02/03/98

PROJECT REFERENCE NO.	SHEET NO.
I-5014	E1-A

PLANS AND DETAILS FOR PROPOSED LIGHTING / ELECTRICAL RENOVATION

△ NOTES

△1 AT THESE LOCATIONS, PROVIDE ELECTRICAL DUCT IN ACCORDANCE WITH NEC REQUIRMENTS FOR AN APPROVED RACEWAY FOR ELECTRICAL CIRCUITS. SEE TABLE "C"

△2 REMOVE EXISTING LIGHT STANDARD. REMOVE OR ABANDON FOUNDATION.

△3 AT THESE LOCATIONS, REPLACE MISSING LIGHT STANDARD AND TRANSFORMER BASE WITH DISMOUNTED STANDARDS AND TRANSFORMER BASES FROM THE I-77 OR INDEPENDENCE BLVD INTERCHANGES. IF FOUNDATION IS PRESENT, REMOVE AND REPLACE WITH NEW. SEE SECTION 4.00 "RELOCATE LIGHT STANDARDS" IN PROJECT SPECIAL PROVISIONS.

△4 AT THESE LOCATIONS REPLACE MISSING TRANSFORMER BASE COVER. USE COVERS FROM TRANSFORMER BASES ON REMOVED POLES WHERE POSSIBLE.

△5 AT THESE LOCATIONS DISMOUNT LIGHT STANDARD, REMOVE FOUNDATION AND REMOVE DAMAGED TRANSFORMER BASE. REPLACE FOUNDATION WITH NEW. REPLACE DAMAGED TRANSFORMER BASE WITH ACCEPTABLE TRANSFORMER BASE REMOVED FROM THE I-77 OR INDEPENDENCE BLVD INTERCHANGES. SAME LIGHT STANDARD TO BE REUSED. SEE SECTION 4.00 "RELOCATE LIGHT STANDARDS" IN PROJECT SPECIAL PROVISIONS.

△6 AT THESE LOCATIONS LIGHT STANDARD AND TRANSFORMER BASE MISSING AND WILL NOT BE REPLACED. REMOVE OR ABANDON IN GROUND FOUNDATION.

△7 ATTACH CONDUIT TO STRUCTURE. SEE DETAIL SHEET E14.

△8 CAST IRON JUNCTION BOX MOUNTED TO ENDWALL (ECI). MIN SIZE: 16"L X 12"W X 8"D. SEE DETAIL SHEET E14 AND SECTION 8.00 OF PROJECT SPECIAL PROVISIONS.

△9 CONTINUE CIRCUITRY TO UNDERPASS LIGHTS. SEE DETAIL SHEET E14.

△10 CAST IRON JUNCTION BOX MOUNTED ON OUTRIGGER (OCI) BESIDE TRANSFORMER BASE. MIN SIZE: 18"L X 16"W X 8"D. SEE DETAIL SHEET E14 AND SECTION 8.00 OF PROJECT SPECIAL PROVISIONS.

△11 INSTALL RIGID GALVANIZED CONDUIT ON ENDBENT CAP.

△12 TERMINATE CIRCUIT IN THIS FOUNDATION.

△13 INSTALL ALL BORE PITS OUTSIDE THE CLEAR ZONE, AS DEFINED BY THE 2002 AASHTO ROADSIDE DESIGN GUIDE OR AS DIRECTED BY THE ENGINEER.

△14 LOCATE ALL JUNCTION BOXES IN AN AREA UNLIKELY TO BE USED BY TRAFFIC.

△15 GRADE AROUND TRANSFORMER BASES ON ALL EXISTING SINGLE ARM LIGHT STANDARDS.

△16 AT THESE LOCATIONS INSTALL LIGHT STANDARD JUCTION BOX (LSJB). SEE DETAIL SHEET E14 AND SECTION 11.00 OF PROJECT SPECIAL PROVISIONS TITLED "LIGHT STANDARD JUNCTION BOXES". MIN SIZE: 18"L X 11"W X 18"H.

△17 NOTE DELETED

△18 AT THESE LOCATIONS USE TYPE PC36 JUNCTION BOX. MIN SIZE: 36"L X 24"W X 18"H

△19 TYPE PC18 JUNCTION BOXES MIN SIZE: 18"L X 11"W X 18"H.

△20 CADD FILES GENERATED FROM ORIGINAL PLANS FOR STATE PROJECT 8.1657606 DATED JULY, 1969, AND STATE PROJECT 8.1654822 DATED JULY, 1969.

SCOPE OF WORK

RENOVATE EXISTING ROADWAY LIGHTING SYSTEM BY REPLACING CIRCUITRY, REPLACING CONTROL SYSTEMS, UPGRADING LUMINAIRES ADDING JUNCTION BOXES AND INSTALLING 80'AND 120' HIGH MOUNT STANDARDS AND HIGH MAST LUMINAIRES.

DESIGN CRITERIA

2005 AASHTO ROADWAY LIGHTING DESIGN GUIDE

2001 AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS

2008 NATIONAL ELECTRICAL CODE

2002 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 JULY 2006 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD NO.	TITLE
1401.01	HIGH MOUNT STANDARD
1402.01	HIGH MOUNT FOUNDATION
1403.01	HIGH MOUNT LUMINAIRES
1405.01	STANDARD FOUNDATION
1406.01	LIGHT STANDARD LUMINAIRES
1407.01	ELECTRIC SERVICE POLE AND LATERAL
1408.01	LIGHT CONTROL SYSTEM
1409.01	ELECTRICAL DUCT
1410.01	FEEDER CIRCUITS
1411.01	ELECTRICAL JUNCTION BOXES

ALL WORK SHALL BE IN CONFORMANCE WITH DIVISION 14 OF THE STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES, DATED JULY 2006.

TABLE "A"
CIRCUITRY CONDUCTOR CONDUIT TYPE & SIZE

PLAN SYMBOL	DESCRIPTION		CONTRACT ITEM
8	2#8 Ø 1 #10G 1.5" P	2 AWG SIZE 8 CONDUCTOR (BK & RD) 1 AWG SIZE 10 GROUNDING CONDUCTOR 1.5" PVC CONDUIT	2 - 8 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*8	2#8 Ø 1 #10G	2 AWG SIZE 8 CONDUCTOR (BK & RD) 1 AWG SIZE 10 GROUNDING CONDUCTOR	2 - 8 W/G FEEDER CIRCUIT
6	2#6 Ø 1 #8G 1.5" P	2 AWG SIZE 6 CONDUCTOR (BK & RD) 1 AWG SIZE 8 GROUNDING CONDUCTOR 1.5" PVC CONDUIT	2 - 6 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*6	2#6 Ø 1 #8G	2 AWG SIZE 6 CONDUCTOR (BK & RD) 1 AWG SIZE 8 GROUNDING CONDUCTOR	2 - 6 W/G FEEDER CIRCUIT
4	2#4 Ø 1 #6G 1.5" P	2 AWG SIZE 4 CONDUCTOR (BK & RD) 1 AWG SIZE 6 GROUNDING CONDUCTOR 1.5" PVC CONDUIT	2 - 4 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*4	2#4 Ø 1 #6G	2 AWG SIZE 4 CONDUCTOR (BK & RD) 1 AWG SIZE 6 GROUNDING CONDUCTOR	2 - 4 W/G FEEDER CIRCUIT
2	2#2 Ø 1 #4G 1.5" P	2 AWG SIZE 2 CONDUCTOR (BK & RD) 1 AWG SIZE 4 GROUNDING CONDUCTOR 1.5" PVC CONDUIT	2 - 2 W/G FEEDER CIRCUIT IN 1.5" CONDUIT
*2	2#2 Ø 1 #4G	2 AWG SIZE 2 CONDUCTOR (BK & RD) 1 AWG SIZE 4 GROUNDING CONDUCTOR	2 - 2 W/G FEEDER CIRCUIT

LEGEND

- 6 — PROPOSED 80' HIGH MAST STANDARD W/ HM FOUNDATION DESIGNED FOR 110 MPH WINDSPEED & (6) 400W HPS, MEDIUM, CUTOFF, TYPE V HM LUMINAIRES
- 8 — PROPOSED 120' HIGH MAST STANDARD W/ HM FOUNDATION DESIGNED FOR 110 MPH WINDSPEED & (8) 750W HPS, MEDIUM, CUTOFF, TYPE V HM LUMINAIRES
- 5 — EXISTING 50' LIGHT STANDARD. REPLACE FIXTURE WITH 400W HPS, MSC, TYPE III LUMINAIRE.
- 3 — EXISTING 35' LIGHT STANDARD. REPLACE FIXTURE WITH 250W HPS, MSC, TYPE II LUMINAIRE.
- 5 — RELOCATED 50' LIGHT STANDARD. REPLACE FIXTURE WITH 400W HPS, MSC, TYPE III LUMINARE.
- 3 — RELOCATED 35' LIGHT STANDARD. REPLACE FIXTURE WITH 250W HPS, MSC, TYPE II LUMINAIRE.
- MISSING 35' OR 50' LIGHT STANDARD.
- PROPOSED CONTROL SYSTEM. BREAKER SIZE SHOWN IN LOAD SCHEDULE, SHEETS E4, E6, E8 & E12
- EXISTING TRANSFORMER STATION TO BE REMOVED.
- JB1 — PROPOSED IN GROUND ELECTRICAL JUNCTION BOX (JB). SEE TABLE B ON SHEETS E1-B AND E1-C
- JB1 — PROPOSED ENDWALL OR OUTRIGGER ELECTRICAL JUNCTION BOX (JB). SEE TABLE B & SHEET E1b
- J — EXISTING BRIDGE MOUNTED JUNCTION BOX.
- 1 — REFERENCE TO CORRESPONDING NOTE AS NUMBERED
- ------ EXISTING FEEDER CIRCUIT. ABANDON.
- --C--- F1 — EXISTING FEEDER CIRCUIT TO REMAIN. NO WORK REQUIRED.
- A1 6 — PROPOSED FEEDER CIRCUIT CONTROL SYSTEM(A), CIRCUIT(1) PLAN SYMBOL (6) SEE TABLE A, THIS SHEET
- 3#1/0 USE 2" — PROPOSED SERVICE POLE AND LATERAL 30' CLASS 4 3#1/0 USE CONDUCTORS 2" CONDUIT
- 2", 3" OR 4" ELEC. DUCT JA & BD — PROPOSED ELECTRICAL DUCT SIZE 2", 3" OR 4" TYPE (JA) OR (BD) LOCATION: SEE TABLE C, SHEET E1-C

EQUIVALENTS		
TRADE SIZE	METRIC	ENGLISH
½	16mm	½"
¾	21mm	¾"
1	27mm	1"
1.5	41mm	1½"
2	53mm	2"
3	78mm	3"

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
		HM	HIGH MAST

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02/03/98

PROJECT REFERENCE NO.	SHEET NO.
I-5014	E1-B

NORTH CAROLINA PROFESSIONAL SEAL 022582 ENGINEER JANG KI-BUN CHUN 2/18/08

CONTROL SYSTEM "A"

TABLE "B"
JUNCTION BOX SUMMARY

NUMBER	LOCATION	TYPE					SHEET
JB1	IN FRONT OF CONTROL SYSTEM "A"			PC36			E6
JB2	ON OUTRIGGER WITH POLE #5				OCI		E6
JB3	WITHIN 5' OF POLE #3		LSJB				E6
JB4	WITHIN 5' OF POLE #4		LSJB				E6
JB5	6+20 -RAMP 2 GRAHAM- 15' LT EOT	PC18					E6
JB6	WITHIN 5' OF POLE #5		LSJB				E6
JB7	WITHIN 5' OF POLE #6		LSJB				E6
JB8	WITHIN 5' OF POLE #8		LSJB				E6
JB9	WITHIN 5' OF POLE #7		LSJB				E6
JB10	NW END OF CHURCH ST. BRIDGE					ECI	E6
JB11	NE END OF CHURCH ST. BRIDGE					ECI	E7
JB12	NW END OF GRAHAM ST. BRIDGE					ECI	E6
JB13	GRAHAM ST., 15' EOT	PC18					E6
JB14	GRAHAM ST., 15' EOT	PC18					E6
JB15	WITHIN 5' OF POLE #11		LSJB				E6
JB16	WITHIN 5' OF POLE #12		LSJB				E6
JB17	WITHIN 5' OF POLE #13		LSJB				E6
JB18	WITHIN 5' OF SIGN ASSEMBLY "E"	PC18					E6
JB19	WITHIN 5' OF POLE #14		LSJB				E6
JB20	WITHIN 5' OF POLE #15		LSJB				E6
JB21	WITHIN 5' OF POLE #16		LSJB				E6
JB22	17+30 -RAMP 2 CHURCH- 15' LT EOT	PC18					E6
JB23	SW END OF CHURCH ST. BRIDGE					ECI	E6
JB24	SE END OF CHURCH ST. BRIDGE					ECI	E7
JB25	WITHIN 5' OF POLE #18		LSJB				E7
JB26	SW END OF TRYON ST. BRIDGE					ECI	E7
JB27	NE END OF LARGE RR BRIDGE					ECI	E5
JB28	ON OUTRIGGER WITH POLE #20				OCI		E5
JB29	ON OUTRIGGER WITH POLE #21				OCI		E5
JB30	WITHIN 5' OF POLE #22	PC18					E6
JB31	SE END OF LARGE RR BRIDGE					ECI	E5
JB32	ON OUTRIGGER WITH POLE #23				OCI		E5
JB33	ON OUTRIGGER WITH POLE #24				OCI		E5
JB34	ON OUTRIGGER WITH POLE #25				OCI		E5
JB35	NE END OF GRAHAM ST. BRIDGE					ECI	E6
JB36	WITHIN 5' OF POLE #2		LSJB				E6
JB37	WITHIN 5' OF POLE #19		LSJB				E5
JB38	WITHIN 5' OF POLE #17		LSJB				E6
JB39	WITHIN 5' OF POLE #9		LSJB				E7
TOTALS		6	17	1	6	9	

CONTROL SYSTEM "C"

TABLE "B"
JUNCTION BOX SUMMARY

NUMBER	LOCATION	TYPE					SHEET
JB1	IN FRONT OF CONTROL SYSTEM "C"			PC36			E12
JB2	228+63 -SB IND- 20' RT EOT	PC18					E10
JB3	226+44 -SB IND- 20' RT EOT	PC18					E10
JB4	224+32 -SB IND- 20' RT EOT	PC18					E10
JB5	WITHIN 5' OF POLE #1		LSJB				E10
JB6	WITHIN 5' OF POLE #2		LSJB				E10
JB7	SE END OF 10TH ST. BRIDGE					ECI	E10
JB8	SE END OF 10TH ST. BRIDGE					ECI	E10
JB9	NE END OF 10TH ST. BRIDGE					ECI	E10
JB10	NE END OF 10TH ST. BRIDGE					ECI	E10
JB11	231+60 -SB IND EXPY- 25' RT EOT			PC36			E12
JB12	231+60 -SB IND EXPY- 42' LT EOT	PC18					E12
JB13	233+00 -NB IND EXPY- 33' RT EOT	PC18					E12
JB14	230+32 -NB IND EXPY- 15' LT EOT	PC18					E10
JB15	228+76 -NB IND EXPY- 15' LT EOT	PC18					E10
JB16	225+89 -NB IND EXPY- 41' LT EOT	PC18					E10
JB17	230+76 -NB IND EXPY- 105' LT EOT	PC18					E10
JB18	12+75 -EB NW EXPY- 15' RT EOT	PC18					E11
JB19	12+75 -EB NW EXPY- 15' LT EOT	PC18					E11
JB20	14+80 -EB NW EXPY- 60' LT EOT	PC18					E11
JB21	5+16 -RAMP 2- 15' LT EOT	PC18					E12
JB22	5+16 -RAMP 2- 15' RT EOT	PC18					E12
JB23	10+42 -5TH ST RP- 15' LT EOT	PC18					E12
JB24	8+25 -5TH ST RP- 15' LT EOT	PC18					E12
JB25	8+25 -5TH ST RP- 15' RT EOT	PC18					E12
JB26	241+38 -I277 WB- 14' LT EOT	PC18					E13
JB27	WITHIN 5' OF POLE #6		LSJB				E13
JB28	NW END OF ELIZABETH ST. BRIDGE					ECI	E13
JB29	NE END OF ELIZABETH ST. BRIDGE					ECI	E13
JB30	248+30 -I277 WB- 15' LT EOT	PC18					E13
JB31	WITHIN 5' OF POLE #8		LSJB				E13
JB32	2+37 -5TH ST OFF RP- 15' RT EOT	PC18					E12
JB33	234+40 -SB IND EXPY- 35' RT EOT	PC18					E12
JB34	238+90 -SB IND EXPY- 30' RT EOT	PC18					E12
JB35	NW END OF 5TH ST BRIDGE					ECI	E12
JB36	SE END OF 5TH ST BRIDGE					ECI	E13
JB37	27+36 -RAMP 1- 15' RT EOT	PC18					E13
JB38	29+35 -RAMP 1- 15' RT EOT	PC18					E13
JB39	SW END OF ELIZABETH ST BRIDGE					ECI	E13
JB40	SE END OF ELIZABETH ST BRIDGE					ECI	E13
JB41	WITHIN 5' OF POLE #5		LSJB				E13
JB42	WITHIN 5' OF POLE #3		LSJB				E10
JB43	WITHIN 5' OF POLE #4		LSJB				E13
JB44	WITHIN 5' OF POLE #7		LSJB				E13
JB45	232+50 -SB IND EXPY- 30' RT EOT	PC18					E13
TOTALS		25	8	2		10	

CONTROL SYSTEM "G"

TABLE "B"
JUNCTION BOX SUMMARY

NUMBER	LOCATION	TYPE					SHEET
JB1	11+35 -RAMP D- 33' LT EOT			PC36			E3
JB2	8+50 -RAMP D- 15' LT EOT	PC18					E2
JB3	6+20 -RAMP D- 15' LT EOT	PC18					E2
JB4	WITHIN 5' OF POLE #2		LSJB				E2
JB5	WITHIN 5' OF POLE #1		LSJB				E2
JB6	8+50 -RAMP D- 15' RT EOT	PC18					E2
JB7	691+95 -I77 NB- 20' LT EOT	PC18					E2
JB8	13+10 -RAMP D- 15' LT EOT			PC36			E3
JB9	131+65 -I277 WB- 15' EOT LT			PC36			E3
JB10	131+70 -I277 WB- 35' EOT RT	PC18					E3
JB11	686+15 -I77 NB- 120' RT	PC18					E3
JB12	18+28 -RAMP D-B- 20' RT EOT	PC18					E3
JB13	131+88 -I277 EB- 20' LT EOT	PC18					E3
JB14	132+70 -I277 EB- 70' RT EOT	PC18					E3
JB15	16+22 -RAMP C- 65' LT	PC18					E4
JB16	WITHIN 5' OF POLE #8		LSJB				E4
JB17	WITHIN 5' OF POLE #10		LSJB				E4
JB18	WITHIN 5' OF POLE #11		LSJB				E4
JB19	WITHIN 5' OF POLE #12		LSJB				E4
JB20	WITHIN 5' OF POLE #13		LSJB				E4
JB21	134+68 -I277 WB- 20' LT	PC18					E3
JB22	137+90 -I277 WB- 15' RT EOT	PC18					E4
JB23	WITHIN 5' OF POLE #3		LSJB				E4
JB24	WITHIN 5' OF POLE #5		LSJB				E4
JB25	WITHIN 5' OF POLE #5		LSJB				E4
JB26	WITHIN 5' OF POLE #6		LSJB				E4
JB27	END OF BRIDGE OVER JOHNSON ST.					ECI	E4
JB28	ON OUTRIGGER WITH POLE #7				OCI		E5
TOTALS		12	11	3	1	1	

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CONTROL SYSTEM "B"

TABLE "B"
JUNCTION BOX SUMMARY

NUMBER	LOCATION	TYPE					SHEET
JB1	IN FRONT OF CONTROL SYSTEM "B"			PC36			E8
JB2	WITHIN 5' OF POLE #1		LSJB				E8
JB3	202+35 -I277 EB- 82' RT EOT	PC18					E8
JB4	1+18 -RP 2 DAVIDSON- 24' LT EOT	PC18					E8
JB5	WITHIN 5' OF POLE #5		LSJB				E9
JB6	WITHIN 5' OF POLE #8		LSJB				E9
JB7	WITHIN 5' OF POLE #3		LSJB				E8
JB8	WITHIN 5' OF POLE #4		LSJB				E9
JB9	WITHIN 5' OF POLE #6		LSJB				E9
JB10	WITHIN 5' OF POLE #7		LSJB				E9
JB11	WITHIN 5' OF POLE #9		LSJB				E9
JB12	SW END OF 10TH ST. BRIDGE					ECI	E10
JB13	SE END OF CALDWELL ST. BRIDGE					ECI	E8
JB14	WITHIN 5' OF POLE #11		LSJB				E8
JB15	WITHIN 5' OF POLE #12		LSJB				E8
JB16	203+52 -I277 WB- 71' LT EOT	PC18					E8
JB17	WITHIN 5' OF POLE #13		LSJB				E8
JB18	WITHIN 5' OF POLE #14		LSJB				E9
JB19	WITHIN 5' OF POLE #15		LSJB				E9
JB20	4+54 -RAMP 1 DAVIDSON- 11' EOT	PC18					E9
JB21	4+54 -RAMP 1 DAVIDSON- 15' EOT	PC18					E9
JB22	WITHIN 5' OF POLE #18		LSJB				E9
JB23	WITHIN 5' OF SIGN ASSEMBLY "F"	PC18					E9
JB24	WITHIN 5' OF POLE #19		LSJB				E9
JB25	NW END OF 10TH ST. BRIDGE					ECI	E10
JB26	8+75 -CALDWELL ST- 21' RT EOT	PC18					E8
JB27	WITHIN 5' OF POLE #21		LSJB				E8
JB28	WITHIN 5' OF POLE #20		LSJB				E8
JB29	SE END OF BREVARD ST. BRIDGE					ECI	E8
JB30	SW END OF BREVARD ST. BRIDGE					ECI	E8
JB31	WITHIN 5' OF POLE #23		LSJB				E5
JB32	SE END OF BRIDGE OVER ABN RR					ECI	E8
JB33	SW END OF BRIDGE OVER ABN RR					ECI	E7
JB34	SE END OF COLLEGE ST. BRIDGE					ECI	E7
JB35	SW END OF COLLEGE ST. BRIDGE					ECI	E7
JB36	WITHIN 5' OF POLE #25		LSJB				E7
JB37	3+70 -RP 2 COLLEGE- 15' LT EOT	PC18					E7
JB38	WITHIN 5' OF POLE #27		LSJB				E7
JB39	WITHIN 5' OF POLE #26		LSJB				E7
JB40	SE END OF TRYON ST. BRIDGE					ECI	E7
JB41	6+00 -CALDWELL ST- 15' RT EOT	PC18					E8
JB42	3+38 -RP 1 CALDWELL- 15' LT EOT	PC18					E8
JB43	WITHIN 5' OF POLE #30		LSJB				E8
JB44	WITHIN 5' OF POLE #29		LSJB				E8
JB45	WITHIN 5' OF POLE #28		LSJB				E8
JB46	NE END OF BREVARD ST. BRIDGE					ECI	E8
JB47	NW END OF BREVARD ST. BRIDGE					ECI	E8
JB48	NE END OF BRIDGE OVER ABN RR					ECI	E8
JB49	NW END OF BRIDGE OVER ABN RR					ECI	E7
JB50	NEAR 12TH ST AT ABN RR TRACK	PC18					E7
JB51	NEAR 12TH ST AT COLLEGE ST	PC18					E7
JB52	NE END OF COLLEGE ST. BRIDGE					ECI	E7
JB53	NW END OF COLLEGE ST. BRIDGE					ECI	E7
JB54	WITHIN 5' OF POLE #33		LSJB				E7
JB55	4+10 -RP 1 COLLEGE-15' LT EOT	PC18					E7
JB56	WITHIN 5' OF POLE #34		LSJB				E7
JB57	NE END OF CALDWELL ST. BRIDGE					ECI	E8
JB58	6+00 -CALDWELL ST- 15' LT EOT	PC18					E8
JB59	202+38 -I277 WB- 71' LT EOT	PC18					E8
JB60	WITHIN 5' OF POLE #32		LSJB				E7
JB61	WITHIN 5' OF POLE #24		LSJB				E7
JB62	WITHIN 5' OF POLE #31		LSJB				E8
JB63	WITHIN 5' OF POLE #17		LSJB				E9
JB64	WITHIN 5' OF POLE #10		LSJB				E10
TOTALS		15	31	1		17	

TABLE "C"
ELECTRICAL DUCT SUMMARY
(ESTIMATED LENGTH IN FEET)

LOCATION	RACEWAY ⚠1	SHEET	TYPE: JACKED (JA) FEET SIZE 2"	JACKED (JA) SIZE 3"	JACKED (JA) SIZE 4"	BURIED (BD) FEET SIZE 2"	BURIED (BD) SIZE 3"	BURIED (BD) SIZE 4"
8+50 -RAMP D-		E2		40				
691+95 -I77 NB-		E2		60				
131+70 -I277 WB-		E3			80			
131+70 -I277 WB-	JB9 - JB10	E3				100		
18+28 -RAMP D-B-		E3			45			
18+28 -RAMP D-B-	JB10 - JB12	E3				85		
131+88 -I277 EB-		E3			75			
131+88 -I277 EB-	JB13 - JB14	E3				165		
18+80 -RAMP C-		E4		40				
BEHIND SLOPE PROT.	JB1 - JB13	E6	150			80		
BETWEEN JB13 AND JB14				75				
5+23 -RAMP 3 GRAHAM-		E6		40				
6+20 -RAMP 2 GRAHAM-		E6		40				
3+57 -RAMP 1 GRAHAM-		E6		40				
7+28 -RAMP 2 CHURCH-		E6		40				
3+70 -RAMP 2 COLLEGE-		E7		40				
4+10 -RAMP 1 COLLEGE-		E7		40				
3+38 -RAMP 1 CALDWELL-		E8		40				
3+16 -RAMP 2 CALDWELL-		E8		40				
8+75 -CALDWELL ST-		E8		55				
6+00 -CALDWELL ST-		E8		55				
BETWEEN JB3 AND JB4		E8		90				
BETWEEN JB16 AND JB59		E8		90				
1+18 -RAMP 2 DAVIDSON-		E8		40				
4+54 -RAMP 1 DAVIDSON-		E9		40				
BEHIND SLOPE PROT.	JB14 - JB15	E10	155					
12+75 -EB NW EXPWY-		E11		40				
231+60 -SB IND EXPWY-		E12			60			
231+60 -SB IND EXPWY-	JB11 - JB12	E12				100		
233+15 -NB IND EXPWY-		E12			70			
233+15 -NB IND EXPWY-	JB12 - JB13	E12				125		
5+16 -RAMP 2-		E12		40				
8+25 -5TH ST-		E12		40				
27+36 -RAMP 1-		E13		40				
4TH STREET RAMP		E13		40				
		TOTALS:	305	1105	330	655		

TABLE "D"
CLEARING & GRUBBING/SEEDING & MULCHING SUMMARY

SHEET	AREA	LENGTH (FT)	WIDTH (FT)	AREA (SQ FT)
E3	AREA SURROUNDING EXISTING CS "A"	200	10	2000
E4	BETWEEN SA #11 AND SA #13	680	10	6800
E7	BETWEEN TRYON ST. BRIDGE AND SA #26	180	10	1800
E7	BETWEEN TRYON ST BRIDGE AND JB55	180	10	1800
E7	BETWEEN COLLEGE ST BRIDGE AND SA #24	220	10	2200
E8	CALDWELL ST BRIDGE TO DAVIDSON ST BRIDGE, SOUTH	340	10	3400
E8	CALDWELL ST BRIDGE TO DAVIDSON ST BRIDGE, NORTH	340	10	3400
E8	BREVARD ST. BRIDGE TO JB44	120	10	1200
E9	SA #7 TO MATCHLINE 217+00	470	10	4700
E10	MATCHLINE 217+00 TO 10TH ST. BRIDGE	60	10	600
E13	JB37 TO ELIZABETH ST. BRIDGE	390	10	3900
E13	JB26 TO ELIZABETH ST. BRIDGE	440	10	4400
E13	ELIZABETH ST. BRIDGE TO SA #5	200	10	2000
		TOTAL:	34800 SQ FT (.80 ACRE)	

NORTH CAROLINA PROFESSIONAL SEAL 022582 ENGINEER PAUL KI-BUN CHAN 2/18/08

COMPUTED BY: RGH DATE: 2/14/08
CHECKED BY: [signature] DATE: 2-18-08

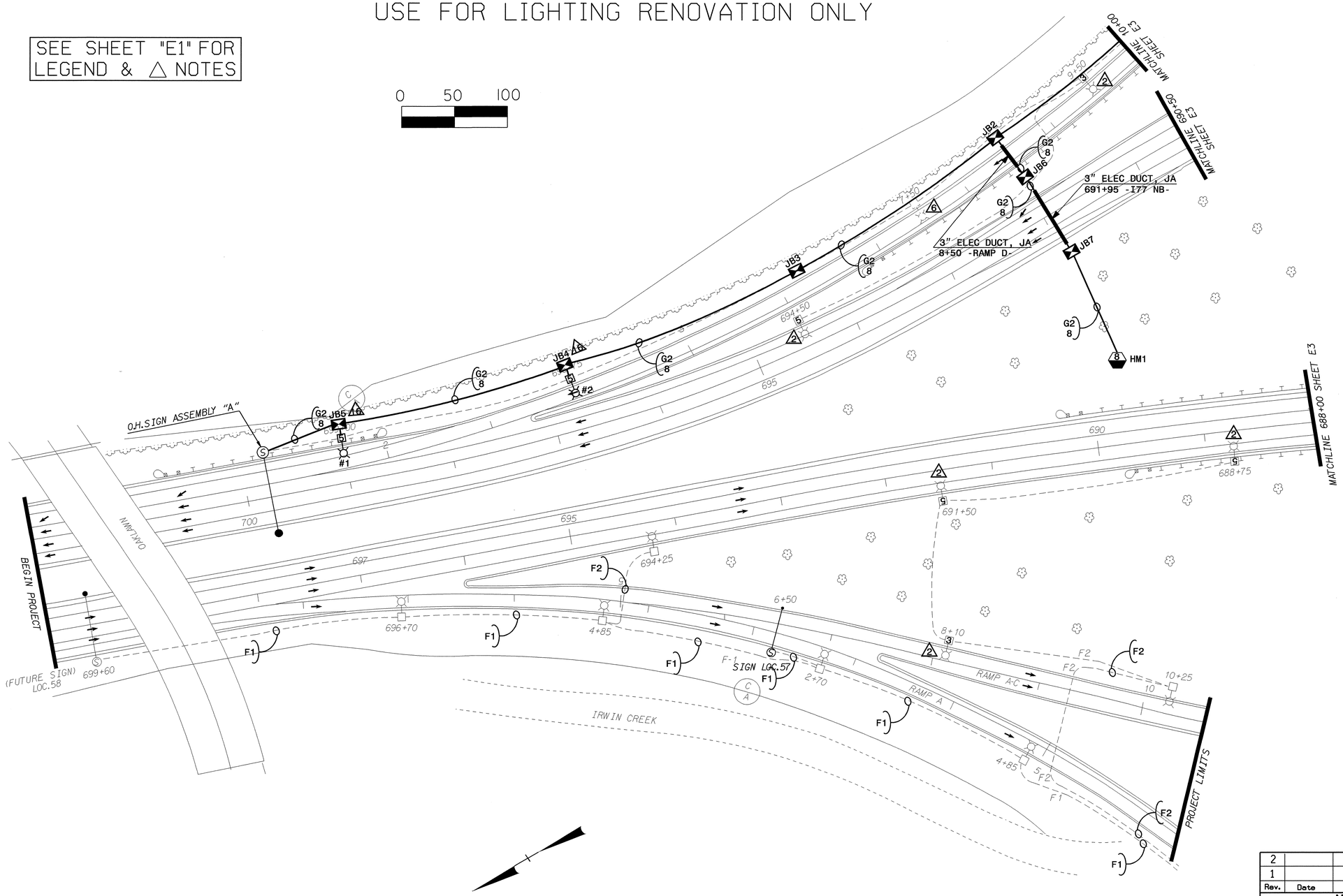
02/03/98

PROJECT REFERENCE NO.	SHEET NO.
I-5014	E2

USE FOR LIGHTING RENOVATION ONLY

SEE SHEET "E1" FOR LEGEND & △ NOTES

0 50 100



NORTH CAROLINA PROFESSIONAL SEAL 022582 ENGINEER KI-BUM CHAN
2/18/08

Rev.	Date	Description	Approved
2			
1			

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION

LIGHTING LAYOUT

OAKLAWN DRIVE TO
I-277/I-77 INTERCHANGE

MECKLENBURG COUNTY

Drawn By: RGH | Approved By: | Dwg No.:

15-FEB-2008 11:16
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$$$$USERNAME$$$$

02/03/98

PROJECT REFERENCE NO.	SHEET NO.
I-5014	E3

USE FOR LIGHTING RENOVATION ONLY

SEE SHEET E3 FOR CONTROL SYSTEM "G" LOAD SCHEDULE

SEE SHEET "E1" FOR LEGEND & △ NOTES

CONTROL SYSTEM "G"
STA 11+40 -RAMP D-, 40' LT

EXISTING TRANSFORMER STATION "G"

EXISTING 35' CLASS IV SERVICE POLE

SER LAT
3 #1/0 USE
2" C.

UNDERGROUND PRIMARY
CONDUIT & WIRING

SER POLE

CLEAR AND GRUB THIS AREA

O.H. SIGN ASSEMBLY "C"

0 50 100

SEAL
022582
ENGINEER
PAUL KI-BUM CHOI
2/18/98

MATCHLINE 690+50 SHEET E2

MATCHLINE 688+00 SHEET E2

MATCHLINE 135+50 SHEET E4

MATCHLINE 134+50 SHEET E4

MATCHLINE 151+00 SHEET E4

4" ELEC DUCT, JA
131+70 -I277 WB-

4" ELEC DUCT, JA
18+28 -RAMP D-B-

4" ELEC DUCT, JA
131+88 -I277 EB-

2" ELEC DUCT, BD

JB9 JB10 JB11 JB12 JB13 JB14 JB21

HM2 HM3

RAMP D-B

RAMP C-A

RAMP A-C

LOOP C

CULVERT

PROJECT LIMITS

PROJECT LIMITS

Rev.	Date	Description	Approved
2			
1			

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

LIGHTING LAYOUT

I-277/I-77 INTERCHANGE

MECKLENBURG COUNTY

Drawn By: RGH | Approved By: | Dwg No.:

15-FEB-2008 11:16
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$$$$USERNAME$$$$

02/03/98

PROJECT REFERENCE NO.	SHEET NO.
I-5014	E4

SEE SHEET "E1" FOR LEGEND & △ NOTES

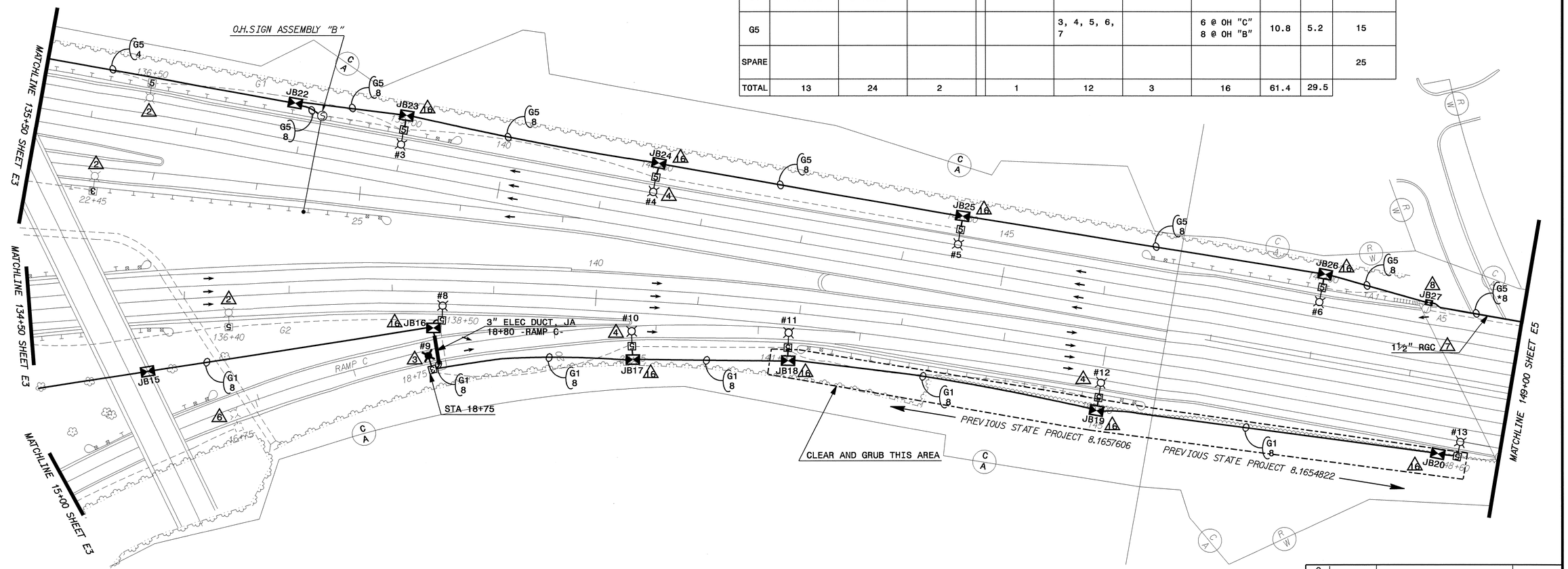
0 50 100

USE FOR LIGHTING RENOVATION ONLY

LOAD SCHEDULE
STA. 11+40, I-77 ONRAMP

1Ø, 3W, 240/480 VAC — CONTROL SYSTEM "G"

	EXISTING			PROPOSED						
CKT	SINGLE ARM 1 @ 250W HPS	SINGLE ARM 1 @ 400W HPS	SIGNS	SINGLE ARM 1 @ 250W HPS	SINGLE ARM 1 @ 400W HPS	HIGH MAST 8 @ 750W HPS	SIGN LIGHTER 1 @ 150W HPS	AMPS @ 480V	KW LOAD	BREAKER SIZE (AMPS)
G1	1 TOTAL	6 TOTAL	2 TOTAL	9	8, 10, 11, 12, 13			4.6	2.2	15
G2	7 TOTAL	6 TOTAL			1, 2	HM1	2 @ OH "A"	17.2	8.3	25
G3	2 TOTAL	6 TOTAL				HM3		14.4	6.9	20
G4	3 TOTAL	6 TOTAL				HM2		14.4	6.9	20
G5					3, 4, 5, 6, 7		6 @ OH "C" 8 @ OH "B"	10.8	5.2	15
SPARE										25
TOTAL	13	24	2	1	12	3	16	61.4	29.5	



Rev.	Date	Description	Approved
2			
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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN — LIGHTING/ELECTRICAL SECTION

LIGHTING LAYOUT

I-277 FROM I-77 TO JOHNSON STREET

MECKLENBURG COUNTY

Drawn By: RGH | Approved By: | Dwg No.:

NORTH CAROLINA PROFESSIONAL SEAL 022582 ENGINEER HUE KI-BUN CHAN
2/18/08

15-FEB-2008 11:16
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$$$$USERNAME$$$$

02/03/08

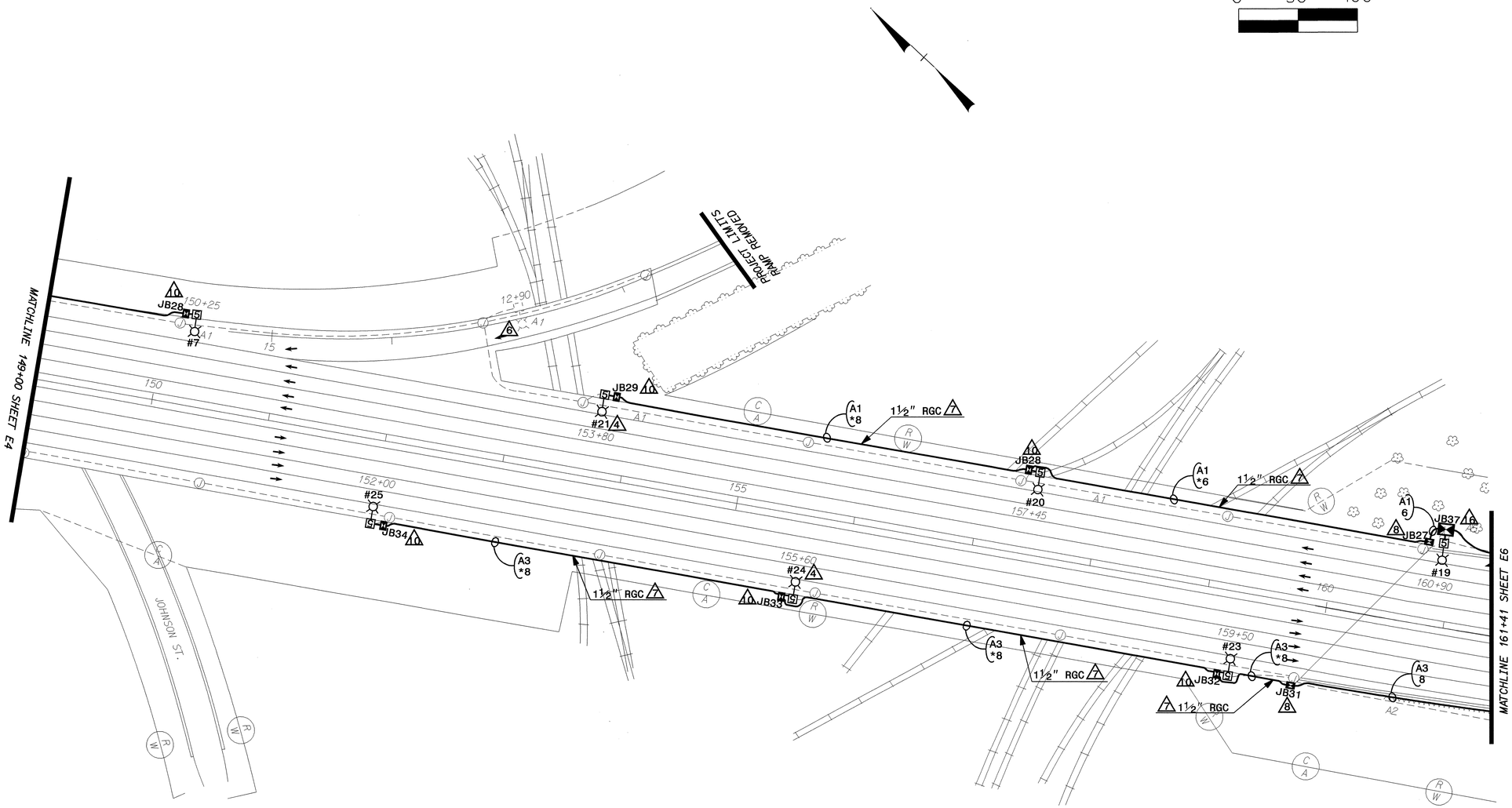
PROJECT REFERENCE NO.	SHEET NO.
I-5014	E5

NORTH CAROLINA PROFESSIONAL SEAL 022582 ENGINEER HUE KI-BUN CHAN
2/18/08

USE FOR LIGHTING RENOVATION ONLY

SEE SHEET "E1" FOR LEGEND & △ NOTES

0 50 100



Rev.	Date	Description	Approved
2			
1			

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION

LIGHTING LAYOUT

I-277 FROM JOHNSON STREET TO
JUST WEST OF GRAHAM STREET

MECKLENBURG COUNTY

Drawn By:	Approved By:	Dwg No.:
RGH		

15-FEB-2008 11:15
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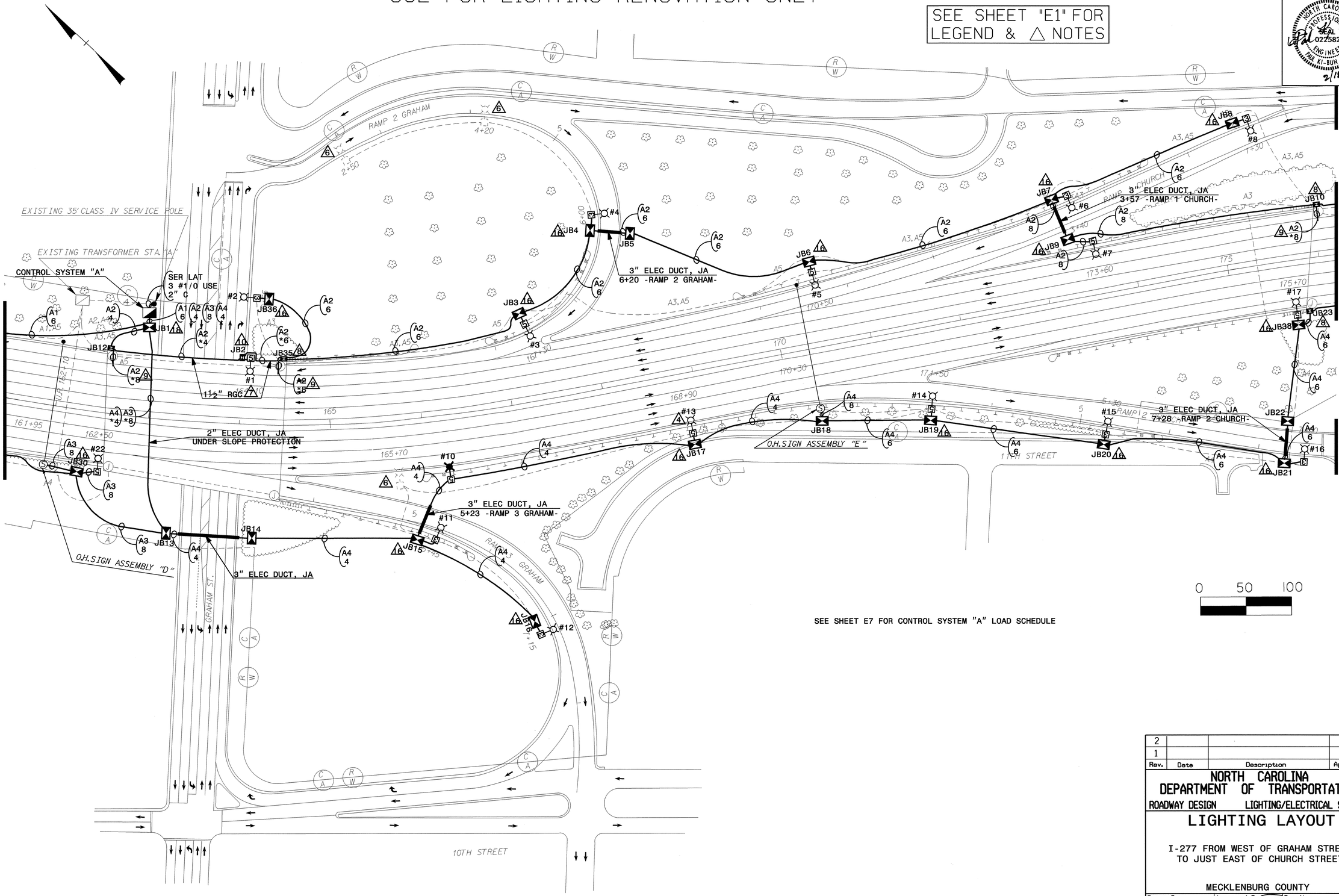
02/03/98

PROJECT REFERENCE NO.	SHEET NO.
I-5014	E6

USE FOR LIGHTING RENOVATION ONLY

SEE SHEET "E1" FOR LEGEND & △ NOTES

NORTH CAROLINA PROFESSIONAL SEAL 022582 ENGINEER PAUL KI-BUM CHAN 2/18/08



SEE SHEET E7 FOR CONTROL SYSTEM "A" LOAD SCHEDULE

0 50 100

Rev.	Date	Description	Approved
2			
1			

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

LIGHTING LAYOUT

I-277 FROM WEST OF GRAHAM STREET
TO JUST EAST OF CHURCH STREET

MECKLENBURG COUNTY

Drawn By: RGH | Approved By: | Dwg No.:

15-FEB-2008 11:15
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02/03/98

PROJECT REFERENCE NO.	SHEET NO.
I-5014	E7

USE FOR LIGHTING RENOVATION ONLY

0 50 100

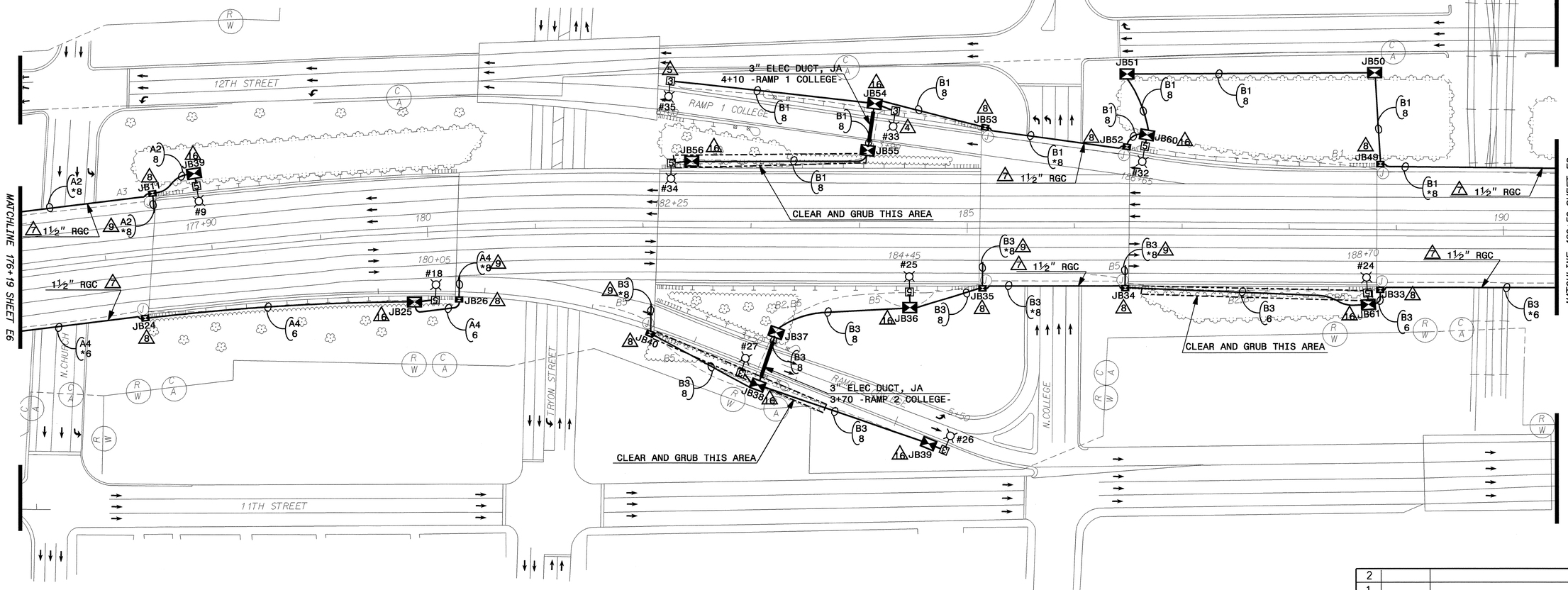
SEE SHEET "E1" FOR LEGEND & △ NOTES

NORTH CAROLINA PROFESSIONAL SEAL 022582 ENGINEER PAK KI-BUN CHAN 2/18/08

LOAD SCHEDULE
I-277/GRAHAM STREET INTERCHANGE

1Ø, 3W, 240/480 VAC — CONTROL SYSTEM "A"

	EXISTING				PROPOSED						
CKT	SINGLE ARM 1 @ 250W HPS	SINGLE ARM 1 @ 400W HPS	SIGNS	U.P. LIGHTS	SINGLE ARM 1 @ 250W HPS	SINGLE ARM 1 @ 400W HPS	SIGN LIGHTER 1 @ 150W HPS	U.P. LIGHTS 1 @ 150W HPS	AMPS @ 480V	KW LOAD	BREAKER SIZE (AMPS)
A1	7 TOTAL	5 TOTAL				19, 20, 21			3	1.4	15
A2		5 TOTAL	1 TOTAL		2, 4, 6, 8	1, 3, 5, 7, 9		8 @ UPL1 (GRAHAM) 6 @ UPL2 (CHURCH)	13.1	6.3	20
A3	6 TOTAL	5 TOTAL				22, 23, 24, 25	16 @ OH "D"		10.7	5.1	15
A4	4 TOTAL	5 TOTAL	1 TOTAL		11, 12, 15, 16	10, 13, 14, 17, 18	10 @ OH "E"	3 @ UPL3 (TRYON)	12.9	6.2	20
A5				22 TOTAL							
SPARE											20
TOTAL	17	20	2	22	8	17	26	17	39.7	19	



Rev.	Date	Description	Approved
2			
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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN — LIGHTING/ELECTRICAL SECTION

LIGHTING LAYOUT

I-277 FROM CHURCH STREET
TO NORFOLK SOUTHERN RR TRACKS

MECKLENBURG COUNTY

Drawn By	Approved By	Dwg No.:
RGH		

15-FEB-2008 11:15
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$$$$USERNAME$$$$

02/03/98

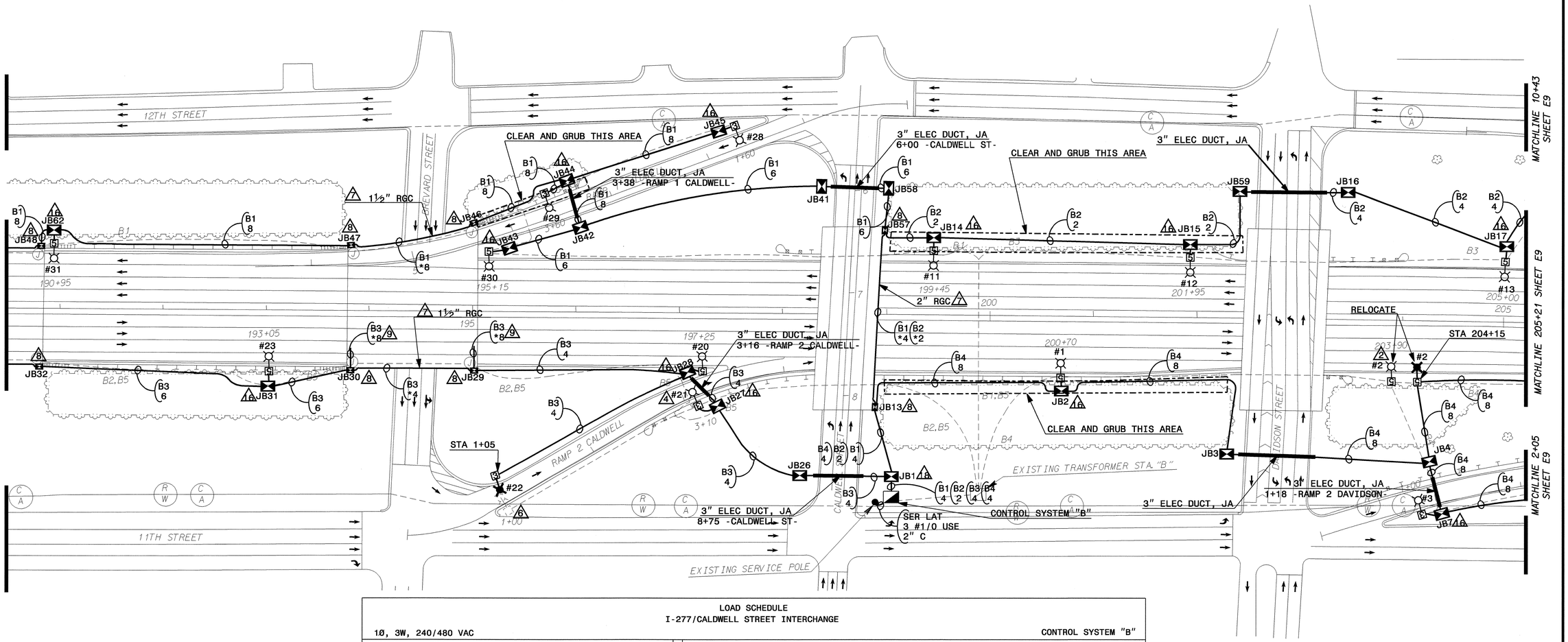
PROJECT REFERENCE NO.	SHEET NO.
I-5014	E8

USE FOR LIGHTING RENOVATION ONLY

0 50 100

SEE SHEET "E1" FOR LEGEND & △ NOTES

NORTH CAROLINA PROFESSIONAL SEAL 022582 ENGINEER PAUL KI-BUN CHAN 2/18/08



LOAD SCHEDULE
I-277/CALDWELL STREET INTERCHANGE

1Ø, 3W, 240/480 VAC — CONTROL SYSTEM "B"

	EXISTING				PROPOSED						
CKT	SINGLE ARM 1 @ 250W HPS	SINGLE ARM 1 @ 400W HPS	SIGNS	U.P. LIGHTS	SINGLE ARM 1 @ 250W HPS	SINGLE ARM 1 @ 400W HPS	SIGN LIGHTER 1 @ 150W HPS	U.P. LIGHTS 1 @ 150W HPS	AMPS @ 480V	KW LOAD	BREAKER SIZE (AMPS)
B1	4 TOTAL	5 TOTAL			28, 29, 33, 35	30, 31, 32, 34			6.5	3.1	15
B2	4 TOTAL	4 TOTAL			14, 15, 16	11, 12, 13, 17, 18, 19	13 @ OH "F"	2 @ UPL6 (10TH)	14.1	6.8	20
B3	4 TOTAL	5 TOTAL	1 TOTAL		21, 22, 26, 27	20, 23, 24, 25		3 @ UPL 3 (TRYON) 6 @ UPL 4 (COLLEGE) 6 @ UPL 5 (BREVARD)	12.5	6.0	15
B4	4 TOTAL	6 TOTAL			3, 4, 6, 7	1, 2, 5, 8, 9, 10		2 @ UPL 6 (10TH)	9.3	4.5	15
B5				18 TOTAL							
SPARE											20
TOTAL	16	20	1	18	15	20	13	19	42.4	20.4	

Rev.	Date	Description	Approved
2			
1			

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

LIGHTING LAYOUT

I-277 FROM E. OF NORFOLK SOUTHERN RR TO E. OF DAVIDSON STREET

MECKLENBURG COUNTY

Drawn By: RGH | Approved By: | Dwg No.:

15-FEB-2008 11:26
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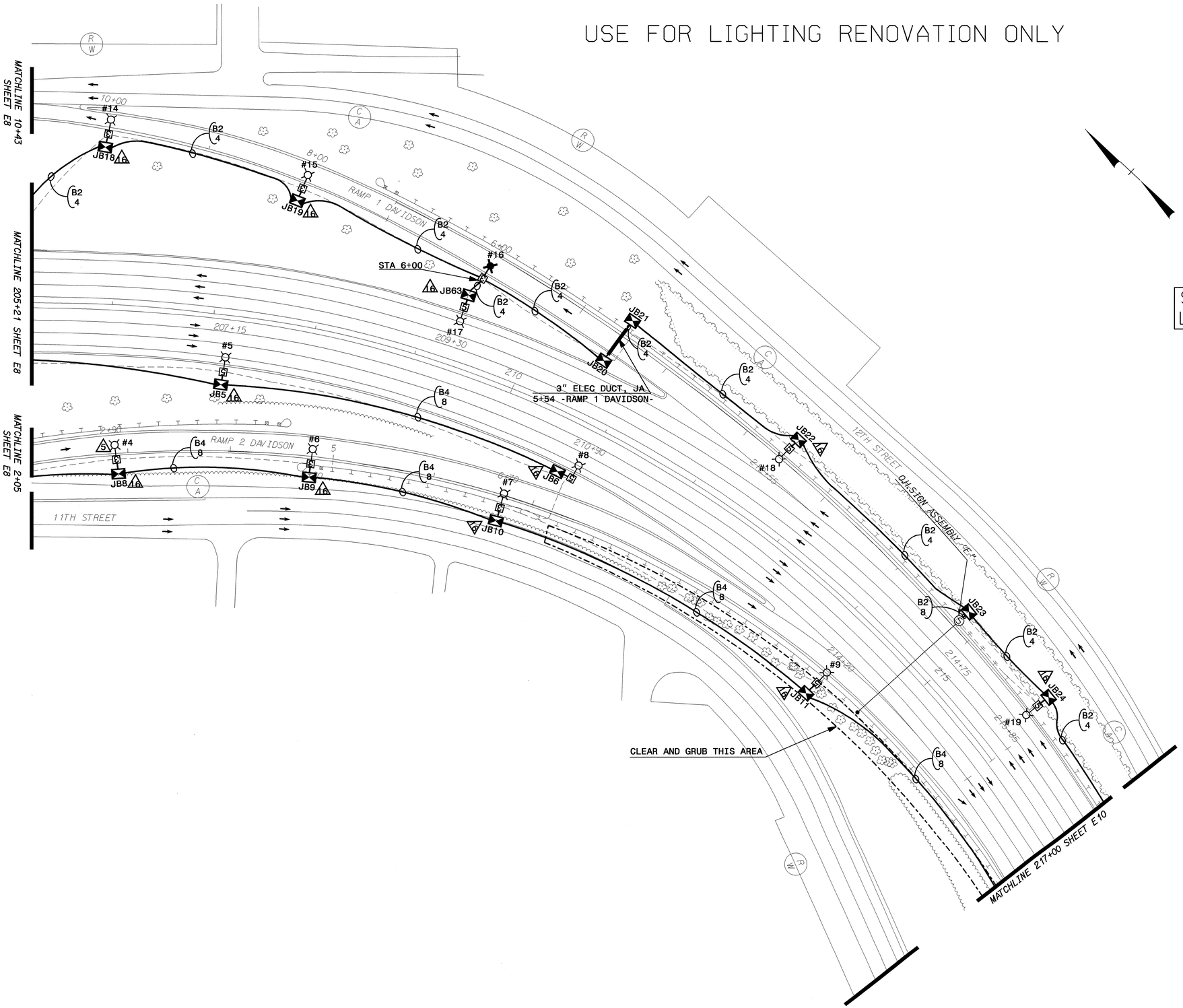
02/03/98

PROJECT REFERENCE NO.	SHEET NO.
I-5014	E9

USE FOR LIGHTING RENOVATION ONLY



SEE SHEET "E1" FOR LEGEND & △ NOTES

NORTH CAROLINA PROFESSIONAL SEAL 022582 ENGINEER KUK KI-BUN CHIN 2/16/08

Rev.	Date	Description	Approved
2			
1			

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

LIGHTING LAYOUT

I-277 FROM EAST OF DAVIDSON STREET TO WEST OF 10TH STREET

MECKLENBURG COUNTY

Drawn By: RGH | Approved By: | Dwg No.:

15-FEB-2008 11:14
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02/03/98

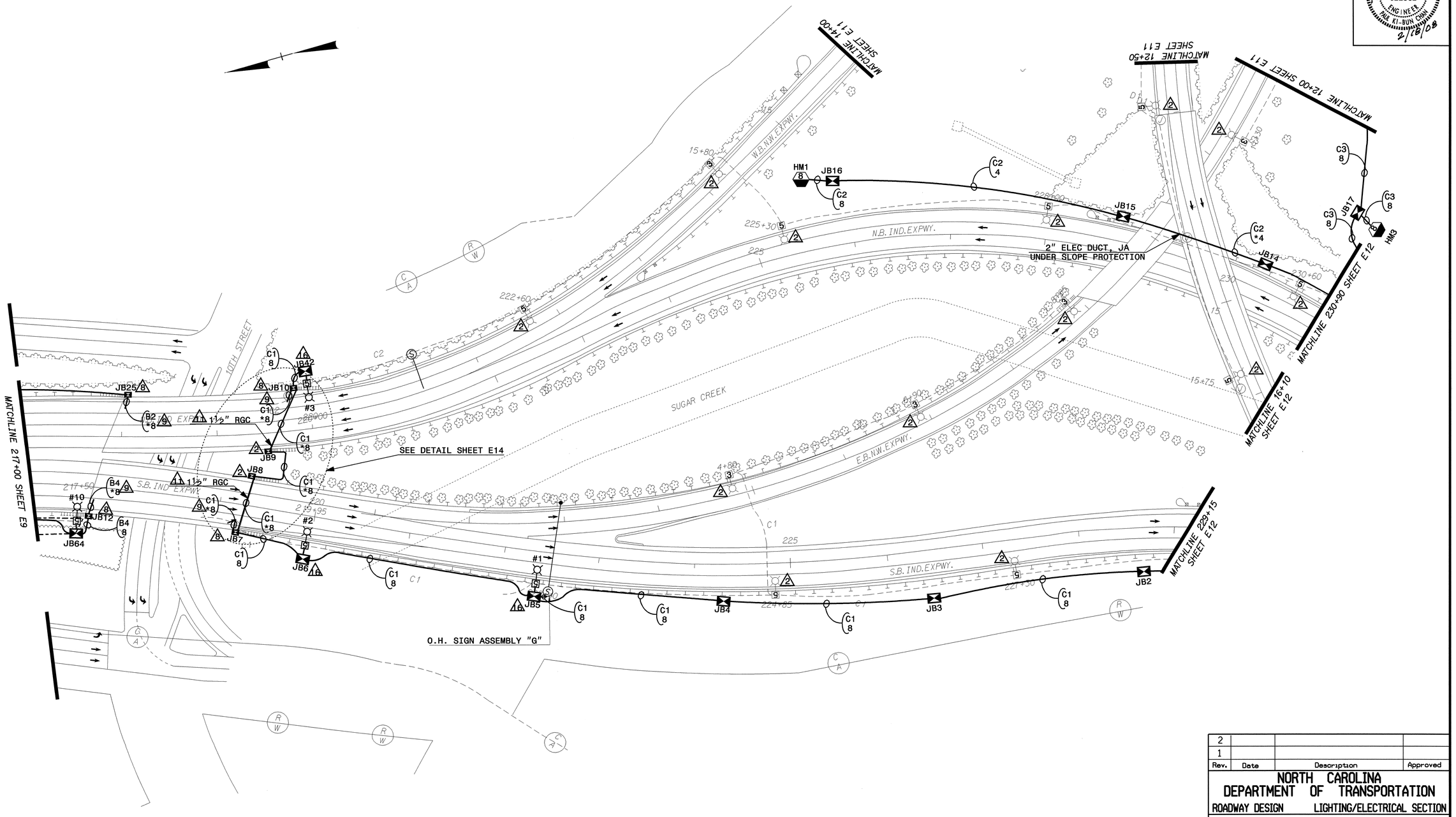
PROJECT REFERENCE NO.	SHEET NO.
I-5014	E10

SEE SHEET "E1" FOR LEGEND & △ NOTES

USE FOR LIGHTING RENOVATION ONLY

0 50 100

NORTH CAROLINA PROFESSIONAL SEAL 022582 ENGINEER JIA KI-BUN CHIN 2/18/08



Rev.	Date	Description	Approved
2			
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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN — LIGHTING/ELECTRICAL SECTION

LIGHTING LAYOUT

I-277 FROM 10TH STREET
TO INDEPENDENCE BLVD.

MECKLENBURG COUNTY

Drawn By: RGH | Approved By: | Dwg No.:

15-FEB-2008 11:14
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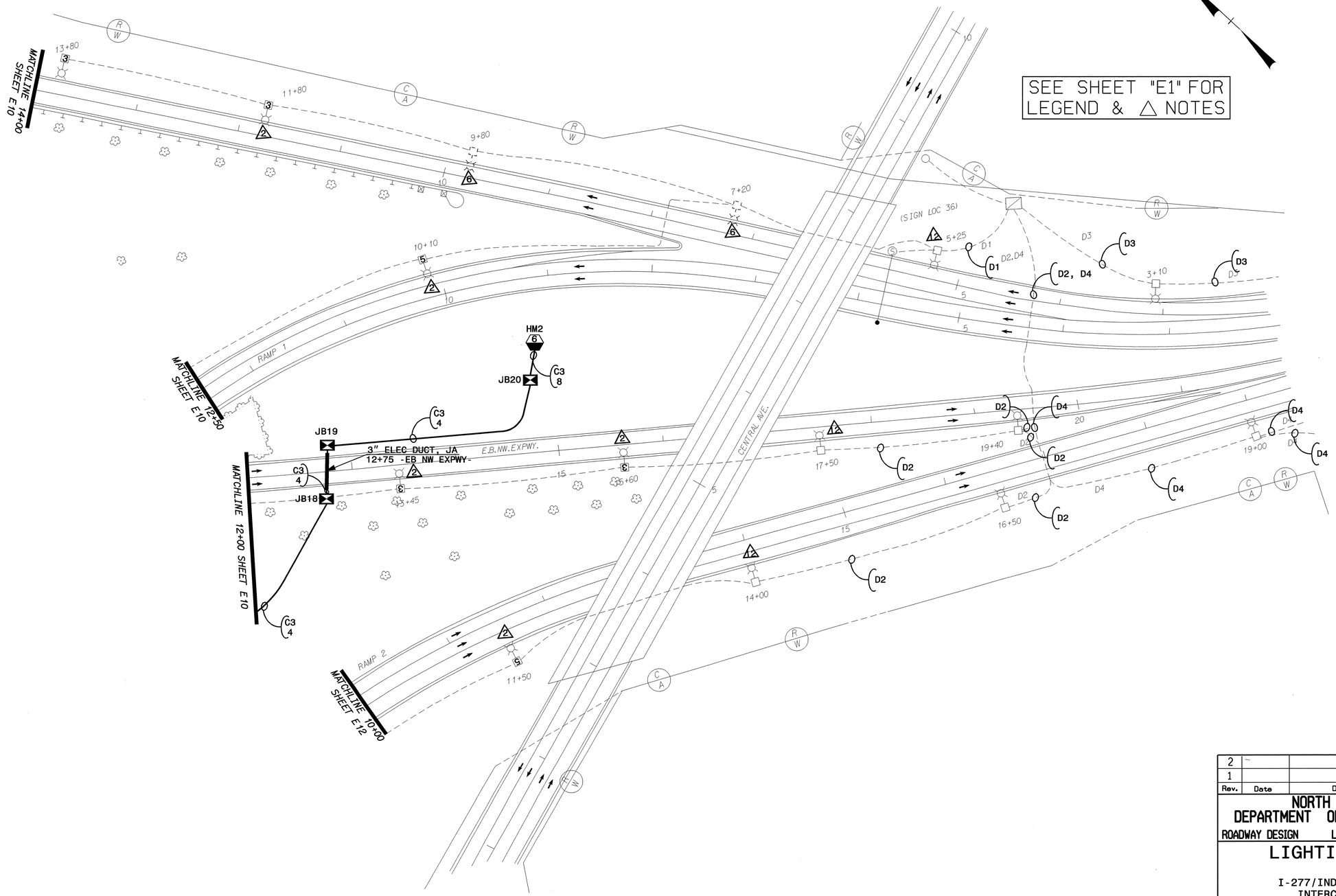
PROJECT REFERENCE NO.	SHEET NO.
I-5014	E11

USE FOR LIGHTING RENOVATION ONLY

0 50 100

SEE SHEET "E1" FOR LEGEND & △ NOTES



Rev.	Date	Description	Approved
2			
1			

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION

LIGHTING LAYOUT

I-277/INDEPENDENCE BLVD
INTERCHANGE RAMPS

MECKLENBURG COUNTY

Drawn By: RGH Approved By: Dwg No.:

NORTH CAROLINA PROFESSIONAL SEAL 022682 ENGINEER PAUL KI-BUN CHAN 2/15/08

02/03/08

15-FEB-2008 11:13
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02/03/98

PROJECT REFERENCE NO.	SHEET NO.
I-5014	E12

USE FOR LIGHTING RENOVATION ONLY

0 50 100

MATCHLINE 229+15 SHEET E10

MATCHLINE 16+10 SHEET E10

MATCHLINE 230+90 SHEET E10

MATCHLINE 10+00 SHEET E11

EXISTING TRANSFORMER STA. "C"

EXISTING 35' CLASS IV SERVICE POLE

SEE SHEET E13 FOR CONTROL SYSTEM "C" LOAD SCHEDULE

SEE SHEET "E1" FOR LEGEND & △ NOTES

SER LAT 3 #1/0 USE 2"C

CONTROL SYSTEM "G"

JB1

JB11

JB12

JB13

2" ELEC DUCT, BD

4" ELEC DUCT, JA △1
231+60 -SB IND EXPWY-

4" ELEC DUCT, JA △1
233+15 -NB IND EXPWY-

2" ELEC DUCT, BD

7TH ST.

O/H SIGN ASSEMBLY "H"

JB32

JB45

JB27

JB22

3" ELEC DUCT, JA
5+16 -RAMP 2-

JB33

JB23

JB34

HM4

JB35

3" ELEC DUCT, JA
8+25 -5TH ST-

JB24

JB25

1½" RGC △7

RAMP 1

RAMP 2

MATCHLINE 26+56 SHEET E13

MATCHLINE 241+13 SHEET E13

Rev.	Date	Description	Approved
2			
1			

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN LIGHTING/ELECTRICAL SECTION

LIGHTING LAYOUT

I-277 FROM SOUTH OF
10TH STREET TO 5TH STREET

MECKLENBURG COUNTY

Drawn By: RGH | Approved By: | Dwg No.:

NORTH CAROLINA PROFESSIONAL SEAL 022582 ENGINEER PAUL KI-BUM CHAN 2/18/08

15-FEB-2008 11:13
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02/03/98

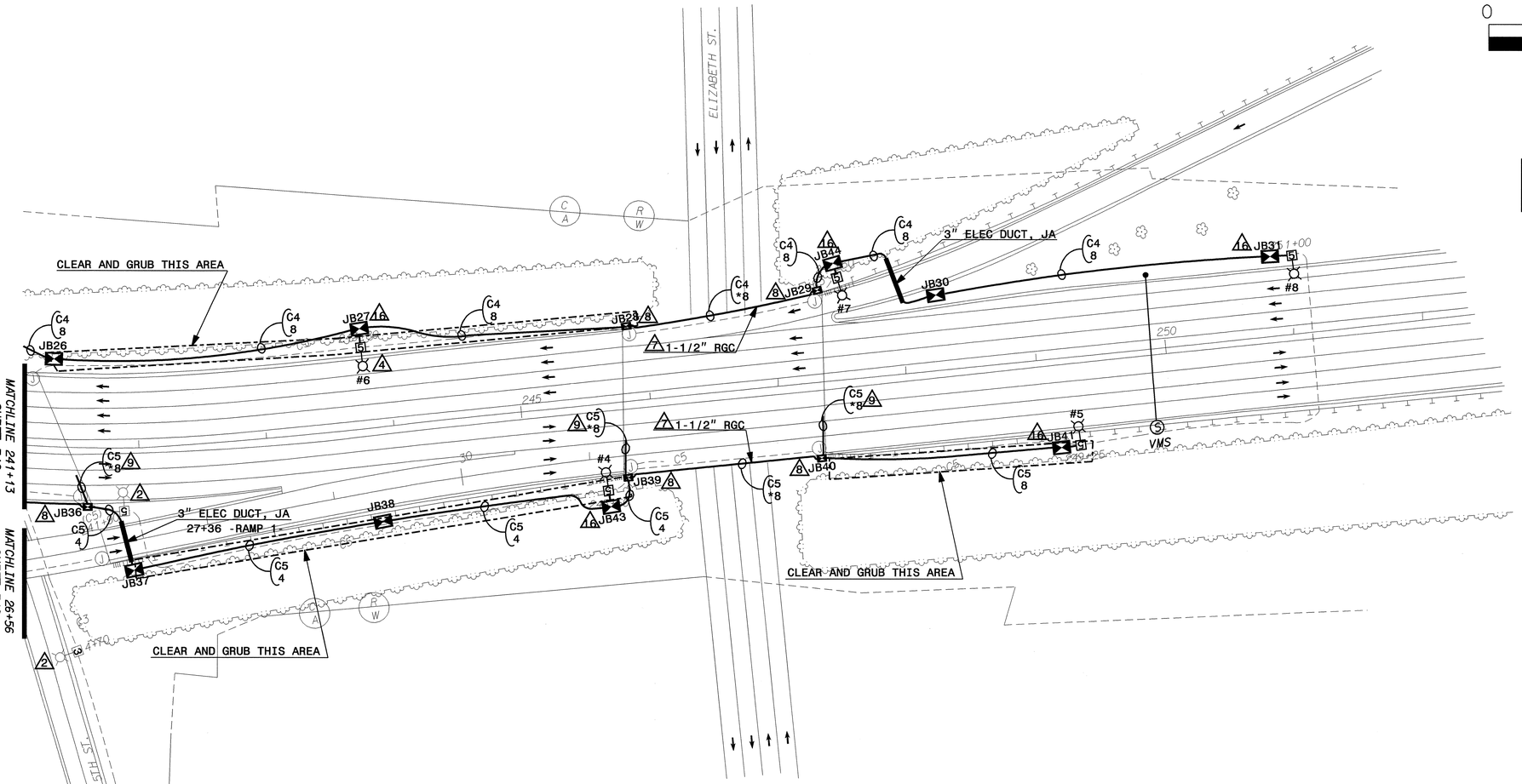
PROJECT REFERENCE NO.	SHEET NO.
I-5014	E13

USE FOR LIGHTING RENOVATION ONLY

0 50 100

NORTH CAROLINA PROFESSIONAL SEAL 022582 ENGINEER PAUL KI-BUM CHAN 2/18/08

SEE SHEET "E1" FOR LEGEND & △ NOTES



LOAD SCHEDULE
I-277/7TH STREET INTERCHANGE

1Ø, 3W, 240/480 VAC — CONTROL SYSTEM "C"

	EXISTING				PROPOSED							
CKT	SINGLE ARM 1 @ 250W HPS	SINGLE ARM 1 @ 400W HPS	SIGNS	U.P. LIGHTS	SINGLE ARM 1 @ 400W HPS	HIGH MAST 8 @ 750W HPS	HIGH MAST 6 @ 400W HPS	SIGN LIGHTER 1 @ 150W HPS	U.P. LIGHTS 1 @ 150W HPS	AMPS @ 480V	KW LOAD	BREAKER SIZE (AMPS)
C1	3 TOTAL	5 TOTAL	1 TOTAL	4 TOTAL	1, 2, 3			6 @ OH "G"	4 @ UPL6 (10TH)	7.1	3.4	15
C2	1 TOTAL	8 TOTAL		4 TOTAL		HM1				14.4	6.9	20
C3	7 TOTAL	5 TOTAL	1 TOTAL			HM3	HM2			22.4	10.8	30
C4	3 TOTAL	4 TOTAL	1 TOTAL		6, 7, 8					3.0	1.4	15
C5		6 TOTAL		12 TOTAL	4, 5	HM4		4 @ OH "H"	6 @ UPL 8 (ELIZ. ST) 6 @ UPL 7 (5TH)	22.9	11.0	30
SPARE												30
TOTAL	14	28	3	20	8	3	1	10	16	69.8	33.5	

Rev.	Date	Description	Approved
2			
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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN — LIGHTING/ELECTRICAL SECTION

LIGHTING LAYOUT

STA 241+13 TO PROJECT END

MECKLENBURG COUNTY

Drawn By	Approved By	Dwg No.:
RGH		

15-FEB-2008 11:13
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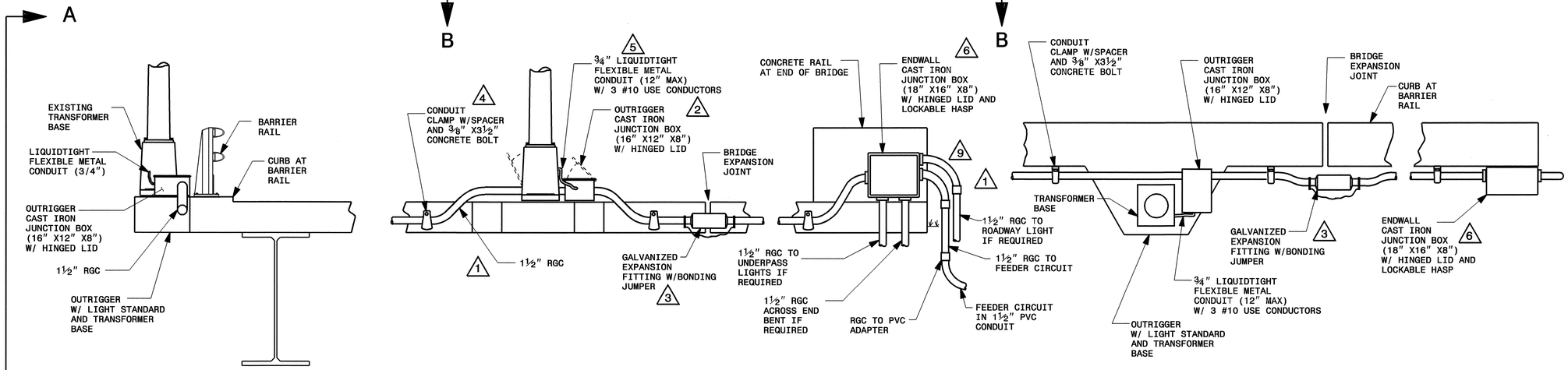
$$$$USERNAME$$$$

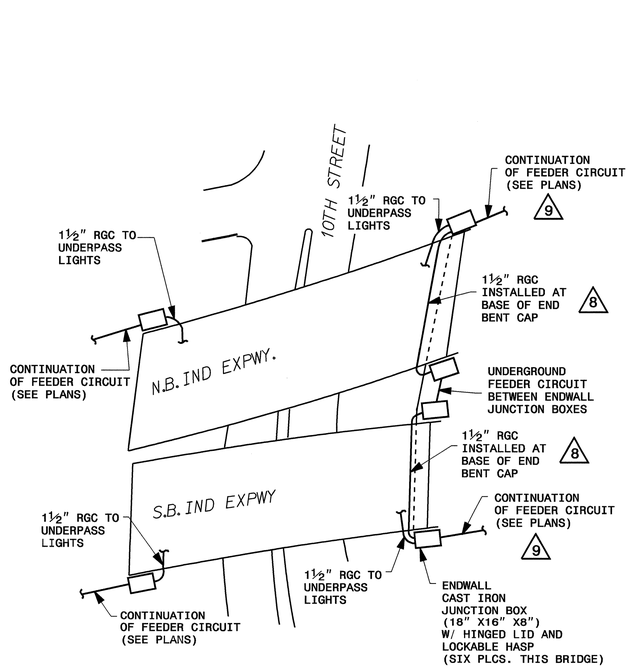
02/03/98

PROJECT REFERENCE NO.	SHEET NO.
I-5014	E14

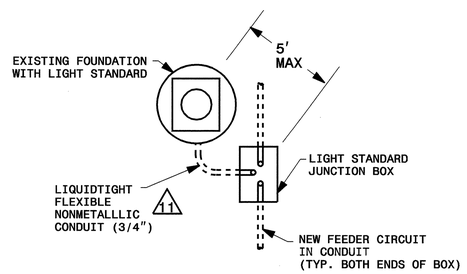
NORTH CAROLINA PROFESSIONAL SEAL 022582 ENGINEER PAUL KI-BUM CHAN 2/18/08



RIGID GALVANIZED CONDUIT AT RAILROAD BRIDGE 7 10



10TH STREET BRIDGE 7 10



JUNCTION BOX INSTALLATION AT EXISTING STANDARDS

NOTES

1. FIELD BEND OR USE ENGINEER APPROVED CONDUIT SWEEPS. 1½" CONDUIT SHOWN. 2" CONDUIT REQUIRED AT SOME LOCATIONS SHOWN IN THE PLANS.
2. INSTALL OUTRIGGER JUNCTION BOXES ON SIDE OF POLE OPPOSITE TRANSFORMER BASE DOOR.
3. OFFSET CONDUIT AS REQUIRED TO PREVENT CONTACT WITH BRIDGE AND ALLOW PROPER MOVEMENT OF EXPANSION FITTING.
4. INSTALL CONDUIT CLAMPS AND SPACERS ACCORDING TO NATIONAL ELECTRICAL CODE ARTICLE 344.
5. INSTALL LIQUIDTIGHT FLEXIBLE METAL CONDUIT ACCORDING TO NATIONAL ELECTRICAL CODE ARTICLE 350.
6. INSTALL OVER EXISTING JUNCTION BOX IF PRESENT. INSTALL ON BACK OF BARRIER IF NOT.
7. INSTALLATION IS SIMILAR AT BRIDGES WITHOUT EXISTING POLES ON OUTRIGGERS.
8. INSTALL RGC ON TOP OF SLOPE PROTECTION, OR BENT CAP, AS CIRCUMSTANCES REQUIRE. USE CONDUIT CLAMPS AND SPACERS WITH ⅜" X 3½" CONCRETE WEDGE ANCHORS FOR 1½" CONDUIT. ½" X 3½" CONCRETE WEDGE ANCHORS ARE REQUIRED FOR 2" CONDUIT.
9. USE RGC IN ALL EXPOSED LOCATIONS AND TRANSITION TO PVC CONDUIT UNDERGROUND.
10. REFER TO PLANS FOR CONDUCTOR SIZES
11. REFER TO PROJECT SPECIAL PROVISIONS TITLED LIGHT STANDARD JUNCTION BOXES FOR MATERIALS, CONSTRUCTION METHODS AND PAYMENT.

ESTIMATED LIST OF MATERIALS
FOR ATTACHMENT TO ALL BRIDGES

SHEET	AREA	RGC (FT)		JUNCTION BOXES		EXP. FITTINGS	
		2"	1½"	OUTRIGGER	ENDWALL	2"	1½"
E4	JOHNSON ST. BRIDGE		105		1		1
E5	JOHNSON ST. BRIDGE		125	1			1
E5	RAILROAD BRIDGE		1500	5	2		15
E6	GRAHAM ST. BRIDGE		270	1	2		2
E6	CHURCH ST. BRIDGE		110		2		1
E7	CHURCH ST. BRIDGE		250		2		2
E7	TRYON ST. BRIDGE		50		2		
E7	COLLEGE ST. BRIDGE		330		4		3
E7	RAILROAD BRIDGE		335		2		3
E8	RAILROAD BRIDGE		70		2		
E8	BREVARD ST. BRIDGE		305		4		3
E8	CALDWELL ST. BRIDGE	180			2	1	
E10	10TH ST. BRIDGE		225		6		2
E12	5TH ST. BRIDGE		125		1		1
E13	5TH ST. BRIDGE		55		1		
E13	ELIZABETH ST. BRIDGE		370		4		3
TOTALS		180	4225	7	37	1	37

Rev.	Date	Description	Approved
2			
1			

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

INSTALLATION DETAILS

CONDUIT AND JUNCTION BOXES

Drawn By: JAS | Approved By: | Dwg No.:

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