03-09-12 LETTING ITEM 063

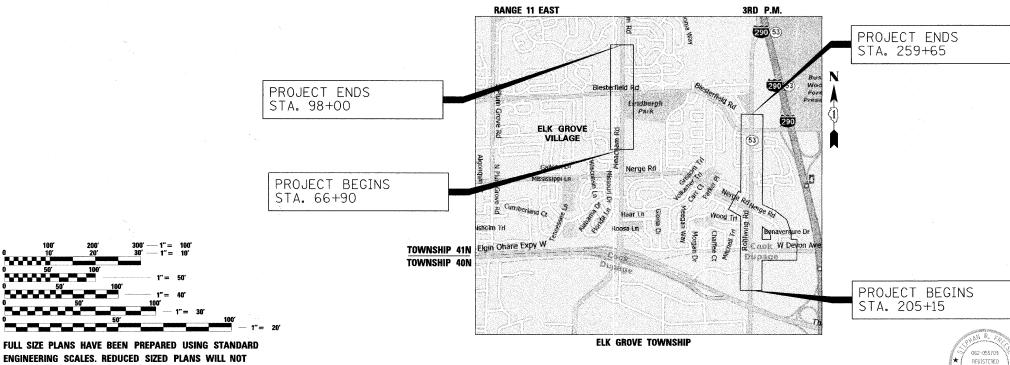
FOR INDEX OF SHEETS, SEE SHEET NO. 2

## STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS**

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

**FAU ROUTE 2585 (MEACHAM ROAD) AND FAU ROUTE 2578 (ROHLWING ROAD)** NORTH OF NERGE ROAD TO TEXAS STREET AND ELGIN-O'HARE EXPRESSWAY TO HELEN LANE LIGHTING IMPROVEMENTS SECTION 10-00059-00-LT PROJECT M-9003(615) VILLAGE OF ELK GROVE VILLAGE **COOK AND DUPAGE COUNTIES** 

JOB NO. C-91-460-10 RANGE 11 EAST



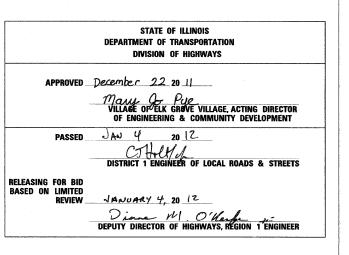
**LOCATION MAP** 

NOT TO SCALE

PROJECT LENGTH
MEACHAM ROAD = 3,110 FT (0.59 MILES)
ROHLWING ROAD = 5,450 FT (1.03 MILES) NERGE ROAD = 2,139 FT (0.41 MILES)
DEVON AVENUE = 1,330 FT (0.25 MILES)
TOTAL GROSS AND NET LENGTH = 12,029 FT (2.28 MILES) STEPHAN R. FREESE NO. 062-055709 EXP. DATE II/30/I3

10 00059-00-LT ILLINOIS CONTRACT NO. 63530





PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS



**CONTRACT NO. 63530** 

1-800-892-0123

OR 811

CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS

ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION

#### GENERAL NOTES

- ROADWAY LIGHTING REQUIREMENTS FOR THIS PROJECT SHALL COMPLY WITH ALL IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), IDOT AND RECURRING SPECIAL PROVISIONS, CONTRACT SPECIAL PROVISIONS, AND THE AMERICAN NATIONAL STANDARD PRACTICE FOR ROADWAY LIGHTING, ANSI/IES RP-8 AND THE VILLAGE OF ELK GROVE ORDINANCE.
- 2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES AND THE LIGHTING CONTROLLER FOR EXAMINATION AND CONFIRMATION WITH THE ENGINEER. THE EXACT LOCATIONS OF ALL ITEMS SHALL BE CONFIRMED WITH THE ENGINEER PRIOR TO STARTING WORK. AT LEAST TWO (2) FULL WORKING DAYS ADVANCED NOTIFICATION SHALL BE GIVEN TO THE ENGINEER WHEN REQUESTING STAKING
- 3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES
  WITH ALL UTILITY COMPANIES. BEFORE STARTING ANY EXCAVATION,
  THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 FOR FIELD
  LOCATIONS OF BURIED ELECTRIC, TELEPHONE, GAS, WATER, SEWER
  AND OTHER FACILITIES (48 HOURS NOTIFICATION IS REQUIRED).
  CARE IS TO BE TAKEN AS NOT TO DAMAGE ANY OF THE EXISTING
  TRAFFIC SIGNAL CONDUITS, DETECTORS AND EQUIPMENT. IF ANY
  OF THE TRAFFIC SIGNAL CONDUIT AND/OR EQUIPMENT IS DAMAGED
  THE CONTRACTOR SHALL REPAIR AND/OR REPLACE THE CONDUIT
  AND/OR EQUIPMENT AT NO COST TO THE DEPARTMENT. IT IS THE
  CONTRACTOR'S RESPONSIBLITY TO LOCATE EXISTING TRAFFIC SIGNAL
  CABLES AND CONDUITS. A QUANTITY FOR EXPLORATION TRENCH, SPECIAL
  HAS BEEN PROVIDED IF DIRECTED BY THE ENGINEER TO VERIFY
  UNDERGROUND UTILITIES OR SEWER LOCATIONS.
- 4. TO MAINTAIN THE STRUCTURAL INTEGRITY OF ALUMINUM POLES WITH MAST ARMS, THEY SHALL NOT BE ERECTED AND LEFT TO STAND WITHOUT LUMINAIRES. NOTE THAT THE CONTRACTOR SHALL NOT BE PAID FOR POLES UNTIL LUMINAIRES ARE INSTALLED.
- 5. A GROUND ROD SHALL BE PROVIDED FOR EACH CONCRETE FOUNDATION. GROUNDING CONNECTIONS MADE TO THE FOUNDATION SHALL BE EXOTHERMICALLY WELDED, AS SPECIFIED IN THE PLAN DETAILS. EQUIPMENT GROUND CONDUCTORS SHALL BE SPLICED AND BONDED AT EACH LIGHT POLE OR OTHER PIECE OF EQUIPMENT.
- 6. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS FOR THE ELECTRICAL SERVICE FOR THE PROPOSED ROADWAY LIGHTING. IT IS THE CONTRACTOR'S RESPONSIBILITY FOR TIMELY NOTIFICATION AND COORDINATION WITH THE ELECTRIC UTILITY COMPANY.
- THE LIGHTING CONTROLLER SHALL BE CONSTRUCTED TO UL STANDARD 508.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF FINISHED GRADE. THE ENGINEER MAY ASSIST THE CONTRACTOR, AS APPLICABLE, BUT THE RESPONSIBILITY FOR COORDINATING THE FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATIONS HEIGHTS AND THE LIKE SHALL REMAIN WITH THE CONTRACTOR.
- 9. UNLESS OTHERWISE NOTED, ALL CIRCUIT CONNECTIONS TO PROPOSED LIGHTING CONTROLLER SHALL BE 1-1/4" UNIT DUCT WITH 3 NO. 4, 1 NO. 6 (BLACK, RED, WHITE, AND GREEN COLOR CODED) CONDUCTORS. THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR WIRE MARKERS AND SHALL TAG ALL WIRE ACCORDINGLY.

#### CIRCUIT DESIGNATION SCHEME

CIRCUIT

POLE NO. ON GIVEN CIRCUIT

FIGHTING CONTROLLER DESIGNATION

CIRCUIT

POLE NO. ON GIVEN CIRCUIT

LIGHT POLE STATION

4' RT OFFSET FROM BACK OF CURB

TO FACE OF POLE, UNLESS

OTHERWISE NOTED.

- 10. THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENT FOR BURIED WARNING TAPE, SPECIFIED AS PART OF "UNDERGROUND RAREWAYS". THE INSTALLATION OF THE TAPE SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO BACKFILLING OR DURING PLOWING OPERATIONS, AS APPLICABLE.
- CONDUIT AND UNIT DUCT MUST BE POSITIONED IN THE FIELD TO AVOID CONFLICT WITH TREES, BUSHES, DRAINS AND OTHER UTILITES AND LANDSCAPING.
- 12. NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED, AS APPROVED BY THE ENGINEER.
- 13. THE CONTRACTOR IS ADVISED THAT DIRECTIONAL BORING SHALL BE THE METHOD USED FOR UNIT DUCT INSTALLATION. PLACEMENT OF TOPSOIL, NUTRIENTS, SODDING, AND SUPPLEMENTAL WATERING WILL BE LIMITED TO AN AREA OF 10 FEET LONG BY 5 FEET WIDE AT EACH LIGHT POLE. WHERE PARALLEL UNIT DUCT RUNS ARE SHOWN ON THE PLANS AS A COMMON BORE, ONLY ONE DIRECTIONAL BORE LENGTH WILL BE MEASURED FOR PAYMENT. THE COST FOR DIRECTIONAL BORING SHALL BE INCLUDED IN THE COST FOR THE UNIT DUCT.
- 14. THE POLE SETBACK FOR THE PROPOSED LIGHTING UNITS SHALL BE 4 FEET MIN. FROM BACK-OF-CURB TO THE FACE OF POLE, UNLESS OTHERWISE NOTED.
- 15. TRAFFIC CONTROL AND PROTECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE CONTRACTOR SHALL PROVIDE AND INSTALL ARROWBOARDS AND TWO (2) WEIGHTED SAND BAGS FOR EACH TYPE I OR TYPE II BARRICADE USED.
- 16. A QUANTITY FOR OFFSET LIGHT POLE FOUNDATIONS HAS BEEN PROVIDED FOR LOCATIONS WHERE UTILITY OR SEWER CONFLICTS MAY PROHIBIT THE USE OF A STANDARD LIGHT POLE FOUNDATION. THE ACTUAL NEED FOR THE OFFSET FOUNDATION WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER. IF OFFSET FOUNDATIONS ARE NOT REQUIRED THEN THE QUANTITY SHALL BE DEDUCTED AND NO ADDITIONAL COMPENSATION WILL BE DUE TO THE CONTRACTOR.
- 17. FOR SIDEWALK REPLACEMENT WITH DETECTABLE WARNINGS, CAST-IN-PLACE TILES BY ADA SOLUTIONS, INC., OR APPROVED EQUAL SHALL BE USED FOR THE DETECTABLE WARNING PORTION OF THE SIDEWALK. THE TILE COLORS SHALL BE DARK GREY, AS APPROVED BY THE ENGINEER.
- 18. ALL DISTURBED AREAS CAUSED BY CONSTRUCTION ACTIVITY WITHIN THE PROJECT LIMITS MUST BE RESTORED TO THE SATISFACTION OF THE ENGINEER. THE COST FOR THE RESTORATION WORK SHALL BE INCLUDED UNDER THE APPLICABLE PAY ITEMS FOR TOPSOIL SODDING, NUTRIENTS AND SUPPLEMENTAL WATERING. CARE IS TO BE TAKEN BY THE CONTRACTOR AS NOT TO DAMAGE ANY ENTIRING SIGNS OR PAVEMENT MARKINGS WITHIN THE RIGHT-OF-WAY OF THE PROJECT LIMITS. IF THESE ITEMS ARE DAMAGED THE CONTRACTOR SHALL REPAIR OR REPLACE THEM AT NO ADDITIONAL COST TO THE DEPARTMENT.
- 19. EXISTING LIGHTING UNITS AND FOUNDATIONS TO BE REMOVED SHALL BE OWNER SALVAGED AND RETURNED TO THE VILLAGE OF ELK GROVE VILLAGE, 600 LANDMEIER ROAD, ELK GROVE VILLAGE, IL 60007.
- 20. THE CONTRACTOR SHALL PROVIDE THE INITIAL AND FIFTEEN (15) ADDITIONAL WATERINGS AS SPECIFIED IN ARTICLE 252.08. SUPPLEMENTAL WATERING TOTALING THREE (3) APPLICATIONS SHALL ALSO BE APPLIED ON THE SODDED AREAS AS DIRECTED BY THE ENGINEER.
- 21. THE PROPOSED SIDEWALK SHALL BE POURED TO A MINIMUM THICKNESS OF FIVE (5) INCHES UNLESS OTHERWISE DIRECTED BY THE ENGINEER AND CONSTRUCTED ON A TWO (2) INCH CRUSHED AGGREGATE BASE, WHICH IS TO BE INCLUDED IN THE COST OF THE PROPOSED SIDEWALK.

#### STATE STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
424001-06	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424006	DIAGONAL CURB RAMPS FOR SIDEWALKS
701602-05	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606-08	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-08	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-02	TRAFFIC CONTROL DEVICES

#### INDEX OF SHEETS

- 1 TITLE SHEET
- 2 GENERAL NOTES AND LEGEND
- 3 SUMMARY OF QUANTITIES
- 4-12 LIGHTING PLAN
- 13-15 WIRING DIAGRAM
- 16 LIGHT POLE DETAILS
- 7 LIGHT POLE FOUNDATION DETAIL
- OFFSET FOUNDATION DETAIL
- 19 LIGHTING CONTROLLER AND SERVICE INSTALLATION DETAILS
- 20 ALUMINUM LIGHT POLE DETAIL
- 21 METAL LIGHT POLE FOUNDATION DETAIL

#### **LEGEND**

- PROPOSED LIGHTING UNIT
  (ALONG MEACHAM ROAD, BIESTERFIELD ROAD, NERGE ROAD, AND DEVON AVENUE)

  LUMINAIRE: LITHONIA (AERIS) LUMINAIRE AS2 MODEL
  250 WATT, H.P.S., SR3, 240V, 35 FT. M.H. WITH INTERNAL HOUSESIDE SHIELD
  DARK BRONZE-POWDER COAT FINISH
  POLE: ROUND TAPERED ALUMINUM, 8 FT DAVIT ARM, TRANSFORMER BASE
  DARK BRONZE-POWDER COAT FINISH
- PROPOSED LIGHTING UNIT (ALONG ROHLWING ROAD)

LUMINAIRE: LITHONIA (AERIS) LUMINAIRE - AS2 MODEL
310 WATT, H.P.S., SR3, 240V, 35 FT. M.H. WITH INTERNAL HOUSESIDE SHIELD
DARK BRONZE-POWDER COAT FINISH
POLE: ROUND TAPERED ALUMINUM, 10 FT DAVIT ARM, TRANSFORMER BASE
DARK BRONZE-POWDER COAT FINISH

PROPOSED LIGHTING UNIT

LUMINAIRE: SODIUM VAPOR, HORIZONTAL MOUNT, M-C III 240V, WATTAGE AS NOTED ON PLANS POLE: ROUND TAPERED ALUMINUM, 47.5 FT MH, 15 FT MAST ARM, TRANSFORMER BASE COLOR AND FINISH AS NOTED ON PLANS

- EXISTING RESIDENTIAL LIGHTING UNIT WITH 100W POST-TOP LUMINAIRE, 12' MH

GALVANIZED STEEL CONDUIT OF THE
LENGTH AND DIAMETER INDICATED ON THE PLANS.

EXISTING LIGHTING UNIT WITH 250W LUMINAIRE, 35' MH

— ⊢ E ⊢ ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 3/0

PROPOSED LIGHTING CONTROLLER, GROUND MOUNTED

PROPOSED SERVICE INSTALLATION,

240/480V, 1-PH, 3 WIRE

EXISTING MAST ARM ASSEMBLY AND POLE

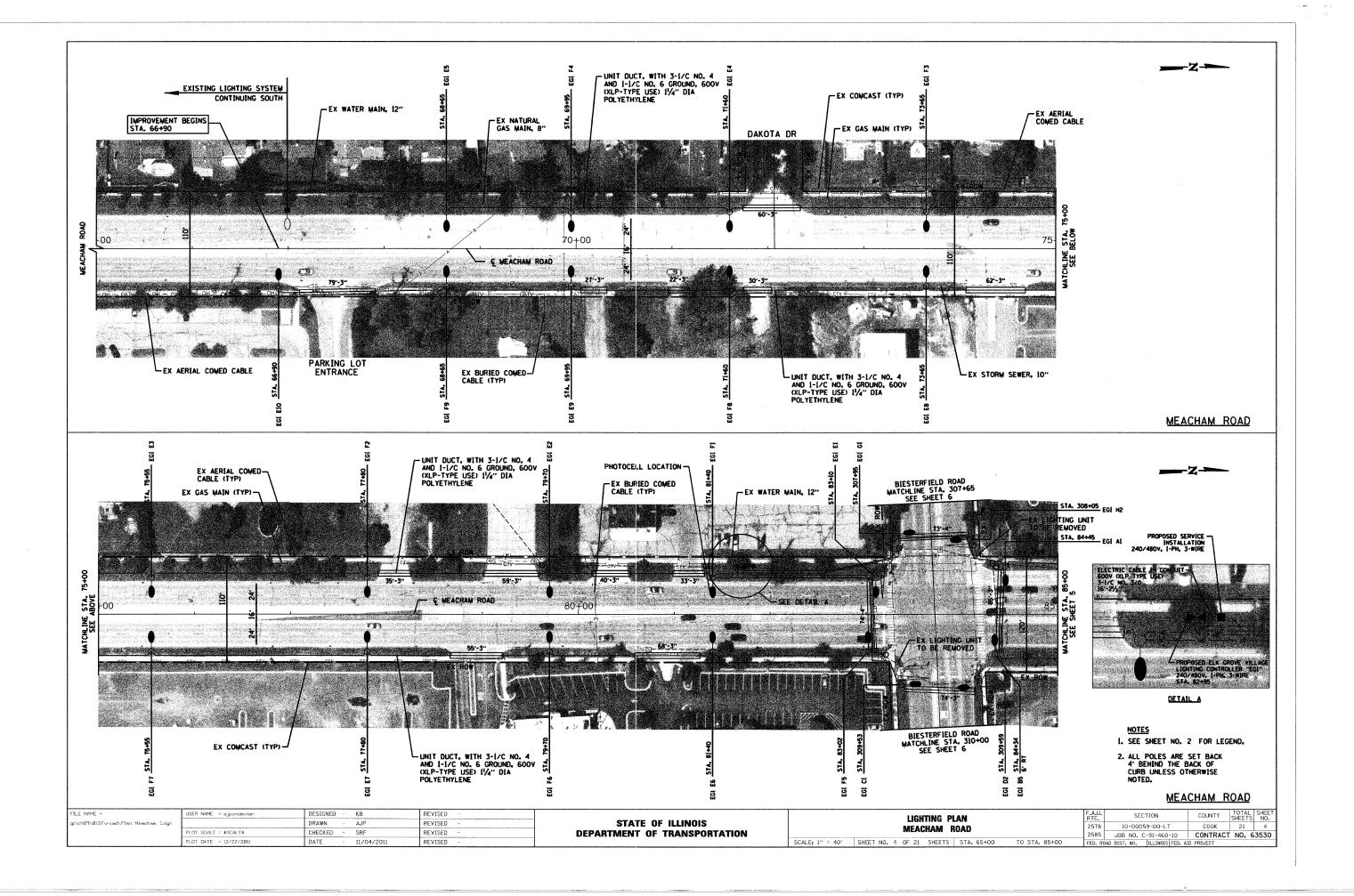
O EXISTING SIGNAL POLE

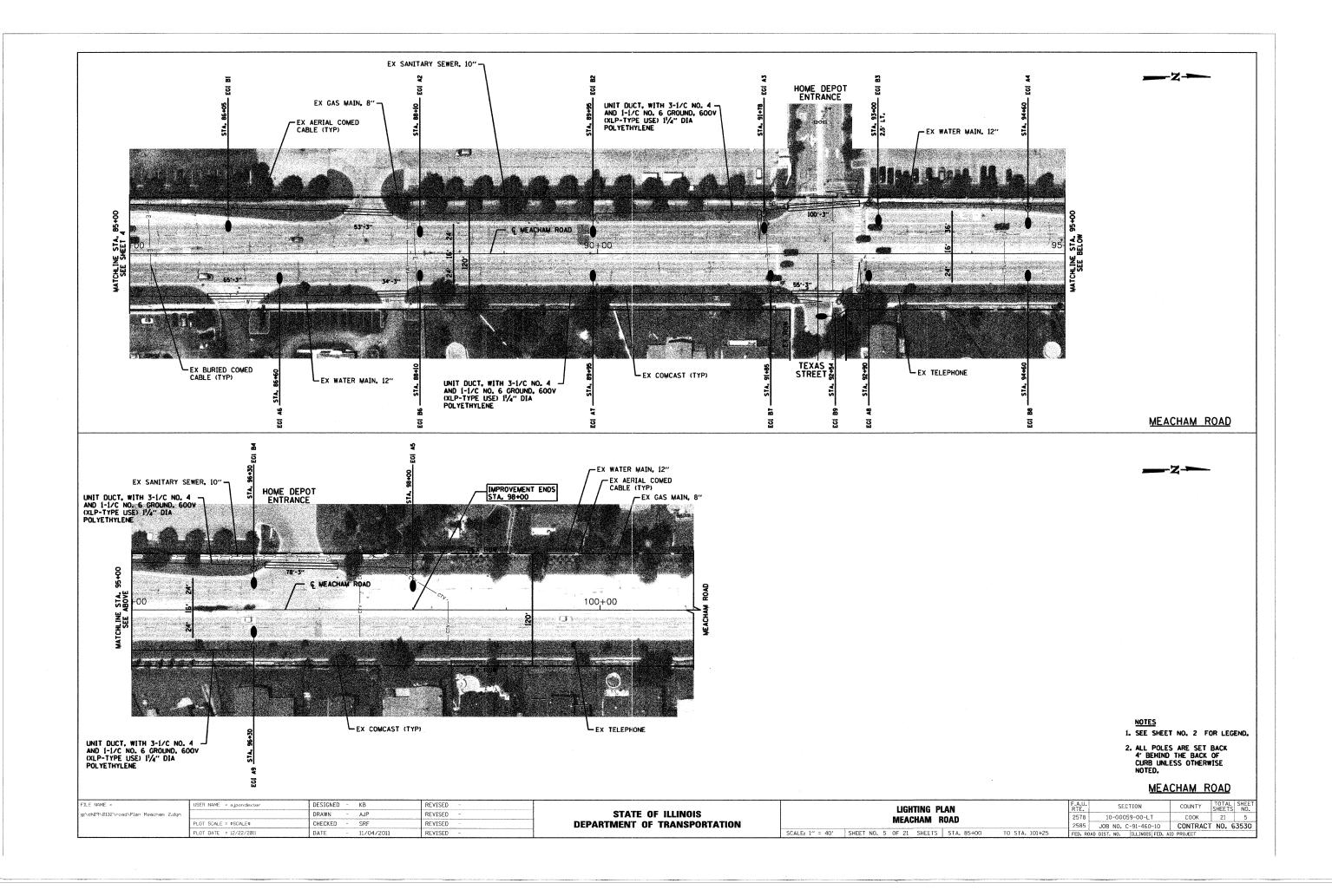
EXISTING TRAFFIC SIGNAL G.S. CONDUIT

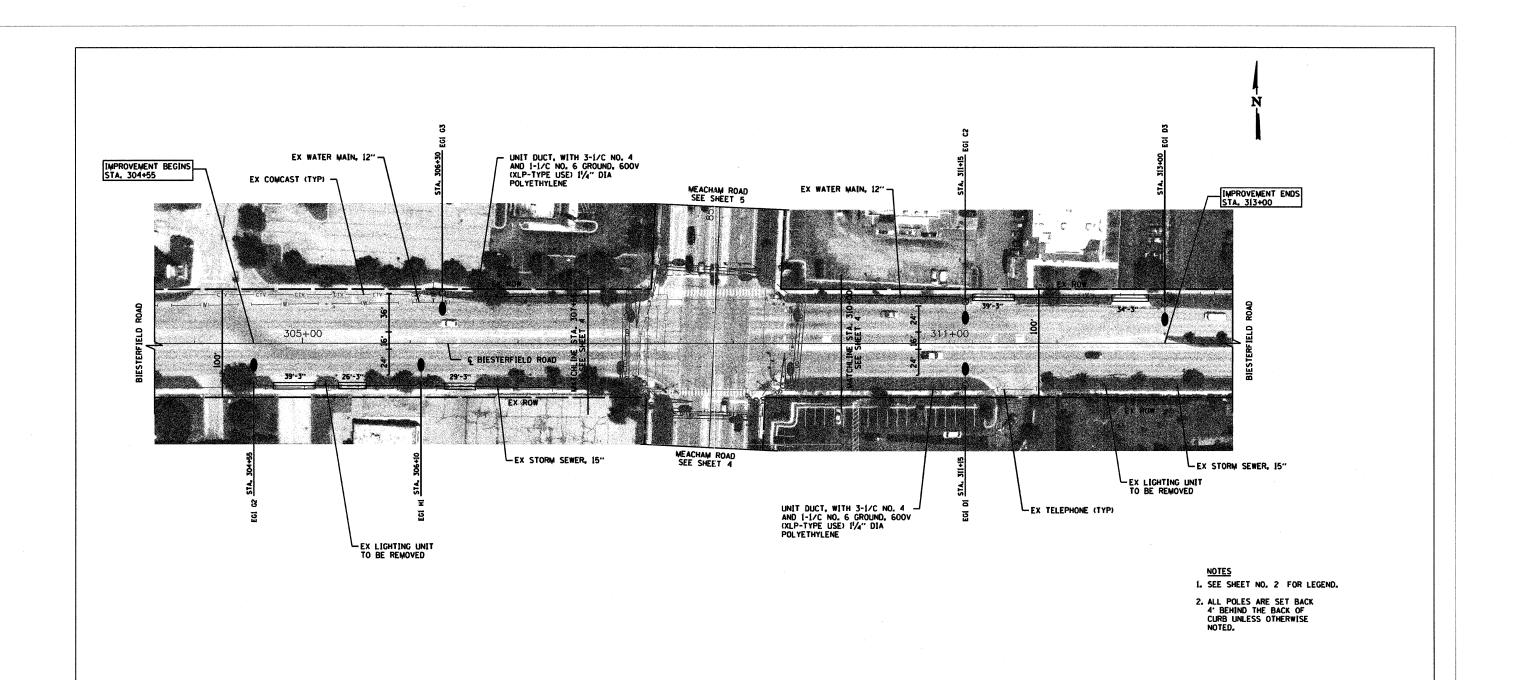
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g:\CH09\0132\Road\Genote.dgn		DRAWN - AJP	REVISED -	STATE OF ILLINOIS	GENERAL NOTES AND LEGEND	2578 10	-00059-00-LT	соок	21 2
	PLOT SCALE = \$SCALE\$	CHECKED - SRF	REVISED -	DEPARTMENT OF TRANSPORTATION		2585 JOB		CONTRACT	NO. 63530
	PLOT DATE = 1/3/2012	DATE - 11/04/2011	REVISED -		SCALE: NTS SHEET NO. 2 OF 21 SHEETS STA. TO STA.	FED. ROAD DIST.	NO. ILLINOIS FED. AID	PROJECT	

		SUMMARY OF QUANTITIES			CONSTRUCTION	TYPE CODE
	CODE NO.	PAY ITEM	UNIT	TOTAL	0021	0042
	20101300	TREE PRUNING (1 TO 10 INCH DIAMETER)	EACH	10	10	
	20101350	TREE PRUNING (OVER 10 INCH DIAMETER)	EACH	5	5	,
	20101400	NITROGEN FERTILIZER NUTRIENT	POUND	38	38	
	20101500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	38	38	
	20101600	POTASSIUM FERTILIZER NUTRIENT	POUND	38	38	
	20101700	SUPPLEMENTAL WATERING	UNIT	27	27	
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	2,994	2,994	
	25200110	SODDING, SALT TOLERANT	SQ YD	2,994	2,994	
•	28000510	INLET FILTERS	EACH	100	100	
• 2	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	1,800	1,800	
•	42400800	DETECTABLE WARNINGS	SQ FT	240	240	
•	44000600	SIDEWALK REMOVAL	SQ FT	1,800	1,800	
	6/100100	MOBILIZATION	L SUM	1	1	
	70102625	TRAFFIC CONTROL AND PROTECTION,STANDARD 701606	L SUM	1	1 .	
	70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1	
	70102635	TRAFFIC CONTROL AND PROTECTION,STANDARD 701701	L SUM	1	1	
4	70102640	TRAFFIC CONTROL AND PROTECTION,STANDARD 701801	L SUM	1	1	
	80400100	ELECTRIC SERVICE INSTALLATION	EACH	3	· 3	
	80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	100	1	
	81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	70	70	
	81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	3,632	3,632	
	81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	221	221	
	81603090	UNIT DUCT, 600V, 3-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	26,937	26,937	
	81702460	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 3/0	FOOT	135	135	
	82102310	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 310 WATT	EACH	1 .	1	
	82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	1	1	
	82500380	LIGHTING CONTROLLER, BASE MOUNTED, 480VCLT, 200AMP	EACH	3 :	3	
	83001300	LIGHT POLE, ALUMINUM, 35 FT. M.H., 8 FT. DAVIT ARM	EACH	83	83	
	83001400	LIGHT POLE, ALUMINUM, 35 FT. M.H., 10 FT. DAVIT ARM	EACH	63	63	
	83050810	LIGHT POLE, ALUMINUM, 47.5 FT. M.H.,15 FT. MAST ARM	EACH	2	2	
	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	76	76	
	83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	148	148	
	84200500	REMOVAL OF LIGHTING UNIT, SALVAGE	EACH	8	8	
	84200804	REMOVAL OF POLE FOUNDATION	EACH	8	8	
	X2130010	EXPLORATION TRENCH, SPECIAL	FOOT	592	592	
	X8210157	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT (SPECIAL)	EACH	83	83 , 1 -	
	X8210161	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 310 WATT (SPECIAL)	EACH	63 ·	63	
	X8360215	LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET	FOOT	84 -	84	
2	X8360345	LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 8 5/8" X 7"	EACH	140	140	
	X8360360	LIGHT POLE FOUNDATION, METAL, 15" BOLT CIRCLE, 10" X 8'	EACH	2	2	
	Z0076600	TRAINEES	HOUR	500		500

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g:\CHØ9\Ø132\Road\S0Q.dgn		DRAWN - AJP	REVISED -	STATE OF ILLINOIS		SUMMARY OF QUANTITIES		2578 10-00059-00-LT	COOK 21 3
	PLOT SCALE = \$SCALE\$	CHECKED - SRF	REVISED -	DEPARTMENT OF TRANSPORTATION				2585 JOB NO. C-91-460-10	CONTRACT NO. 63530
	PLOT DATE = 12/28/2011	DATE - 11/04/2011	REVISED -		SCALE: NTS	SHEET NO. 3 OF 21 SHEETS STA.	TO STA.	FED. ROAD DIST. NO. ILLINOIS FED.	AID PROJECT

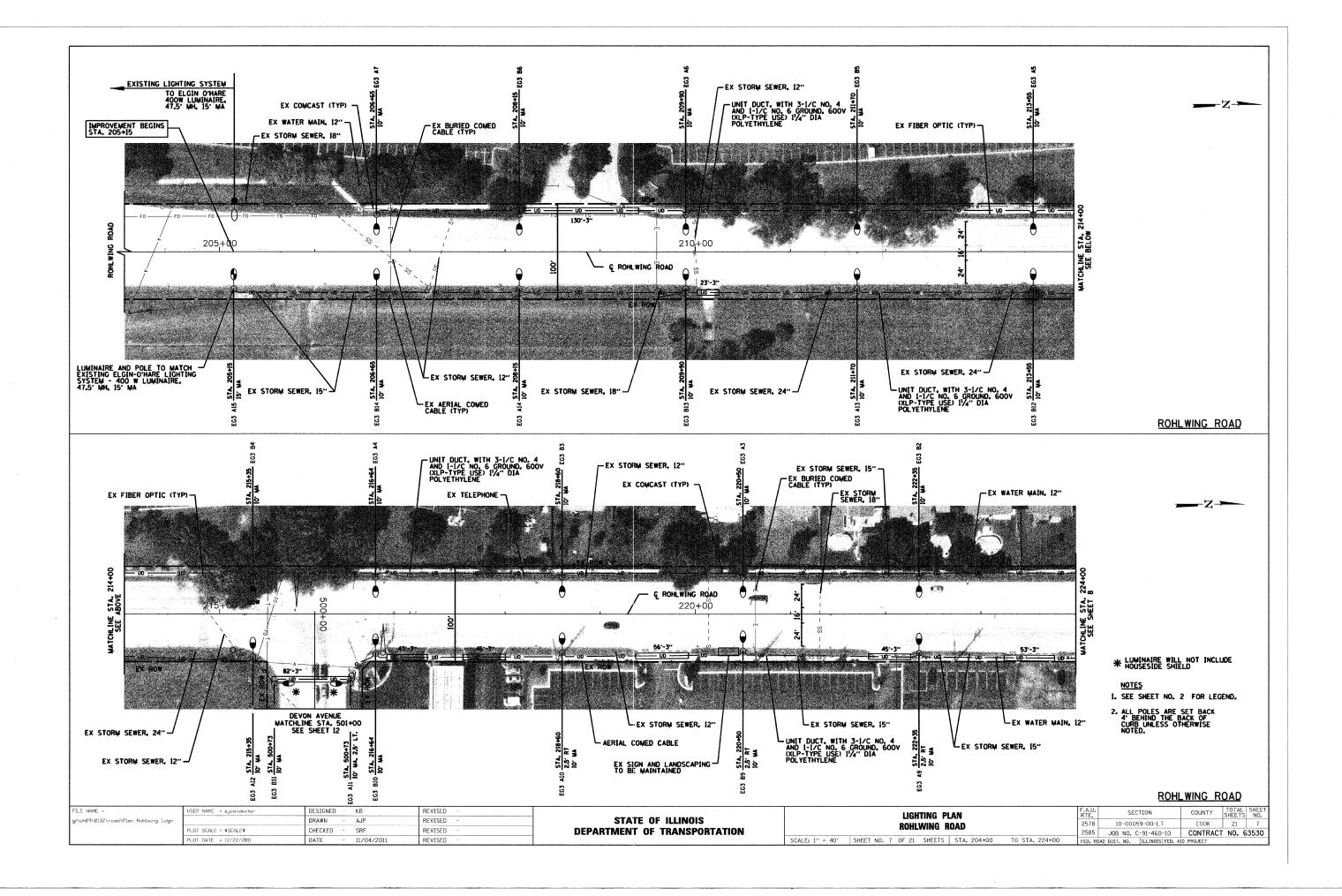


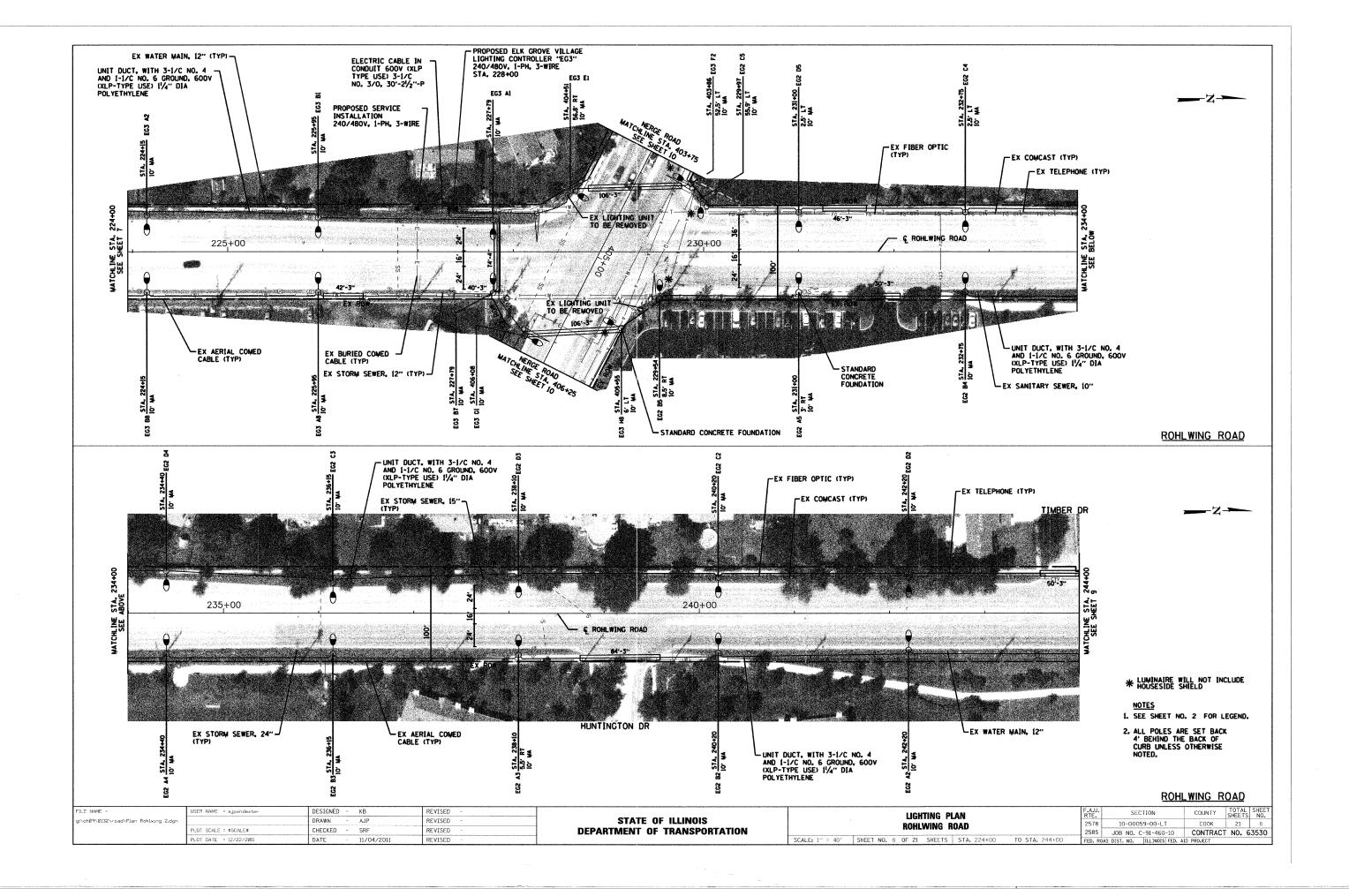


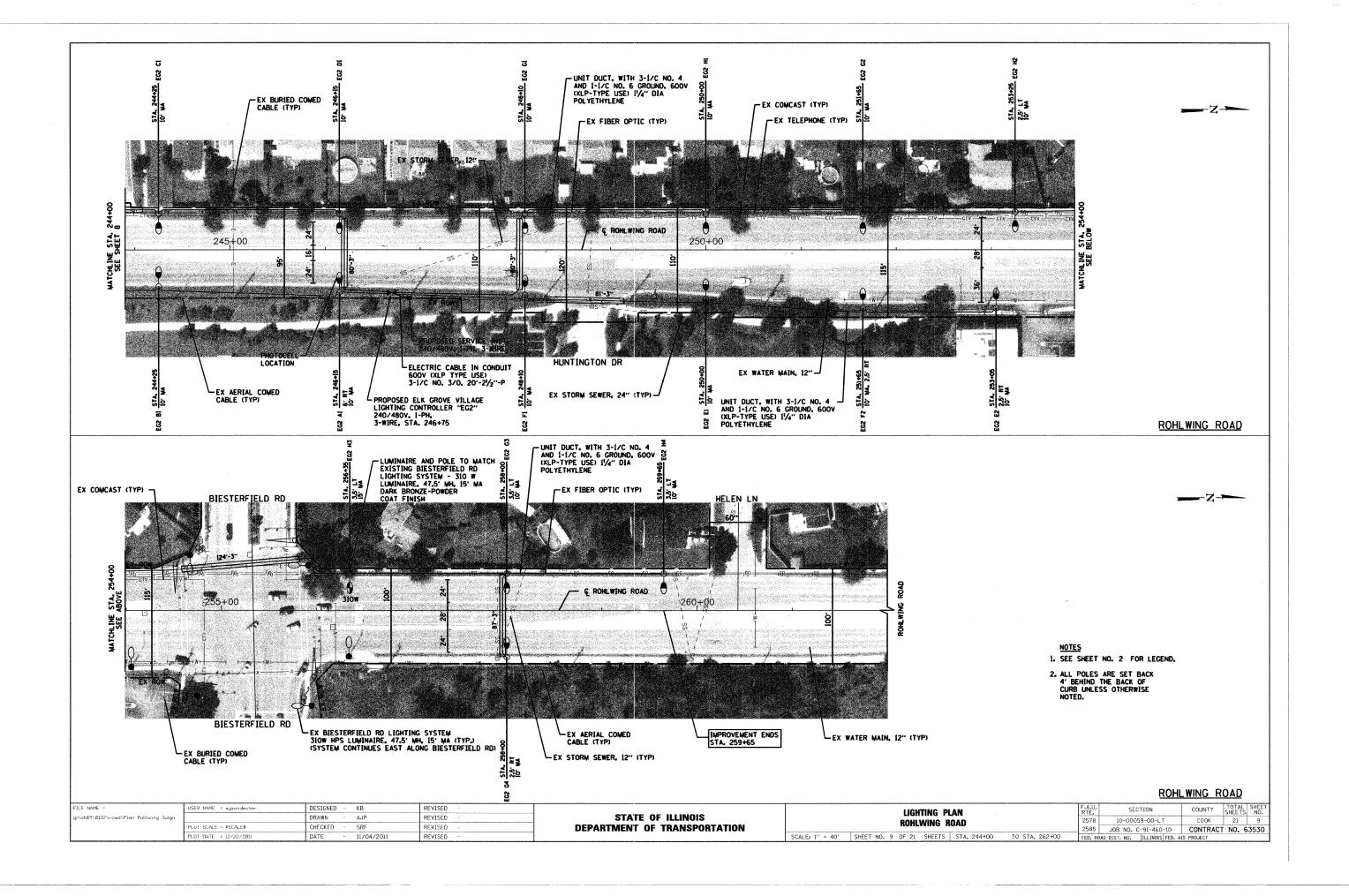


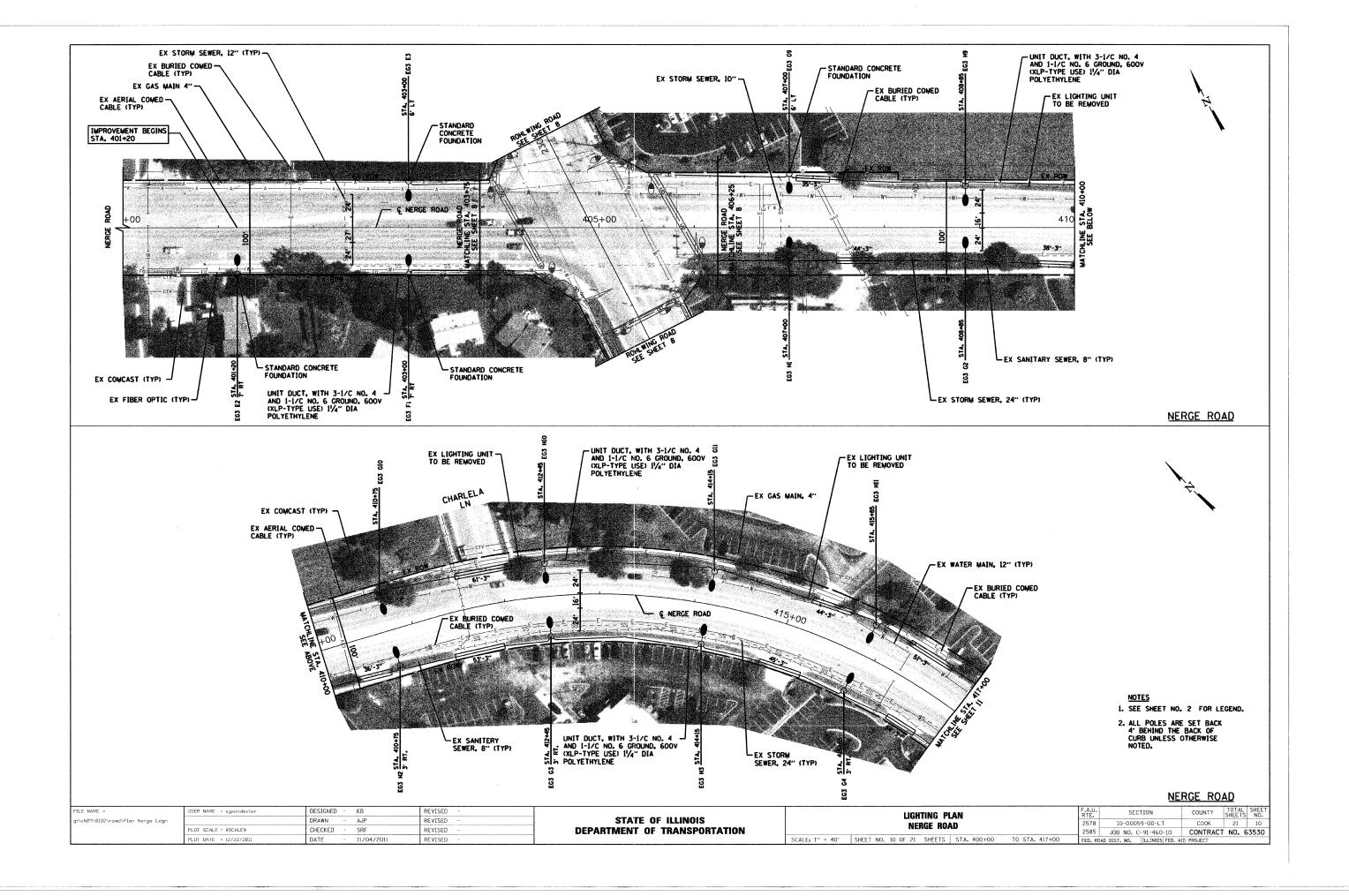
### BIESTERFIELD ROAD

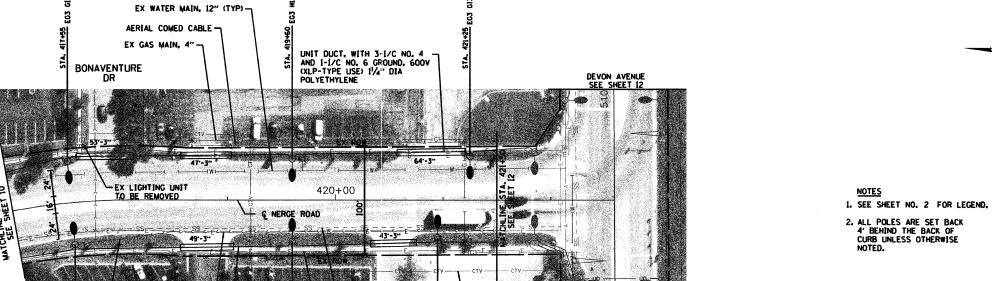
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g:\ch09\0132\road\Plan Biesterfield 1.dgr		DRAWN - AJP	REVISED -	STATE OF ILLINOIS	BIESTERFIELD ROAD	2578 10-00059-00-LT	COOK 21 6
	PLOT SCALE = \$SCALE\$	CHECKED - SRF	REVISED -	DEPARTMENT OF TRANSPORTATION	DIESTERLIEFN MAN	2585 JOB NO. C-91-460-10	CONTRACT NO. 63530
	PLOT DATE = 12/22/2011	DATE - 11/04/2011	REVISED -		SCALE: 1" = 40' SHEET NO. 6 OF 21 SHEETS STA. 304+00 TO STA. 313+63	FED. ROAD DIST. NO. ILLINOIS FED.	AID PROJECT











EX COMCAST (TYP)

DEVON AVENUE SEE SHEET 12

NERGE ROAD

FILE NAME =	USER NAME = ajpondexter	DESIGNED - KB	REVISED -		LIGHTING PLAN	F.A.U. SECTION COUNTY SHEETS NO.
gt\ch09\0132\road\Plan Nerge 2.dgn		DRAWN - AJP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		2578 10-00059-00-LT COOK 21 11
	PLOT SCALE = \$SCALE\$	CHECKED - SRF	REVISED -		NERGE ROAD	2585 JOB NO. C-91-460-10 CONTRACT NO. 63530
	PLOT DATE = 12/22/2011	DATE - 11/04/2011	REVISED -		SCALE: 1" = 40" SHEET NO. 11 OF 21 SHEETS STA. 417+00 TO STA. 423+59	FED. ROAD DIST. NO.   ILLINOIS   FED. AID PROJECT

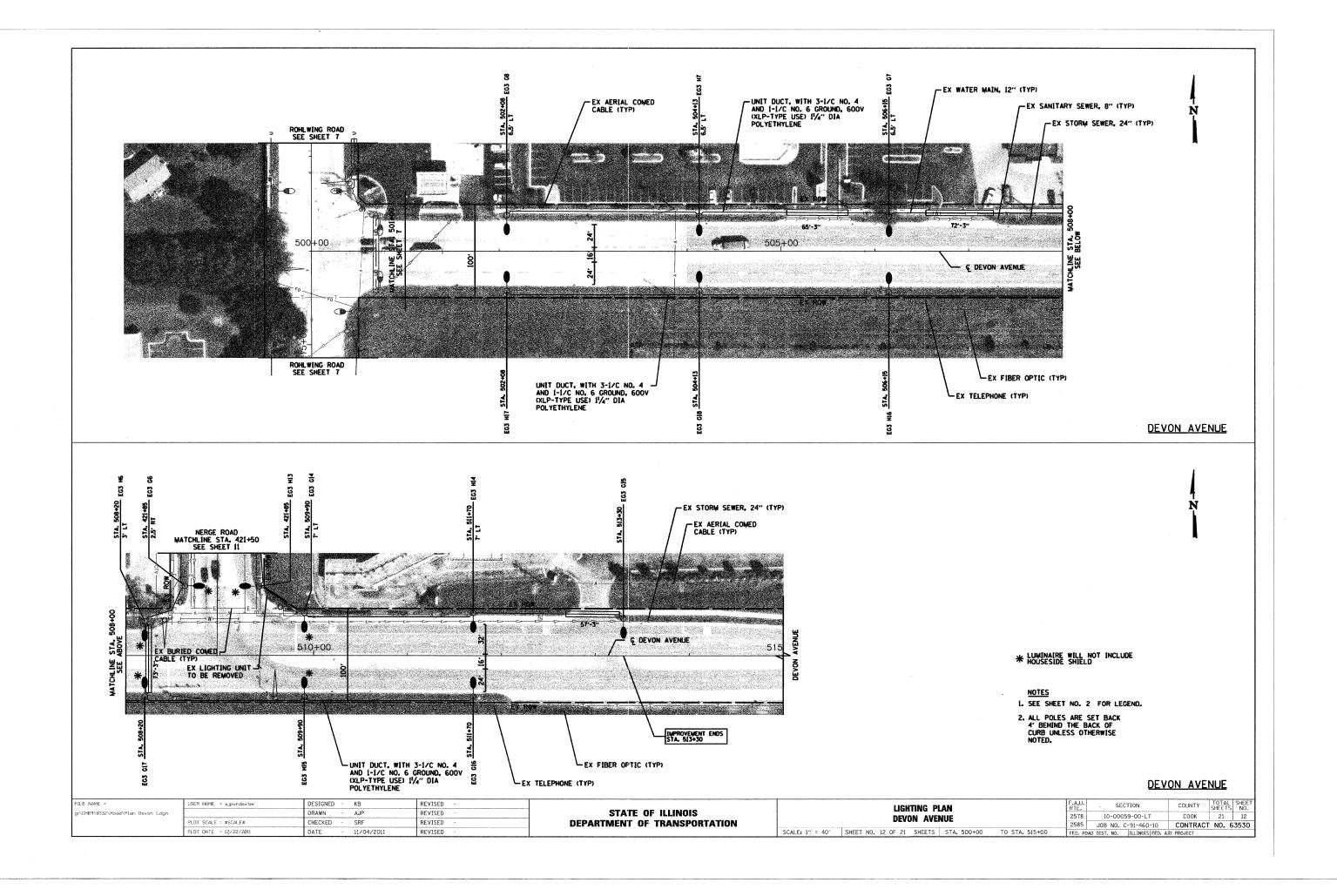
EX STORM SEWER, 24" (TYP)

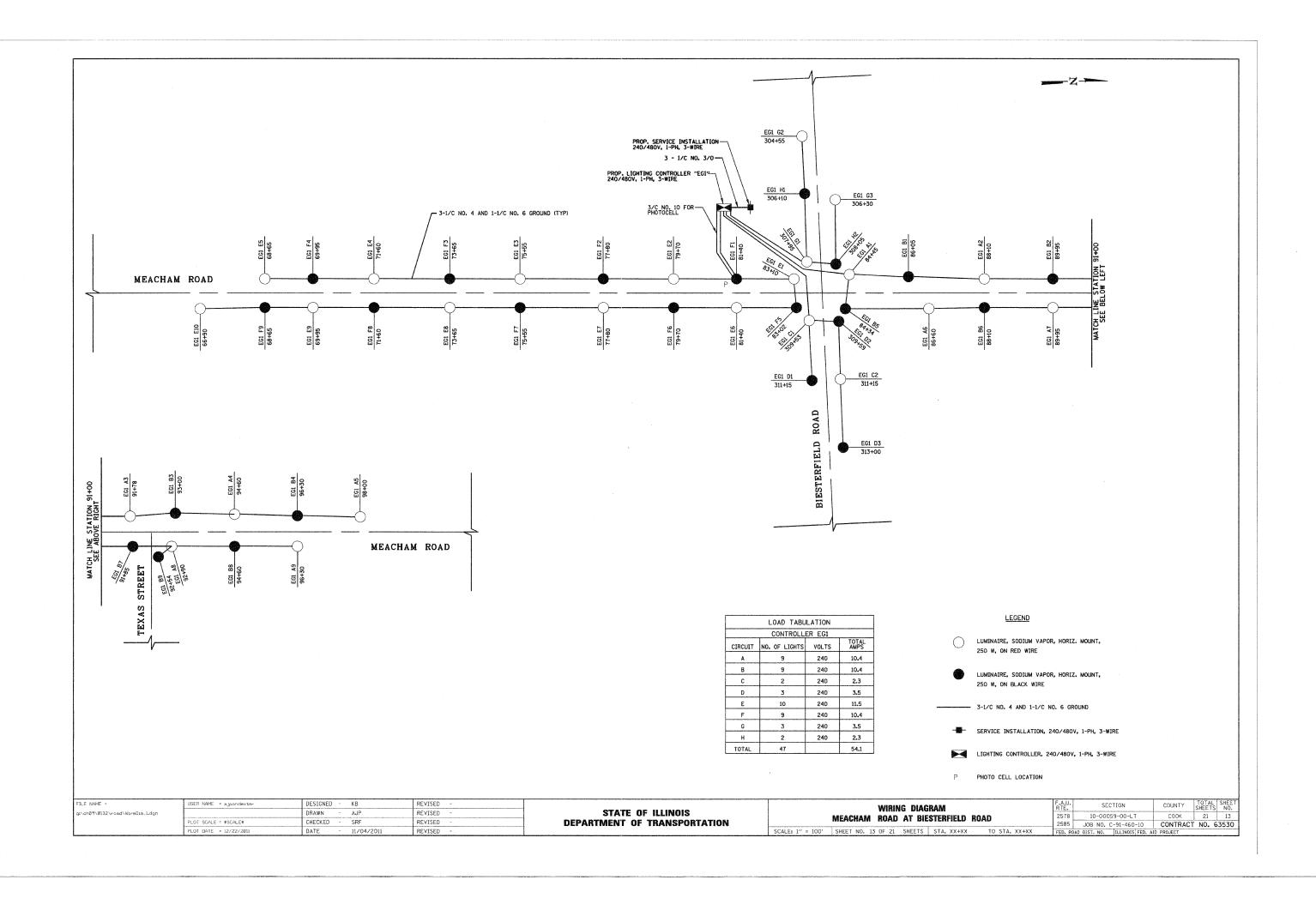
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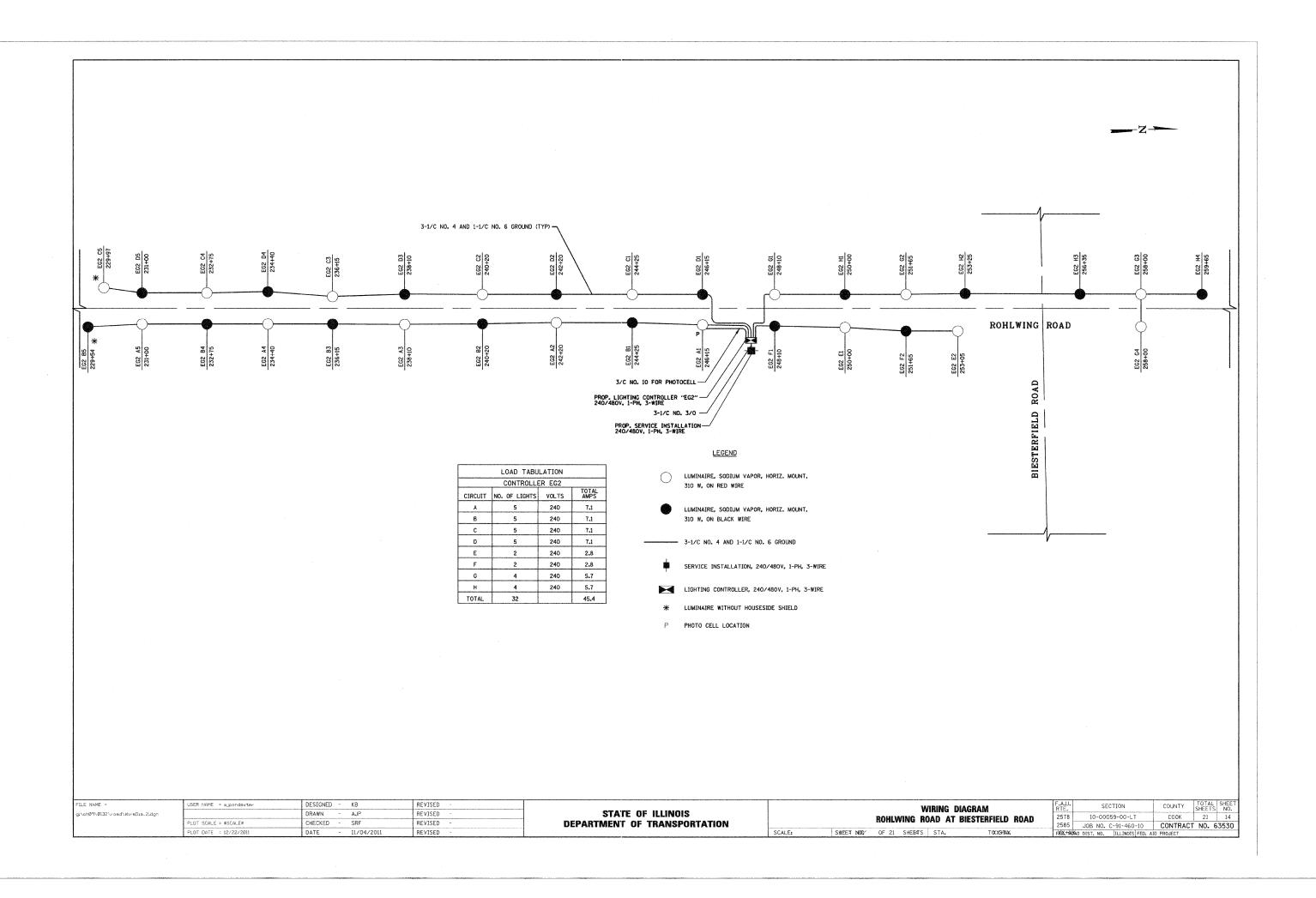
EX BURIED COMED --CABLE (TYP)

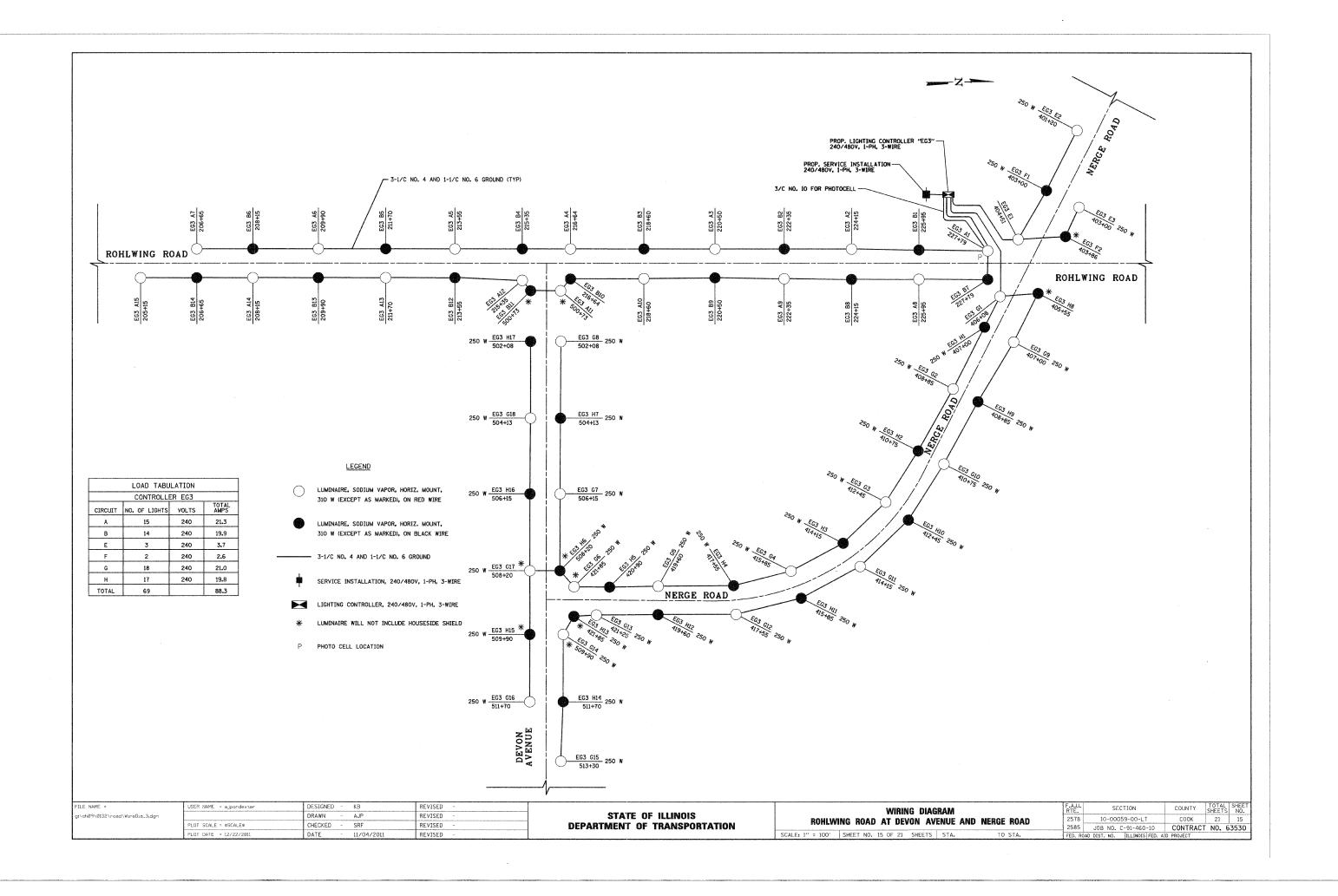
UNIT DUCT, WITH 3-1/C NO. 4
AND 1-1/C NO. 6 GROUND, 600V
(XLP-TYPE USE) 11/4" DIA
POLYETHYLENE

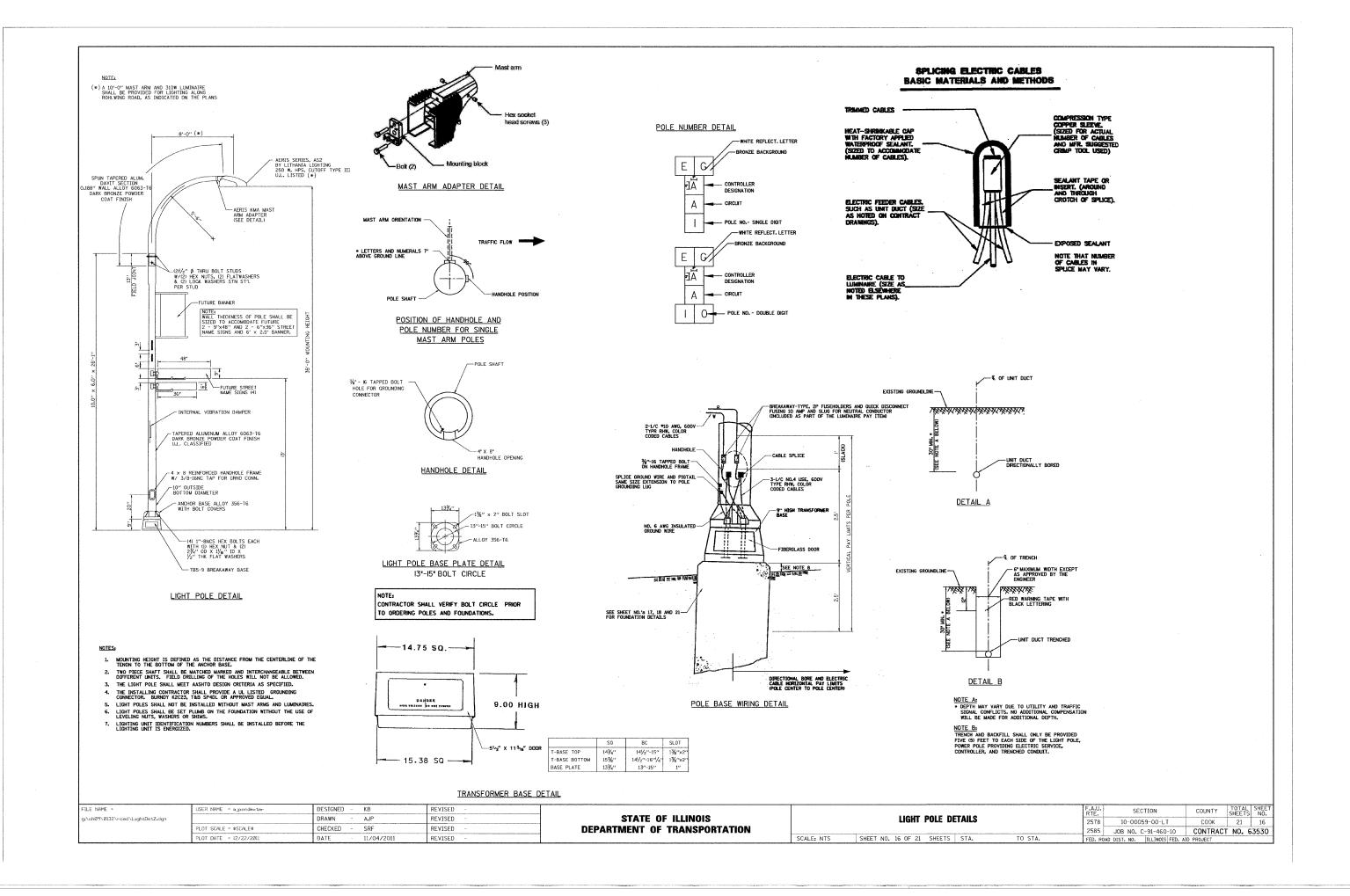
EX SANITARY SEWER, 8"

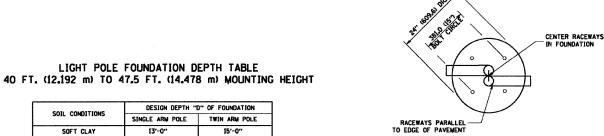


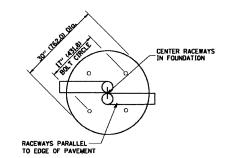










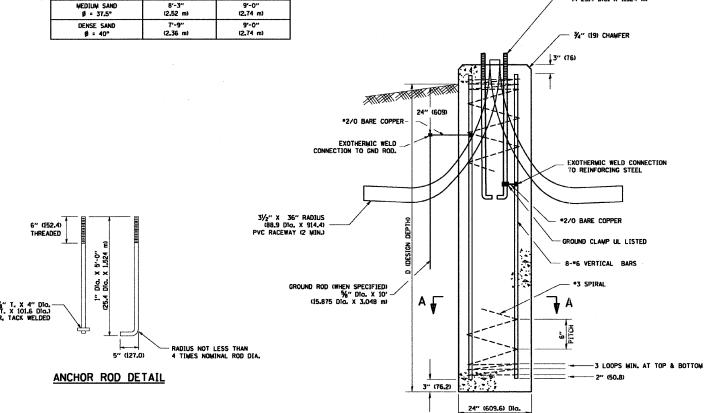


13'-0" (3.96 m) (4.57 m) Ou = 0.375 TON/SO, F MEDIUM CLAY
Ou = 0.75 TON/SQ.FT STIFF CLAY (2.44 m) Qu = 1.50 TON/SQ. FT. (2.13 m) LOOSE SAND 10'-0" (3,05 m) 8'-3"

TOP VIEW

ANCHOR ROD 4-1" Dig. X 5'-0" (4-25.4 Dig. X 1.524 m)

TOP VIEW





- 1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE
- 3. THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH ASHTO GUIDELINES, IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- 4. THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED ¾-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE, COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD, A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- 8. THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105), NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMK6 MILS) OR THE ELECTROLYTIC
- 10. THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR ROOS SHALL PROJECT  $2\frac{\pi}{4}$ " (69.9 mm) above the top of the foundation, if breakaway couplings are specified, the contractor shall carefully coordinate the anchor rod PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- 12. THE CONTRACTOR SHALL USE A \*3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE \*3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- 13. THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- 14. THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

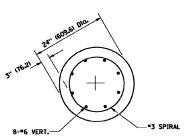
- GROLIND LINE

FOUNDATION EXTENSION DETAIL

~ 60" ([500)

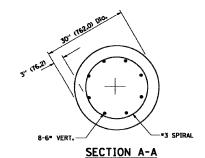
TOP OF ANCHOR ROD

4" (100) MAX.



FOUNDATION DETAIL

SECTION A-A



STATE OF ILLINOIS

LIGHT POLE FOUNDATION 40' (12.192 m) TO 47 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA.

COUNTY TOTAL SHEE NO. SECTION 10-00059-00-L COOK BE-301 ST. NO. 1 ILLINOIS FEE CONTRACT NO. 63530

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**DEPARTMENT OF TRANSPORTATION** 

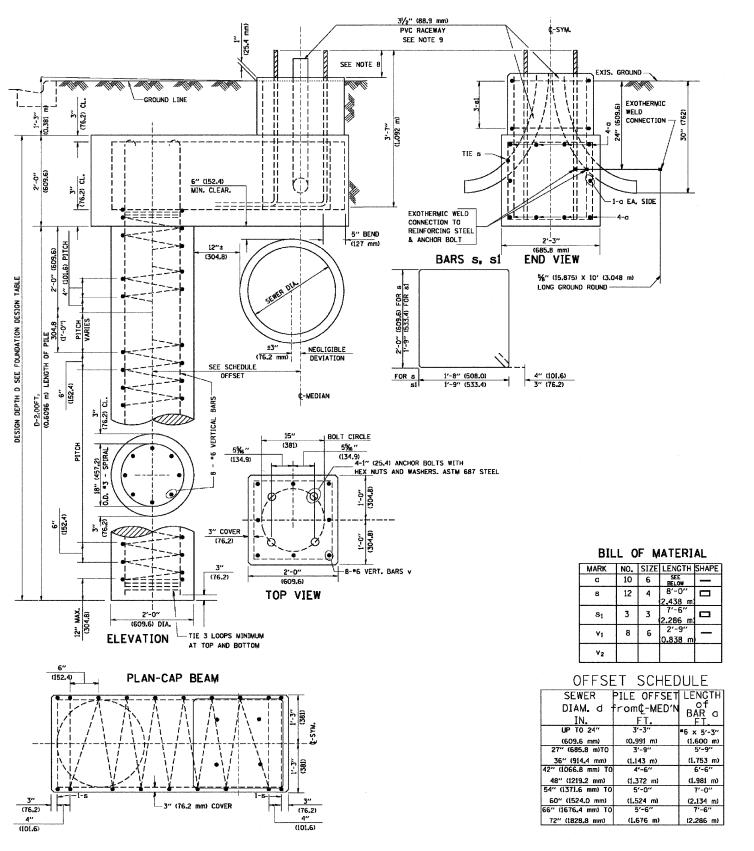
#### FOUNDATION DESIGN TABLE

	DESIGN DEPTH (	OF FOUNDATION	REINFORCEMENT IN FOUNDATION					
TYPE OF SOIL	SINGLE ARM	TWIN ARM	SINGLE	ARM	TWIN ARM			
	D	D	VERT BARS	SPIRAL	VERT BARS	SPIRAL		
SOFT CLAY	13'-0''	15′-0"	8-*6X12'-6"	#3X122'	8-#6X14'-3''	#3X141′		
	(3.962 m)	(4 <b>.</b> 572 m)	(3.810 m)	(37 <sub>-</sub> 186 m)	(4.343 m)	(42.977 m)		
MEDIUM CLAY	9'-6"	10'-9"	8-#6X9'-0''	#3X90′	8-#6X10'-0''	#3X100'		
	(2.896 m)	(3.277 m)	(2.743 m)	(27.432 m)	(3.048 m)	(30.480 m)		
STIFF CLAY	7′-0′′	8'-0"	8-#6X6'-6''	#3X66′	8-#6X7'-6''	#3X76′		
	(2.134 m)	(2.438 m)	(1.981 m)	(20 <b>.</b> 112 m)	(2.286 m)	(23.165 m)		
LOOSE SAND	9′-0′′	10'-0''	8-#6X8'-6''	#3X85′	8-#6X9'-6''	#3X94'		
	(2.743 m)	(3.048 m)	(2.591 m)	(25.908 m)	(2.896 m)	(28.651 m)		
MEDIUM SAND	8′-3″	9'-0''	8-#6X8'-0"	#3X78'	8-#6X8'-6''	#3X85′		
	(2 <b>.</b> 515 m)	(2.743 m)	(2.438 m)	(23.774 m)	(2.591 m)	(25 <b>.</b> 908 m)		
DENSE SAND	7′-9″	9'-0''	8-#6X7'-6"	#3X73'	8-#6X8'-6"	#3X85'		
	(2 <b>.</b> 362 m)	(2.743 m)	(2.286 m)	(22.250 m)	(2.591 m)	(25.908 m)		
ROCK OR SOLIDIFIED SLAG	5′-0" (1 <b>.</b> 524 m)	5′-0″ (1,524 m)	NONE	NONE	NONE	NONE		

SEE NOTES 3 AND 11 AND FOUNDATION DETAIL ON SHEET NO. 17 FOR ANCHOR BOLT EXTENTION REQUIREMENTS

#### NOTES

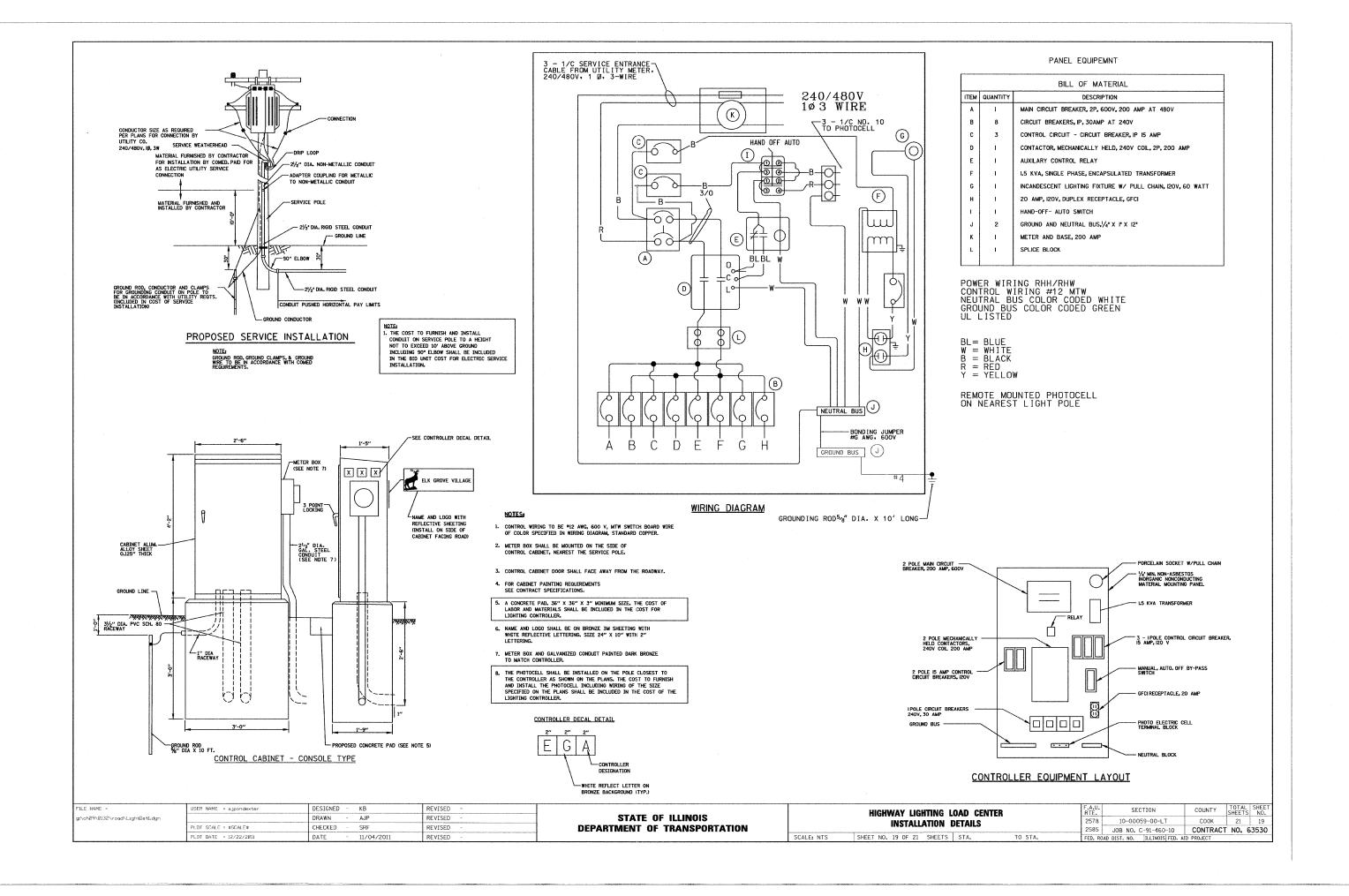
- 1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
- EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" (609.6 mm) OR 30" (762.0 mm) IN DIAMETER.
- 4. THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- 5. THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
- 6. THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- 7. THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS. IF LIGHT POLE IS MOUNTED WITHOUT BREAKAWAY DEVICE, ANCHOR BOLTS SHALL PROJECT 2¾" (69.9 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
- 8. RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.

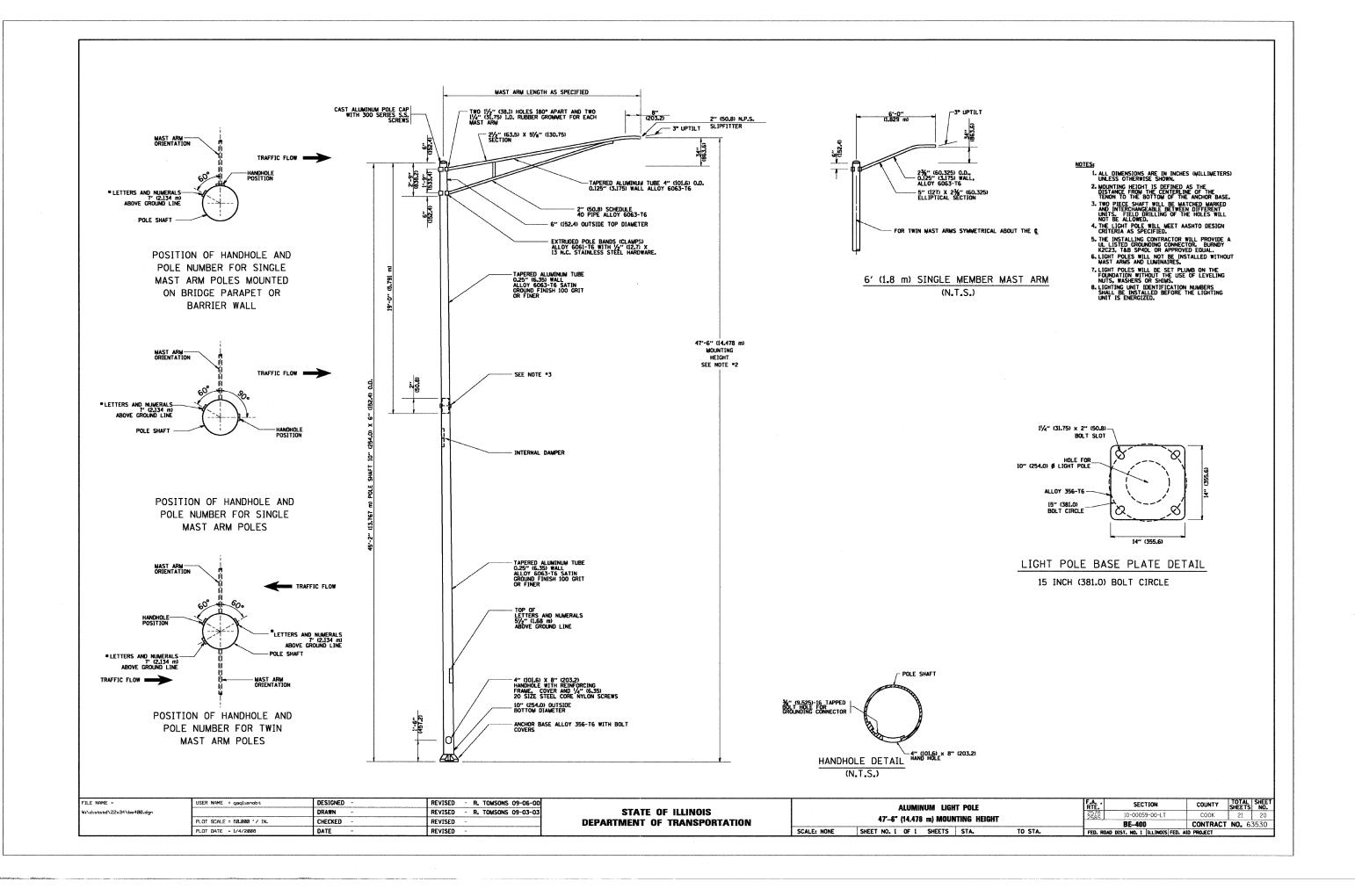


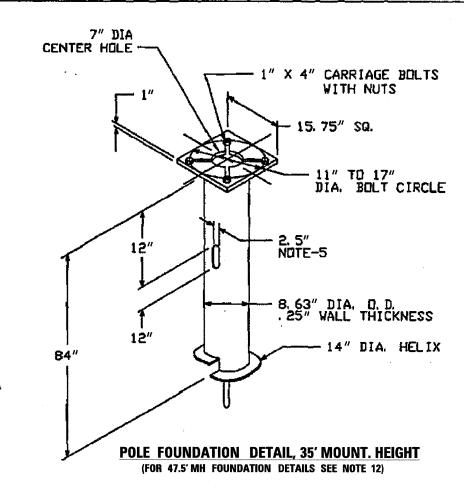
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	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	15 (381 mm) BULI CIRCLE	15 (38) MM) BULI CINCLE		BE-310	CONTRACT NO. 63530
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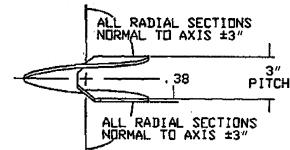
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HELIX MUST BE FORMED BY MATCHING METAL DIE (SIDE VIEW OF TRUE HELICAL FORM)

## -NOTES-

- FINISH: HOT DIP GALVANIZE PER ASTM-A153 (LATEST REVISION). BASEPLATE TO BE PERPENDICULAR TO SHAFT AXIS (±1°) AND HOLE
- CENTERLINE CONCENTRIC (±, 188) TO SHAFT AXIS.
- STENCIL MIN. 1/2 IN. LETTERS MANUFACTURER'S NUMBER AFTER GALVANIZING.
- PILOT POINT AND SHAFT AXES TO BE CONCENTRIC (±, 125 FIM) AND IN LINE (±2°) FLAME CUT TWO SLOTS IN SHAFT PERPENDICULAR TO THE BASEPLATE.
- PREHEAT, TUMBLEBLAST, HANDGRIND, AND CLEAN BASEPLATE, HELIX, AND PILOT POINT ON ALL VELDED AREAS.
- FLAMECUT IRREGULARITIES PERMISSIBLE (1) VALLEYS NOT TO EXCEED 3/32' BELOW NOMINAL SURFACE LEVEL, (2) PEAKS OR POSITIVE IRREGULARITIES NOT TO EXCEED 1/32 IN. ABOVE NOMINAL SURFACE LEVEL OR INTERSECTIONS OF NOMINAL SURFACES.
- MANUFACTURER TO HAVE IN EFFECT INDUSTRY RECOGNIZED WRITTEN QUALITY CONTROL FOR ALL MATERIALS AND MANUFACTURING PROCESSES.
- ALL MATERIAL IS TO BE NEW, UNUSED AND MILL TRACEABLE MEETING THE FOLLOWING SPECIFICATIONS:
  - BASEPLATE: ASTM A36-(LATEST REVISION) STRUCTURAL STEEL (CONFORM TO AASHTO TECH. BUL. #270)
  - ASTM A252-(LATEST REVISION) GRADE 2, STEEL PIPE PILES.
    ALTERNATE MATERIAL: ASTM A53-(LATEST REVISION) TYPE E OR S, SHAFT GRADE B, STEEL PIPE OR ASTM A500-(LATEST REVISION) GRADE B, STRUCTURAL STEEL TUBING.
  - HELIX ASTM A635-(LATEST REVISION) 3/8' THICK HOT ROLLED STEEL PLATE OR COIL.
  - PILOT POINT: ASTM A575-(LATEST REVISION) 1-1/4" DIAMETER HOT ROLLED STEEL BAR,
  - BOLTS: CARRIAGE BOLT, 1-8UNC-2A PER ANSI B-18, 5, SAE J429 GRADE-5.
  - NUTS: HEAVY HEX NUTS PER ASTM A194 GRADE 2H DR ASTM A563 GRADE DH, MEETING THE SUPPLEMENTARY REQUIREMENTS OF ASTM A563: 1-8UNC-2B PER ANSI B18, 2, 2,
- 10. BASEPLATE IS PERMANENTLY STAMPED WITH MANUFACTURER'S IDENTIFICATION 'ABC' IN 1/2' LETTERS AND DATE CODE IN 1/4' LETTERS.
- BASEPLATE PERMANENTLY MARKED TO INDICATE CABLEWAY OPENING IN SHAFT.
- 12. THE POLE FOUNDATION FOR THE 47.5' MOUNTING HEIGHT UNIT SHALL BE IN ACCORDANCE WITH THE 35' MOUNTING HEIGHT DETAILS, EXCEPT AS FOLLOWS:

BOLT CIRCLE: SHAFT DIAMETER: 10"

SHAFT LENGTH:

BASEPLATE:

15"x15"x1<sup>l</sup>/<sub>4</sub>" BOLTS:

13. THE CONTRACTOR SHALL COORDINATE EXTERIOR OF ANCHOR BOLTS ABOVE TOP OF THE BASE PLATE WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS.

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