STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROJECT LOCATION FND IMP BEGIN IMP STA 24+50

SITE LOCATION MAP

NTS PROJECT LENGTH = 1.740 FEET POSTED SPEED LIMIT: 25 MPH

ELECTRICAL ENGINEER



PROJECT DRAWINGS #E-1 TO #E-12 ARE PREPARED BY SUNJOY INC.

F.A.S. SECTION 2320 09-00012-00-LT COUNTY WILL

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

ORNAMENTAL STREET LIGHTING IMPROVEMENTS

FAS ROUTE 2320 ILLINOIS ROUTE 113 (MAIN STREET) SECTION 09-00012-00-LT **PROJECT ARA-9003(478)** JOB NO. C-91-045-10 CITY OF BRAIDWOOD **WILL COUNTY**

IES ROAD AND AREA CLASSIFICATION :COLLECTOR MEDIUM

TRAFFIC ADT=5,800 (NO TRUCKS), 2007

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD

FOR INDEX OF SHEETS, SEE SHEET NO.

5) PROPOSED LIGHTING STA. 7+10 TO STA. 17+00

6) PROPOSED LIGHTING STA. 17+00 TO STA. 25+00

2) SUMMARY OF QUANTITIES, GENERAL NOTES AND LEGEND 3) EXISTING LIGHTING TO BE MAINTAINED AND REMOVED,

8) ORNAMENTAL LIGHT POLE WITH CONTEMPORARY ARM AND

9) LIGHT POLE FOUNDATION, METAL 10"BOLT CIRCLE, 8" x 8 FT

LIST OF STANDARDS:

11) ELECTRIC SERVICE INSTALLATION, POLE TOP MOUNTED

4) EXISTING LIGHTING TO BE MAINTAINED AND REMOVED,

1) COVER SHEET

STA, 7+00 TO STA, 17+00

STA. 17+00 TO STA. 25+00

7) ONE LINE CIRCUIT DIAGRAM

PENDENT MOUNT LUMINAIRE

10) LIGHTING CONTROLLER, SPECIAL

701901-01 - TRAFFIC CONTROL DEVICES

701501-05-LIREAN LANE CLOSURE 2L, ZW. UNDIVIDED

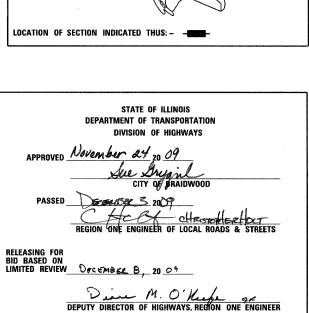
TRANSFORMER 12) ELECTRIC DETAILS

ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

FIELD

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

CONTRACT NO. 63433



PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REVISED 11-22-09

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE Y030-1E

			1030 15	
CODE NO	DESCRIPTION	UNIT	QUANTITY	
42400200	PORTLAND CEMENT CONCRETE SIDEWALK, 5"	SO.FT	825.00	
44000600	SIDEWALK REMOVAL	SO.FT	825,00	
67100100	MOBILIZATION	L. SUM	1,00	
70102620	TRAFFIC CONTROL AND PROTECTION-701501	L. SUM	1.00	
	The same of the sa			
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1.00	
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L. SUM	1.00	
81000700	CONDUIT TRENCH, 21/2" DIA GALVANIZED STEEL	FOOT	130.00	
81021370	CONDUIT PUSHED, 4" DIA PVC	FOOT	176.00	
81702460	ELECTRIC CABLE IN CONDUIT 600 V (XLP-TYPE USE) 3-1/C NO. 3/0	FOOT	155,00	
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	F00T	500,00	
82500505	LIGHTING CONTROLLER, SPECIAL	EACH	1.00	
84200806	REMOVAL OF POLE FOUNDATION, CONCRETE	EACH	2.00	
XX008282	LIGHT POLE FOUNDATION METAL 8" x 8 FT, 10" BOLT CIRCLE	EACH	37.00	
XX008283	3 POLYETHYLENE DUCT BORED AND PULLED, 11/4" DIA WITH ELECTRIC CABLE 600 V (XHHW-2), 5-1/C NO. 6 AND 1-1/CNO.6 GROUND		3,500.00	
xx008284	ORNAMETAL LIGHT POLE, ALUMINUM WITH CONTEMPORARY ARM	EACH	37.00	
XX008Z85	008285 LUMINAIRE, BELL SHAPE SHADE, METAL HALIDE, PENDENT MOUNT EACH			

* DENOTE SPECIALTY ITEMS

CAUTION

"THE CONTRACTOR SHALL VERIFY THAT THERE ARE NO CONFLICTS BETWEEN THE PROPOSED LIGHT POLE FOUNDATION LOCATIONS AND EXISTING UTILITIES, PROPOSED UTILITIES, EXISTING DRIVEWAYS, AND PROPOSED DRIVEWAYS. IF A CONFLICT IS FOUND, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER IN WRITING. IN THE EVENT OF A CONFLICT, THE CONTRACTOR SHALL OBTAIN WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY THE CONFLICT. FAILING TO SECURE SUCH INSTRUCTIONS, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE.

GENERAL NOTES

- AND MAINTAINED BY THE THE CITY OF BRAIDWOOD
 THE EXISTING LIGHTING SYSTEM WITH CONTROLLER IS OWNED
 AND MAINTAINED BY THE THE CITY OF BRAIDWOOD
 THE EXISTING LIGHTING SYSTEM SHALL REMAIN OPERATIONAL
 THROUGHOUT THE PROJECT AT ALL TIMES BETWEEN DUSK TO DAWN OR AS DIRECTED
 BY THE ENGINEER. NO LIGHTING CIRCUIT OR PORTION THEREOF SHALL BE REMOVED
 WITHOUT THE APPROVAL OF THE ENGINEER.
- 2. BEFORE PERFORMING ANY EXCAVATION, REMOVAL OR INSTALLATION WORK AT THE PROJECT SITE, THE CONTRACTOR SHALL NOTIFY THE FIELD ENGINEER CITY OF BRAIDWOOD AND REQUEST FOR PRECONSTRUCTION INSPECTION FOR THE MAINTAINED LIGHTING/ELECTRICAL EQUIPMENT, THE REQUEST FOR THE PRECONSTRUCTION INSPECTION SHALL BE MADE NOT LESS THAN SEVEN (7) CALENDER DAYS PRIOR TO THE DESIRED INSPECTION DATE.
- 3. THE CONTRACTOR SHALL CONDUCT WITH THE CITY OF BRAIDWOOD
 AN INVENTORY OF THE EXISTING LIGHTING/ELECTRICAL EQUIPMENTS,
 WHICH WILL BE AFFECTED BY THE IMPROVEMENT. THIS INVENTORY RECORD SHALL BE
 IN WRITING AND SIGNED BY ALL PARTIES. THE CONTRACTOR SHALL SUBMIT RECORD
- 4. AT THE CONTRACTOR'S REQUEST, THE CITY OF BRAIDWOOD SHALL MARK AND/OR STAKE (ONLY ONCE PER LOCATION, WITHIN PROJECT LIMITS, ALL UNDERGROUND CABLE ROUTES OWNED AND MAINTAINED BY THE CITY, SEVEN (7) DAYS ADVANCE NOTICE IS REQUIRED BY THE CITY OF BRAIDWOOD.
- 5. THE PROPOSED LIGHTING IMPROVEMENT SHALL BE COORDINATED WITH THE ENGINEER.
 THE CONTRACTOR SHALL GIVE IN WRITING TO THE ENGINEER FOR REVIEW, CONSTRUCTION
 STAGING FOR THE PROPOSED ROADWAY LIGHTING IMPROVEMENT AND THE CONTRACTOR
 SHALL OBTAIN WRITTEN APPROVAL FROM THE ENGINEER. THE CONTRACTOR SHALL MAINTAIN
 THE EXISTING LIGHTING SYSTEM AS DESCRIBED IN PAY ITEM— "MAINTANANCE OF LIGHTING SYSTEM"
- 6. BELOW GROUND SPLICING OF THE UNIT DUCT AND CIRCUIT CABLES WILL NOT BE PERMITED.
- 7. WHERE SEPARATE CIRCUIT RUNS ARE TO BE INSTALLED PARALLEL WITH EACH OTHER, ONE COMMON TRENCH SHALL BE USED AND SHALL BE MEASURED ONLY ONCE FOR PAYMENT, AS TRENCH AND BACKFILL FOR ELECTRICAL WORK.
- 8. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF LIGHTING SYSTEM PER SECTION 801.09 OF THE STANDARD SPECIFICATIONS FOR THE ENGINEER'S INSPECTION AND APPROVAL. THE EXACT LOCATIONS OF ALL OTHER ROADWAY LIGHTING ITEMS, INCLUDING THE THE LIGHTING CONTROLLER(S), SHALL BE CONFIRMED WITH THE ENGINEER PRIOR TO STANDING WORK
- 9. THE RESPONSIBILITY FOR COORDINATING FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATION HEIGHTS SHALL BE WITH THE
- 10. THE CONTRACTOR SHALL SUBMIT PER SECTION 801.05 OF THE STANDARD SPECIFICATIONS FOR THE ENGINEER APPROVAL, WITHIN 30 DAYS AFTER CONTRACT EXECUTION, EIGHT (8) COPIES OF APPROVABLE MANUFACTURER'S PRODUCT DATA AND DETAIL SHOP DRAWINGS
 - a. TRENCH: ELECTRICAL WARNING TAPE
- G. TRENCH: ELECTRICAL WARNING TAPE
 b. FOUNDATION:
 b1. OFFSET FOUNDATION: CLASS "SI" CONCRETE, REINFORCEMENT, PVC RACEWAYS.
 ANCHOR BOLTS WITH NUTS & WASHERS.
 b2. FOUNDATION METAL: FABRICATION, STUD BOLTS, NUTS AND WASHERS
 c. CONDUIT: CONDUIT AND CONDUIT FITTINGS.
 d. GROUND ROD: GROUND ROD, COPPER WIRE, EXOTHERMIC WELD.
 e. UNIT DUCT/CABLES: UNIT DUCT, CABLES
 f. ELECTRIC CABLES: LECTRIC CABLES
 g. LIGHT POLE/ARM: POLE DETAILS, SHOP DRAWING, & WIND
 LOAD CALCULATIONS, POLE WIRE
 h. LUMINAIRE: ROADWAY BALLAST ASSEMBLY, PHOTOMETRY FILE
 & LIGHTING LEVEL CALCULATIONS

- & LIGHTING LEVEL CALCULATIONS
 I. ELECTRICAL ITEMS: ELECTRIC TAPES, QUICK DISCONNECT WITH FUSE, LAMPS.
- 11. ALL ELECTRIC CABLE CIRCUIT SHALL BE FULLY PIGMENTED COLOR CODED AND TAGGED AS SHOWN ON THE DRAWINGS.

 RED/BLACK LIGHTING CIRCUIT (LINE TO LINE)

 WHITE YELLOW/BLUE FESTOON CIRCUIT (LINE TO NEUTRAL) GREEN-GROUND
- 12. THE CONTRACTOR SHALL SUBMIT FOUR (4) SETS, OF RECORD DRAWINGS FULL SIZE COMPLETE, NEAT AND ACCURATE TO THE ENGINEER FOR REVIEW AND COMMENT, AS SPECIFIED PER SECTION 801.16 OF THE STANDARD SPECIFICATIONS. THE "RECORD DRAWINGS" SHALL BE UPDATED ON A REGULAR BASIS AND DEPICT ALL ROADWAY LIGHTING MATERIAL INSTALLATIONS WITH ANY CHANGES INDICATED IN RED. "RECORD DRAWINGS" SHALL BE SUBMITTED AT LEAST 7 DAYS BEFORE SCHEDULING A FINAL INSPECTION.
- 13. THE CONTRACTOR SHALL NOTIFY J.U.L.I.E. AT (1-800-892-0123) TO LOCATE AND MARK/STAKE ALL UNDERGROUND UTILITIES.
- 14. THE LIGHT POLE SETBACK VARIES FROM THE BACK OF CURB TO THE FACE OF FOUNDATION.THE CONTRACTOR SHALL VERIFY IN FIELD WITH THE ENGINEER.
- 15. RESTORATION OF PARKWAY AND PROJECT SITE SHALL BE INCIDENTAL TO CONTRACT IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS, AND THE STANDARD SPECIFICATIONS.
- 16. THE CONTRACTOR SHALL COMPLY WITH ALL LATEST LOCAL CODES AND ORDINANCES.
- 17. THE PROPOSED TRENCH SHALL BE (30 INCH) BELOW FINISHED GRADE, PER SECTION 819 OF THE STANDARD SPECIFICATIONS.
- 18. ALL ELECTRICAL EQUIPMENT AND PRODUCT SHALL BE UL LISTED AND LABELED
- 19. POLE FUSES, FUSE HOLDERS AND ASSOCIATED HARDWARE/MATERIAL AND INSTALLATION SHALL BE INCLUDED IN THE LUMINAIRE PAY ITEM
- 20. THE ENGINEER WILL NOT AUTHORIZE PARTIAL ACCEPTANCE OF THE PROJECT.FINAL INSPECTION AND ACCEPTANCE OF THE PROJECT WILL ONLY BE PERMITTED PER SECTION 801.15 OF THE STANDARD SPECIFICATIONS.
- 21. THE ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT 847-705-4470, MINIMUM OF 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

REVISED 11-22-09

SECTION COUNTY TOTAL SHEE 2320 09-00012-00-LT WILL 12 2 CONTRACT NO. 63433

LEGEND

EXISTING LIGHTING UNIT TO BE REMOVED, AND SALVAGE, BY OTHERS. (WOOD POLE WITH MAST ARM AND LUMINAIRE) **○**___(R)

---A/C-E(R) -- EXISTING AERIAL CABLE TO BE REMOVED, BY OTHERS

EXISTING LIGHTING POLE, REMAIN IN PLACE MAINTAINED BY THE CITY OF BRAIDWOOD 47.5 MH, 12^{\prime} M.A. 310 W. HPS LAMP.

(W) R EXISTING WOOD POLE, TO BE REMOVED AND SALVAGE, BY OTHERS

(F) R LIGHTING FOUNDATION TO BE REMOVED

- EXISTING UTILITY SERVICE, POLE

ELECTRIC SERVICE CABLE IN CONDUIT 600 V (XLP-TYPE USE), 3-1/c NO. 3/0 21/2" DIA CONDUIT

LIGHTING CONTROLLER SPECIAL 200 AMPERE, 120/240 VOLT, 1 PHASE, 3 WIRE

GROUND ROD, 5/8" DIA. x 10 FT

PROPOSED ORNAMENTAL LIGHTING UNIT, ALUMINUM, 18 FT FLUTED POST WITH 16" DIA CAST ALUMINUM BASE, 10 DIA BOLT CIRCLE. POST TOP MOUNTED COMTEMPORARY ALUMINUM ARM 30", DUPLEX RECEPTACLE IN NEMA 3R HOUSEING AND PROVISION FOR ONE PAIR OF BANNER ARM POLE AND ARM AND PROVISION, FOR ONE PAIR OF BANNER ARM, POLE AND ARM
PAINTED IN BLACK, LUMINAIRE, PENDENT MOUNT BELL SHAPE SHADE
ALUMINUM HOUSING, FLAT TEMPERED GLASS LENS.
70 WATT CLEAR METAL HALIDE LAMP, MULTITAP BALLAST.
REACTOR TYPE (HIGH POWER FACTOR LAG) 240 VOLT (LINE TO LINE) LUMINAIRE PAINTED IN BLACK

FESTOON OUTLET DUPLEX 20 AMP, 120 VOLT, GFCI.

T-TRENCH, P-PUSHED - D-DIAMETER AND L-LENGTH

STATION FOR LIGHTING UNIT STA X+XX PHASE WIRE COLOR FESTOON OUTLET NUMBER IN CIRCUIT FESTOON CIRCUIT BREAKER IDENTIFICATION - POLE NUMBER IN CIRCUIT - BRANCH CIRCUIT BREAKER IDENTIFICATION

PROPOSED POLYETHYLENE DUCT BORED AND PULLED, 11/4" DIA WITH ELECTRIC CABLE, 600 V (XHHW-2), 5-1/C NO. 6 & 1-1/C NO. 6 GROUND FULLY PIGMENTED COLOR CODED CABLE B-BLACK LIGHTING CIRCUIT (LINE TO LINE)

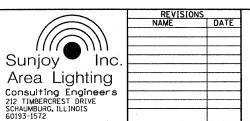
G-GREEN (GROUND) W-WHITE - (NEUTRAL)

Y-YELLOW FESTOON CIRCUIT (LINE TO NEUTRAL)



NOTE:

1. THE MATERIALS AND WORK FOR THIS PROJECT SHALL CONFORM TO THE LATEST N.E.C. AND APPLICABLE STANDARD SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS ADOPTED IN 2008 BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION.

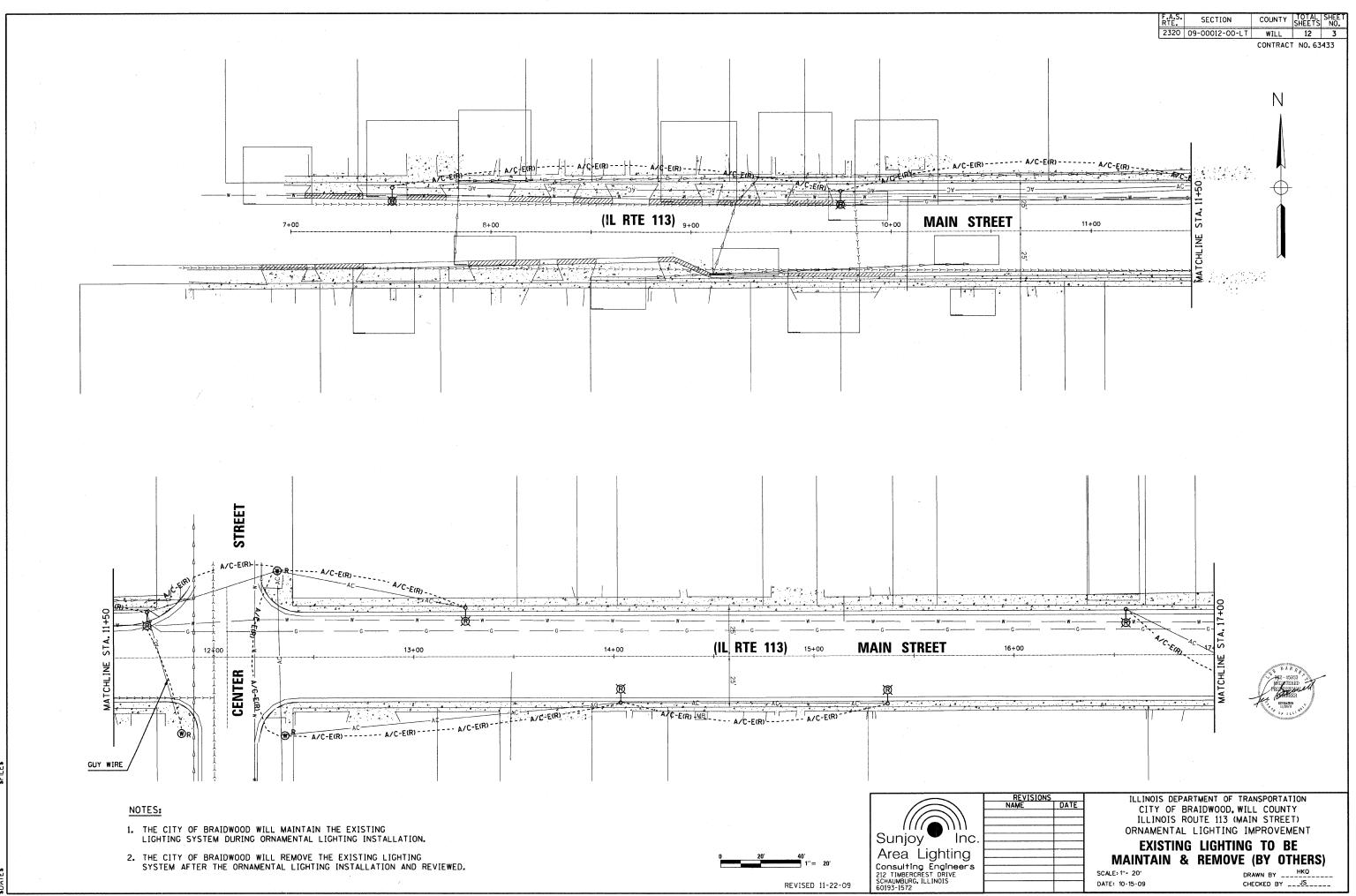


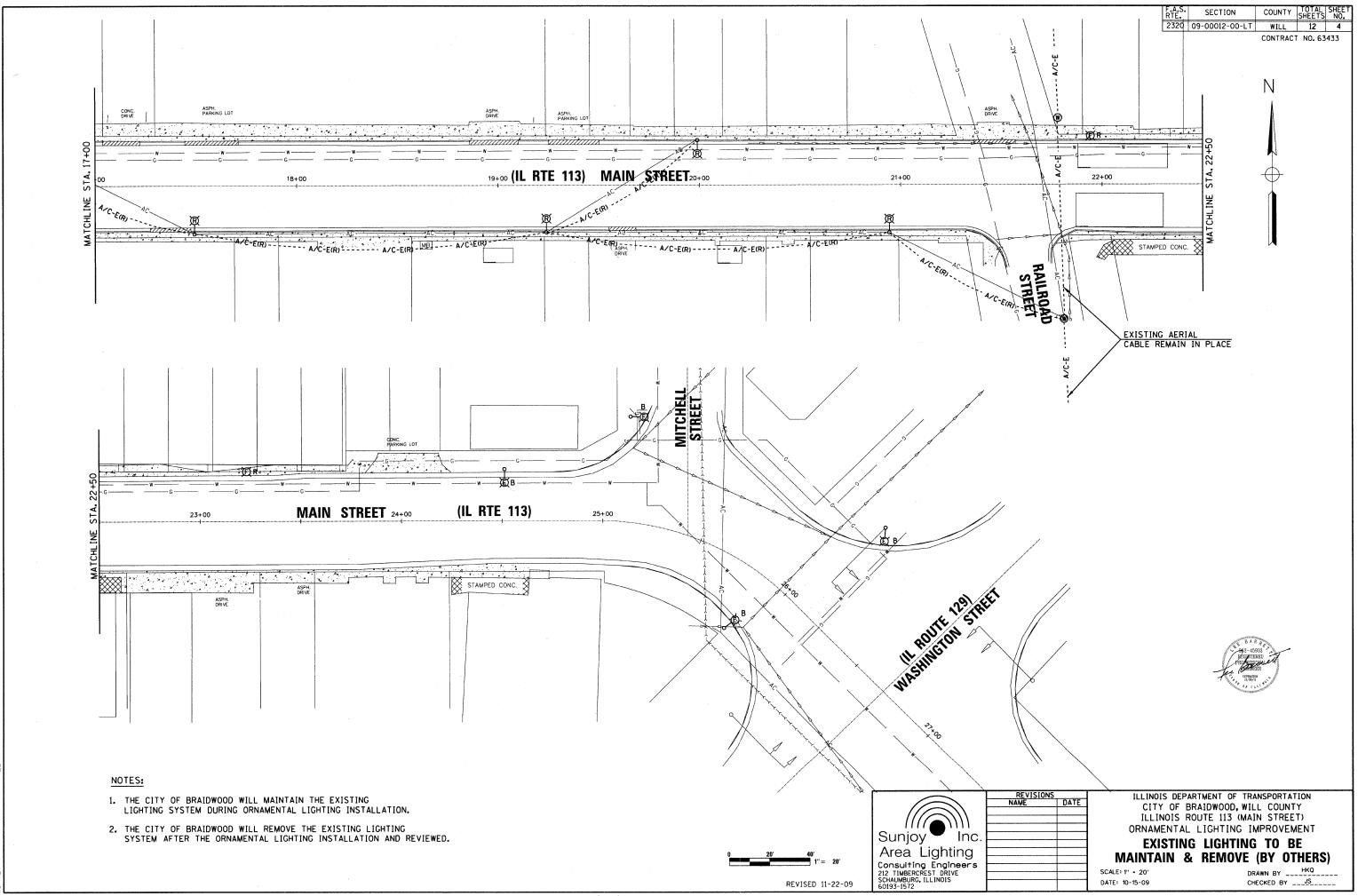
ILLINOIS DEPARTMENT OF TRANSPORTATION CITY OF BRAIDWOOD, WILL COUNTY ILLINOIS ROUTE 113 (MAIN STREET) ORNAMENTAL LIGHTING IMPROVEMENT

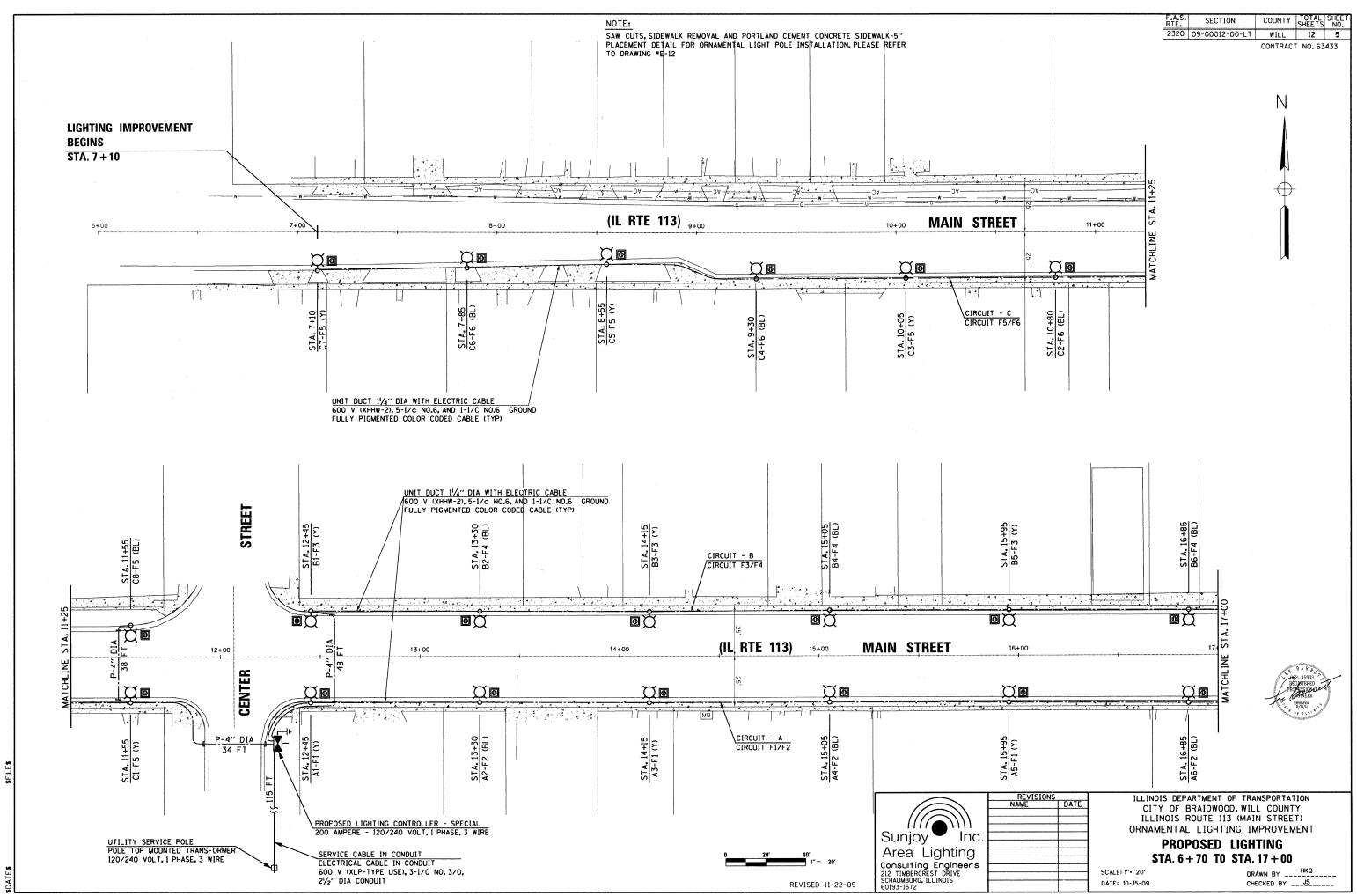
SUMMARY OF QUANTITIES. **GENRAL NOTES AND LEGEND**

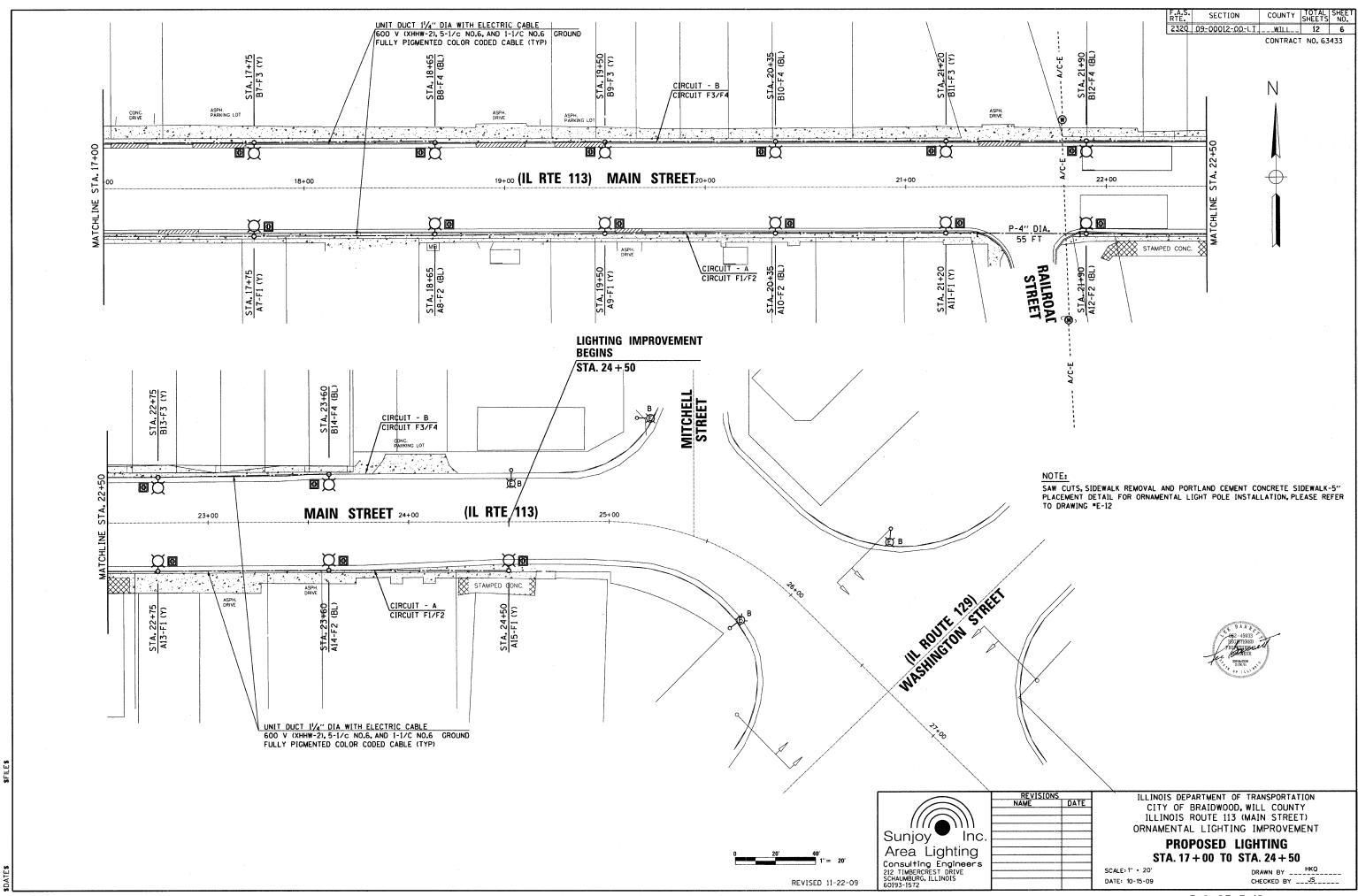
SCALE: DATE: 10-15-09

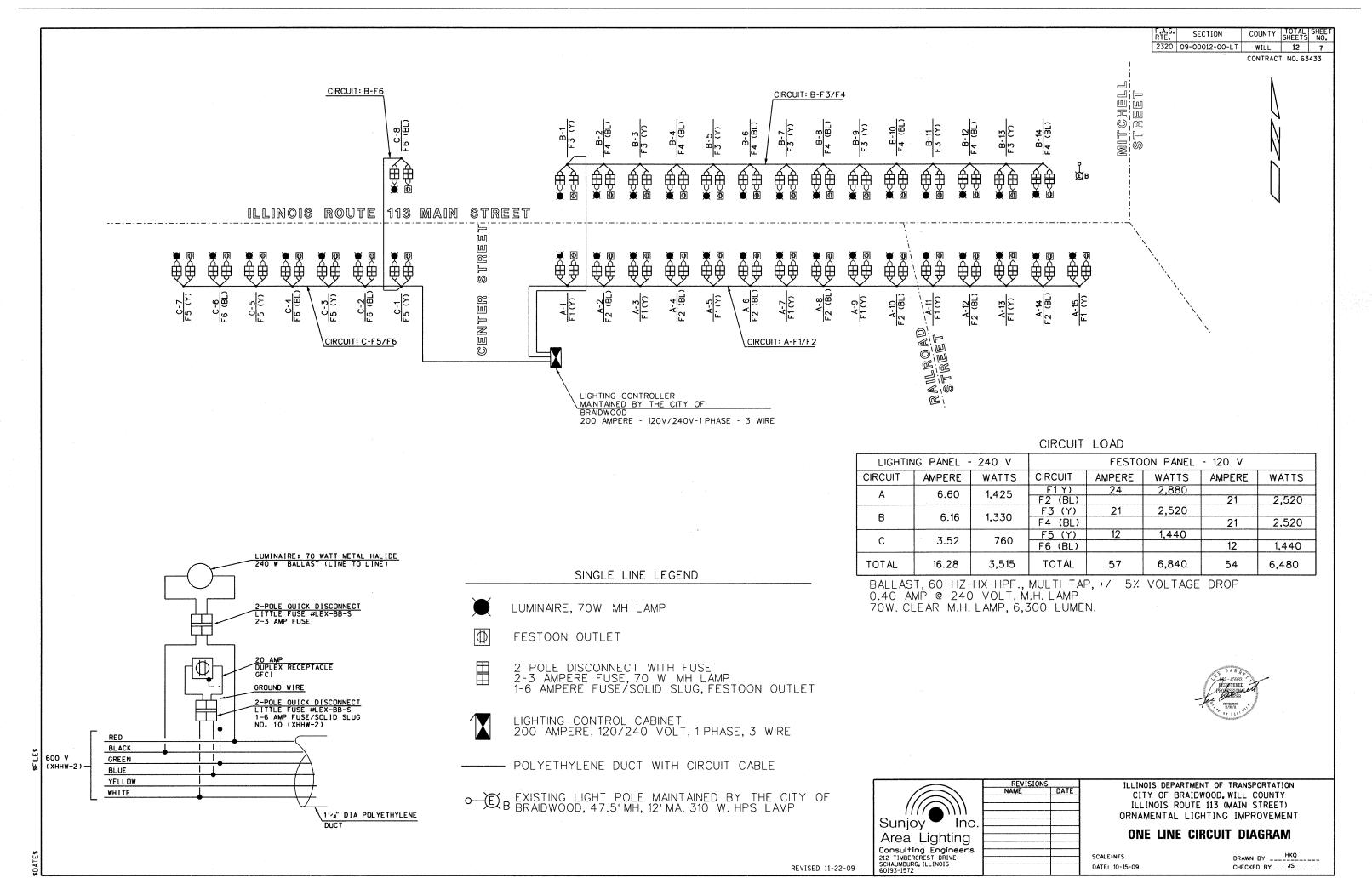
DRAWN BY ____HKQ CHECKED BY ___JS____











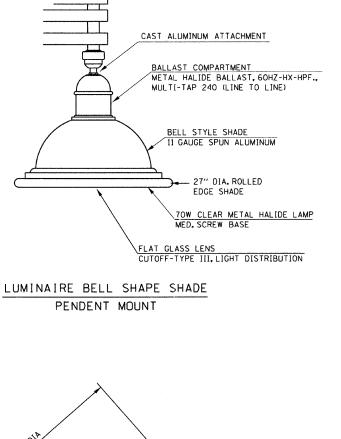
COUNTY TOTAL SHEE SECTION 2320 09-00012-00-LT WILL 12 8 CONTRACT NO. 63433

EDGE OF STEEL PLATE BACK OF CURB 11 İΤ 11 1 #A LUMINAIRE ARM BANNER ARMS GROUND LUG U.L. LISTED 11 1 ACCESS DOOR FESTOON OUTLET 11 1 11 1 - 4-3/4" DIA. ANCHOR BOLTS

POSITION OF ANCHOR BOLTS AND HANDHOLE

- THE LIGHTING UNIT SHALL COMPLY WITH THE ARTICLE 821-ROADWAY LUMINAIRE AND ARTICLE 830-LIGHT POLES OF THE STANDARD SPECIFICATIONS.
- 2. THE LIGHTING UNIT- THE POLE SHAFT WITH ARM AND LUMINAIRE SHALL BE PAINTED IN BLACK COLOR COAT.
- 3. ANDCHOR BOLT CIRCLE AND BOLT SLOTS IN POLE BASE PLATE, SHALL BE VARIFIED WITH POLE MANUFACTURE.
- 4. LUMINAIRES ARE TO BE INSTALLED AS SOON AS POSSIBLE AFTER POLE ERECTED PER MANUFACTURER RECOMMENDATIONS. THE POLE WILL NOT BE PAID FOR UNTIL THE LUMINAIRE IS INSTALLED.
- 5. THE LIGHT POLE SHALL MEET 90 MPH WIND SPEED AASHTO DESIGN CRITERIA. THE CONTRACTOR SHALL FURNISH WIND LOAD CALCULATIONS MEETING AASHTO DESIGN CRITERIA.
- 6. THE DUCT SHALL EXTEND INTO POLE A MINIMUM OF 304.8 mm (12") ABOVE THE BASE.
- 7. LIGHT POLE AND LUMINAIRE SHALL BE U.L.LISTED AND LABELED





NIGHTSKY ROOF OPTICS

BALLAST COMPARTMENT

27" DIA. ROLLED

- FLAT GLASS LENS

- 20 AMP DUPLEX GFI RECEPTACLE WITH IN USE COVER (NEC 406.8.B.2.a)

7/8" DIA x 20" LONG BANNER ARMS ON 48"

BANNER BY OTHERS

5" DIA. FLUTED POLE .188 WALL THICKNESS

6061-T6 STRUCTURAL

UNIT CONSTRUCTION

ACCESS DOOR

ORNAMENTAL LIGHT POLE, ALUMINUM

WITH CONTEMPORARY ARM

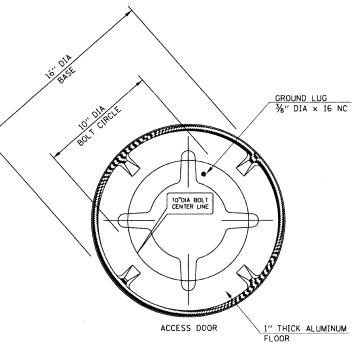
POLE AND ONE PIECE DECORATIVE BASE WELDED FOR SINGLE

16" DIA. BASE, 1.00 FLOOR THICKNESS 4 ANCHOR BOLTS AND ONE GROUND LUG

CENTERS

EDGE SHADE

TYPE 3



LIGHT POLE BASE DETAILS

Sunjoy Area Lighting Consulting Engineers 212 TIMBERCREST DRIVE SCHAUMBURG, ILLINOIS 60193-1572

ILLINOIS DEPARTMENT OF TRANSPORTATION CITY OF BRAIDWOOD, WILL COUNTY ILLINOIS ROUTE 113 (MAIN STREET) ORNAMENTAL LIGHTING IMPROVEMENT ORNAMENTAL LIGHT POLE WITH CONTEMPORARY ARM AND PENDENT MOUNT LUMINAIRE

DRAWN BY ___HKQ SCALE: NTS DATE: 10-15-09 CHECKED BY ___JS____

REVISED 11-22-09

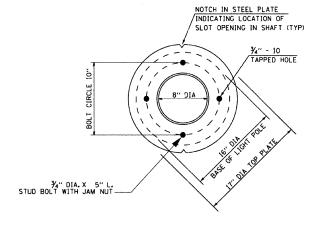
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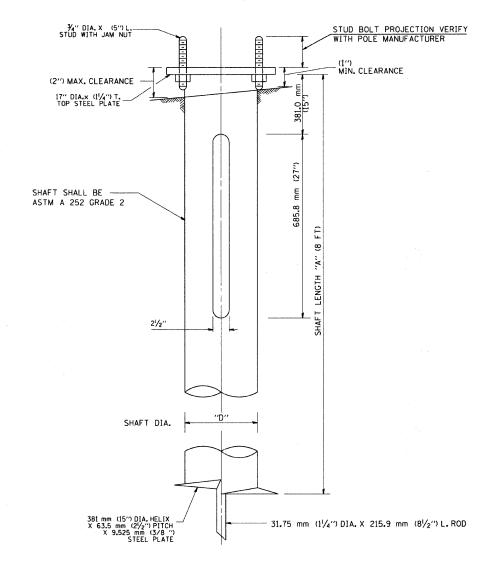
NOTES

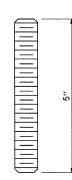
- THE HELIX FOUNDATION SHAFT BASE PLATES, HELICAL PLATE, HELIX SCREW, PILOT POINT, AND STOCK BAR SHALL BE ASTM A36 STRUCTURAL STEEL OR BETTER.
- 2. ALL WELDS SHALL BE CONTINUOUS AND NOT LESS THAN (1/4 ") FILLET WELDS. THE WELDED FOUNDATION SHALL BE CAPABLE OF WITHSTANDING (10,000 FT/LBS) OF INSTALLATION TORQUE APPLIED ABOUT THE AXIS OF THE FOUNDATION.
- 3. THE ENTIRE HELIX FOUNDATION SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123, GRADE B. NO TOUCH-UP WILL BE PERMITTED.
- 4. FLAT AND LOCK WASHERS SHALL BE OF STEEL. THE STUD BOLTS, NUTS, AND WASHERS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153. HEX NUTS SHALL BE IN CONFORMANCE WITH ASTM F436.
- 5. THE HELIX FOUNDATION SHAFT SHALL BE INSTALLED VERTICAL AND THE BASE PLATE SHALL BE IN LEVEL. THE HARDWARE SHALL NOT BE USED TO ALIGN THE POLE INSTALLATION.
- 6. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE INSTALLATION OF THE LIGHT POLE.
- 7. STUD BOLTS (THREADED STUD) SHALL BE ¾" DIAMETER AND SHALL COMPLY WITH THE REQUIREMENTS OF ASTM DESIGNATION A687 A F1554 GRADE 105
- 8. THE CONTRACTOR SHALL COORDINATE EXTENSION OF STUD BOLTS ABOVE TOP OF STEEL PLATE WITH THE LIGHT POLE MANUFACTURER'S REQUIREMENTS.
- 9. ANY VOIDS WITHIN THE METAL FOUNDATION SHALL BE FILLED WITH FINE AGGREGATE. THE FINE AGGREGATE SHALL COMPLY WITH THE STANDARD SPECIFICATIONS, ARTICLE 1003.04 (C). COST AND LABOR FOR FURNISHING AND FILLING VOID OF THE METAL FOUNDATION SHALL BE INCLUDED IN THE PAY ITEM "LIGHT POLE FOUNDATION, METAL".
- 10. WIRING SLOTS SHALL BE ORIENTED PARALLEL TO THE CONCRETE CURB.
- 11. METAL FOUNDATION THAT ARE NOT INSTALLED TO FULL INSTALLATION DEPTH OR DO NOT ACHIEVE THE MINIMUM INSTALLATION TORQUE SHALL BE REMOVED AND REPLACED WITH THE CONCRETE FOUNDATION WITHOUT ANY ADDITIONAL COST.
- 12. THE METAL FOUNDATION SHALL NOT BE INSTALLED TO A TOROUE WHICH EXCEEDS MANUFACTURER'S MAXIMUM TOROUE RATING NOR SHALL IT BE INSTALLED TO AN INSTALLATION TOROUE VALUE OF LESS THAN 3,500 FT LB, METAL FOUNDATIONS THAT ARE NOT INSTALLED TO FULL INSTALLATION DEPTH OR DO NOT ACHIEVE THE MINIMUM INSTALLATION TOROUE SHALL BE REMOVE AND REPLACED WITH A CONCRETE FOUNDATION AT NO ADDITIONAL COST.

HELIX FOUNDATION SIZE

POLE	BOLT CIRCLE "d"	SHAFT LENGTH "A"		SHAFT
MOUNTING HEIGHT		ON FLAT GROUND	ON 2:1 OR STEEP SLOPE	DIA. "D"
14.478 m (47-1/2 FT.)	381.0 m (15'')	3.048 m (10'-0'')	3.048 m (10'-0'')	254.0 mm (10")





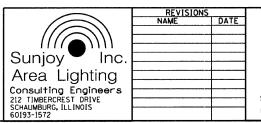


3√" DIA.10UNC
THREADED STUD BOLT
(LIGHT POLE FOUNDATION)



LIGHT POLE FOUNDATION METAL, DETAILS

DETAILS FROM J.H. BOTTS 815-726-5885



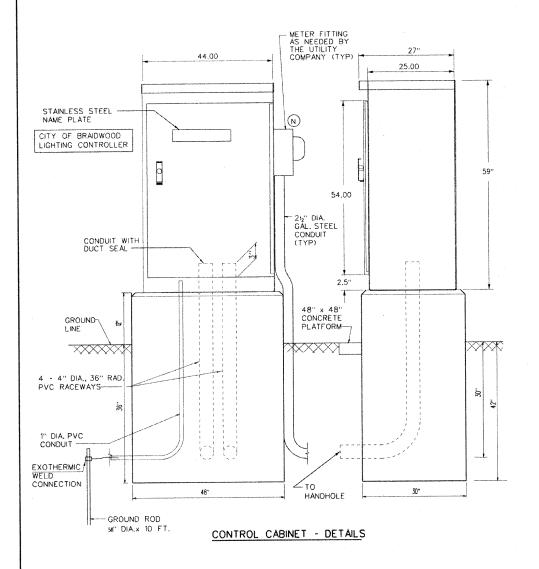
ILLINOIS DEPARTMENT OF TRANSPORTATION
CITY OF BRAIDWOOD, WILL COUNTY
ILLINOIS ROUTE 113 (MAIN STREET)
ORNAMENTAL LIGHTING IMPROVEMENT

LIGHT POLE FOUNDATION, METAL 10" BOLT CIRCLE, 8" x 8 FT

SCALE: NONE DATE: 10-15-09 DRAWN BY ____HKQ CHECKED BY __JS_____

REVISED 11-22-09

CONTRACT NO. 63433



120/240V 1× 3 WIRE 200 A - 120/240V, 1 PHASE, 3W ELECTRIC CABLE IN CONDUIT 600V I XLP- TYPE USE 13-1/C NO. 3/0 2 1/2" DIA. CONDUIT \bigcirc 0 #2/0 AWG (A) #2/0 AWG HAND OFF AUTO M (M) 8 28 8 -(R)-**B** 00 00-4 L O-YELLOW RED BL ACK F1 -6 0 30A 30A 60-F3 NEUTRAL BUS 30A 6 0-F4 -6 30A F2 -6 0 30A (6) (G) F5 6 0 30A 30A 60-F7 CROUND BUS -612-GROUND BUS -610-F6 -6 0 30A 30A 60-F8 -6 0 AOE -6 30A SPARE -0 30A 30A O SPARE -60-30A 60 SPARE 30A SPARE - 30A 30A 60 SPARE LIGHTING CIRCUITS FESTOON CIRCUITS GROUND CONDUCTOR *2 PANEL BOARD

DEVICE SCHEDULE ITEM OTY CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 2-POLE, 600V. A.C. 225A FRAME, 200A. NON-INTERCHANGABLE TRIP. BOLT-ON TYPE: INTERUPTING CAPACITY OF NOT LESS THEN 65,000 RMS SYMMETRICAL AMPERES 41, 240V. AT 240V. LIGHTING CONTACTOR (REMOTE CONTROL SWITCH) MECHANICALLY HELD. S.O. PB MOUNTED ON SUB PANEL 100A, 2P, 600V. WITH 120V. COIL. CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 1-POLE, 15A, 277V. BOLT-ON TYPE WITH AN INTERUPTING RATING OF NOT LESS THAN 14,000 RMS SYMMETRICAL AMPERES AT 277V SURGE ARRESTOR, FOR 240/120V, 3 WIRE SERVICE PHOTOCELL, 120 V, 1 PHASE TIMECLOCK, 120V, 60 HZ, MICROPROCESSOR BASED 2-CHANNEL CONTROLLER WITH ASTRONOMIC FUNCTIONS, RATED FOR -30% C. GROUND/NEUTRAL BUS, COPPER, 22 CONNECTORS, (MIN.) CIRCUIT BREAKER, MOLDED CASE, THERMAL MAGNETIC, 2-POLE, 30A, 277V. BOLT-ON TYPE WITH AN INTERUPTING RATING OF NOT LESS THAN 14,000 RMS SYMMETRICAL AMPERES AT 277V CIRCUIT BREAKER, MOLDED CASE, THERMAL

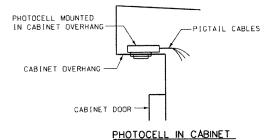
12 MAGNETIC, 1-POLE, 30A, 277V. BOLT-ON
TYPE WITH AN INTERUPTING RATING OF NOT
LESS THAN 14,000 RMS SYMMETRICAL
AMDED SEA AT 37 AMPERES AT 277V GFIRECEPTACLE, 120V. 20A. PREMIUM SPEC. GRADE. NEMA REFERENCE 5-15R IN WEATHER PROOF BOX WITH FLAP-TYPE COVER. (NEC 406.8B.2.0) MICRO SWITCH (MOUNTED WITH ACTUATOR TO SWITCH WHEN DOOR OPENED) 120 V LIGHT FIXTURE, VAPORTIGHT, WITH GLOBE AND GUARD AND MOUNTING BOX. L 2 RELAY, 120V - COIL W 2 MANUAL-OFF-AUTO 3 POSITION SWITCH METER FITTING, 200A 0 I SPLICE BLOCK

PHOTOCELL MOUNTED IN CABINET OVERHANG

- 1. THE CABINET SHALL BE FABRICATED FROM 0.125" THICK ALUMINUM ALLOY SHEET AND SHALL BE REINFORCED WITH ALUMINUM ANGLES. THE CABINET DOOR SHALL BE NEMA TYPE 3R CONSTRUCTION WITH NEOPRENE GASKET. THE DOOR SHALL HAVE STAINLESS STEEL HINGES AND THREE POINT LOCKING SYSTEM.
- 2. THE CONTRACTOR SHALL REMOVE VEGITATION AND TOPSOIL. LEVEL THE AREA IN FRONT OF THE CONTROL CABINET DOOR AND PLACE LENGTH WISE, PARALLEL TO CONTROL CABINET, A PRECAST PAD, 48"x48"x4" MINIMUM SIZE. THE COST OF LABOR AND MATERIALS SHALL BE INCIDENTAL TO THE CONTROL CABINET.
- 3. CONTROL WIRE SHALL BE #12 AWG, 600V, TYPE "MTW" STRANDED COPPER GRAY SWITCH BOARD WIRE, THE ENDS OF ALL CONTROL WIRES SHALL BE IDENTIFIED.
- 4. THE ELECTRIC METER BOX SHALL BE MOUNTED ON THE SIDE OF THE CONTROL CABINET, NEAR TO THE SERVICE POLE AND/OR AS DIRECTED BY THE ENGINEER.
- 5. ALL CONTROL CABINET ITEMS SHALL HAVE SUITABLE IDENTIFICATION. OPEN CIRCUIT BREAKERS, CONTACTORS AND OTHER OPEN DEVICES SHALL HAVE PERMANENT SELF STICKING TAGS. DEVICES IN ENCLOSURES SHALL HAVE ENGRAVED 2-COLOR LAMINATED PLASTIC NAMEPLATES
 ATTACHED TO ENCLOSURES WITH SCREWS. NAMEPLATES
 SHALL BE ENGRAVED TO CORRESPOND TO DESIGNATIONS
 ON THE DRAWINGS. INTERNAL CABINET WIRING SHALL BE IDENTIFIED AS INDICATED OR AS DIRECTED BY THE ENGINEER BY MEANS OF SELF-STICKING TAGS APPLIED AT EACH CONNECTED END. IDENTIFICATION SHALL BE MADE BY THE CABINET MANUFACTURER.
- 6. ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
- R = RED BL = BLUE W = WHITE B = BLACK Y = YELLOW G = GREEN

- 7. PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
- 8. THE CABINET SHALL BE PRIMED AND PAINTED AS SPECIFIED. THE OUTSIDE SURFACE OF THE CONTROL CABINET SHALL HAVE A BLACK COLOR FINISH.
- 9 THE HEADS OF CONNECTOR SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BUSS CONNECTION AND GREEN FOR GROUND
- 10.ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
- 11. THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL
- 12.PROVIDE A HOLDER AND WATERPROOF POUCH ON THE INNER SIDE OF THE CONTROLLER DOOR. THE HOLDER AND POUCH SHALL BE MOUNTED SO THAT RAIN WATER OR CONDENSED WATER CANNOT ENTER THE POUCH WITH THE CABINET DOOR OPEN. FURNISH A LAMINATED THE APPROVED COPY OF THE "CONTROL CABINET WIRING DIAGRAM".
- 13.THE CONTRACTOR SHALL OBTAIN ANCHOR BOLTS LOCATION TEMPLATE FROM THE FABRICATOR OF LIGHTING CONTROLLER
- 14. THE CONTROLLER FABRICATION SHALL COMPLY TO ARTICLE 1068.01 OF THE STANDARD SPECIFICATIONS
- 15. THE CONTROLLER CABINET DOOR SHOULD OPEN AWAY FROM
- 16.THE SERVICE EQUIPMENT SHALL HAVE U.L. LABEL AND SHALL BE MARKED TO IDENTIFY IT AS BEING SUITABLE FOR USE AS SERVICE EQUIPMENT (NEC ARTICLE 230.66)

ONE LINE CIRCUIT DIAGRAM 200 AMPERE- 120/240 VOLT, SINGLE PHASE, 3 WIRE

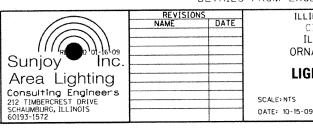


OVERHANG DETAIL NOT TO SCALE

REVISED 11-22-09



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ILLINOIS DEPARTMENT OF TRANSPORTATION CITY OF BRAIDWOOD, WILL COUNTY ILLINOIS ROUTE 113 (MAIN STREET) ORNAMENTAL LIGHTING IMPROVEMENT

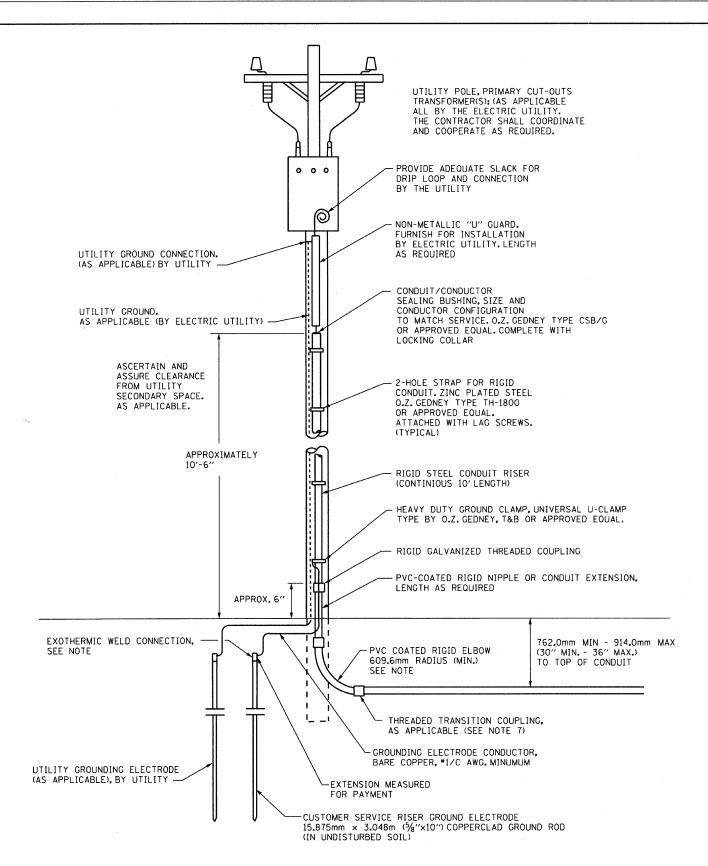
LIGHTING CONTROLLER, SPECIAL

DRAWN BY ____HKQ

E-10 OF E-12

CHECKED BY ___JS____



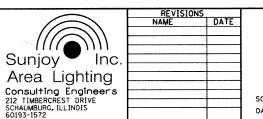


PROPOSED SERVICE INSTALLATION POLE TOP MOUNTED TRANSFORMER

NOTES:

- 1. SERVICE VOLTAGE SHALL BE AS INDICATED ELSEWHERE IN THE DRAWINGS.
- 2. UNLESS OTHERWISE INDICATED. ITEMS AND WORK SHALL BE INCLUDED AND PAID AS PART OF ELECTRIC UTILITY SERVICE INSTALLATION.
- CONDUIT AND CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF SERVICE CONDUCTOR RACEWAY AS INDICATED.
- 4. PVC COATED RACEWAY AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MFR 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.
- 5. THE CONTRACTOR SHALL OBTAIN INSPECTION AND APPROVAL BY THE ENGINEER OF SERVICE RISER GROUND ELECTRODE. RISER ELBOW. NIPPLE AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING BEFORE UTILITY 732 " U" 932 GUARD INSTALLATION AND SERVICE CONNECTION.
- 6. 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.
- 7. THE SERVICE CONDUCTOR RACEWAY SHALL BE AS INDICATED AND SHALL BE MEASURED SEPARATELY FOR PAYMENT. WHEN THE RACEWAY IS PVC-COATED RIGID GALVANIZED STEEL. THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT (IN 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.
- 8. 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. FURNISHING ALL ITEMS AND WORK NOT PROVIDED BY THIS UTILITY. BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION.

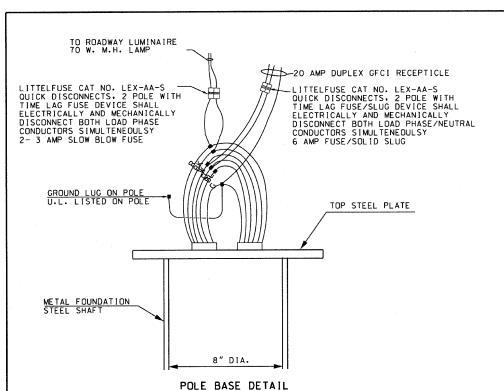


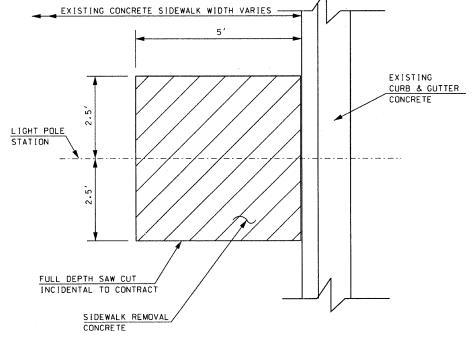


ILLINOIS DEPARTMENT OF TRANSPORTATION
CITY OF BRAIDWOOD, WILL COUNTY
ILLINOIS ROUTE 113 (MAIN STREET)
ORNAMENTAL LIGHTING IMPROVEMENT

ELECTRIC SERVICE INSTALLATION POLE TOP MOUNTED TRANSFORMER

SCALE: NONE DATE: 10-15-09 DRAWN BY ____HKQ CHECKED BY __JS____





ING & GUTTER ETE

COMPACTED GRANULAR (CA-6)
BACKFILL IN AREAS UNDER PAVEMENT
COMPACTED SELECTED BACKFILL
UNDER TURF AREAS.

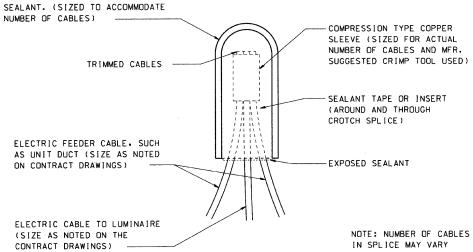
6" WARNING TAPE

SAND BACKFILL (ONLY WHEN CONDUIT OR
UNIT DUCT IS PLACED IN TRENCH)

CONDUIT OR UNIT DUCT

6" to 12"
TRENCH AND BACKFILL

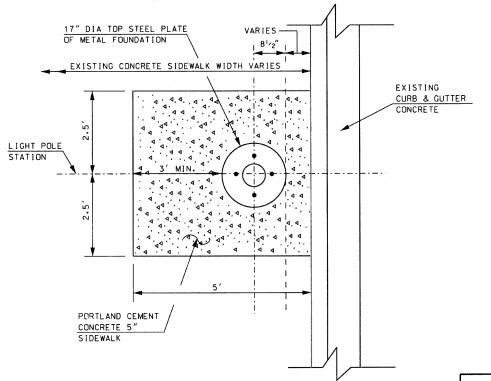
HEAT-SHRINKABLE CAP WITH FACTORY APPLIED WATERPROOF



SPLICING ELECTRIC CABLE

SAW CUT SIDEWALK REMOVAL DETAILS
SAW CUT AND SIDEWALK REMOVAL AT THE FOLLOWING STATIONS

PLAN SHEET #E-5	9+30 (RT), 10+05 (RT), 10+80 (RT), 11+55 (RT), 12+45 (LT & RT), 13+30 (LT & RT), 14+15 (LT & RT), 15+05 (LT & RT), 15+95 (LT & RT), 16+85 (LT & RT)
PLAN SHEET #E-6	17+75 (LT & RT). 18+65 (LT & RT). 19+50 (LT & RT). 20+35 (LT & RT). 21+20 (LT & RT). 21+90 (LT & RT). 22+75 (LT & RT). 23+60 (LT & RT). 24+50 (RT)



METAL FOUNDATION LOCATION
AND PORTLAND CEMENT CONCRETE
SIDEWALK DETAILS

REVISED 11-22-09



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ILLINOIS DEPARTMENT OF TRANSPORTATION
CITY OF BRAIDWOOD, WILL COUNTY
ILLINOIS ROUTE 113 (MAIN STREET)
ORNAMENTAL LIGHTING IMPROVEMENT

ELECTRICAL DETAILS

SCALE: NTS DATE: 10-15-09 DRAWN BY HKQ
CHECKED BY JS

COUNTY TOTAL SHEET NO.

WILL 12 12

F.A.S. SECTION 2320 09-00012-00-LT