

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

F.A.U. ROUTE: 1583
115TH STREET
CENTRAL AVENUE TO CICERO AVENUE
STREET LIGHTING
PROJECT NO.: M-8003(540)
JOB NO.: C-91-055-06
M.F.T. SECTION NO.: 02-00080-00-LT
VILLAGE OF ALSIP
COOK COUNTY

F.A.U. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1583	02-00080-00-LT	COOK	10	1

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT M-8003(540)

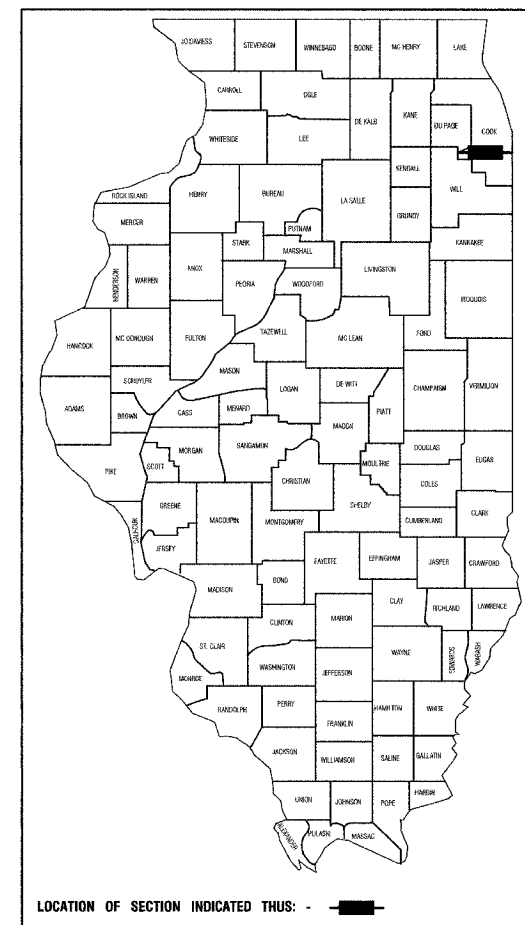
CONTRACT #83924

INDEX OF SHEETS

1. COVER SHEET
2. SUMMARY OF QUANTITIES AND GENERAL NOTES
- 3.-5. PLAN SHEETS
6. SINGLE LINE DIAGRAMS
- 7.-10. DETAIL SHEETS

STATE STANDARDS

000001-04	STANDARD SYMBOLS, ABBREVIATIONS & PATTERNS
701501-03	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701606-04	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIANS
701701-04	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-03	LANE CLOSURE, MULTILANE, 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
702001-06	TRAFFIC CONTROL DEVICES



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED: 5/14/07
Patrick E. Hutchinson MAYOR, VILLAGE OF ALSIP

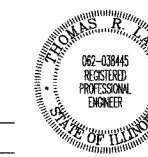
PASSED: MAY 16 2007
CH REGION ONE ENGINEER OF LOCAL ROADS & STREETS

RELEASED FOR BID BASED ON LIMITED REVIEW: MAY 17 2007
Thomas R. Lang DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

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THE STATE OF ILLINOIS

PREPARED BY OR UNDER THE
DIRECT SUPERVISION OF:

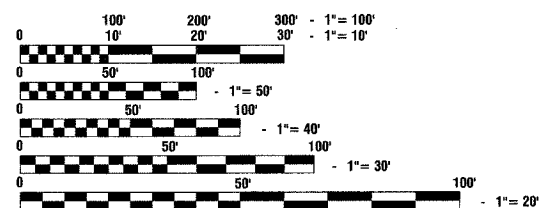
Thomas R. Lang
5/15/07



LICENSE EXPIRES: 11/30/07

SCALES

- PLAN - 1"=50'
- PROFILE HORIZ. - 1"=50'
- PROFILE VERT. - 1"=5'
- CROSS SECTIONS - 1"=10'

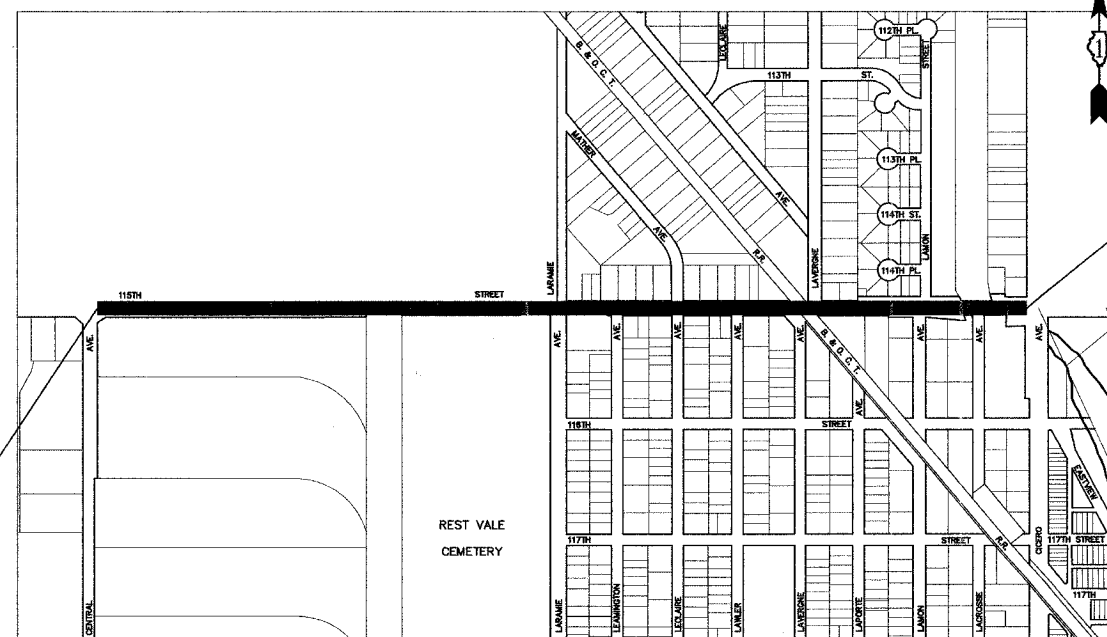


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

CONTRACT NO. 83924

115TH STREET BEGINS
STA 106+55.00



115TH STREET ENDS
STA 149+07.00

LOCATION MAP

GROSS LENGTH=4,252.00 FEET=0.805 MILES
NET LENGTH=4,252.00 FEET=0.805 MILES

F.A.U. SHEET NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1583	02-00080-00-LT	COOK	10	2
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-	8003(540)	

CONTRACT #83924

CONSTRUCTION TYPE CODE: Y030-1E

SUMMARY OF QUANTITIES

S.I.	CODE NO.	PAY ITEM	UNIT	QUAN
*	XX005323	FURNISHING AND PLACING TOPSOIL, 4"	SQ YD	665
	21300010	EXPLORATION TRENCH, SPECIAL	FOOT	200
*	25200110	SODDING, SALT TOLERANT (SPECIAL)	SQ YD	665
*	25200200	SUPPLEMENTAL WATERING	UNIT	100
*	44004610	SIDEWALK REMOVAL AND REPLACEMENT (SPECIAL)	SQ FT	50
	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	2
	80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
	XX005978	GROUND ROD SYSTEM INSTALLATION	EACH	41
	81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	50
	81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	505
	81018700	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT	880
	81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	820
	81603090	UNIT DUCT, WITH 3-1/C NO. 4 AND 1/C NO. 6 GROUND, 600V (XLP-TYPE USE), 1 1/4" POLYETHYLENE	FOOT	9215
	81702440	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE), 3-1/C NO. 1/0	FOOT	120
	82102250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT	EACH	34
	82102310	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 310 WATT	EACH	5
	83002300	LIGHT POLE, ALUMINUM, 40 FT. M.H., 8 FT. DAVIT ARM	EACH	34
	83002500	LIGHT POLE, ALUMINUM, 40 FT. M.H., 12 FT. DAVIT ARM	EACH	4
	83002600	LIGHT POLE, ALUMINUM, 40 FT. M.H., 15 FT. DAVIT ARM	EACH	1
	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	272
	83600215	LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET	FOOT	67.5
	83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15" BOLT CIRCLE	EACH	39
	82500520	LIGHTING CONTROLLER, TYPE CB-RCS 60 AMP-480 VOLT	EACH	2
	XX001399	UNIT DUCT, BORED AND PULLED	FOOT	8745
	Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1

* - INDICATES SPECIALTY ITEMS

GENERAL NOTES :

1. ALL WORK TO CONFORM TO THE NATIONAL ELECTRICAL CODE AND ANY APPLICABLE LOCAL CODES.
2. CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES BEFORE TRENCHING OR AUGERING.
3. BEFORE INSTALLING STANDARDS NEAR OVERHEAD FACILITIES CALL CE Co. FOR APPROVAL OF LOCATION.
4. FOR LOCATION OF EXISTING UNDERGROUND ELECTRICAL CABLE CALL CE Co.
5. ALL CONDUIT TO BE 2" DIAMETER UNLESS OTHERWISE SPECIFIED.
6. ANY TREE TRIMMING REQUIRED AS DIRECTED BY THE ENGINEER SHALL BE PERFORMED BY THE CONTRACTOR, AND THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
7. 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.
8. A PERMIT FOR THIS PROJECT WILL BE REQUIRED FROM THE COOK COUNTY HIGHWAY DEPARTMENT. THE PERMIT HAS BEEN APPLIED FOR BUT THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING THIS PERMIT, PERMIT BOND AND ANY OTHER ASSOCIATED FEES BEFORE CONSTRUCTION BEGINS.

MFT SECTION NO. 02-00080-00-LT

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. ROUTE 1583
115TH STREET
STREET LIGHTING
SUMMARY OF QUANTITIES & GENERAL NOTES

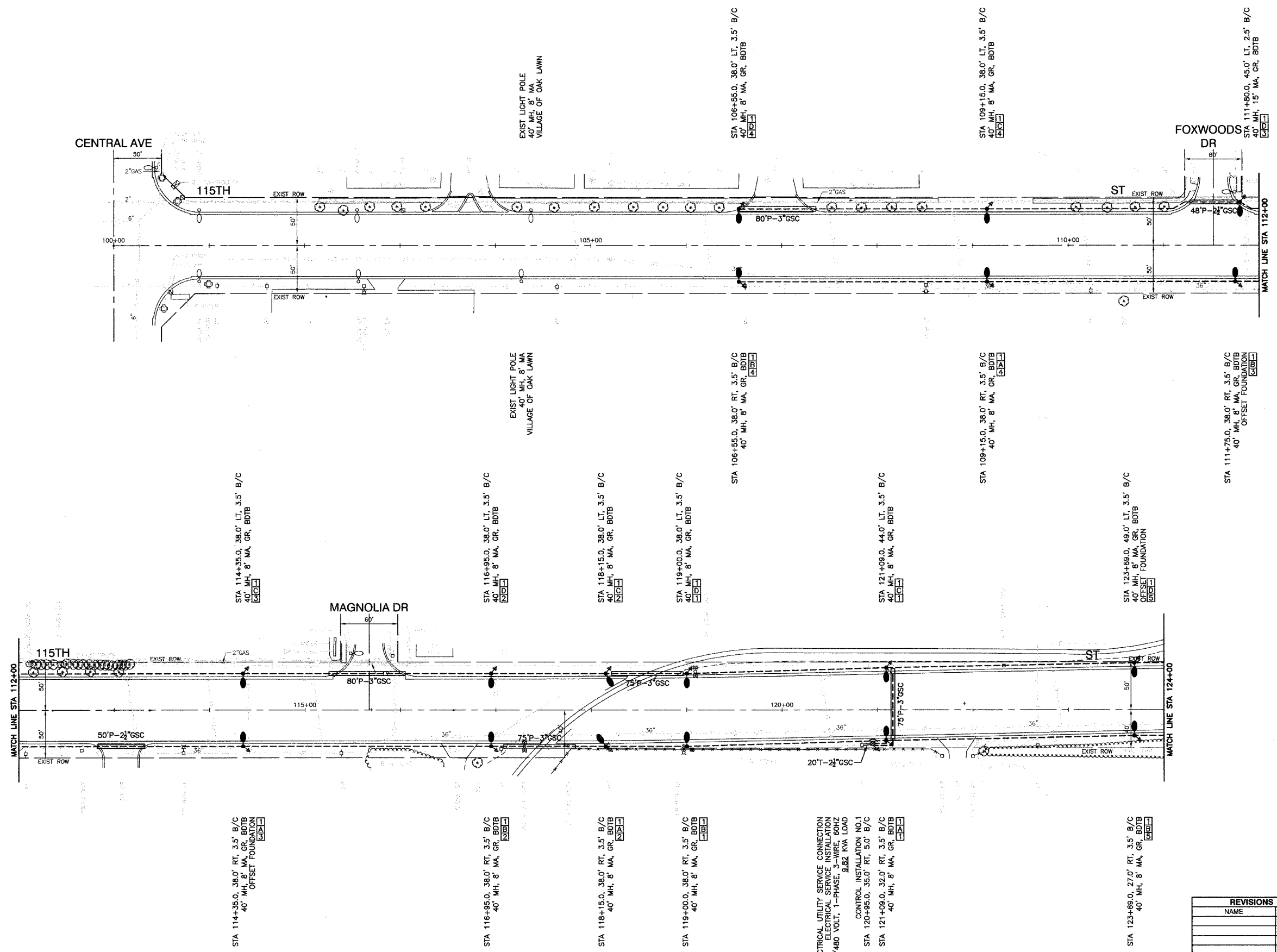
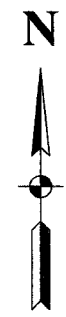
REVISIONS	
NAME	DATE
ROBINSON ENGINEERING	5-15-07

VERT. NONE
SCALE: HORIZ. NONE
DATE: 3-15-07
DRAWN BY: RG
CHECKED BY: PAP

ROBINSON ENGINEERING, LTD.
17000 SOUTH PARK AVENUE SOUTH HOLLAND, ILLINOIS 60471
(708) 381-8700 FAX (708) 381-8826
ILLINOIS DESIGN FIRM REGISTRATION NO. 06001109 02158_02-QUAN-01

FAU. R/E	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1583	02-00080-00-LT	COOK	10	3
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-8003(540)		

CONTRACT #83924



LEGEND :

- ○ EXISTING STREET LIGHT
- ○ PROPOSED STREET LIGHT-310W HPS, 40' MOUNTING HEIGHT
- ○ PROPOSED STREET LIGHT-250W HPS, 40' MOUNTING HEIGHT
- ⊠ CONTROLLER
- P — CONDUIT,PUSHED,GALVANIZED STEEL
- T — CONDUIT,TRENCHED,GALVANIZED STEEL
- UNIT DUCT,W/3-1/C,NO.4 AND 1/C NO.6 GROUND, 600V (EPR TYPE RHW) 1-1/4" DIAMETER POLYETHYLENE, BORED & PULLED
- Ⓐ CIRCUIT
- ELECTRIC CABLE IN CONDUIT, 600V (EPR TYPE USE) 3-1/C NO.1/0
- GR GROUND ROD
- ▨ SIDEWALK REMOVAL & REPLACEMENT
- ▨ BITUMINOUS PARKWAY REMOVAL AND REPLACEMENT
- BDTB BREAKAWAY DEVICES, TRANSFORMER BASE
- COMED POWER POLE FOR SERVICE CONNECTION

REVISIONS	
NAME	DATE

MFT SECTION NO. 02-00080-00-LT

ILLINOIS DEPARTMENT OF TRANSPORTATION
**F.A.U. ROUTE 1583
 115TH STREET
 STREET LIGHTING
 PLAN SHEETS**

SCALE: VERT. NONE
 HORIZ. 1"=50'
 DATE 3-15-07
 DRAWN BY RG
 CHECKED BY PAP

ELECTRICAL UTILITY SERVICE CONNECTION
 ELECTRICAL SERVICE INSTALLATION
 240/480 VOLT, 1-PHASE, W/3-1/C, 60HZ
 3.32 KVA LOAD
 CONTROL INSTALLATION NO.1
 STA 120+95.0, 35.0' RT, 3.5' B/C
 STA 121+09.0, 32.0' RT, 3.5' B/C
 40' MH, 8' MA, GR, BDTB

STA 114+35.0, 38.0' RT, 3.5' B/C
 40' MH, 8' MA, GR, BDTB
 OFFSET FOUNDATION

STA 116+95.0, 38.0' RT, 3.5' B/C
 40' MH, 8' MA, GR, BDTB

STA 118+15.0, 38.0' RT, 3.5' B/C
 40' MH, 8' MA, GR, BDTB

STA 119+00.0, 38.0' RT, 3.5' B/C
 40' MH, 8' MA, GR, BDTB

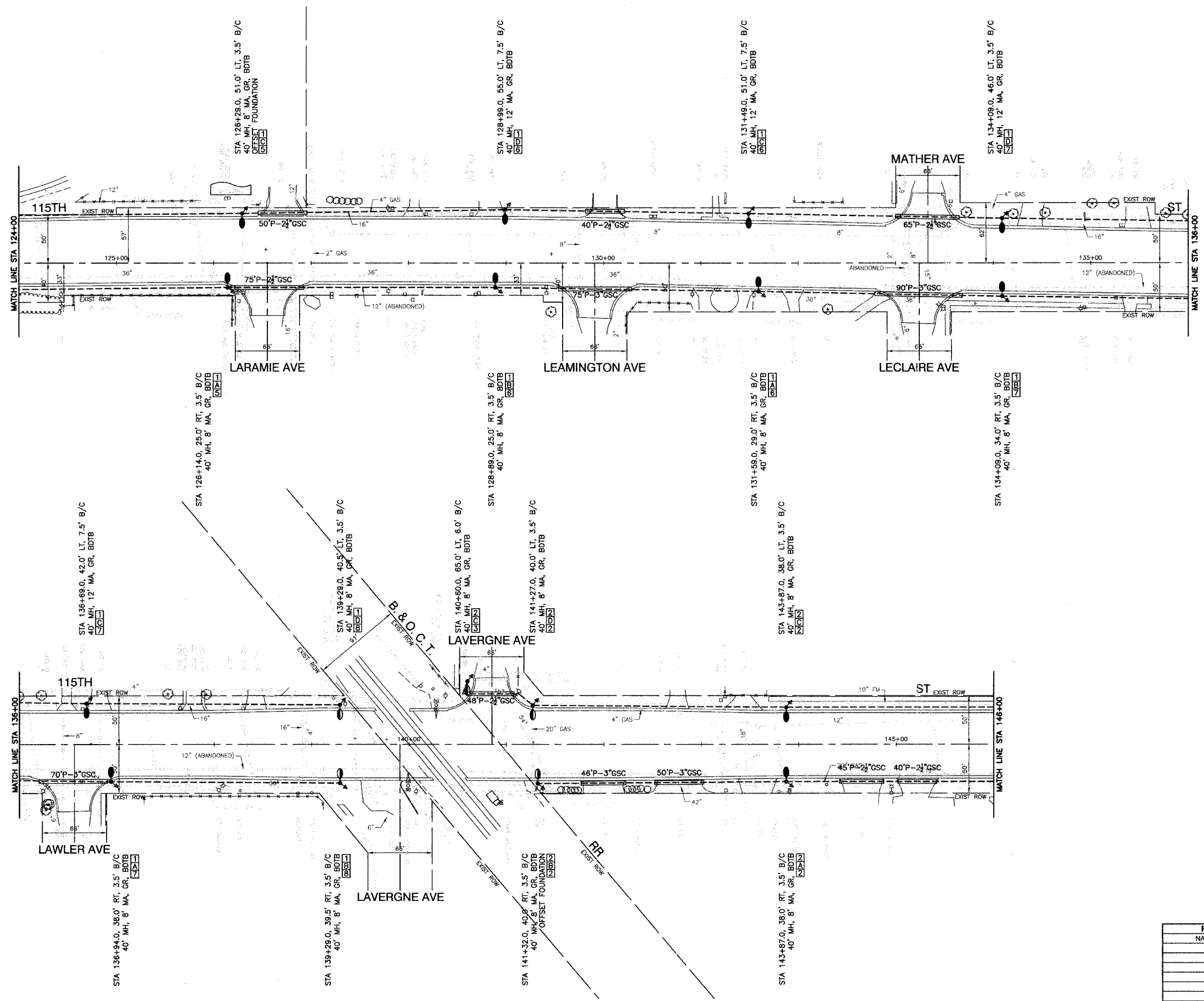
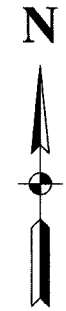
STA 106+55.0, 38.0' RT, 3.5' B/C
 40' MH, 8' MA, GR, BDTB

STA 109+15.0, 38.0' RT, 3.5' B/C
 40' MH, 8' MA, GR, BDTB

STA 123+69.0, 27.0' RT, 3.5' B/C
 40' MH, 8' MA, GR, BDTB

FAUL. REC.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1583	02-00080-00-LT	COOK	10	4
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT M-8003(540)	

CONTRACT #83924



LEGEND :

- ○ EXISTING STREET LIGHT
- ○ PROPOSED STREET LIGHT—310' HPS, 40' MOUNTING HEIGHT
- ○ PROPOSED STREET LIGHT—250' HPS, 40' MOUNTING HEIGHT
- ⊠ CONTROLLER
- P — CONDUIT, PUSHED, GALVANIZED STEEL
- T — CONDUIT, TRENCHED, GALVANIZED STEEL
- U — UNIT DUCT, W/3-1/C NO. 4 AND 1/C NO. 6 GROUND, 600V (EPR TYPE RHW) 1-1/4" DIAMETER POLYETHYLENE, BORED & PULLED
- Ⓐ CIRCUIT
- E — ELECTRIC CABLE IN CONDUIT, 600V (EPR TYPE USE) 3-1/C NO. 1/0
- GR ⚡ GROUND ROD
- ▨ SIDEWALK REMOVAL & REPLACEMENT
- ▩ BITUMINOUS PARKWAY REMOVAL AND REPLACEMENT
- BDTB BREAKAWAY DEVICES, TRANSFORMER BASE
- COMED POWER POLE FOR SERVICE CONNECTION

MFT SECTION NO. 02-00080-00-LT

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.U. ROUTE 1583
115TH STREET
STREET LIGHTING
PLAN SHEETS

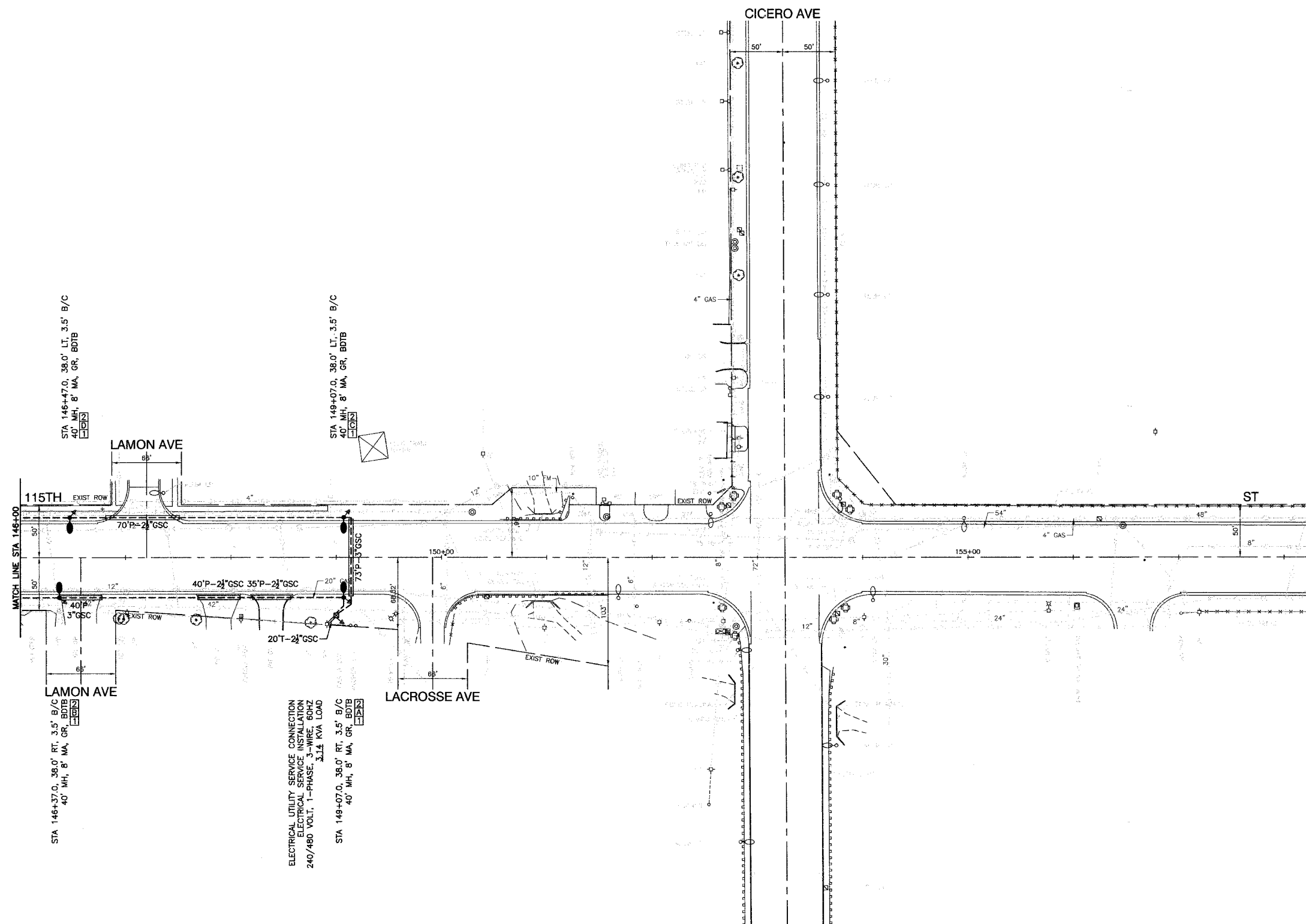
REVISIONS	
NAME	DATE

SCALE: VERT. NONE
HORIZ. 1"=50'
DATE 3-15-07

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CHECKED BY PAP

F.A.U. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1583	02-00080-00-LT	COOK	10	5
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT M-8003(540)		

CONTRACT #83924



LEGEND :

- EXISTING STREET LIGHT
- PROPOSED STREET LIGHT-310W HPS, 40' MOUNTING HEIGHT
- PROPOSED STREET LIGHT-250W HPS, 40' MOUNTING HEIGHT
- ⊠ CONTROLLER
- P— CONDUIT,PUSHED,GALVANIZED STEEL
- T— CONDUIT,TRENCHED,GALVANIZED STEEL
- UNIT DUCT,W/3-1/C,NO.4 AND 1/C NO.6 GROUND, 600V (EPR TYPE RHW) 1-1/4" DIAMETER POLYETHYLENE, BORED & PULLED
- ⓐ CIRCUIT
- ELECTRIC CABLE IN CONDUIT, 600V (EPR TYPE USE) 3-1/C NO.1/0
- GR ⚡ GROUND ROD
- ▨ SIDEWALK REMOVAL & REPLACEMENT
- ▩ BITUMINOUS PARKWAY REMOVAL AND REPLACEMENT
- BDTB BREAKAWAY DEVICES, TRANSFORMER BASE
- COMED POWER POLE FOR SERVICE CONNECTION

MFT SECTION NO. 02-00080-00-LT

ILLINOIS DEPARTMENT OF TRANSPORTATION

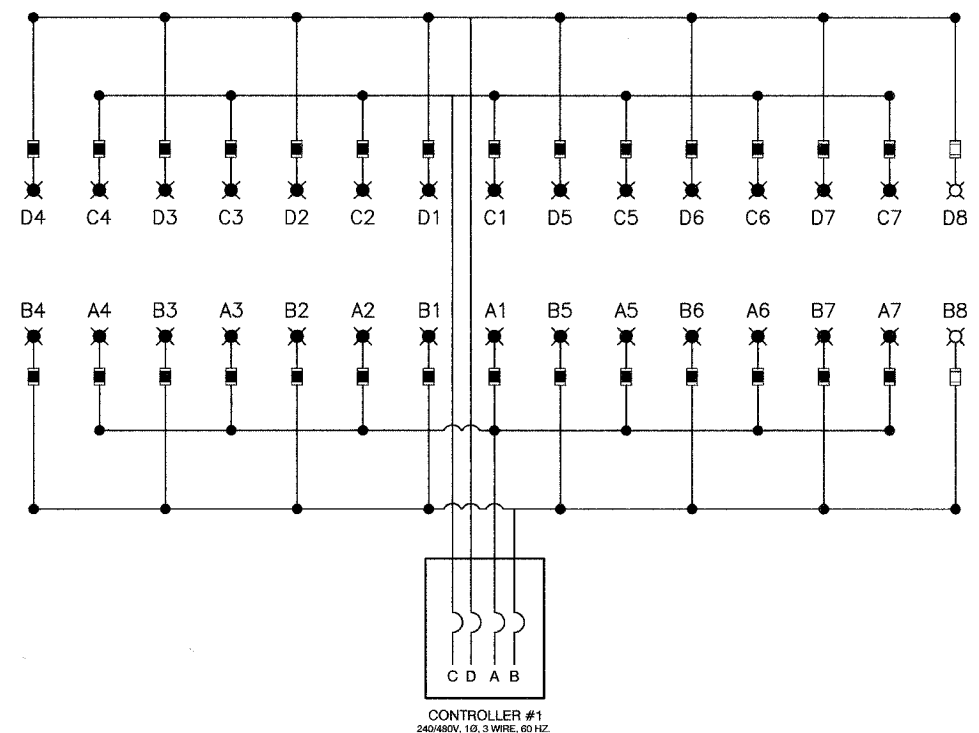
F.A.U. ROUTE 1583
115TH STREET
STREET LIGHTING
PLAN SHEETS

REVISIONS	
NAME	DATE

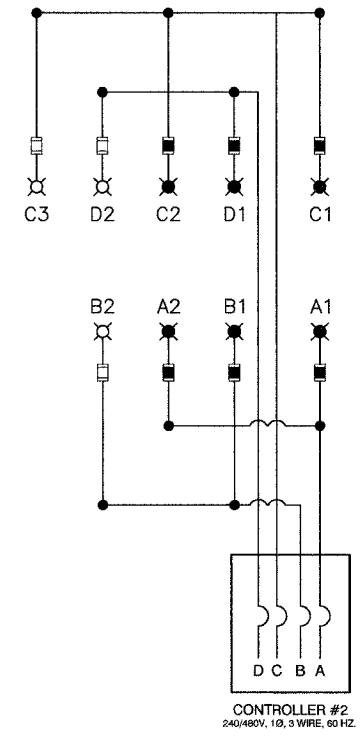
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HORIZ. 1"=50'
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CONTRACT #83924



CIRCUIT	WATTS	AMPS
A	1750	9.1
B	2060	10.6
C	1750	9.1
D	2060	10.6
TOTAL LOAD	7620	39.4



CIRCUIT	WATTS	AMPS
A	500	2.6
B	560	2.8
C	810	4.1
D	560	2.8
TOTAL LOAD	2430	12.3

SINGLE LINE LEGEND

- ⊗ LUMINAIRE, 310W HPS, STREET LIGHT
- ⊗ LUMINAIRE, 250W HPS, STREET LIGHT
- FUSE, 5 AMP
- FUSE, 3.5 AMP
- A1 LUMINAIRE CIRCUIT
- ⌋ CIRCUIT BREAKER
- CONNECTION

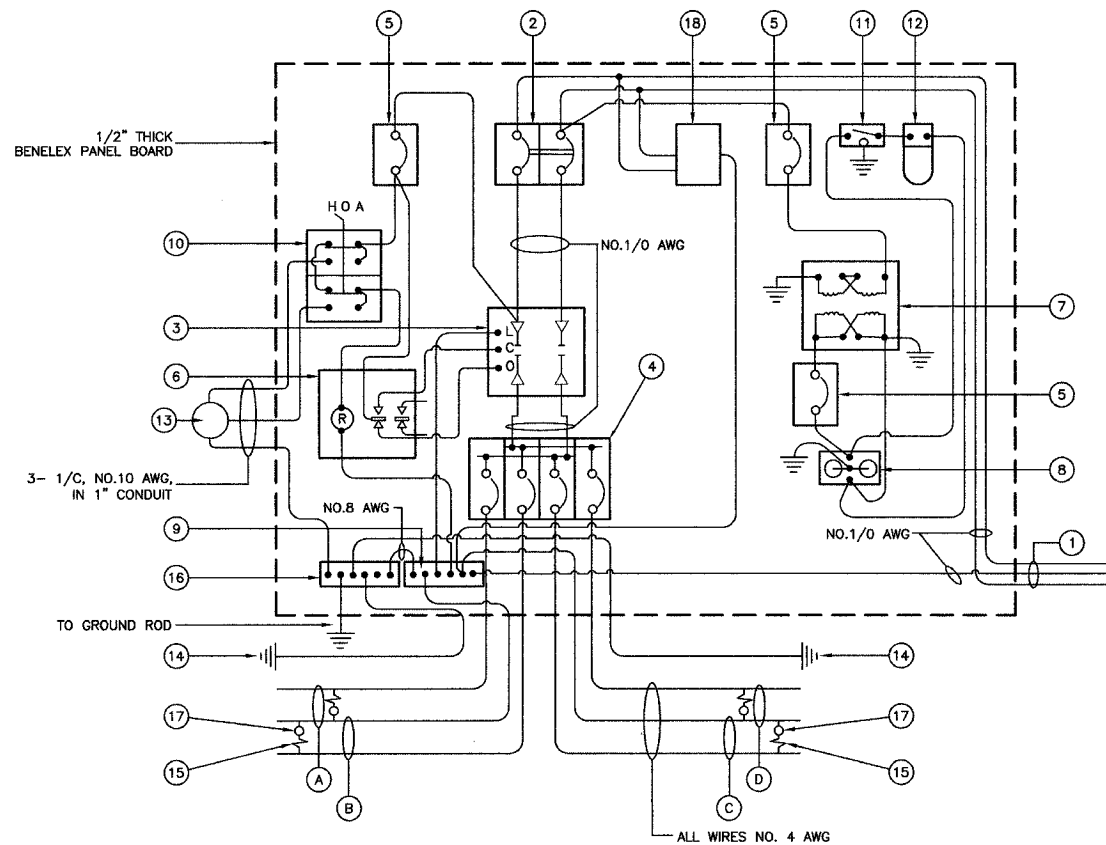
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ILLINOIS DEPARTMENT OF TRANSPORTATION
**F.A.U. ROUTE 1583
 115TH STREET
 STREET LIGHTING
 SINGLE LINE DIAGRAM**

REVISIONS	
NAME	DATE

SCALE: VERT. NONE
 HORIZ. NONE
 DATE 3-15-07
 DRAWN BY RG
 CHECKED BY PAP

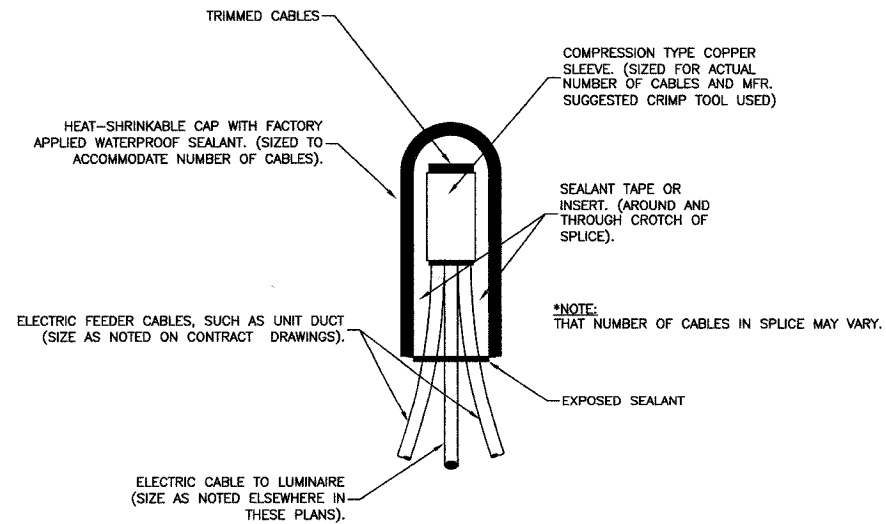
CONTRACT #83924



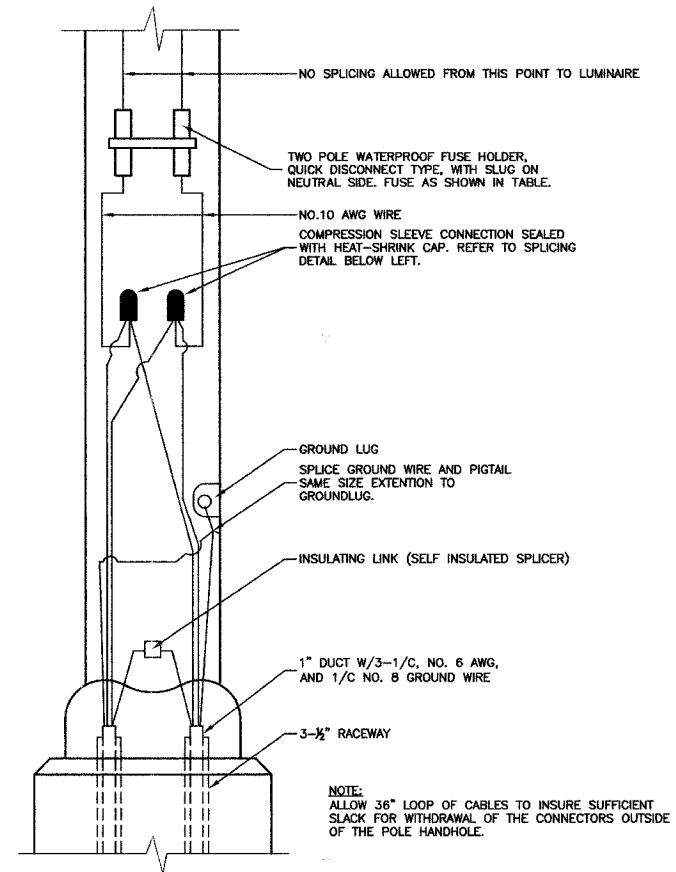
CONTROLLER WIRING DIAGRAM

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.



SPLICING ELECTRIC CABLES
BASIC MATERIALS AND METHODS



POLE HANDHOLE WIRING DIAGRAM
(TYPICAL FOR SINGLE LUMINAIRE INSTALLATION)

CONTROLLER WIRING DIAGRAM LEGEND

- 3-1/2" DIA. GALVANIZED STEEL CONDUIT FOR 240/480 VOLT, 1Ø, 3 WIRE, 60HZ. SERVICE.
- (1) 60 AMP MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT, 100 AMP BASE, NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA - 14000 AMP AT 480 V. PROVIDE WARNING NAMEPLATE: "CAUTION: INCOMING POWER IS ON WHEN MAIN BREAKER IS OFF."
- (1) 60 AMP REMOTE CONTROL CONTACTOR SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, MINIMUM 60 AMP, 600 VOLT.
- (4) 3Ø AMP CIRCUIT BREAKER, 1 POLE, 240 VOLT, 100 AMP BASE, NON-INTERCHANGEABLE TRIP RATING NEMA - 14000 AMP AT 240 VOLTS.
- (3) 2Ø AMP CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 VOLT, 100 AMP BASE, NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA 14000 AMP AT 240 V.
- (1) 2Ø AMP, 1 POLE DOUBLE THROW, 240 VOLT RECEPTACLE.
- (1) 1.5 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240x480/120x240 VOLT, 60 HZ.
- (1) 2Ø AMP, 120 VOLT DUPLEX GFCI RECEPTACLE.
- NEUTRAL BUS BAR, 1/4"x1"x12" LONG MOUNTED ON PANEL WITH TAPS.
- 3 POSITION SELECTOR SWITCH
- SWITCH FOR LIGHTING FIXTURE MOUNTED IN BOX.
- WEATHER-PROOF INCANDESCENT LIGHTING FIXTURE WITH 60 WATT, 120 V LAMP.
- PHOTOCELL MOUNTED TO TOP OF NEAREST LIGHT POLE, 240 V.
- NO. 8 AWG INSULATED GROUND WIRE
- IN-LINE TWO POLE FUSEHOLDER WITH FUSE AS NOTED IN FUSE TABLE
- GROUND BUS BAR 1/4"x1"x12" LONG MOUNTED ON PANEL WITH TAPS.
- LUMINAIRE, 250 WPS
- SURGE SUPPRESSOR
- CIRCUIT
- CIRCUIT
- CIRCUIT
- CIRCUIT

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.

NOMINAL WATTAGE	FUSE SIZE
250	3.5 AMP
310	5.0 AMP

LUMINAIRE FUSE SIZE TABLE

MFT SECTION NO. 02-00080-00-LT

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.U. ROUTE 1583
115TH STREET
STREET LIGHTING
DETAILS

REVISIONS	
NAME	DATE

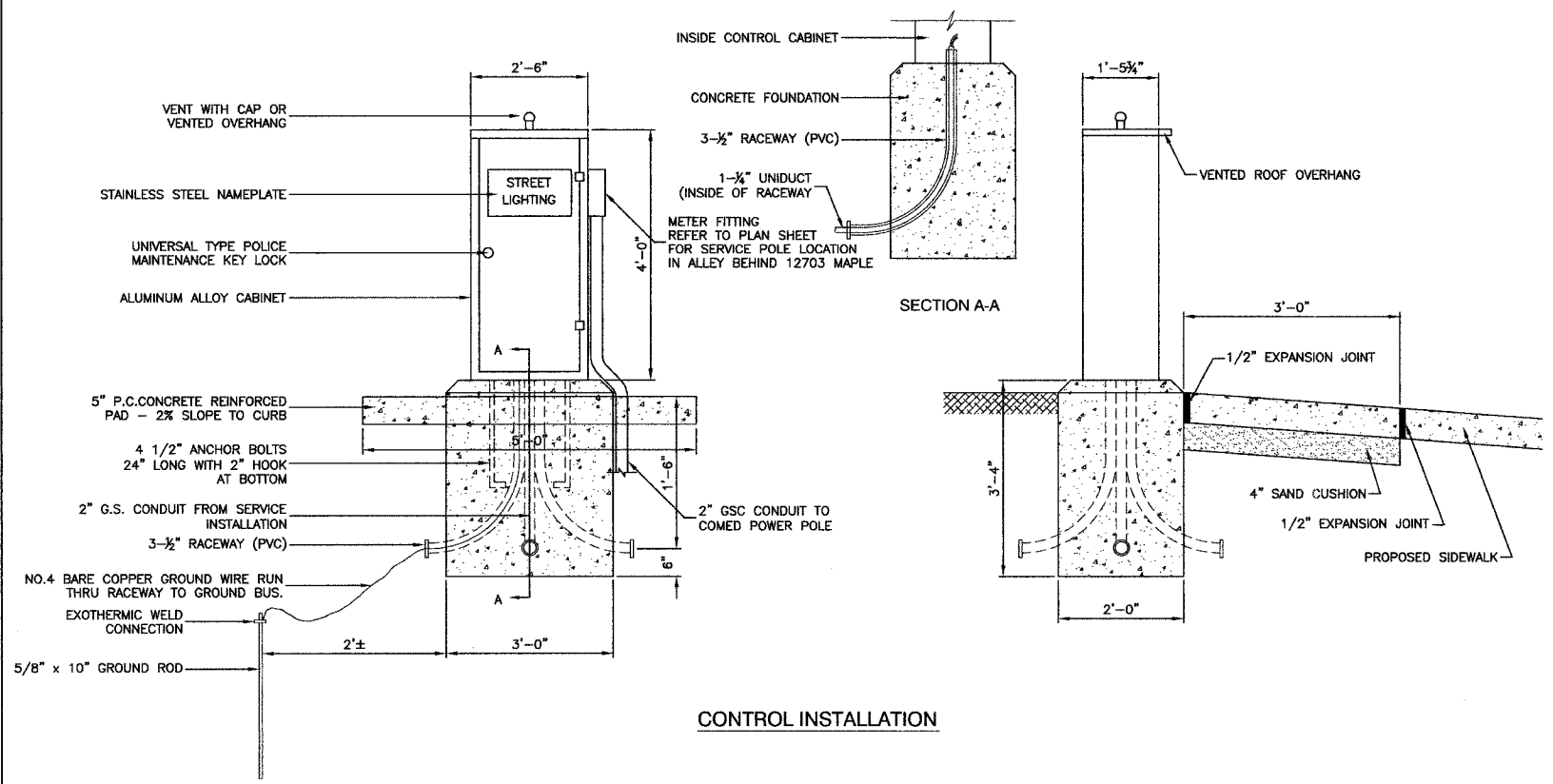
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HORIZ. NONE
DATE 3-15-07

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CHECKED BY PAP

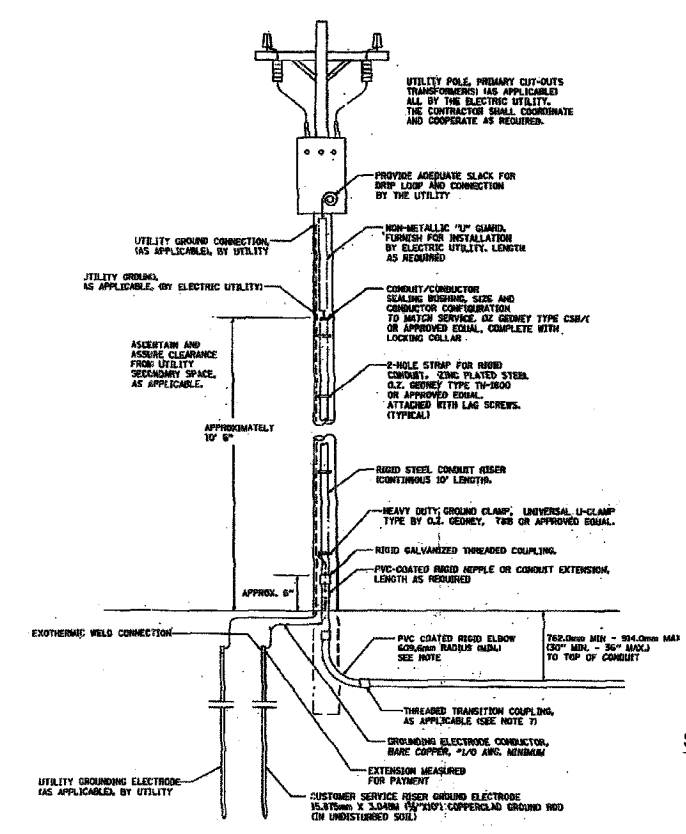
F.A.U. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1583	02-00080-00-LT	COOK	10	8
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-8003(540)		

CONTRACT #83924

240/480 VOLT, 1Ø, 3 WIRE, 60HZ SERVICE
 9.82 KVA LOAD, CONTROLLER NO.1
 3.14 KVA LOAD, CONTROLLER NO.2

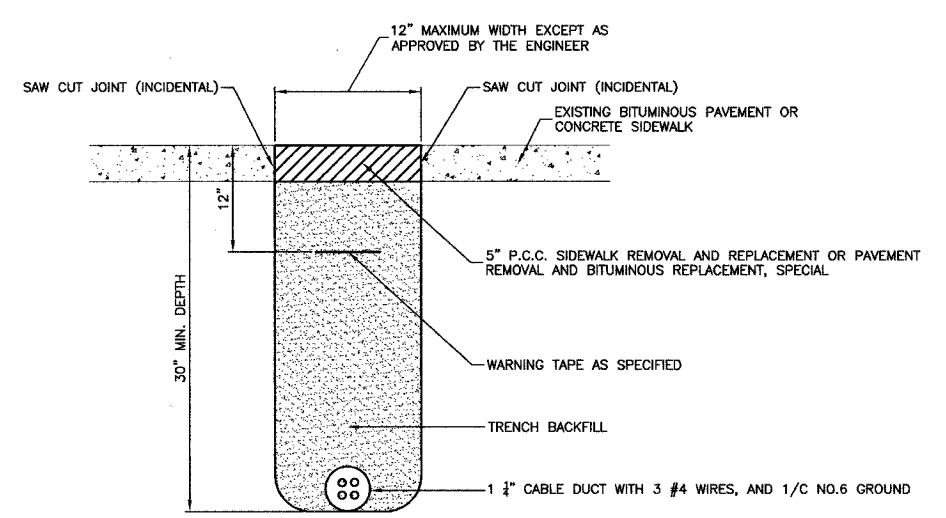


CONTROL INSTALLATION

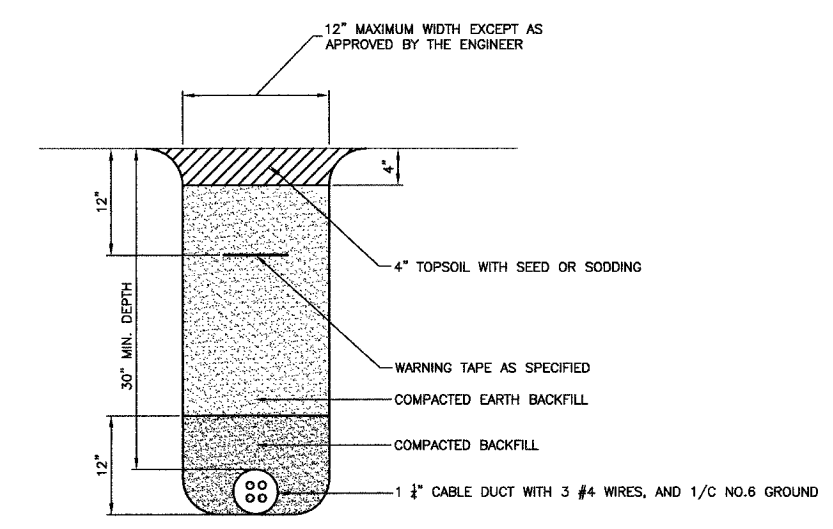


SERVICE CONNECTION FOR ALL CONTROLLERS

- 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 CONNECTOR DIAMETER SHALL MATCH THE DIAMETER OF THE SERVICE CONDUCTOR RACEWAY AS INDICATED.
 - PVC COATED RACEWAYS AND ACCESSORIES SHALL BE CAREFULLY INSTALLED WITH MP 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, RISER AND CONNECTION TO SERVICE CONDUCTOR RACEWAY EXTENSION BEFORE BACKFILL AND SHALL ALSO OBTAIN INSPECTION OF SERVICE RISER AND SEALING BUSHING 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 RIGID GALVANIZED STEEL, THE COUPLING SHALL BE THE SAME. WHEN THE RACEWAY IS PVC CONDUIT OR CONCRETE, THE COUPLING SHALL BE A METALLIC TO NON METALLIC 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 TOOLS AND WORK NOT PROVIDED BY THE UTILITY, BUT NECESSARY FOR A COMPLETE SERVICE INSTALLATION.



BITUMINOUS PAVEMENT OR CONCRETE SIDEWALK REMOVAL AND REPLACEMENT



TRENCH DETAIL

MFT SECTION NO. 02-00080-00-LT

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.U. ROUTE 1583
 115TH STREET
 STREET LIGHTING
 DETAILS

REVISIONS	
NAME	DATE

SCALE: VERT. NONE
 HORIZ. NONE
 DATE 3-15-07
 DRAWN BY RG
 CHECKED BY PAP

F.A.U. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1583	02-00080-00-LT	COOK	10	9
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT M-8003(540)		

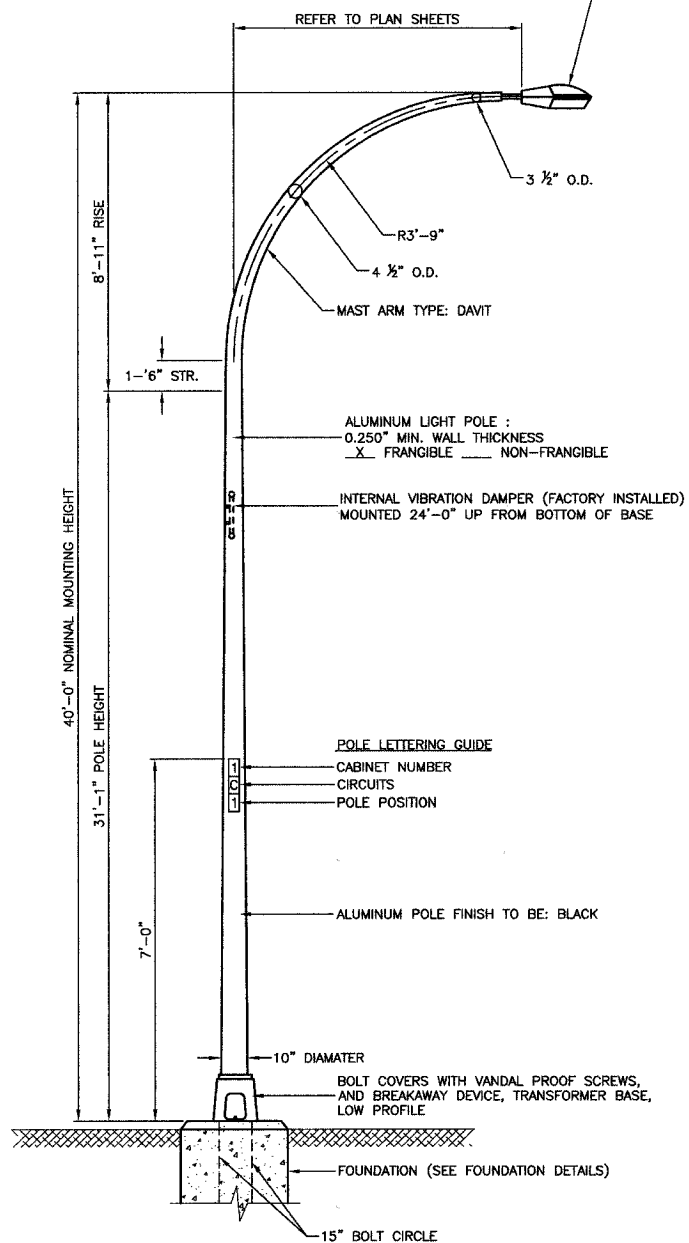
CONTRACT #83924

LUMINAIRE: FINISH TO BE BLACK
250 WATT HIGH PRESSURE SODIUM LAMP
240 VOLT BALLAST

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

LUMINAIRE: FINISH TO BE BLACK
310 WATT HIGH PRESSURE SODIUM LAMP
240 VOLT BALLAST

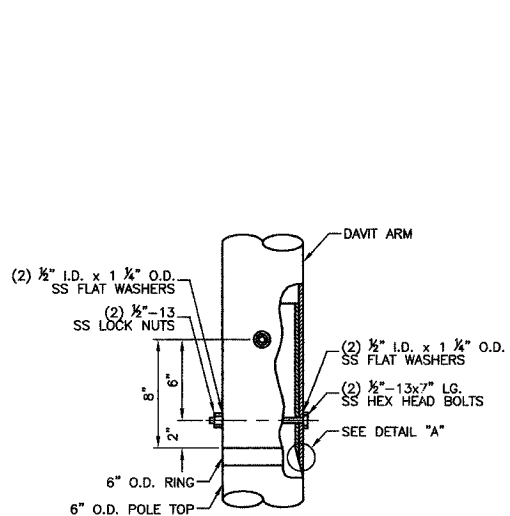
I.E.S. TYPE: MC III LIGHT DISTRIBUTION
LENS TYPE: FLAT
INITIAL LAMP LUMENS: 37,000
LAMP LIFE: 24,000 HOURS



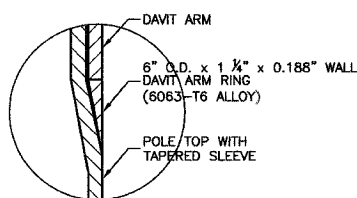
NOTES:

1. THE LIGHTING UNITS SHALL MEET AASHTO DESIGN CRITERIA. DESIGN FOR 90 M.P.H. WIND WITH 30% GUST AND 75 POUND LUMINAIRE HAVING AN E.P.A. OF 1.6 SQ. FT. AND PROPER ICE LOADING.
2. ALUMINUM ALLOY 6063-T6 SHALL BE USED.

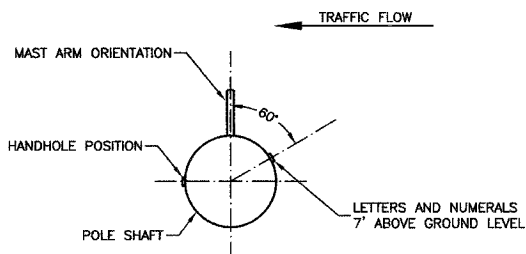
TYPICAL POLE INSTALLATION (40' MH)



CONNECTION DETAIL



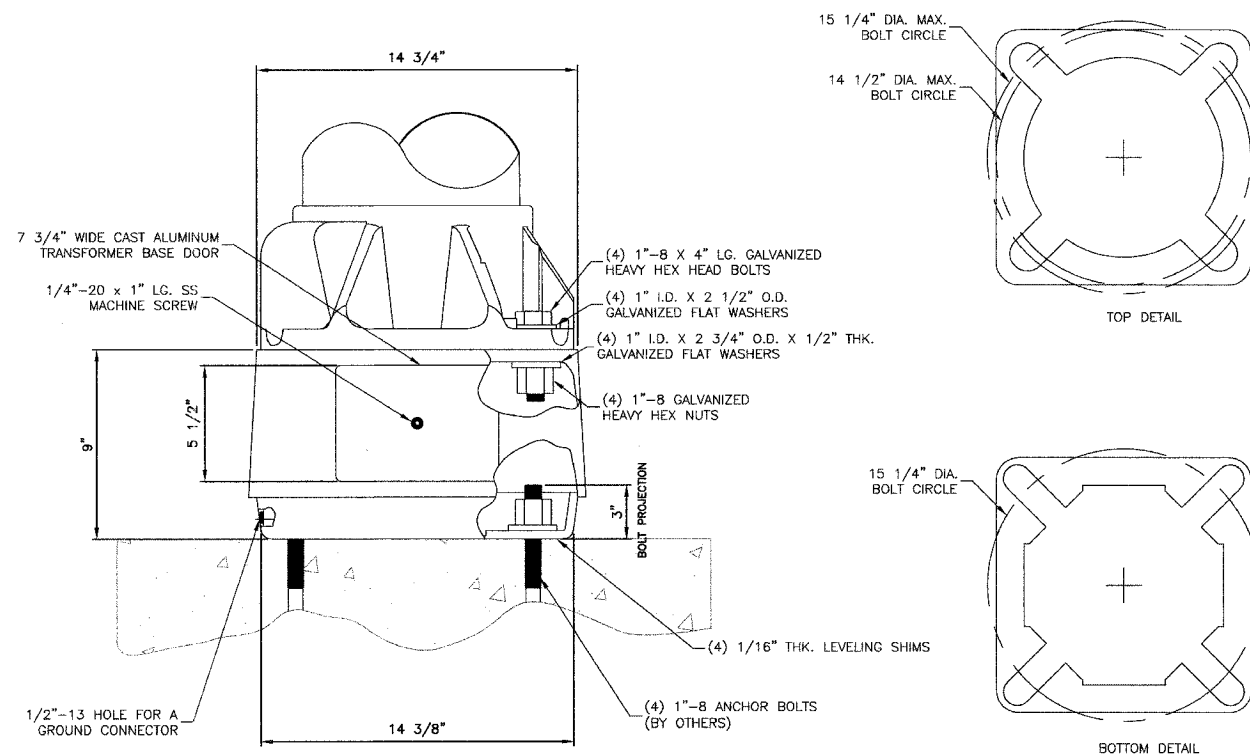
DETAIL "A"



POSITION OF HANDHOLE AND NUMERALS ON POLE

IMPORTANT NOTE:

TRANSFORMER BASE AND LIGHTPOLE TO BE LEVELED AS ONE UNIT, USING LEVELING SHIMS IF REQUIRED.



TRANSFORMER BASE DETAIL

TOP DETAIL

BOTTOM DETAIL

MFT SECTION NO. 02-00080-00-LT

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.U. ROUTE 1583
115TH STREET
STREET LIGHTING
DETAILS

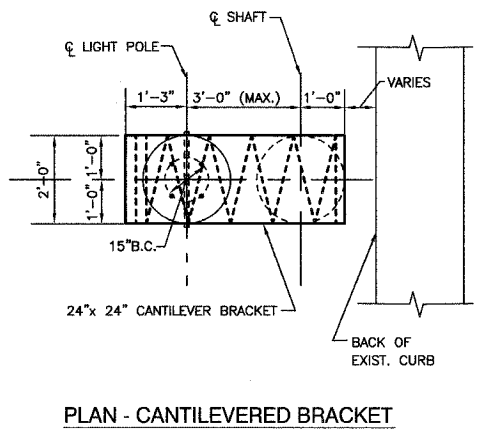
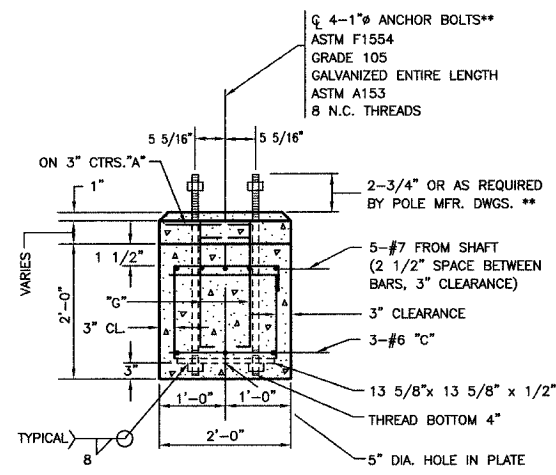
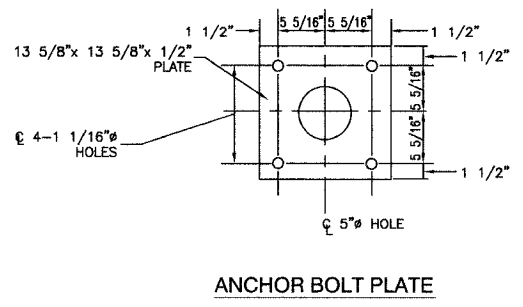
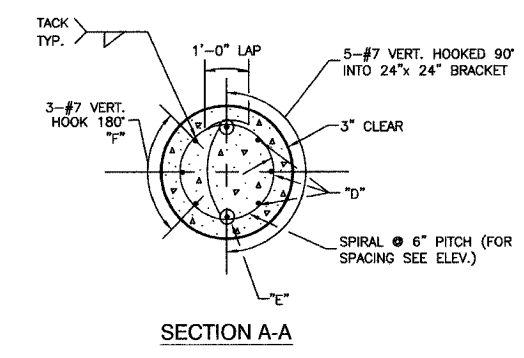
REVISIONS	
NAME	DATE

SCALE: VERT. NONE
HORIZ. NONE
DATE 3-15-07

DRAWN BY RG
CHECKED BY PAP

ROBINSON ENGINEERING, LTD.
17000 SOUTH PARK AVENUE, SOUTH HOLLAND, ILLINOIS 60470
(708) 391-8700 FAX (708) 391-8828
ILLINOIS DESIGN FIRM REGISTRATION NO. 154001125

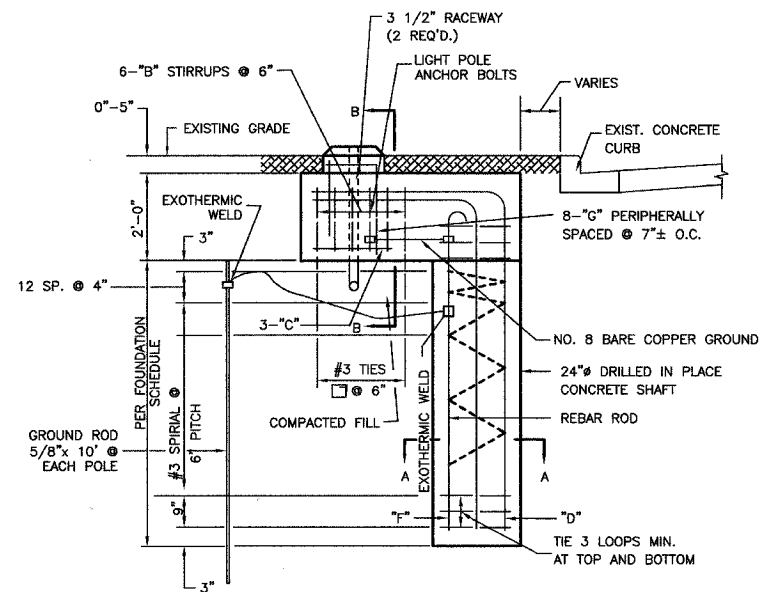
CONTRACT #83924



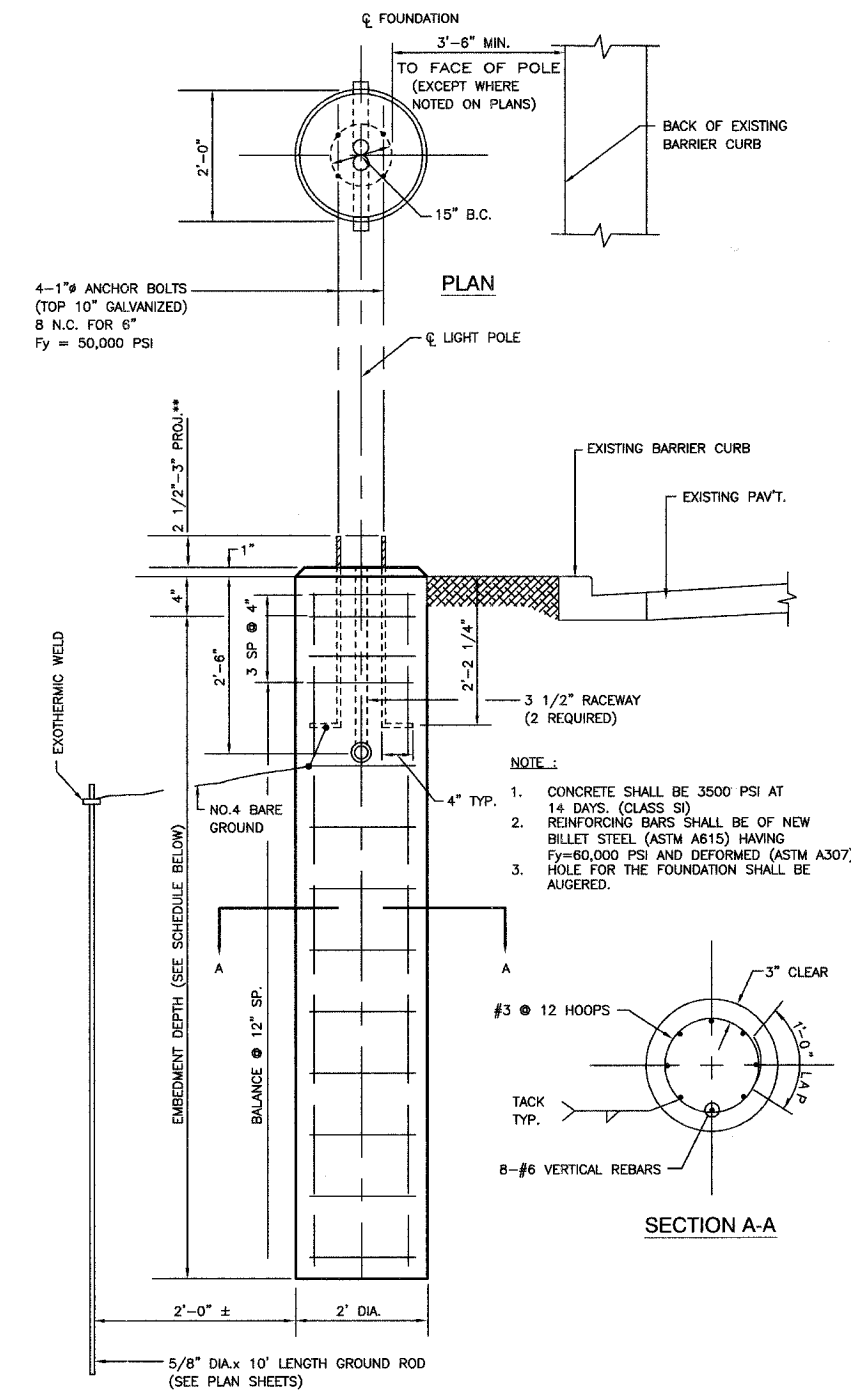
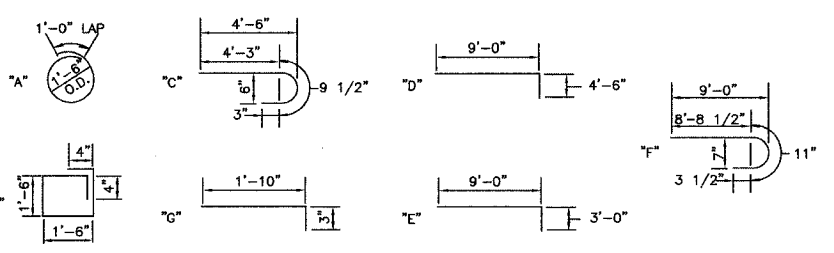
****NOTE:**
THE TOP OF THE ANCHOR BOLTS SHOULD NOT PROJECT MORE THAN 4" ABOVE A 60" CHORD ALIGNED RADially TO THE CENTERLINE OF THE HIGHWAY AND CONNECTING ANY POINT WITHIN THE LENGTH OF THE CHORD, ON THE GROUND SURFACE ON ONE SIDE OF THE SUPPORT TO A POINT ON THE GROUND SURFACE ON THE OTHER SIDE.

- NOTE:**
1. CONCRETE SHALL BE 3500 PSI AT 14 DAYS. (CLASS SI)
 2. REINFORCING BARS SHALL BE OF NEW BILLET STEEL ASTM M42M (M42) AND DEFORMED
 3. HOLE FOR THE FOUNDATION (SHAFT) SHALL BE AUGERED
 4. POLE FOUNDATION, OFFSET FOR THIS APPLICATION IS EQUIVALENT TO 13.5 LIN.FT. PER FOUNDATION.
 5. THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" PITCH OR MAY SUBSTITUTE #3 TIES 12" O.C. WITH THE APPROVAL OF THE ENGINEER

BILL OF MATERIALS			
QUAN.	MARK	SIZE	LENGTH
11	A	NO.3	5'-9"
6	B	NO.3	6'-8"
3	C	NO.6	5'-31/2"
8	G	NO.6	2'-1"
3	D	NO.7	13'-6"
2	E	NO.7	12'-0"
3	F	NO.7	9'-11"
REINFORCING BARS		LBS.	285
CLASS X CONCRETE		CU.YDS.	1.7
ANCHOR BOLTS		NO.	4
ANCHOR BOLT PLATE NO.			1

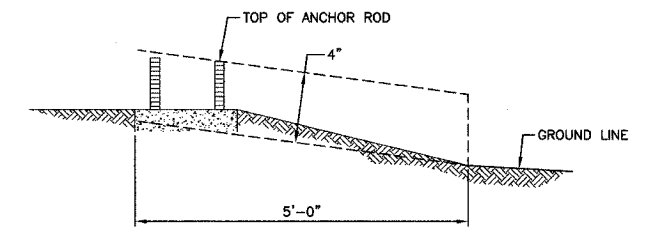


ELEVATION
POLE FOUNDATION, OFFSET - DETAILS



ELEVATION
LIGHT POLE FOUNDATION (TYPICAL)

TYPE OF SOILS		EMBEDMENT *(SEE NOTE ABOVE)			
DESCRIPTION	STANDARDS	MOUNTING HEIGHT			
		30 FT.	35 FT.	40 FT.	47.5 FT.
SOFT CLAY	Qu = .25-.50 T/FT. 2	9'-0"	9'-8"	10'-6"	14'-0"
MEDIUM CLAY	Qu = .50-1.0 T/FT. 2	6'-6"	7'-0"	7'-6"	10'-0"
DENSE CLAY	Qu = 1.0-2.0 T/FT. 2	5'-6"	6'-0"	6'-6"	8'-6"
LOOSE SAND	N = 4-10	7'-0"	7'-8"	8'-4"	11'-0"
MEDIUM SAND	N = 10-30	6'-0"	6'-6"	7'-3"	9'-6"
DENSE SAND	N = 30-50	5'-6"	6'-0"	6'-6"	8'-6"



****NOTE:**
THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4") ABOVE THE FINISHED GRADE WITHIN A 1.5M (60") 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 CONTRACTORS EXPENSE. SEE FOUNDATION EXTENSION DETAIL.

FOUNDATION EXTENSION DETAIL

MFT SECTION NO. 02-00080-00-LT

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. ROUTE 1583
115TH STREET
STREET LIGHTING
DETAILS

REVISIONS	
NAME	DATE
ROBINSON ENGINEERING	5-15-07

SCALE: VERT. NONE
HORIZ. NONE
DATE 3-15-07
DRAWN BY RG
CHECKED BY PAP