TRAFFIC DATA 1-290 / IL 53 NORTH/SOUTH 1-90 EAST/WEST

I-57 NORTH/SOUTH

US 30 EAST/WEST

0

0

0

ADT 2017 82300/74000 109800 79500/54500

33000/21000

SPEED POSTED 55/55 70/70 55/60

45/45

DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

VARIOUS ROUTES VARIOUS LOCATIONS SECTION: 2018–131–L

PROJECT: NHPP-S9MW(891)

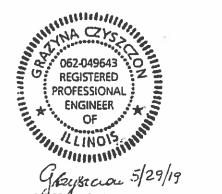
REPLACE LIGHT TOWERS & FOUNDATIONS AT VARIOUS LOCATIONS ALONG 1-57 /US-30 AND I-290 /IL-53 /I-90 IN COOK COUNTY

D-91-070-19 C-91-264-19

111 W. JACKSON BLVD,, CHICAGO, IL 60604

FAX 312-427-4146

MAIN 312-377-7700







EXPIRES: 11-30-2019

SEE LOCATION MAPS ON

ON SHEET E-TLC1

SHEET E-KP1 AND INDEX OF SHEETS

AND IDOT HIGHWAY STANDARDS LIST

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.LI.E.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123 OR 811

MEADE ELECTRIC CO. DISTRICT ONE ELECTRICAL MAINTENANCE CONTRACTOR LOCATES DOOT ELECTRICAL EQUIPMENT AND UNDERGROUND CABLES 773-287-7672

PROJECT ENGINEER: TONY GODINHO PROJECT MANAGER: DARYLE DREW

(847)-705-4442 (847)-705-4424

CONTRACT NO. 62H54

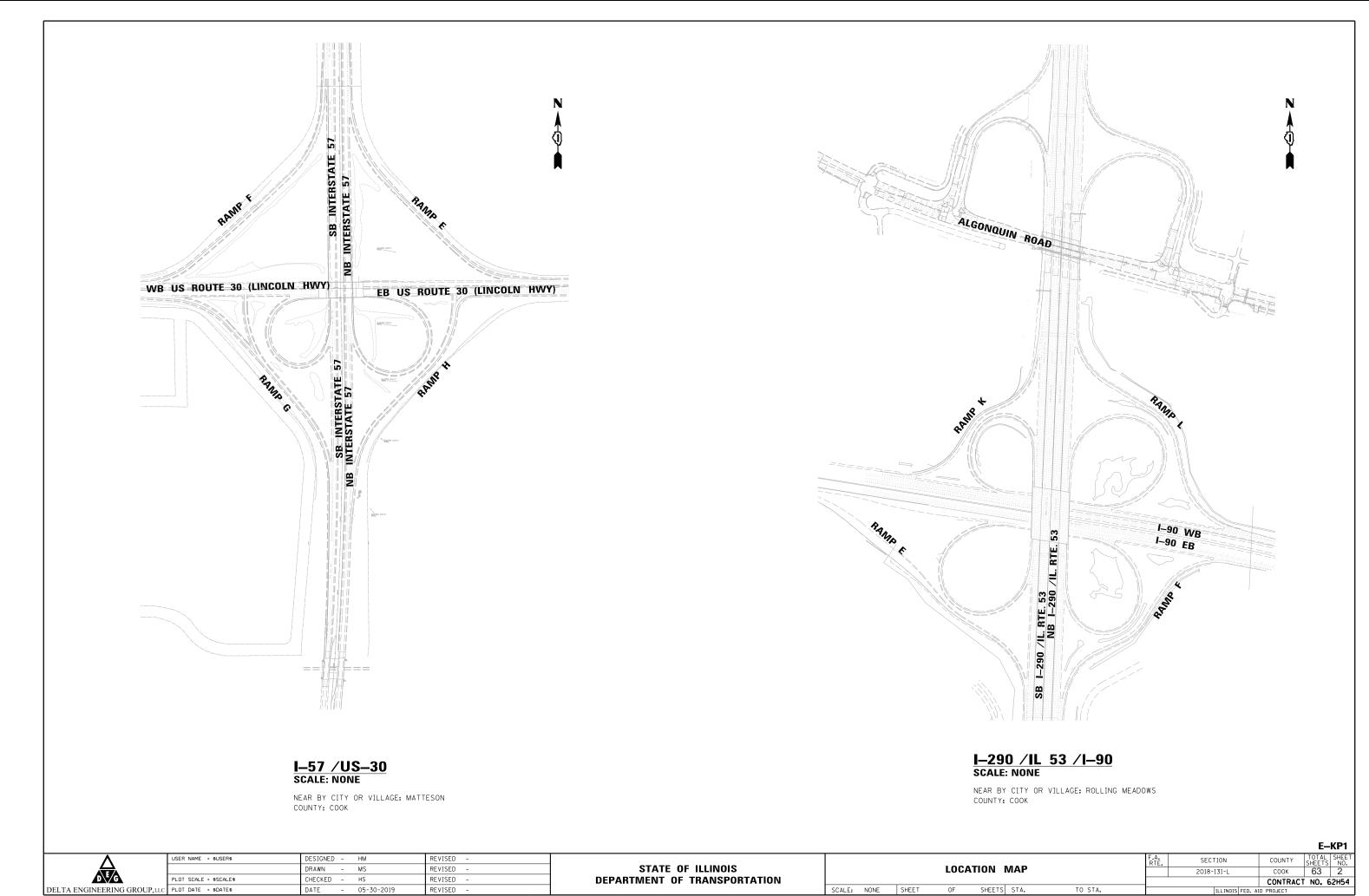


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STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

LOCATION OF SECTION INDICATED THUS: -



SCALE: NONE SHEET

OF SHEETS STA.

TO STA.

DATE

- 05-30-2019

REVISED

	Section: 2018-131-L			CONSTRUCTION CODE			
	Contract No.: 62H54		URBAN	90% FED	90% FED		
	(D-91-070-19) (C-91-264-19)		UKBAN	10% TDC	10% TDC		
				ROADWAY	HIGHWAY LIGHTING		
CODE			TOTAL	0021	0021		
NO.	ITEM	UNIT	QUANTITY	соок	соок		
20101000	TEMPORARY FENCE	FOOT	400	400			
20200100	EARTH EXCAVATION	CU YD	68	68			
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	3,048	3,048			
	,		,	,			
25000210	SEEDING, CLASS 2A	ACRE	0.15	0.15			
	,						
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	13	13			
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	13	13			
			13	15			
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	13	13			
25100630	EROSION CONTROL BLANKET	SQ YD	3,048	3,048			
23100030	EROSION CONTROL BLANKET	30,15	3,040	3,040			
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	10	10			
28000230	TENT CHART ENGSION CONTINUE SEEDING	10010	10	10			
28000400	PERIMETER EROSION BARRIER	FOOT	14,158	14,158			
28000400	TERMETER EROSION BARRIER	1001	14,130	14,130			
28000500	INLET AND PIPE PROTECTION	EACH	5	5			
28000300	INCLUAND FIFE FROTECTION	LACII	, ,	3			
29001100	TEMPORARY EROSION CONTROL BLANKET	SQ YD	400	400			
28001100	TENT ORART EROSION CONTROL BEANKET	30,10	400	400			
31101400	SUB-BASE GRANULAR MATERIAL, TYPE B 6"	SQ YD	60	60			
31101400	SOB-BASE GRANULAR MATERIAL, TIPE B 0	30 10	00	60			
42000060	WELDED WIRE REINFORCEMENT	SQ YD	60	60			
42000000	WEEDED WINE KEINI OKCEWENT	30,10	- 00	00			
50200100	STRUCTURE EXCAVATION	CU YD	81	81			
30200100	STRUCTURE EXCAVATION	COTD	91	91			
50300225	CONCRETE STRUCTURES	CU YD	45	45			
30300223	CONCRETE STRUCTURES	COTD	43	45			
50300300	PROTECTIVE COAT	SQ YD	86	86			
30300300	PROTECTIVE COAT	3Q 1D	00	80			
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	5,860	5,860			
30800203	REINFORCEIVIENT BARS, EFOAT COATED	FOUND	3,800	3,800			
66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	255	255			
00300200	NON-SPECIAL WASTE DISPOSAL	COTD	233	233			
66900530	SOIL DISPOSAL ANALYSIS	EACH	4	4			
00300330	SOIL DISPOSAL AINALISIS	LACII	7	-			
66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1			
20201001	REGORATED SOBSTANCES FRE-CONSTRUCTION FEAT	L SUIVI	1	1			
66901002	ON-SITE MONITORING OF REGULATED SUBSTANCES	CAL DA	15	15			
00501002	OIT-STIL MONITORING OF REGULATED SUBSTAINCES	CALDA	12	13			
66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1			
00201003	REGOLATED SUBSTANCES FINAL CONSTRUCTION REPORT	LOUIVI	1	1			
67000400	ENCINEED'S FIELD OFFICE TYPE A	CALAGO	12	12			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12			
C7100100	MORILIZATION	1.0104	4	1			
67100100	MOBILIZATION	LSUM	1	1			
i			1	1			

	Section:				STRUCTION CODE
	Contract No.: 62H54		URBAN	90% FED	90% FED
	(D-91-070-19) (C-91-264-19)			10% TDC	10% TDC
				ROADWAY	HIGHWAY LIGHTING
CODE			TOTAL	0021	0021
NO.	ITEM	UNIT	QUANTITY	соок	соок
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	510		510
			323		
81603081	UNIT DUCT, 600V, 3-1C NO.2, 1/C NO.4 GROUND, (XLP-TYPE USE), 1 1/2" DIA. POLYETHYLENE	FOOT	15,460		15,460
83050825	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 FT. DAVIT ARM	EACH	52		52
83504500	LIGHT TOWER, 120 FT. MOUNTING HEIGHT, LUMINAIRE MT 8	EACH	3		3
83600365	LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 10" X 8'	EACH	52		52
83700350	LIGHT TOWER FOUNDATION, 54" DIAMETER	FOOT	60		60
83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	52		52
84100110	REMOVAL OF TEMPORARY LIGHTING UNIT	EACH	2		2
89502380	REMOVE EXISTING HANDHOLE	EACH	3		3
X1400149	LUMINAIRE, LED, HORIZONTAL MOUNT, TYPE C	EACH	125		125
X1400190	REMOVAL OF HIGH MAST LUMINAIRES, SALVAGE	EACH	57		57
X1400191	MAINTENANCE OF LIGHTING SYSTEM, LOCATION 1	CAL MO	12		12
X1400192	MAINTENANCE OF LIGHTING SYSTEM, LOCATION 2	CAL MO	12		12
X1400193	MAINTENANCE OF LIGHTING SYSTEM, LOCATION 3	CAL MO	12		12
X1400341	REMOVAL OF LUMINAIRE, SALVAGE	EACH	73		73
X2501800	SEEDING CLASS 4 (MODIFIED)	ACRE	0.48	0.48	
X7010216	TRAFFIC CONTROL AND PROTECTION, SPECIAL	L SUM	1	1	
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1	
X8420502	REMOVAL OF LIGHT TOWER, NO SALVAGE	EACH	18		18
X8420510	REMOVAL OF TOWER FOUNDATION	EACH	18		18
X8951011	REMOVAL AERIAL CABLE	FOOT	200		200
Z0013798	CONSTRUCTION LAYOUT	L SUM	1		1
Z0033020	LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	125		125
X1400259	LUMINAIRE, HIGHMAST LED, TYPE D	EACH	14		14

Section:

ELTA ENGINEERING GROUP, 1

	USER NAME = \$USER\$	DESIGNED	-	НМ	REVISED -
		DRAWN	-	MS	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED	-	HS	REVISED -
:	PLOT DATE = \$DATE\$	DATE	-	05-30-2019	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE:

				E-0	TY1
0111111111 OF 011111111111	F.A. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
SUMMARY OF QUANTITIES		2018-131-L	COOK	63	3
			CONTRAC	T NO. 6	52H54
SHEET OF SHEETS STA. TO STA.		ILLINOIS FED. AT	D PROJECT		

CONSTRUCTION CODE

LIGHT TOWER REPLACEMENT INFORMATION GROUPED PER LOCATION

TOWER INFORMATION

												1						
LIGHTING CONTROLLER "L" NUMBER	LIGHTING CONTROLLER CABINET DESIGNATION	TOWER STRUCTURE NUMBER	COUNTY	NEARBY CITY OR VILLAGE	MAIN ROUTE	CROSS ST.	TOWER EXISTING LATITUDE	TOWER EXISTING LONGITUDE	EXISITNG LUMINAIRE VOLTAGE	EXISTING HIGHMAST HPS LUMINAIRE TO BE SALVAGED (QUANTITY - WATTAGE)	PROPOSED HIGHMAST LUMINAIRES (QUANTITY - LED TYPE)	EXISITNG TOWERS TO BE REMOVED NO SALVAGE	EXISTING FOUNDATION TO BE REMOVED	EXISITNG TOWER HEIGHT (FT)	PROPOSED TOWER HEIGHT (FT)	PROPOSED RECOMMENDED FOUNDATION DEPTH (FT)	PROPOSED FOUNDATION DIAMETER (INCHES)	PROPSOED WORK INFO
L0495	Х	3XCD4	Cook	Matteson	I-57	US 30 (Lincoln Hwy)	41.514128	-87.742925	240	3-750W		х	Х	100				REPLACE WITH NEW LIGHT POLES
L0495	Х	3XCD3	Cook	Matteson	I-57	US 30 (Lincoln Hwy)	41.51182	-87.742914	240	3-750W		х	Х	100				REPLACE WITH NEW LIGHT POLES
L0495	Х	3XCD2	Cook	Matteson	I-57	US 30 (Lincoln Hwy)	41.507548	-87.744461	240	3-750W		х	Х	100				REPLACE WITH NEW LIGHT POLES
L0495	Х	3XCD1	Cook	Matteson	I-57	US 30 (Lincoln Hwy)	41.509619	-87.743015	240	3-750W		х	Х	100				REPLACE WITH NEW LIGHT POLES
L0495	Х	3XAB5	Cook	Matteson	I-57	US 30 (Lincoln Hwy)	41.51297	-87.74213	240	3-750W		х	X	100				REPLACE WITH NEW LIGHT POLES
L0495	Х	3XAB4	Cook	Matteson	I-57	US 30 (Lincoln Hwy)	41.510731	-87.742063	240	3-750W		х	X	100				REPLACE WITH NEW LIGHT POLES
L0495	Х	4XAB3	Cook	Matteson	I-57	US 30 (Lincoln Hwy)	41.507843	-87.741817	240	4-750W		х	Х	100				REPLACE WITH NEW LIGHT POLES
L0495	Х	3XAB1 (3XMN2)	Cook	Matteson	I-57	US 30 (Lincoln Hwy)	41.506384	-87.740075	240	3-750W		х	Х	100				REPLACE WITH NEW LIGHT POLES
L0495	Х	2XIJ1	Cook	Matteson	I-57	US 30 (Lincoln Hwy)	41.505742	-87.739156	240	2-750W		х	Х	100				REPLACE WITH NEW LIGHT POLES
L0495	X	2XIJ3	Cook	Matteson	I-57	US 30 (Lincoln Hwy)	41.50587	-87.74158	240	2-750W		Х	X	100				REPLACE WITH NEW LIGHT POLES
L0495	Х	3XIJ4	Cook	Matteson	I-57	US 30 (Lincoln Hwy)	41.50536	-87.742966	240	3-750W		Х	X	100				REPLACE WITH NEW LIGHT POLES
L0495	Х	2XGH5	Cook	Matteson	I-57	US 30 (Lincoln Hwy)	41.504527	-87.743844	240	2-750W		Х	Х	100				REPLACE WITH NEW LIGHT POLES
L0495	Х	5XEF9	Cook	Matteson	I-57	US 30 (Lincoln Hwy)	41.506661	-87.742936	240	5-750W		Х	Х	100				REPLACE WITH NEW LIGHT POLES
L1520	P	4PEF3	Cook	Rolling Meadows	I-290/IL 53	I-90	42.054004	-88.027881	240	4-750W	4 - LED TYPE D	Х	Х	120	120	20	54"	REPLACE WITH NEW LIGHT TOWER
L1520	Р	5PGH1	Cook	Rolling Meadows	I-290/IL 53	I-90	42.055405	-88.027939	240	5-750W	5 - LED TYPE D	х	X	120	120	20	54"	REPLACE WITH NEW LIGHT TOWER
L1525	R	5REF4	Cook	Rolling Meadows	I-290/IL 53	1-90	42.058044	-88.027697	240	5-750W	5 - LED TYPE D	X	X	120	120	20	54'	REPLACE WITH NEW LIGHT TOWER
L1525	R	2REF5	Cook	Rolling Meadows	I-290/IL 53	I-90	42.059138	-88.026075	240	2-750W		Х	X	120				REPLACE WITH NEW LIGHT POLES
L1525	R	2RAB6	Cook	Rolling Meadows	I-290/IL 53	I-90	42.058777	-88.030211	240	2-750W		Х	X	120				REPLACE WITH NEW LIGHT POLES

INDEX OF SHEETS

- 1 COVER SHEET
- 2 LOCATION MAP
- 3 SUMMARY OF QUANTITIES
- 4 TOWER REPLACEMENT GROUPED PER LOCATION, INDEX OF SHEETS, IDOT STANDARDS
- 5 15 CIVIL PLAN
 - 16 SYMBOLS LEGEND, GENERAL NOTES AND REMOVAL NOTES
- 17 26 LIGHTING REMOVAL PLAN
- 27 37 PROPOSED LIGHTING PLAN
 - 38 SINGLE LINE DIAGRAM CONTROLLER "P", I-290 / IL 53
- 39 40 SINGLE LINE DIAGRAM CONTROLLER "R", I-290 / IL 53
 - 41 SINGLE LINE DIAGRAM CONTROLLER "X", I-57 / US 30
 - 42 LIGHT TOWER SERVICE PAD DETAILS (5PGHI)
 - 43 LIGHT TOWER SERVICE PAD AND RETAINING WALL DETAILS (4PEF3, 5REF4)
- 44 LIGHT TOWER SERVICE PAD AND RETAINING WALL REINFORCEMENT (4PEF3, 5REF4)
- 45 53 IDOT STANDARD DETAILS (LIGHTING)
 - 54 TC-08 ENTRANCE AND EXIT RAMP CLOSURE DETAILS
 - 55 TC-09 TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE
 - 56 TC-14 TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
 - 57 TC-17 PARTIAL RAMP AND SHOULDER CLOSURE DETAILS
- 58 63 SOIL BORING LOCATIONS AND SOIL BORING LOGS

IDOT HIGHWAY STANDARDS

0001-07	TEMPORARY	EROSION	CONTROL	SYSTEMS

701106-02 OFF-RD OPERATIONS MULTILANE, MORE THAN 15' AWAY

701400-09 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY

701401-12 LANE CLOSURE, FREEWAY/EXPRESSWAY

701411-09 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS >45 MPH

701428-01 TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY

701601-09 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN

701701-10 URBAN LANE CLOSURE, MULTILANE INTERSECTION

701901-08 TRAFFIC CONTROL DEVICES

701446-09 TWO LANE CLOSURE, FREEWAY / EXPRESSWAY

TA ENGINEERING GROUP.

USER NAME = \$USER\$ DESIGNED - HM REVISED -DRAWN - MS REVISED -CHECKED - HS REVISED C PLOT DATE = \$DATE\$ DATE - 05-30-2019 REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SECTION TOWER REPLACEMENT GROUPED PER LOCATION 2018-131-L SHEET OF SHEETS STA.

COUNTY TOTAL SHEET NO. CONTRACT NO. 62H54

E-TLC1

MAINTENANCE OF TRAFFIC GENERAL NOTES

- 1. THE CONTRACTOR'S VEHICLES MUST ALWAYS MOVE WITH AND NOT AGAINST OR ACROSS THE FLOW OF TRAFFIC, AND THEY MUST ENTER OR LEAVE WORK AREAS IN A MANNER WHICH IS NOT HAZARDOUS TO TRAFFIC AND WILL NOT INTERFERE WITH NORMAL TRAFFIC. THE CONTRACTOR'S VEHICLES MUST NOT PARK OR STOP EXCEPT WITHIN DESIGNATED WORK AREAS. PERSONAL VEHICLES ARE NOT PERMITTED TO PARK WITHIN THE RIGHT-OF-WAY EXCEPT IN AREAS DESIGNATED BY THE ENGINEER.
- 2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND TRAFFIC CONTROL DEVICES SHALL BE FIELD FIT TO CONDITIONS AS DIRECTED BY THE ENGINEER.
- 3. ALL SIGNS THAT ARE TO BE IN PLACE MORE THAN 4 DAYS SHALL BE MOUNTED ON METAL POSTS WHEN POSSIBLE, 7 FEET FROM THE TOP OF PAVEMENT TO THE BOTTOM OF THE SIGN, AND DRIVEN A MINIMUM OF 3 FEET INTO THE GROUND. A DIGGER LOCATE SHALL BE PERFORMED PRIOR TO THE INSTALLATION OF THE POSTS. THIS WORK SHALL BE CONSIDERED INCILIDED IN THE CONTRACT.
- 4. EXISTING TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE REMOVED OR RELOCATED BY THE CONTRACTOR AFTER THE TRAFFIC CONTROL REQUIREMENTS ARE MET OR AS AUTHORIZED BY THE ENGINEER; ANY SIGNS OR DEVICES LEFT IN PLACE ARE TO BE PROTECTED FROM DAMAGE AND MAINTAINED.
- 5. BORING PITS ARE TO BE PLACED AT LEAST 15' FROM THE TRAVELED WAY ON THE MAINLINE TO ELIMINATE THE NEED FOR TRAFFIC CONTROL AND PROTECTION PER IDOT HIGHWAY STANDARD 701106-02.
- 6. USE IDOT DISTRICT 1 STANDARD TC-17 FOR PARTIAL RAMP CLOSURES AND SHOULDER CLOSURES ON I-57 AND I-290 WHERE REQUIRED, TC-08 FOR FULL RAMP CLOSURES.
- 7. IF BORING PIT IS LOCATED WITHIN THE CLEAR ZONE BUT OUTSIDE OF CONSTRUCTION CLEAR ZONE, TRAFFIC CONTROL AND PROTECTION MUST REMAIN IN PLACE ADJACENT TO BORING PIT UNTIL EXCAVATED AREA IS FILLED.
- 8. TOWER ASSEMBLY LAYDOWN AREAS MUST BE APPROVED BY THE ENGINEER PRIOR TO USE. ADDITIONAL TRAFFIC CONTROL WILL NOT BE PROVIDED SOLELY FOR TOWER LAYDOWN AREAS.
- 9. CONTRACTOR SHALL REQUEST AND GAIN THE APPROVAL FROM THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S EXPRESSWAY TRAFFIC ENGINEER AT WWW.IDOTLCS.COM TWENTY-FOUR (24) HOURS IN ADVANCE OF ALL DAILY LANE, RAMP AND SHOULDER CLOSURES.
- 10. CONTRACTOR SHALL ENSURE THAT ALL DROP-OFFS ARE LESS THAN 12 INCHES WITHIN 8 FEET OF THE EDGE OF THE NEAREST OPEN TRAFFIC LANE. IF DROP-OFFS ARE 12 INCHES OR GREATER THE TRENCH MIST BE BACKETILED.

THE FOLLOWING HIGHWAY STANDARDS ARE TO BE APPLIED TO EACH SITE:

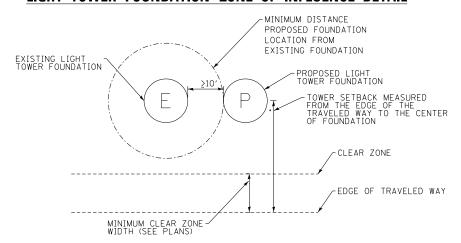
I-290 AT I-90: TC-08, TC-17, 701106-02, 701401-12, 701411-09

I-57 AT US-30: TC-09, TC-17, 701106-2, 701400-09, 701401-12, 701428-01, 701601-09, 701701-10

EROSION AND SEDIMENT CONTROL GENERAL NOTES

- 1. THE CONSTRUCTION LIMITS WILL BE STAKED AND APPROVED BY THE ENGINEER PRIOR TO COMMENCING CONSTRUCTION. THE CONSTRUCTION LIMITS MAY BE ADJUSTED BY THE ENGINEER TO PRESERVE TREES AND NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR CHANGES IN CONSTRUCTION LIMITS.
- 2. THE CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE START OF CONSTRUCTION OPERATIONS WHICH WILL POTENTIALLY CREATE ERODIBLE CONDITIONS. PLACEMENT AND MAINTENANCE OF TEMPORARY EROSION CONTROL SYSTEMS WILL BE UTILIZED THROUGHOUT THE CONSTRUCTION LIMITS.
- 3. THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR MAINTENANCE OF ALL SOIL EROSION CONTROL DURING CONSTRUCTION.
- 4. TEMPORARY EROSION CONTROL MEASURES SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. THE WORK SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 280 OF THE STANDARD SPECIFICATIONS AND CONTRACT SPECIAL PROVISIONS
- 5. ALL EROSION CONTROL MEASURES WILL BE MAINTAINED IN ACCORDANCE WITH THE IDOT EROSION AND SEDIMENT CONTROL FIELD GUIDE FOR CONSTRUCTION INSPECTION AND IDOT'S BEST MANAGEMENT PRACTICES.
- THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN HIGHWAY STANDARD 280001.
- 7. THE EROSION CONTROL MEASURES SHOWN ARE A REPRESENTATION OF SUGGESTED MEASURES. DEVIATIONS FROM THIS PLAN ARE TO BE EXPECTED PENDING A JOBSITE INSPECTION BETWEEN THE CONTRACTOR AND THE DEPARTMENT.
- 8. TEMPORARY STOCKPILE LOCATIONS SHALL BE APPROVED BY THE ENGINEER AND WILL REQUIRE PERIMETER EROSION BARRIER AND TEMPORARY SEEDING WHICH ARE INCLUDED IN THE COST OF DIRECTIONAL BORE.
- 9. THE CONTRACTOR SHALL INSTALL AND MAINTAIN INLET AND PIPE PROTECTION AT ALL LOCATIONS SHOWN IN PLANS PRIOR TO THE START OF WORK. THE INLET AND PIPE PROTECTION SHALL BE MAINTAINED UNTIL NO LONGER REQUIRED OR AS DIRECTED BY THE ENGINEER.
- 10. DURING CONSTRUCTION OPERATIONS, WHEN ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF DITCHES, GUTTERS OR DRAINAGE STRUCTURES SO THAT THE NATURAL FLOW OF WATER IS OBSTRUCTED, THE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY.
- 11. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF IN FT AND PIPE PROTECTION
- 12. FOR PERMANENT EROSION CONTROL, THE CONTRACTOR SHALL PLACE TOPSOIL SO THAT IS HAS A BOND WITH THE EXISTING SURFACE TO WHICH IT IS APPLIED . IT SHALL BE DISKED, RAKED, OR OTHERWISE BROKEN UP IF NECCESSARY TO PROVIDE SUCH BOND.

LIGHT TOWER FOUNDATION ZONE OF INFLUENCE DETAIL



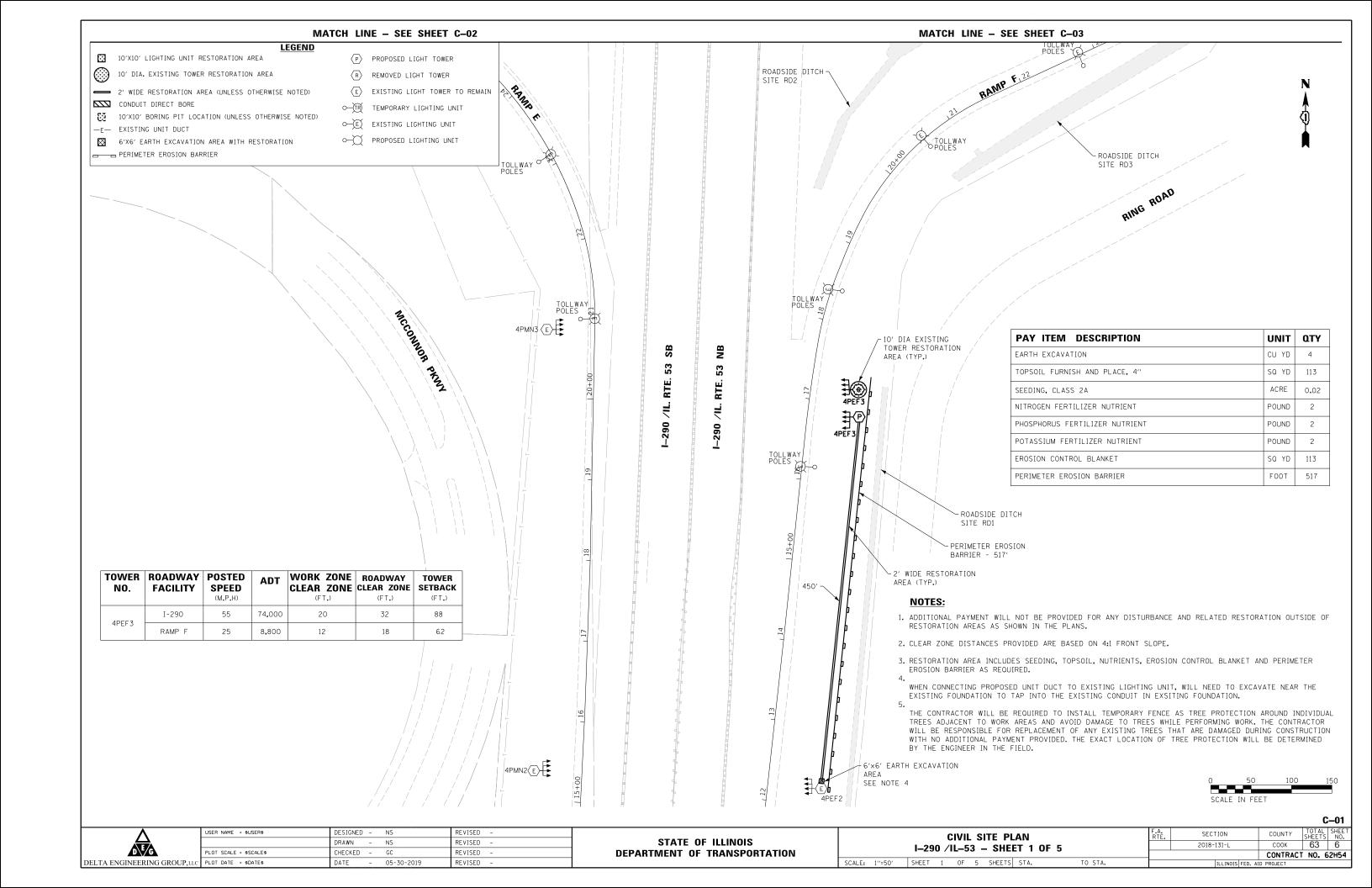
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DELTA ENGINEERING GROUP LLC

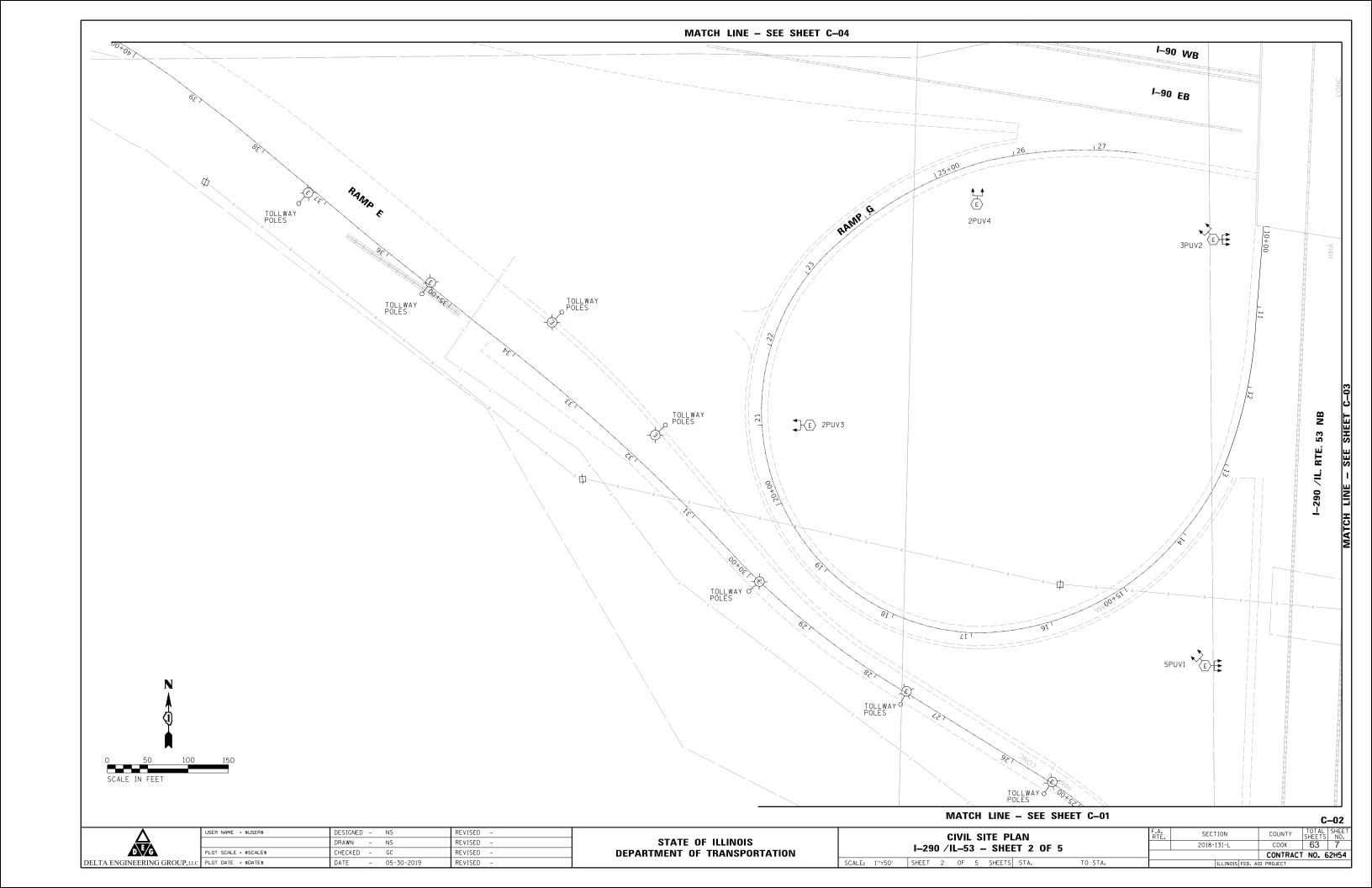
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PLOT DATE = \$DATE\$	DATE	-	05-30-2019	REVISED -

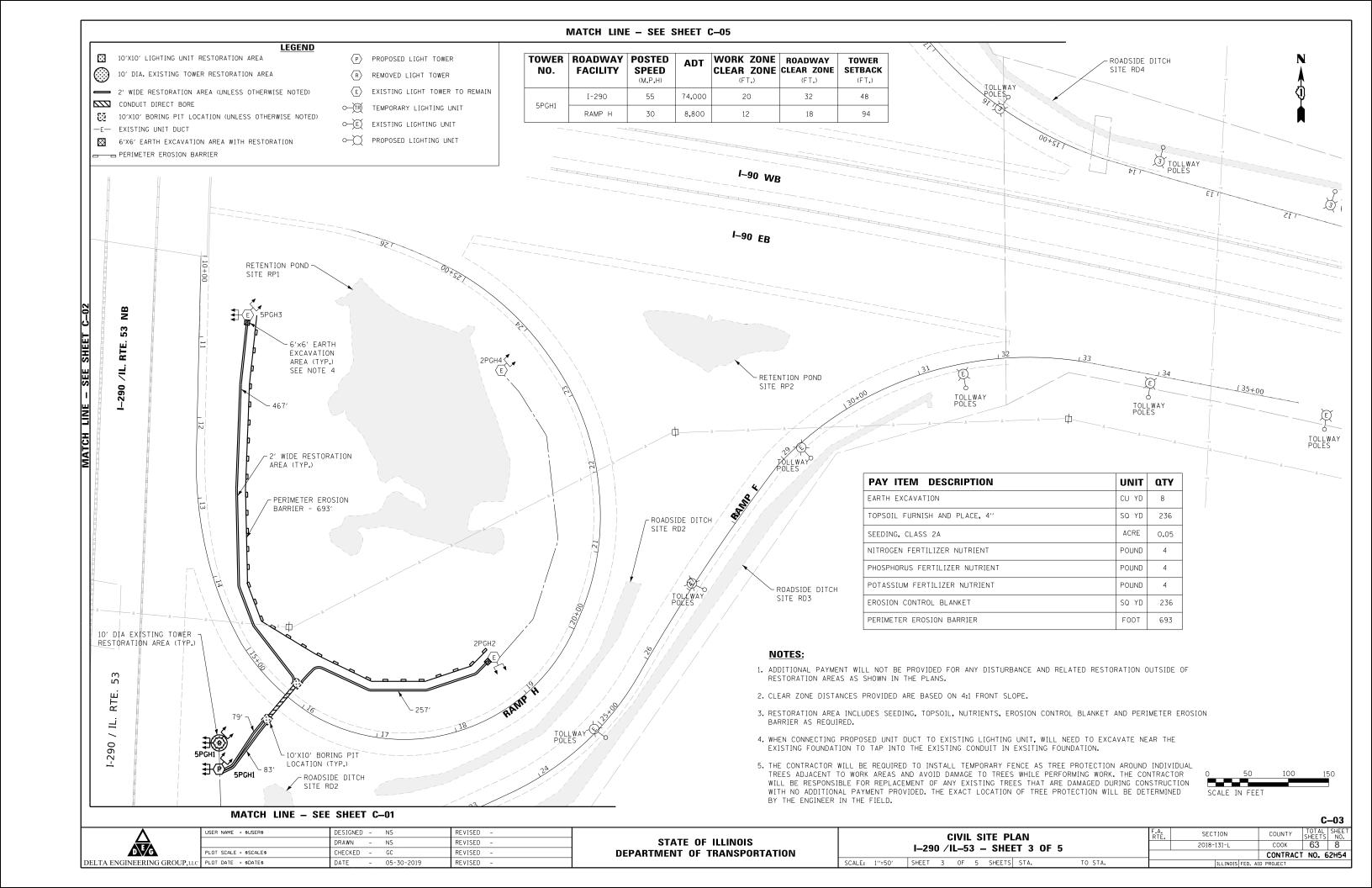
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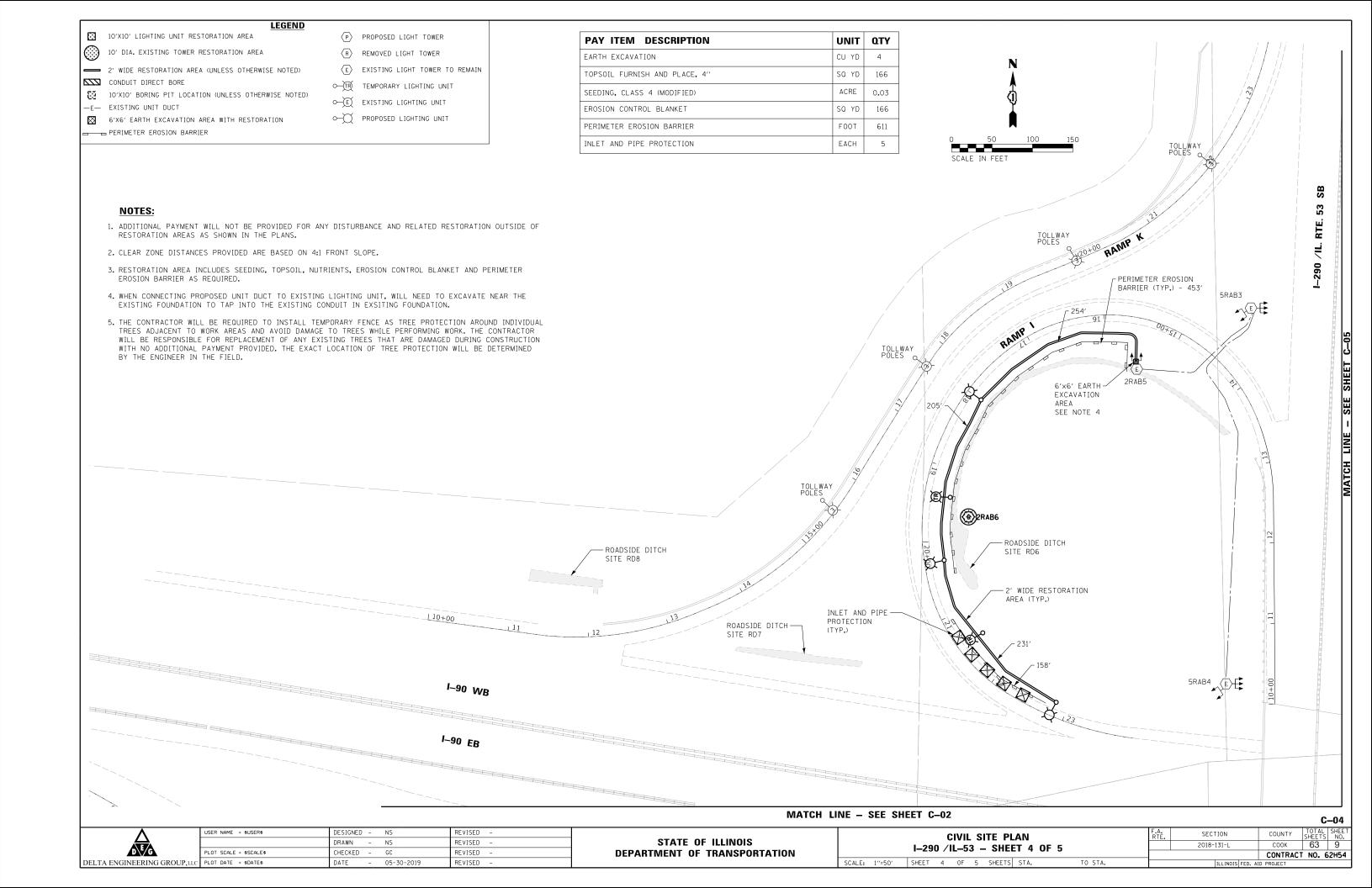
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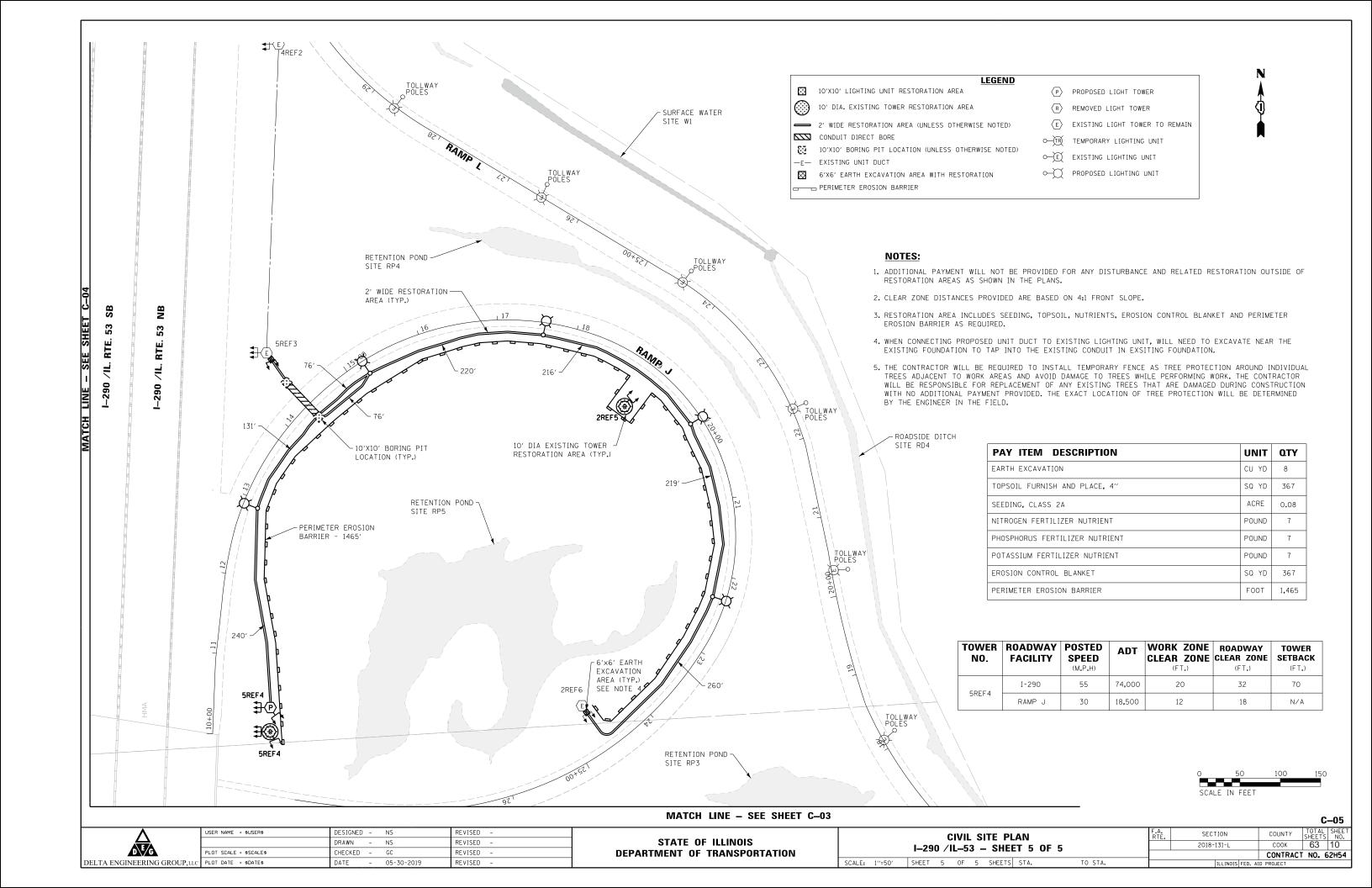
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.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
	2018-131-L	соок	63	5
		CONTRACT	NO. 6	2H54
	ILLINOIS FED. A	ID PROJECT		

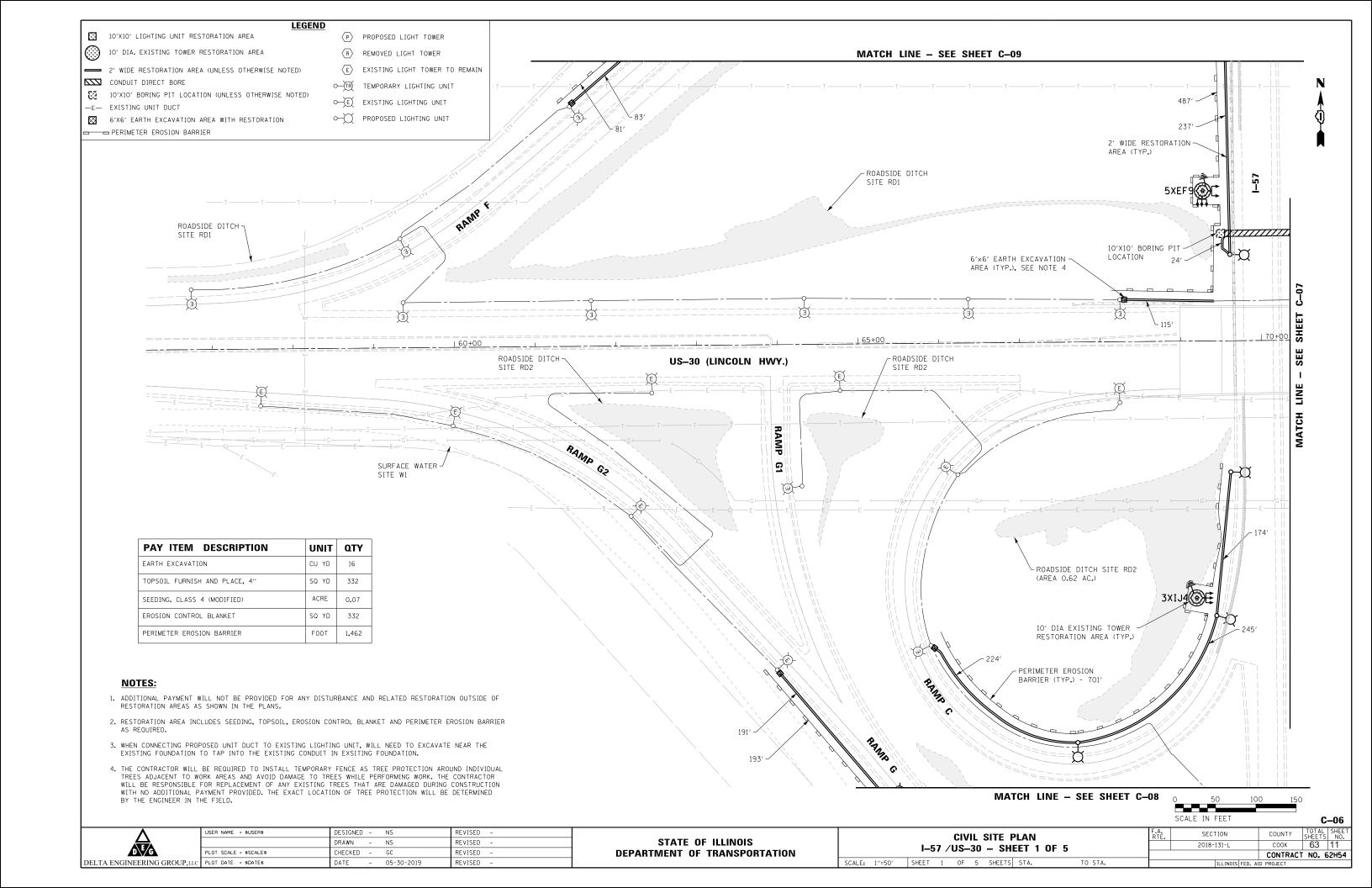


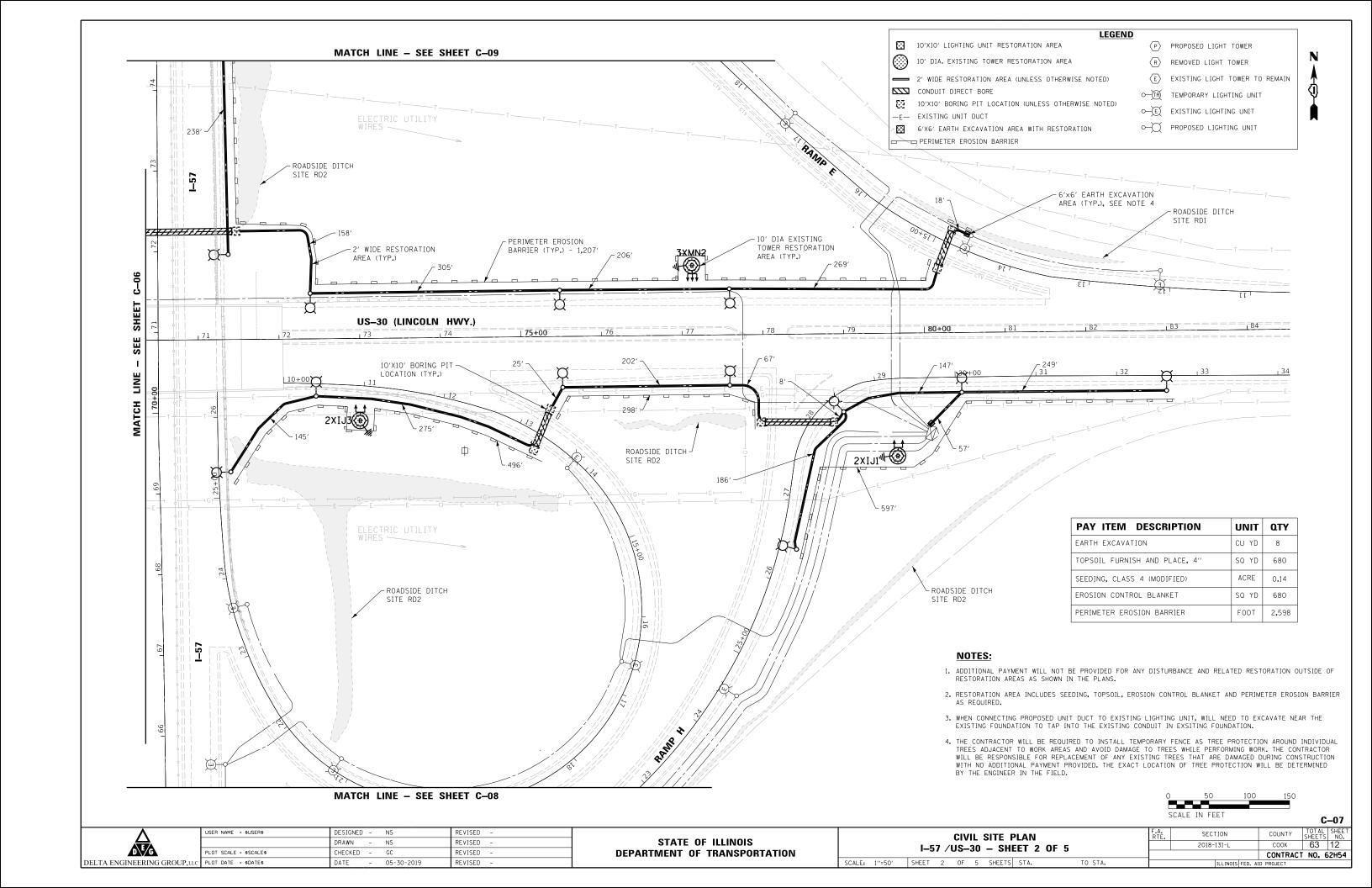


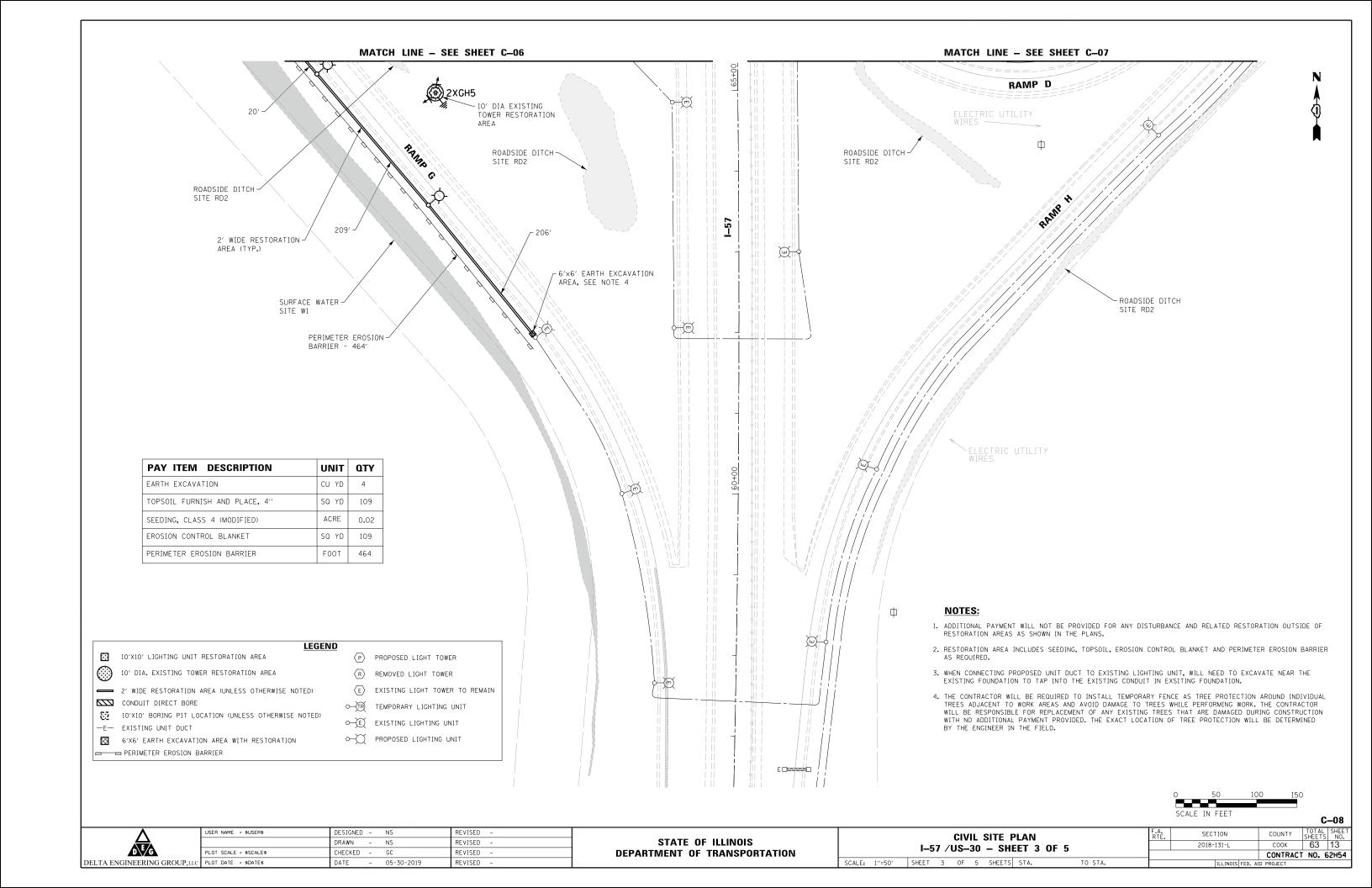


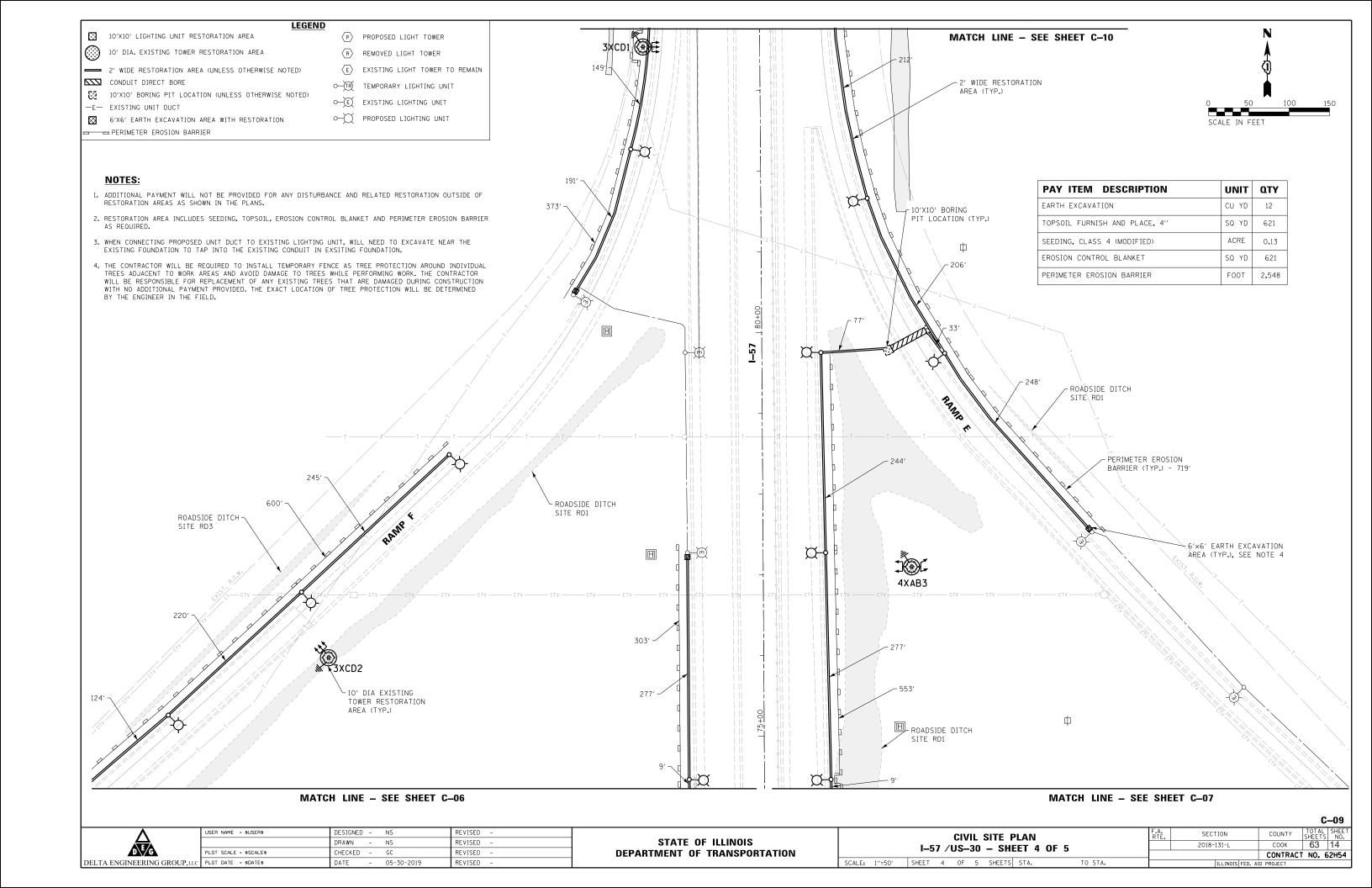


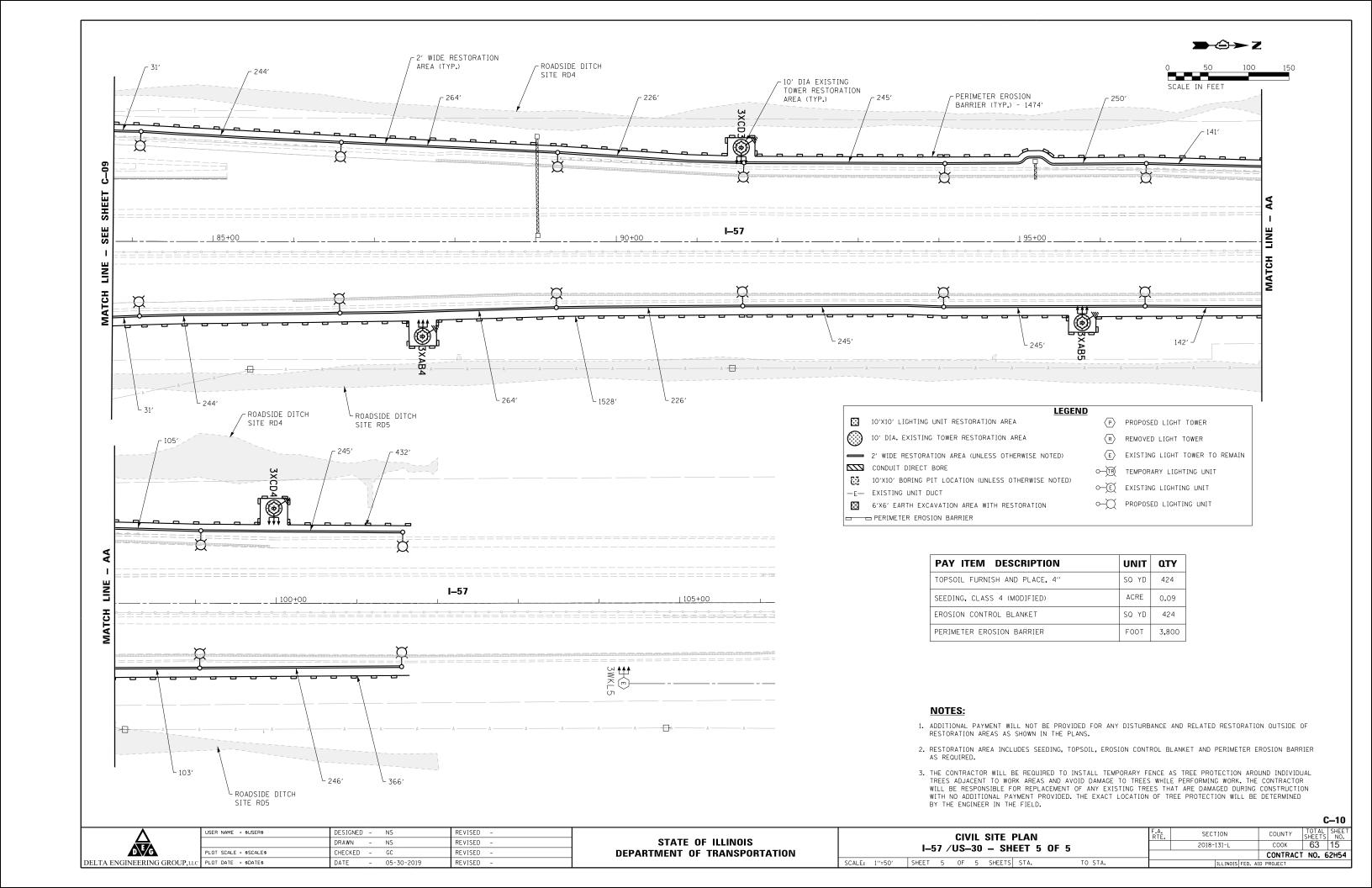












GENERAL NOTES:

- 1. ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST CODES, STANDARDS, AND THE IDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED ON APRIL' 2016, AND SUPPLEMENT SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS ADOPTED ON JAN 1, 2019.
- THE CONTRACTOR MUST VERIFY ALL OF THE INFORMATION SHOWN ON THE CONTRACT PLANS WHICH COULD AFFECT HIS WORK UNDER THIS CONTRACT FOR OPERATION OF THE EXISTING ROADWAY LIGHTING SYSTEM.
- 3. NO MATERIAL OR EQUIPMENT SHALL BE DELIVERED TO THE JOB SITE WITHOUT PRIOR INSPECTION AND APPROVAL BY THE ENGINEER, ANY MATERIAL AND EQUIPMENT NOT APPROVED BY THE ENGINEER MUST BE REMOVED FROM JOB SITE AT THE CONTRACTOR S EXPENSE.
- 4. ALL UNDERGROUND UNIT DUCT SHALL BE 30 INCHES MINIMUM BELOW GRADE PER IDOT SECTION 810. UNIT DUCT MUST BE POSITIONED IN THE FIELD TO AVOID CONFLICT WITH UNDERDRAINS. AND UNDERGROUND UTILITIES.
- ALL SPLICING MUST BE IN TOWER / POLE BASES WITH WATERPROOF SEALANT AND HEAT SHRINKABLE PLASTIC CAPS. UNLESS NOTED OTHERWISE.
- 6. TEMPORARY SUPPORTS FOR EXISTING UTILITIES SHALL BE PROVIDED IF REQUIRED.
- 7. NO LIGHTING CIRCUIT OR PORTION THEREOF SHALL BE REMOVED FROM NIGHT TIME OPERATION OF EXISTING LIGHTING WITHOUT THE APPROVAL OF THE ENGINEER. ALL EXISTING LIGHTING SHALL OPERATE FROM DUSK TO DAWN DAILY FOR DURATION OF THE PROJECT TO MAINTAIN ILLUMINATION OF TRAVELED ROADWAYS.
- 8. EXISTING LIGHTING TOWER / TEMPORARY LIGHTING WILL REMAIN OPERATIONAL UNTIL PROPOSED LIGHTING TOWER OR LIGHT POLES STARTS FUNCTIONING.
- 9. SWITCHOVER OF CABLE CONNECTIONS TO PROPOSED LIGHTING TOWER OR LIGHT POLES FROM EXISTING LIGHTING TOWER / TEMPORARY LIGHTING POLES SHALL TAKE PLACE DURING DAY TIME.
- 10. PROPOSED LIGHTING TOWER IN CONFLICT WITH THE EXISTING DITCH LINES SHALL BE INSTALLED BEHIND THE DITCHES AS APPROVED BY THE ENGINEER. NO TOWER SHALL BE INSTALLED AT THE BOTTOM OF DRAINAGE DITCHES OR IN ESTABLISHED LANDSCAPING.
- 11. ALL EXCAVATION REQUIRED TO FACILITATE THE INSTALLATION OF PROPOSED LIGHT TOWER FOUNDATIONS AT SLOPED AREAS SHALL BE CONSIDERED INCIDENTAL TO THE TOWER FOUNDATIONS. NO SEPARATE PAYMENT WILL BE MADE.
- 12. COUNTERWEIGHTS ON UN-USED TENONS SHALL BE MOUNTED TO BALANCE THE LUMINAIRE AS ACCEPTABLE TO THE ENGINEER.
- 13. TOWER UNIT IDENTIFICATION LABEL SHALL BE PROVIDED AS PER ARTICLE 1069.06 TO THE PROPOSED TOWER TO MATCH WITH EXISTING ONE.
- 14. CONTRACTOR SHALL REVIEW THE SOIL BORING LOGS AND SOIL TEST REPORTS FOR EACH PROPOSED LIGHTING TOWER, BEFORE START OF FOUNDATION AUGURING. EACH HOLE FOR THE FOUNDATION SHALL BE INSPECTED BY THE ENGINEER PRIOR TO POURING CONCRETE FOUNDATION. THE SOIL BORING LOGS REPRESENT POINT INFORMATION, PRESENTATION OF THE INFORMATION IN NO WAY IMPLIES THAT SUB SURFACE CONDITIONS ARE THE SAME AT LOCATIONS OTHER THAN THE EXACT LOCATION OF BORING.
- 15. THE CONTRACTOR IS ADVISED THAT IN THE EVENT OF SNOW, HE SHALL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF ANY MAINTENANCE OF TRAFFIC PROTECTIVE DEVICE REQUIRED FOR THE TRAFFIC OPERATIONS THAT WOULD INTERFERE WITH SNOW REMOVAL OPERATION PREFORMED BY THE STATE IN ACCORDANCE WITH THE IDOT STANDARD SPECIFICATIONS.
- 16. PROPOSED TOWER FOUNDATIONS ARE SHOWN AS APPROXIMATE LOCATIONS. IT CAN BE ADJUSTED IN THE FIELD TO AVOID EXISTING UNDERGROUND CABLE & UTILITY CONFLICTS, PER APPROVAL BY ENGINEER.
- 17. THE PROPOSED TOWER FOUNDATION SHALL NOT BE PLACED CLOSER THAN 10 FT FROM EXISTING TOWER FOUNDATION. THE MINIMUM 10 FT SEPARATION IS MEASURED FROM EDGE OF PROPOSED FOUNDATION TO EDGE OF EXISTING FOUNDATION.
- 18. REMOVAL AND DISPOSAL OF SURPLUS, UNSTABLE, UNSUITABLE, AND ORGANIC MATERIALS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 202 OF THE STANDARD SPECIFICATIONS.

CONTACT NOTES:

 CALL JULIE OR DIGGER FOR CABLE LOCATES, CALL IDOT EMC AT (708) 524-2145 FOR IDOT MAINTAINED CABLE LOCATES. THE PROPOSED TOWER FOUNDATIONS & PROPOSED UNIT DUCTS SHOULD ONLY BE INSTALLED AFTER THE LOCATES HAVE BEEN COMPLETED.

REMOVAL NOTES:

- LOCATIONS OF EXISTING LIGHTING TOWERS SHOWN ON PLAN DRAWINGS ARE APPROXIMATE AND MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR.
- PRIOR TO SUBMITTING A BID, THE CONTRACTOR SHALL REVIEW THE CONTRACT DRAWINGS AND ASCERTAIN EXISTING SITE CONDITIONS TO VERIFY THE EXTENT OF DEMOLITION, FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR PERFORMING ALL REMOVAL REQUIRED IN THIS CONTRACT.
- 3. COMMENCEMENT OF WORK SHALL BE CONSTRUED AS EVIDENCE THAT A CAREFUL EXAMINATION OF THE PORTIONS OF EXISTING FOUNDATIONS AND UNIT DUCT FOR THIS WORK AND ACCESS TO WORK SPACES, HAS BEEN MADE AND THAT THE CONTRACTOR IS FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THE WORK, LATER CLAIMS SHALL NOT BE MADE FOR ADDITIONAL LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTED WHICH COULD HAVE BEEN FORSEEN DURING SUCH AN EXAMINATION.
- 4. ALL SALVAGE EXISTING EQUIPMENT INCLUDING, TEMPORARY WOOD POLES, LUMINAIRES, MAST ARMS SHALL BE RETURNED TO STATE STOCK, THE CONTRACTOR SHALL CALL EMC AT (708) 524-2145 FOR MORE DETAILS AND DELIVERY PLACE.
- 5. REMOVE EXISTING TOWER FOUNDATION, GROUND RODS, UNIT DUCT UP TO 10FT FROM THE CENTER OF FOUNDATION. THE VOID CAUSED BY THE REMOVAL OF THE TOWER FOUNDATION SHALL BE BACKFILLED WITH SUITABLE EXCAVATED MATERIAL APPROVED BY THE ENGINEER.
- 6. LOCATIONS SELECTED FOR COLLECTION OF DEBRIS AND/OR STORAGE OF EQUIPMENT SHALL BE AS APPROVED BY THE ENGINEER.
- 7. ALL EXISTING TOWERS TO BE REMOVED SHALL BE SCRAPPED AND DISPOSED OF IN A LEGAL MANNER.
- 8. REMOVAL OF TEMPORARY LIGHTING UNIT SHALL INCLUDE POLE, AERIAL CABLE, LUMINAIRE, MAST ARM AND ALL ASSOCIATED APPARATUS AND CONNECTIONS. ALL TEMPORARY LIGHT LUMINAIRES WILL BE INSPECTED BY THE ENGINEER BEFORE BEING BOXED IN NEW CONTAINERS AND DELIVERD TO STORAGE FACILITY OF IDOT DISTRICT 1.
- 9. TOWER CONCRETE FOUNDATION SHALL BE REMOVED TO AT LEAST 2 FT BELOW GRADE. REMOVE EXISTING WORK PAD WHERE APPLICABLE. THE COST OF THIS SHALL BE INCLUDED IN FOUNDATION REMOVAL UNLESS NOTED OTHERWISE.
- 10. VERIFY AND LOCATE UNDERGROUND CIRCUIT (UNIT DUCTS) ROUTING OF TOWERS UNDER REPLACEMENT AS PER SECTION 803. MARK THE ROUTING SO THAT DURING DIGGING OF TRENCH FOR PROPOSED UNIT DUCT THE EXISTING UNIT DUCT IS PROTECTED TO MAINTAIN THE LIGHTING SYSTEM IN OPERATION. IF THE PROPOSED TOWER FOUNDATION COMES ON EXISTING UNIT DUCT, RE-ROUTE THE UNIT DUCT TEMPORARY UNTIL PROPOSED TOWER STARTS FUNCTIONING.

SYMBOL LEGEND:

REMOVE OF EXISTING LIGHTING TOWER AND FOUNDATION, EXISTING TOWER TO BE SCRAPPED. HIGH MAST LUMINAIRES TO BE SALVAGED.

EXISTING LIGHTING TOWER TO REMAIN, EXISTING LUMINAIRES AS PER PLAN

PROPOSED LIGHTING TOWER ON NEW FOUNDATION, PROPOSED LUMINAIRES, NUMBER OF LUMINAIRES AS PER PLAN HANDHOLE ORIENTATION

REMOVE TOWER FOUNDATION ONLY

• EXISTING TEMPORARY LIGHTING UNIT TO BE REMOVED AND SALVAGED TO IDOT

○─Œ EXISTING LIGHTING UNIT TO REMAIN

-XXAXX REMOVE EXISTING AERIAL CABLE AND MESSANGER WIRE

______ UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.

______ UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.

PROPOSED UNIT DUCT, SIZE AS PER PLANS

GROUND ROD, 5/8" DIA x 10' LONG

EXISTING LIGHTING CONTROLLER

PROPOSED LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 FT. DAVIT ARM METAL FOUNDATION, 10" X 8" LONG

BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE

LUMINAIRE, LED, HORIZONTAL MOUNT, TYPE C

LUMINAIRE SAFETY CABLE ASSEMBLY

ABBREVIATIONS:

E EXISTING TO REMAIN

E.O.P. EDGE OF PAVEMENT

EMC ELECTRICAL MAINTENANCE CONTRACT

FT FEET OR FOOT
GND GROUND
JB JUNCTION BOX
MA MAST ARM
NO. NUMBER

N.T.S. NOT TO SCALE
P PROPOSED

STATION

PVC POLYVINYL CHLORIDE

RGS RIGID GALVANISED STEEL R REMOVE

STA.

U.N.O. UNLESS NOTED OTHERWISE

HIGH PRESSURE SODIUM

TO STA.

USER NAME = SUSERS

PLOT SCALE = SSCALE:

DELTA ENGINEERING GROUP.LLC

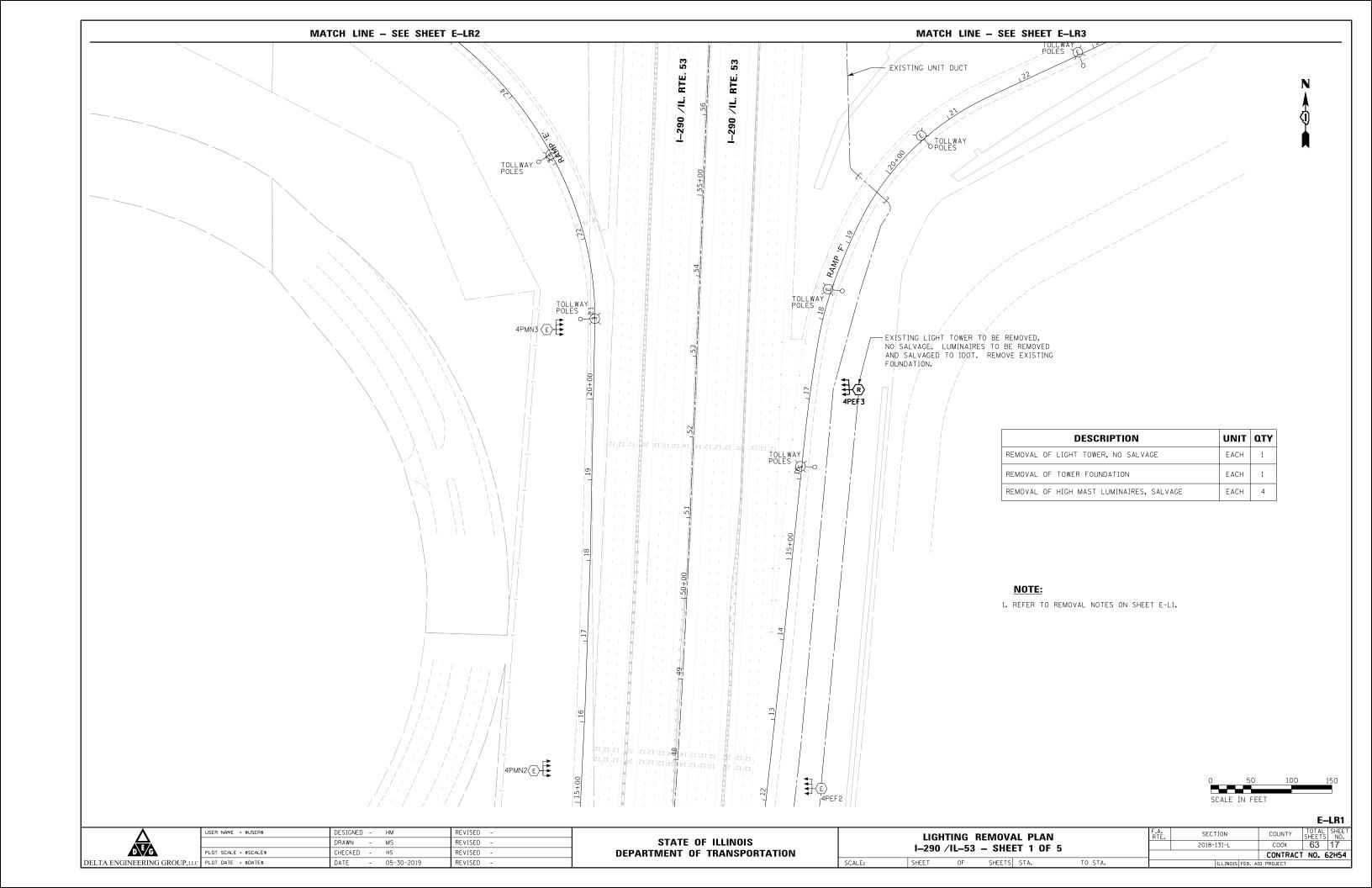
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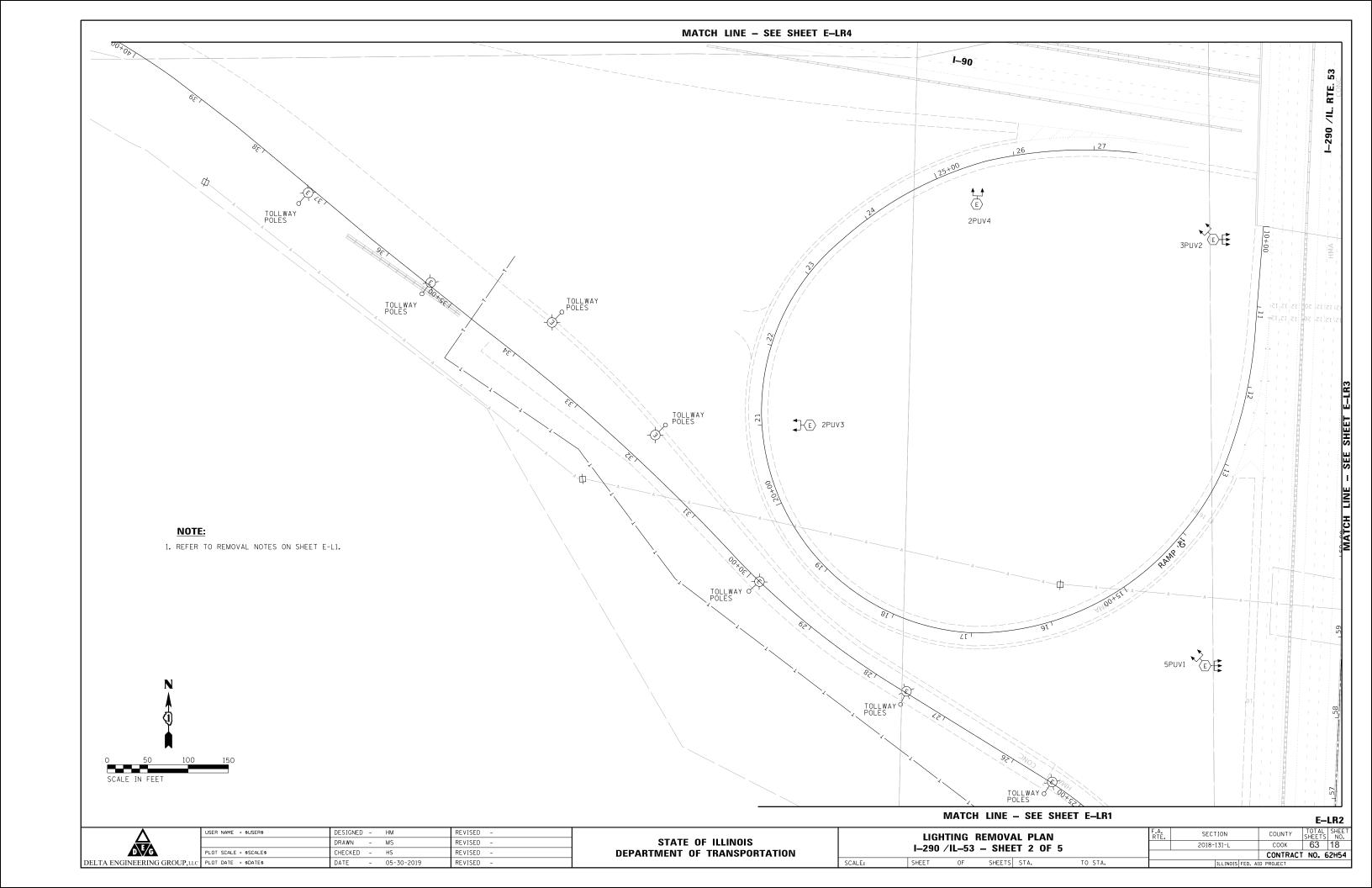
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

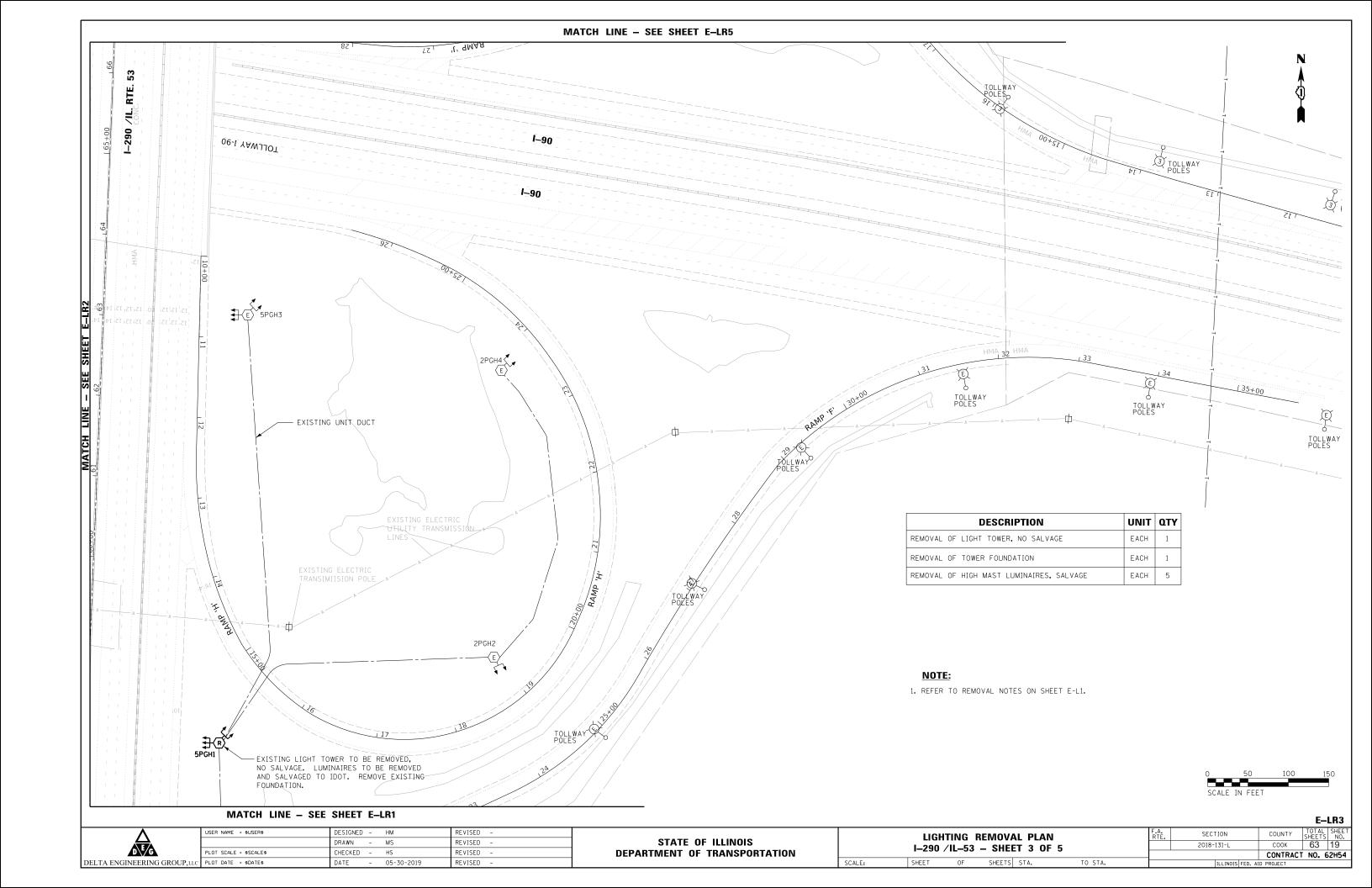
SYMBOLS LEGEND, GENERAL NOTES AND REMOVAL NOTES

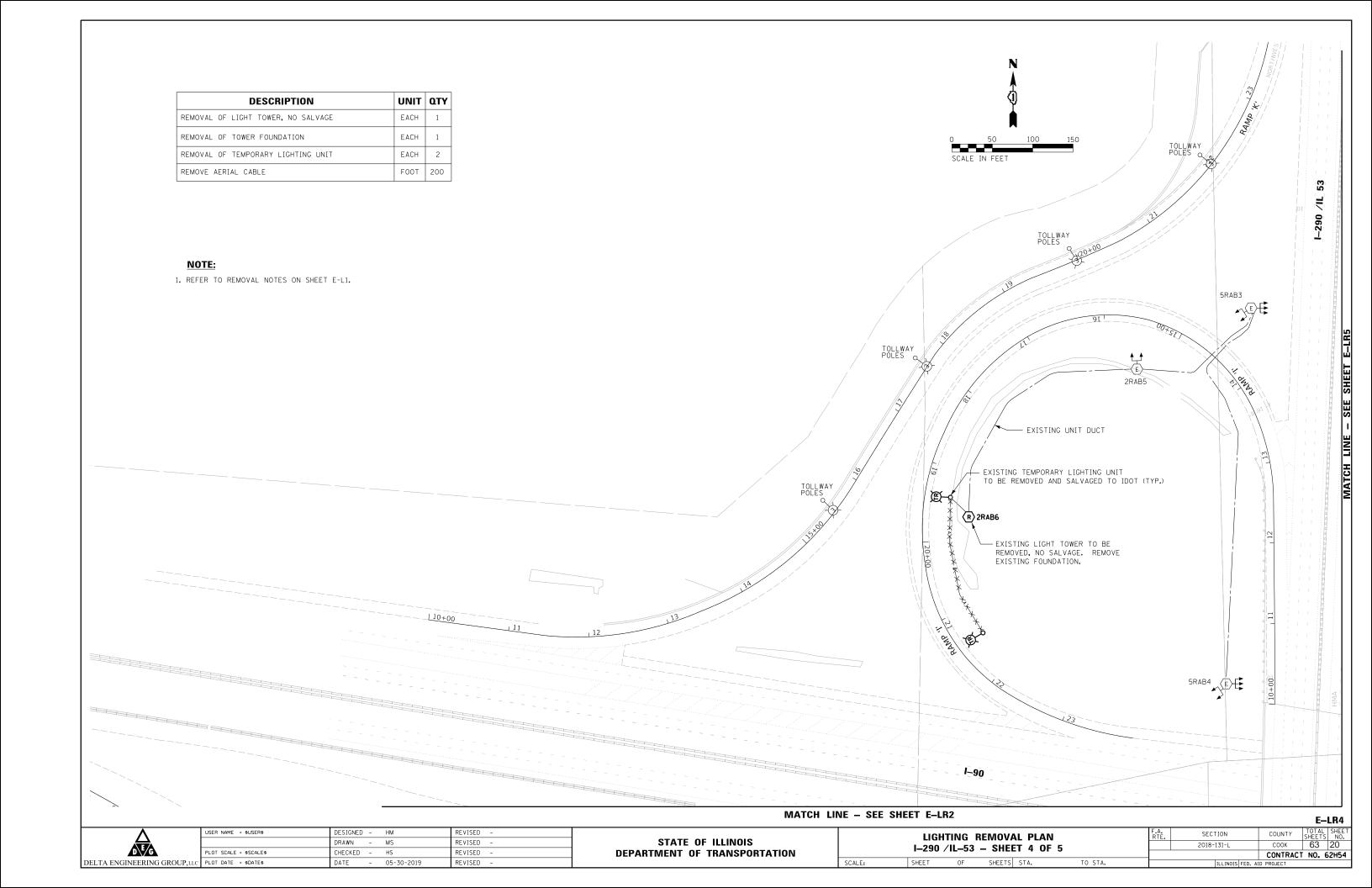
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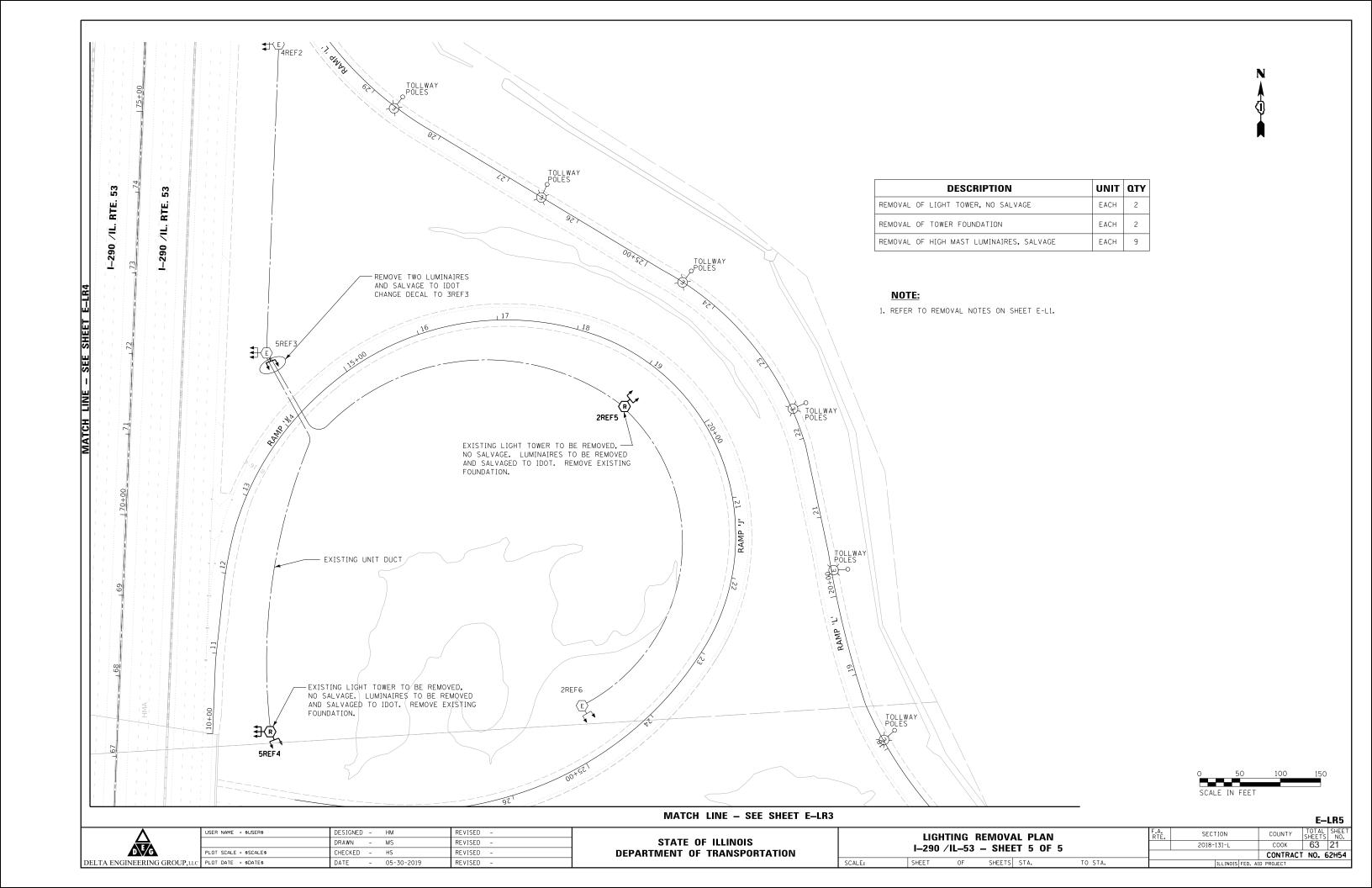
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A. TE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
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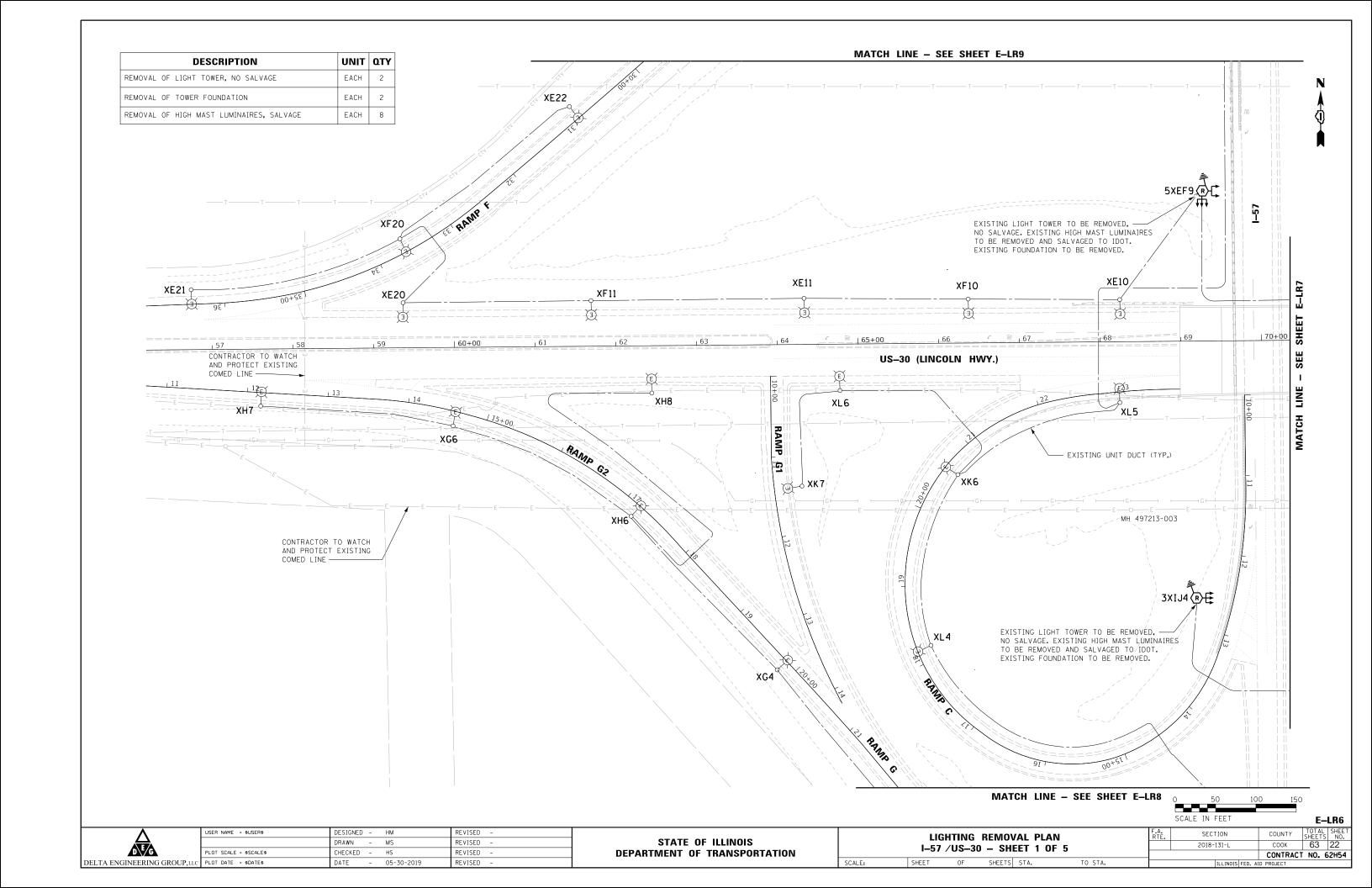


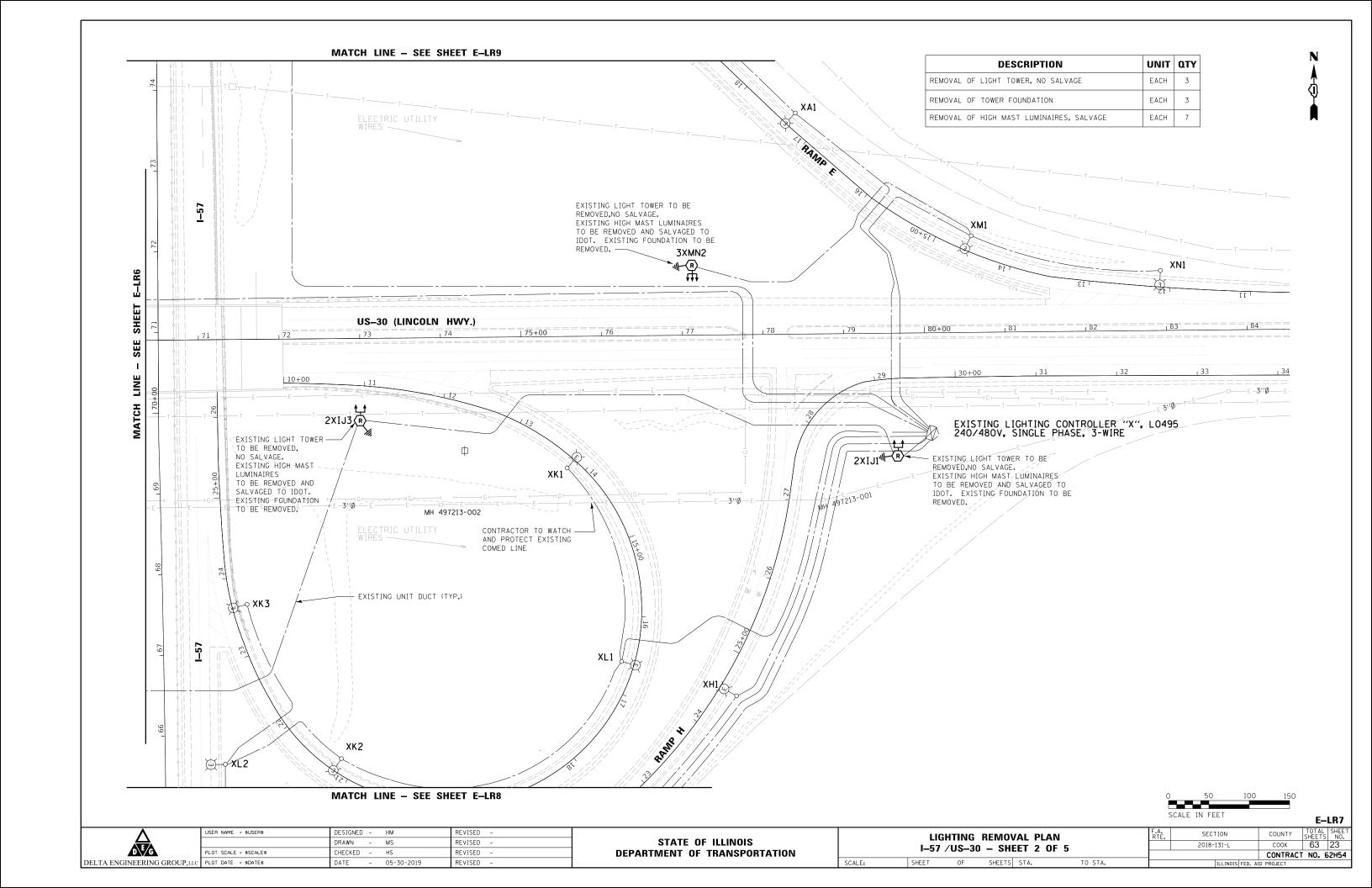


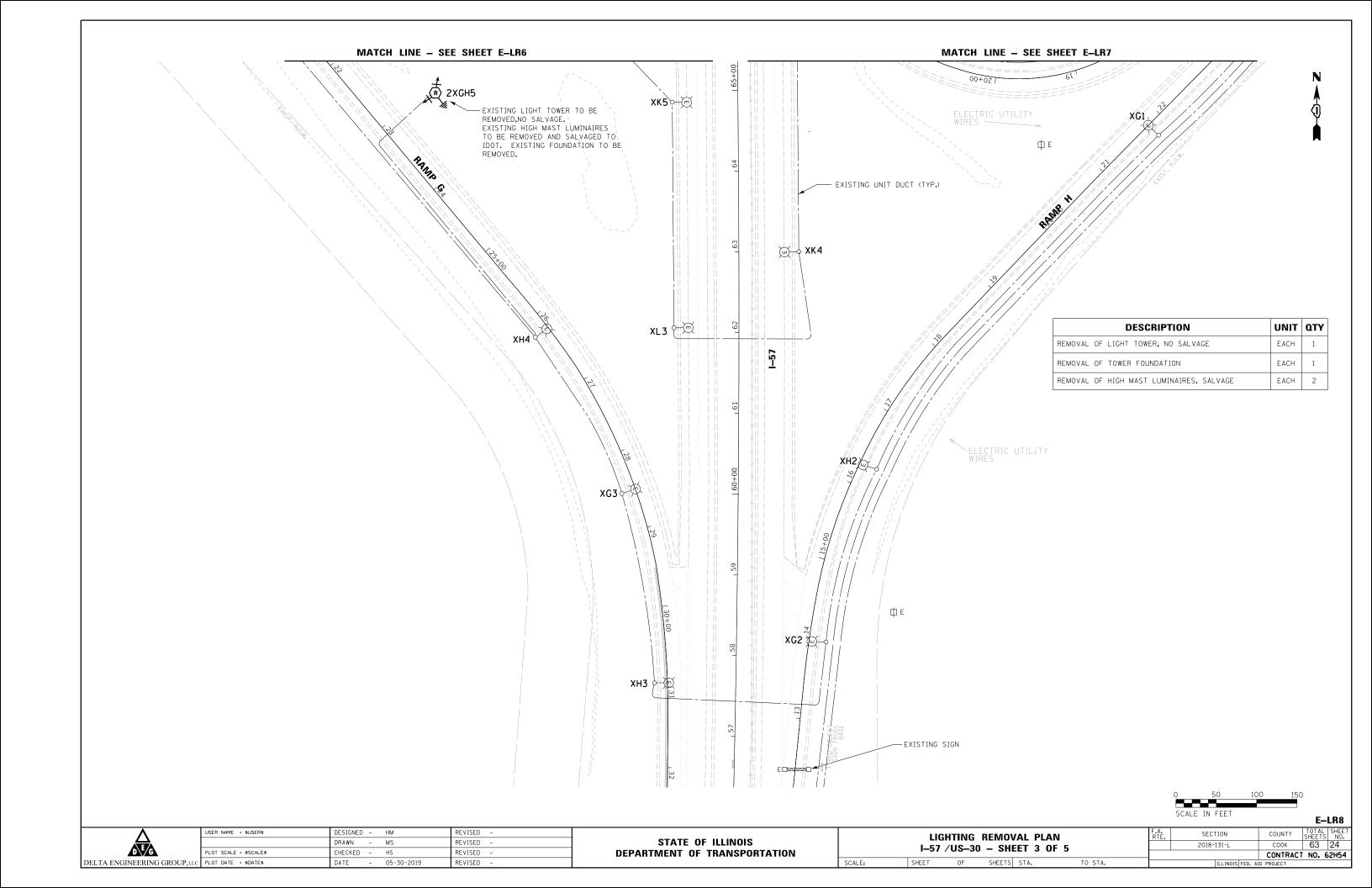


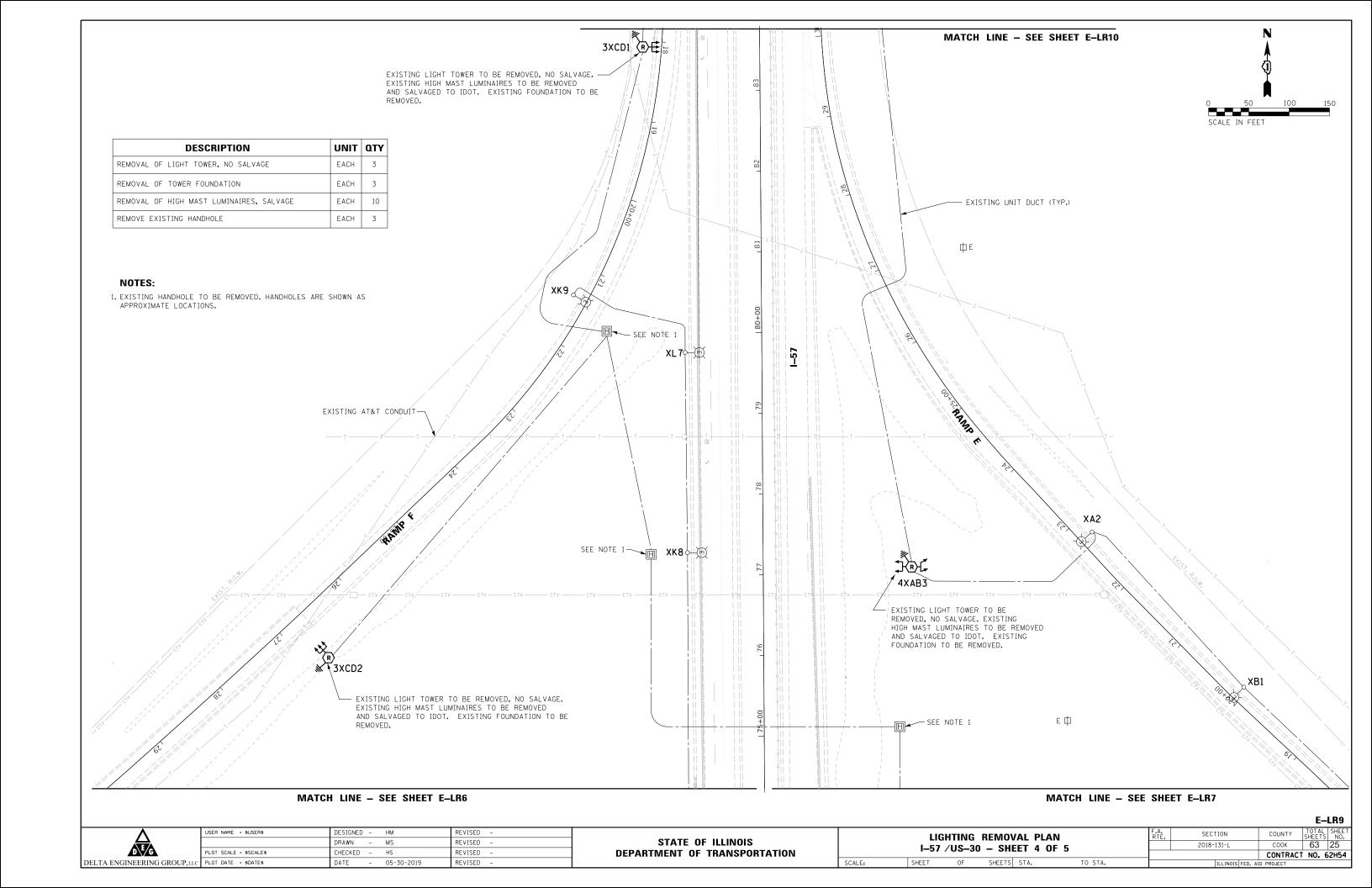


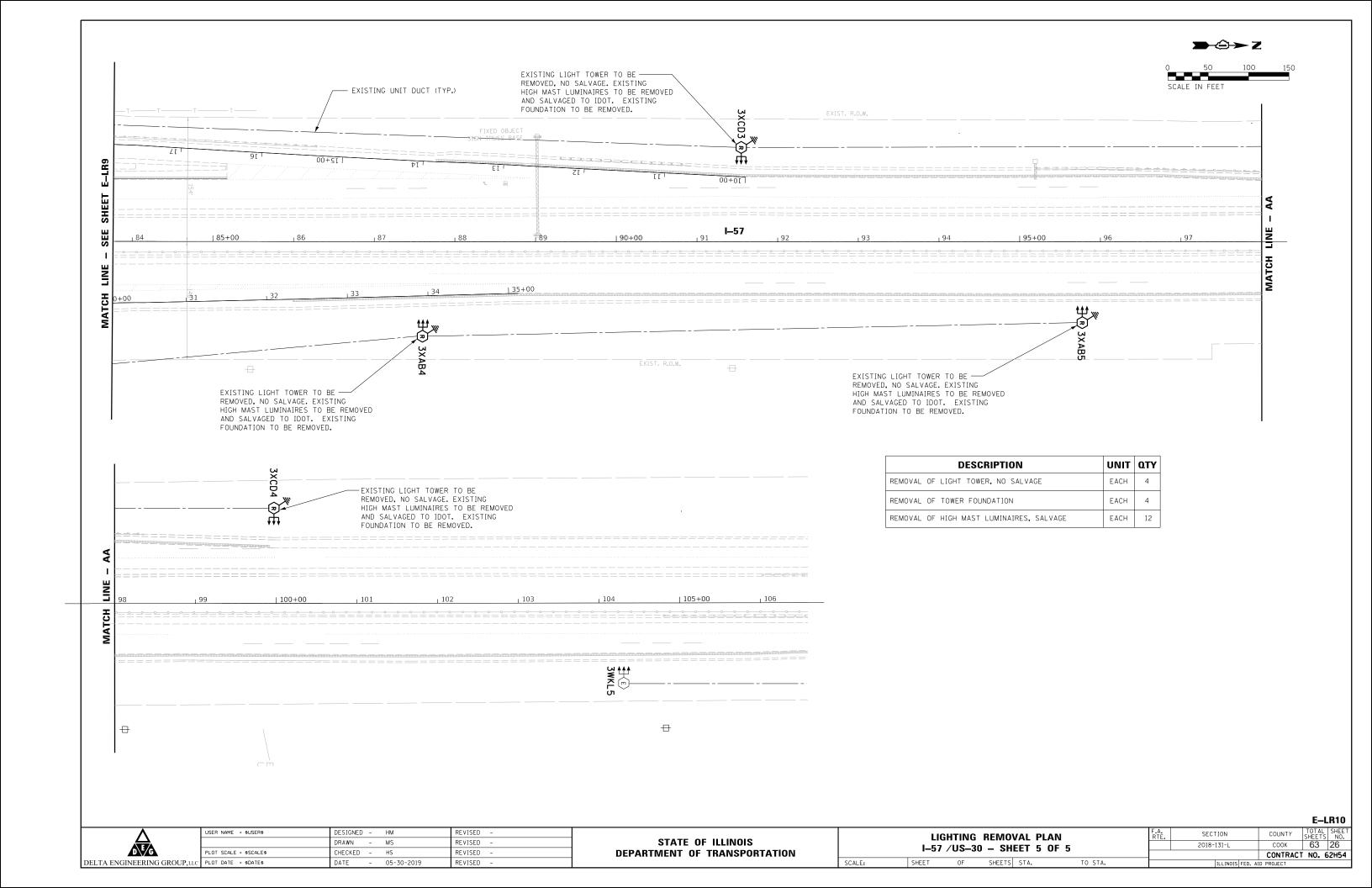


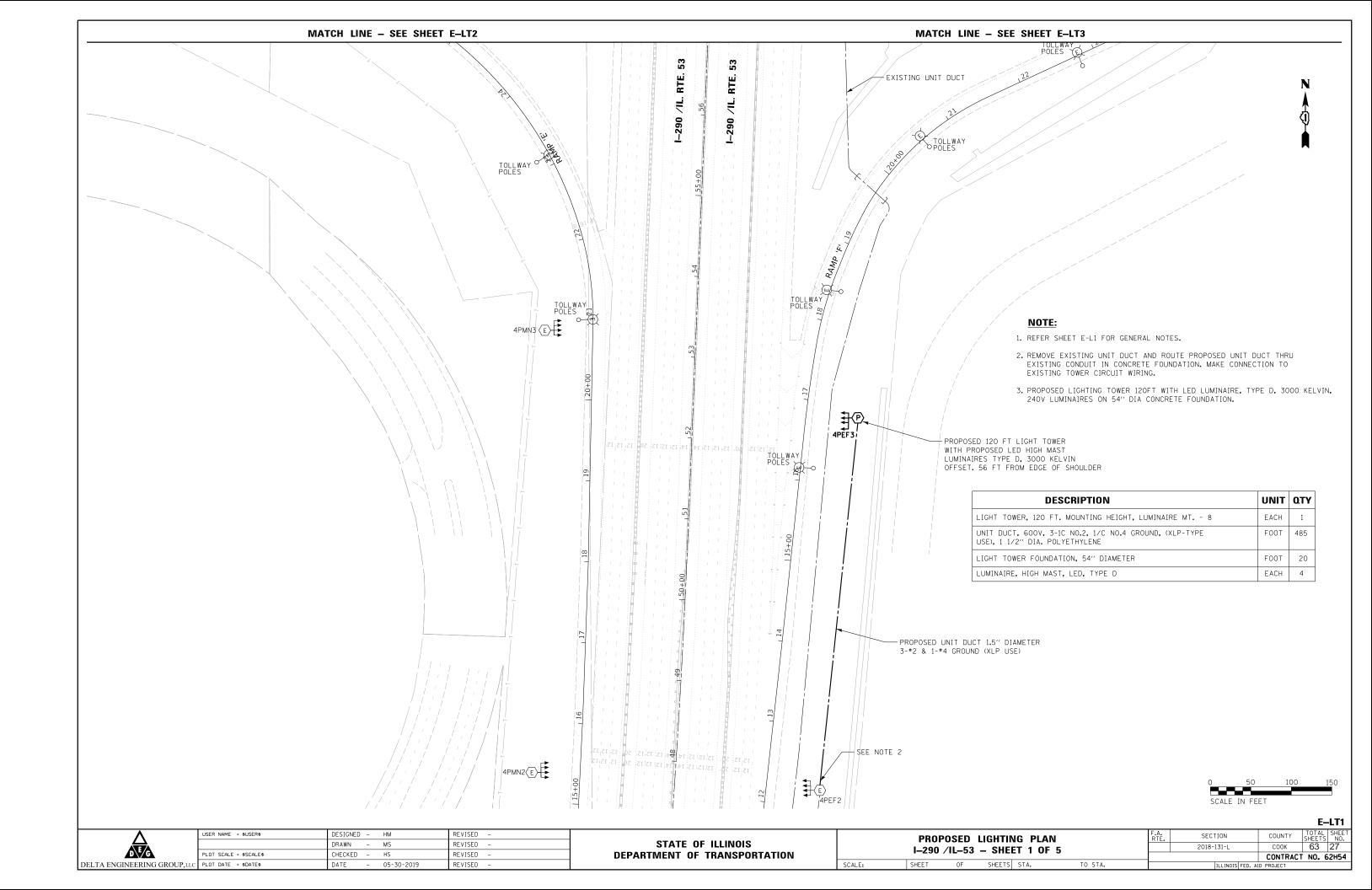


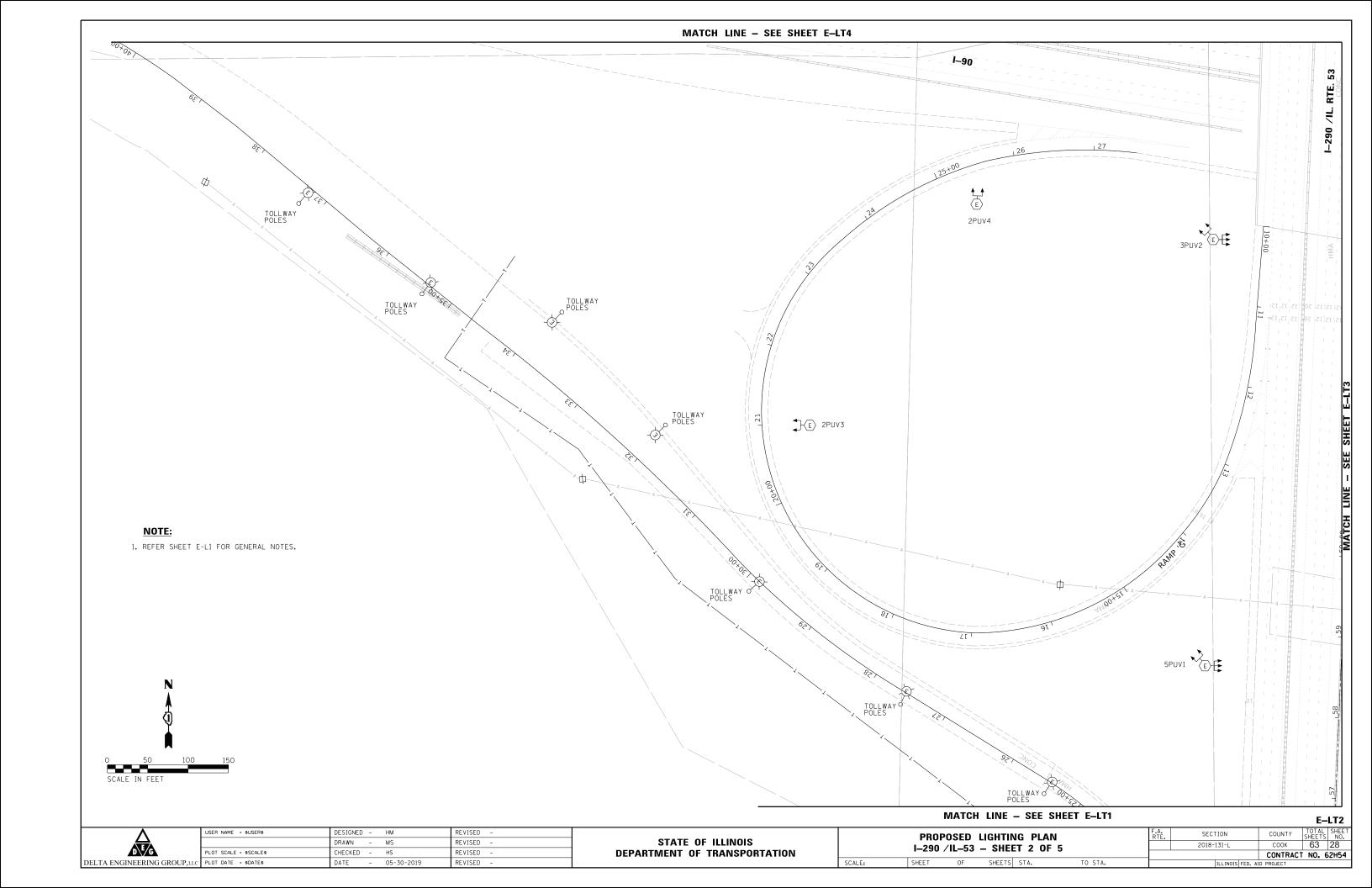


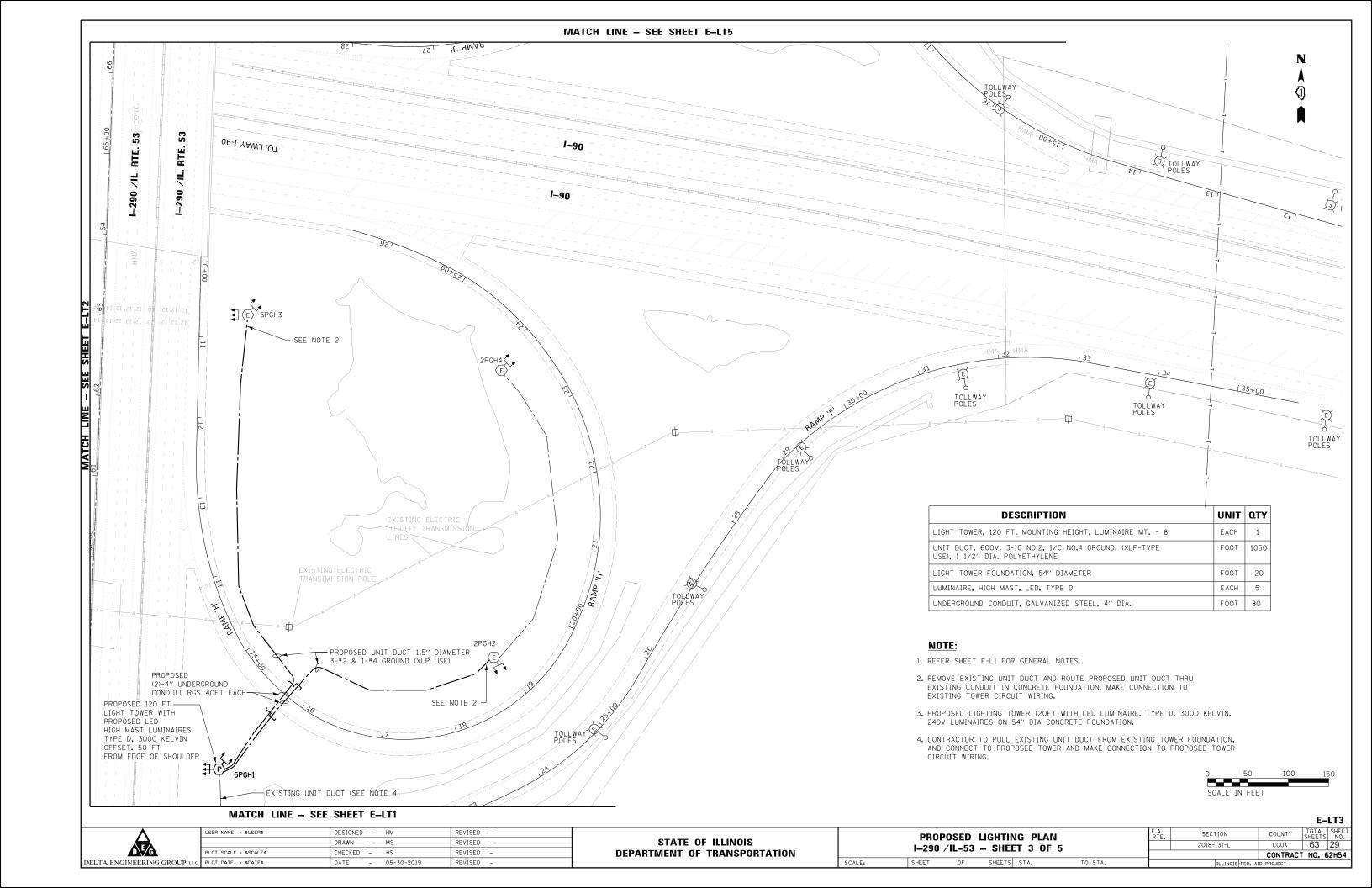




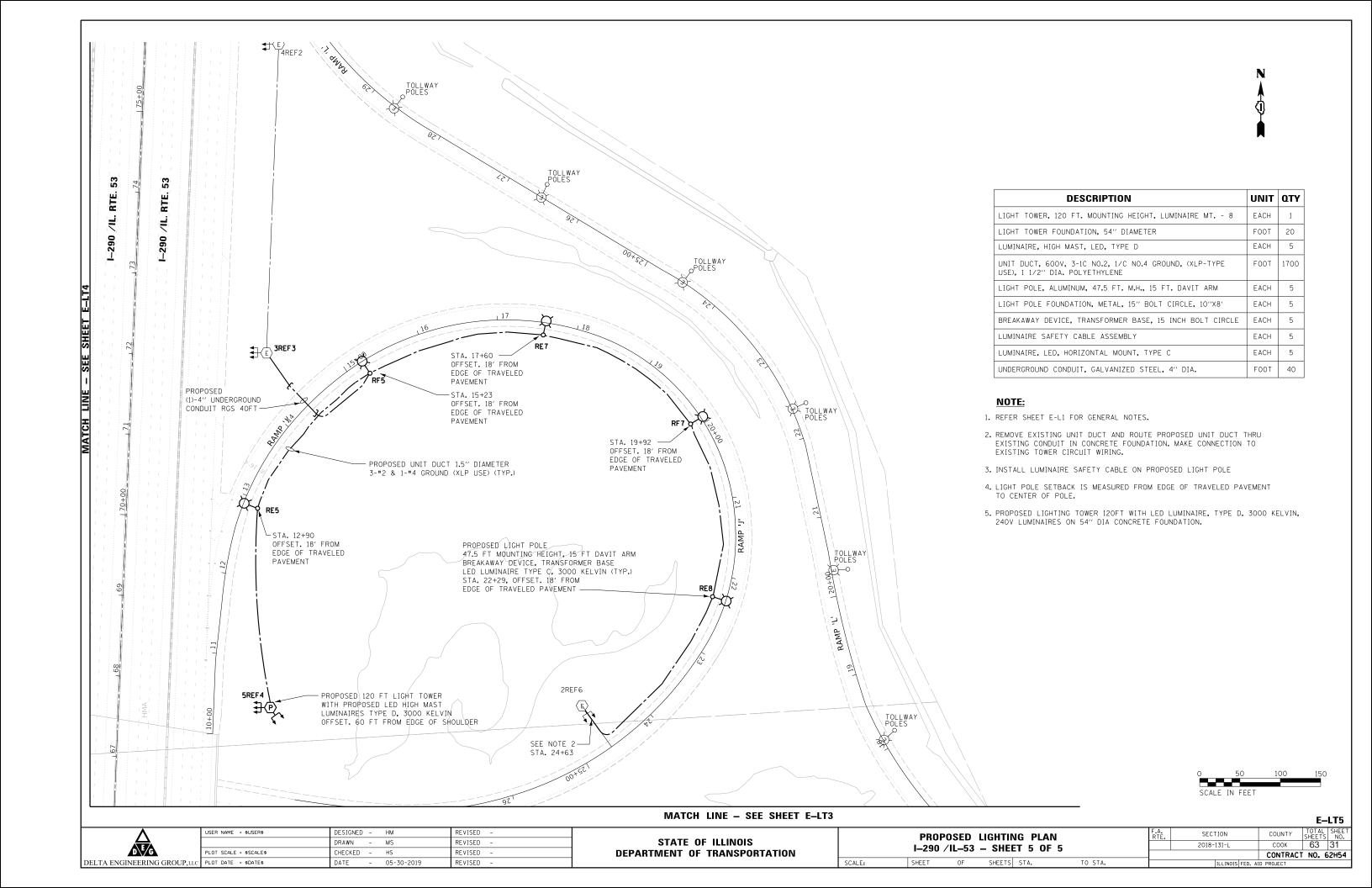


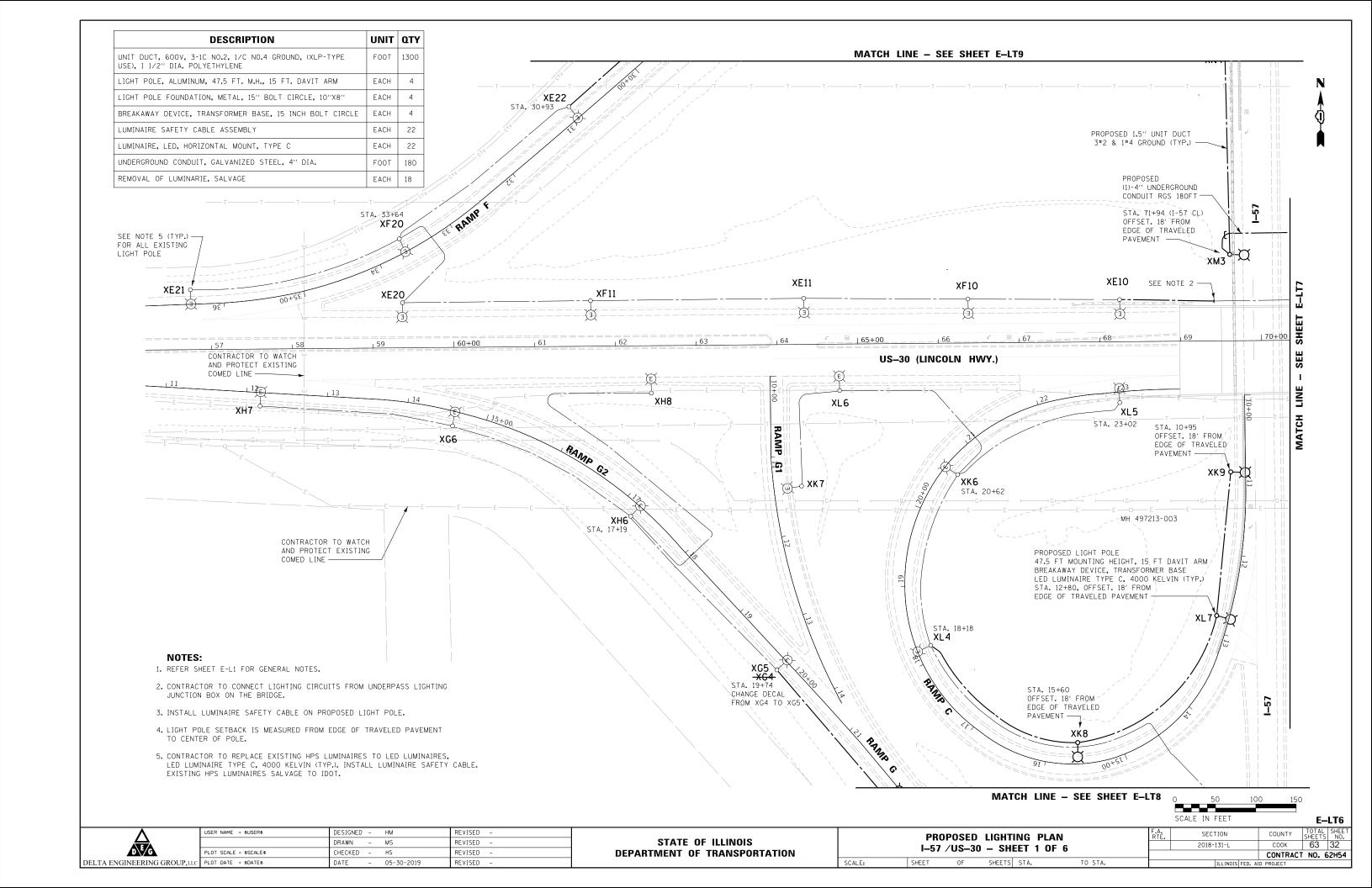


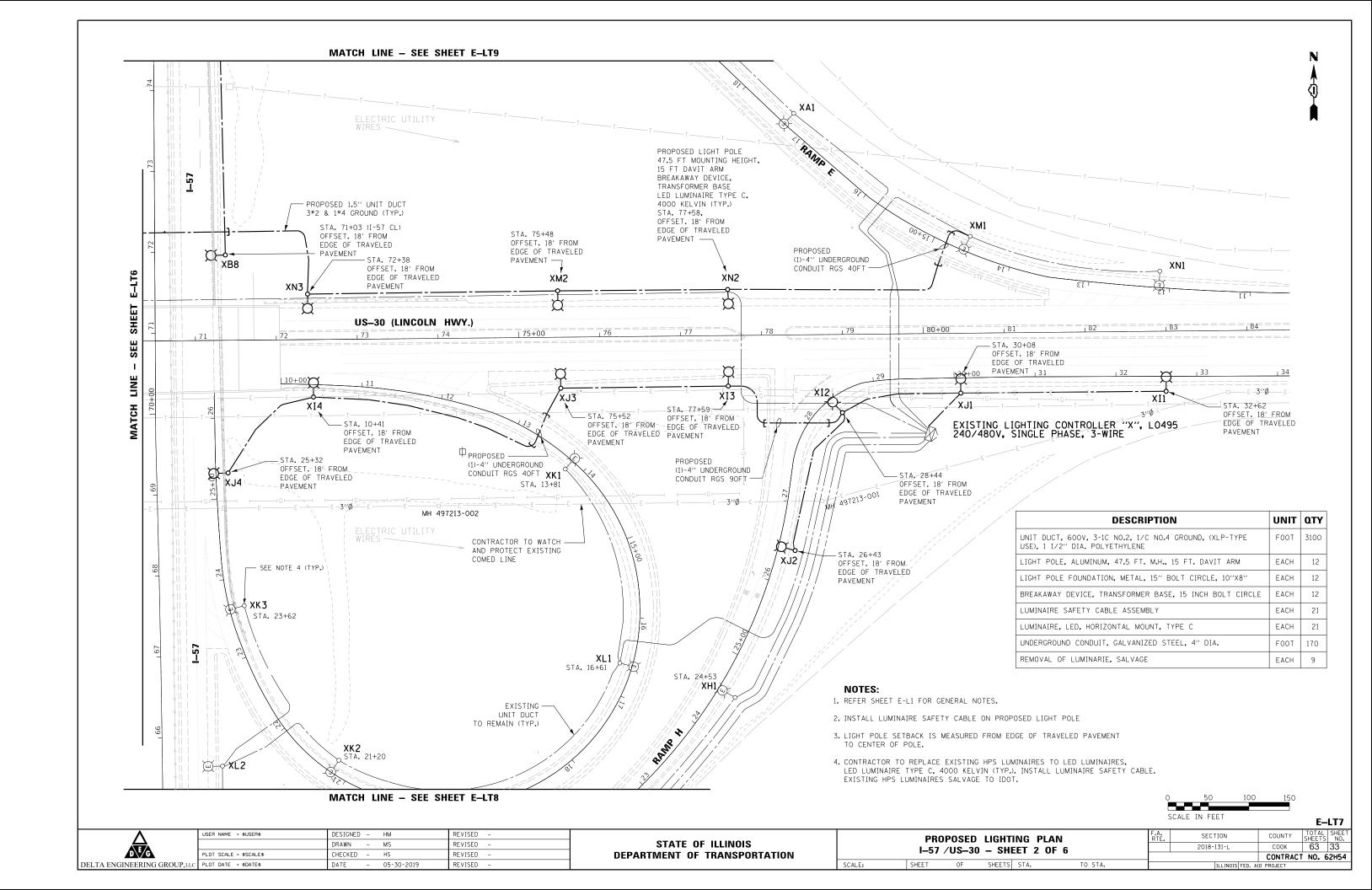


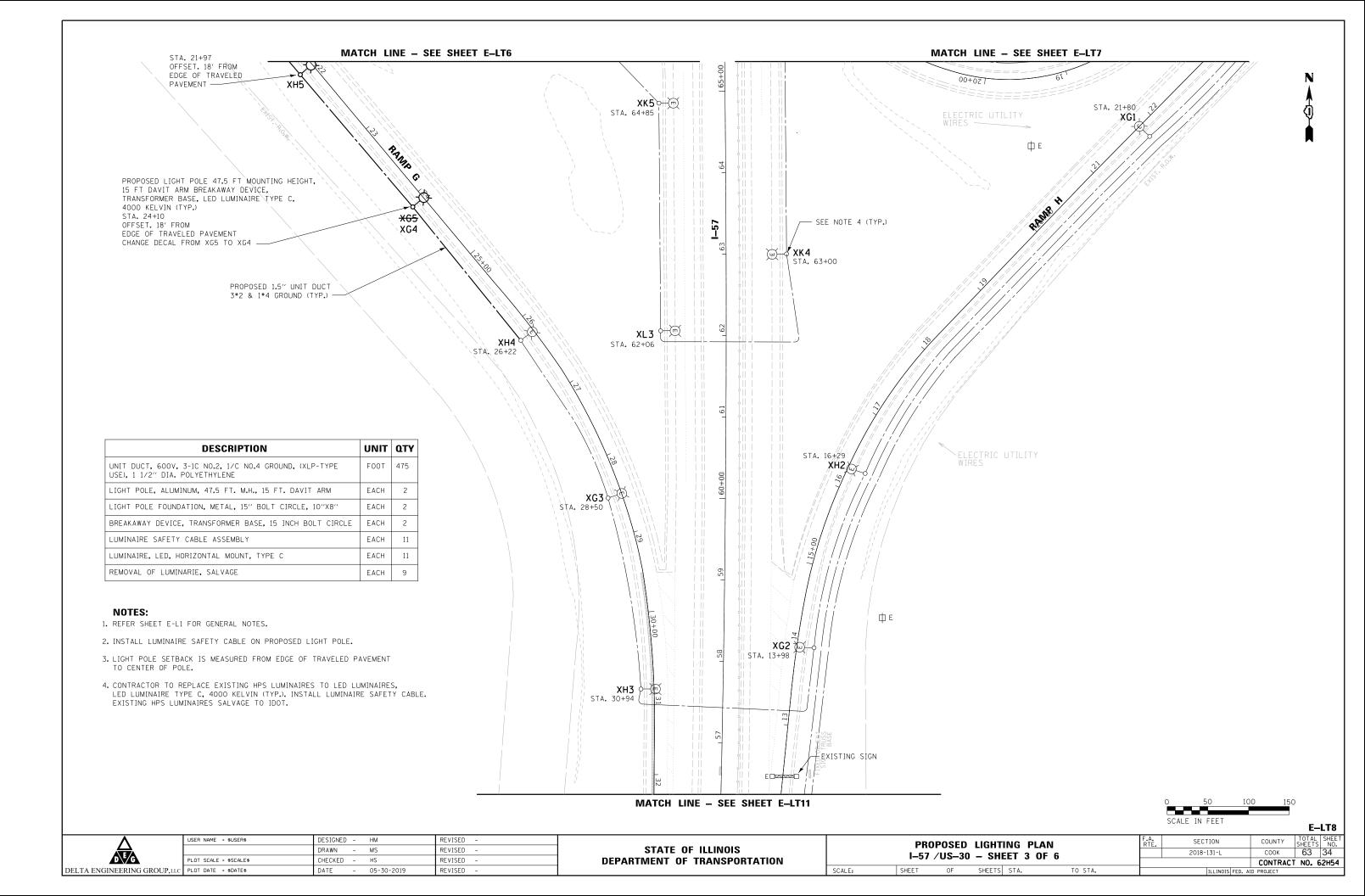


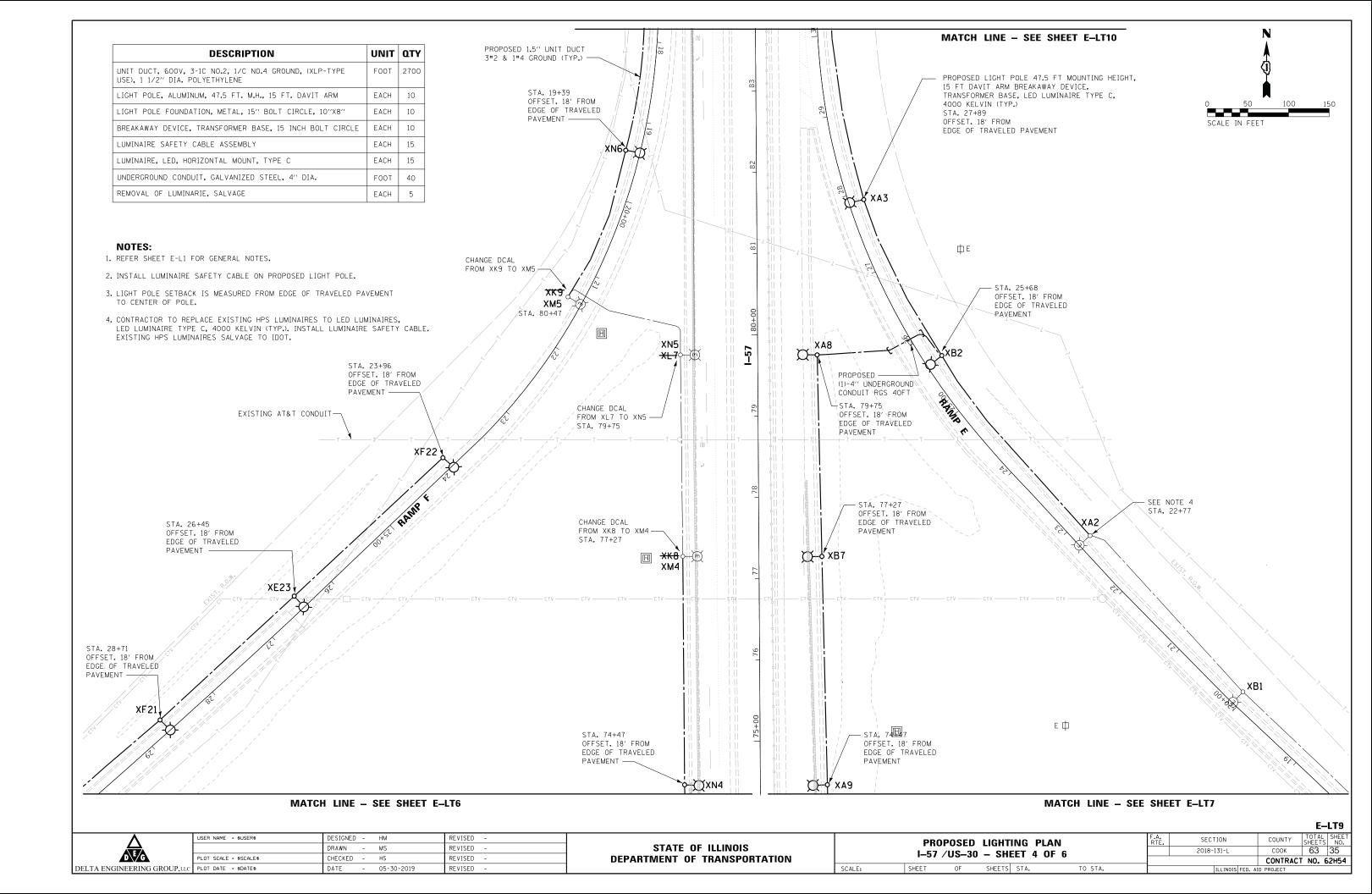
:	DESCRIPTION UNIT DUCT, 600V, 3-1C NO.2, 1/C NO.4 GROUSE), 1 1/2" DIA. POLYETHYLENE LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 F LIGHT POLE FOUNDATION, METAL, 15" BOLT BREAKAWAY DEVICE, TRANSFORMER BASE, 15 LUMINAIRE SAFETY CABLE ASSEMBLY LUMINAIRE, LED, HORIZONTAL MOUNT, TYPE NOTE: 1. REFER SHEET E-L1 FOR GENERAL NOTES. 2. REMOVE EXISTING UNIT DUCT AND ROUTE PREXISTING CONDUIT IN CONCRETE FOUNDATION EXISTING TOWER CIRCUIT WIRING. 3. INSTALL LUMINAIRE SAFETY CABLE ON PROFIT OF CENTER OF POLE.	UND, (XLP-TYPE T. DAVIT ARM CIRCLE, 10"X8" INCH BOLT CIRCLE C ROPOSED UNIT DUCT THE TRANSMER CONNECTION TO THE TRANSMER CONN	0	TOLLWAY	TOLLWAY POLES TOLLWAY POLES STA. 18+00 RAG OFFSET. 18' FROM EDGE OF TRAVELED PAVEMENT PROPOSED UNIT DUCT 1.5" DIAME 3-"2 & 1-"4 GROUND (XLP USE)	TOLLWAY POLES OF THE POLES OF T	MATCH LINE – SEE SHEET E–LT5
		L10+C	0 11	1-90 MATCH LINE	BREAKAWAY DEVICE, TRANSFORMER ELED LUMINAIRE TYPE C, 3000 KELV STA. 20+25, OFFSET. 18' FROM EDGE OF TRAVELED PAVEMENT STA. 22+4 OFFSET. 18 EDGE OF PAVEMENT STA. 22+4 OFFSET. 18 EDGE OF PAVEMENT	84 18' FROM TRAVELED SRAB4	E-LT4
DELTA ENGINEERING GROUP	PLOT SCALE = \$SCALE\$ CHECKED	- HM - MS - HS - 05-30-2019	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION S	PROPOSED LIGHTING PLAN I-290 / IL-53 - SHEET 4 OF 5 CALE: SHEET OF SHEETS STA. TO STA.	F.A. SECTION 2018-131-L ILLINOIS FED. A	COUNTY TOTAL SHEET NO. COOK 63 30 CONTRACT NO. 62454

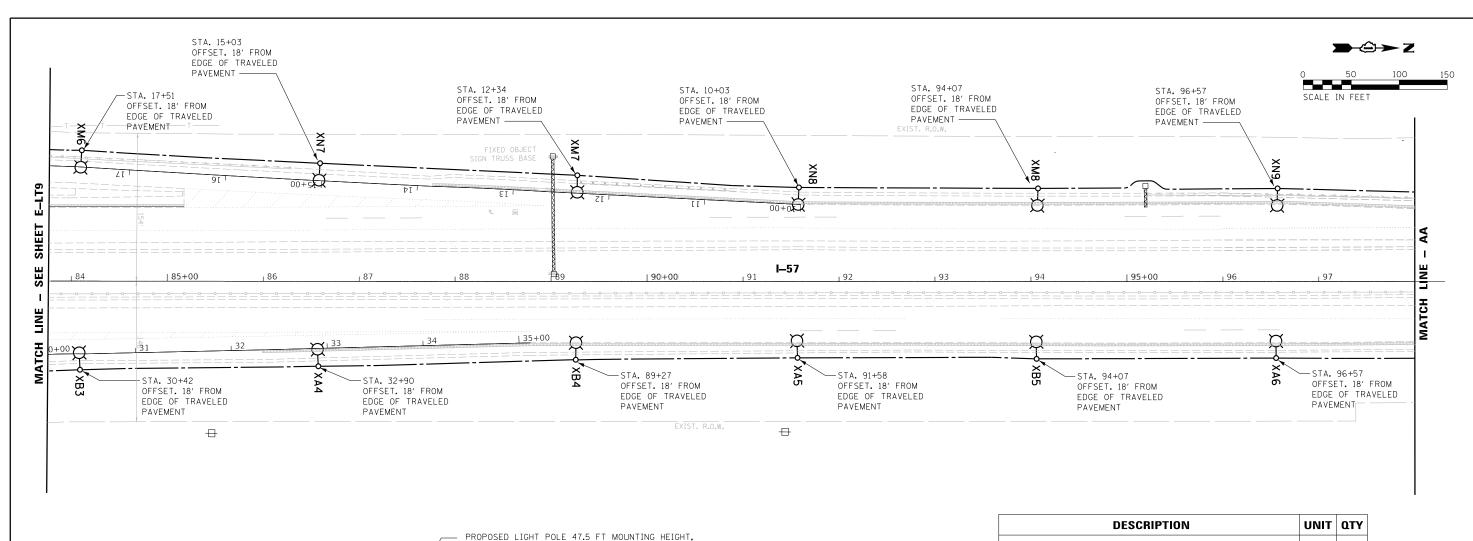


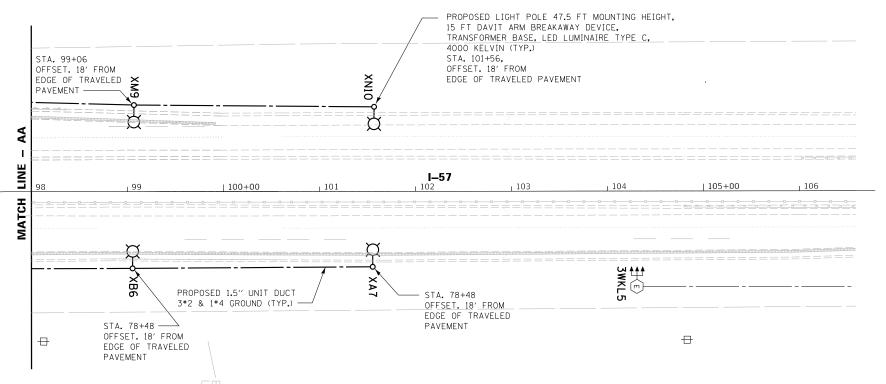












DESCRIPTION	UNIT	QTY
UNIT DUCT, 600V, 3-1C NO.2, 1/C NO.4 GROUND, (XLP-TYPE USE), 1 1/2" DIA. POLYETHYLENE	FOOT	3900
LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 FT. DAVIT ARM	EACH	16
LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 10"X8"	EACH	16
BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	16
LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	16
LUMINAIRE, LED, HORIZONTAL MOUNT, TYPE C	EACH	16

NOTES:

SCALE:

- 1. REFER SHEET E-L1 FOR GENERAL NOTES.
- 2. INSTALL LUMINAIRE SAFETY CABLE ON PROPOSED LIGHT POLE.
- 3. LIGHT POLE SETBACK IS MEASURED FROM EDGE OF TRAVELED PAVEMENT TO CENTER OF POLE.

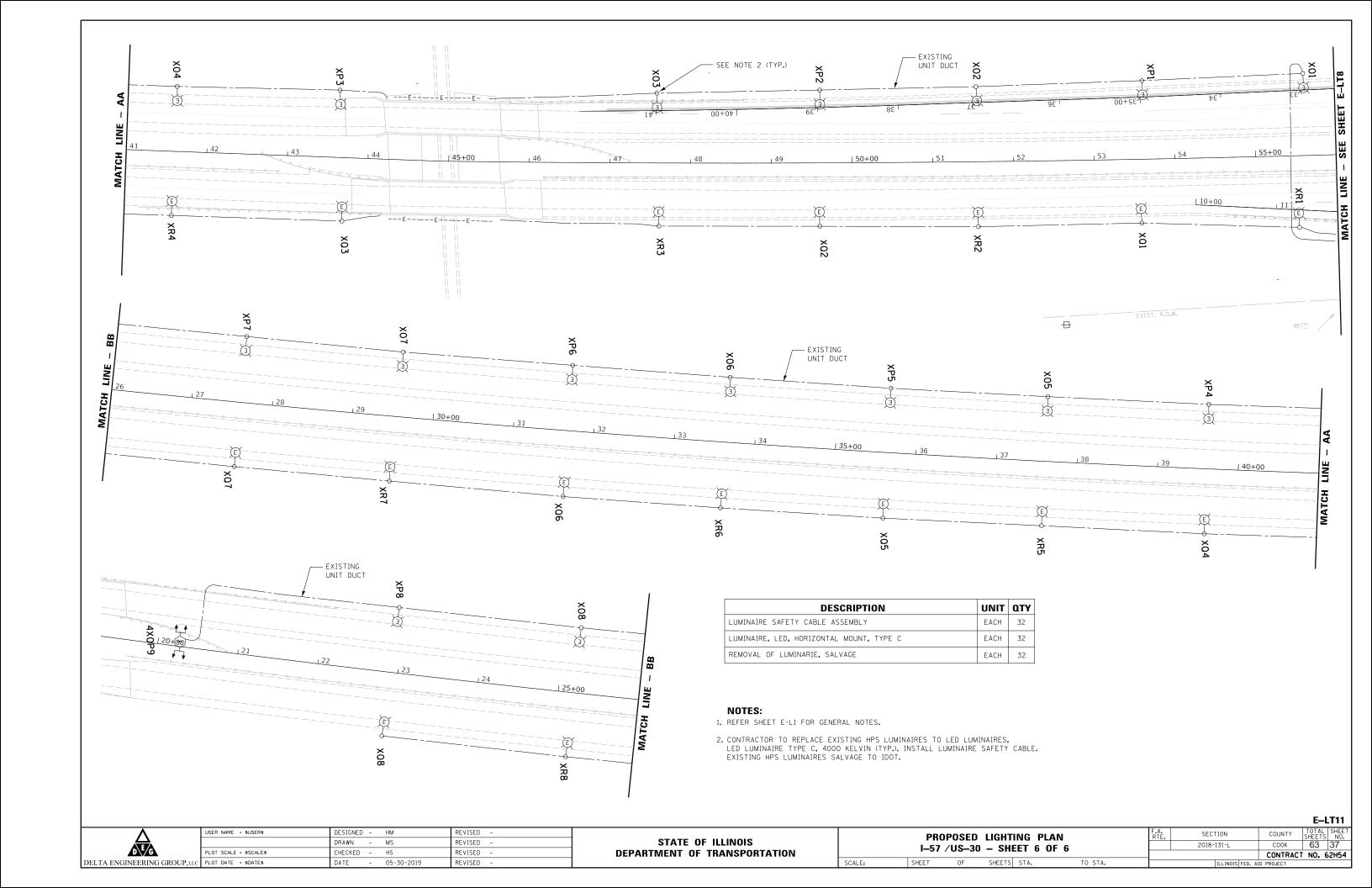
E-LT10

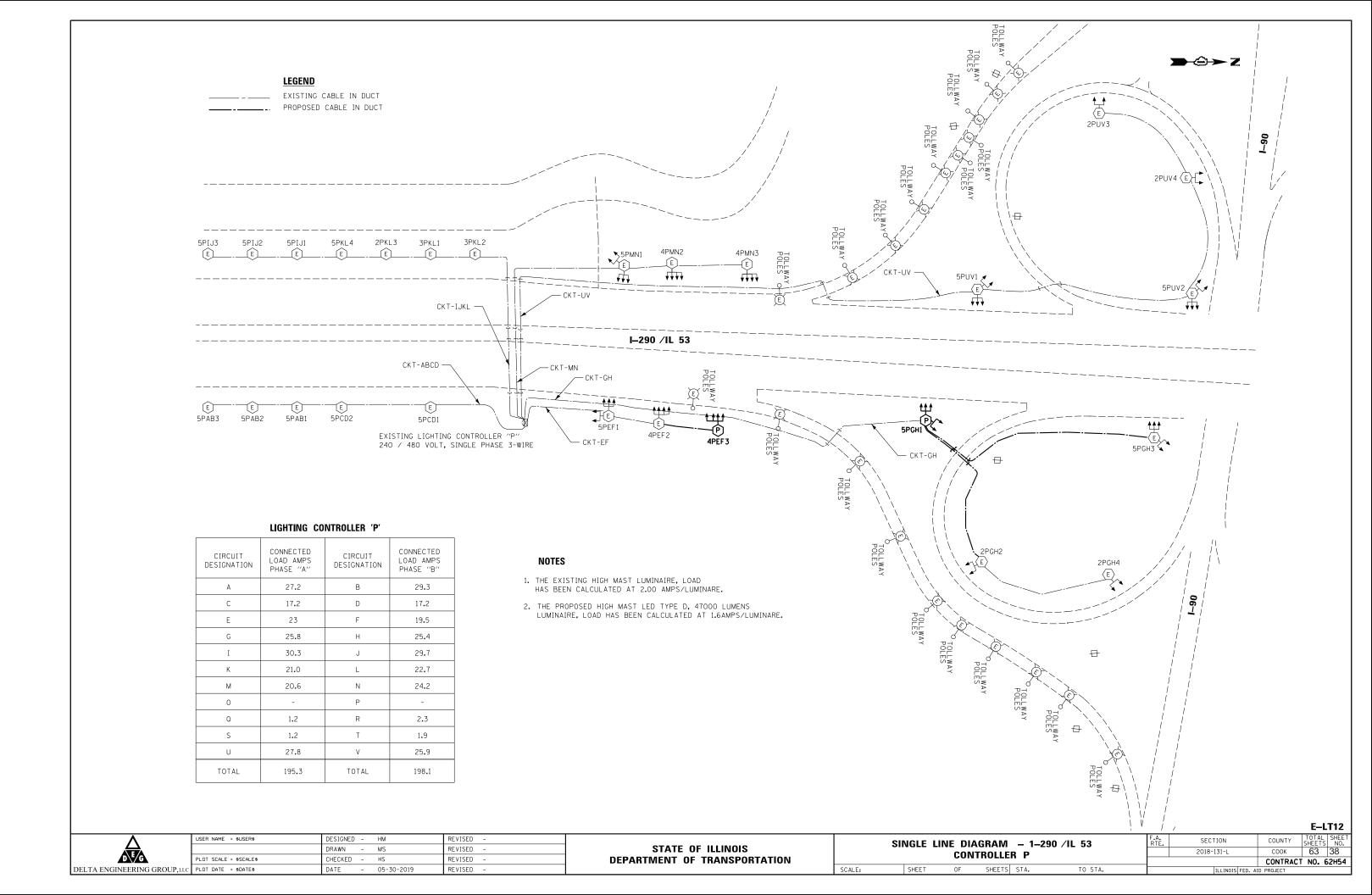
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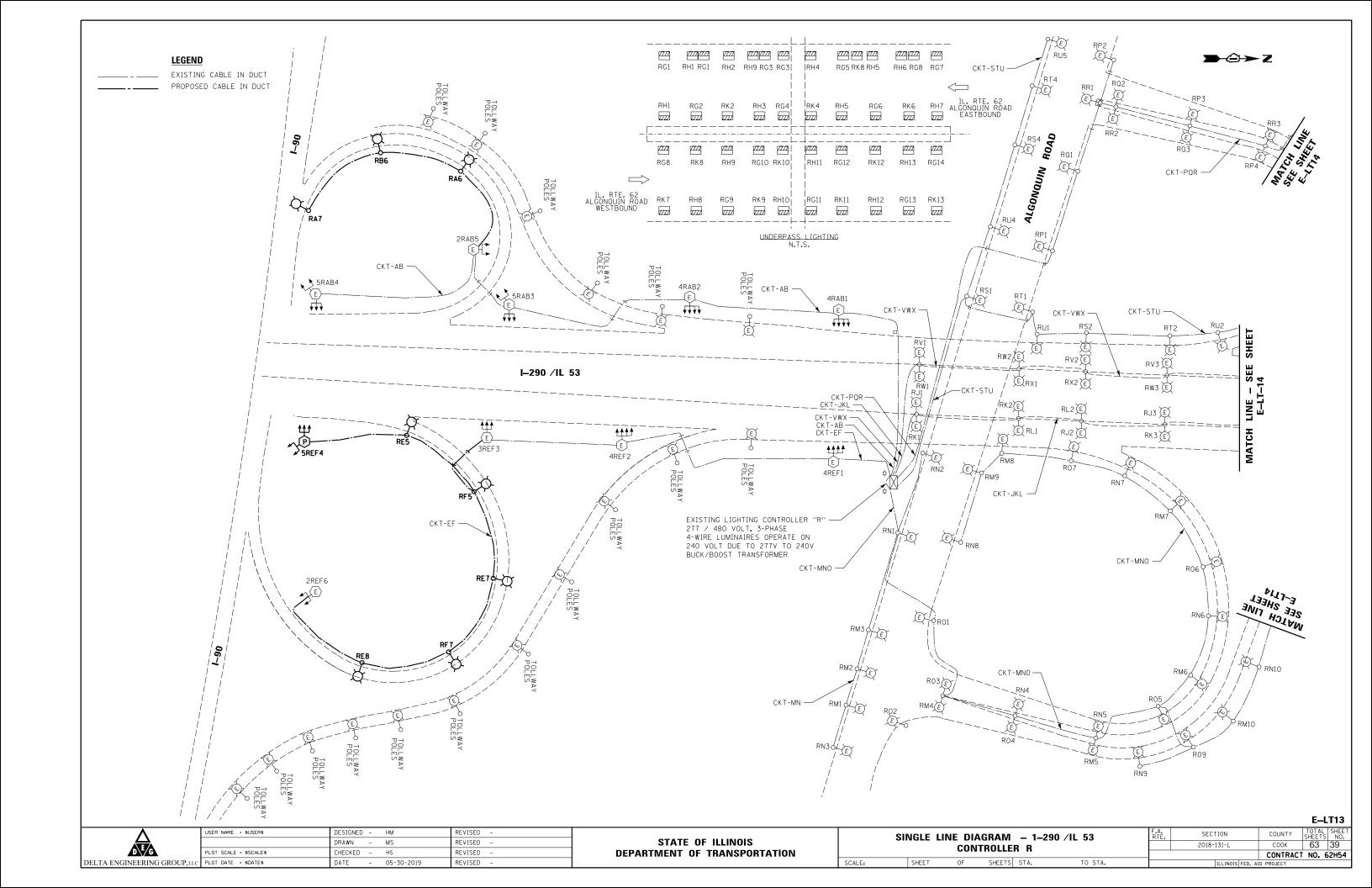
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DEPARTMENT OF TRA	NSPORTATION			

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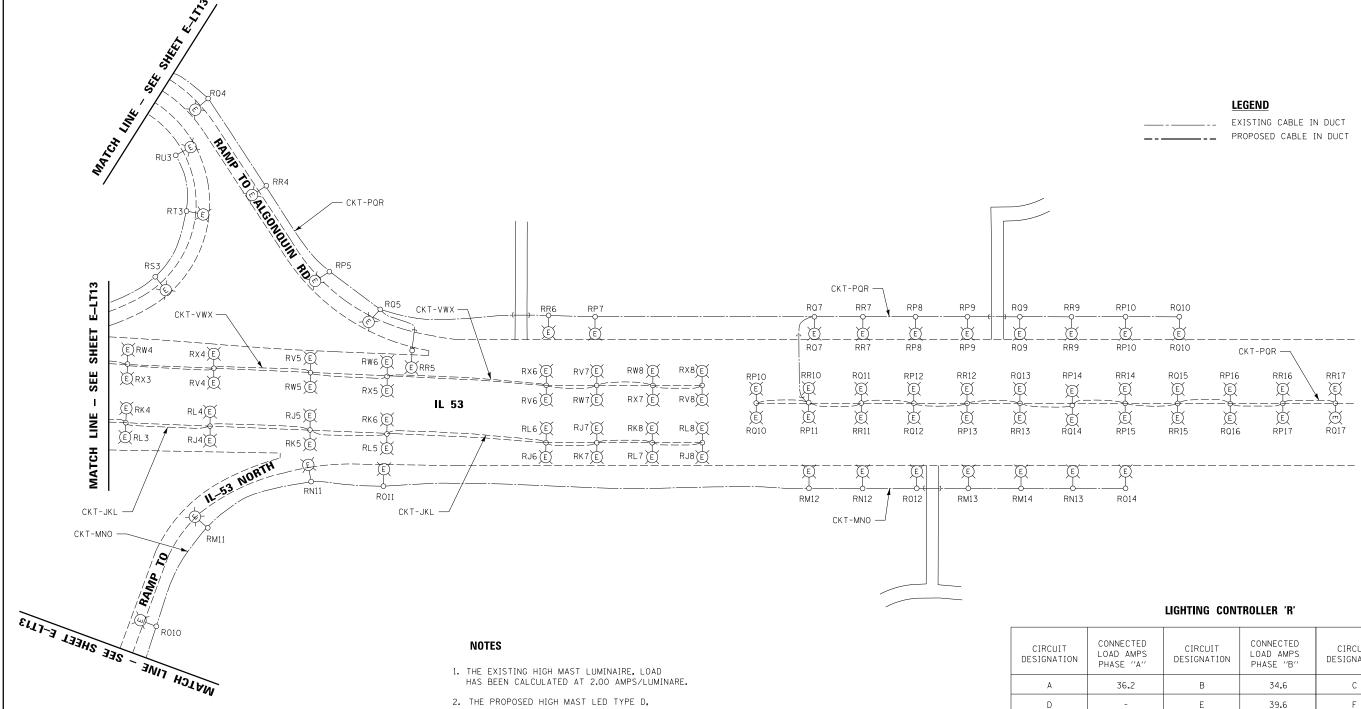
2018-131-L	COOK	63	36
	CONTRACT	NO. 6	2H54
ILLINOIS	ID PROJECT		











1. THE EXISTING HIGH MAST LUMINAIRE, LOAD HAS BEEN CALCULATED AT 2.00 AMPS/LUMINARE.

4. THE PROPOSED ROADWAY LED TYPE C. 25000 LUMENS, LUMINAIRE, LOAD HAS BEEN CALCULATED AT 0.9 AMPS/LUMINARE.

2. THE PROPOSED HIGH MAST LED TYPE D, 47000 LUMENS LUMINAIRE, LOAD HAS BEEN CALCULATED AT 1.6 AMPS/LUMINARE. 3. THE EXISTING ROADWAY LUMINAIRE, LOAD HAS BEEN CALCULATED AT 1.0 AMPS/LUMINARE.

CIRCUIT DESIGNATION	CONNECTED LOAD AMPS PHASE "A"	CIRCUIT DESIGNATION	CONNECTED LOAD AMPS PHASE "B"	CIRCUIT DESIGNATION	CONNECTED LOAD AMPS PHASE "C"
А	36.2	В	34.6	С	=
D	=	E	39.6	F	40.4
G	6.9	Н	3.6	I	3.1
J	12.8	K	13.6	ا	13.8
М	24.9	N	19.5	0	21.2
Р	35.6	Q	32.5	R	30.1
S	7.9	Т	7.4		8.5
٧	13.4	W	14.8	Х	13.9
TOTAL	137.7	TOTAL	165.6	TOTAL	131

E-LT14

DELTA ENGINEERING GROUP,LL

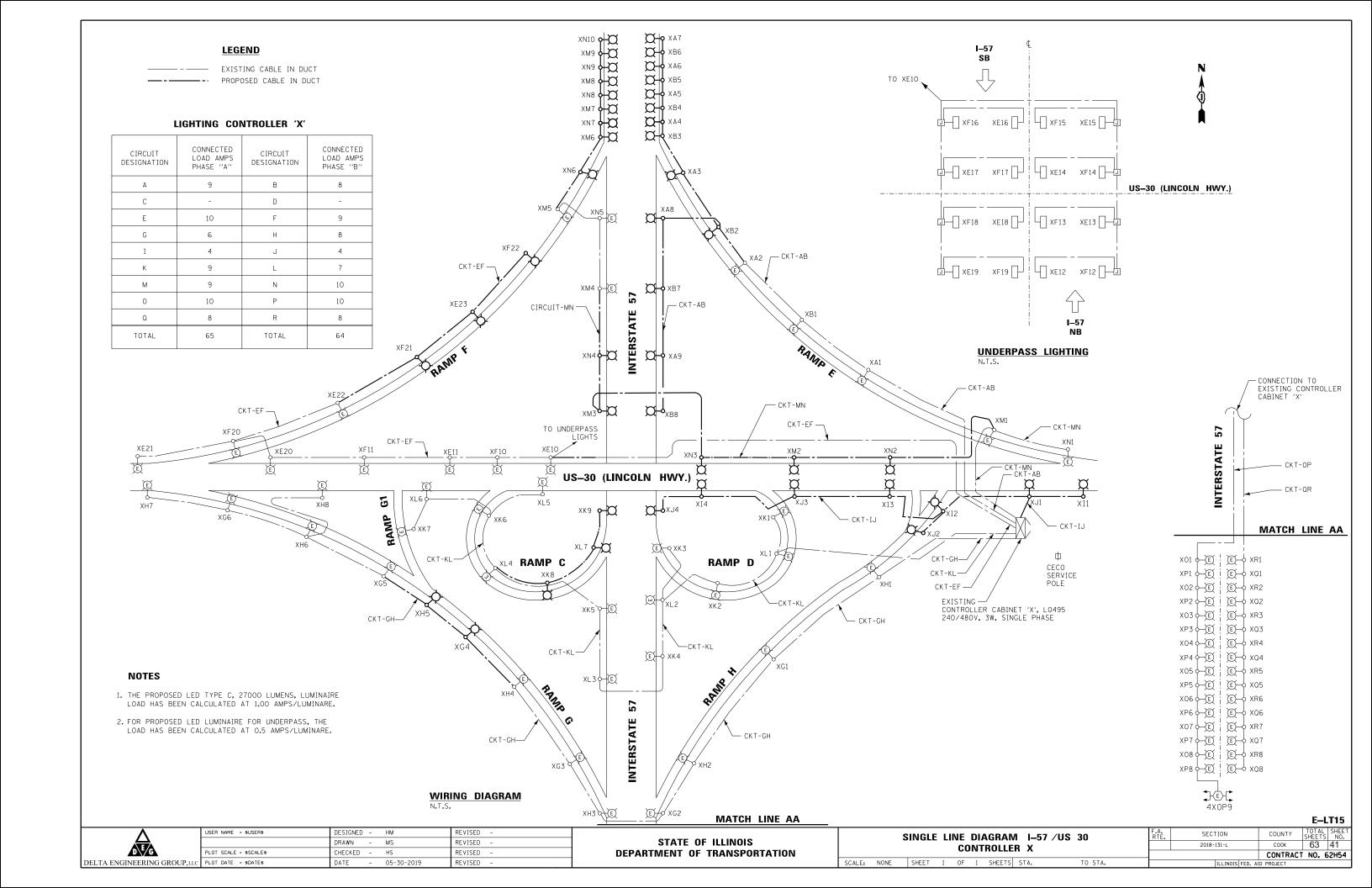
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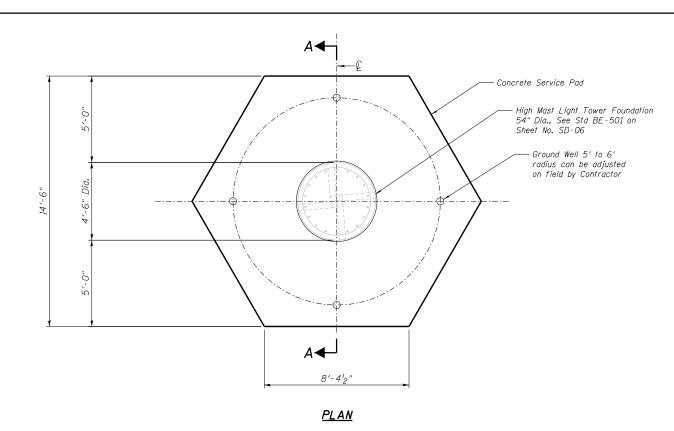
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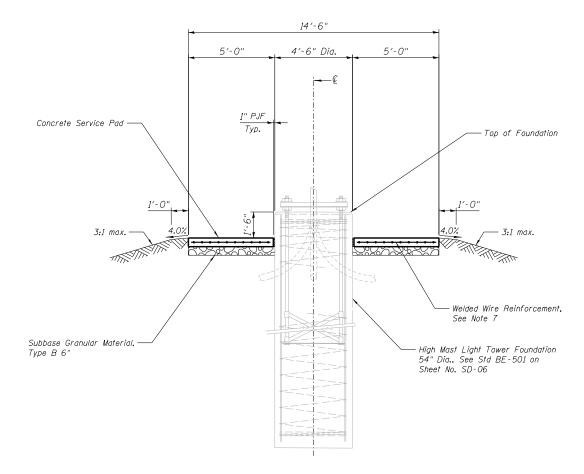
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SCALE:

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				Т	CONTRACT	NO. 6	2H5
	2018-131-L				COOK	63	40
F.A. RTE.	SECTION				COUNTY	TOTAL SHEETS	SHEI







HIGH MAST LIGHT TOWER LOCATION

		Location				
Light Tower No.	County	Station	Offset	Highway / Roadway	Pad Type	*Pad Elevation
5PGHI	Cook	See note 1	See note 1	I-290 / SE Corner	Light Tower Service Pad	**

*Pad Elevations must be verified prior to Construction

TOTAL BILL OF MATERIAL

ITEM	UNIT	Quantity
Welded Wire Reinforcement	Sq. Yd.	20
Structure Excavation	Cu. Yd.	15
Concrete Structures	Cu. Yd.	3.3
Protective Coat	Sq. Yd.	20
Subbase Granular Material, Type B 6"	Sq. Yd.	20

NOTES:

SCALE:

- 1. For location of Light Pole Foundations, see Lighting Plans.
- The Light Tower & Light Tower Foundation shall be paid for separately.
- 3. For Light Tower hand hole orientation, see Lighting Plans.
- 4. f'c for Concrete shall be 3,500 psi © 28 days. fy for Welded Wire Reinforcement shall be 65,000 psi.
- 5. Min. 3,000 psf Soil Bearing Capacity is required below the foundation & pad.
- 6. Bill of Material quantity shown is for one Service Pad.
- 7. Welded Wire Reinforcement shall have minimum area of 0.31 in in each direction.



SECTION A-A

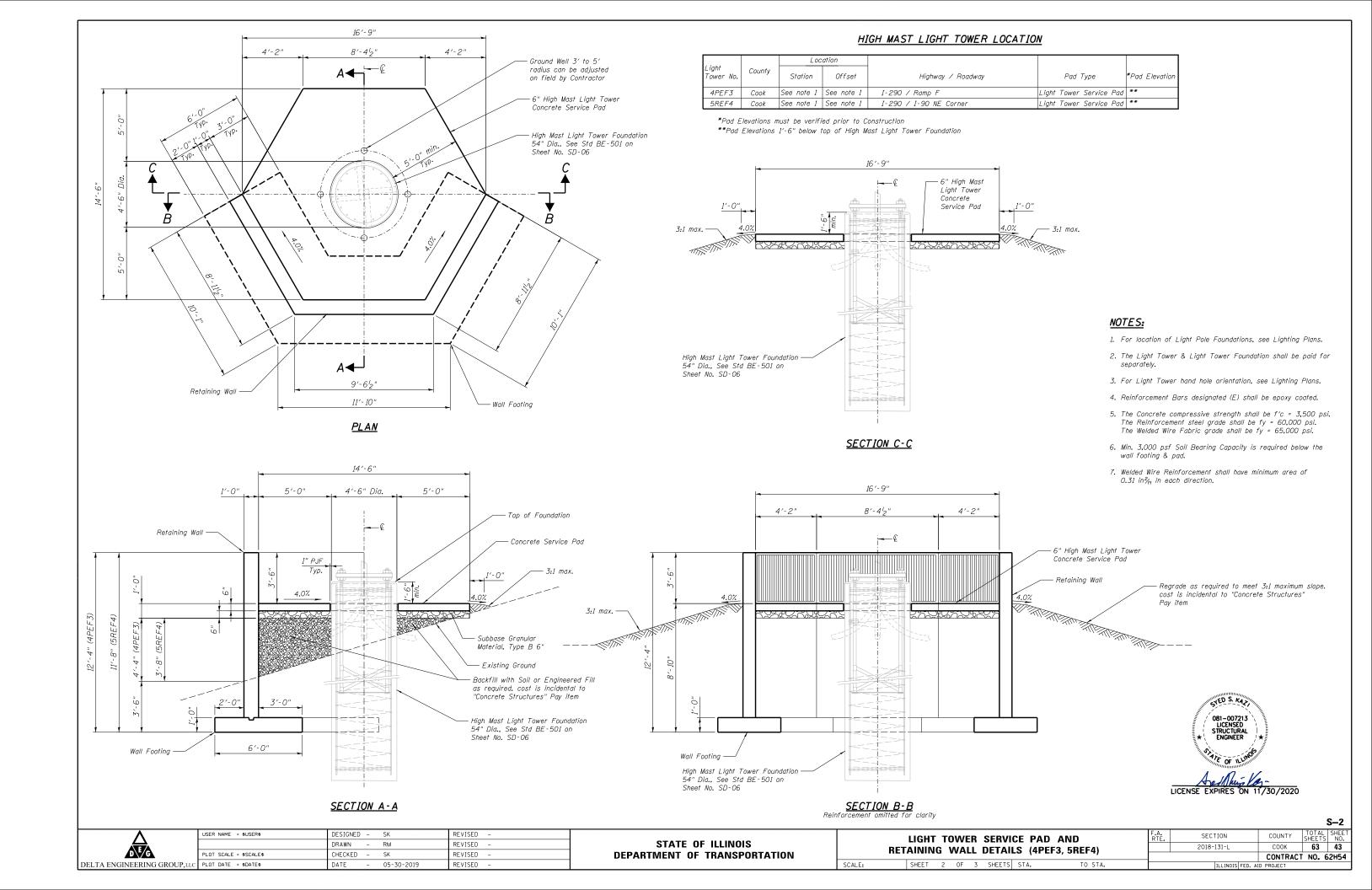
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DELTA ENGINEERING GROUP, LLC	PLOT DATE = \$DATE\$	DATE - 05-30-2019	REVISED -

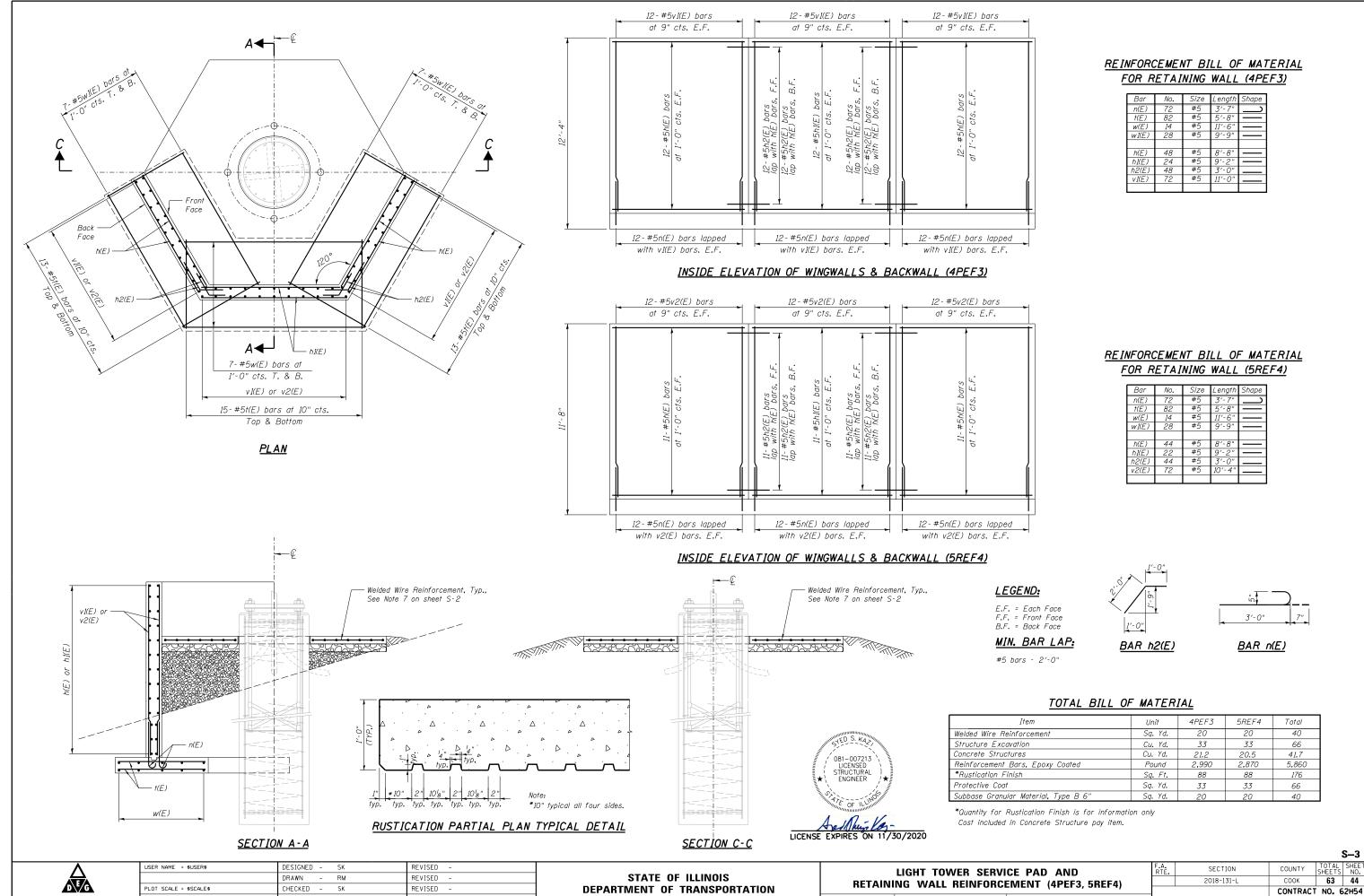
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LI	GHT	TOV	/ER		ERVICE 5PGHI)	PAD	DETAILS
	SHEET	1	OF	3	SHEETS	STA.	TO STA.

				S–1
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2018-131-L	соок	63	42
		CONTRACT	NO. 6	2H54
	ILLINOIS FED. A	ID PROJECT		

^{**}Pad Elevations match with top of existing pad





SHEET 3 OF 3 SHEETS STA.

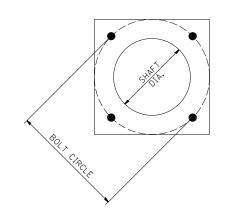
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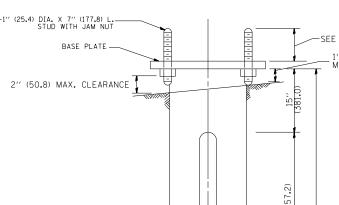
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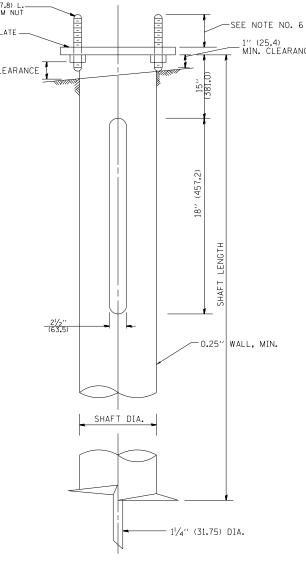


HELIX FOUNDATION SIZE

POLE MOUNTING HEIGHT	BOLT CIRCLE	SHAFT DIAMETER	SHAFT LENGTH	BASEPLATE
30 FT.	111/2"	85/8′′	6 FT.	12''×12''×1''
31 FT35 FT.	111/2"	85/8′′	6 FT.	12''×12''×1''
36 FT40FT.	15′′	85/8′′	6 FT.	15''×15''×1 ¹ / ₄ ''
41 FT45 FT.	15′′	85/8′′	6 FT.	15''×15''×1 ¹ / ₄ ''
46 FT50 FT.	15''	10′′	8 FT.	15''×15''×1 ¹ / ₄ ''

METAL HELIX FOUNDATION MATERIALS

ITEM	MATERIAL REQUIREMENT
BASEPLATE	AASHTO M 270M, GRADE 36 (M270M, GRADE 250)
SHAFT	ASTM A 252, GRADE 2 (PHOSPHOROUS 0.04% MAXIMUM, SULFUR 0.05% MAXIMUM)
HELIX SCREW	AASHTO M 183 (ASTM A 635)
PILOT POINT	AASHTO M 270 (ASTM A 575)
ANCHOR RODS/STUDS	AASHTO M 314 (ASTM F 1554)
HEXAGON NUTS	AASHTO M 291M (ASTM A 563) GRADE DH, OR AASHTO M 292 (ASTM A 194) GRADE 2H
WASHERS	AASHTO M 293 (ASTM F 436)

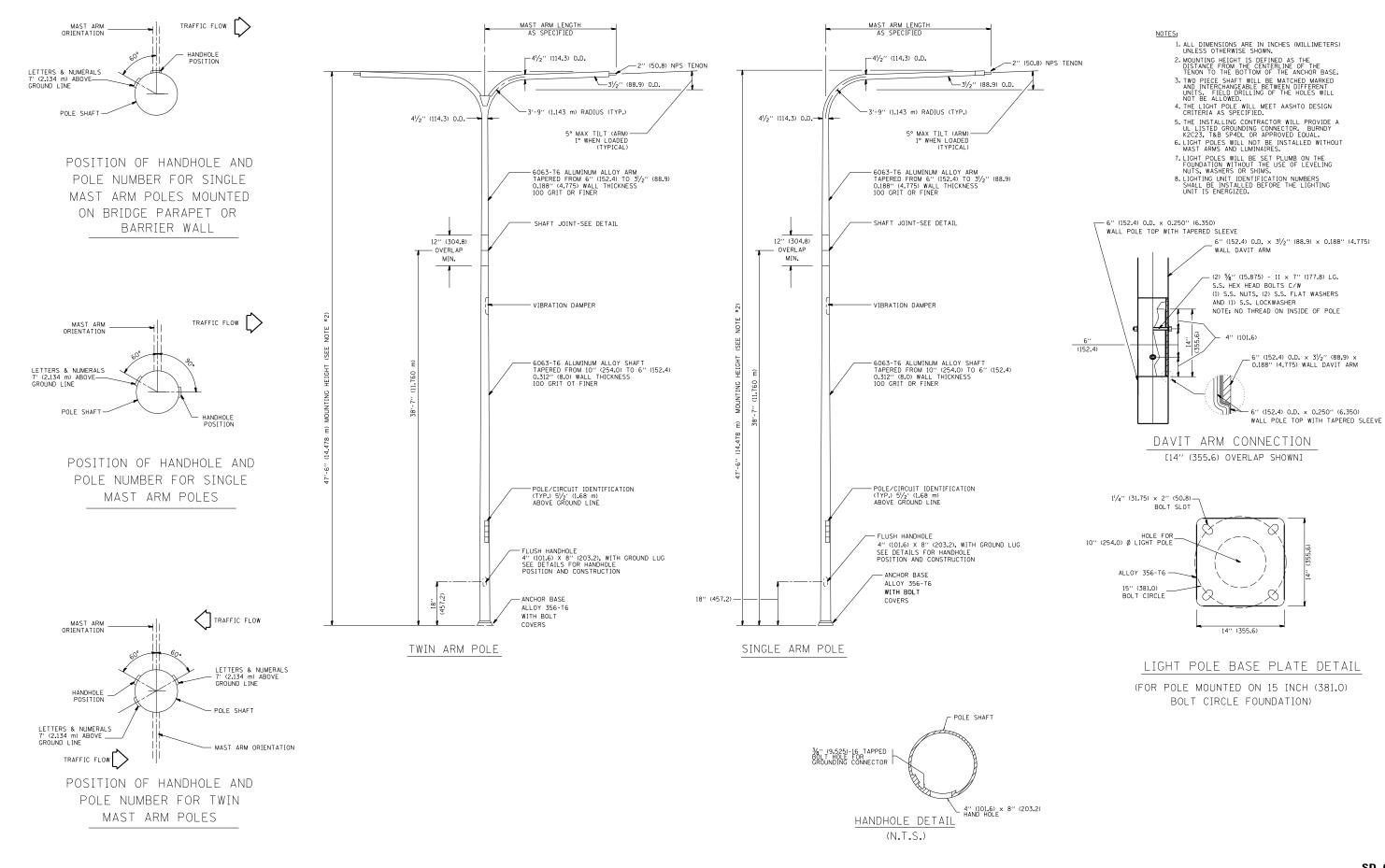


NOTES:

- 1. ALL DIMENSION IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- 2. ALL MATERIAL SHALL BE GALVINIZED ACCORDING TO AASHTO M111, UNLESS OTHERWISE SPECIFIED.
- 3. ALL WELDS SHALL BE CONTINUOUS AND NOT LESS THAN $\frac{1}{4}$ " (6.35 mm) FILLET WELDS. THE WELDED FOUNDATION SHALL BE CAPABLE OF WITHSTANDING 10,000 FT/LBS (13558.18 n.m) OF INSTALLATION TORQUE APPLIED ABOUT THE AXIS OF THE FOUNDATION.
- 4. THE HELIX FOUNDATION SHAFT SHALL BE INSTALLED VERTICAL AND THE BASE PLATE SHALL BE IN LEVEL. THE BREAKAWAY COUPLINGS AND HARDWARE SHALL NOT BE USED TO ALIGN THE POLE INSTALLATION.
- 5. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE INSTALLATION OF THE LIGHT POLE.
- 6. THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF THE BASE PLATE WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS.
- 7. ANY VOIDS WITHIN THE METAL FOUNDATION SHALL BE FILLED WITH FINE AGGREGATE.
- 8. METAL FOUNDATIONS SHALL BE INSTALLED IN UNDISTURBED SOIL. PREDRILLING A PILOT HOLE AND/OR BACKFILLING AROUND THE FOUNDTION IS NOT ALLOWED.
- 9. THE METAL FOUNDATION SHALL NOT BE INSTALLED TO A TORQUE WHICH EXCEEDS THE MANUFACTURER'S MAXIMUM TORQUE RATING NOR SHALL IT BE INSTALLED TO AN INSTALLATION TORQUE VALUE OF LESS THAN 3,500 FT LB (4,750 KNM). METAL FOUNDATIONS THAT ARE NOT INSTALLED TO FULL INSTALLATION DEPTH OR DO NOT ACHIEVE THE MINIMUM INSTALLATION TORQUE SHALL BE REMOVED AND REPLACED WITH A CONCRETE FOUNDATION AT NO ADDITIONAL COST.
- 10. THE BASEPLATE SHALL BE PERPENDICULAR TO THE SHAFT AXIS (± 1°) AND THE HOLE CENTERLINE SHALL BE CONCENTRIC (± 0.188) TO THE SHAFT AXIS.
- 11. THE PILOT POINT AND SHAFT AXIS SHALL BE CONCENTRIC (± 0.125) AND IN LINE (± 2°).
- 12. THE BASEPLATE SHALL BE STAMPED WITH THE MANUFACTURERS NAME AND DATE OF MANUFACTURE.

SD-01

١	FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -
١	\$FILEL\$		DRAWN - DLB	REVISED -
١		PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -
l	\$MODELNAME\$	PLOT DATE = \$DATE\$	DATE - 02-27-07	REVISED -



STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

FILE NAME

\$FILEL\$

USER NAME = \$USER\$

PLOT SCALE = \$SCALE\$

PLOT DATE = \$DATE\$

DESIGNED -

CHECKED -

DATE

DRAWN - LEY

REVISED - D. DREW 05-07-92

REVISED - R. TOMSONS 09-06-0

REVISED - R. TOMSONS 09-02-0

REVISED - R. TOMSONS 01-18-13

SD-02

COUNTY TOTAL SHEET NO.

63 46

CONTRACT NO. 62H54

SECTION

BE-410

DAVIT LIGHT POLE

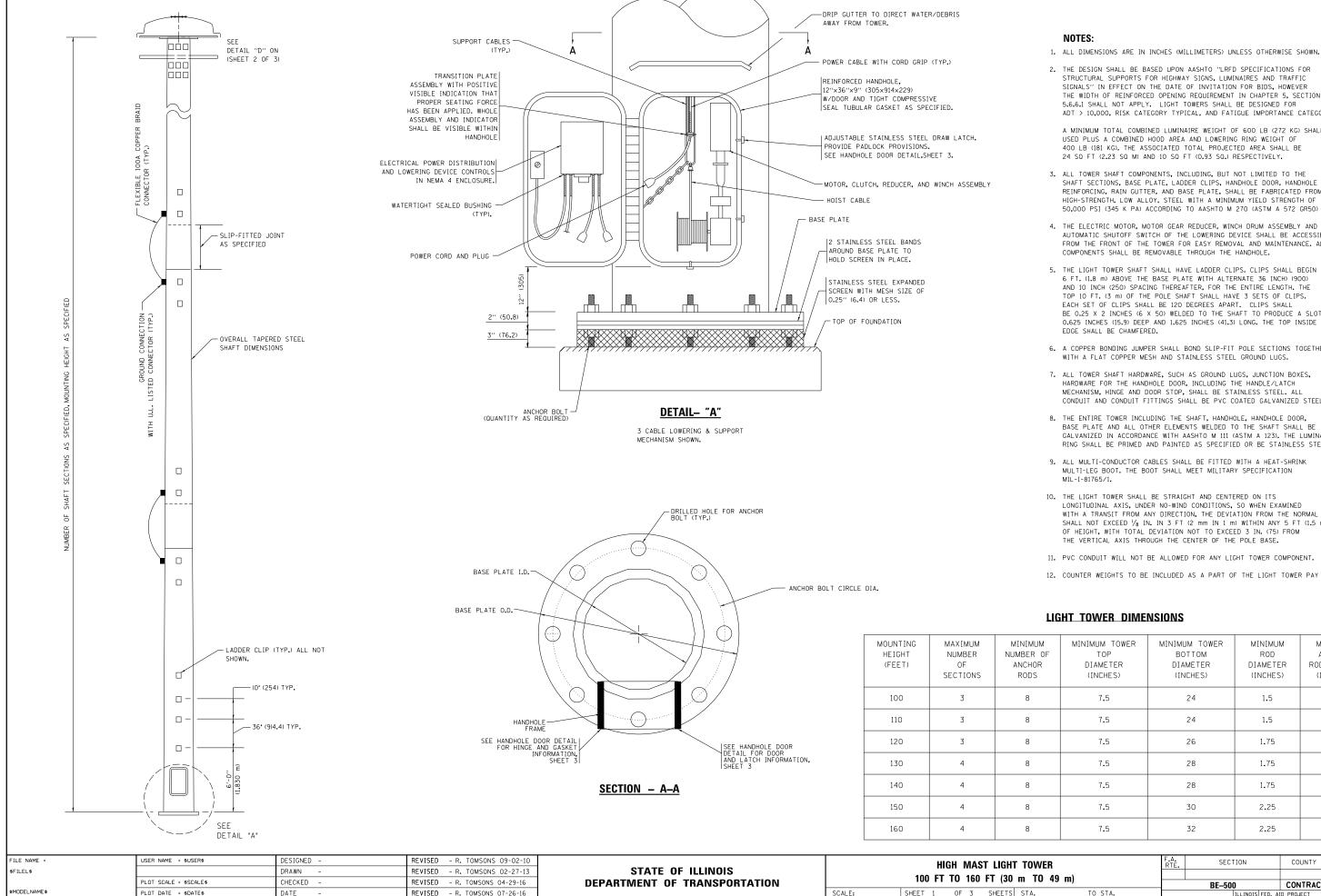
47'-6" (14.478 m) MOUNTING HEIGHT

OF 1 SHEETS STA.

TO STA.

SCALE:

SHEET 1



- 2. THE DESIGN SHALL BE BASED UPON AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" IN EFFECT ON THE DATE OF INVITATION FOR BIDS, HOWEVER THE WIDTH OF REINFORCED OPENING REQUIREMENT IN CHAPTER 5, SECTION 5.6.6.1 SHALL NOT APPLY. LIGHT TOWERS SHALL BE DESIGNED FOR ADT > 10,000, RISK CATEGORY TYPICAL, AND FATIGUE IMPORTANCE CATEGORY I.

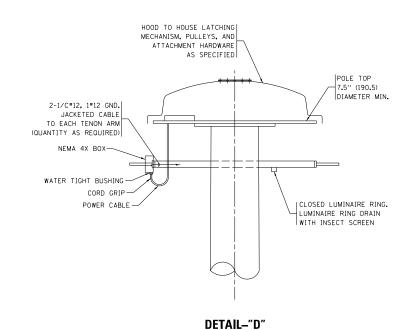
A MINIMUM TOTAL COMBINED LUMINAIRE WEIGHT OF 600 LB (272 KG) SHALL BE USED PLUS A COMBINED HOOD AREA AND LOWERING RING WEIGHT OF 400 LB (181 KG). THE ASSOCIATED TOTAL PROJECTED AREA SHALL BE

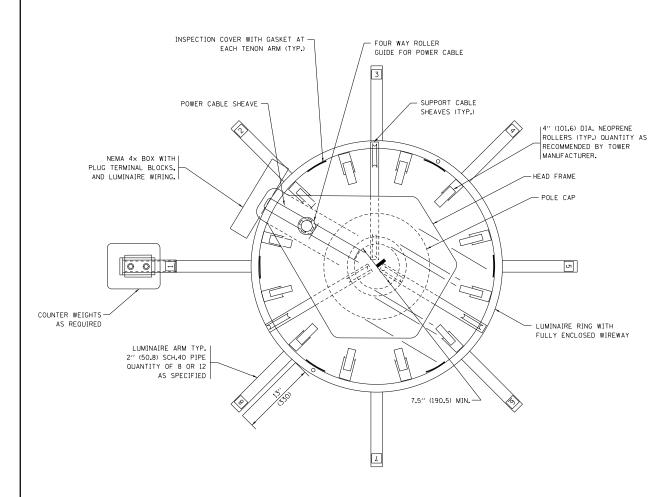
- 3. ALL TOWER SHAFT COMPONENTS, INCLUDING, BUT NOT LIMITED TO THE SHAFT SECTIONS, BASE PLATE, LADDER CLIPS, HANDHOLE DOOR, HANDHOLE REINFORCING, RAIN GUTTER, AND BASE PLATE, SHALL BE FABRICATED FROM HIGH-STRENGTH, LOW ALLOY, STEEL WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI (345 K PA) ACCORDING TO AASHTO M 270 (ASTM A 572 GR50)
- 4. THE ELECTRIC MOTOR, MOTOR GEAR REDUCER, WINCH DRUM ASSEMBLY AND AUTOMATIC SHUTOFF SWITCH OF THE LOWERING DEVICE SHALL BE ACCESSIBLE FROM THE FRONT OF THE TOWER FOR EASY REMOVAL AND MAINTENANCE. ALL COMPONENTS SHALL BE REMOVABLE THROUGH THE HANDHOLE.
- 6 FT. (1.8 m) ABOVE THE BASE PLATE WITH ALTERNATE 36 INCH) (900) AND 10 INCH (250) SPACING THEREAFTER, FOR THE ENTIRE LENGTH. THE TOP 10 FT. (3 m) OF THE POLE SHAFT SHALL HAVE 3 SETS OF CLIPS. EACH SET OF CLIPS SHALL BE 120 DEGREES APART. CLIPS SHALL BE 0.25 X 2 INCHES (6 X 50) WELDED TO THE SHAFT TO PRODUCE A SLOT 0.625 INCHES (15.9) DEEP AND 1.625 INCHES (41.3) LONG. THE TOP INSIDE
- 6. A COPPER BONDING JUMPER SHALL BOND SLIP-FIT POLE SECTIONS TOGETHER WITH A FLAT COPPER MESH AND STAINLESS STEEL GROUND LUGS.
- 7. ALL TOWER SHAFT HARDWARE, SUCH AS GROUND LUGS, JUNCTION BOXES, HARDWARE FOR THE HANDHOLE DOOR, INCLUDING THE HANDLE/LATCH MECHANISM, HINGE AND DOOR STOP, SHALL BE STAINLESS STEEL. ALL CONDUIT AND CONDUIT FITTINGS SHALL BE PVC COATED GALVANIZED STEEL.
- 8. THE ENTIRE TOWER INCLUDING THE SHAFT, HANDHOLE, HANDHOLE DOOR, BASE PLATE AND ALL OTHER ELEMENTS WELDED TO THE SHAFT SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111 (ASTM A 123). THE LUMINAIRE RING SHALL BE PRIMED AND PAINTED AS SPECIFIED OR BE STAINLESS STEEL
- MULTI-LEG BOOT. THE BOOT SHALL MEET MILITARY SPECIFICATION
- LONGITUDINAL AXIS, UNDER NO-WIND CONDITIONS, SO WHEN EXAMINED WITH A TRANSIT FROM ANY DIRECTION, THE DEVIATION FROM THE NORMAL SHALL NOT EXCEED $\frac{1}{8}$ IN. IN 3 FT (2 mm IN 1 m) WITHIN ANY 5 FT (1.5 m) OF HEIGHT, WITH TOTAL DEVIATION NOT TO EXCEED 3 IN. (75) FROM THE VERTICAL AXIS THROUGH THE CENTER OF THE POLE BASE.
- 11. PVC CONDUIT WILL NOT BE ALLOWED FOR ANY LIGHT TOWER COMPONENT.
- 12. COUNTER WEIGHTS TO BE INCLUDED AS A PART OF THE LIGHT TOWER PAY ITEM.

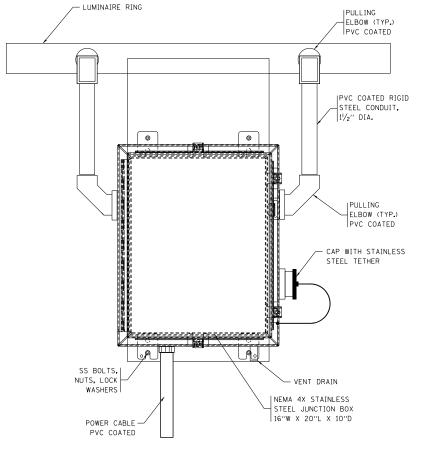
MOUNTING HEIGHT (FEET)	MAXIMUM NUMBER OF SECTIONS	MINIMUM NUMBER OF ANCHOR RODS	MINIMUM TOWER TOP DIAMETER (INCHES)	MINIMUM TOWER BOTTOM DIAMETER (INCHES)	MINIMUM ROD DIAMETER (INCHES)	MINIMUM ANCHOR ROD CIRCLE (INCHES)	
100	3	8	7.5	24	1.5	30	
110	3	8	7.5	24	1.5	30	
120	3	8	7.5	26	1.75	36	
130	4	8	7.5	28	1.75	36	
140	4	8	7.5	28	1.75	36	
150	150 4 160 4		7.5	30	2.25	38	
160			7.5	32	2.25	38	

SD-03

SECTION COUNTY 63 47 CONTRACT NO. 62H54





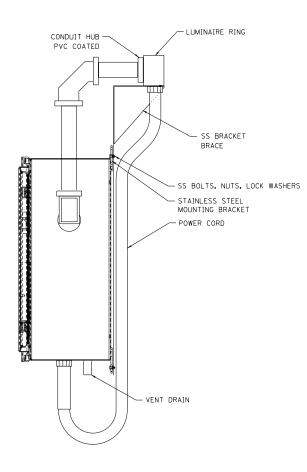


FRONT VIEW

N.T.S.

SCALE:





NOTES:

1. LUMINAIRE WIRES SHALL EXTEND 24 INCHES (609mm) LONGER THAN THE RESPECTIVE TENON ARM AND SHALL BE TRAINED BACK INTO THE ARM WHICH SHALL THEN BE CLOSED WITH A CAP AS SPECIFIED ALL WIRES SHALL BE CAPPED WITH HEAT SHRINK INSULATING BOOTS, CRIMP CAPS ARE UNACCEPTABLE. ALL RING WIRES SHALL BE TAGGED WITH WIRE MARKERS AT BOTH ENDS THE TENON ARMS SHALL ALSO BE TAGGED CORRESPONDING TO THE WIRING CONTAINED WITHIN.

SIDE VIEW

N.T.S.

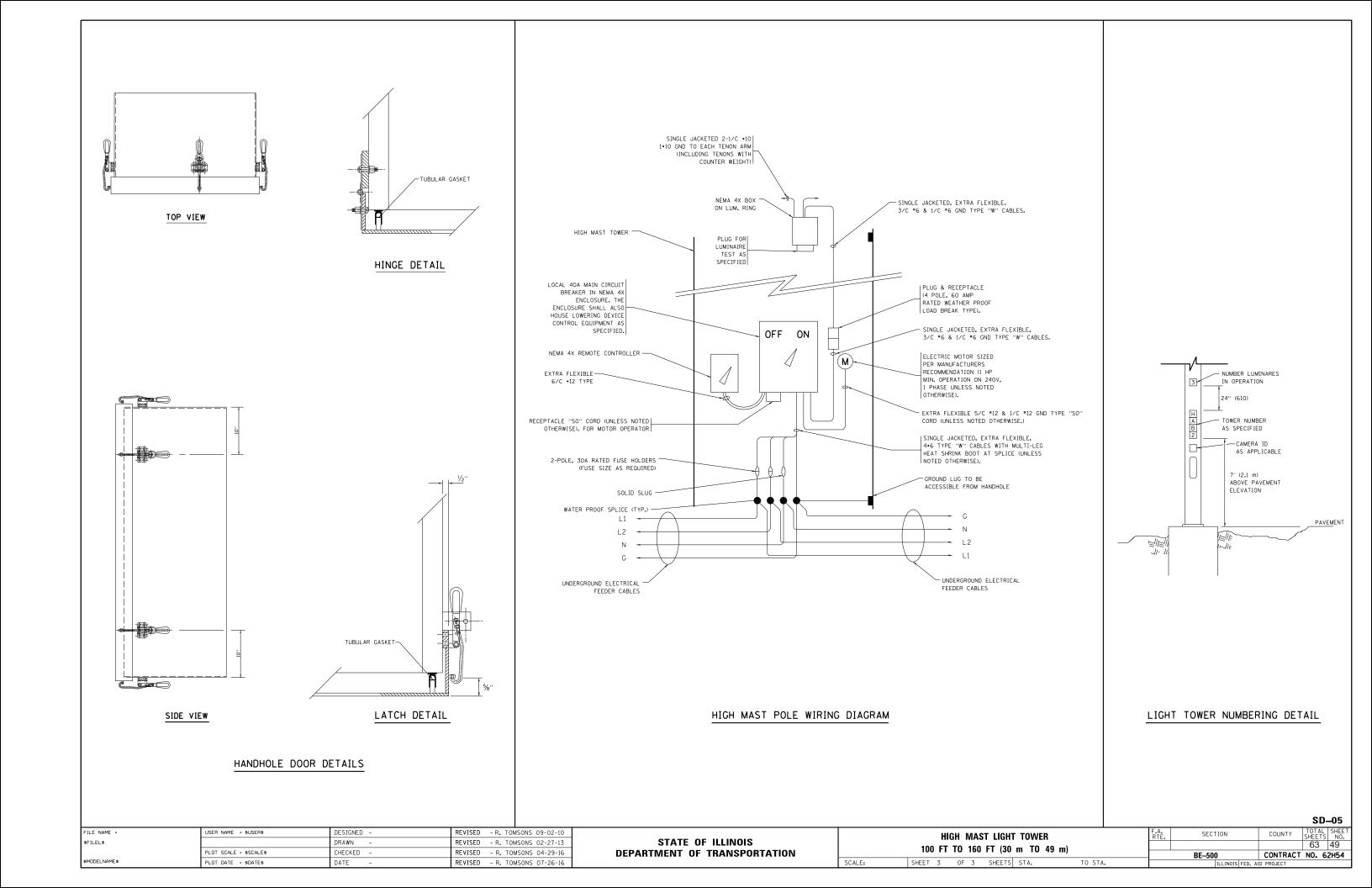
- 2. SPLICING WILL NOT BE ALLOWED WITHIN THE LUMINAIRE RING.
- 3. ALL TOWER SHAFT HARDWARE, SUCH AS GROUND LUGS, JUNCTION BOXES, HARDWARE FOR THE HANDHOLE DOOR, INCLUDING THE HANDLE/LATCH MECHANISM, HINGE AND DOOR STOP, SHALL BE STAINLESS STEEL. ALL CONDUIT AND CONDUIT FITTINGS SHALL BE PVC COATED GALVANIZED STEEL.
- ALL MULTI-CONDUCTOR CABLES SHALL BE FITTED WITH A HEAT-SHRINK MULTI-LEG BOOT. THE BOOT SHALL MEET MILITARY SPECIFICATION MIL-I-81765/1.

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED - R. TOMSONS 09-02-10
\$FILEL\$		DRAWN -	REVISED - R. TOMSONS 02-27-13
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED - R. TOMSONS 04-29-16
\$MODELNAME\$	PLOT DATE = \$DATE\$	DATE -	REVISED - R. TOMSONS 07-26-16

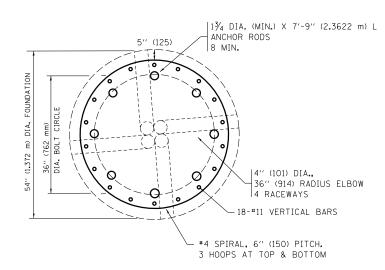
STAT	E OI	F ILLINOIS	
DEPARTMENT	OF	TRANSPORTATION	

	HIGH MAST LIGHT TOWER 100 FT TO 160 FT (30 m TO 49 m) EET 2 OF 3 SHEETS STA. TO STA.	F.A. SECT						
100 FT TO 160 FT (30 m TO 49 m)								
100	•		100			75 III)		BE-500
SHEET	2	OF	3	SHEETS	STA.	TO STA.		ILL

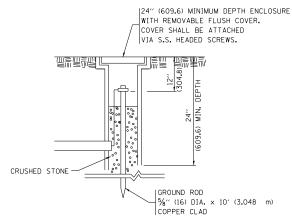
SD-04



		SHAFT LENGTH (D)	TABLE		
		AVERAGE STRENGTH	LIGHT	TOWER MOUNTING H	EIGHT
SOIL C	ONSISTENCY	Qu In tsf (Qu In kPa)	120 FT. (37 m)	130 FT. (40 m)	140 FT. (43 m)
	SOFT	<0.5 (<50)	25′-0′′ (7 . 6 m)	26′-6′′ (8.0 m)	27'-6" (8.3 m)
	MEDIUM	0.5 TO 1 (50 to 100)	20'-6'' (6.2 m)	21'-6'' (6.4 m)	22'-0" (6.7 m)
COHESIVE	STIFF	1 TO 2 (100 TO 200)	17'-6'' (5.2 m)	18'-0'' (5.4 m)	18'-6'' (5.5 m)
	VERY STIFF	2 TO 4 (200 TO 400)	15'-0'' (4.5 m)	15′-6′′ (4.6 m)	16'-0'' (4.7 m)
	HARD	>4 (>400)	13'-6'' (4.0 m)	13'-6'' (4.1 m)	14'-0'' (4.2 m)
		N in BLOWS/FT. (N in BLOWS/0.3m)			
	VERY LOOSE	<5 (<5)	19'-0'' (6.3 m)	20′-0′′ (6.0 m)	20'-6'' (6.2 m)
	LOOSE	5 TO 10 (5 TO 10)	17'-6'' (5.7 m)	18'-0'' (5.5 m)	18'-6'' (5.6 m)
GRANUL AR	MEDIUM	10 TO 25 (10 TO 25)	16′-6′′ (5.5 m)	17'-0'' (5.2 m)	17'-6'' (5.3 m)
	DENSE	25 TO 50 (25 TO 50)	15'-6'' (5.2 m)	16'-6'' (4.9 m)	16'-6'' (5.0 m)
	VERY DENSE	>50 (>50)	15'-0'' (4.5 m)	15′-6′′ (4.7 m)	16'-0'' (4.8 m)



SECTION-B-B

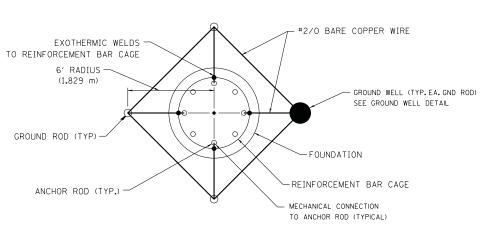


GROUND WELL DETAIL

FILE NAME USER NAME = \$USER\$ DESIGNED -REVISED - R. TOMSONS 09-02-10 \$FILEL\$ ORAWN REVISED - R. TOMSONS 02-27-13 PLOT SCALE = \$SCALE\$ CHECKED -REVISED - R. TOMSONS 04-29-16 - 03-12-10 PLOT DATE = \$DATE\$ DATE REVISED

DESIGN NOTES

- 1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
- 2. THE ANCHOR RODS SHALL BE VERTICAL NO ADJUSTMENT SHALL BE ALLOWED AFTER THE FOUNDATION IS PLACED.
- 3. THE GAP BETWEEN THE FOUNDATION AND THE BASE PLATE SHALL BE ENCLOSED WITH A STAINLESS STEEL SCREEN FASTENED WITH A STAINLESS STEEL BAND.
- 4. THE TOP OF THE FOUNDATION TO 18" (450) BELOW GRADE SHALL BE FORMED.
- 5. SURFACE WATER WILL NOT BE PERMITTED TO ENTER THE HOLE AND ALL WATER WHICH MAY HAVE INFILTRATED INTO THE HOLE SHALL BE REMOVED BEFORE PLACING CONCRETE.
- 6. THE LIGHT TOWER SHALL NOT BE ERECTED UNTIL AFTER THE CONCRETE HAS BEEN CURED ACCORDING TO ARTICLE 1020.13.
- 7. ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO ASTM F1554, GRADE 725 (GRADE 105) AND GALVANIZED ACCORDING TO ARTICLE 1006.9.
- 8. ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED FOR APPROVAL WITH TOWER MANUFACTURER REQUIREMENTS.
- 9. REINFORCEMENT BARS SHALL BE ACCORDING TO ARTICLE 1006.10
- 10. TWO ANCHOR RODS OPPOSITE EACH OTHER SHALL HAVE THE ANCHOR ROD THREADS PEENED AFTER NUTS ARE INSTALLED.
- 11. A MINIMUM OF THREE FULL THREADS SHALL REMAIN EXPOSED AFTER LIGHT TOWER IN INSTALLED.
- 12. ALL GROUNDING INDICATED IN THE PLANS SHALL BE INCLUDED IN THE COST OF THE LIGHT TOWER FOUNDATION AND SHALL NOT BE PAID FOR SEPARATELY.
- 13. CUT NUTS, OR JAM NUTS, ARE NOT ALLOWED
- 14. ANCHOR ROD QUANTITY, DIAMETER, AND LENGTH SHALL BE DETERMINED BY THE TOWER MANUFACTURER AND APPROVED BY THE ENGINEER. EACH FOUNDATION SHALL HAVE A MINIMUM OF 8 ANCHOR RODS.
- 15. COORDINATE THE ROD CIRCLE DIAMETER OF THE TOWER WITH THE DIAMETER OF THE ANCHOR ROD CAGE.
- 16. THE FOUNDATION SHALL BE POURED MONOLITHICALLY AND SHALL HAVE NO CONSTRUCTION JOINTS.



GROUND ROD DETAIL

SD-	-06
TOTAL	SHEE

STATE	E 01	F ILLINOIS
DEPARTMENT	0F	TRANSPORTATION

BASE PLATE-

SEE NOTE 11

В

MECHANICAL CONNECTION

EXOTHERMIC WELD CONNECTION

#2/0 BARE COPPER WIRE

EXOTHERMIC WELD

CONNECTION

4-%" (16) DIA. X 10' (3.048 m)
LONG GROUND RODS EDUALLY
SPACED IN A 12' (3.658 m)
DIAMETER CIRCLE EXOTHERMICALLY—
CONNECTED TOGETHER WITH A
#2/0 BARE COPPER WIRE
(SEE GROUND ROD DETAIL)

TO ANCHOR RODS

TO REINFORCING STEEL

12" (304.8)

FOUNDATION

ELEVATION

SCALE:

RACEWAY PROJECTION

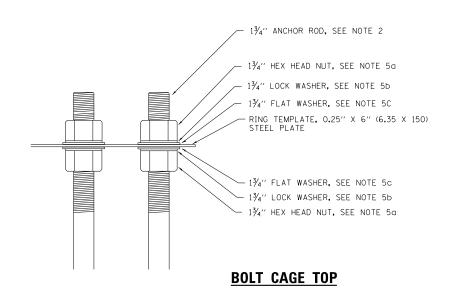
18" (457)

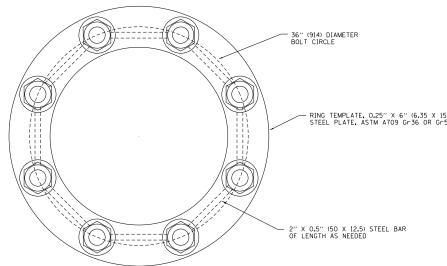
SEE ANCHOR BOLT CAGE WELDMENT DETAIL SHEET 2

5" (125) TOP AND воттом

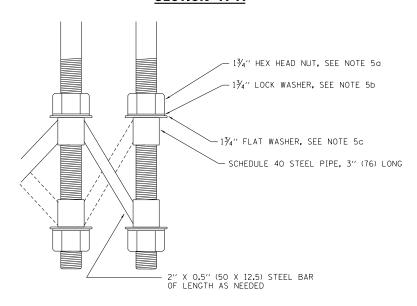
		HIGI	H 1	VI A	\ST	LIGH	T	TOWER	}		
120 F	T	T0	14	0	FT	FOUN	ID	ATION	DETAIL		
SHEET	1		OF	2		SHEETS	Γ	STA.		ТО	STA.

						OD	00
A. TE.	SEC.	TION			COUNTY	TOTAL SHEETS	SHE
						63	50
	BE-506	j			CONTRACT	NO. 62	2H54
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SECTION A-A



NOTES:

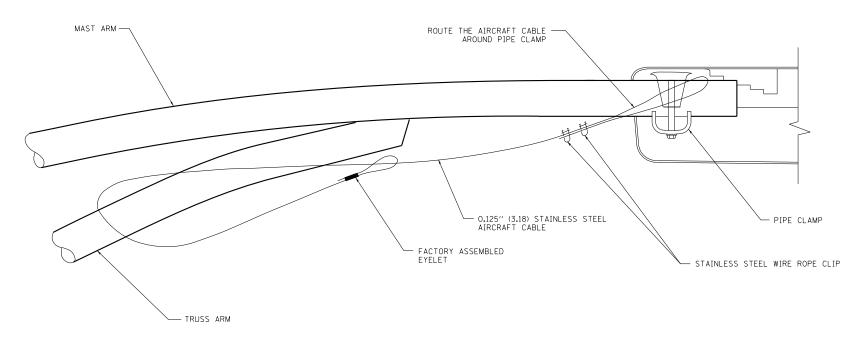
- 1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
- 2. ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING
 TO ASTM F1554, GRADE 725 (GRADE 105) AND GALVANIZED ACCORDING
 TO ARTICLE 1006.09.
- ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED WITH TOWER MANUFACTURERS REQUIREMENTS
- 4. CUT NUTS, OR JAM NUTS, ARE NOT ALLOWED
- ANCHOR ROD CAGE HARDWARE SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 - a) 1.5 (38) HEX HEAD NUTS AASHTO M291, GRADE C, C3, D ,DH OR DH3 HOT DIPPED GALVANIZED AASHTO M 232
 - b) 1.5 (38) HELICAL LOCK WASHERS
 ANSI/ASME B18.21.1
 I.D. 1.504 1.524
 O.D. 2.159 MAX.
 WIDTH 0.292 MIN.
 THICKNESS 0.375 MIN.
 HARDNESS 26-45 ROCKWELL C
 HOT DIPED GALVANIZED AASHTO M232
 - c) 1.5 (38) FLAT WASHERS
 AASHTO M293
 O.D. 2.75
 I.D. 1.56
 THICKNESS 0.16 0.25
 HARDNESS 26-45 ROCKWELL C.
 HOT DIPED GALVANIZED AASHTO M232
- 6. THE SHAFT LENGTHS SHALL BE BASED ON SOIL BORINGS IN THE PLANS AND OR A DETERMINATION OF SOIL CONDITIONS BY THE ENGINEER.
- 7. ALL FOUNDATION REINFORCEMENT STEEL SHALL BE EPOXY COATED.
- THE FOUNDATION SHALL BE POURED MONOLITHICALLY AND SHALL HAVE NO CONSTRUCTION JOINTS.
- 9. ANCHOR RODS AND ALL ASSOCIATED HARDWARE ARE SHOWN AS MINIMUMS. SIZING SHALL BE DETERMINED BY THE TOWER MANUFACTURER AND APPROVED BY THE ENGINEER. EACH FOUNDATION SHALL HAVE A MINIMUM OF 8 ANCHOR RODS.

ANCHOR BOLT CAGE

- SEE BOLT CAGE TOP DETAIL

BOLT CAGE BOTTOM

										SD-07
FILE NAME =	USER NAME = \$USER\$	DESIGNED - R. TOMSONS 09-02-10	REVISED - R. TOMSONS 02-27-13			HIGH MAST LIGHT TOWER	F	A.	SECTION	COUNTY TOTAL SHEET
\$FILEL\$		DRAWN -	REVISED - R. TOMSONS 04-29-16	STATE OF ILLINOIS	120 FT TO 140 FT FOUNDATION DETAIL					63 51
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					BE-506	CONTRACT NO. 62H54
\$MODELNAME\$	PLOT DATE = \$DATE\$	DATE -	REVISED -		SCALE:	SHEET 2 OF 2 SHEETS STA. TO	STA.			ID PROJECT



SIDE VIEW (TRUSS ARM) N.T.S.

MAST ARM

FACTORY ASSEMBLED

EYELET

STAINLESS STEEL

U-BOLT HAYARD

ROUTE THE CABLE
AROUND PIPE CLAMP

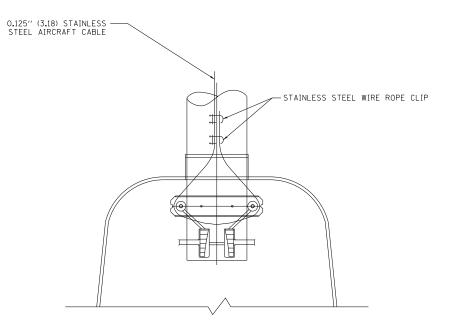
O.125" (3.18) STAINLESS
STEEL AIRCRAFT CABLE
WIRE ROPE CLIP

STAINLESS STEEL
WIRE ROPE CLIP

SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)

STAINLESS STEEL U-BOLT HAYARD

N.T.S.



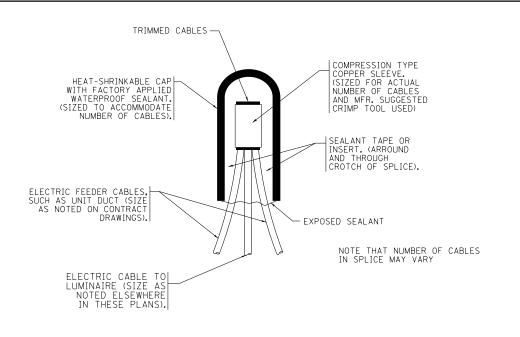
BOTTOM VIEW N.T.S.

NOTES:

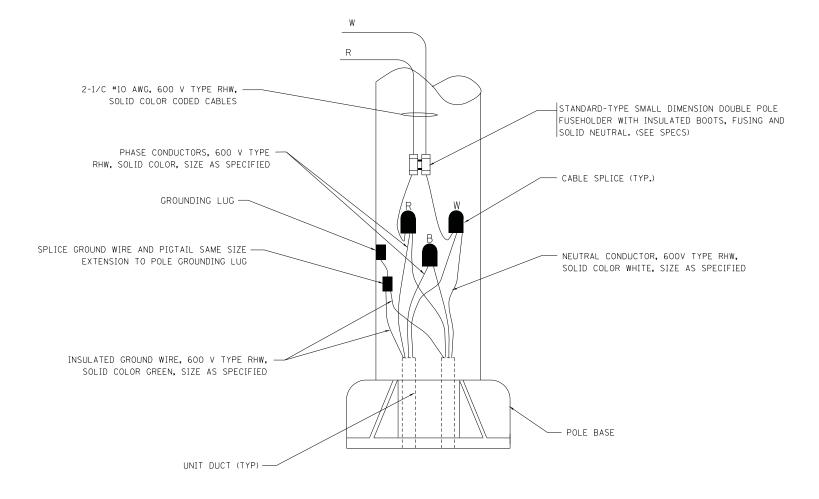
- 1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- 2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
- 3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
- 4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

SD-08

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED - 08-08-03			LUMINAIRE SAFETY CABLE ASSEMBLY	F	.A.	SECTION	COUNTY TO	OTAL SHEET
\$FILEL\$		DRAWN -	REVISED -	STATE OF ILLINOIS		LUMINAINE SAFETT CABLE ASSEMBLE	- "				63 52
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					BE-701	CONTRACT N	
\$MODELNAME\$	PLOT DATE = \$DATE\$	DATE -	REVISED -		SCALE:	SHEET 1 OF 1 SHEETS STA. TO	STA.		ILLINOIS FED. A	ID PROJECT	



TYPICAL SPLICE DETAIL N.T.S.



TYPICAL WIRING IN TRENCH DETAIL N.T.S.

30" (762) MINIMUM COVER - 12" (305) MAXIMUM WIDTH EXCEPT AS APPROVED BY THE ENGINEER

12" (305)

- WARNING TAPE AS SPECIFIED

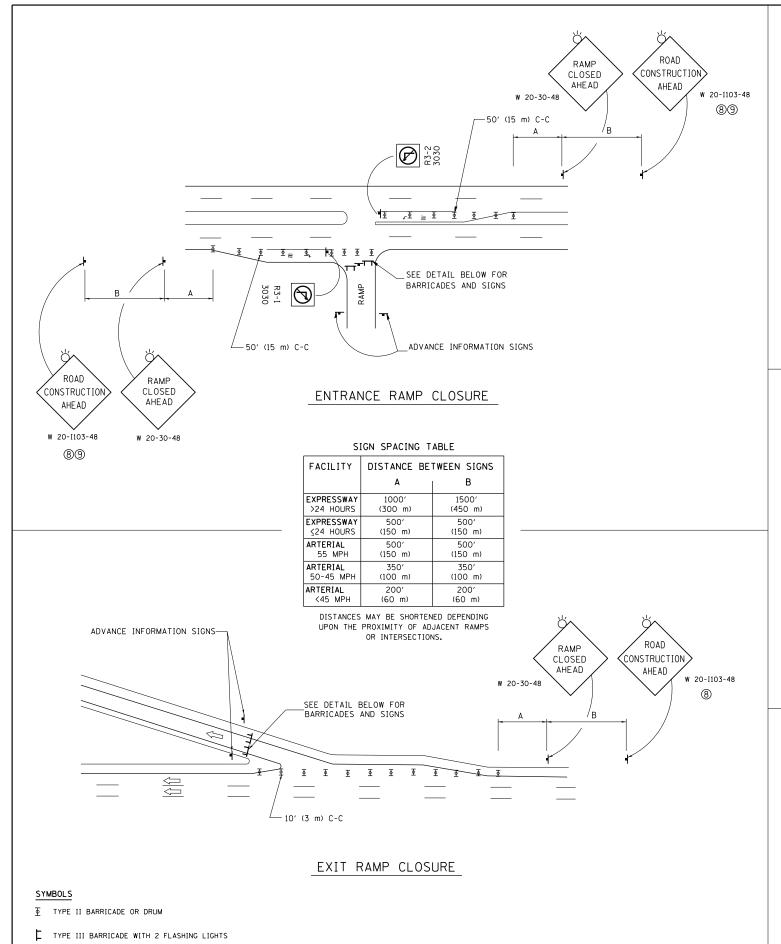
UNIT DUCT OR OTHER RACEWAY
AND WIRING AS PER PLANS. COMPLETE

WITH INTERNAL INSULATED EQUIPMENT GROUND WIRE.

POLE WIRING DETAIL

N.T.S.

										SD-09
FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED - 08-08-03			MISC. ELECTRICAL DETAILS		F.A. SECTION	COUNTY	TOTAL SHEET
\$FILEL\$		DRAWN -	REVISED -	STATE OF ILLINOIS				WIL.		63 53
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		SHEET A	BE-702	CONTRAC	T NO. 62H54	
\$MODELNAME\$	PLOT DATE = \$DATE\$	DATE -	REVISED -		SCALE:	SHEET 1 OF 1 SHEETS STA.	TO STA.	ILL	NOIS FED. AID PROJECT	



DESIGNED - D.W.S.

CHECKED

DATE

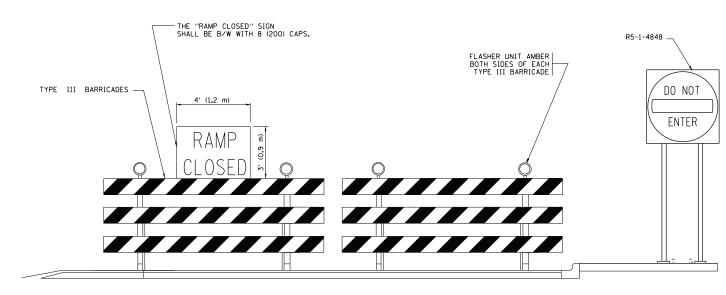
ments\IDOT Offices\District 1\Projects\Dist**6t@R2WWM**\CADDeta\CADsheets\tc08.dom

USER NAME = footemj

PLOT DATE = 11/27/2017

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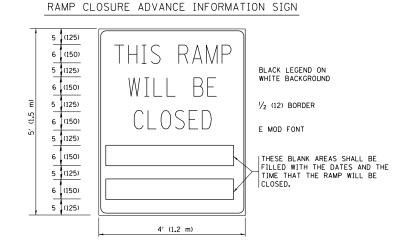


DETAIL FOR REQUIRED BARRICADES & SIGNS

RAMP CLOSURE ADVANCE WARNING SIGN 10' (3 m)

> BLACK LEGEND ON ORANGE BACKGROUND MOUNTED DIAGONALLY E MOD FONT 1 (25) BORDER

THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.



THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

GENERAL NOTES:

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- (2) VERTICAL BARRICADES SHALL NOT BE USED FOR RAMP CLOSURES.
- 3 A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEEDED BY A W20-7 FLAGGER WARNING SIGN.
- 4 ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
- 5 THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).

- (6) AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH
- (8) ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

TAL SHEE SECTION COUNTY 63

SD-10

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

S.P.B. 01-07

S.P.B. 12-09

M.D. 06-13

M.D. 01-18

REVISED -

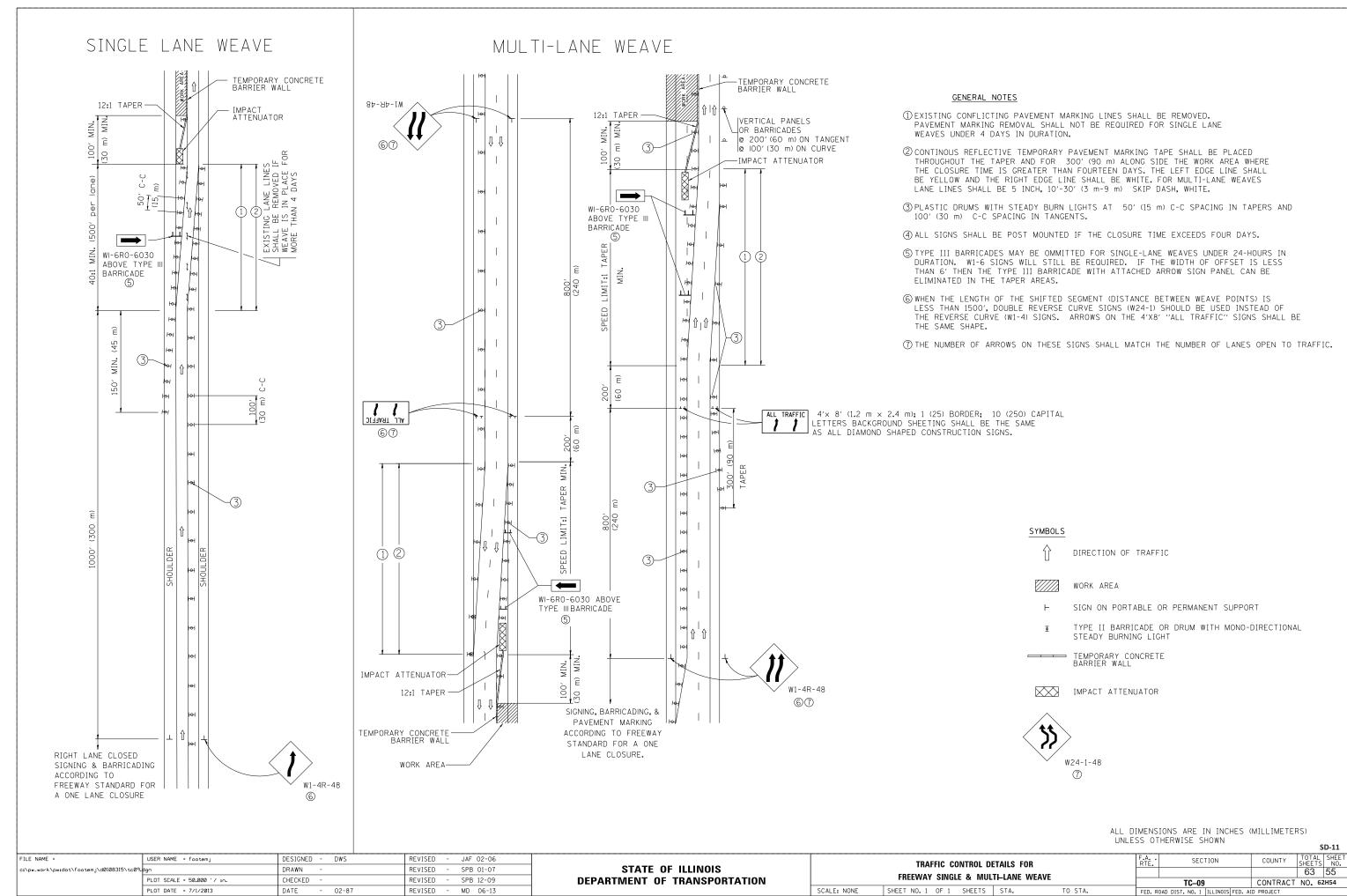
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ENTRANCE AND EXIT RAMP CLOSURE DETAILS

CONTRACT NO. 62H54 SCALE: NONE TO STA. SHEET 1 OF 1 SHEETS STA.



TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

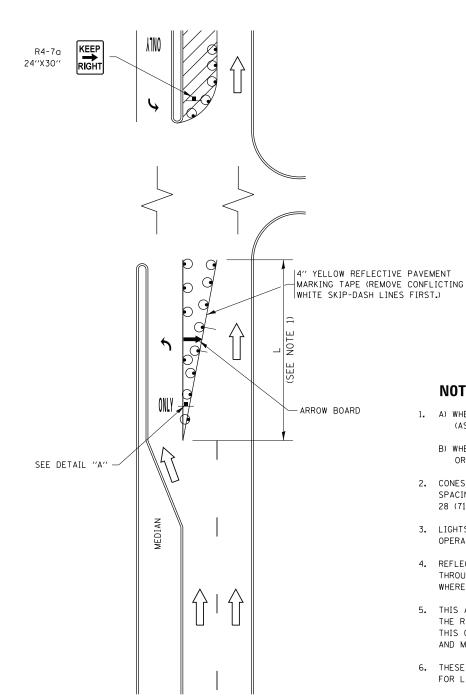


FIGURE 1

LEGEND WORK AREA

LANE OPEN TO TRAFFIC

ARROW BOARD

TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT

DRUM WITH STEADY BURN LIGHT

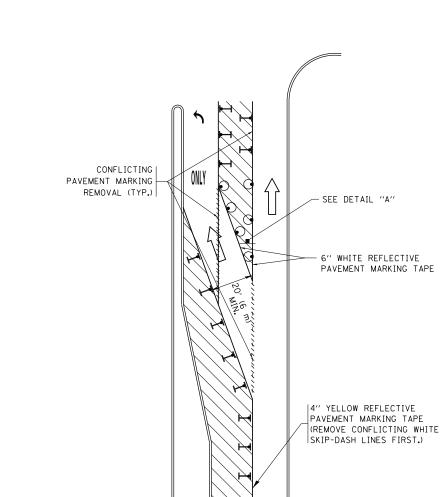
SIGN ASSEMBLY

TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

NOTES:

- 1. A) WHEN "L" IS < THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.
 - B) WHEN "L" IS > THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
- 2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
- 3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
- 4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
- 5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-I100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
- 6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
- 7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.
- 8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

TURN BAY ENTRANCE WITHIN A LANE CLOSURE



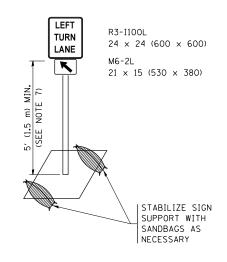


FIGURE 2

DETAIL A

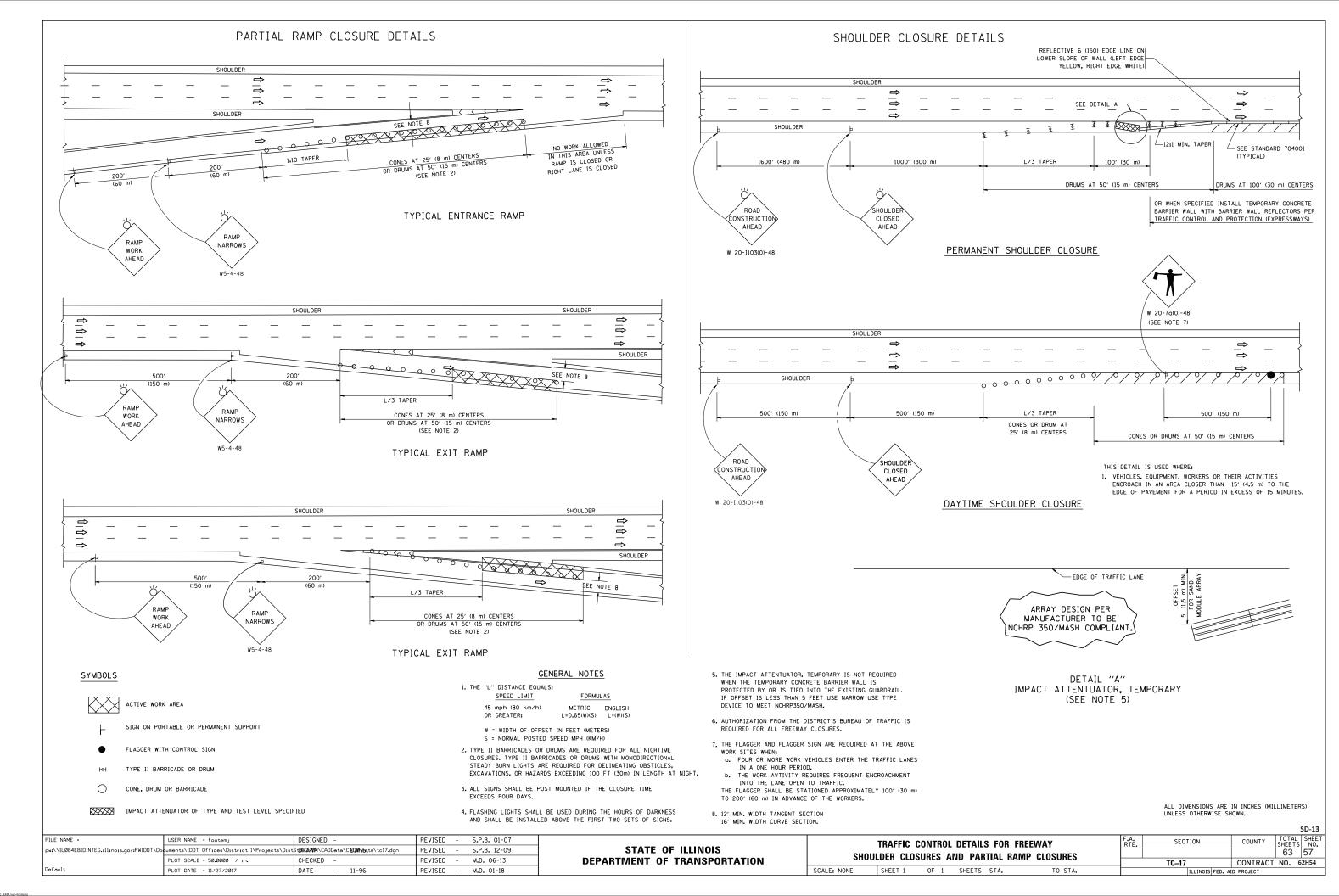
All dimensions are in inches (millimeters) unless otherwise shown.

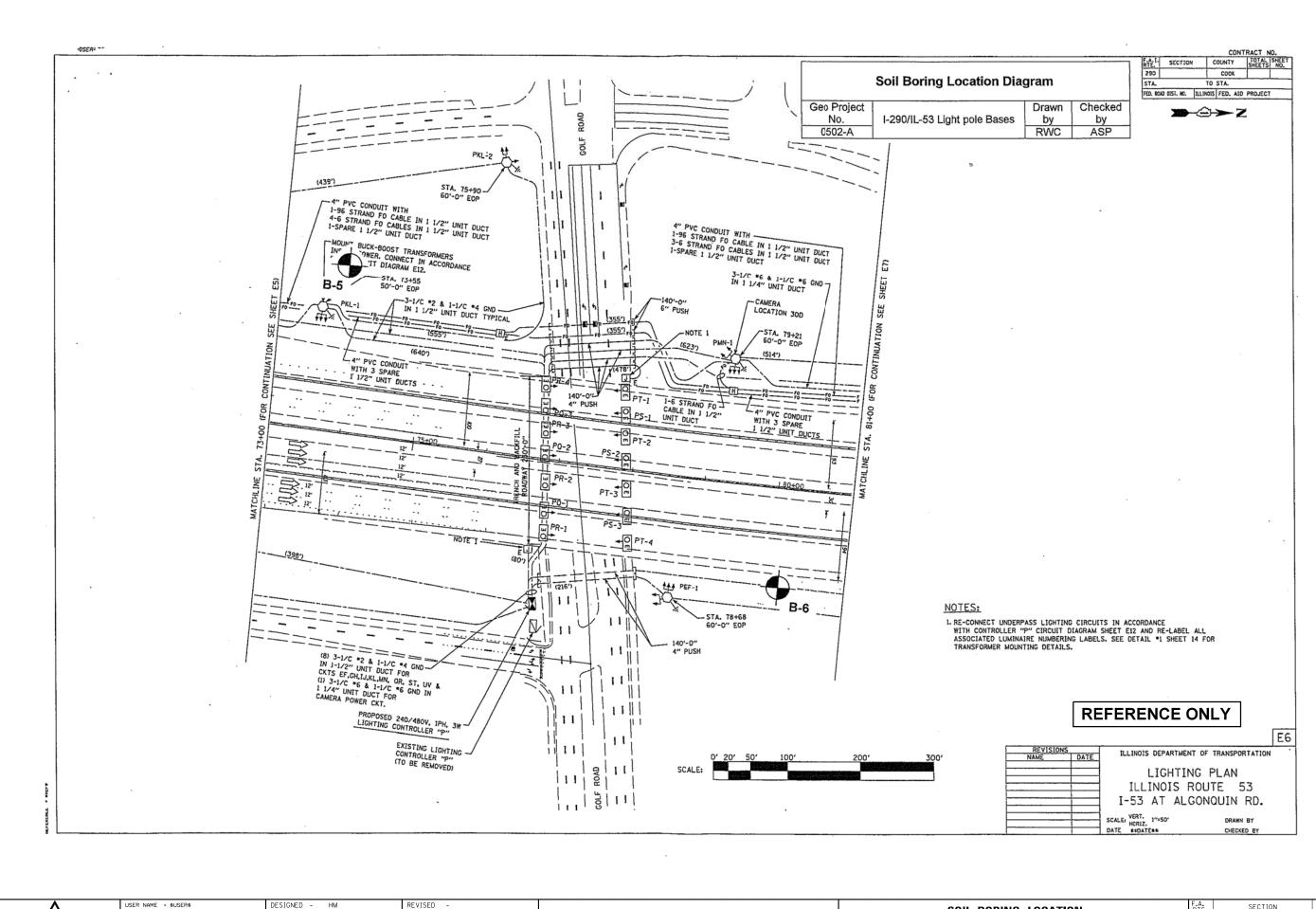
FILE NAME = REVISED -T. RAMMACHER 09-08-94 REVISED - R. BORO 09-14-09 USER NAME = footemj w:\\ILØ84EBIDINTEG.:ll:nois.gov:PWIDOT\D ments\IDOT Offices\District I\Projects\Dist 姆路对验他ADDeto\C#QsHI@U\$EHI4Ug07-95 REVISED - A. SCHUETZE 07-01-13 REVISED - A. HOUSEH 10-12-96 REVISED - A. SCHUETZE 09-15-16 REVISED - T. RAMMACHER 01-06-00 REVISED PLOT DATE = 9/15/2016

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SCALE: NONE SHEET 1 OF 1 SHEETS STA.

TOTAL SHEET NO. 63 56 SECTION COUNTY CONTRACT NO.





SBL-1 TOTAL SHEET NO. 63 58

DE G DELTA ENGINEERING GROUP, LL

DRAWN - MS REVISED CHECKED -REVISED C PLOT DATE = \$DATE\$ DATE - 05-30-2019 REVISED

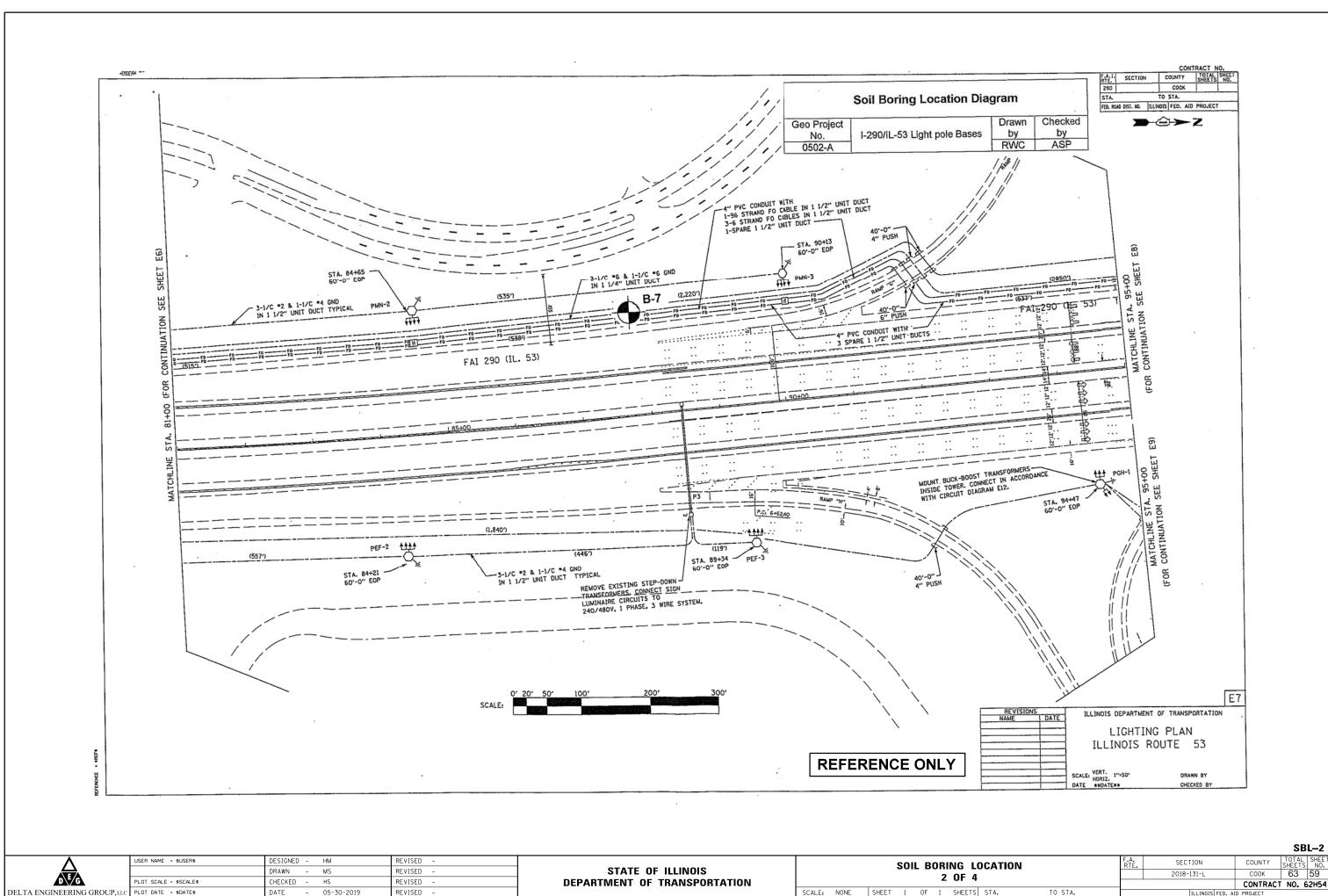
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

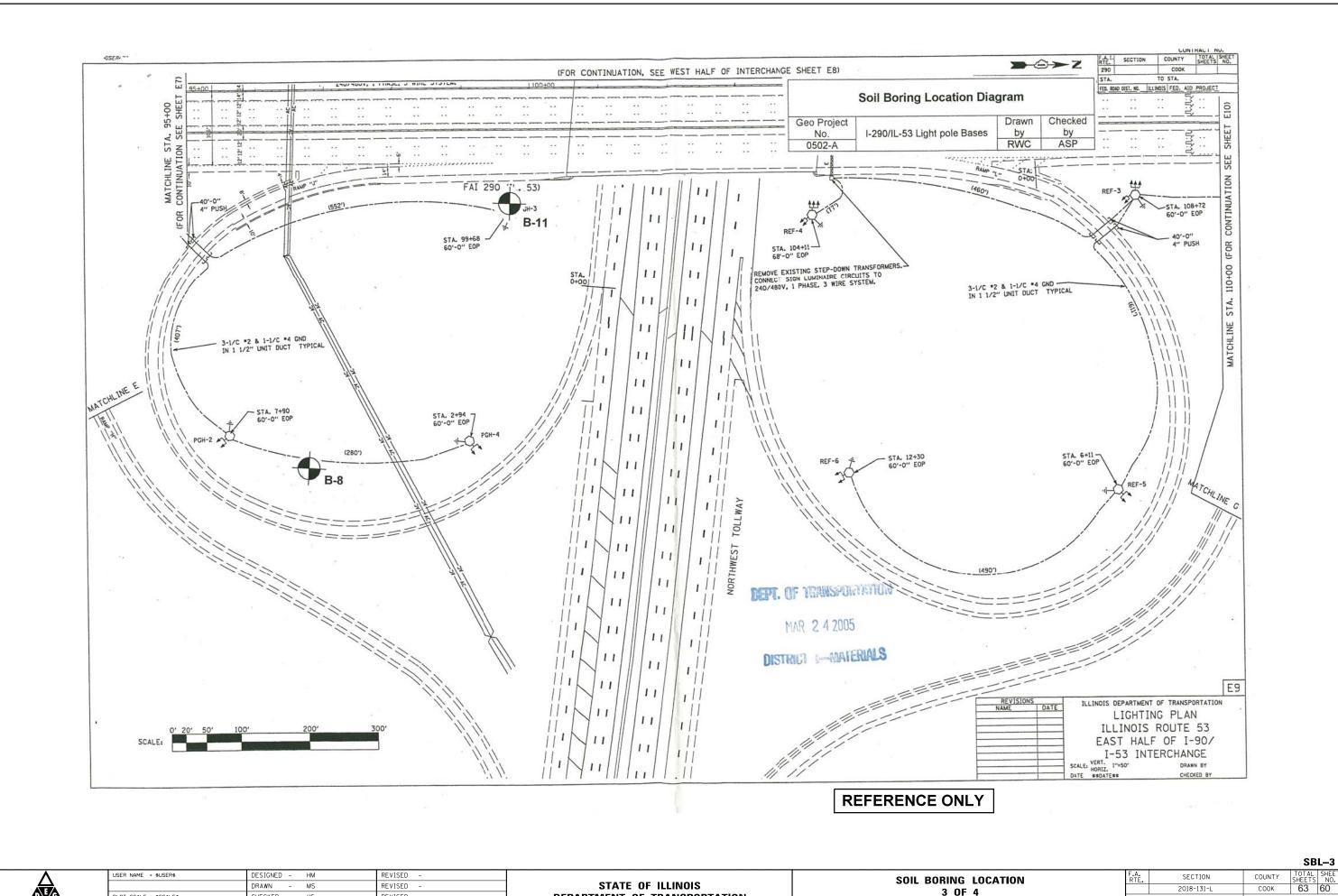
SOIL BORING LOCATION 1 OF 4 SCALE: NONE SHEET 1 OF 1 SHEETS STA.

SECTION COUNTY 2018-131-L

CONTRACT NO. 62H54

СООК





STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

2018-131-L

3 OF 4

SCALE: NONE SHEET 1 OF 1 SHEETS STA.

СООК

CONTRACT NO. 62H54

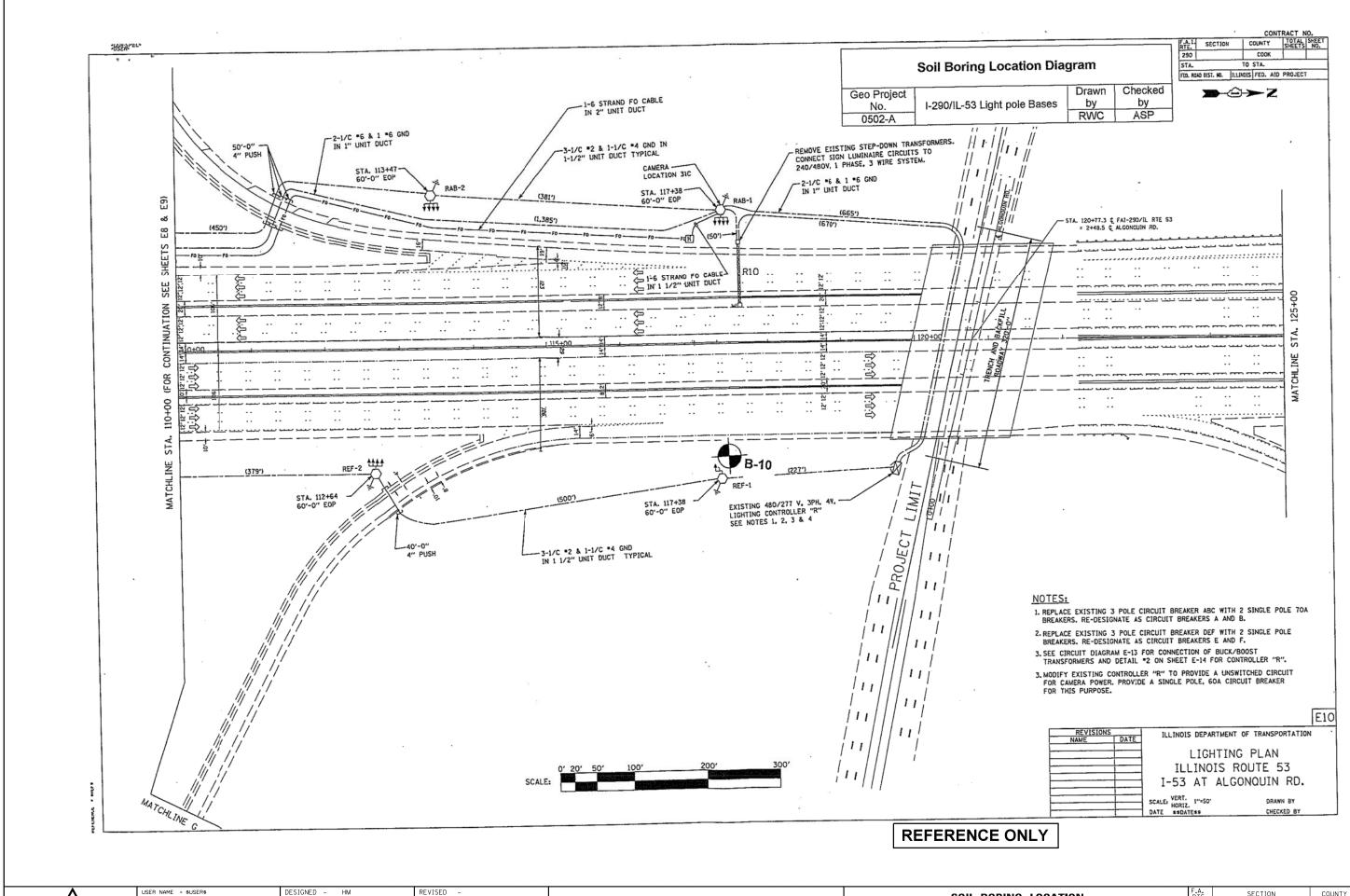
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DELTA ENGINEERING GROUP, LLC PLOT DATE = \$DATE\$



SBL-4

DRAWN - MS REVISED PLOT SCALE = SSCALES CHECKED - HS REVISED
DELTA ENGINEERING GROUP.LLC
PLOT DATE = SDATES DATE - 05-30-2019 REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO:

							PAGE 1	of _1		
Geo Services Inc.	_			_			DATE February	07, 2	005	_
Geo Services Inc. Geotechnical, Environmental & Givi Engineering 805 Anthoris Court Aprile 204 Nopeville, Nilhois 7 60565 (630) 355-2838	S	OI	L	B	ЭR	ING LOG	LOGGED BY R	4		_ [
Nopetylle) Illinois 60565 (630) 355-2838										-
							GSI JOB No			-1
ROUTE FAI 290/IL-53	DES	CRIPT	ION .	Hìgh-	Mast	Light Pole Foundations IL 5	3/FAI 290, Higg	ins to	Algon	quin
SECTION <u>0305-302K-L-3</u>	LOC	ATION	NV	V & S	W C	DRNERS, SEC. 18 & 7, TWP.	41N, RNG. 11E, 3	3rd PM		-1
COUNTY Cook	DRIL	LING	MET	HOD _	3.25	Hollow Stem Auger HAMM	IER TYPE <u>CME-5</u>	5 Auto	matic	_
STRUCT. NOn/a	_					Surface Water Elev. <u>n/a</u>]	
Station n/a	- '	D E	B	C	M 0	Stream Bed Elev. <u>n/a</u>		: [L	C	M
BORING NO. B-6	_	P T	o W	S	i S	Groundwater Elevation:	Į F	P O W	S	S
Northing 1961514.5	- !	н	S	Qu	Ť		F	i s	Qu	Ť
Easting 1067065.6 Ground Surface Elev. 736.5	-	(#)	/6*Y	(tsf)	(%)	Upon Completion <u>Dry</u> After Hrs		t) (/6")	(tsf)	(%)
Ground Surface Elev. 736.5		100	,,,,	(10.7	(70)	Aitei iiis		7/31	(40)	(17)
SAND & GRAVEL (Fill)	35.5	\dashv								
			2					4		
		\dashv	2			CLAY-gray-stiff to hard (A	_6)	7	4.00	1.0
OLAY harries & many		\dashv	3_	2.5B	18	OLA ! - gray - still to lidid (A		110	4.9B	16
CLAY-brown & gray- very stiff (A-6) Fill							_	コ		
		_	4					2		Ш
			5	3.5B	17		_	5 25 8	1.8B	10
			۴	3.55			_	25 6	1.00	13
				1						
			3	 				3		$\vdash\vdash$
		-	8	2.8B	23		_	$\frac{5}{7}$	2.5B	18
		_	10	2.00	125				2.00	
				[
			4	\vdash	 		_	6	\vdash	Н
		-10	10	4.0B	16		_	_	3.4B	19
				1	1					
7	725.5		_				_			
CLAY-dark brown spotted black-			7	\vdash	\vdash	-			\vdash	\vdash
very stiff (A-6) Fill, Wet			1	2.5B	27		-	丄		
7	723.5							_		
		_	┨.					\dashv		1 1
CLAY-brown & gray-			8	+	\vdash	1	_	5	t	\vdash
very stiff (A-6)		-15	⊣	3.58	17		701.5		3.1B	19
		_	-			End of Boring @ −35.0'		\dashv		
İ			┨4			Boring Grouted Upon Comp Hollow Stem Augers	oletion _	\dashv		
			7	1	†	CME-55	_	一		
1			8		19	1	_	1	-	_
	718.5	-	-	1			-	—		
CLAY-gray-stiff to hard (A-6)			5	1				\dashv		
			8	$\overline{}$	T	1	_			
				I						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above maist (%)
NR-No Recovery

						PAGE 1		of _1		_]
Geo Services, Inc.	\sim	,	D.	∩ Γ	INC LOC	DATE Februe	ary O	7, 2	005	_
Geo Services Inc. Geotechnical, Efvironmental & Civil Engineering 805 Animetic Court Asate 204 Napoville, Illinois 1 60565 (630) 35512838	OI	L	B	J٢	RING LOG	LOGGED BY	RH			
(630) 555+2838						GSI JOB No.	050	02-	۹	_
ROUTE FAI 290/IL-53 DES	CRIPT	ION .	High-	-Masi	Light Pole Foundations IL 53	3/FAI 290, Hi	agins	to	Algon	guin
SECTION <u>0305-302K-L-3</u> LOC	MOITA	N.	W & S	W C	ORNERS, SEC. 18 & 7, TWP. 4	11N, RNG. 11E	, 3rd	PM		_
COUNTY Cook DRIL	LING	MET	HOD _	3.25	" Hollow Stem Auger HAMME	R TYPE CME	Auto	mat	ic	_
STRUCT. NOn/a	D	В	U	м	Surface Water Elevn/o		D	В	U	м
Station n/a	E	L	C	0	Stream Bed Elev. <u>n/a</u>		E P	L	C S	0
BORING NO. B-7 Northing 1962273.9	T H	W	Qu	S	Groundwater Elevation: First Encounter Dry	_	T H	W	Qu	S
Easting 1066864.8					Upon Completion Dry	∇				
Ground Surface Elev738.1	(ft)	(/6")	(tsf)	(%)	After Hrs.	<u>V</u>	(ft)	/6")	(tsf)	(%)
SAND & GRAVEL (Fill) 737.1	-				CLAY—brown & gray— very stiff to hard (A—6)	717.1	\dashv			
	_	3					\neg	3		
		5	4.4B	16	CLAY-brown & gray- stiff (A-6)		\dashv	5	1.5P	19
CLAY-brown & gray-			,,,,			715.1			1101	
very stiff to hard (A-6) Fill		3					\dashv	,		
		7						4		
	5	7	3.0B	22			-25	7	1.8B	17
					CLAY—gray—stiff to hard (A-	-6)				
	_	1					_	3		
		7	5.3B	14			$\overline{}$	6 8	3.4B	19
730.1		-					_			
OBJECTED COMODETE & CTOME	_	В					_	3		
CRUSHED CONCRETE & STONE— dense (Fill)	_	27		Γ				4		
727.6		13	NP.	10			<u>-30</u>	7	3.0B	21
		1					_			ĺ
	_	<u>5</u> 7	-	├						-
		1 '	2.8B	16						
	_	1								
	_	3					_	3		
CLAY—brown & gray— very stiff to hard (A—6)	-	6	E 00	1		709 1	71	6	4.055	
very sum to nara (A-b)	15	1	5.0P	11/		703.1	35	10	4.25	112

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above maist (%)
NR-No Recoverv

End of Boring ⊕ -35.0' Boring Grouted Upon Completion Hollow Stem Augers CME-55

SBL-5

DELTA ENGINEERING GROUP, LLC

USER NAME = \$USER\$	DESIGNED	-	HM	REVISED -
	DRAWN	-	MS	REVISED -
PLOT SCALE = \$SCALE\$	CHECKED	-	HS	REVISED -
PLOT DATE = \$DATE\$	DATE	-	05-30-2019	REVISED -

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Geo Services Inc. Geotechnical, Environmentol & Civil Engineering 805 Anhers Levurt Sprike 204 Noperville, Illingis 6,0565	SOIL	ВО	R	ING LOG	DATE <u>Februa</u>	iry 07, 2	005	-
Noperville) Lilling 60565 (630) 3557-2838					GSI JOB No.			
ROUTE FAI 290/IL-53 DES	SCRIPTION	Hìgh-M	last					uin
SECTION _0305-302K-L-3 L00								_
COUNTY Cook DRI							matic	_
STRUCT. NOn/a Station _n/a BORING NOB-10 Northing _1965212.6 Easting _1067255.3	D B L P O W H S	CS	0	Surface Water Elev. n/a Stream Bed Elev. n/a Groundwater Elevation: First Encounter Dry Upon Completion Dry		D B L P O W H S	C S	M 0 1 S T
Ground Surface Elev. 742.1	(ft) (/6")	(tsf) (%)	After Hrs.	v	(ft) (/6")	(tsf)	(%)
CRUSHED STONE-loose (Fill)	3 6 2	NP .		CLAY—brown & gray— very stiff (A—6)	-	- 4 7 10	3.5B	17
CLAY-brown & gray- very stiff to hard (A-6) Fill		5.18	21	CLAY—gray— stiff to very stiff (A—6)	719.1	- 4 - 7 -25 10	3.5B	16
very still to hara (A=0) Fill	9 10	4.48	20			3 6 9	2.88	16
	7 10 10 11	1 1	16			5 5 6	1.98	16
	- 4 7 - 10	5.7B	20			1		
	2 7 	2.8B	24	SANDY CLAY LOAM— gray—loose (A—4)	708.1	3 3	NP	19
	6			End of Boring @ -35.0° Boring Backfilled Upon Comp Hollow Stem Augers CME-55		-		
724	10	6.6B	19			1	-	-
CLAY—brown & gray— very stiff (A—6)	- 6		10				-	-

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (8-Bulge, S-Shear, P-Penetrometer)

The SPT (N value) is the sum of the last two blaw values in each sampling zone (AASHTO T206)

The Unit Dry Weight (pcf) is noted in italics above maist (%)

NR-No Recovery

Geo Services Inc.

COU DODING LOC

PAGE _1 ___ of _1 DATE February 24, 2005

Geotechnical, Environmental & Givil Engineering 805 Arijherist Court, Spate 204 Noperville, Jilhajis = 60555 (630)-355-2838	5	O1	L	B	JK	ING	LUG	LOGGE	D BY_	RH			_
Noperville, Jings 7 50365 (630) 355-2838								GSI JO	OB No.	050)2- <i>P</i>		_
ROUTE FAI 290/IL-53	DESC	RIPT	ION _	Hìgh-	Mast	Light Pol	e Foundation	ns IL 53/FAI	290, Hi	ggins	to	Algong	uin
SECTION 0305-302K-L-3	LOCA	MOITA	NW_I	1 & S	w co	DRNERS, S	EC. 18 & 7.	TWP. 41N, RI	NG. 11E	3rd	PM.		-
COUNTY Cook	DRILL	LING	METH	HOD _	3.25	" Hollow S	item Auger	HAMMER TYP	E <u>D-50</u>) Aut	oma	tic	_
STRUCT. NOn/a Station _n/a BORING NO. B-11 Northing _1963412.2 Easting _1067193.5 Ground Surface Elev741.8	-	D E P T H	B L O W S	U C S Qu (tsf)	M 0 1 S T (%)	Stream (Groundware) First End Upon Co	Bed Elev. ter Elevation	Dry Dry		D E P T H	B L O W S	U C S Qu (tsf)	M 0 ! S T (%)
TOPSOIL-dark brown & black (A-7)	Fill .	_	3		100						5		
		_	8		58		own & gray- nard (A-6)	•		\dashv	10	4.6B	17
7	38.3						(*)				3		
CLAY-brown & gray-	•		4								5		
stiff (A-6) Fill		5	7	1.6B	19					<u>-25</u>	11	3.9B	18
7	735.8	_	1			1							
		_	2		_					_	4		
		_	† 7	3.2B	22						8 13	3.9B	16
CLAY-dark brown spotted black-			1			1			713.3				
stiff to very stiff (A-6) Fill, Wet		_	3						7,010		3		
		-10	4	1.4B	25	CI AY-OF	ay-very stift	f (A-6)		-30	4	2.8B	15
	730.8	_				J OLA I GI	dy vory 5tm	. (0)		_			
			2		_	_				_	<u> </u>		Ш
			6 10	3.1B	17						_		
CLAY-brown & gray-			-							_	1		
stiff to hard (A—6)			1	-	1	4					3	├	\vdash
		-1	2 5 5	1.98	18				706.8	35	4	2.7B	20
		_				End of Boring 8	Boring © -3 Backfilled Up	on Completion					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above maist (%) NR-No Recovery

D-50 ATV

SBL-6

DELTA ENGINEERING GROUP, LL

USER NAME = \$USER\$	DESIGNED	-	НМ	REVISED -
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PLOT SCALE = \$SCALE\$	CHECKED	-	HS	REVISED -
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