

SECTION 11, TOWNSHIP 37, RANGE 12
SECTION 2, TOWNSHIP 37, RANGE 12

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

F. A. P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
29	08-00055-00-LT	COOK	012	001
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT #63028

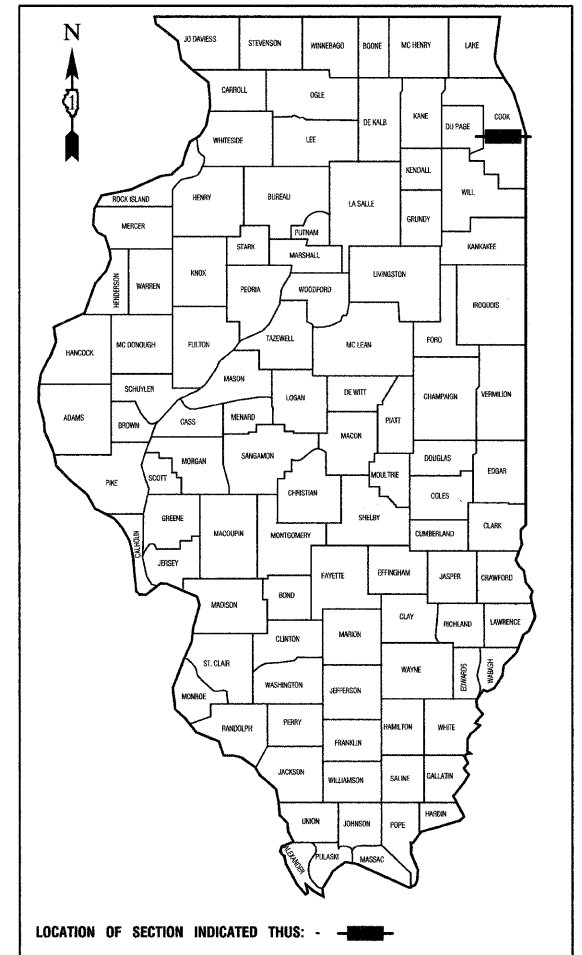
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1. COVER SHEET
2. SUMMARY OF QUANTITIES & GENERAL NOTES
- 3.-6. PLAN SHEETS
7. WIRING DIAGRAM
- 8.-12. LIGHTING DETAILS

STATE STANDARDS

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 701501-04 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 701606-05 URBAN LANE CLOSURE, MULTILANE, 2W, WITH MOUNTABLE MEDIAN
- 701701-05 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701801-03 LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
- 701901 TRAFFIC CONTROL DEVICES

95TH STREET (F.A.P. ROUTE 29)
88TH AVENUE (F.A.U. ROUTE 2731) TO 76TH AVENUE
S.T.E. PROJECT NO.: TE-00D1 (785)
SECTION NO.: 08-00055-00-LT
I.T.E.P. PROJECT NO.: 102141
CITY OF HICKORY HILLS
COOK COUNTY
C-91-021-08



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED: 7/15/08 2008
MAYOR CITY OF HICKORY HILLS

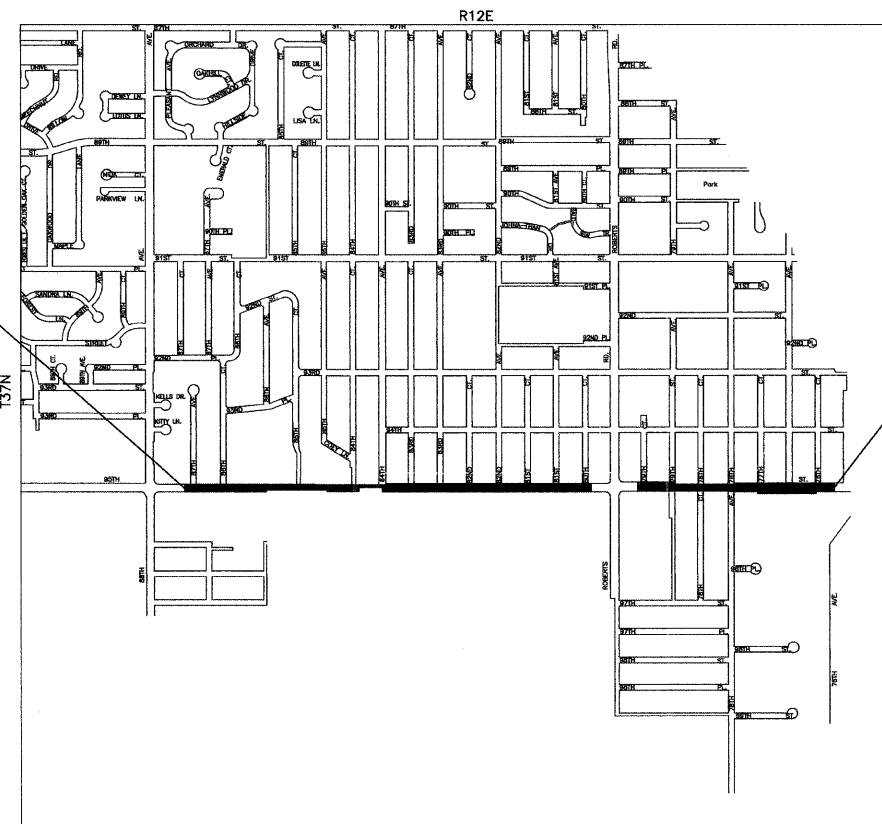
PASSED: JULY 16, 2008
REGION ONE ENGINEER OF LOCAL ROADS & STREETS

RELEASED FOR BID BASED ON LIMITED REVIEW: JULY 17, 2008
Diana M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

**PRINTED BY THE AUTHORITY OF
THE STATE OF ILLINOIS**

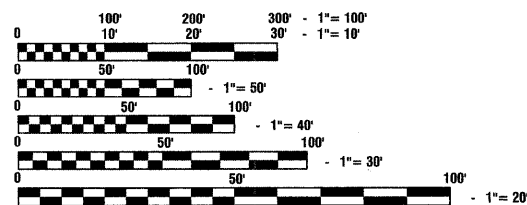
PREPARED BY OR UNDER THE
DIRECT SUPERVISION OF:

Edward J. Tereselin
7-15-08



PROJECT LOCATION

GROSS LENGTH = 7050 FEET = 1.3 MILES
NET LENGTH = 7050 FEET = 1.3 MILES



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. L. I. E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123

CONTRACT NO. 63028

FEDERAL AID COORDINATOR: PHIL MARCYN 847-705-4189
CONSULTANTS: ROBINSON ENGINEERING, LTD. 708-331-6700

F. A. P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
29	08-00055-00-LT	COOK	012	002
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT #63028

ALL ITEMS TO BE TYPE CODE Y030-1E

SUMMARY OF QUANTITIES				
S.I.	CODE NO.	PAY ITEM	UNIT	QUAN
	20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	10
	21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	4500
	21300010	EXPLORATION TRENCH, SPECIAL	FOOT	200
	25200200	SUPPLEMENTAL WATERING	UNIT	95
	25200650	SODDING, SALT TOLERANT (SPECIAL)	SQ YD	4500
	44004610	SIDEWALK REMOVAL AND REPLACEMENT (SPECIAL)	SQ FT	500
	67100100	MOBILIZATION	L SUM	1
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1
	70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1
	70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1
	80400100	ELECTRIC SERVICE INSTALLATION	EACH	3
	80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
	81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	2915
	81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	225
	81603090	UNIT DUCT, 600V, 3-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	14100
	81701325	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE USE) 3-1/C NO. 1/0	FOOT	200
	81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	10980
	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	790
	83600215	LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET	FOOT	40
	84200600	REMOVAL OF EXISTING LIGHTING UNIT, NO SALVAGE	EACH	60
	84200700	LIGHTING FOUNDATION REMOVAL	EACH	60
	84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	3
	X0323574	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	3
	X8380090	BREAKAWAY DEVICE, COUPLING	EACH	328
	XX000596	FESTOON OUTLET	EACH	82
	XX001579	LIGHTING CONTROLLER, CONSOLE TYPE	EACH	3
	XX006937	GROUND ROD, 5/8" DIA. X 10 FT.	EACH	85
△	Z0076600	TRAINEES	HOUR	500
	XX007577	HMA PARKWAY REMOVAL AND REPLACEMENT	SQ YD	50
	XX007578	LIGHT POLE, STEEL, TAPERED ROUND, 34 FT. M.H. 8 FT. MAST ARM (SPECIAL)	EACH	82
	XX007487	LUMINAIRE, SODIUM VAPOR, 250 WATT, (SPECIAL)	EACH	82
*	XX007579	PAINT EXISTING LIGHTING UNIT	EACH	8

* - INDICATES SPECIALTY ITEMS
△ - Y080

GENERAL NOTES

- ALL WORK TO CONFORM TO THE NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL CODES.
- CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES BEFORE TRENCHING OR AUGERING.
- BEFORE INSTALLING STANDARDS NEAR OVERHEAD FACILITIES CALL C.E. Co. FOR APPROVAL OF LOCATION.
- FOR LOCATION OF EXISTING UNDERGROUND ELECTRICAL CABLE CALL C.E. Co.
- SIZE ALL CONDUIT AS SPECIFIED ON DRAWINGS.
- CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO RESTORE ANY SPECIALIZED LANDSCAPING, (i.e. DECORATIVE ROCKS, SHRUBS, PLANTS, ECT.) OR SHALL REPLACE IT, THE COST OF WHICH SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

REVISIONS	
NAME	DATE

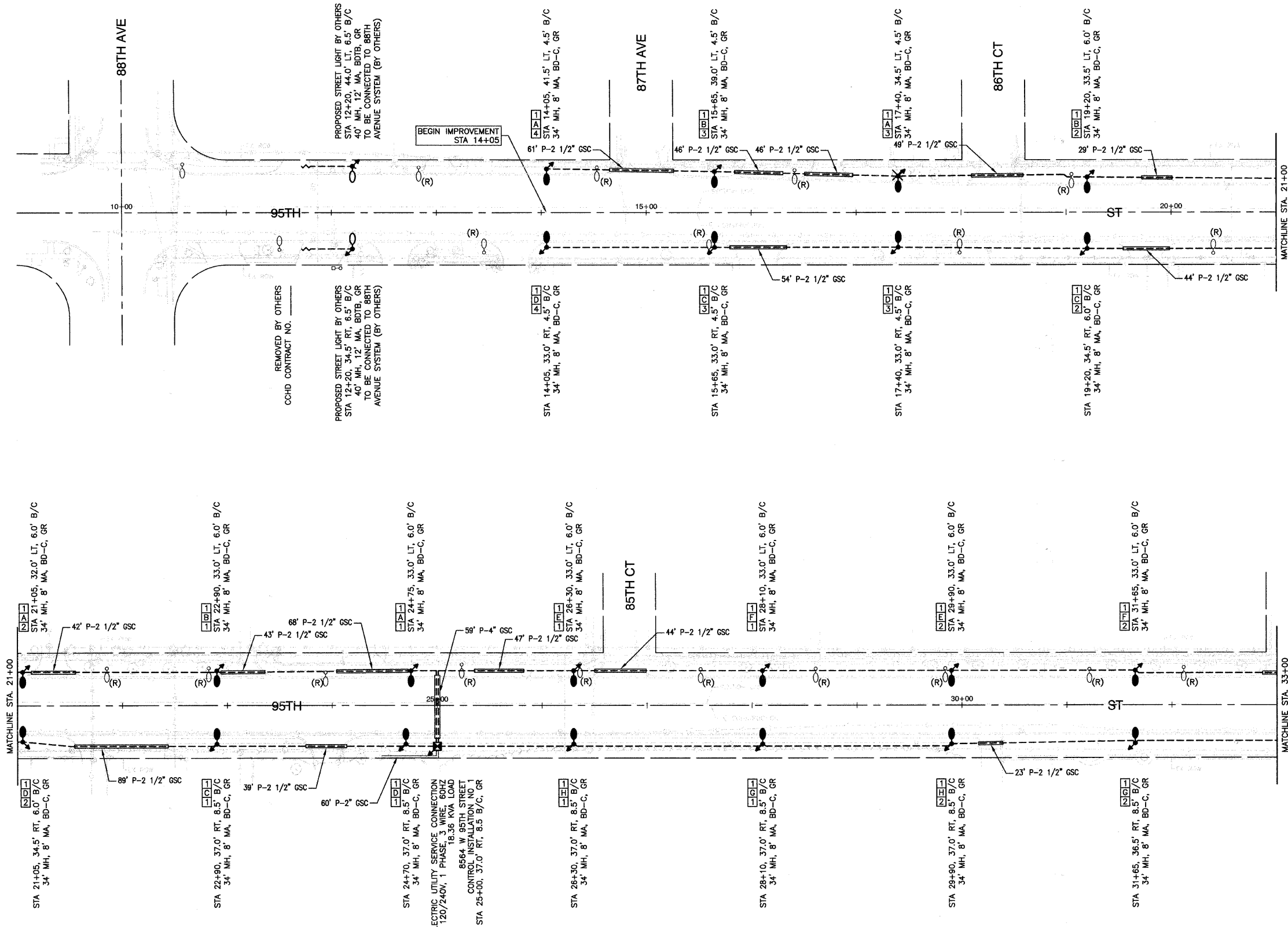
ILLINOIS DEPARTMENT OF TRANSPORTATION

**95TH STREET
STREET LIGHTING PLAN
SUMMARY OF QUANTITIES AND
GENERAL NOTES**

SCALE: VERT. NA
HORIZ. NA
DATE 07/15/08
DRAWN BY AG
CHECKED BY PAP

F. A. P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
29	06-00055-00-LT	COOK	012	003
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT #63028



LEGEND

- EXISTING STREET LIGHT
- PROPOSED STREET LIGHT-250 HPS 34' MOUNTING HEIGHT
- ⋈ GROUND ROD, 5/8" DIA. x 10'
- CONTROLLER
- ⊕ COMED POWER POLE FOR SERVICE CONNECTION
- P — CONDUIT, PUSHED, GALVANIZED STEEL, SIZE AS MARKED
- - - UNIT DUCT, 600V, 3-1/C NO. 4, 1/C NO. 6 GROUND (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE
- ==== ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE USE), 3-1/C NO. 1/0
- (R) REMOVAL OF EXISTING STREET LIGHT UNIT, NO SALVAGE EXISTING LIGHTING UNIT SHALL NOT BE REMOVED UNTIL THE PROPOSED LIGHTING SYSTEM IS INSTALLED, INSPECTED, APPROVED, AND PUT INTO OPERATION
- LT. LEFT
- RT. RIGHT
- B/C BACK OF CURB
- GR GROUND ROD, 5/8" DIA. x 10'
- BD-C BREAKWAY DEVICE, COUPLING
- MH MOUNTING HEIGHT
- MA MAST ARM
- ⊗ TREE REMOVAL

POLE IDENTIFICATION



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**95TH STREET
STREET LIGHTING PLAN
BEGIN IMPROVEMENTS TO STA 33+00**

SCALE: VERT. NA
HORIZ. 1"=50'

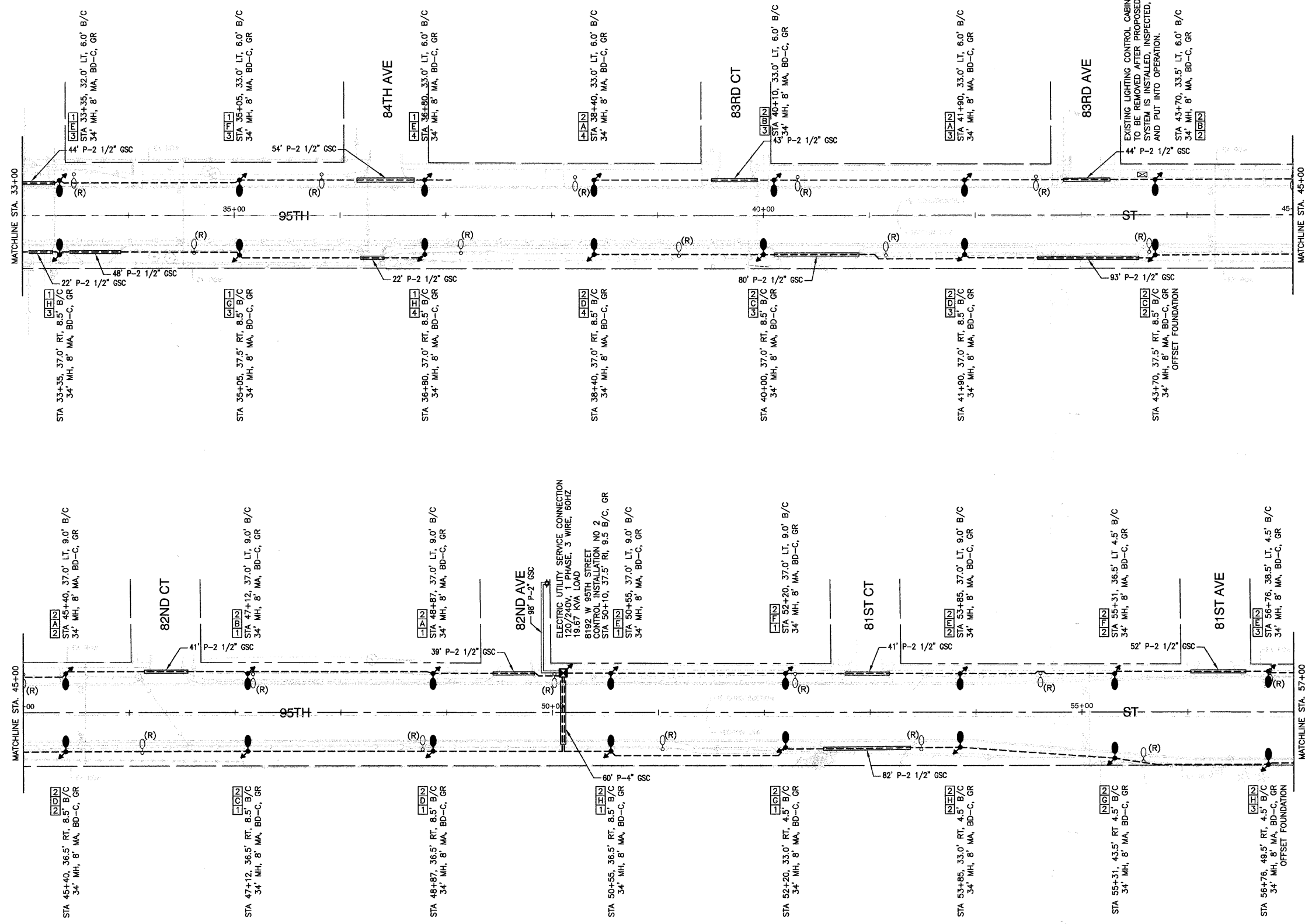
DATE 07/15/08

DRAWN BY AG
CHECKED BY PAP

SECTION 2, TOWNSHIP 37, RANGE 12
SECTION 11, TOWNSHIP 37, RANGE 12

F. A. P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
29	08-00055-00-LT	COOK	012	004
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT #63028



LEGEND

- EXISTING STREET LIGHT
- PROPOSED STREET LIGHT-250 HPS 34" MOUNTING HEIGHT
- ⋈ GROUND ROD, 5/8" DIA. x 10'
- CONTROLLER
- ⊕ COMED POWER POLE FOR SERVICE CONNECTION
- CONDUIT, PUSHED, GALVANIZED STEEL, SIZE AS MARKED
- - - UNIT DUCT, 600V, 3-1/C NO. 4, 1/C NO. 6 GROUND (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE
- ==== ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE USE), 3-1/C NO. 1/0
- (R) REMOVAL OF EXISTING STREET LIGHT UNIT, NO SALVAGE EXISTING LIGHTING UNIT SHALL NOT BE REMOVED UNTIL THE PROPOSED LIGHTING SYSTEM IS INSTALLED, INSPECTED, APPROVED, AND PUT INTO OPERATION
- LT. LEFT
- RT. RIGHT
- B/C BACK OF CURB
- GR GROUND ROD, 5/8" DIA. x 10'
- BD-C BREAKWAY DEVICE, COUPLING
- MH MOUNTING HEIGHT
- MA MAST ARM
- ⊗ TREE REMOVAL

POLE IDENTIFICATION



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

**95TH STREET
STREET LIGHTING PLAN
STA 33+00 TO STA 57+00**

SCALE: VERT. NA
HORIZ. 1"=50'

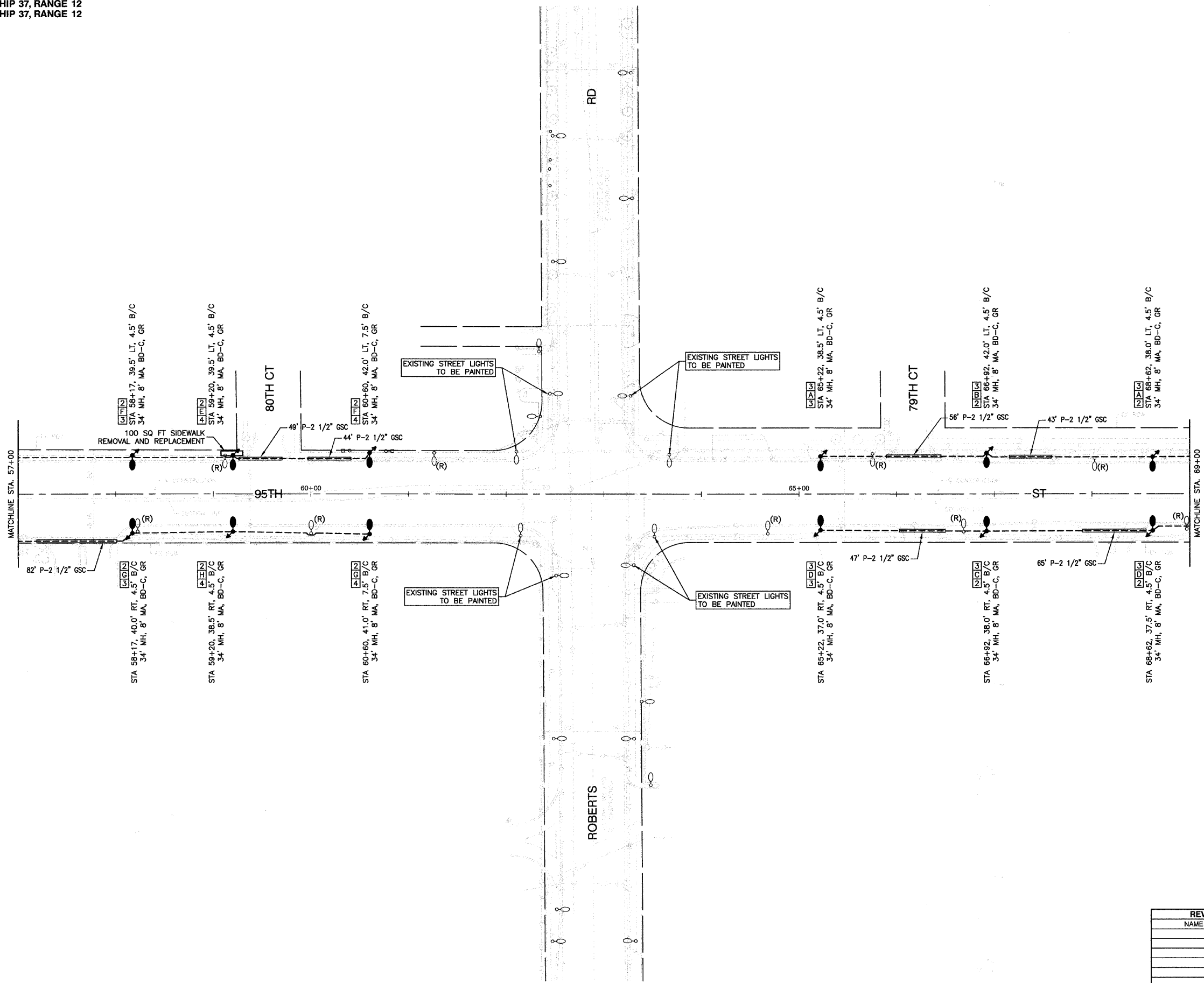
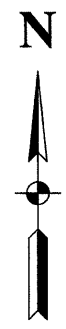
DATE 07/15/08

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CHECKED BY PAP

SECTION 2, TOWNSHIP 37, RANGE 12
 SECTION 11, TOWNSHIP 37, RANGE 12
 SECTION 1, TOWNSHIP 37, RANGE 12
 SECTION 12, TOWNSHIP 37, RANGE 12

F. A. P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
29	08-00055-00-LT	COOK	012	005
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT #63028



LEGEND

- EXISTING STREET LIGHT
- PROPOSED STREET LIGHT-250 HPS 34' MOUNTING HEIGHT
- GROUND ROD, 5/8" DIA. x 10'
- CONTROLLER
- COMED POWER POLE FOR SERVICE CONNECTION
- CONDUIT, PUSHED, GALVANIZED STEEL, SIZE AS MARKED
- UNIT DUCT, 600V, 3-1C NO. 4, 1/C NO. 6 GROUND (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE
- ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE USE), 3-1/C NO. 1/0
- REMOVAL OF EXISTING STREET LIGHT UNIT, NO SALVAGE EXISTING LIGHTING UNIT SHALL NOT BE REMOVED UNTIL THE PROPOSED LIGHTING SYSTEM IS INSTALLED, INSPECTED, APPROVED, AND PUT INTO OPERATION
- LT. LEFT
- RT. RIGHT
- B/C BACK OF CURB
- GR GROUND ROD, 5/8" DIA. x 10'
- BD-C BREAKWAY DEVICE, COUPLING
- MH MOUNTING HEIGHT
- MA MAST ARM
- TREE REMOVAL

POLE IDENTIFICATION



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

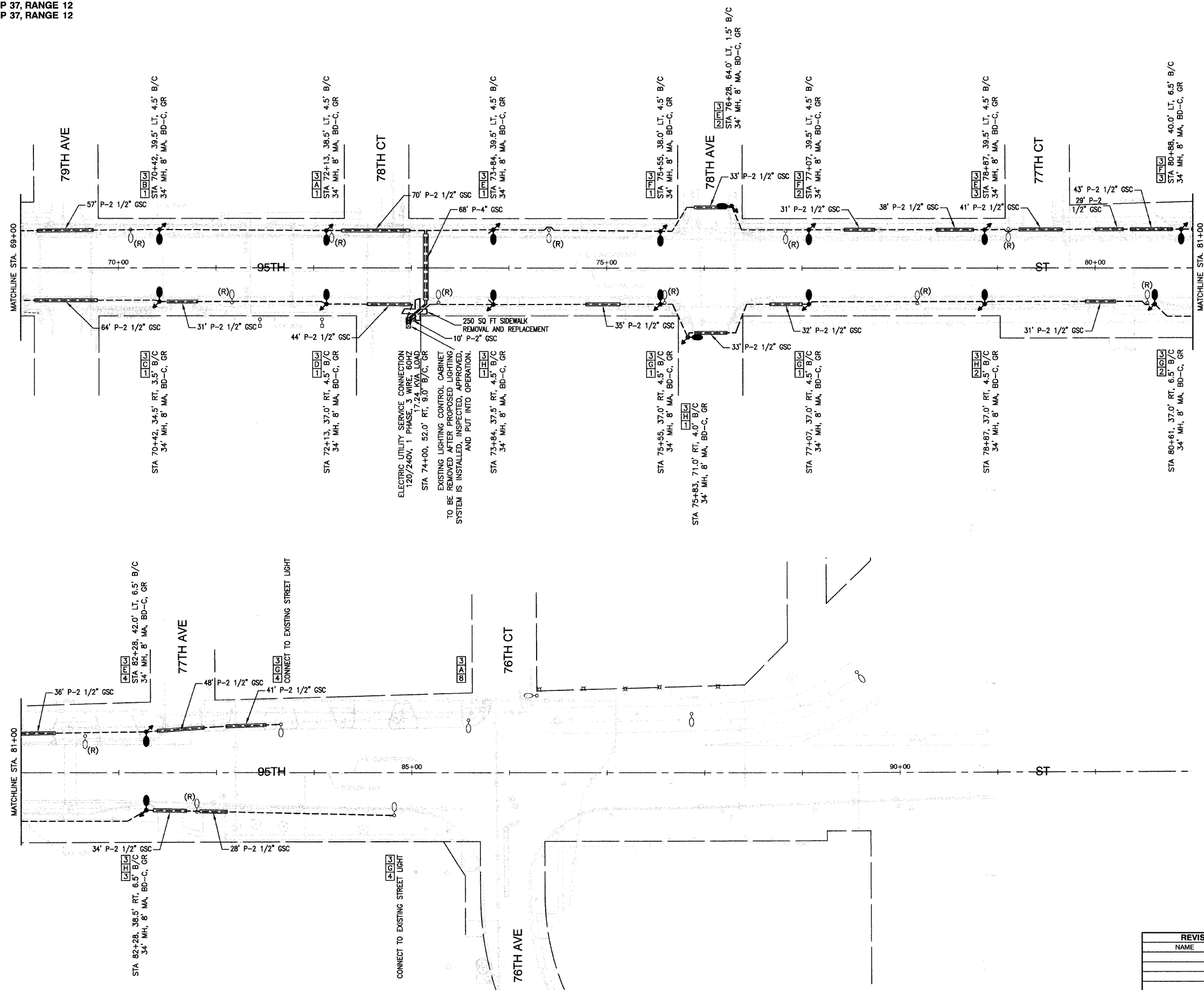
95TH STREET STREET LIGHTING PLAN STA 57+00 TO STA 69+00

SCALE: VERT. NA
 HORIZ. 1"=50'
 DATE 07/15/08

DRAWN BY AG
 CHECKED BY PAP

F. A. P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
29	08-00055-00-LT	COOK	012	006
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT #63028



ELECTRIC UTILITY SERVICE CONNECTION
120/240V, 1 PHASE, 3 WIRE, 60HZ
17.24 KVA LOAD
EXISTING LIGHTING CONTROL CABINET
TO BE REMOVED AFTER PROPOSED LIGHTING
SYSTEM IS INSTALLED, INSPECTED, APPROVED,
AND PUT INTO OPERATION.

- LEGEND**
- EXISTING STREET LIGHT
 - PROPOSED STREET LIGHT-250 HPS 34' MOUNTING HEIGHT
 - ⋈ GROUND ROD, 5/8" DIA. x 10'
 - CONTROLLER
 - ⊕ COMED POWER POLE FOR SERVICE CONNECTION
 - P — CONDUIT, PUSHED, GALVANIZED STEEL, SIZE AS MARKED
 - - - UNIT DUCT, 600V, 3-1C NO. 4, 1/C NO. 6 GROUND (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE
 - ==== ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE USE), 3-1/C NO. 1/0
 - (R) REMOVAL OF EXISTING STREET LIGHT UNIT, NO SALVAGE EXISTING LIGHTING UNIT SHALL NOT BE REMOVED UNTIL THE PROPOSED LIGHTING SYSTEM IS INSTALLED, INSPECTED, APPROVED, AND PUT INTO OPERATION
 - LT. LEFT
 - RT. RIGHT
 - B/C BACK OF CURB
 - GR GROUND ROD, 5/8" DIA. x 10'
 - BD-C BREAKWAY DEVICE, COUPLING
 - MH MOUNTING HEIGHT
 - MA MAST ARM
 - ⊗ TREE REMOVAL

POLE IDENTIFICATION

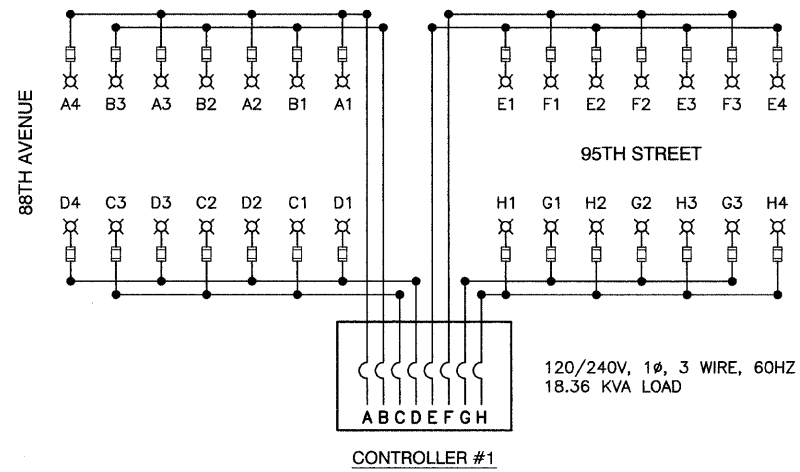


REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**95TH STREET
STREET LIGHTING PLAN
STA 69+00 TO END IMPROVEMENTS**

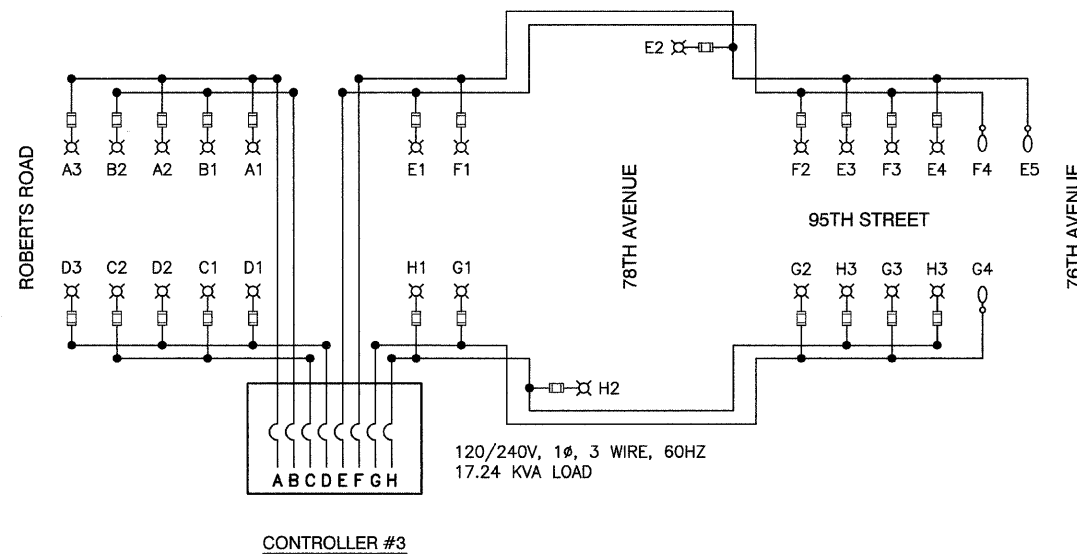
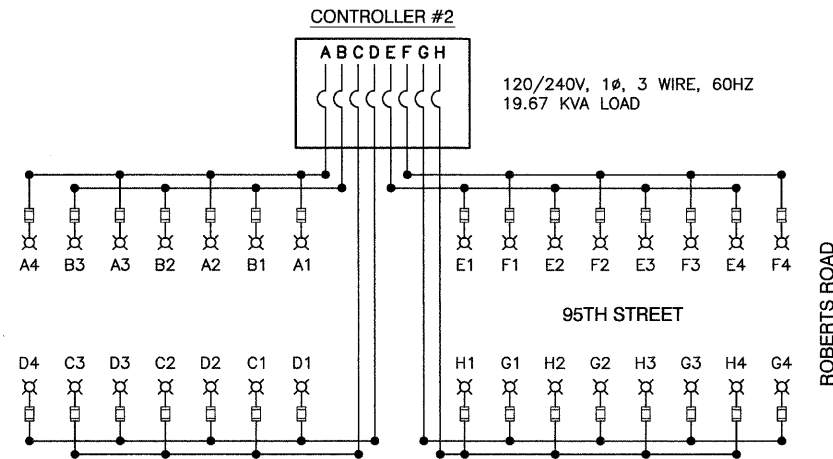
SCALE: VERT. NA
HORIZ. 1"=50'
DATE: 07/15/08
DRAWN BY: AG
CHECKED BY: PAP



CIRCUIT	WATTS	AMPS
A	2200	20.0
B	1650	15.0
C	1650	15.0
D	2200	20.0
E	2200	20.0
F	1650	15.0
G	2200	20.0
H	1650	15.0
TOTAL LOAD	15400	140.0

CIRCUIT	WATTS	AMPS
A	2200	20.0
B	1650	15.0
C	1650	15.0
D	2200	20.0
E	2200	20.0
F	2200	20.0
G	2200	20.0
H	2200	20.0
TOTAL LOAD	16500	150.0

CIRCUIT	WATTS	AMPS
A	1650	15.0
B	1100	10.0
C	1100	10.0
D	1650	15.0
E	2600	23.9
F	2050	18.9
G	2200	20.0
H	2050	18.9
TOTAL LOAD	14400	131.7



- LEGEND**
- ⊗ LUMINAIRE, 250W HPS
 - FUSE, 3.5 AMP
 - A1 LUMINAIRE AND FESTOON CIRCUIT
 - } CIRCUIT BREAKER
 - CONNECTION
 - EXISTING LUMINAIRE, 400W HPS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

95TH STREET STREET LIGHTING PLAN WIRING DIAGRAM

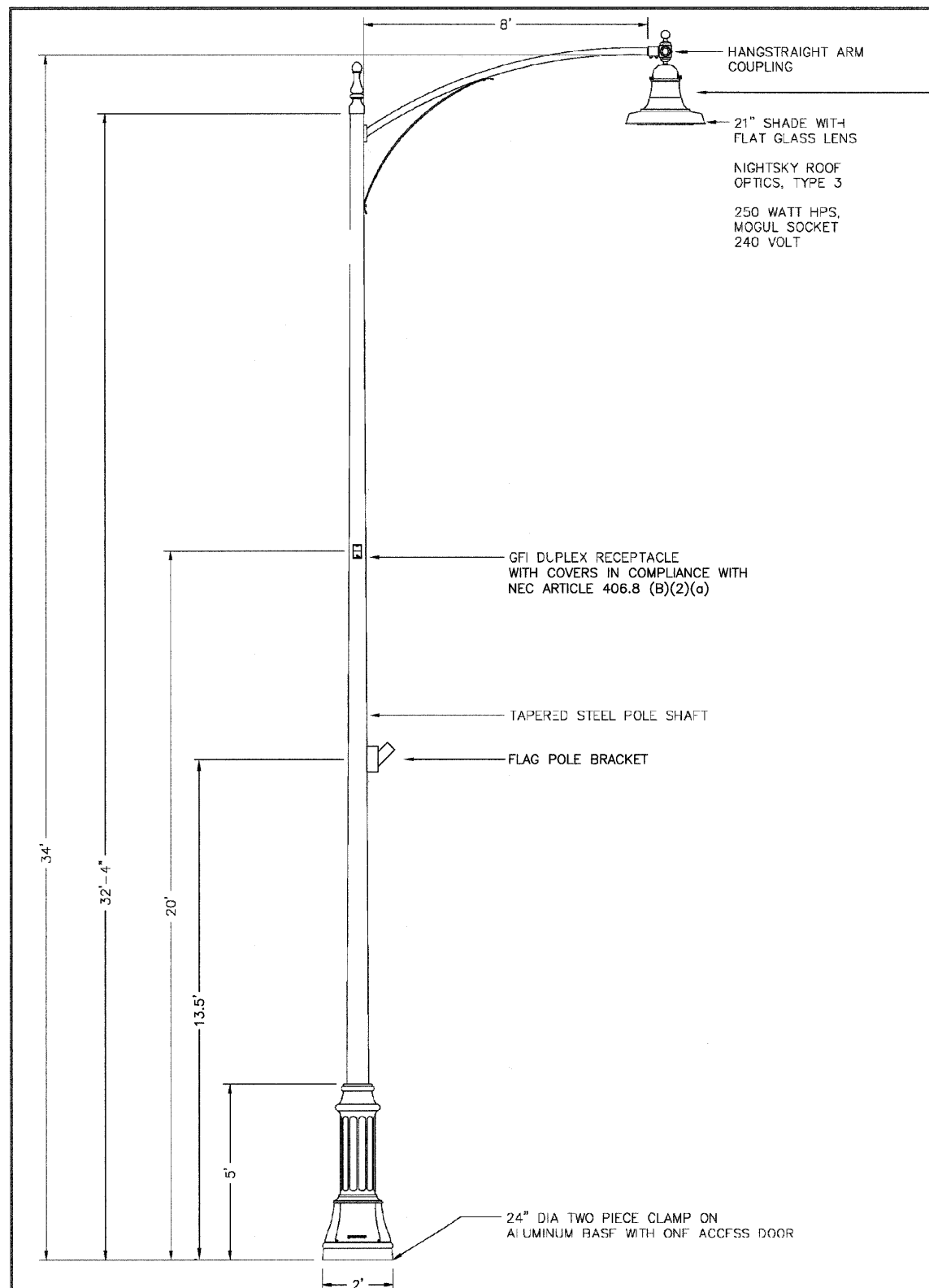
SCALE: VERT. NA
HORIZ. NA
DATE 07/15/08

DRAWN BY AG
CHECKED BY PAP

ROBINSON ENGINEERING, LTD.
7000 SOUTH PARK AVENUE, SOUTH HOLLAND, ILLINOIS 60473
(708) 331-6700 FAX (708) 331-8809
ILLINOIS DESIGN FIRM REGISTRATION NO. 134001138 05409_02-LIGHT-01

P. A. P. SHEET	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
29	08-00055-00-LT	COOK	012	008
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

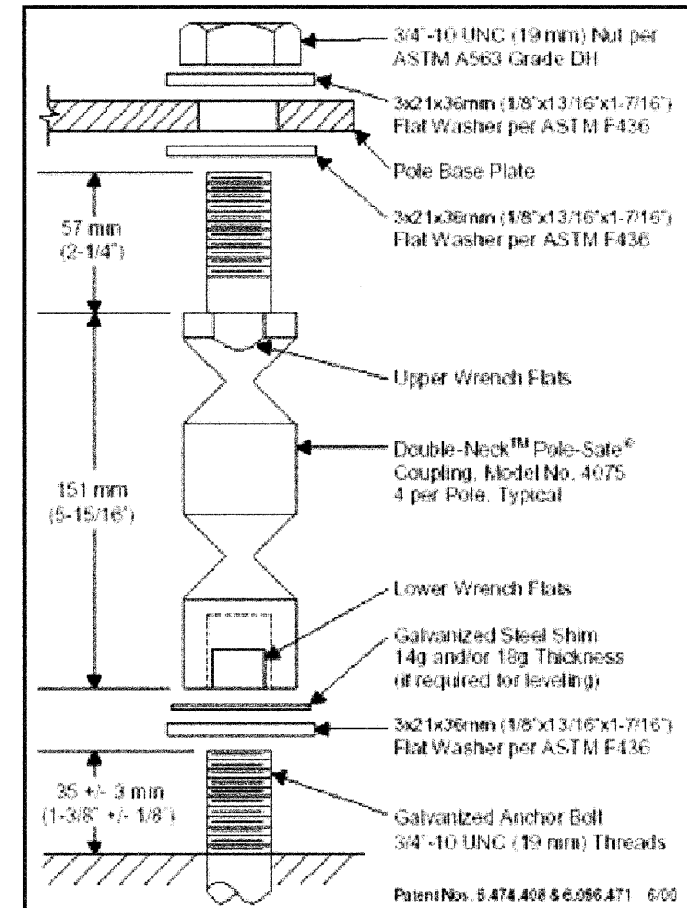
CONTRACT #63028



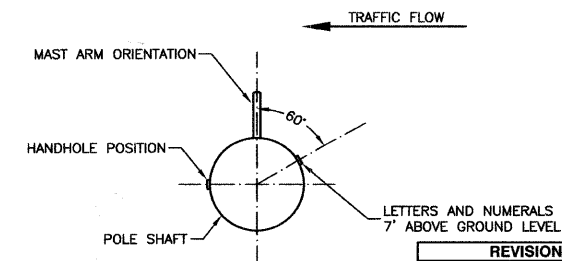
LUMINAIRE

250 WATT HIGH PRESSURE SODIUM LAMP
120 VOLT BALLAST

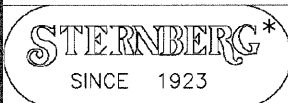
I.E.S. TYPE: MC III LIGHT DISTRIBUTION
LENS TYPE: FLAT
INITIAL LAMP LUMENS: 28,000
LAMP LIFE: 24,000 HOURS



BREAKAWAY COUPLING DETAIL



POSITION OF HANDHOLE AND NUMERALS ON POLE



HICKORY HILLS, IL
95TH STREET
1-1917FG/CSA8 / 9732STP / RBPB

1:30
DRAWN DATE 1/23/08
DRAWING NUMBER SC4777

* OR APPROVED EQUAL
SUN VALLEY 3600SB-RTS30FT-4IN-PT27-DPC*/SLI-8FT/DSTP25-HR111-250HPS-MT@120-1-LA

ILLINOIS DEPARTMENT OF TRANSPORTATION

95TH STREET
STREET LIGHTING PLAN
LIGHTING DETAILS

SCALE: VERT. NA
HORIZ. NA
DATE 07/15/08

DRAWN BY AG
CHECKED BY PAP

REVISIONS	
NAME	DATE

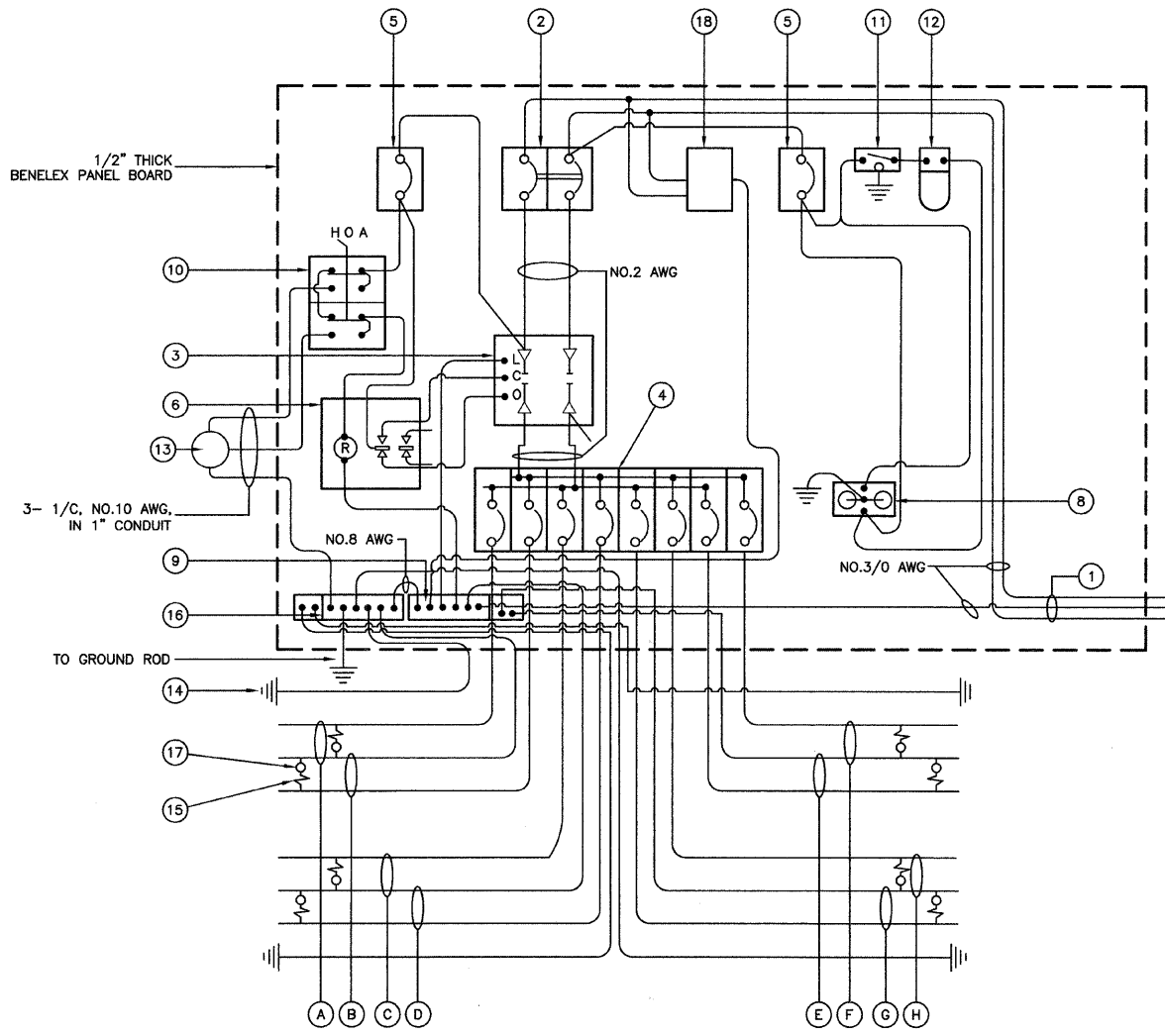
CONTRACT #63028

CONTROLLER WIRING DIAGRAM LEGEND

- ① 3-1/C, NO. 3/0, 600V SERVICE WIRE IN 2" DIA. GALVANIZED STEEL CONDUIT FOR 120/240 VOLT, 1ϕ, 3 WIRE, 60HZ. SERVICE.
- ② (1) 200 AMP MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT, 100 AMP BASE, NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA - 14000 AMP AT 480 V.
- ③ (1) 200 AMP REMOTE CONTROL CONTACTOR SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, 600 VOLT
- ④ (4) 30 AMP CIRCUIT BREAKER, 1 POLE, 240 VOLT, 100 AMP BASE, NON-INTERCHANGEABLE TRIP RATING NEMA - 14000 AMP AT 240 VOLTS.
- ⑤ (3) 20 AMP CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 VOLT, 100 AMP BASE, NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA 14000 AMP AT 240 V.
- ⑥ (1) 20 AMP, 1 POLE DOUBLE THROW, 240 VOLT RELAY
- ⑧ (1) 20 AMP, 120 VOLT DUPLEX GFCI RECEPTACLE.
- ⑨ NEUTRAL BUS BAR, 1/4"x1"x12" LONG MOUNTED ON PANEL WITH TAPS.
- ⑩ 3 POSITION SELECTOR SWITCH
- ⑪ SWITCH FOR LIGHTING FIXTURE MOUNTED IN BOX.
- ⑫ WEATHER-PROOF INCANDESCENT LIGHTING FIXTURE WITH 60 WATT, 120 V LAMP.
- ⑬ PHOTOCELL MOUNTED TO CABINET, 120 V.
- ⑭ NO.8 AWG INSULATED GROUND WIRE
- ⑮ IN-LINE FUSEHOLDER WITH FUSE AS NOTED IN FUSE TABLE
- ⑯ GROUND BUS BAR 1/4"x1"x12" LONG MOUNTED ON PANEL WITH TAPS.
- ⑰ LUMINAIRE, 250W HPS
- ⑱ SURGE SUPPRESSOR
- Ⓐ CIRCUIT
- Ⓑ CIRCUIT
- Ⓒ CIRCUIT
- Ⓓ CIRCUIT
- Ⓔ CIRCUIT
- Ⓕ CIRCUIT
- Ⓖ CIRCUIT
- Ⓗ CIRCUIT

NOMINAL WATTAGE	FUSE SIZE
250	6.0 AMP
FESTOON	6.0 AMP

LUMINAIRE FUSE SIZE TABLE



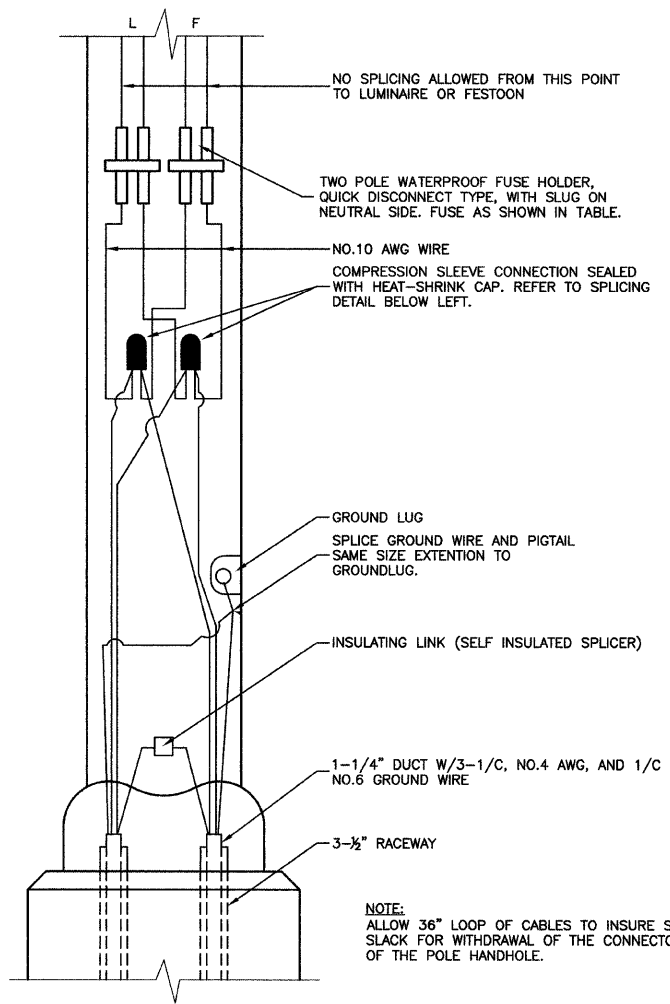
CONTROLLER WIRING DIAGRAM

GENERAL NOTES FOR CONTROL CABINET

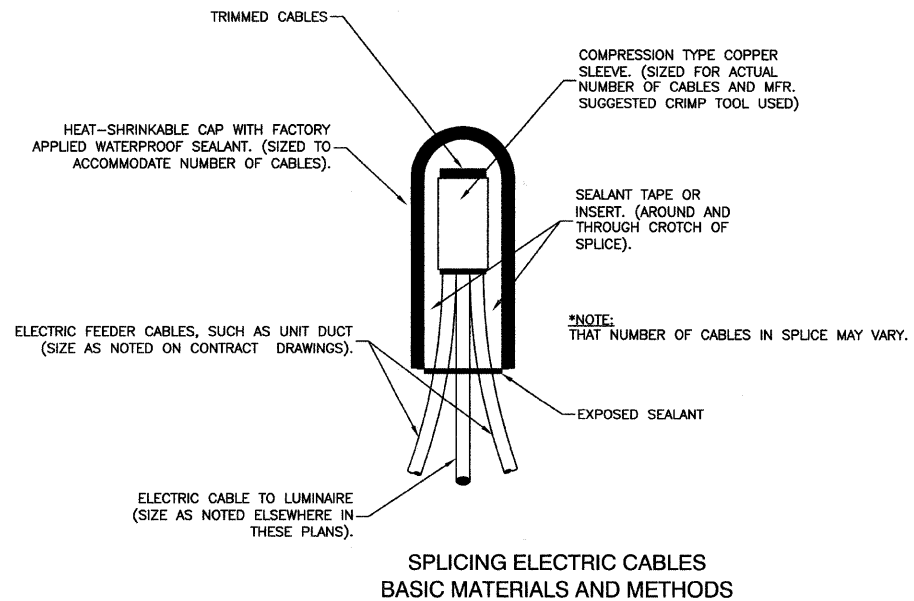
- ENTIRE CONTROL CABINET SHALL BE GROUNDED.
- ALL WIRING SHALL BE TAGGED WITH SELF-STICKING WIRE MARKERS.
- GROUND BUS TO BE COLOR CODED GREEN, NEUTRAL BUS WHITE, AND BONDED TO CABINET ENCLOSURE, BY LISTED PRESSURE CONNECTORS OR LISTED CLAMPS.
- ALL INTERNAL CONTROLLER WIRING TO BE NO.12 AWG UNLESS OTHERWISE SPECIFIED.
- CABINET WIRING INSULATION TO BE TYPE XHHW OR APPROVED EQUAL.

LIGHTING GENERAL NOTES

- ALL WORK TO CONFORM TO THE NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL CODES.
- CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES BEFORE TRENCHING OR AUGERING.
- BEFORE INSTALLING STANDARDS NEAR OVERHEAD FACILITIES CALL C.E. Co. FOR APPROVAL OF LOCATION.
- FOR LOCATION OF EXISTING UNDERGROUND ELECTRICAL CABLE CALL C.E. Co.
- SIZE ALL CONDUIT AS SPECIFIED ON DRAWINGS.
- CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO RESTORE ANY SPECIALIZED LANDSCAPING, (i.e. DECORATIVE ROCKS, SHRUBS, PLANTS, ECT.) OR SHALL REPLACE IT, THE COST OF WHICH SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- CARE IS TO BE TAKEN AS NOT TO DAMAGE ANY OF THE EXISTING TRAFFIC SIGNAL CONDUIT, MAGNETIC 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 CITY OR STATE.
- THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENT FOR BURIED WARNING TAPE, SPECIFIED AS PART OF "TRENCH AND BACK FILL FOR ELECTRICAL WORK". THE INSTALLATION OF THE TAPE SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO BACKFILLING OR DURING PLOWING OPERATIONS, AS APPLICABLE.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR THE ESTABLISHMENT OF FINISHED GRADE. THE RESIDENT ENGINEER MAY ASSIST THE CONTRACTOR, AS APPLICABLE, BUT THE RESPONSIBILITY FOR COORDINATING THE FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATION HEIGHTS AND THE LIGHT SHALL REMAIN WITH THE CONTRACTOR.
- NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED, AS APPROVED BY THE ENGINEER.
- THE CONTRACTORS SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR WIRE MARKERS AND SHALL TAG ALL WIRE MARKERS AND SHALL TAG ALL WIRE ACCORDINGLY.
- EQUIPMENT GROUND CONDUCTORS SHALL BE SPLICED AND BONDED AT EACH LIGHT POLE OR OTHER PIECE OF EQUIPMENT.
- SPLICE IS NOT ALLOWED IN THE HANDHOLE.
- CONDUITS AND UNIT DUCTS MUST BE POSITIONED IN THE FIELD TO AVOID CONFLICT WITH TREE, BUSHES, DRAINS AND OTHER UTILITIES.
- THE CONTROLLER SHALL BE SUITABLE FOR USE AS SERVICE ENTRANCE RATED.



POLE HANDHOLE WIRING DIAGRAM
(TYPICAL FOR SINGLE LUMINAIRE INSTALLATION)



SPLICING ELECTRIC CABLES
BASIC MATERIALS AND METHODS

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

95TH STREET STREET LIGHTING PLAN LIGHTING DETAILS

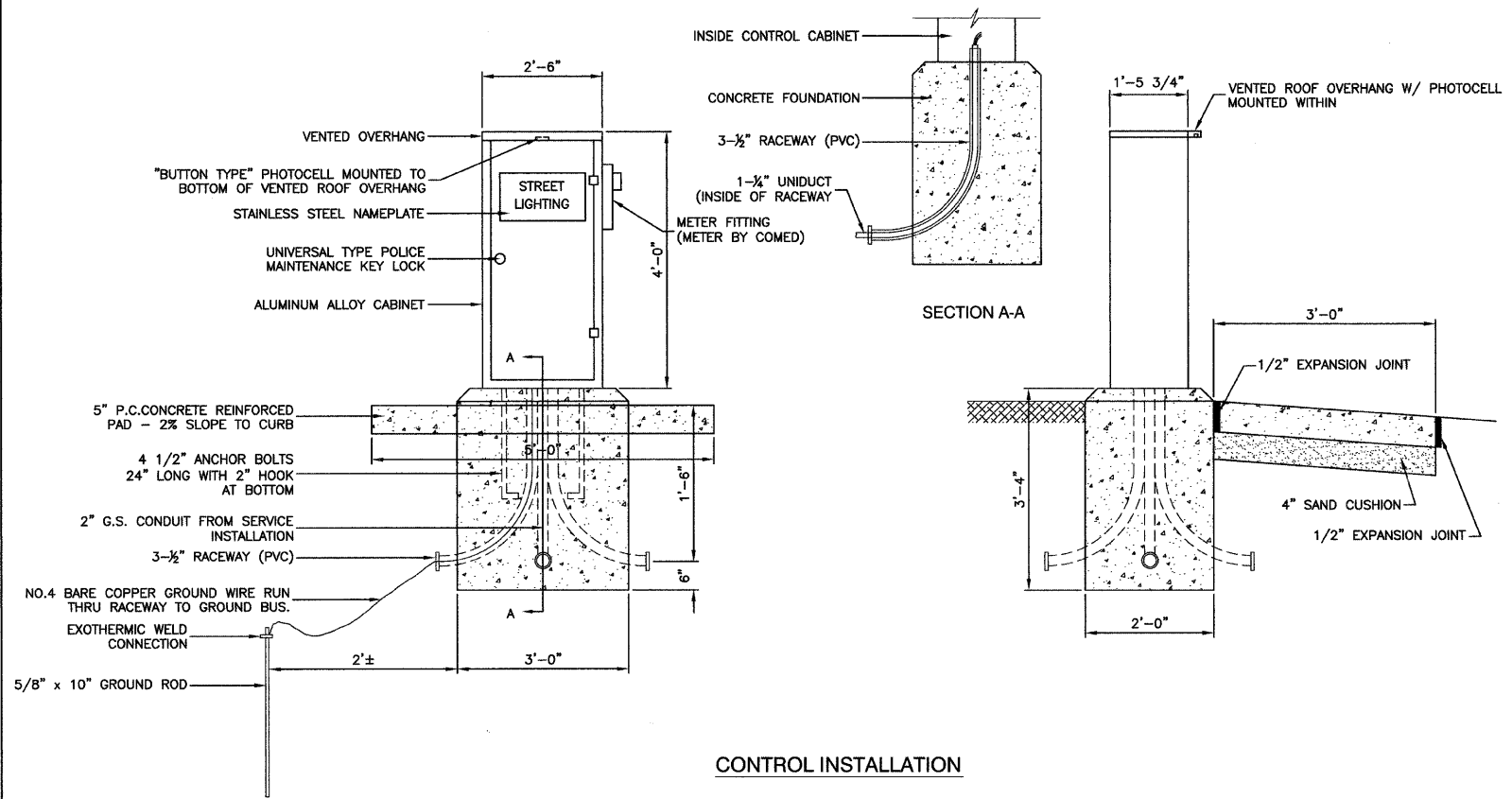
SCALE: VERT. NA
HORIZ. NA
DATE 07/15/08

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CHECKED BY PAP

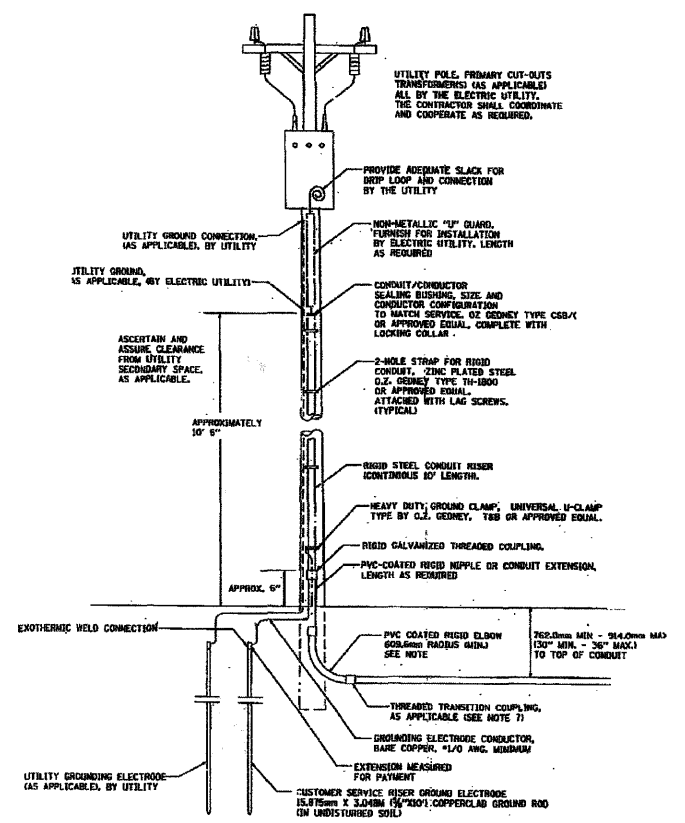
F. A. P. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
29	08-00055-00-LT	COOK	012	010
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLNOIS	FED. AID PROJECT		

CONTRACT #63028

120/240 VOLT, 1Ø, 3 WIRE, 60HZ SERVICE

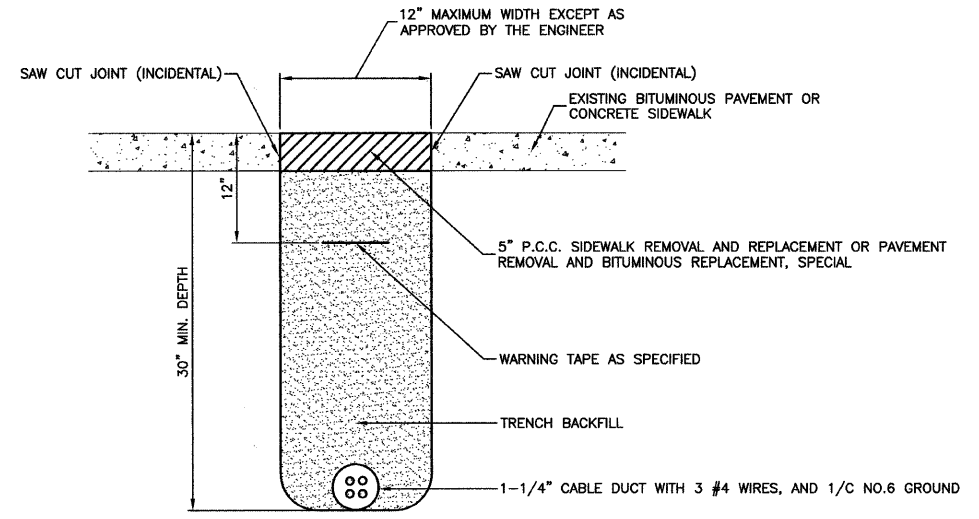


CONTROL INSTALLATION

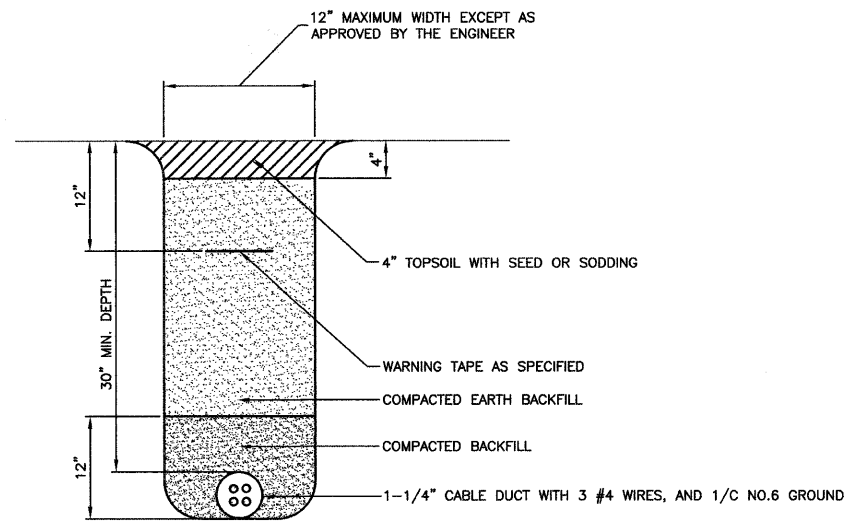


ELECTRIC UTILITY SERVICE CONNECTION

- NOTES:
- SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
 - UNLESS OTHERWISE INDICATED, ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF ELECTRICAL UTILITY SERVICE INSTALLATION.
 - CONDUIT AND CONDUCTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED.
 - PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH RECOMMENDED TOOLS AND PROCEDURES TO AVOID DAMAGE. ANY DAMAGE SHALL BE REPAIRED WITH COMPATIBLE PVC TOUCH-UP MATERIAL TO THE SATISFACTION OF THE ENGINEER OR THE DAMAGED MATERIAL SHALL BE REPLACED AT NO ADDITIONAL COST.
 - THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE, RISER ELBOW, NEUTRAL AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING ELBOW BEFORE UTILITY "U" GUARD INSTALLATION AND SERVICE CONNECTION.
 - THE SERVICE METER SOCKET, AS APPLICABLE, MOUNTED ELSEWHERE AS INDICATED SHALL BE INCLUDED AND PAID AS PART OF THE ELECTRICAL UTILITY SERVICE INSTALLATION PAY ITEM.
 - THE SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT OR CONCRETE, THE COUPLING SHALL BE A METALIC TO NON METALIC ADAPTER. WHEN THE RACEWAY IS ENCASED IN CONCRETE, THE CONCRETE SHALL EXTEND TO COVER THE COUPLING.
 - PLANS AND DETAILS INDICATE THE GENERAL NATURE AND REQUIREMENTS, THEY DO NOT SHOW EVERY ACCESSORY AND ATTACHMENT, AND THEY DO NOT RELIEVE THE CONTRACTOR OF THE REQUIREMENTS OF THE SPECIFICATIONS AND SPECIAL PROVISIONS TO ASCERTAIN UTILITY REQUIREMENTS AND TO COORDINATE ACCORDINGLY. FURNISH ALL ITEMS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION.



BITUMINOUS PAVEMENT OR CONCRETE SIDEWALK REMOVAL AND REPLACEMENT



TRENCH DETAIL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

95TH STREET
STREET LIGHTING PLAN
LIGHTING DETAILS

SCALE: VERT. NA
HORIZ. NA
DATE 07/15/08

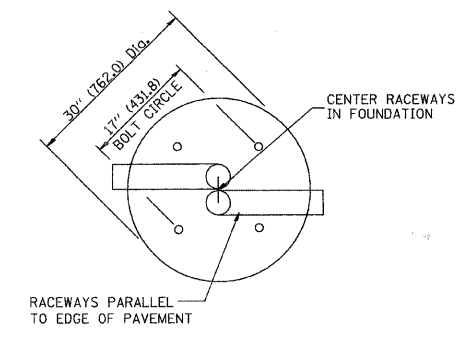
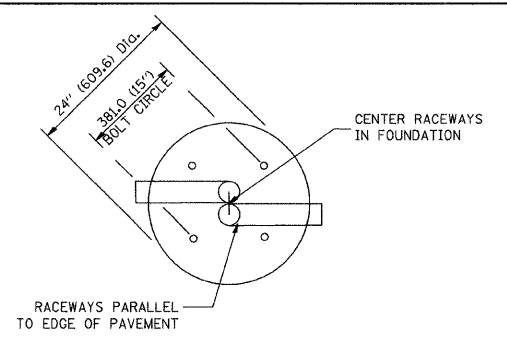
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F. A. P. SHE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
29	08-00055-00-LT	COOK	012	011
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT #63028

LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SQ. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SQ. FT.	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SQ. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)

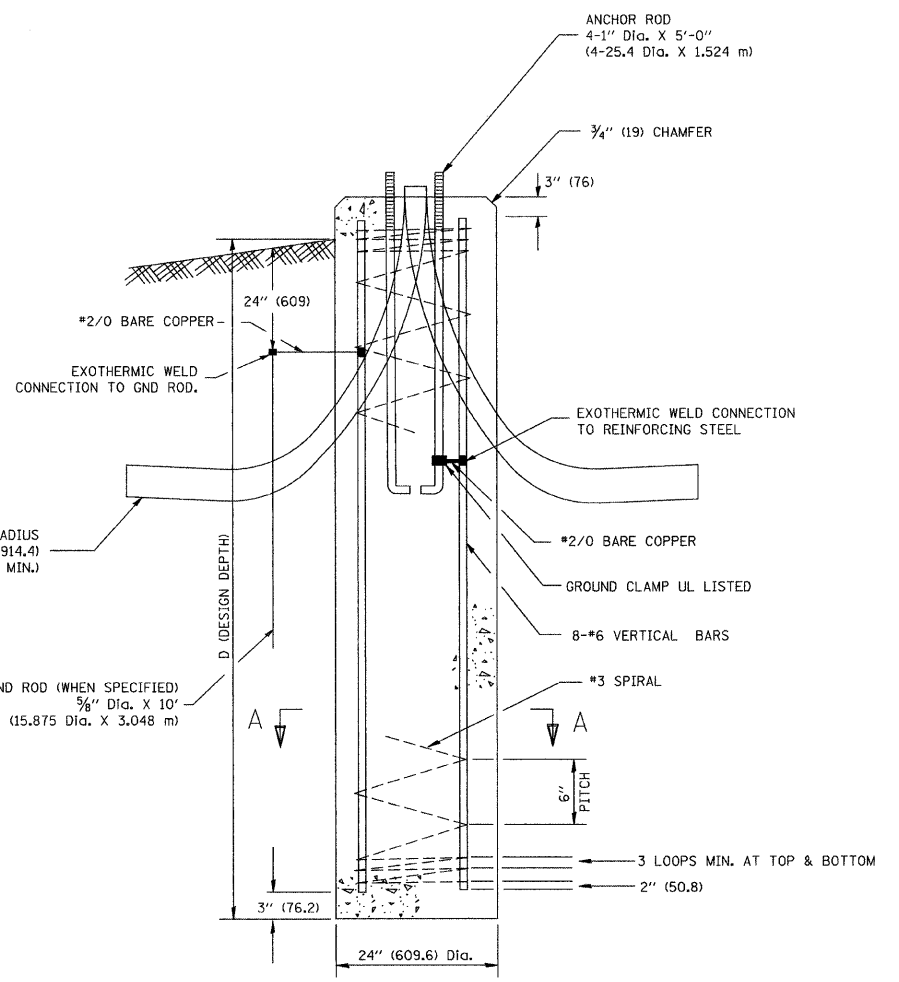


TOP VIEW

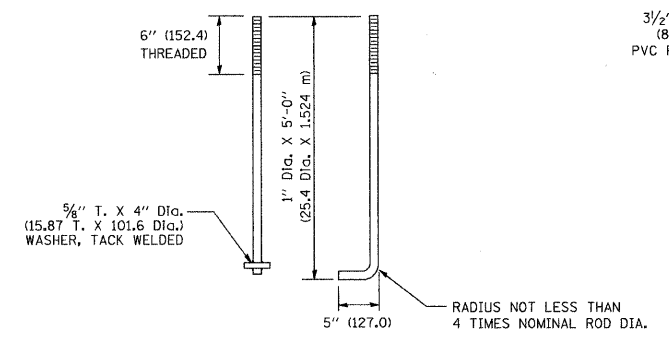
TOP VIEW

NOTES

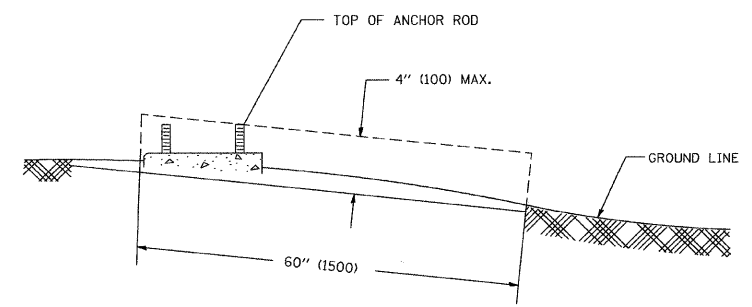
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO 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.
- 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 3/4-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.
- 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 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- 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 RODS SHALL PROJECT 2 3/4" (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.
- 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.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



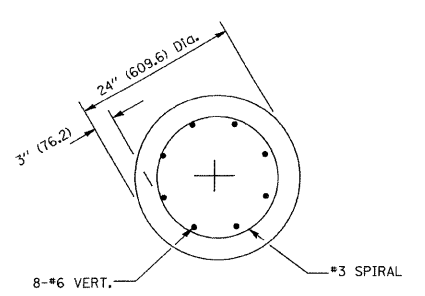
FOUNDATION DETAIL



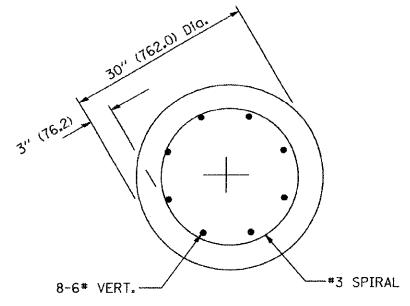
ANCHOR ROD DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

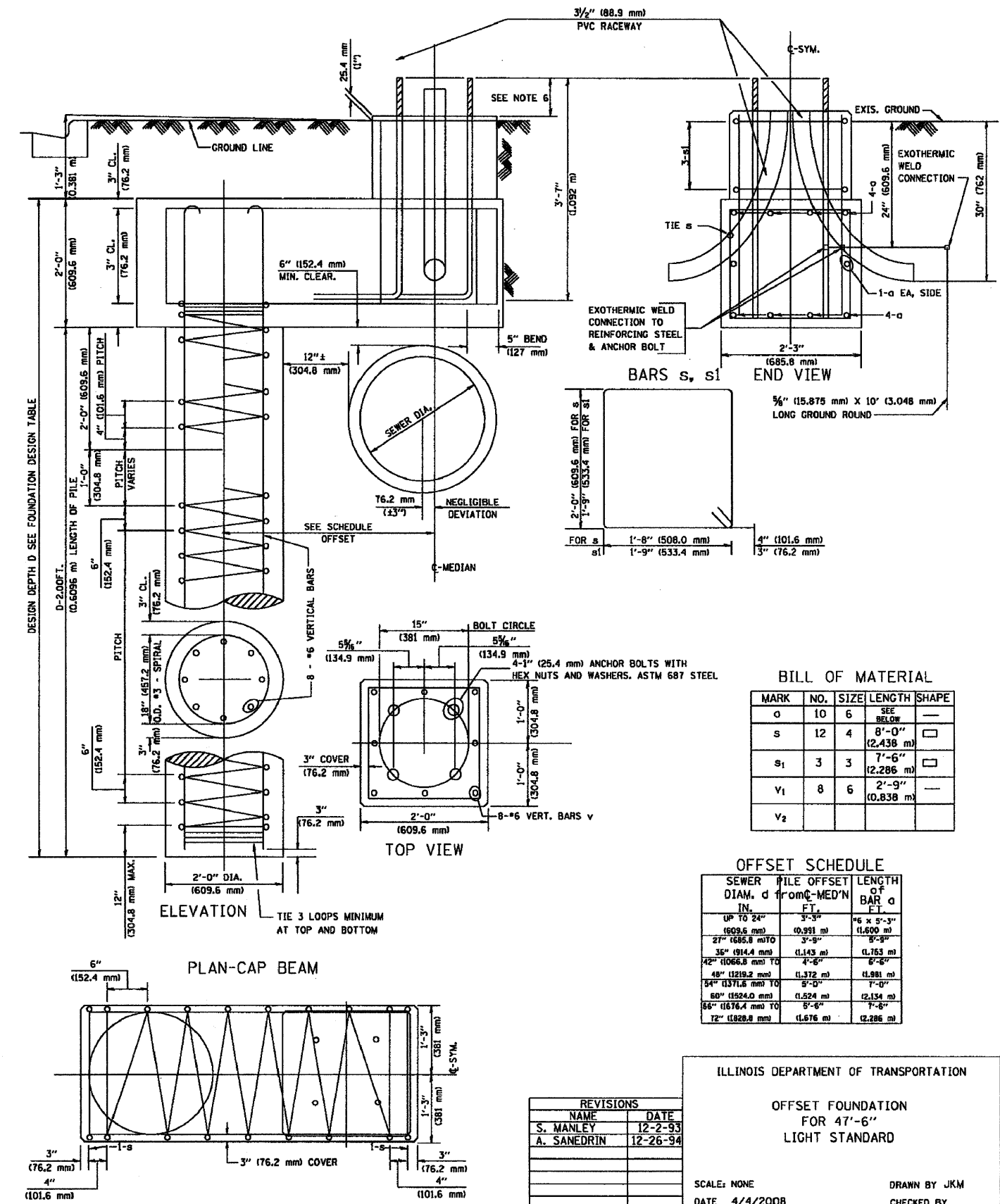
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

95TH STREET
STREET LIGHTING PLAN
LIGHTING DETAILS

SCALE: VERT. NA
HORIZ. NA
DATE 07/15/08

DRAWN BY AG
CHECKED BY PAP



FOUNDATION DESIGN TABLE

TYPE OF SOIL	DESIGN DEPTH OF FOUNDATION		REINFORCEMENT IN FOUNDATION			
	SINGLE ARM D	TWIN ARM D	SINGLE ARM		TWIN ARM	
			VERT BARS	SPIRAL	VERT BARS	SPIRAL
SOFT CLAY	13'-0" (3.962 m)	15'-0" (4.572 m)	8-#6X12'-6" (3.810 m)	*3X122' (37.186 m)	8-#6X14'-3" (4.343 m)	*3X141' (42.977 m)
MEDIUM CLAY	9'-6" (2.896 m)	10'-9" (3.277 m)	8-#6X9'-0" (2.743 m)	*3X90' (27.432 m)	8-#6X10'-0" (3.048 m)	*3X100' (30.480 m)
STIFF CLAY	7'-0" (2.134 m)	8'-0" (2.438 m)	8-#6X6'-6" (1.981 m)	*3X66' (20.112 m)	8-#6X7'-6" (2.286 m)	*3X76' (23.165 m)
LOOSE SAND	9'-0" (2.743 m)	10'-0" (3.048 m)	8-#6X8'-6" (2.591 m)	*3X85' (25.908 m)	8-#6X9'-6" (2.896 m)	*3X94' (28.651 m)
MEDIUM SAND	8'-3" (2.515 m)	9'-0" (2.743 m)	8-#6X8'-0" (2.438 m)	*3X78' (23.774 m)	8-#6X8'-6" (2.591 m)	*3X85' (25.908 m)
DENSE SAND	7'-9" (2.362 m)	9'-0" (2.743 m)	8-#6X7'-6" (2.286 m)	*3X73' (22.250 m)	8-#6X8'-6" (2.591 m)	*3X85' (25.908 m)
ROCK OR SOLIDIFIED SLAG	(5'-0") 1.524 m	5'-0" (1.524 m)	NONE	NONE	NONE	NONE

NOTES

1. THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
2. EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" (609.6 mm) OR 30" (762.0 mm) IN DIAMETER.
3. THE ANCHOR SHALL BE A TACK WELDED TYPE BOLT OR HOOK TYPE BOLT. COLD BENDING OF THE HOOK BOLT WILL NOT BE ALLOWED.
4. THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
5. THE ENTIRE LENGTH OF THE ANCHOR BOLTS AS WELL AS THE NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM DESIGNATION A 153.
6. 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 3" (76.2 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
7. RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
8. CONCRETE SHALL BE CLASS "X". CONCRETE FOUNDATION MUST BE CURED FOR TEN (10) DAYS BEFORE THE LIGHT STANDARD IS ERECTED.
9. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.

BILL OF MATERIAL

MARK	NO.	SIZE	LENGTH	SHAPE
o	10	6	SEE BELOW	—
s	12	4	8'-0" (2.438 m)	□
s ₁	3	3	7'-6" (2.286 m)	□
v ₁	8	6	2'-9" (0.838 m)	—
v ₂				

OFFSET SCHEDULE

SEWER PILE DIAM. IN.	PILE OFFSET FROM MEDIAN FT.	LENGTH OF BAR FT.
UP TO 24"	3'-3"	*6 x 5'-3"
24" (609.6 mm) TO 30"	4'-0"	*6 x 6'-0"
30" (762.0 mm) TO 36"	4'-6"	*6 x 6'-6"
36" (914.4 mm) TO 42"	5'-0"	*6 x 7'-0"
42" (1066.8 mm) TO 48"	5'-6"	*6 x 7'-6"
48" (1219.2 mm) TO 54"	6'-0"	*6 x 8'-0"
54" (1371.6 mm) TO 60"	6'-6"	*6 x 8'-6"
60" (1524.0 mm) TO 66"	7'-0"	*6 x 9'-0"
66" (1676.4 mm) TO 72"	7'-6"	*6 x 9'-6"

REVISIONS	
NAME	DATE
S. MANLEY	12-2-93
A. SANEDRIN	12-26-94

ILLINOIS DEPARTMENT OF TRANSPORTATION
 OFFSET FOUNDATION FOR 47'-6" LIGHT STANDARD
 SCALE: NONE
 DATE 4/4/2008
 DRAWN BY JKM
 CHECKED BY

ILLINOIS DEPARTMENT OF TRANSPORTATION
 95TH STREET STREET LIGHTING PLAN LIGHTING DETAILS

REVISIONS	
NAME	DATE

SCALE: VERT. NA
 HORIZ. NA
 DATE 07/15/08
 DRAWN BY AG
 CHECKED BY PAP