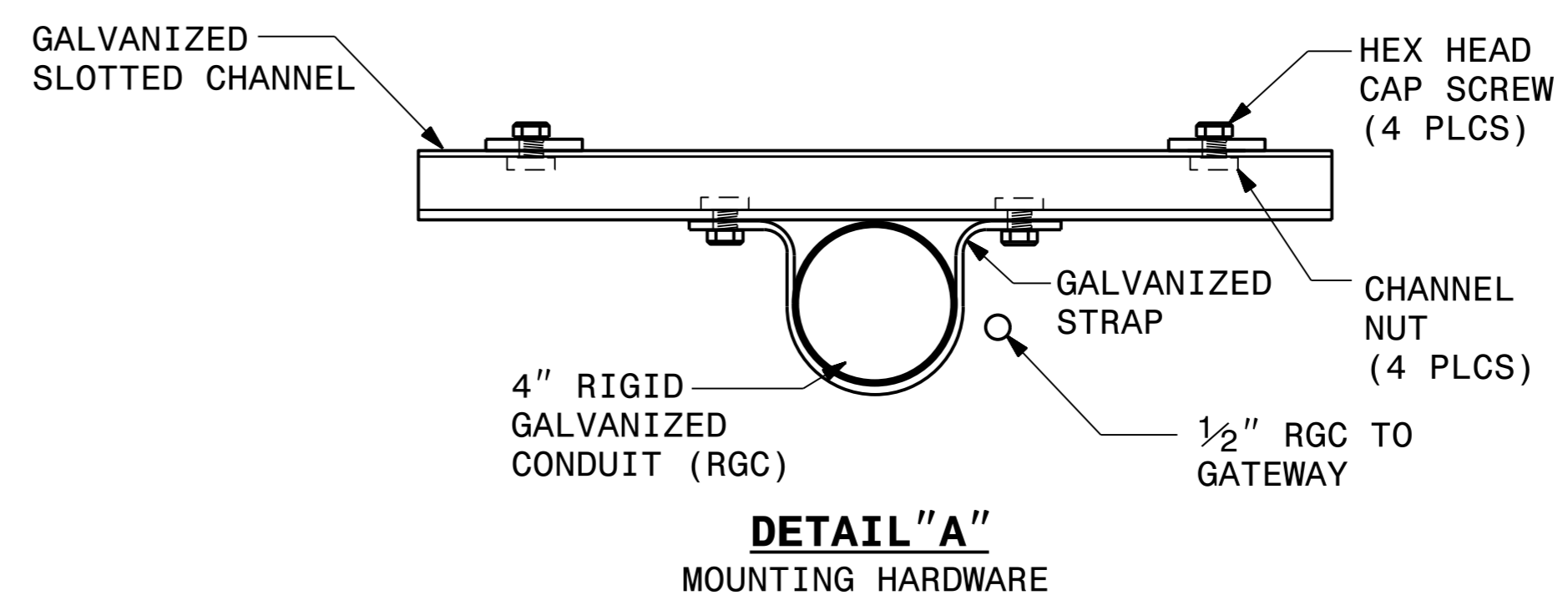


USE FOR LIGHTING CONSTRUCTION ONLY

NOTES

- 1 CURRENT TRANSFORMER (CT) CABINET AND METER MAY BE MOUNTED ON SERVICE POLE OR BACK OF CONTROL ENCLOSURE.
- 2 SEE SECTION 1407 OF THE STANDARD SPECIFICATIONS FOR SERVICE POLE AND SERVICE LATERAL.
- 3 SEE PLANS FOR SIZE OF CONDUITS AND/OR ELECTRICAL DUCT.
- 4 STUB FEEDER CIRCUIT CONDUITS INTO JUNCTION BOX. CAP UNUSED CONDUITS. FEEDER CIRCUITS MUST BE MINIMUM 30" BELOW GRADE
- 5 SEE SECTION 1411 OF THE STANDARD SPECIFICATIONS FOR JUNCTION BOX INSTALLATION.
- 6 ALL ABOVE GROUND CIRCUITRY TO BE INSTALLED IN RIGID GALVANIZED CONDUIT. UNDERGROUND FEEDER CIRCUITS TO BE INSTALLED IN SCH 40 PVC CONDUIT.

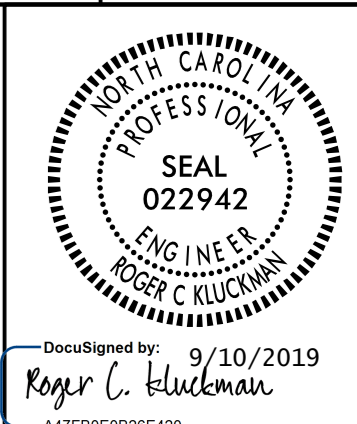
- 7 TOP OF GROUND ROD(S) SHALL BE NO MORE THAN FOUR INCHES BELOW GRADE TO ALLOW FOR EASE OF INSPECTION BY DEPARTMENT OF INSURANCE, OFFICE OF STATE FIRE MARSHAL PERSONNEL.
- 8 INSTALL A CONDUIT GROUND CHOKE AND BOND THE EQUIPMENT GROUNDING CONDUCTOR TO THE END OF THE 3/4" CONDUIT UNDERGROUND PER NEC ARTICLE 250.64E.
- 9 GROUNDING ELECTRODE CONDUCTOR 3/4" CONDUIT SHALL NOT TERMINATE BELOW THE CONCRETE FOUNDATION PAD.
- 10 STRAP GATEWAY TO 2" RGC USING STEEL BANDS PREINSTALLED ON GATEWAY ENCLOSURE.



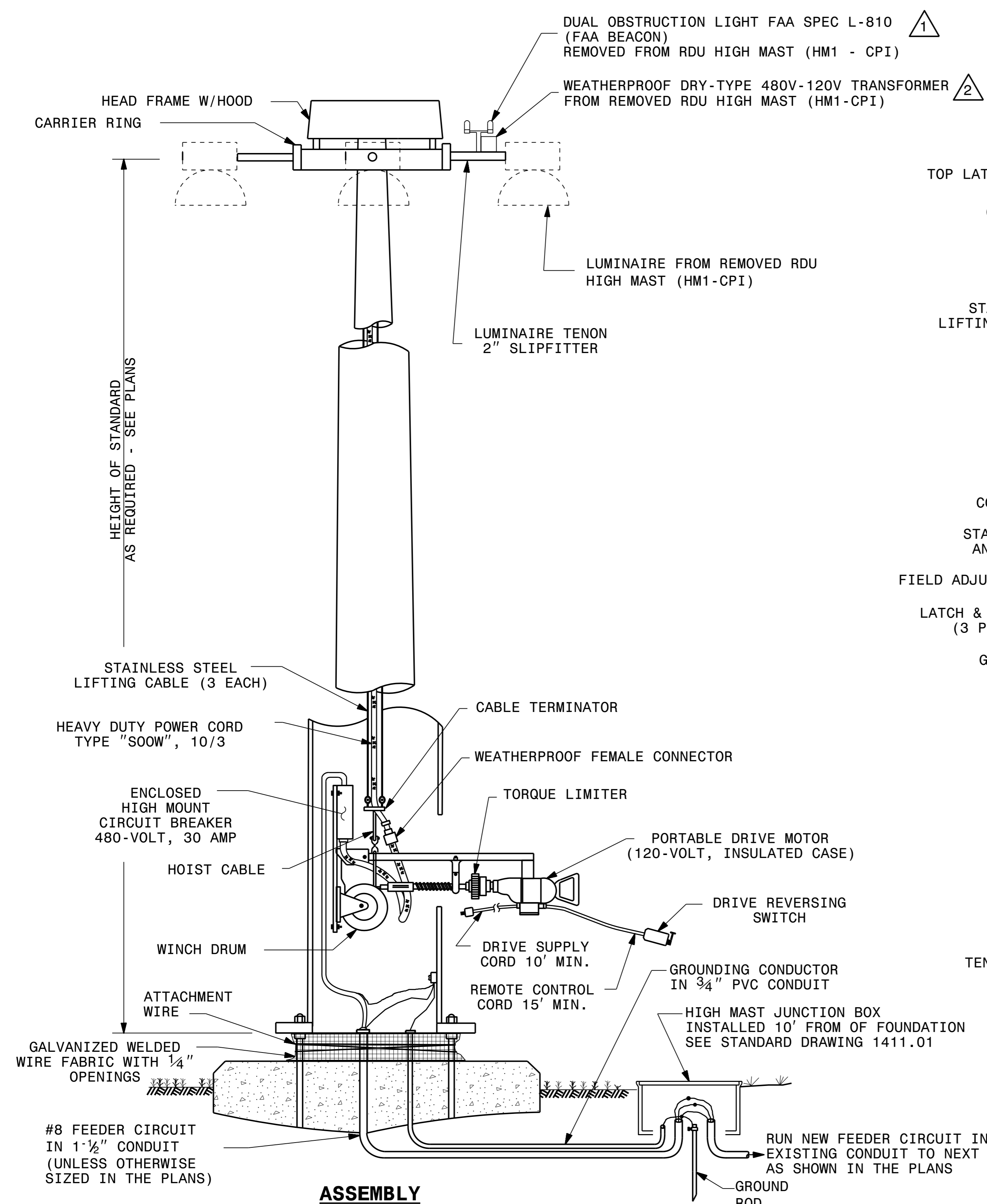
ASSEMBLY

09-SEP-2019 14:59 Q:\1-5700\06 DETAIL S - CONTROL SYSTEM Assembly.psh_e8.dgn labrown AT RD-293515

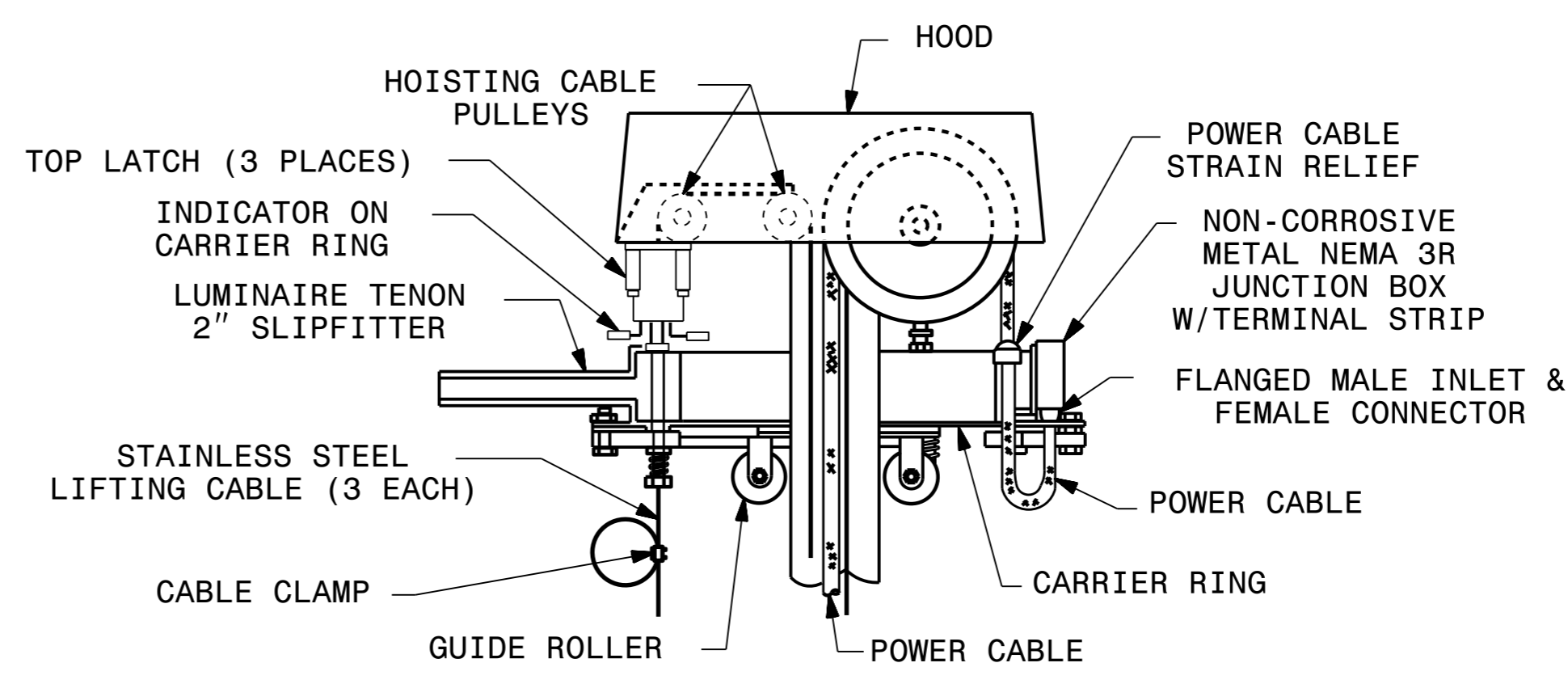
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Rev.	Date	Description	Approved
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION CONTROL SYSTEM DETAILS 1408D01, SHEET 2 CONTROL SYSTEM ASSEMBLY WAKE COUNTY			
Drawn By:	AB	Approved By:	Dwg No.:



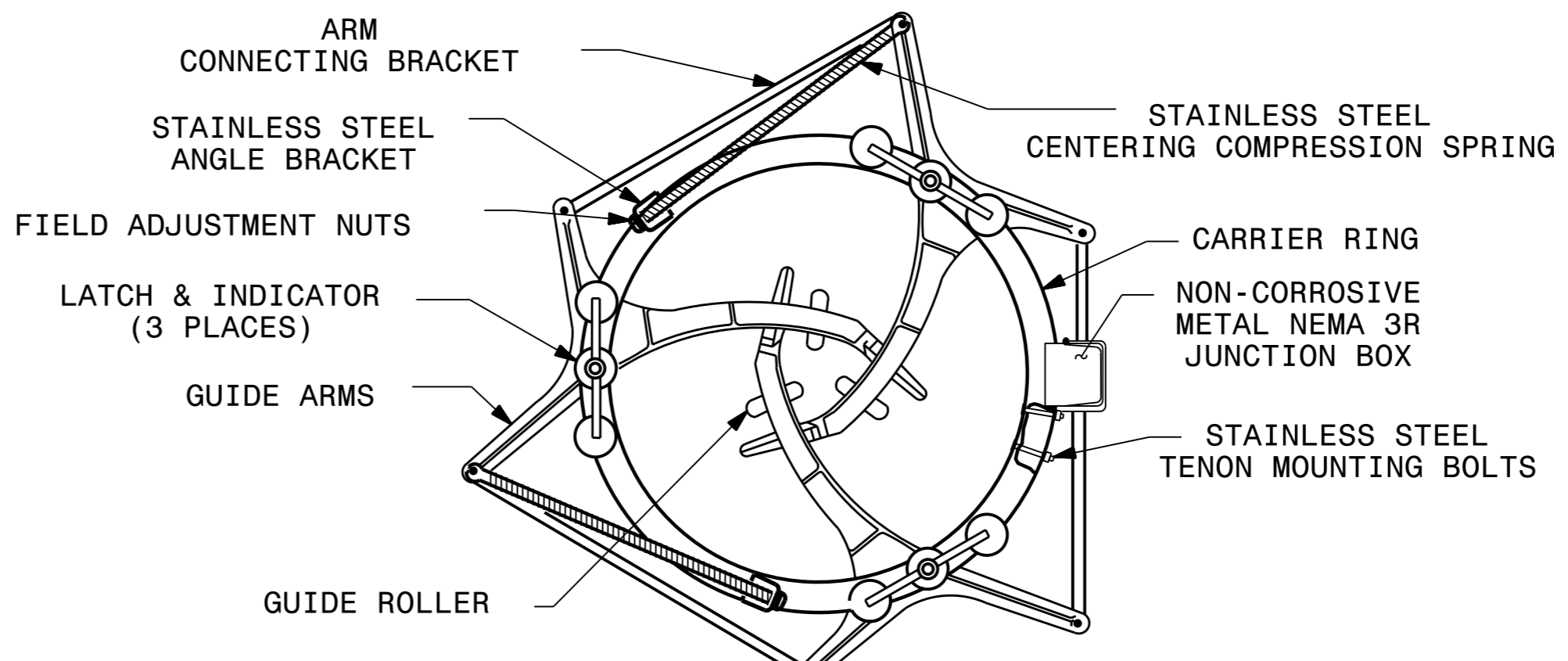
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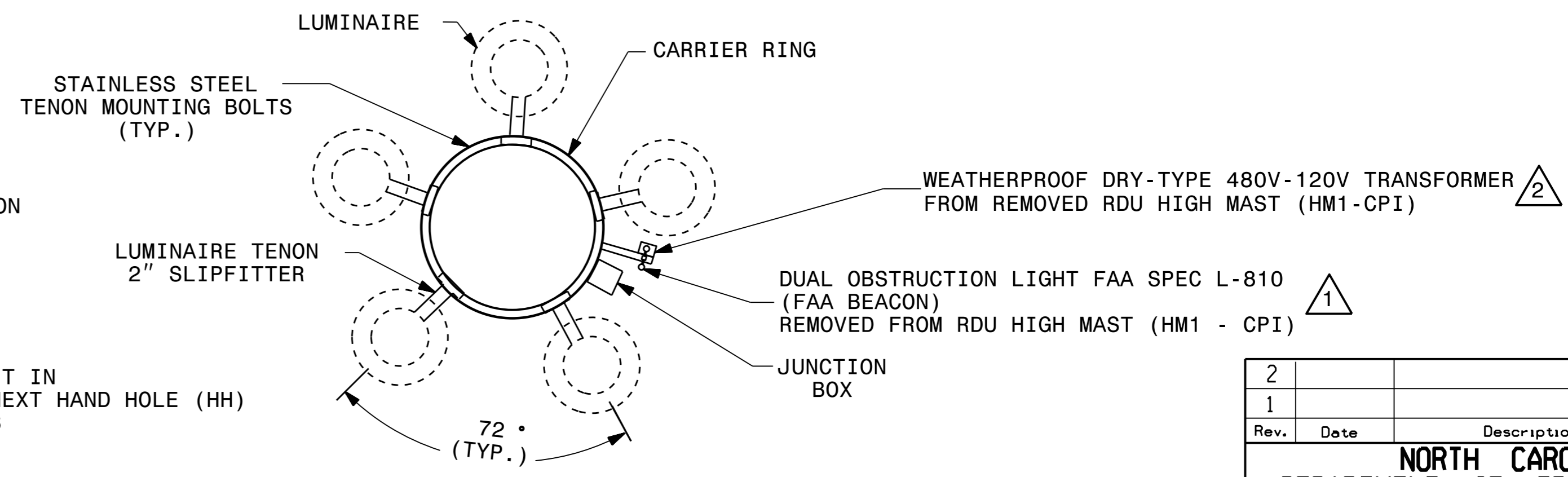
ASSEMBLY



HEAD FRAME & CARRIER RING



TOP VIEW - CARRIER RING & GUIDE ARMS



FIVE LUMINAIRE ARRAY

NOTES

- ¹ THE FAA BEACON REQUIRES 120V FURNISHED FROM THE 480V-120V STEP DOWN TRANSFORMER BEING REUSED FROM THE REMOVED HIGH MAST.
- ² CONTRACTOR SHALL INSTALL THE 480V-120V STEP DOWN TRANSFORMER ON CARRIER RING NEXT TO FAA BEACON.

Rev.	Date	Description	Approved
2			
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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION
HIGH MOUNT STANDARD ASSEMBLY
 NEW RDU HIGH MAST (HM1-CPI)
 WAKE COUNTY

Drawn By: AB Approved By: Dwg No.:

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