

FOR INDEX OF SHEETS, SEE SHEET NO. 2

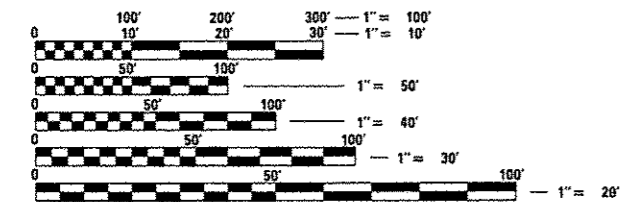
HIGHWAY STANDARD

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 424006-01 DIAGONAL CURB RAMPS FOR SIDEWALKS
- 424011-01 CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
- 606001-05 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 606301-04 PC CONCRETE ISLANDS AND MEDIANS
- 701101-04 OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
- 701106-02 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
- 701601-09 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
- 701701-09 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701801-05 SIDEWALK, CORNER OR CROSSWALK CLOSURE
- 701901-03 TRAFFIC CONTROL DEVICES
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 805001-01 ELECTRIC SERVICE INSTALLATION DETAILS
- 814001-02 HANDHOLES
- 814006-02 DOUBLE HANDHOLES
- 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 862001-01 UNINTERRUPTIBLE POWER SUPPLY (UPS)
- 873001-02 TRAFFIC SIGNAL GROUNDING AND BONDING
- 877011-05 STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 16' THROUGH 55'
- 878001-09 CONCRETE FOUNDATION DETAILS
- 880001-01 SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS
- 886001-01 DETECTOR LOOP INSTALLATIONS

DESIGN DESIGNATIONS

ROUTE	FUNCTIONAL CLASSIFICATION	ADT	DESIGN SPEED	POSTED SPEED
U.S. ROUTE 34	OTHER PRINCIPAL ARTERIAL	27,700 (2012)	45 MPH	40 MPH
IL ROUTE 59	STRATEGIC REGIONAL ARTERIAL (SRA)	50,500 (2012)	45 MPH	40 MPH

IMPROVEMENTS LOCATED IN THE CITY OF AURORA AND THE CITY OF NAPERVILLE



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 LOCATING INFORMATION FOR EXCAVATORS
1-800-892-0123
OR 811

PROJECT ENGINEER: AMIR CUBIC / LUKASZ POCIECHA (847) 705-4419
PROJECT MANAGER: SUDUD MAHMOUD (847) 705-4420

CONTRACT NO. 60X34

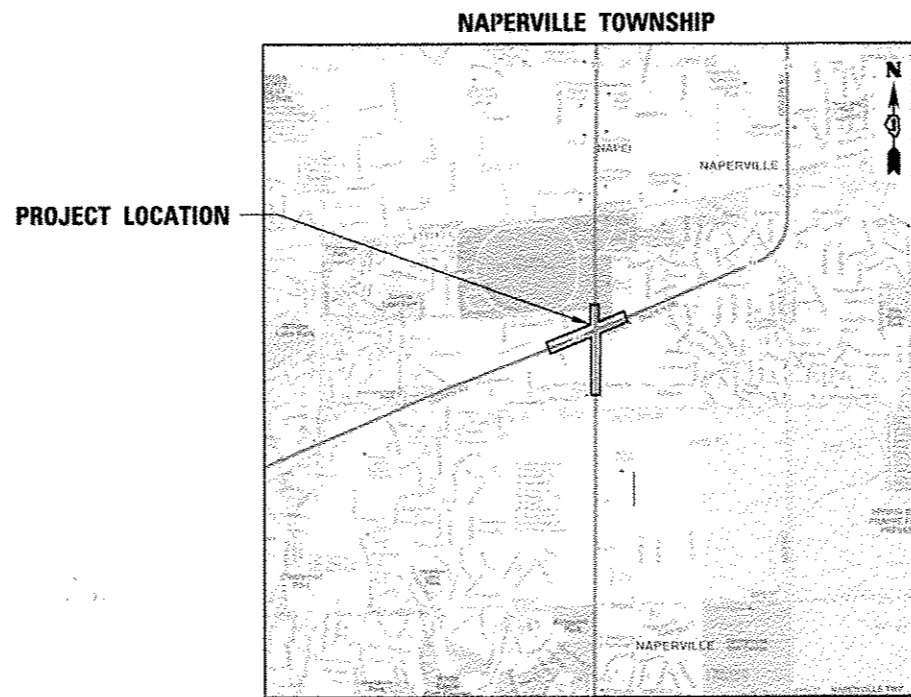
STATE OF ILLINOIS 04-25-14 LETTING ITEM 011

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	1
ILLINOIS CONTRACT NO. 60X34			D-91-073-14	

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

DISTRICT 1
HIGHWAY SAFETY IMPROVEMENT PROJECT
FAP ROUTE 311 (US ROUTE 34)
U.S. ROUTE 34 (OGDEN AVENUE)
AT IL ROUTE 59
PROJECT: ACHSIP-0311(048)
SECTION 2013-062TS
DUPAGE COUNTY
C-91-073-14



LOCATION MAP

GROSS AND NET LENGTH = 4,531 FEET = 0.86 MILE

PLANS PREPARED BY:
CIVILTECH
450 E. Devon Ave., Suite 300 - Itasca, Illinois 60143
Tel: 630.773.3900 - Fax: 630.773.3975
www.civiltechinc.com

SIGNED: *Joseph Emry*
JOSEPH EMRY, P.E. IL LIC. NO. 062-057496
EXPIRES 11-30-2015 (SHEETS 1 TO 34)
DATE: 01/31/14

SIGNED: *Derek N. Mall*
DEREK MALL, P.E. IL LIC. NO. 062-051308
EXPIRES 11-30-2015 (SHEETS 35 TO 49)
DATE: 1/31/14

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED: *Jan 31 2014*
John Fortman
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 21 2014
John D. Baranzelli, P.E. jr
ENGINEER OF DESIGN AND ENVIRONMENT

March 21 2014
Omer Osman, P.E. jr
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

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GENERAL NOTES

THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", JANUARY 1, 2012; MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LATEST EDITION; PROJECT SPECIFICATIONS; ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION; THE CITY OF CHICAGO AND THE VILLAGE OF NORRIDGE; ALL APPLICABLE REQUIREMENTS OF THE ORDINANCES OF AUTHORITIES HAVING JURISDICTION; AND ALL ADDENDA THERETO SHALL GOVERN THIS WORK.

THE STANDARD SPECIFICATIONS, PROJECT SPECIFICATIONS, CONSTRUCTION PLANS, AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED A PART OF THE CONTRACT.

WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OF UNSTABLE MATERIALS CREATED AS A RESULT THEREOF.

THE CONTRACTOR SHALL SOLELY BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES, AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION.

THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL AREAS AFFECTED BY EQUIPMENT OR LABORERS TO EXISTING CONDITIONS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL NEW WORK UNTIL COMPLETION OF THIS CONTRACT.

EXISTING UTILITIES: WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION IS BASED ON RECORD INFORMATION PROVIDED BY THE INDIVIDUAL UTILITY OWNERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. THE CONTRACTOR SHALL ALSO CONTACT J.U.L.I.E. TO OBTAIN LOCATES OF THE RESPECTIVE UTILITY COMPANIES' UNDERGROUND FACILITIES.

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 72 HOURS IN ADVANCE OF BEGINNING WORK.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTHS.

THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811. IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).

IF THIS CONTRACT REQUIRES THE SERVICES OF AN ELECTRICAL CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS/HER OWN EXPENSE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES PRIOR TO PERFORMING ANY WORK. IF THIS CONTRACT DOES NOT REQUIRE THE SERVICES OF AN ELECTRICAL CONTRACTOR, THE CONTRACTOR MAY REQUEST ONE FREE LOCATE FOR EXISTING IDOT ELECTRICAL FACILITIES FROM THE DISTRICT ONE ELECTRICAL MAINTENANCE CONTRACTOR PRIOR TO THE START OF ANY WORK. ADDITIONAL REQUESTS MAY BE AT THE EXPENSE OF THE CONTRACTOR. THE LOCATION OF UNDERGROUND TRAFFIC FACILITIES DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO REPAIR ANY FACILITIES DAMAGED DURING CONSTRUCTION AT THEIR EXPENSE.

THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDER, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

ALL CONDUIT SHALL BE PLACED IN TRENCH. ALL ROADWAY SURFACES SUCH AS PAVEMENT, SIDEWALK, ETC. SHALL BE REPLACED IN KIND. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "UNDERGROUND CONDUIT, GALVANIZED STEEL" OF THE SIZE SPECIFIED. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR TRENCH AND BACKFILL OR FOR RESTORATION.

THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TEMPORARY TRAFFIC SIGNAL NOTES

- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12 INCHES (300 MM). TRAFFIC SIGNAL SECTIONS SHALL BE LED WITH EXPANDABLE VIEW, UNLESS OTHERWISE APPROVED BY THE ENGINEER. PEDESTRIAN SIGNAL HEADS SHALL BE LIGHT EMITTING DIODE (LED) PEDESTRIAN COUNTDOWN SIGNAL HEADS EXCEPT WHEN A TEMPORARY TRAFFIC SIGNAL IS INSTALLED AT AN INTERSECTION INTERCONNECTED WITH A RAILROAD GRADE CROSSING. WHEN A TEMPORARY TRAFFIC SIGNAL IS INSTALLED AT AN INTERSECTION INTERCONNECTED WITH A RAILROAD GRADE CROSSING, LIGHT EMITTING DIODE (LED) PEDESTRIAN SIGNAL HEADS SHALL BE FURNISHED. THE TEMPORARY TRAFFIC SIGNAL HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH EXTRA CABLE LENGTH TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT AT NO ADDITIONAL COST TO THE CONTRACT.
- THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON. IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- ALL TEMPORARY TRAFFIC SIGNAL INSTALLATIONS SHALL HAVE UNINTERRUPTIBLE POWER SUPPLY (UPS). THE UPS CABINET SHALL BE MOUNTED TO THE TEMPORARY TRAFFIC SIGNAL CABINET AND MEET THE REQUIREMENTS OF UNINTERRUPTIBLE POWER SUPPLY IN DIVISIONS 800 AND 1000 OF THESE SPECIFICATIONS.
- TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. PEDESTRIAN PUSH BUTTONS SHALL BE PROVIDED FOR ALL PEDESTRIAN SIGNAL HEADS/PHASES AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER. DETECTION SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN TEMPORARY TRAFFIC SIGNAL INSTALLATION PAY ITEM.
- WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



USER NAME = jrc	DESIGNED - BRD	REVISED -
PLOT SCALE = 40,0000 1/16"	DRAWN - MFB	REVISED -
PLOT DATE = 1/30/2014	CHECKED - JJE	REVISED -
	DATE - 01/30/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL NOTES

NO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	2
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				

CONSTRUCTION CODE			
HSIP FUNDS			
90% FEDERAL 10% STATE	100% CITY OF NAPERVILLE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE

URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0021			
				TRAFFIC SIGNALS			LIGHTING
				U.S. ROUTE 34/ IL ROUTE 59	EM. VEHICLE PREEMPTION	INTERCONNECT	U.S. ROUTE 34/ IL ROUTE 59
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SO YD	98	98			
42001300	PROTECTIVE COAT	SO YD	157	157			
42400200	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SQ FT	430	430			
42400800	DETECTABLE WARNINGS	SO FT	73	73			
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	172	172			
44000600	SIDEWALK REMOVAL	SO FT	225	225			
44003100	MEDIAN REMOVAL	SO FT	705	705			
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	31	31			
60608600	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.06	FOOT	46	46			
60610400	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.24	FOOT	94	94			
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SO FT	452	452			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	2		2	2



USER NAME = jrs	DESIGNED - BRD	REVISED -
PLOT SCALE = 40,000 / 1 in.	DRAWN - MFB	REVISED -
PLOT DATE = 1/30/2014	CHECKED - JJE	REVISED -
	DATE - 01/30/2014	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

NO SCALE	SHEET NO. 1 OF 9 SHEETS	STA.	TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	3
CONTRACT NO. 60X34			ILLINOIS FED. AID PROJECT	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HSIP FUNDS			
				90% FEDERAL 10% STATE	100% CITY OF NAPERVILLE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE
				0021			
			TRAFFIC SIGNALS		LIGHTING		
			U.S. ROUTE 34/ IL ROUTE 59	EM. VEHICLE PREEMPTION	INTERCONNECT	U.S. ROUTE 34/ IL ROUTE 59	
67100100	MOBILIZATION	L SUM	1	1			
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1			
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1			
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1			
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2	0.667		0.666	0.667
* 72000100	SIGN PANEL - TYPE 1	SQ FT	74	74			
* 72000200	SIGN PANEL - TYPE 2	SQ FT	25	25			
* 78008200	POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS	SQ FT	292	292			
* 78008230	POLYUREA PAVEMENT MARKING TYPE 1 - LINE 6"	FOOT	545	545			
78300100	PAVEMENT MARKING REMOVAL	SQ FT	273	273			
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1				1
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1				1
80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	1	1			

URBAN

* SPECIALTY ITEMS

Rev.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HSIP FUNDS			
				90% FEDERAL 10% STATE	100% CITY OF NAPERVILLE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE
				0021			
			TRAFFIC SIGNALS		LIGHTING		
			U.S. ROUTE 34/ IL ROUTE 59	EM. VEHICLE PREEMPTION	INTERCONNECT	U.S. ROUTE 34/ IL ROUTE 59	
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	3934	2127		1807	
81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	377	57			320
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	1392	197			1195
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	1149	1149			
81400100	HANDHOLE	EACH	8	8			
81400200	HEAVY-DUTY HANDHOLE	EACH	4	4			
81400300	DOUBLE HANDHOLE	EACH	4	4			
81603051	UNIT DUCT, 600 V, 3-1C NO. 6, 1/C NO. 8 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE	FOOT	3386				3386
81702460	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 3/0	FOOT	330				330
81800300	AERIAL CABLE, 3-1/C NO. 2 WITH MESSENGER WIRE	FOOT	2708				2708
82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	13				13
82500365	LIGHTING CONTROLLER, BASE MOUNTED, 480 VOLT, 150 AMP	EACH	1				1

URBAN



USER NAME = jps	DESIGNED - BRD	REVISED -
PLOT SCALE = 48.0000' / 1in.	DRAWN - MFB	REVISED -
PLOT DATE = 1/28/2014	CHECKED - JJE	REVISED -
	DATE - 01/30/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES			
NO SCALE	SHEET NO. 3 OF 9 SHEETS	STA.	TO STA.

F.A.P. RTE. 331	SECTION 2013-062TS	COUNTY	TOTAL SHEETS 49	SHEET NO. 5
			DUPAGE	CONTRACT NO. 60X34
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HSIP FUNDS			
				90% FEDERAL 10% STATE	100% CITY OF NAPERVILLE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE
				0021			
			TRAFFIC SIGNALS		LIGHTING		
			U.S. ROUTE 34/ IL ROUTE 59	EM. VEHICLE PREEMPTION	INTERCONNECT	U.S. ROUTE 34/ IL ROUTE 59	
83050810	LIGHT POLE, ALUMINUM, 47.5 FT. M. H., 15 FT. MAST ARM	EACH	7				7
83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	70				70
83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	7				7
84200804	REMOVAL OF POLE FOUNDATION	EACH	2				2
84400105	RELOCATE EXISTING LIGHTING UNIT	EACH	2				2
84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	1				1
84500120	REMOVAL OF ELECTRIC SERVICE INSTALLATION	EACH	1				1
84500130	REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1				1
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	4			4	
86400100	TRANSCEIVER - FIBER OPTIC	EACH	1	1			
87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	5086			5086	
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1373	1373			

URBAN



USER NAME = jje	DESIGNED = BRD	REVISED =
PLOT SCALE = 40.0000' / 1" =	DRAWN = MFB	REVISED =
PLOT DATE = 1/30/2014	CHECKED = JJE	REVISED =
	DATE = 01/30/2014	REVISED =

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

NO SCALE	SHEET NO. 4 OF 9 SHEETS	STA.	TO STA.
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F.A.P. RTE. 311	SECTION 2013-062TS	COUNTY	TOTAL SHEETS 49	SHEET NO. 6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X34	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HSIP FUNDS			
				90% FEDERAL 10% STATE	100% CITY OF NAPERVILLE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE
				0021			
			TRAFFIC SIGNALS		LIGHTING		
			U.S. ROUTE 34/ IL ROUTE 59	EM. VEHICLE PREEMPTION	INTERCONNECT	U.S. ROUTE 34/ IL ROUTE 59	
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2591	1409	1182		
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	4404	4404			
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2557	2557			
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	10047	10047			
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	582	582			
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	2233	2233			
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2	2			
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3	3			
87700150	STEEL MAST ARM ASSEMBLY AND POLE 22 FT.	EACH	1	1			
87700340	STEEL MAST ARM ASSEMBLY AND POLE 58 FT.	EACH	1	1			
87702830	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 20 FT.	EACH	1	1			
87702960	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1	1			

URBAN



USER NAME = jrs	DESIGNED - BRD	REVISED -
PLOT SCALE = 1/8" = 1'-0"	DRAWN - MFB	REVISED -
PLOT DATE = 1/30/2014	CHECKED - JJE	REVISED -
	DATE - 01/30/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

NO SCALE	SHEET NO. 5 OF 9 SHEETS	STA. TO STA.
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F.A.P. RTE. 331	SECTION 2013-062TS	COUNTY	TOTAL SHEETS 49	SHEET NO. 7
			CONTRACT NO. 60X34	
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HSIP FUNDS			
				90% FEDERAL 10% STATE	100% CITY OF NAPERVILLE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE
				0021			
			TRAFFIC SIGNALS		LIGHTING		
			U.S. ROUTE 34/ IL ROUTE 59	EM. VEHICLE PREEMPTION	INTERCONNECT	U.S. ROUTE 34/ IL ROUTE 59	
87702970	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1	1			
87702980	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT.	EACH	1	1			
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	20	20			
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4	4			
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10	10			
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	52	52			
87800420	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21	21			
87900200	DRILL EXISTING HANDHOLE	EACH	4			4	
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	14	14			
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2	2			
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	6	6			
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2	2			

URBAN

12

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HSIP FUNDS			
				90% FEDERAL 10% STATE	100% CITY OF NAPERVILLE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE
				0021			
			TRAFFIC SIGNALS		LIGHTING		
			U.S. ROUTE 34/ IL ROUTE 59	EM. VEHICLE PREEMPTION	INTERCONNECT	U.S. ROUTE 34/ IL ROUTE 59	
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4	4			
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1	1			
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	20	20			
88500100	INDUCTIVE LOOP DETECTOR	EACH	26	26			
88600100	DETECTOR LOOP, TYPE I	FOOT	1360	1360			
88700200	LIGHT DETECTOR	EACH	4		4		
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1		1		
88800100	PEDESTRIAN PUSH-BUTTON	EACH	6	6			
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	1			
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	15845			3637	12208
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1			
89502380	REMOVE EXISTING HANDHOLE	EACH	13	13			

URBAN

12

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				HSIP FUNDS			
				90% FEDERAL 10% STATE	100% CITY OF NAPERVILLE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE
				0021			
			TRAFFIC SIGNALS		LIGHTING		
			U.S. ROUTE 34/ IL ROUTE 59	EM. VEHICLE PREEMPTION	INTERCONNECT	U.S. ROUTE 34/ IL ROUTE 59	
89502382	REMOVE EXISTING DOUBLE HANDHOLE	EACH	4	4			
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	9	9			
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	1182		1182		
X0326148	TEMPORARY WOOD POLE, 60 FT., CLASS 4, 15 FT. MAST ARM	EACH	5				5
X0327349	TEMPORARY WOOD POLE, 40 FT., CLASS 4	EACH	3				3
X8210040	TEMPORARY LUMINAIRE, HIGH PRESSURE SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	8				8
X8360215	LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET	FOOT	12				12
X8410103	REMOVE TEMPORARY LIGHTING SYSTEM	L SUM	1				1
** X8570231	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1	1			
X8600105	MASTER CONTROLLER (SPECIAL)	EACH	1	1			
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1	1			
X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	5178			5178	

URBAN

** SUPER "R" CABINET



USER NAME = JJE	DESIGNED - BRD	REVISED -
PLOT SCALE = 48,0000 1/4 in.	DRAWN - MFB	REVISED -
PLOT DATE = 1/30/2014	CHECKED - JJE	REVISED -
	DATE - 01/30/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

NO SCALE SHEET NO. 8 OF 9 SHEETS STA. TO STA.

F.A.P. RTE. 311	SECTION 2013-062TS	COUNTY	TOTAL SHEETS 49	SHEET NO. 10
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X34	

43 46 113

CONSTRUCTION CODE			
HSIP FUNDS			
90% FEDERAL 10% STATE	100% CITY OF NAPERVILLE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE
0021			
TRAFFIC SIGNALS			LIGHTING
U.S. ROUTE 34/ IL ROUTE 59	EM. VEHICLE PREEMPTION	INTERCONNECT	U.S. ROUTE 34/ IL ROUTE 59

URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	U.S. ROUTE 34/ IL ROUTE 59	EM. VEHICLE PREEMPTION	INTERCONNECT	U.S. ROUTE 34/ IL ROUTE 59
X8772115	TEMPORARY MAST ARM, ALUMINUM, 15 FT.	EACH	8				8
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	103	103			
Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	2				2
Z0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1			1	
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1			
Z0076600	TRAINEES	HOUR	500	200		100	200
Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	500	200		100	200

5

0042

Rev.

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE			
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA			
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
UNINTERRUPTABLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				UNDERGROUND CONDUIT, GALVANIZED STEEL (UC)				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM24F			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM				ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM				SIGNAL POST AND FOUNDATION TO BE REMOVED			
GUY WIRE				ABANDON ITEM				INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				QUEUE DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				PERFORMED QUEUE DETECTOR			
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD				PERFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				"RB" INDICATES REFLECTIVE BACKPLATE				PERFORMED SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL							
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED							
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID							
ILLUMINATED SIGN "NO LEFT TURN"				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER							
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO INTERCONNECT							
DETECTOR LOOP, TYPE I				RADIO REPEATER							
PERFORMED DETECTOR LOOP				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED							
MICROWAVE VEHICLE SENSOR				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)							
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

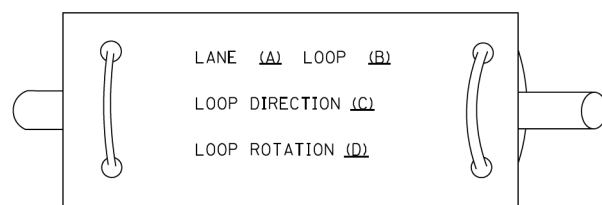
RAILROAD SYMBOLS

	EXISTING	PROPOSED
RAILROAD CONTROL CABINET		
RAILROAD CANTILEVER MAST ARM		
FLASHING SIGNAL		
CROSSING GATE		
CROSSBUCK		

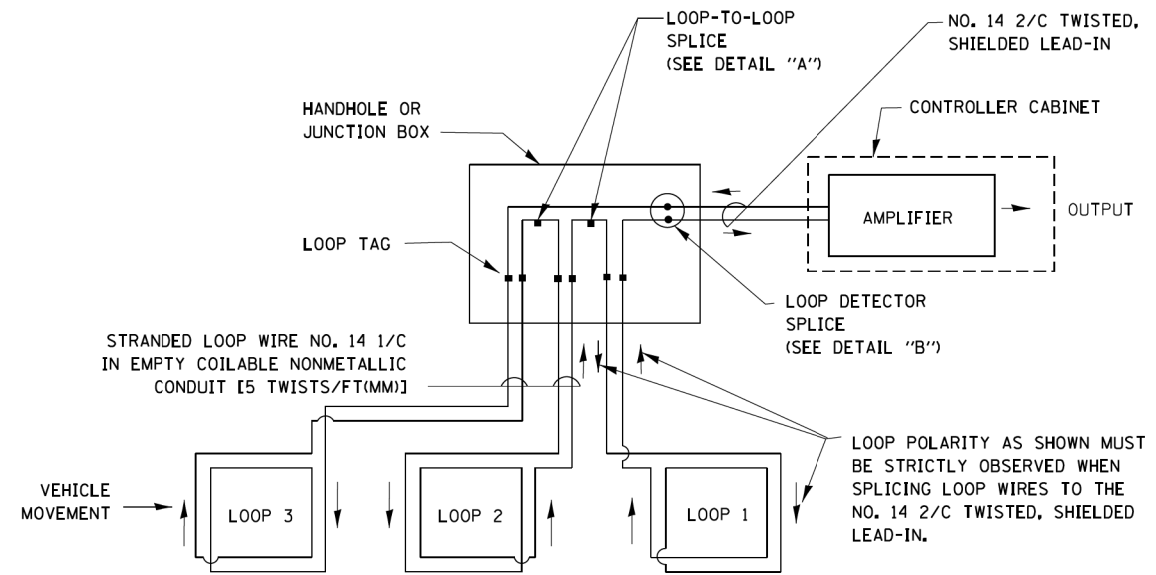
LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

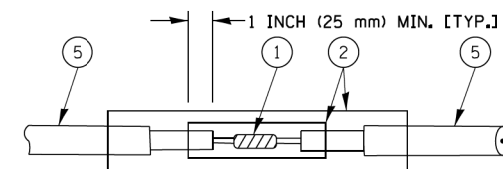


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

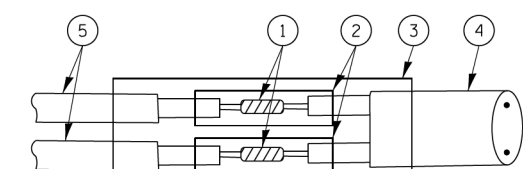


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

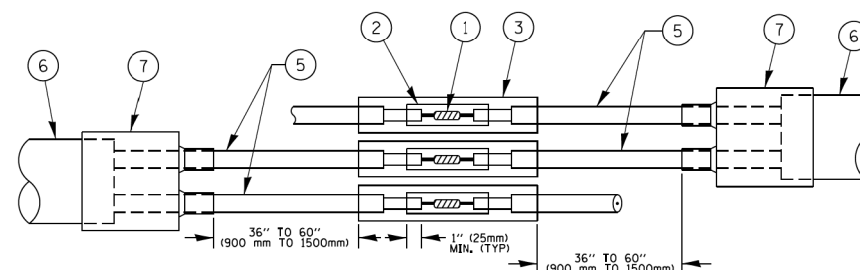


DETAIL "A"
LOOP-TO-LOOP SPLICE

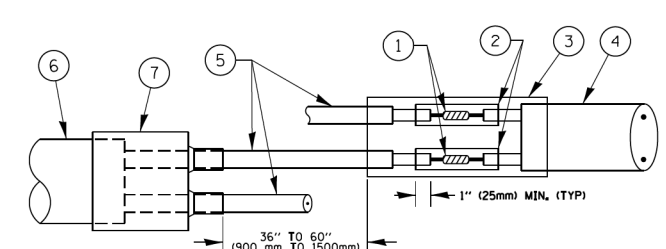


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

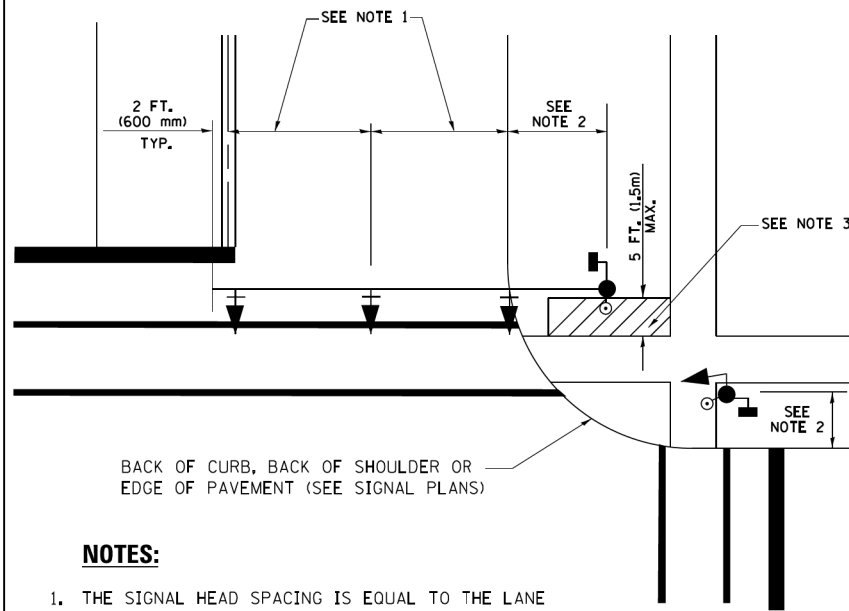
PREFORMED LOOP

LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PREFORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS			F.A.P. RTE. 311	SECTION 2013-062TS	COUNTY	TOTAL SHEETS 49	SHEET NO. 13
ca:\pwork\pwork\footemj\d0108315\ts05.dgn	PLOT SCALE = 50.0000' / in.	DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 2 OF 7 SHEETS	STA.	TO STA.	TS-05		CONTRACT NO. 60X34	
PLOT DATE = 1/13/2014	DATE - 10-28-09	CHECKED - DAD	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
		DATE - 10-28-09	REVISED -									

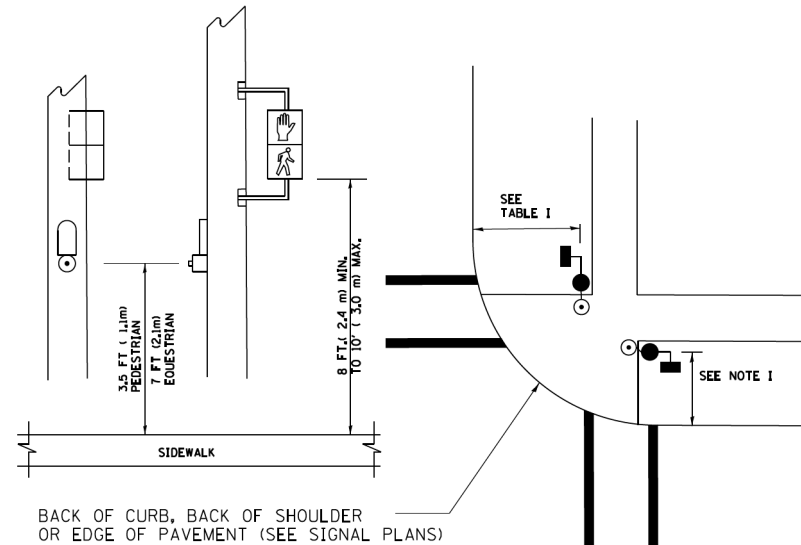
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

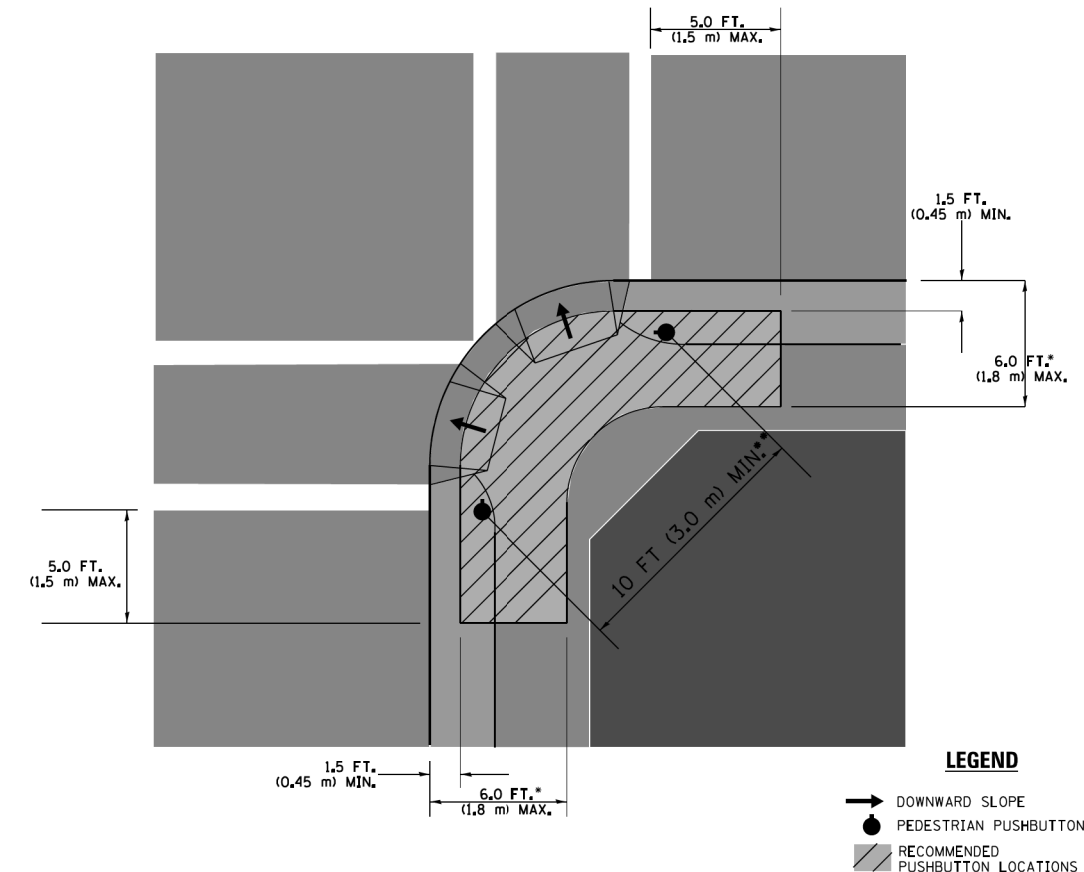
**PEDESTRIAN SIGNAL POST
AND
PEDESTRIAN PUSH BUTTON POST**



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

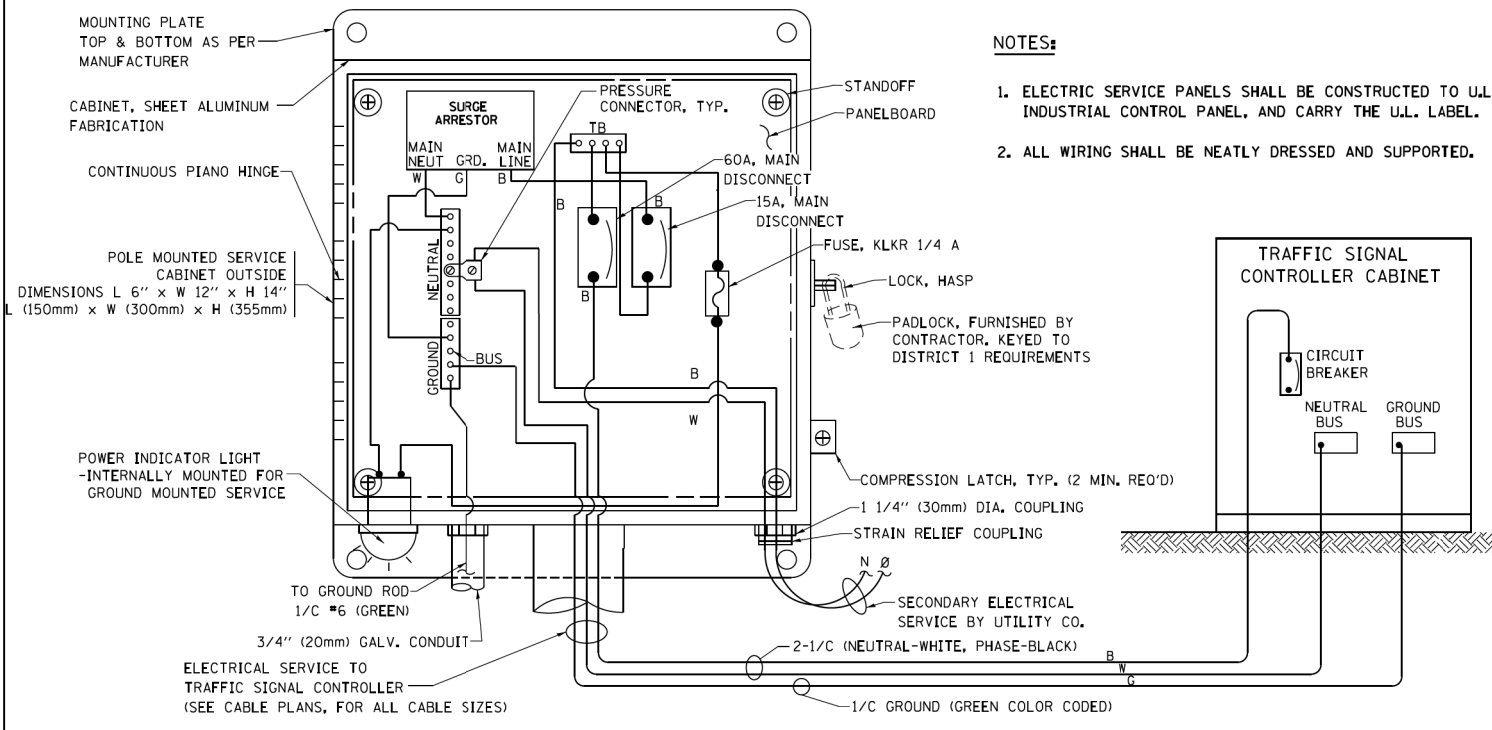
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

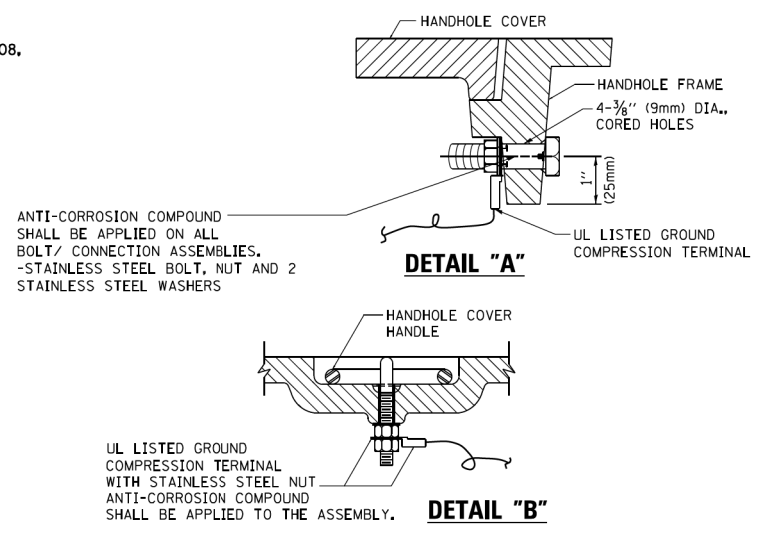
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

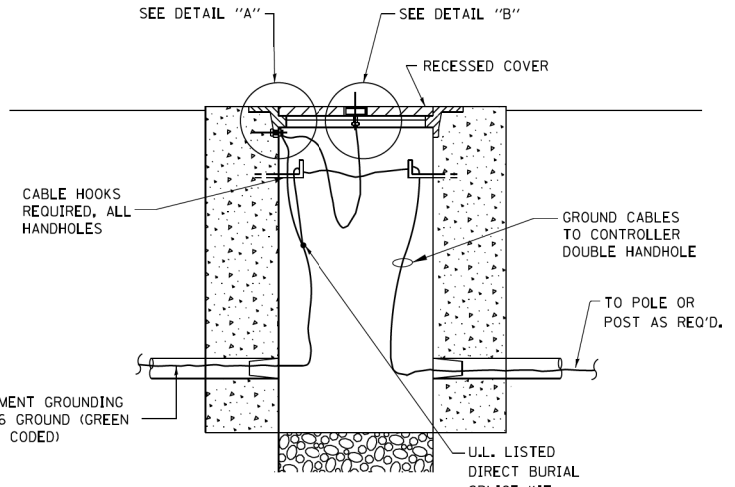


ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)

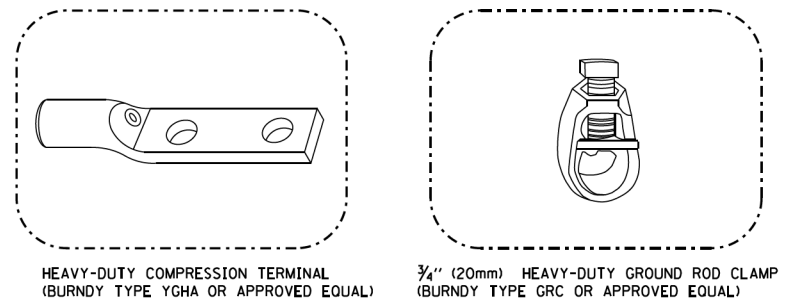


NOTES:
GROUNDING SYSTEM

- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD, ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
- THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

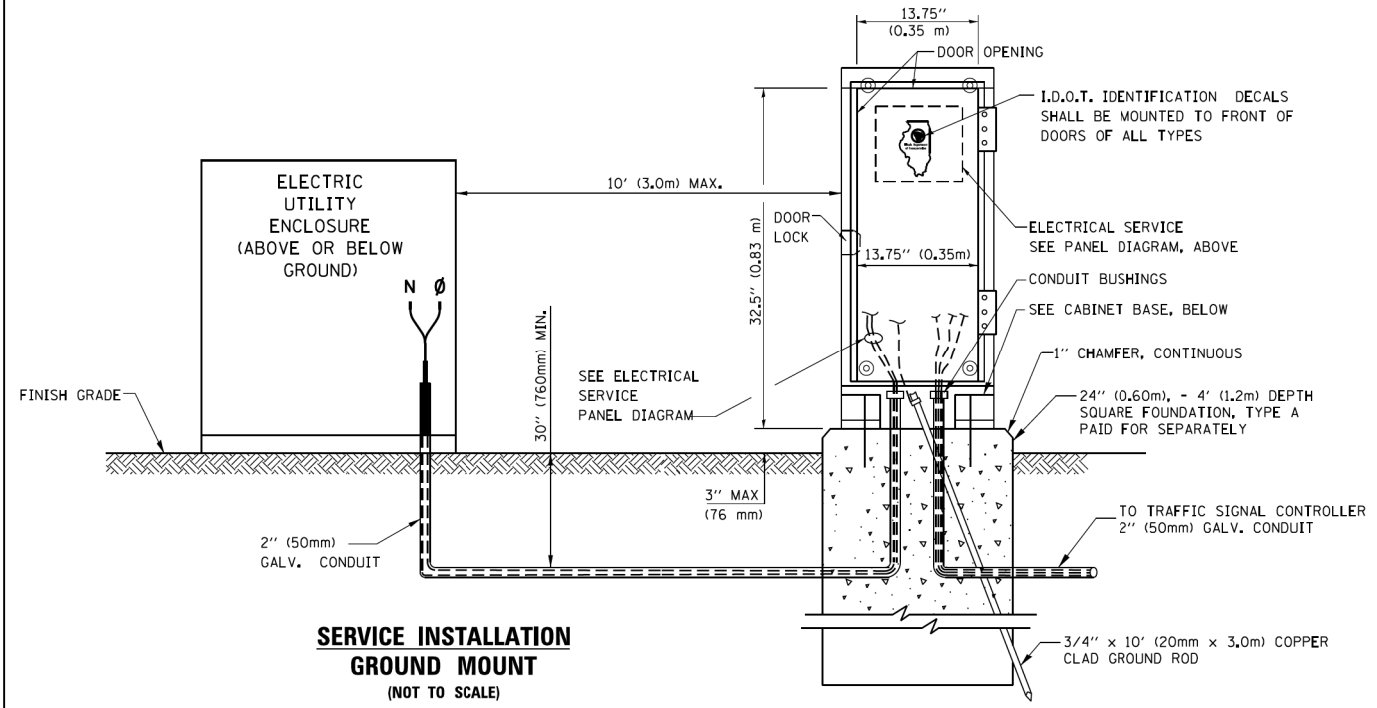


HANDHOLE COVER & FRAME – GROUNDING DETAIL (NOT TO SCALE)

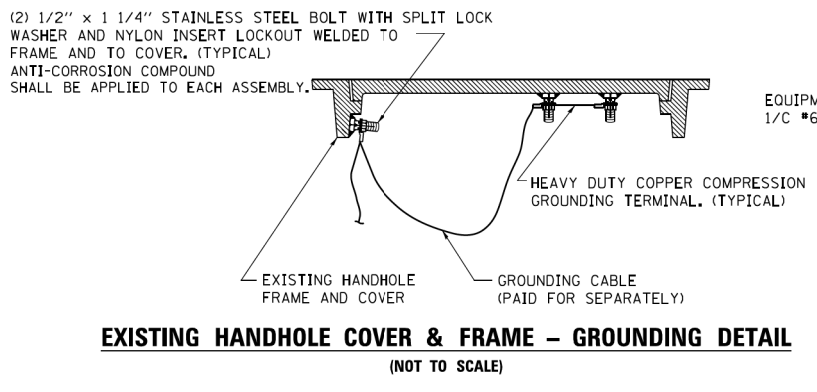


NOTES:

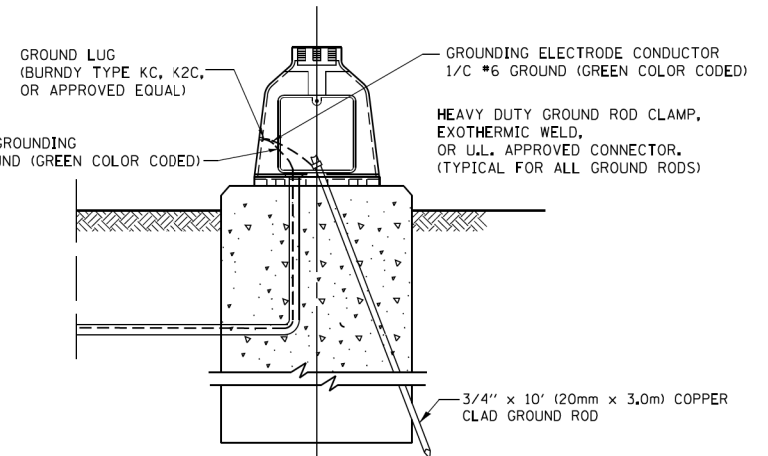
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



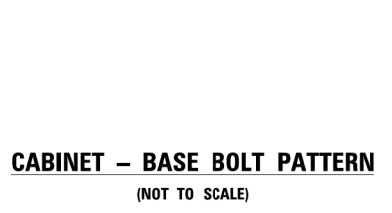
SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)



EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL (NOT TO SCALE)



MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)



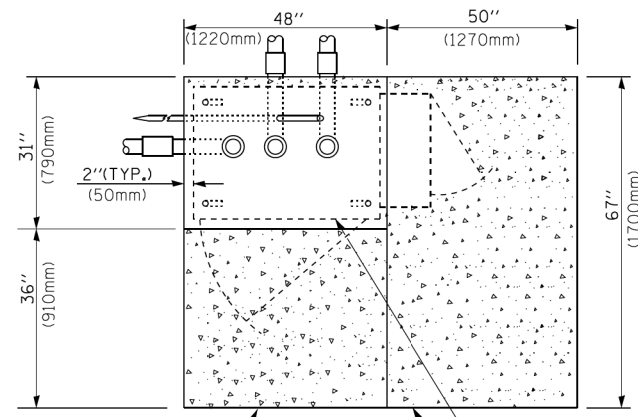
CABINET – BASE BOLT PATTERN (NOT TO SCALE)

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14
ca:\pex-work\pexdot\Footemj\d0108315\ts05.dgn		DRAWN - BCK	REVISED -
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		DATE - 10-28-09	REVISED -

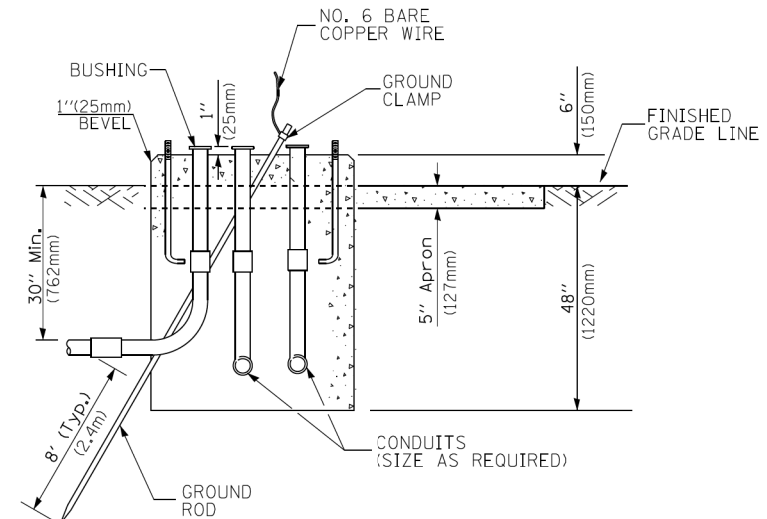
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE	
STANDARD TRAFFIC SIGNAL DESIGN DETAILS	
SCALE: NONE	SHEET NO. 4 OF 7 SHEETS STA. TO STA.

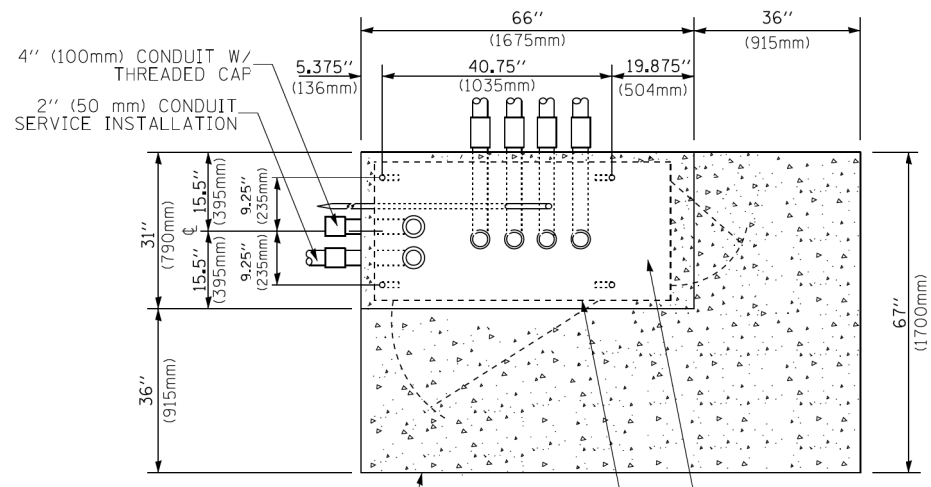
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	15
TS-05		CONTRACT NO. 60X34		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TOP VIEW

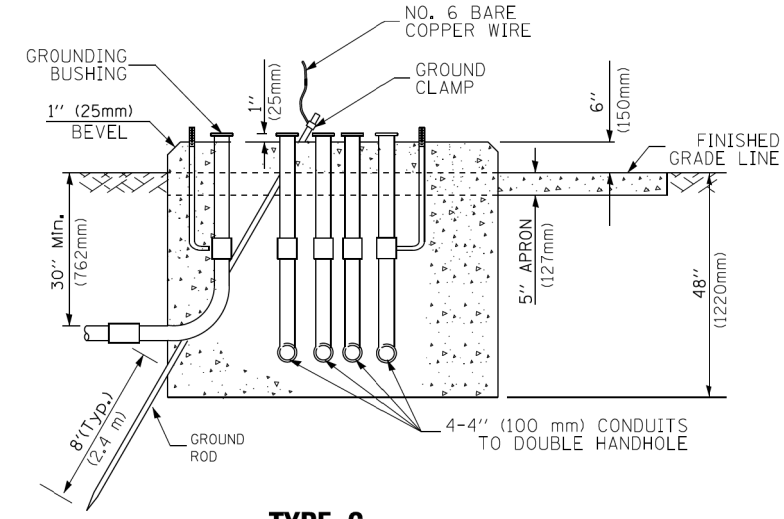


**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**

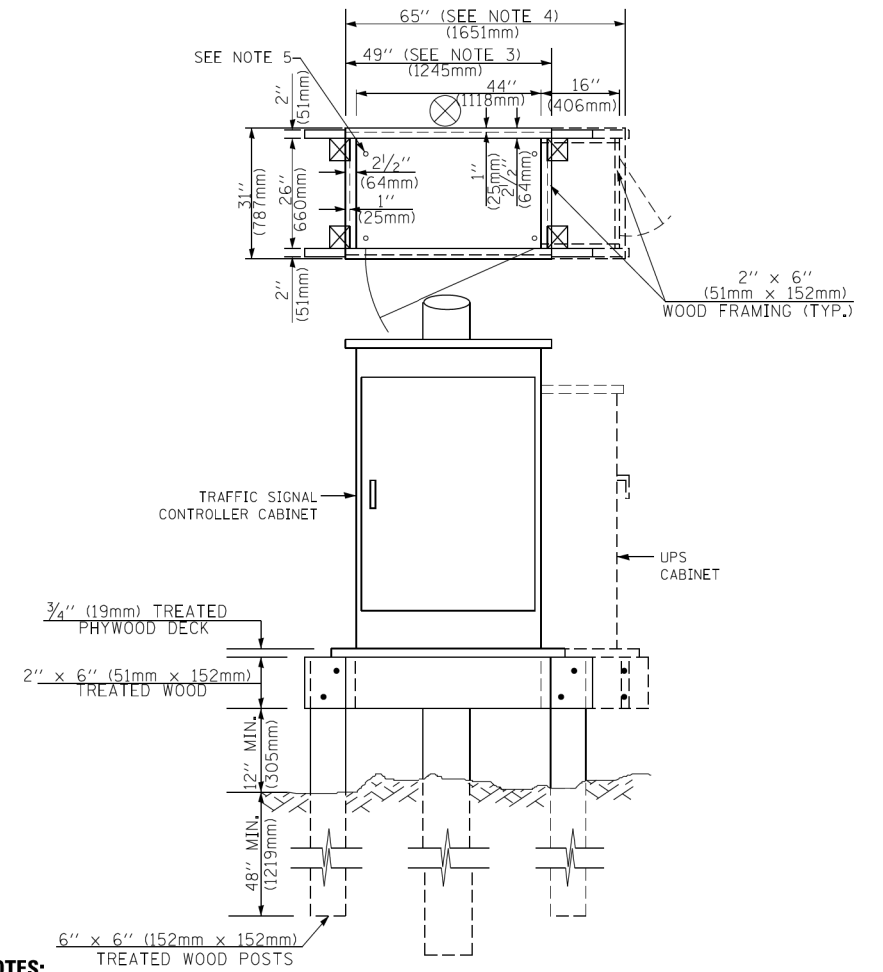


TOP VIEW

NOTE:
TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



**TYPE C
FOR GROUND MOUNTED
SUPER P (TYPE IV) AND SUPER R (TYPE V)
CONTROLLER CABINETS**



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM**

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

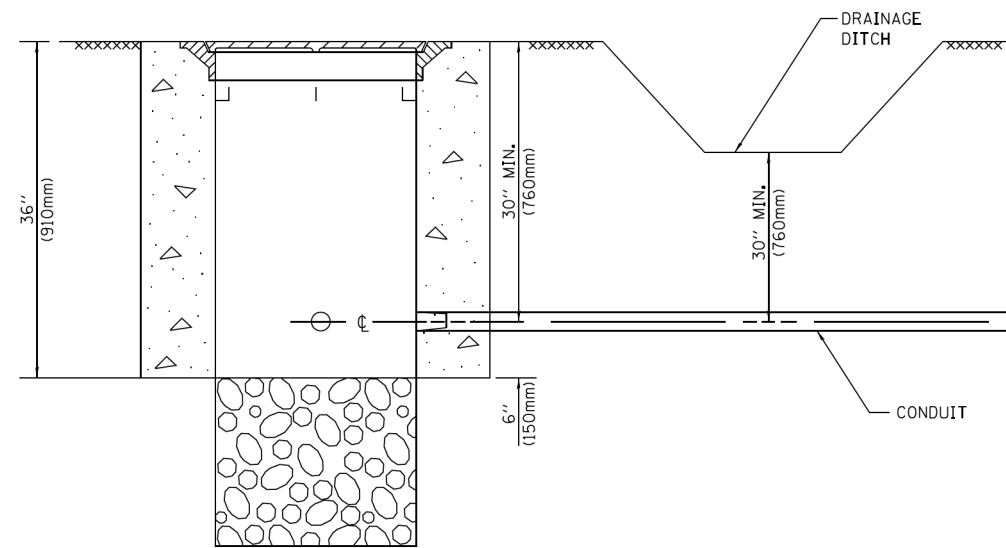
DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001..

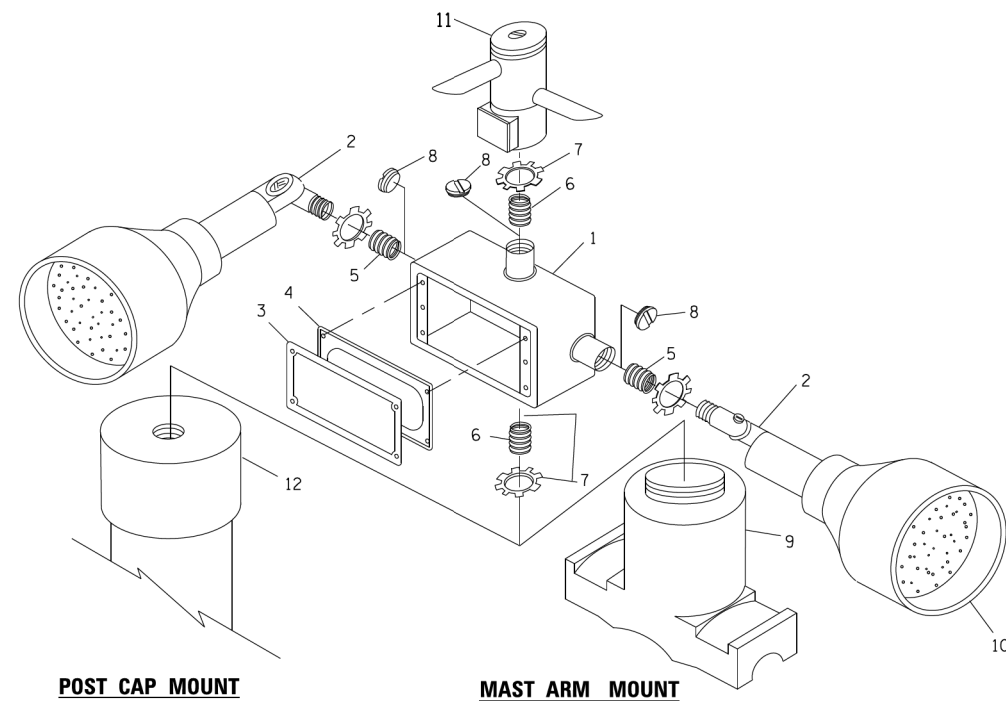
DEPTH OF MAST ARM FOUNDATIONS, TYPE E



NOTES:

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

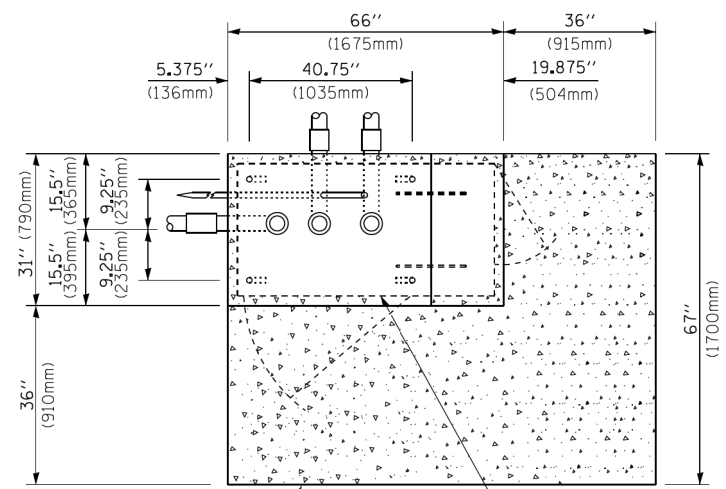
HANDHOLE WITH MINIMUM CONDUIT DEPTH
(NOT TO SCALE)



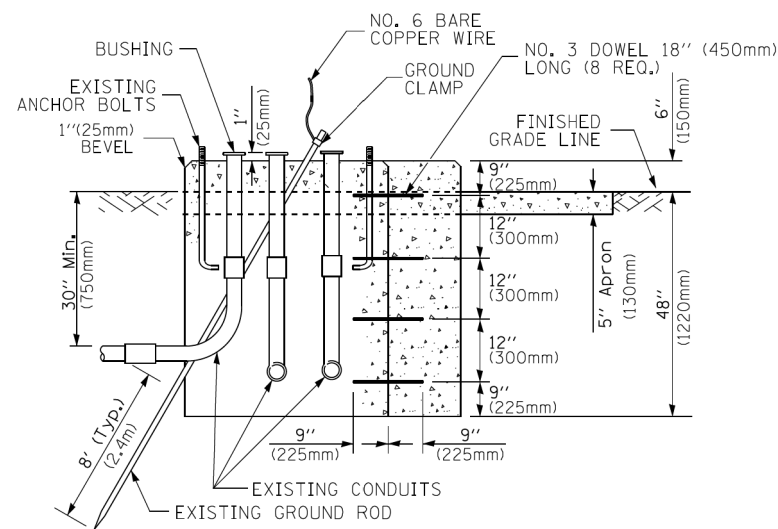
POST CAP MOUNT

MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL



TOP VIEW
(NOT TO SCALE)

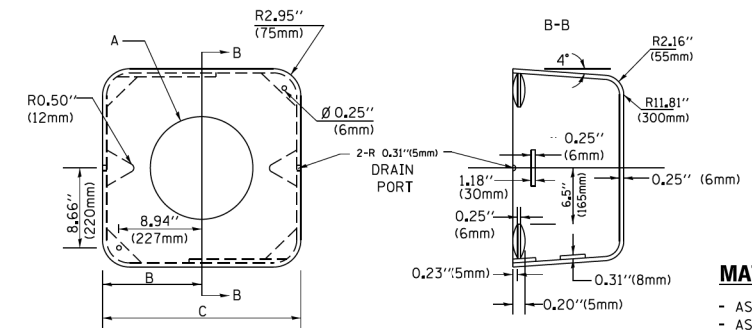


MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION
(NOT TO SCALE)

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0,000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



MATERIAL:
- ASTM A36 STEEL
- ASTM A-123 HOT DIPPED GALVANIZED

A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5" (241mm)	19" (483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIABLES	10.75" (273mm)	21.5" (546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIABLES	13.0" (330mm)	26" (660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIABLES	18.5" (470mm)	37" (940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

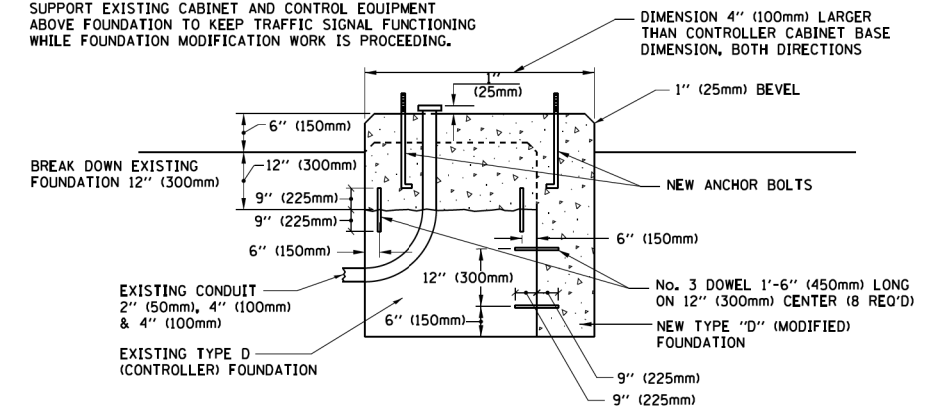
SHROUD

NOTES:

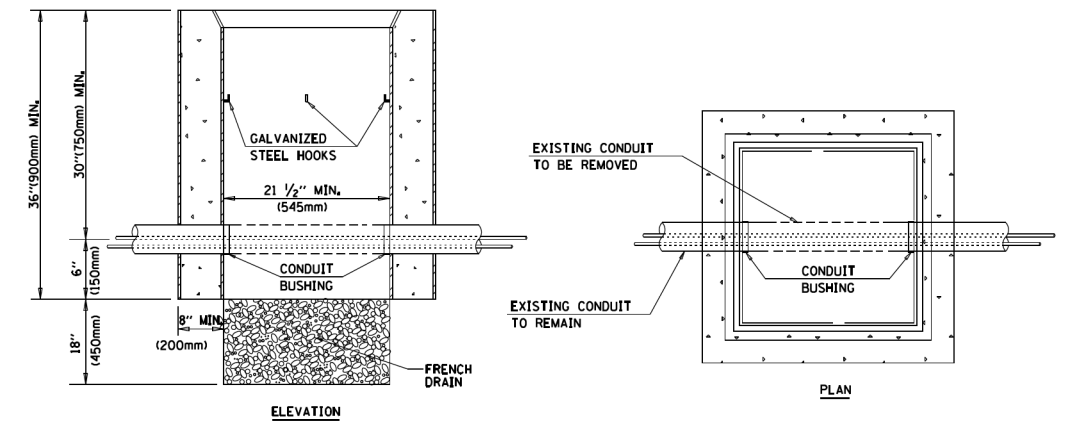
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

NOTE:

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



MODIFY EXISTING TYPE "D" FOUNDATION



NOTES:

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

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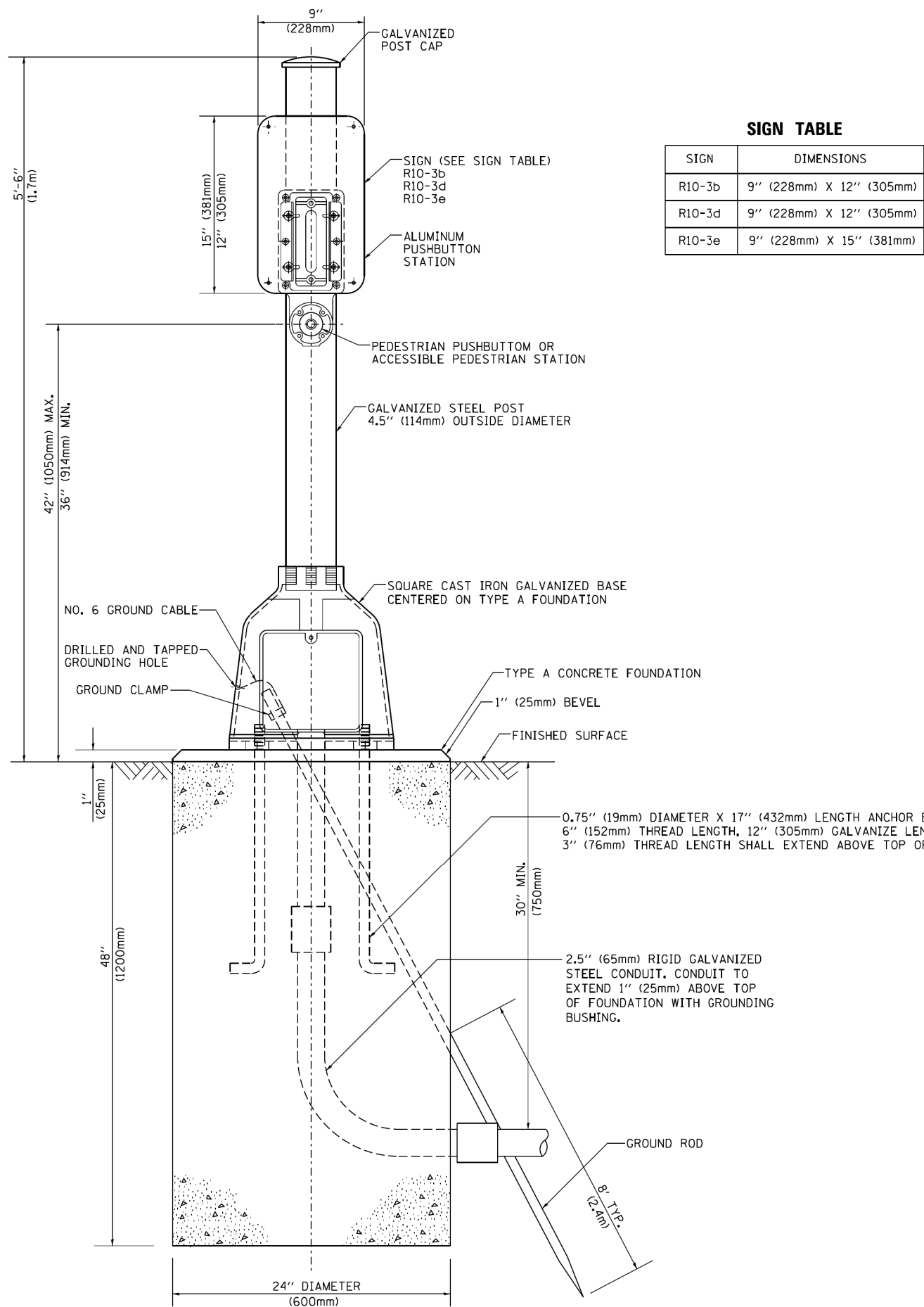
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE

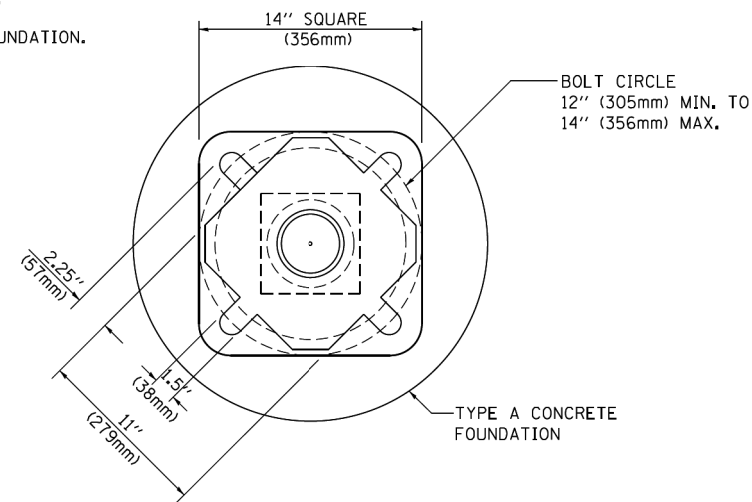
SHEET NO. 6 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	17
TS-05		CONTRACT NO. 60X34		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SIGN TABLE

SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)



BOLT PATTERN

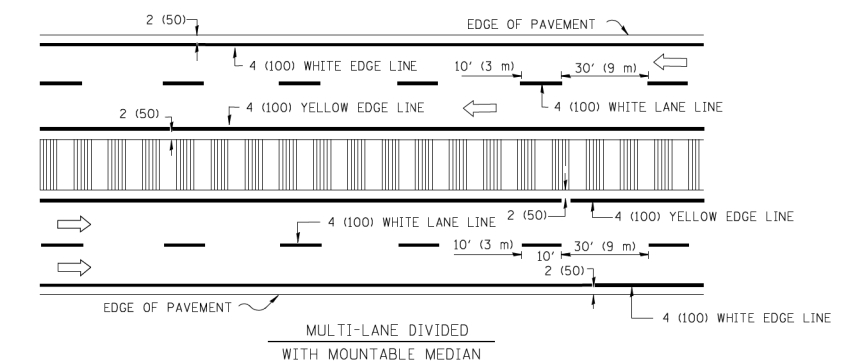
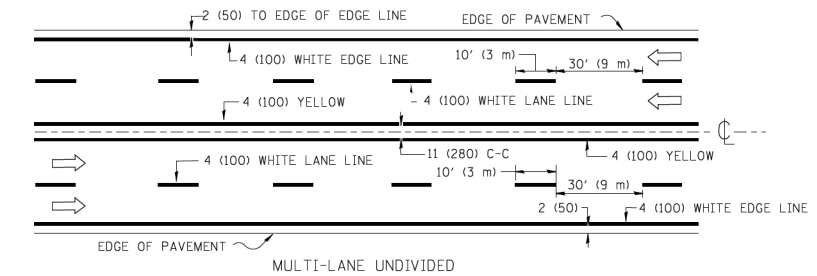
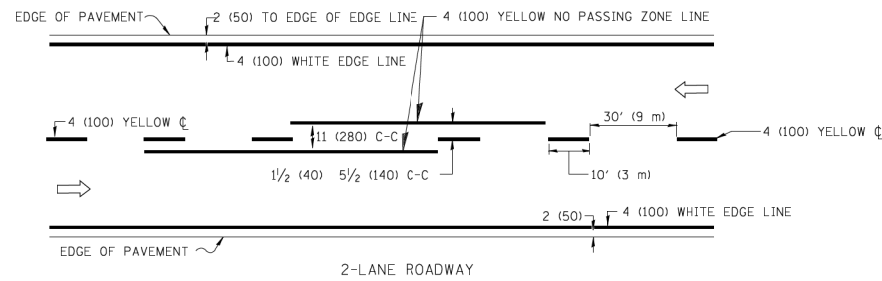
PEDESTRIAN PUSH BUTTON POST, TYPE A

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		DATE - 10/1/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

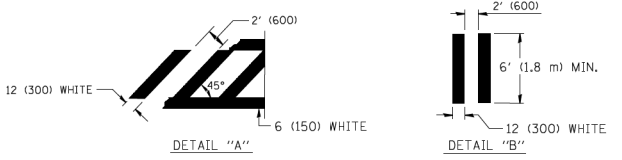
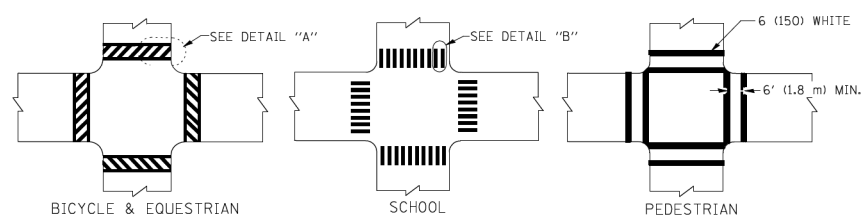
DISTRICT ONE			
STANDARD TRAFFIC SIGNAL DESIGN DETAILS			
SCALE: NONE	SHEET NO. 7 OF 7 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	18
TS-05			CONTRACT NO. 60X34	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

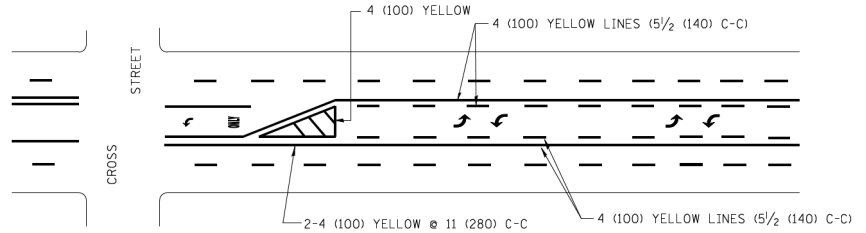
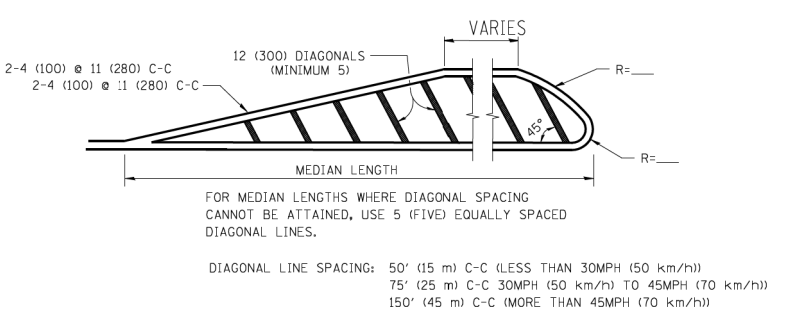
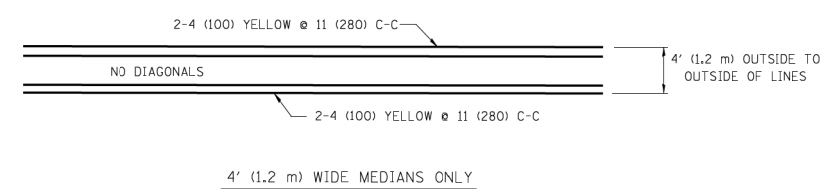


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

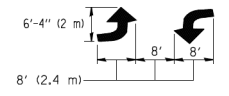
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

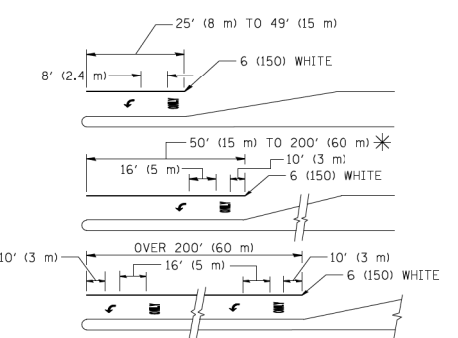


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

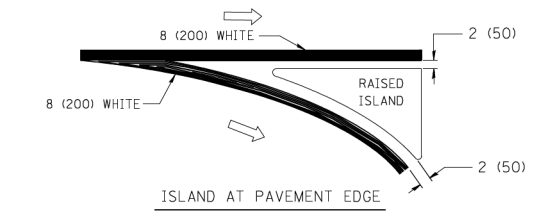
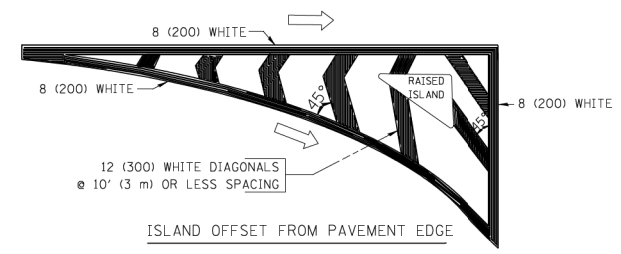
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

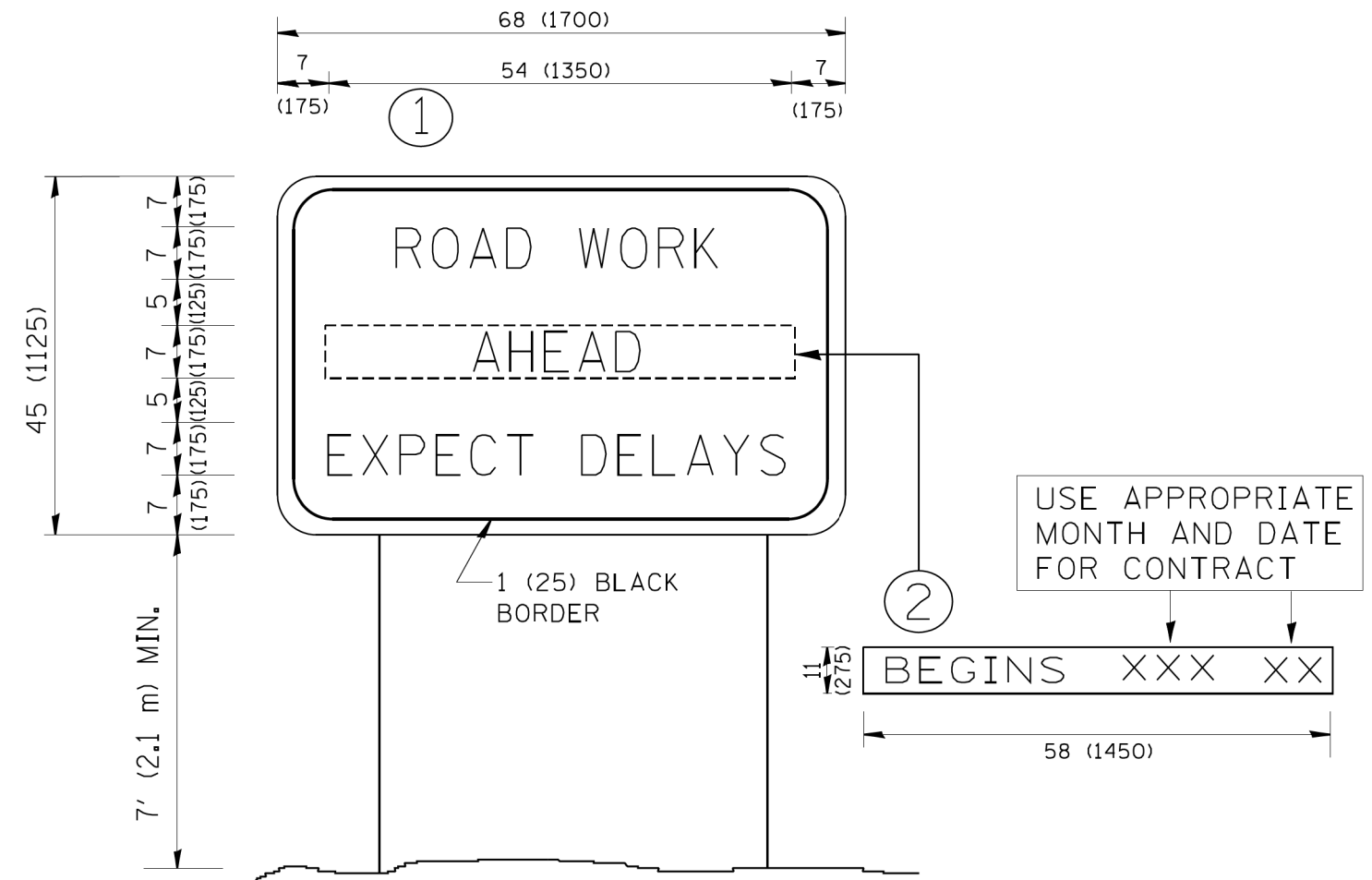
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

FILE NAME = c:\pki\work\pki\dot\drivakosgn\d0108315\to3.dgn	USER NAME = drivakosgn	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
		DRAWN -	REVISED - C. JUCIUS 09-09-09
	PLOT SCALE = 50.0000 / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		311	2013-062TS	DUPAGE	49	19
SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.	CONTRACT NO. 60X34	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

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

FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gegl1enobt	DESIGNED - DRAWN -	REVISED - R. MIRS 09-15-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

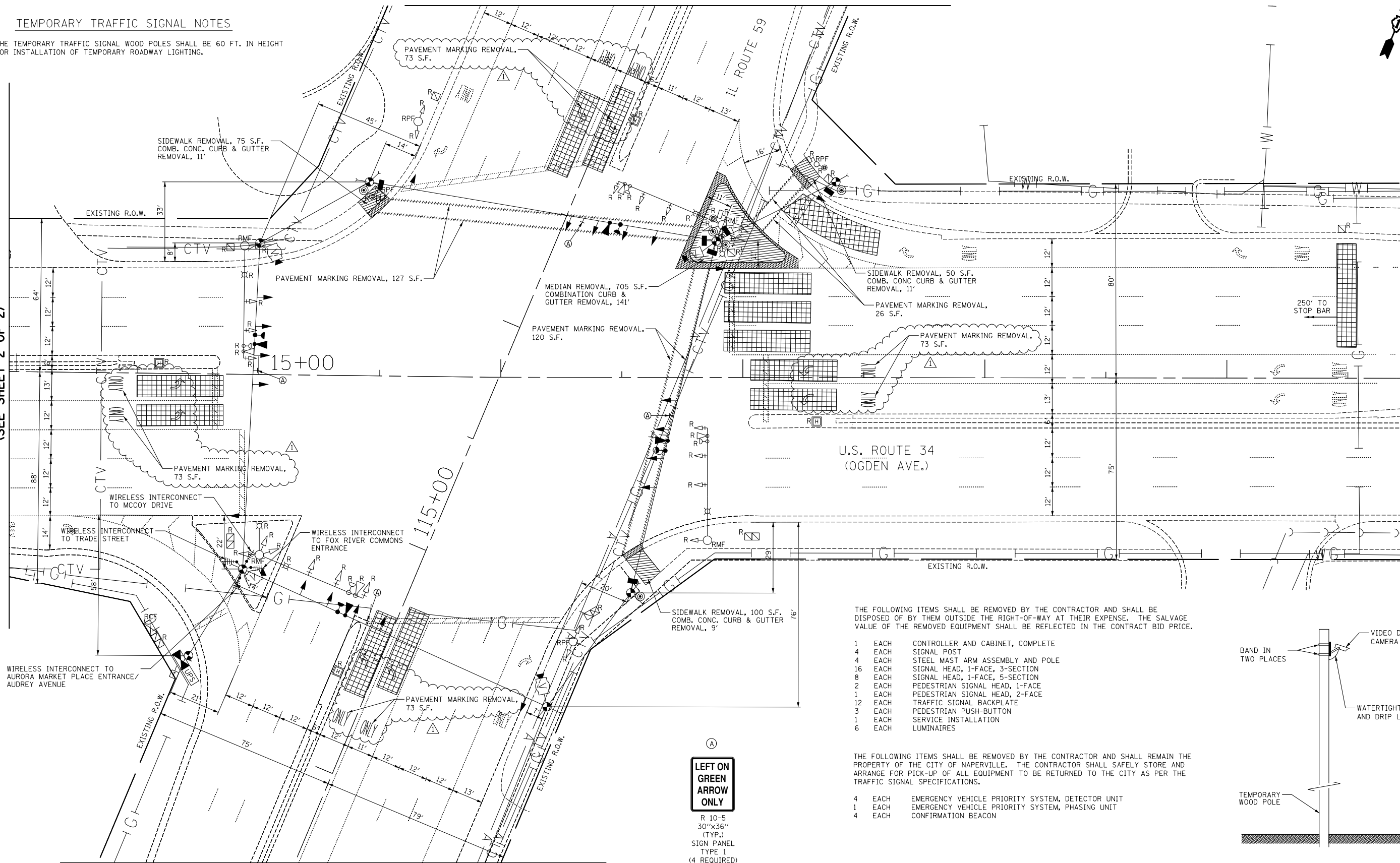
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	20
TC-22		CONTRACT NO. 60X34		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

MATCH LINE A
(SEE SHEET 2 OF 2)

TEMPORARY TRAFFIC SIGNAL NOTES

1. THE TEMPORARY TRAFFIC SIGNAL WOOD POLES SHALL BE 60 FT. IN HEIGHT FOR INSTALLATION OF TEMPORARY ROADWAY LIGHTING.

MATCH LINE B
(SEE SHEET 2 OF 2)



MATCH LINE C
(SEE SHEET 2 OF 2)

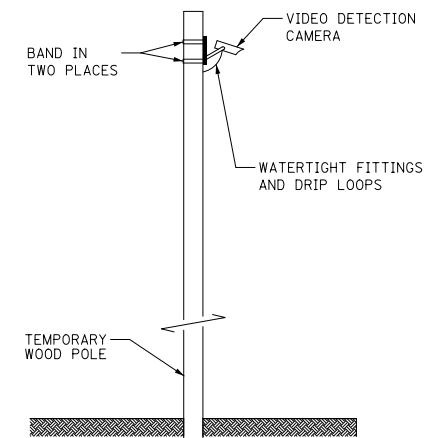
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET, COMPLETE
- 4 EACH SIGNAL POST
- 4 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 16 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 8 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 1 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 12 EACH TRAFFIC SIGNAL BACKPLATE
- 3 EACH PEDESTRIAN PUSH-BUTTON
- 1 EACH SERVICE INSTALLATION
- 6 EACH LUMINAIRES

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE CITY OF NAPERVILLE. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK-UP OF ALL EQUIPMENT TO BE RETURNED TO THE CITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 4 EACH EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
- 1 EACH EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
- 4 EACH CONFIRMATION BEACON

**LEFT ON GREEN
ARROW ONLY**
R 10-5
30"x36"
(TYP.)
SIGN PANEL
TYPE 1
(4 REQUIRED)



TEMPORARY VIDEO DETECTION
DETAIL
(NOT TO SCALE)

TS #6090



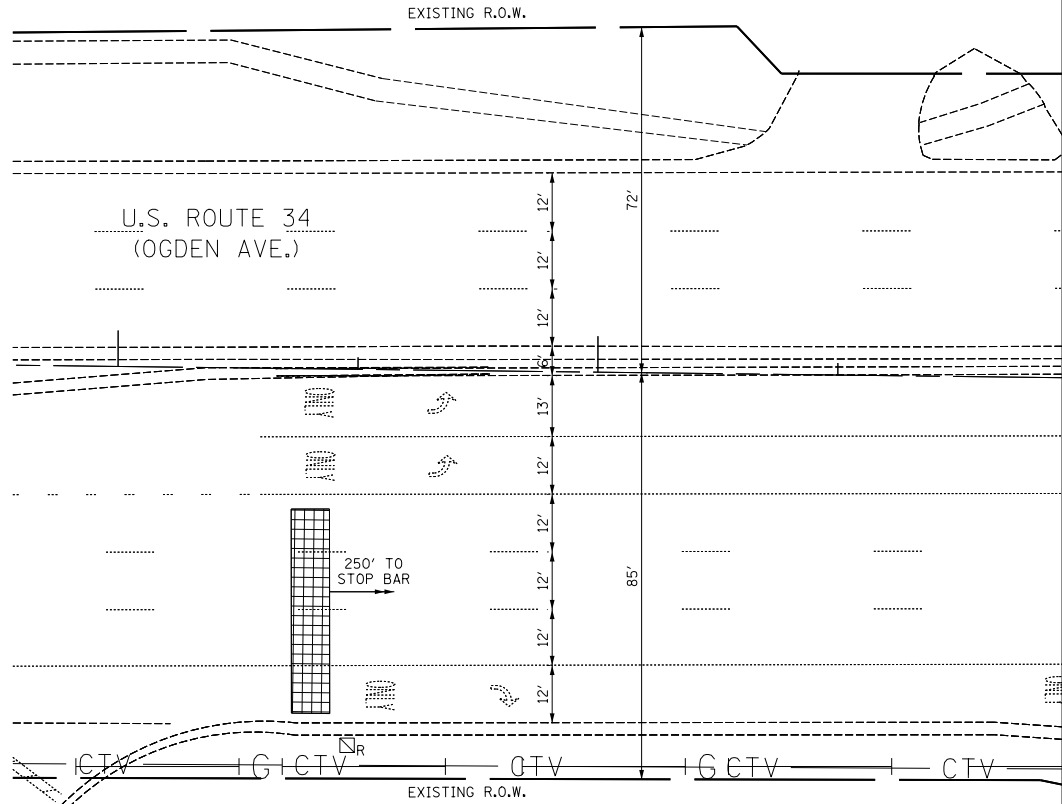
USER NAME = brd	DESIGNED - BRD	REVISED - 03/07/2014
PLOT SCALE = 40.0000' / in.	DRAWN - MFB	REVISED -
PLOT DATE = 3/7/2014	CHECKED - JJE	REVISED -
	DATE - 01/24/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

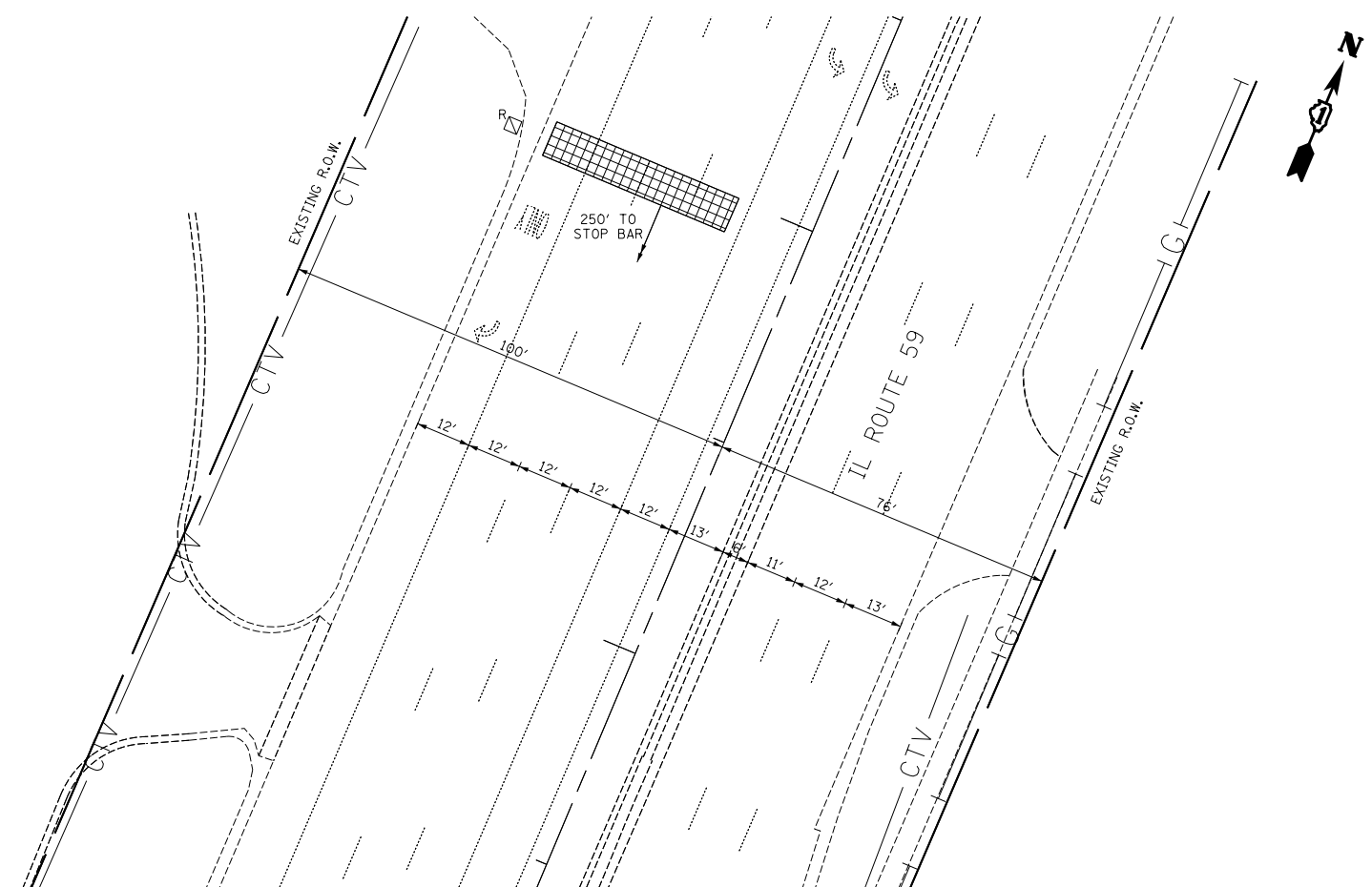
TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND REMOVAL PLAN
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59

SCALE: 1" = 20' SHEET NO. 1 OF 2 SHEETS STA. TO STA.

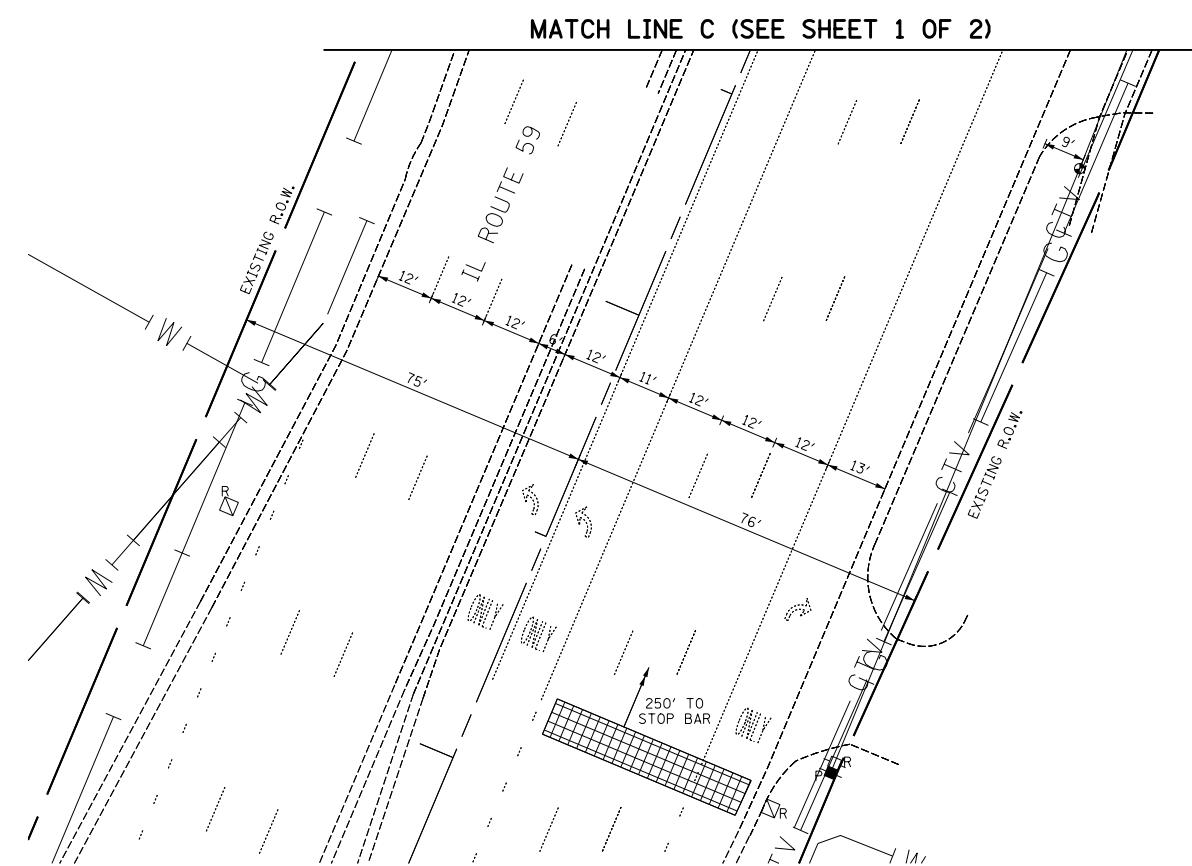
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	21
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				



MATCH LINE B
(SEE SHEET 1 OF 2)



MATCH LINE A (SEE SHEET 1 OF 2)



MATCH LINE C (SEE SHEET 1 OF 2)



USER NAME = jrt	DESIGNED - BRD	REVISED -
	DRAWN - MFB	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JJE	REVISED -
PLOT DATE = 1/30/2014	DATE - 01/30/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

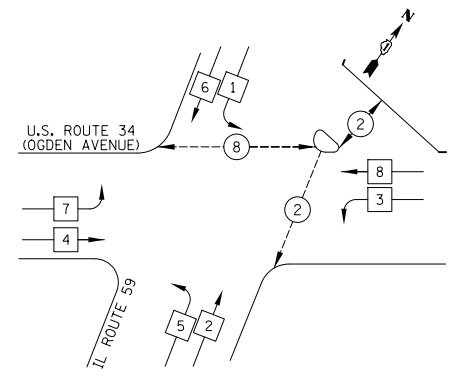
**TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN AND REMOVAL PLAN
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59**

SCALE: 1" = 20' SHEET NO. 2 OF 2 SHEETS STA. TO STA.

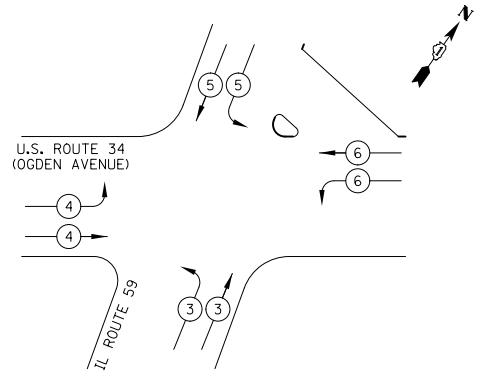
F.A.P. RTE. 311	SECTION 2013-062TS	COUNTY DUPAGE	TOTAL SHEETS 49	SHEET NO. 22
CONTRACT NO. 60X34				
<small>ILLINOIS FED. AID PROJECT</small>				

TS #6090

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE

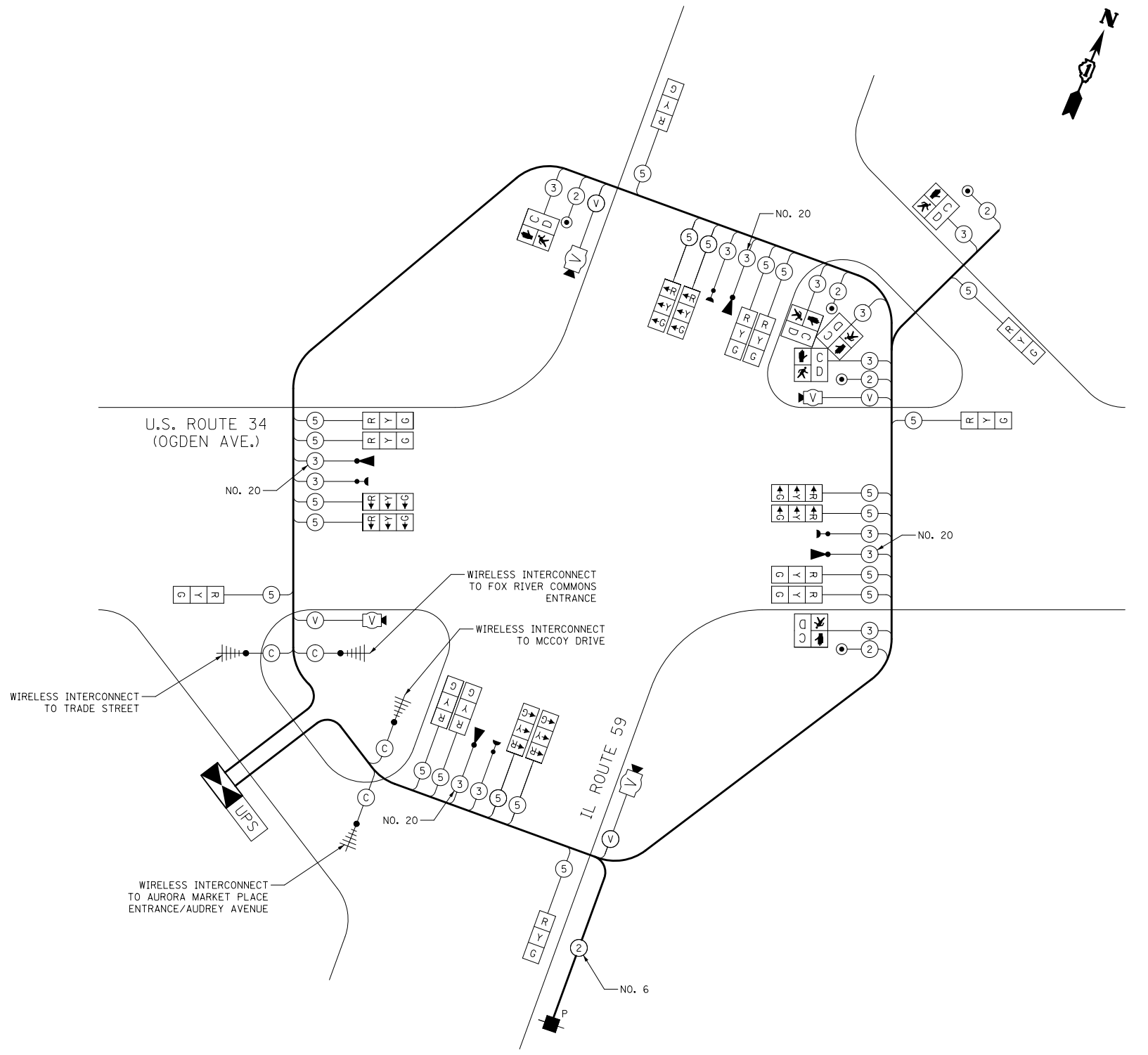


LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

EXISTING EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				



CABLE PLAN
NOT TO SCALE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	13		17	0.50	111
(YELLOW)	13		25	0.25	81
(GREEN)	13		15	0.25	49
ARROW	8		12	0.10	10
PED. SIGNAL	6		25	1.00	150
VIDEO SYSTEM	1		150	1.00	150
CONTROLLER	1		100	1.00	100
TOTAL =					651
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					
ENERGY SUPPLY: CONTACT: LANE SIBLEY PHONE: 630-723-2397 COMPANY: COM ED					

USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - MFB	REVISED -
PLOT DATE = 1/30/2014	CHECKED - JJE	REVISED -
	DATE - 01/30/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY SEQUENCE OF OPERATION,
& TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59

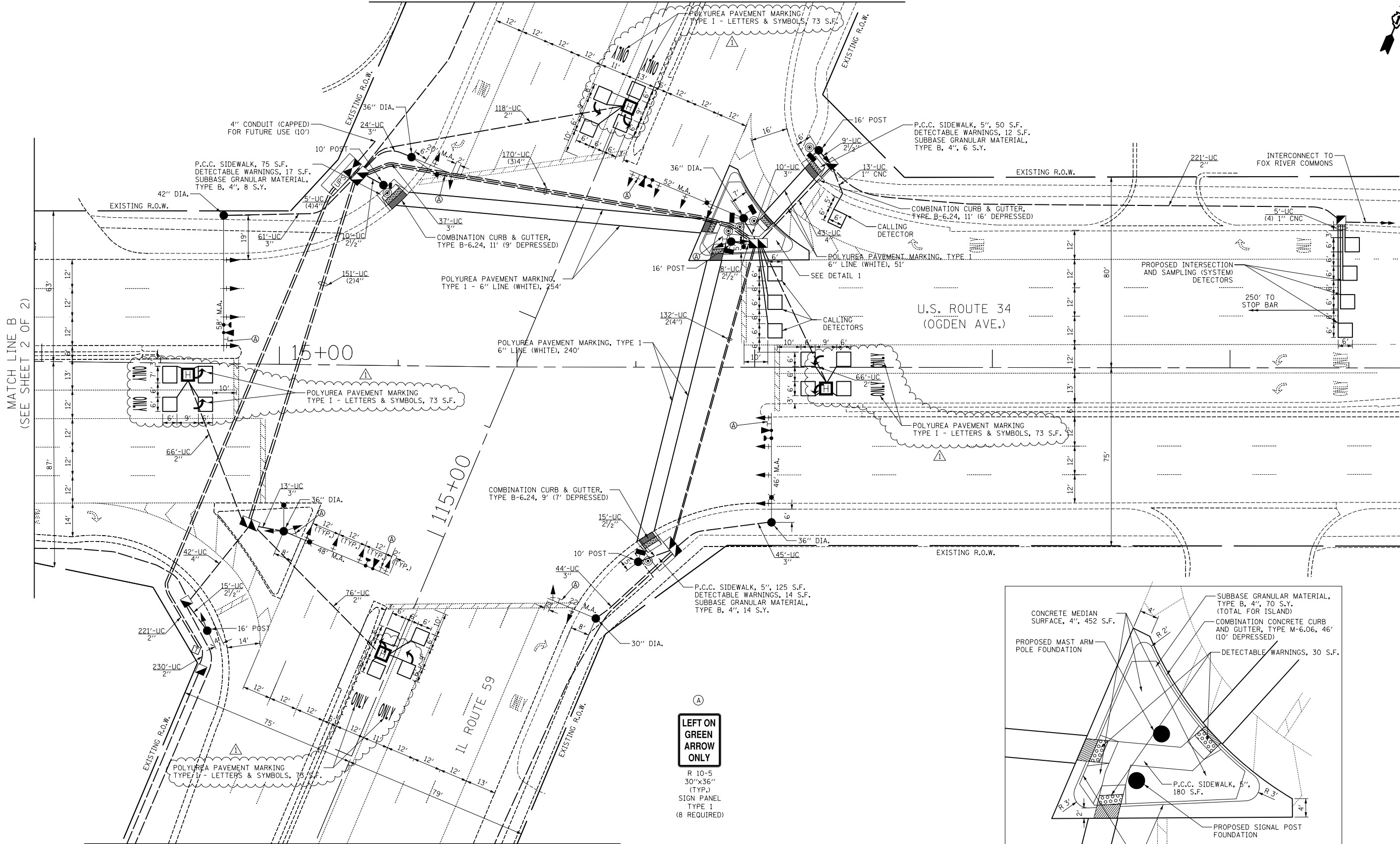
NO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 311	SECTION 2013-062TS	COUNTY	TOTAL SHEETS 49	SHEET NO. 23
			CONTRACT NO. 60X34	
ILLINOIS FED. AID PROJECT				

TS #6090

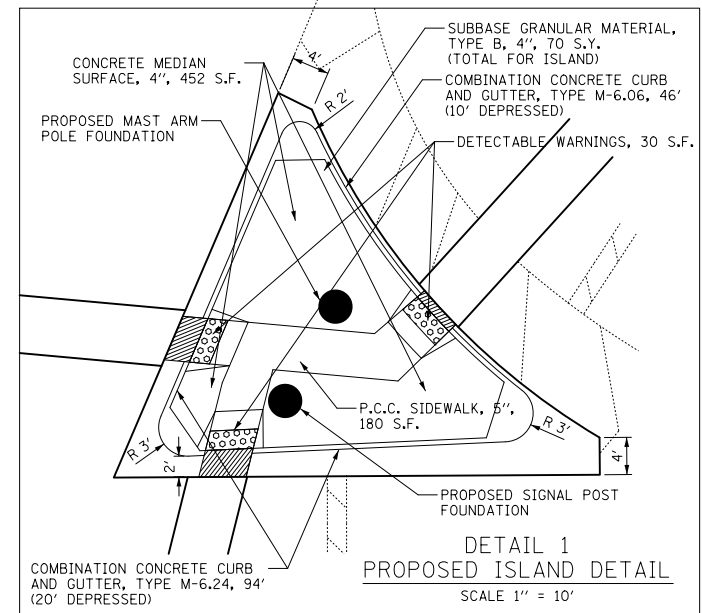


MATCH LINE A
(SEE SHEET 2 OF 2)



(A)
LEFT ON
GREEN
ARROW
ONLY

R 10-5
30\"/>



MATCH LINE C
(SEE SHEET 2 OF 2)

MATCH LINE B
(SEE SHEET 2 OF 2)



USER NAME = brd	DESIGNED - BRD	REVISED - 03/07/2014
PLOT SCALE = 40.0000' / in.	DRAWN - MFB	REVISED -
PLOT DATE = 3/7/2014	CHECKED - JJE	REVISED -
	DATE - 01/24/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

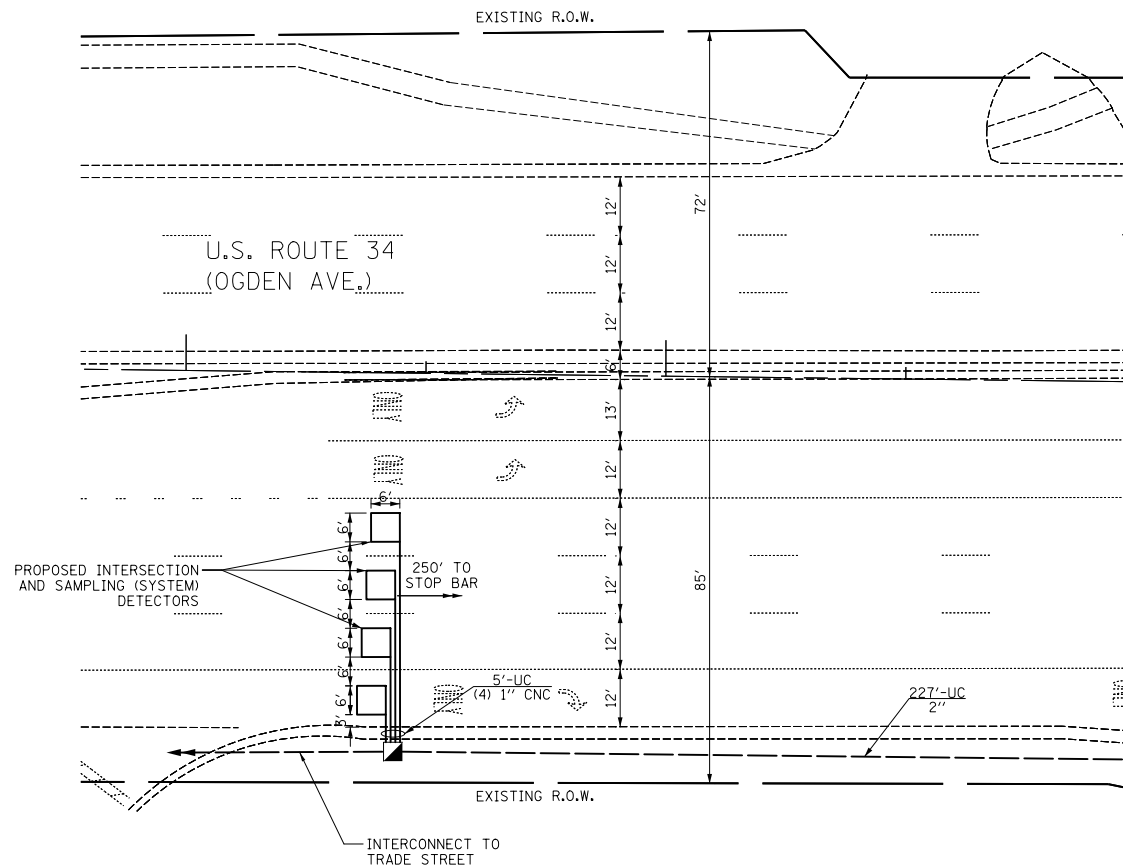
TRAFFIC SIGNAL MODERNIZATION PLAN
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59

NO SCALE SHEET NO. 1 OF 2 SHEETS STA. TO STA.

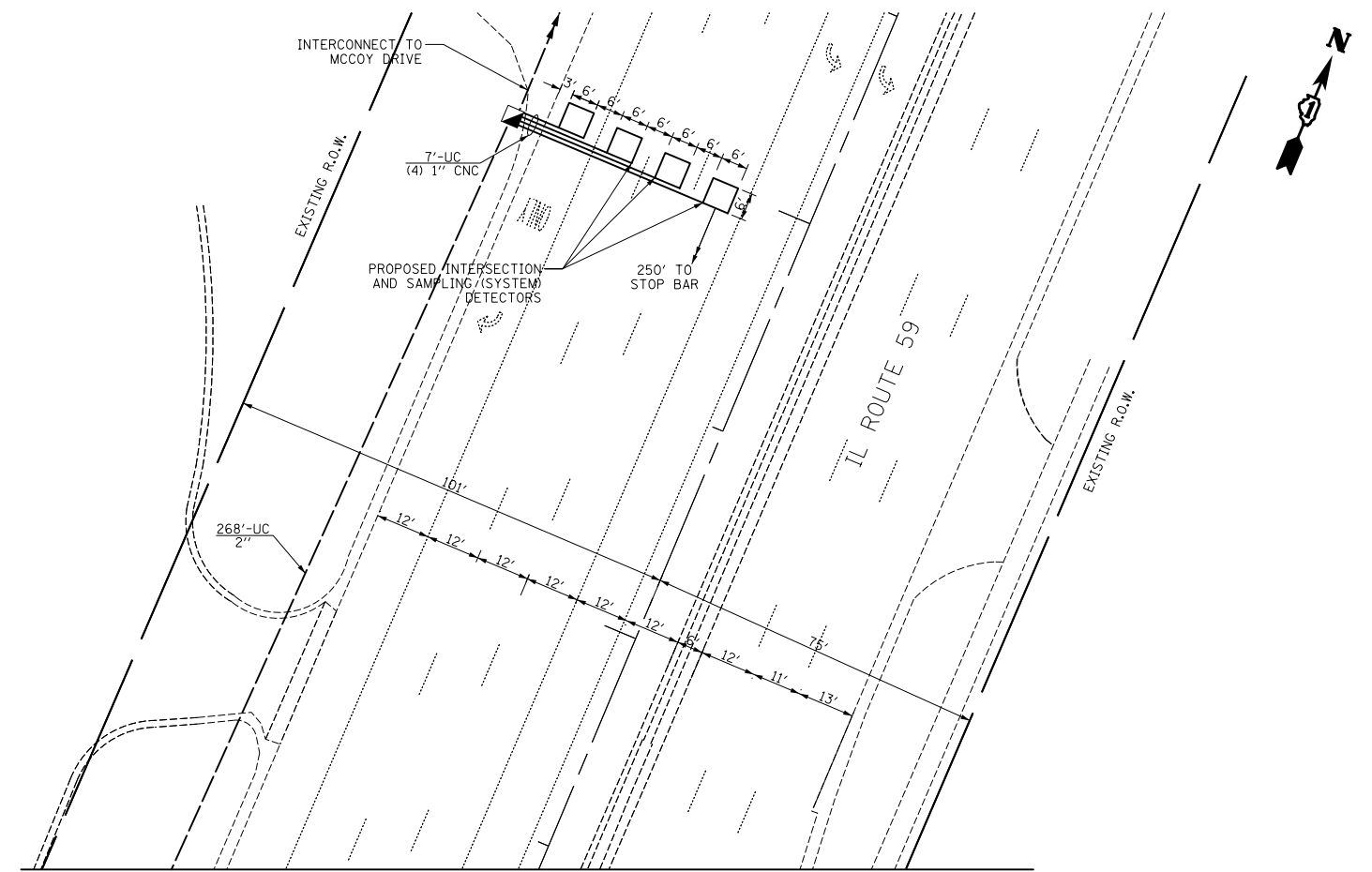
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	24
CONTRACT NO. 60X34				

ILLINOIS FED. AID PROJECT

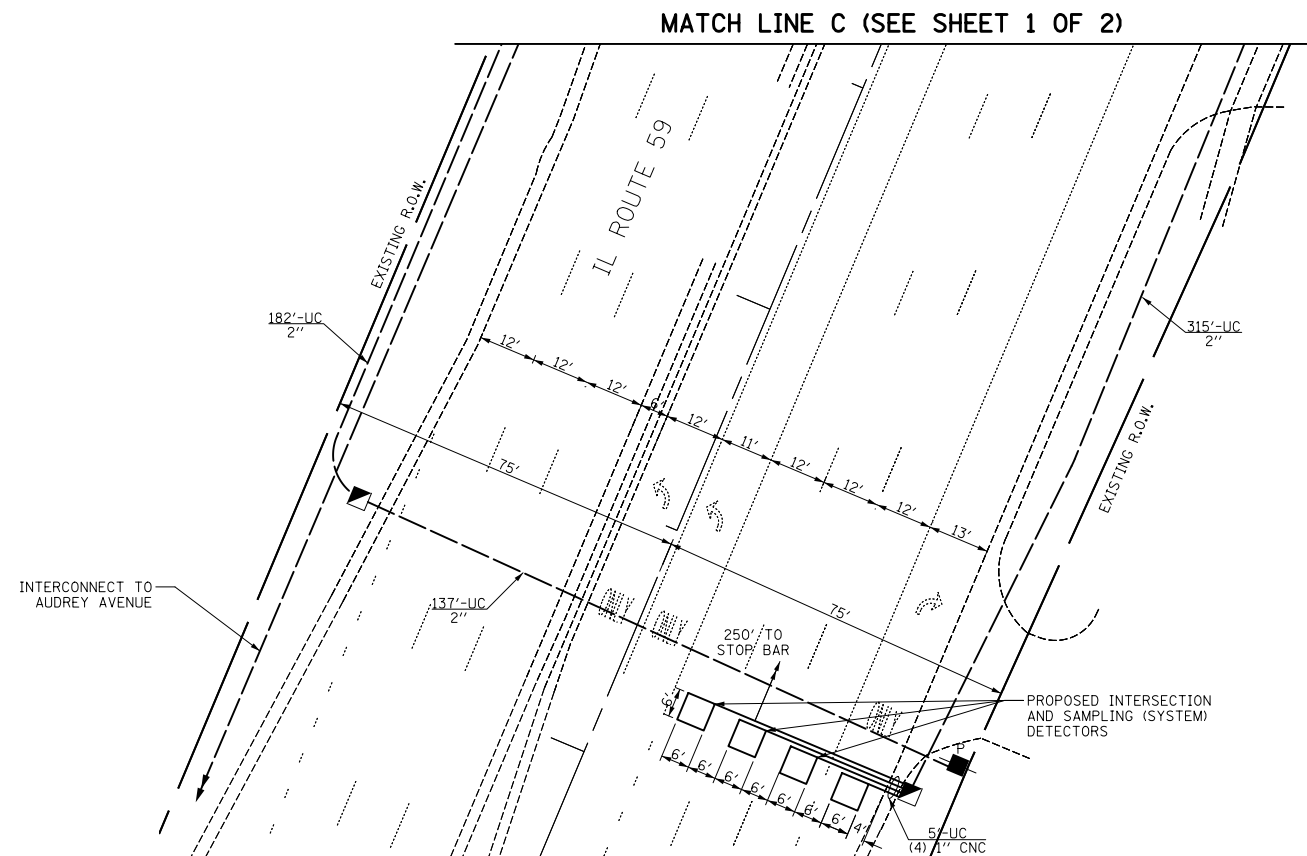
TS #6090



MATCH LINE B
(SEE SHEET 1 OF 2)



MATCH LINE A (SEE SHEET 1 OF 2)



MATCH LINE C (SEE SHEET 1 OF 2)



USER NAME = jrt	DESIGNED - BRD	REVISED -
	DRAWN - MFB	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JJE	REVISED -
PLOT DATE = 1/30/2014	DATE - 01/30/2014	REVISED -

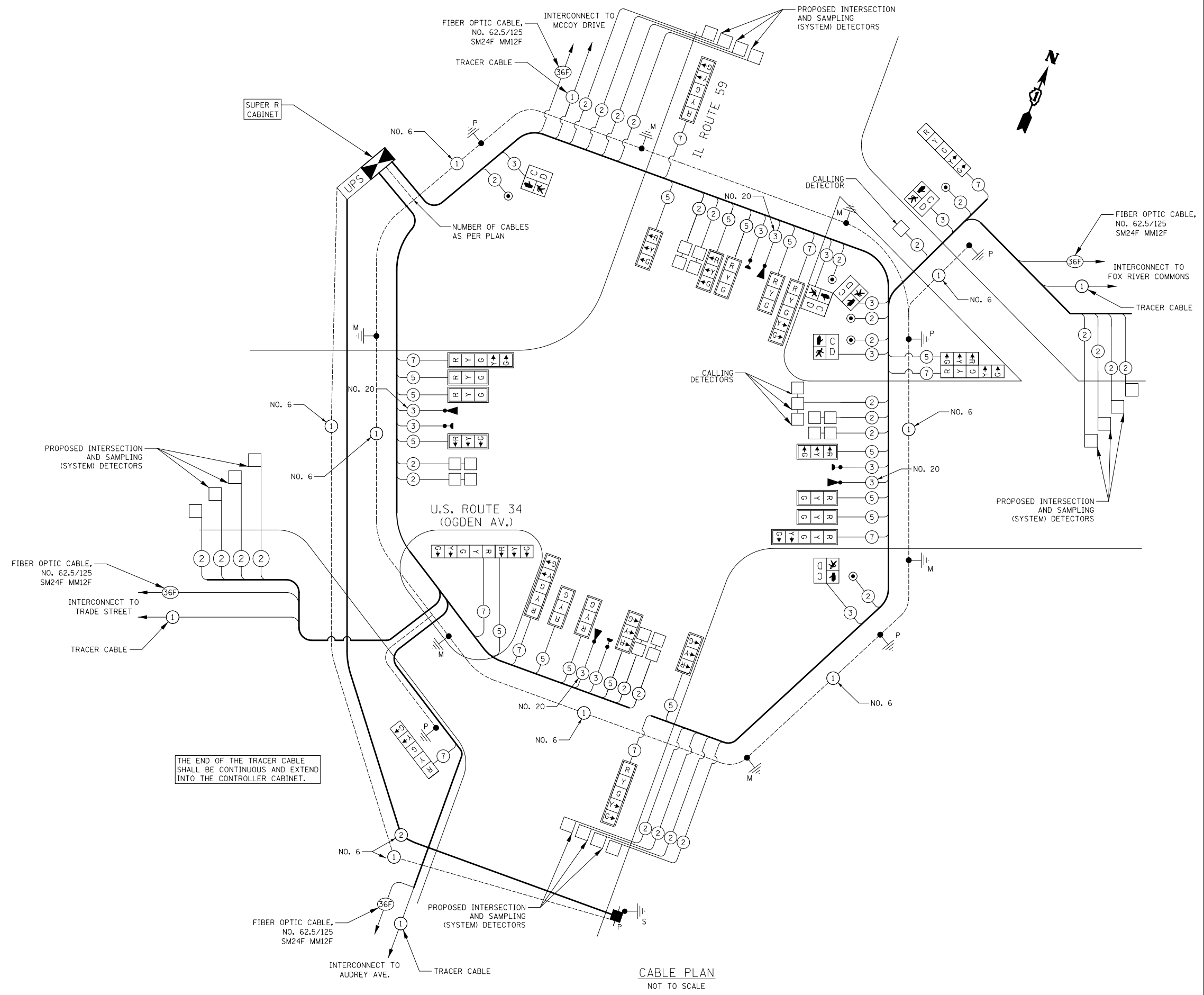
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59

NO SCALE SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	25
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				

TS #6090



THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

CABLE PLAN
NOT TO SCALE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)	26	INCAND.	17	0.50	221
(YELLOW)	26		25	0.25	163
(GREEN)	26		15	0.25	98
ARROW	20		12	0.10	24
PED. SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
TOTAL =					756
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					
ENERGY SUPPLY: CONTACT: LANE SIBLEY PHONE: 630-723-2397 COMPANY: COM ED					

USER NAME = mfb	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - MFB	REVISED -
PLOT DATE = 2/3/2014	CHECKED - JJE	REVISED -
	DATE - 01/24/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59

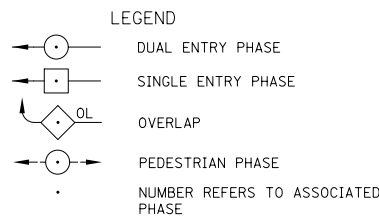
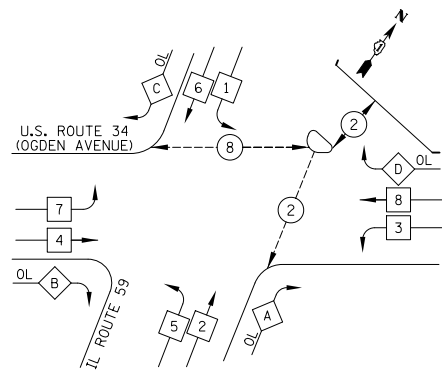
NO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 311	SECTION 2013-062TS	COUNTY DUPAGE	TOTAL SHEETS 49	SHEET NO. 26
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				

TS #6090



PROPOSED CONTROLLER SEQUENCE

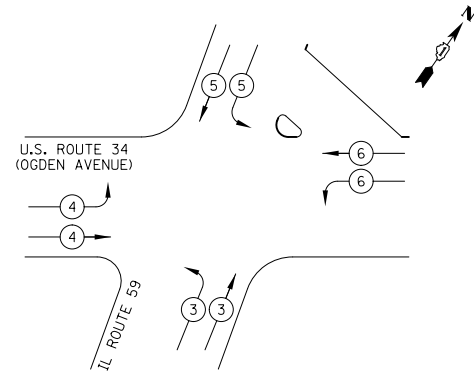


PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2 + 3	
B	= 4 + 5	
C	= 6 + 7	
D	= 8 + 1	

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	98
PROTECTIVE COAT	SQ YD	157
PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	SQ FT	430
DETECTABLE WARNINGS	SQ FT	73
COMBINATION CURB AND GUTTER REMOVAL	FOOT	172
SIDEWALK REMOVAL	SQ FT	225
MEDIAN REMOVAL	SQ FT	705
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	31
COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.06	FOOT	46
COMBINATION CONCRETE CURB AND GUTTER, TYPE M-6.24	FOOT	94
CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	452
ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	2
MOBILIZATION	L SUM	0.333
TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	0.333
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.333
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.333
CHANGEABLE MESSAGE SIGN	CAL MO	0.667
SIGN PANEL - TYPE 1	SQ FT	74
SIGN PANEL - TYPE 2	SQ FT	25
POLYUREA PAVEMENT MARKING TYPE 1 - LETTERS AND SYMBOLS	SQ FT	292
POLYUREA PAVEMENT MARKING TYPE 1 - LINE 6"	FOOT	545
PAVEMENT MARKING REMOVAL	SQ FT	565
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	2127
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	57
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	197
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	1149
HANDHOLE	EACH	8
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	4
TRANSCIEVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1373
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2591
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	4404
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2557
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	10047
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	582
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	2233
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE 22 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE 58 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 20 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	20
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	52
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	14
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	20
INDUCTIVE LOOP DETECTOR	EACH	26
DETECTOR LOOP, TYPE I	FOOT	1360
* LIGHT DETECTOR	EACH	4
* LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	6
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	13
REMOVE EXISTING DOUBLE HANDHOLE	EACH	4
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
* EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	1182
** FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
MASTER CONTROLLER (SPECIAL)	EACH	1
UNINTERRUPTABLE POWER SUPPLY SPECIAL	EACH	1
TEMPORARY INFORMATION SIGNING	SQ FT	103
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

* 100% COST TO THE CITY OF NAPERVILLE
 ** SUPER R CABINET

TS #6090



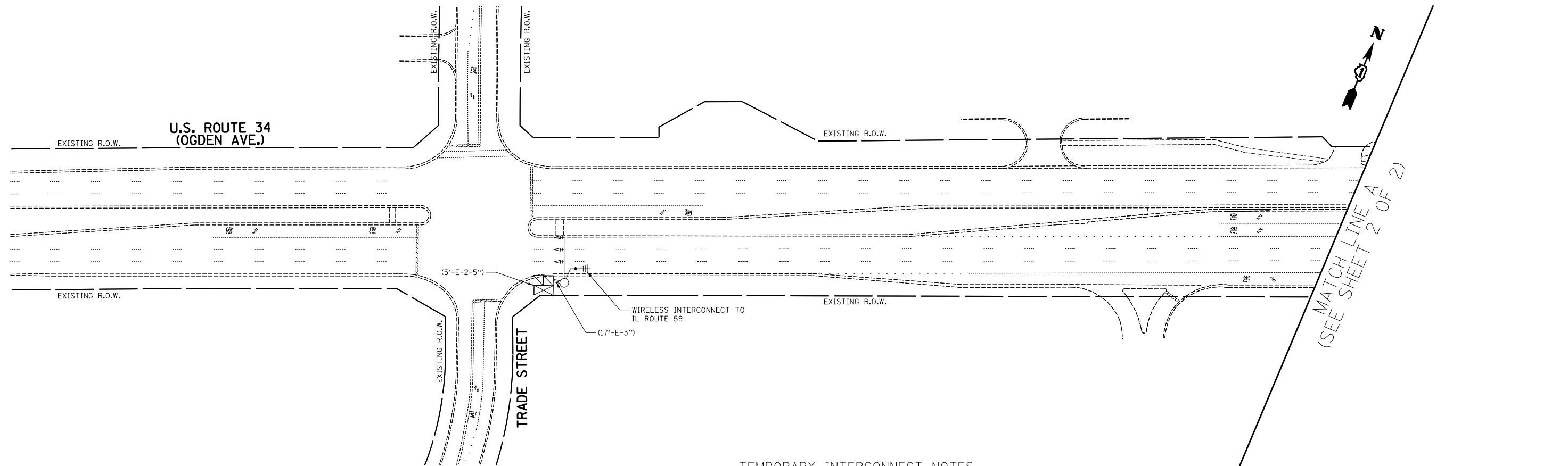
USER NAME = jrt	DESIGNED - BRD	REVISED - 03/07/2014
PLOT SCALE = 40.0000' / in.	DRAWN - MFB	REVISED -
PLOT DATE = 3/7/2014	CHECKED - JJE	REVISED -
	DATE - 01/24/2014	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SEQUENCE OF OPERATIONS, EMERGENCY VEHICLE PREEMPTION SEQUENCE
 AND SCHEDULE OF QUANTITIES
 US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59

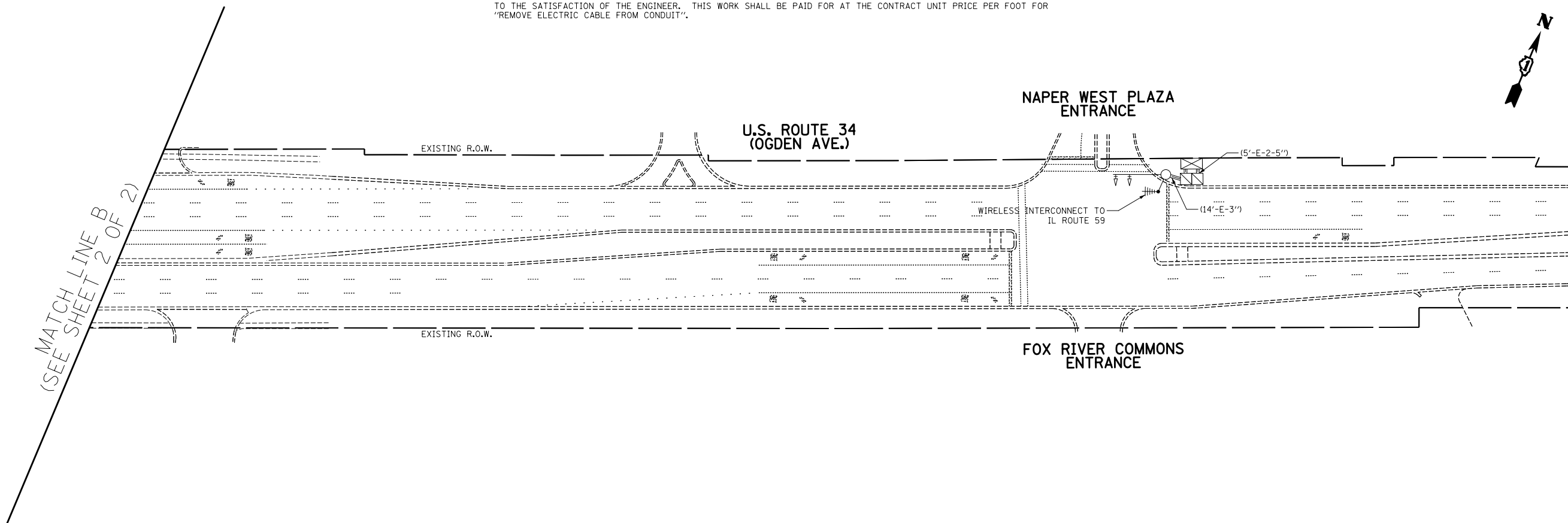
NO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	27
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				



TEMPORARY INTERCONNECT NOTES

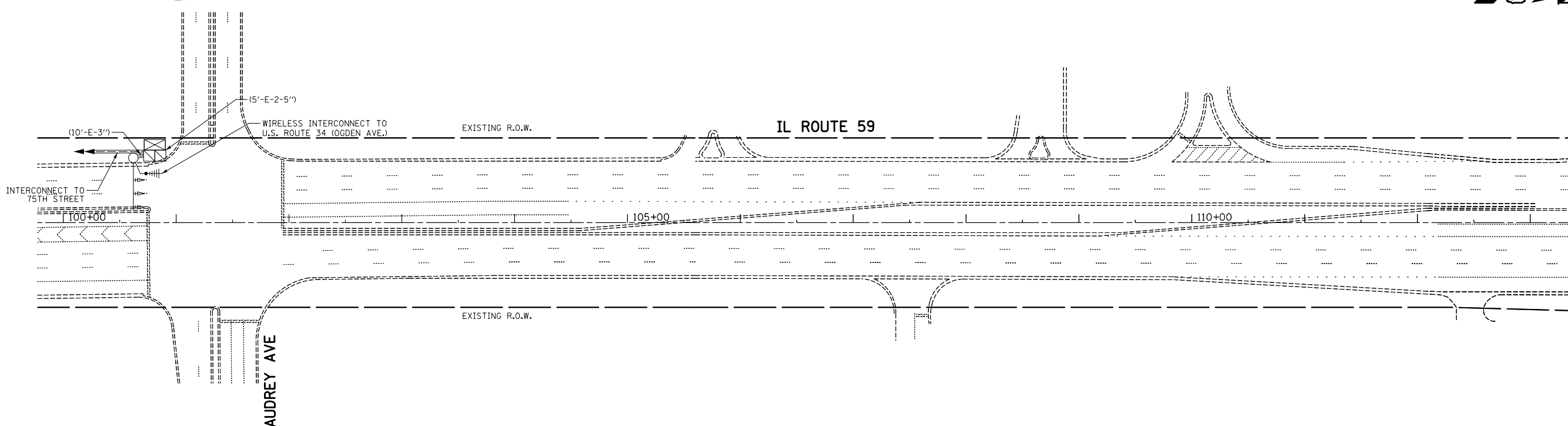
1. THE EXISTING FIBER OPTIC CABLE SHALL BE DISCONNECTED FROM THE TRAFFIC SIGNAL CONTROLLERS AND REMOVED FROM THE EXISTING CONDUITS THAT WILL BE REUSED IN THE PERMANENT INTERCONNECT INSTALLATION. THE EXISTING INTERCONNECT CABLE SHALL NOT BE DISCONNECTED AND REMOVED UNTIL THE TEMPORARY RADIO INTERCONNECT INSTALLATION IS OPERATING TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR "REMOVE ELECTRIC CABLE FROM CONDUIT".



ECON 106

	USER NAME = jrt	DESIGNED - BRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY INTERCONNECT PLAN US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000' / in.	DRAWN - MFB	REVISED -		311	2013-062TS	DUPAGE	49	28			
PLOT DATE = 1/30/2014	CHECKED - JJE	REVISED -			CONTRACT NO. 60X34			ILLINOIS FED. AID PROJECT				
	DATE - 01/30/2014	REVISED -			NO SCALE	SHEET NO. 1 OF 2 SHEETS	STA. TO STA.					

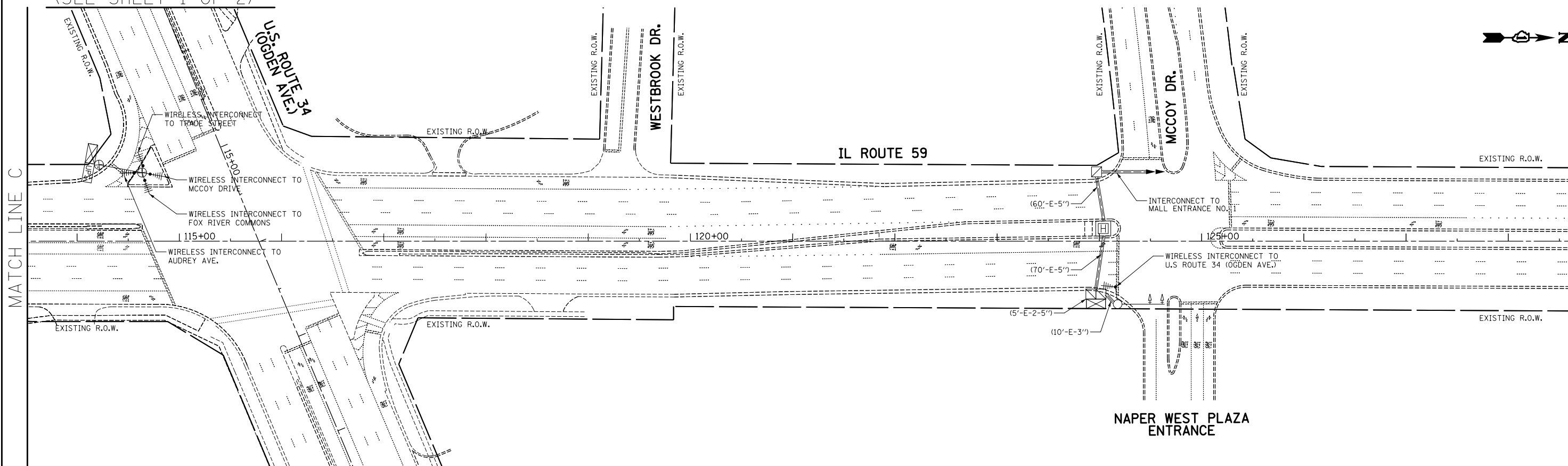
AURORA MARKETPLACE
ENTRANCE



TEMPORARY INTERCONNECT NOTES

1. THE EXISTING FIBER OPTIC CABLE SHALL BE DISCONNECTED FROM THE TRAFFIC SIGNAL CONTROLLERS AND REMOVED FROM THE EXISTING CONDUITS THAT WILL BE REUSED IN THE PERMANENT INTERCONNECT INSTALLATION. THE EXISTING INTERCONNECT CABLE SHALL NOT BE DISCONNECTED AND REMOVED UNTIL THE TEMPORARY RADIO INTERCONNECT INSTALLATION IS OPERATING TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR "REMOVE ELECTRIC CABLE FROM CONDUIT".

MATCH LINE A
(SEE SHEET 1 OF 2)



MATCH LINE B (SEE SHEET 1 OF 2)



USER NAME = jrt	DESIGNED - BRD	REVISED -
	DRAWN - MFB	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - JJE	REVISED -
PLOT DATE = 1/30/2014	DATE - 01/30/2014	REVISED -

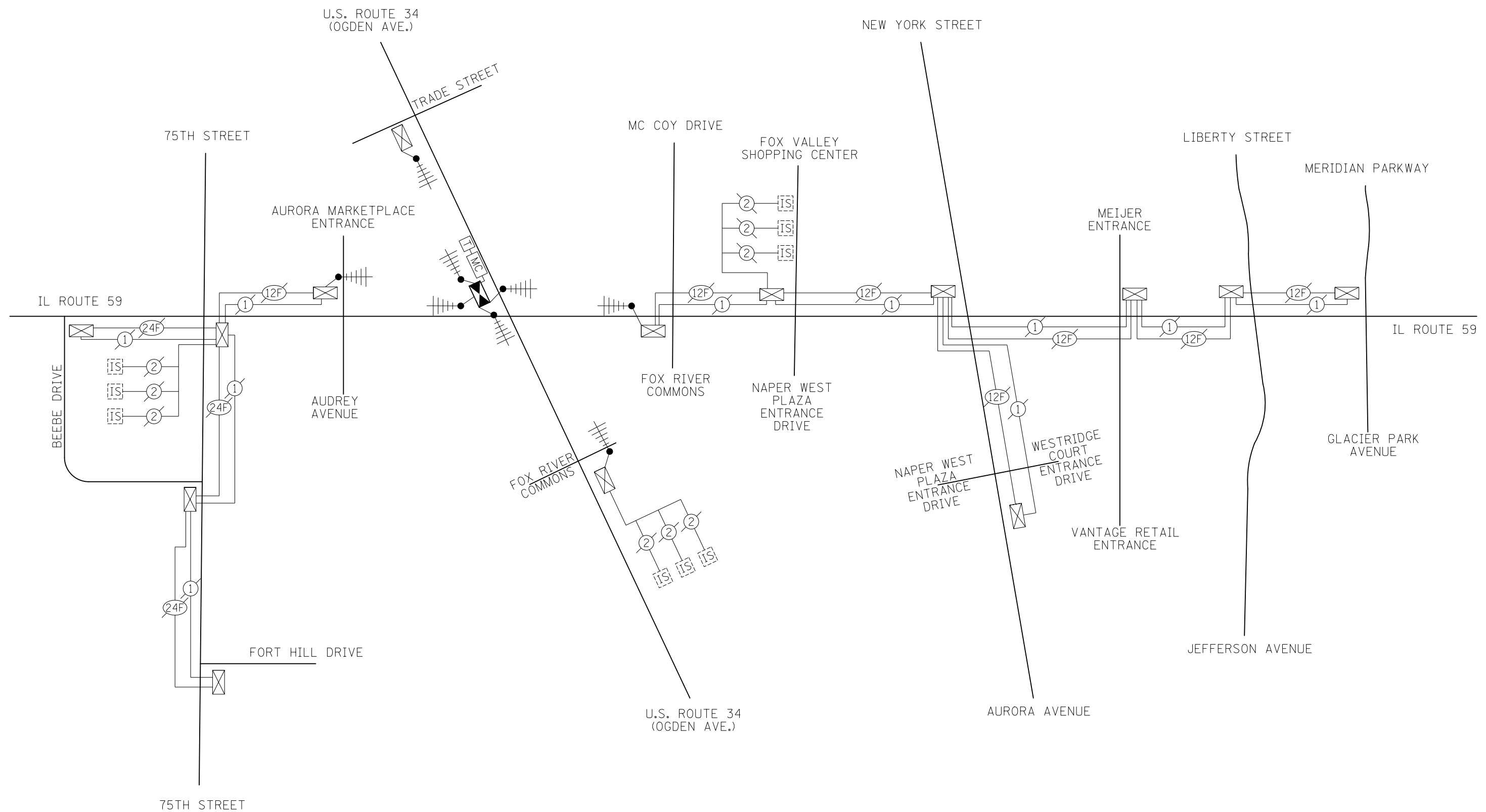
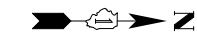
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY INTERCONNECT PLAN
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59

NO SCALE SHEET NO. 2 OF 2 SHEETS STA. TO STA.

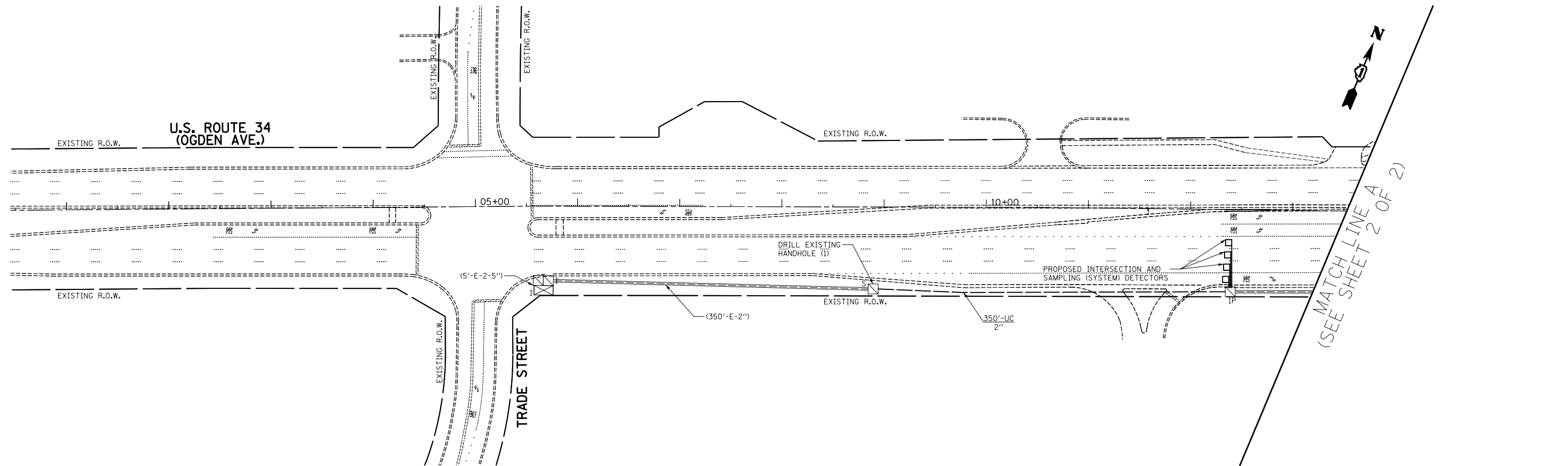
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	29
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				

ECON 106

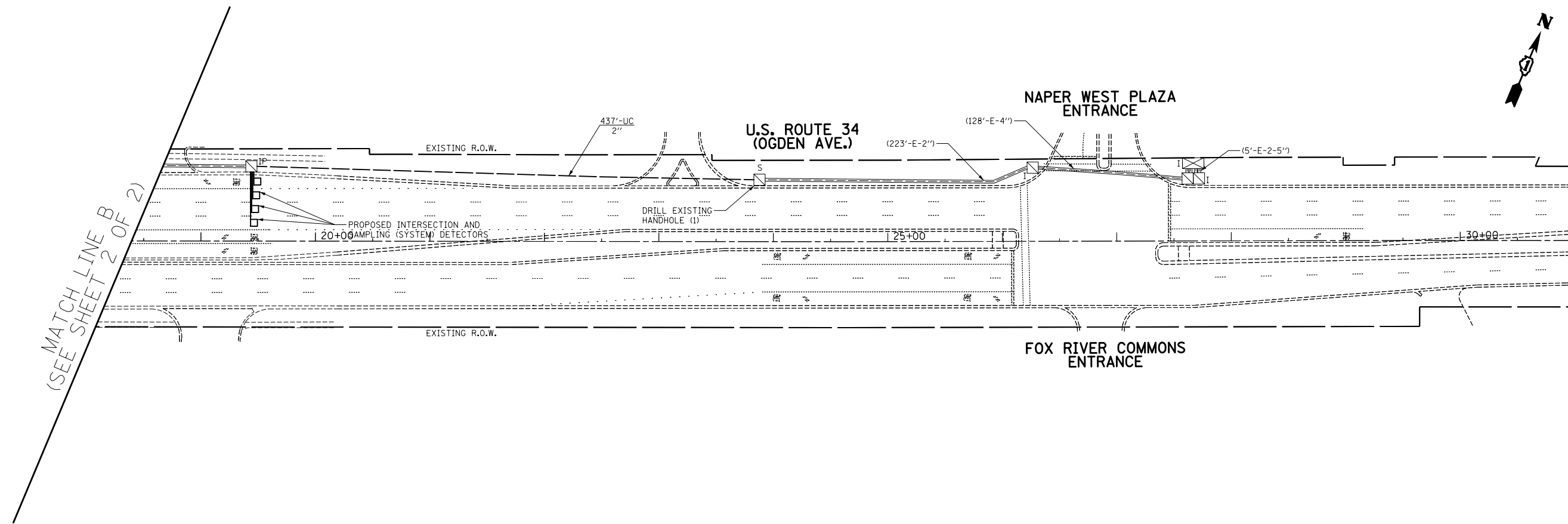


ECON 106

	USER NAME = jrt	DESIGNED - BRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY INTERCONNECT SCHEMATIC US ROUTE 34 (OGDEN AVENUE) TO IL ROUTE 59	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / in.	DRAWN - MFB	REVISED -			311	2013-062TS	DUPAGE	49	30
	PLOT DATE = 1/30/2014	CHECKED - JJE	REVISED -			CONTRACT NO. 60X34			ILLINOIS FED. AID PROJECT	
						SHEET NO.	OF SHEETS	STA.	TO STA.	



(SEE MATCH LINE A
SEE SHEET 2 OF 2)



(SEE MATCH LINE B
SEE SHEET 2 OF 2)



USER NAME = jrt	DESIGNED - BRD	REVISED -
	DRAWN - MFB	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - JJE	REVISED -
PLOT DATE = 1/30/2014	DATE - 01/30/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

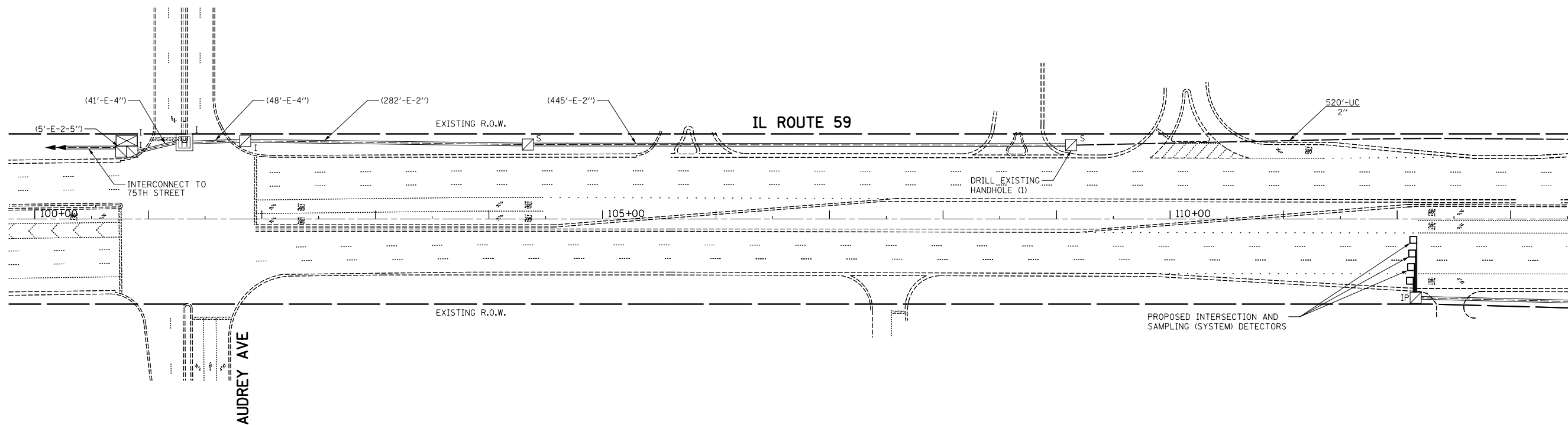
**INTERCONNECT PLAN
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59**

NO SCALE SHEET NO. 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	31
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				

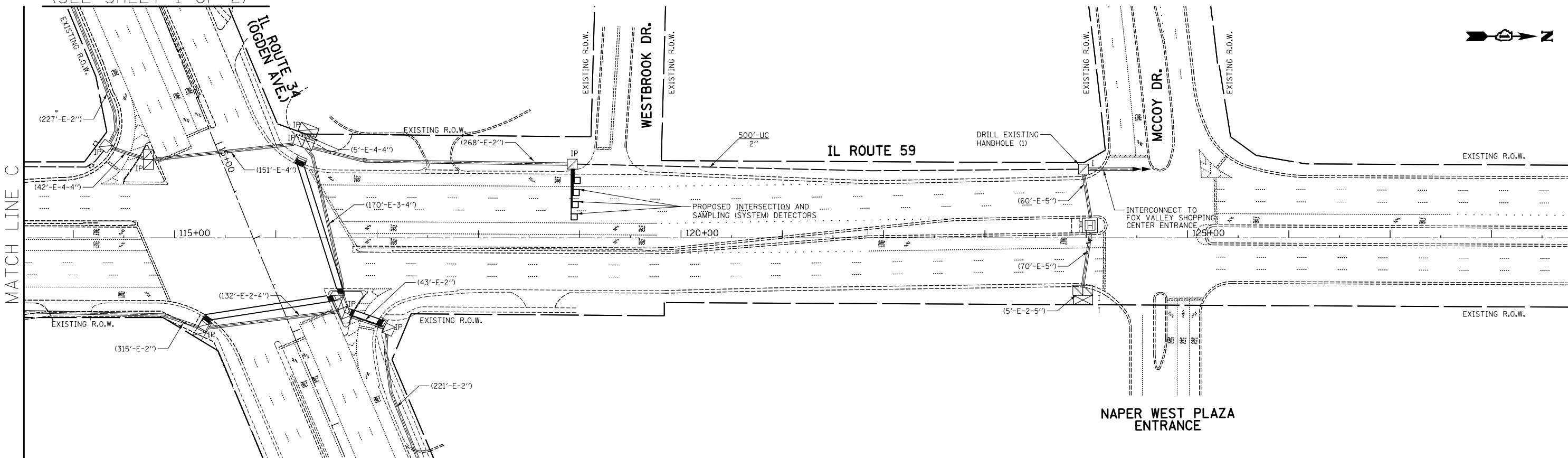
ECON 106

AURORA MARKETPLACE
ENTRANCE



MATCH LINE C

MATCH LINE A
(SEE SHEET 1 OF 2)



MATCH LINE C

MATCH LINE B (SEE SHEET 1 OF 2)

ECON 106



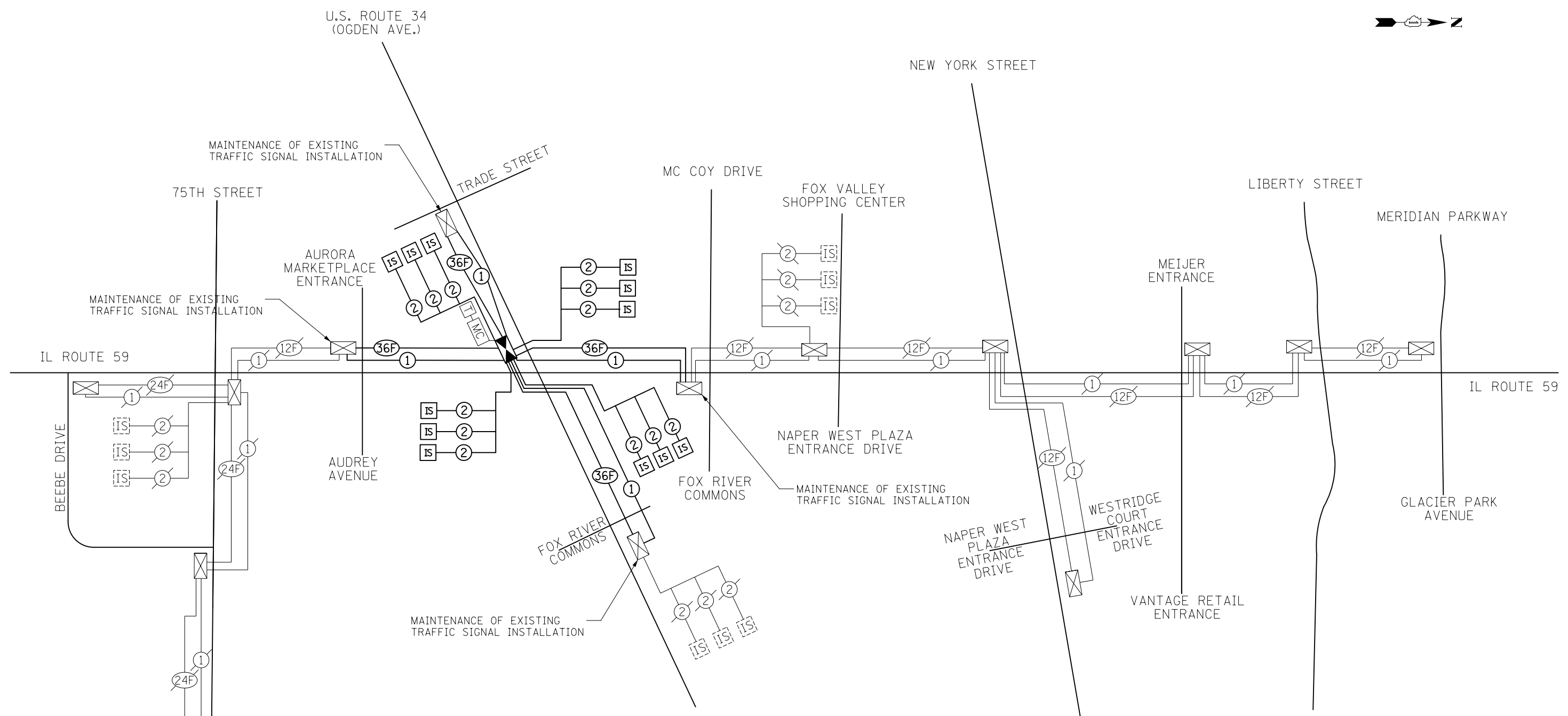
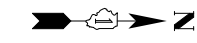
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	DRAWN - MFB	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - JJE	REVISED -
PLOT DATE = 1/30/2014	DATE - 01/30/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59

NO SCALE SHEET NO. 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE. 311	SECTION 2013-062TS	COUNTY DUPAGE	TOTAL SHEETS 49	SHEET NO. 32
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				



INTERCONNECT SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	2
MOBILIZATION	L SUM	0.333
TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	0.333
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.333
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.333
CHANGEABLE MESSAGE SIGN	CAL MO	0.667
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1807
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	4
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	5086
DRILL EXISTING HANDHOLE	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3637
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	5178
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1

ECON 106



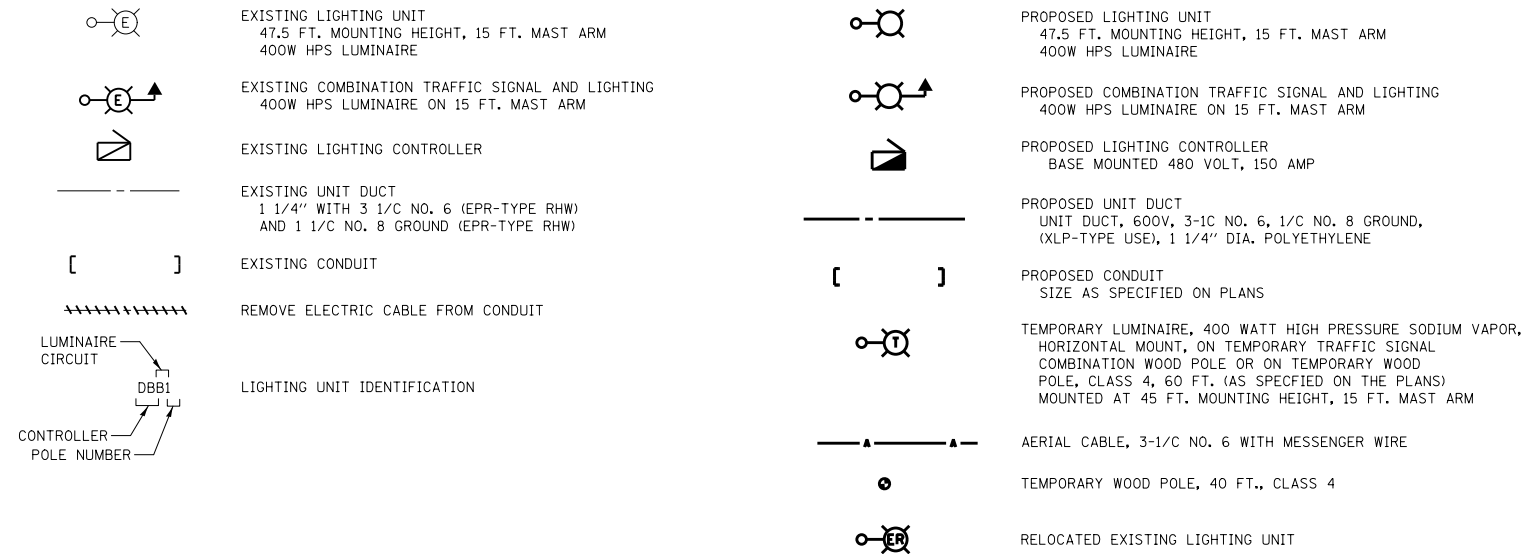
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PLOT SCALE = 40.0000' / in.	DRAWN - MFB	REVISED -
PLOT DATE = 1/30/2014	CHECKED - JJE	REVISED -
	DATE - 01/30/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT SCHEMATIC IL ROUTE 59	
NO SCALE	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	33
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				

LEGEND



NOTES:

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
- PAY ITEMS IN THE SUMMARY OF QUANTITIES HAVE BEEN ESTIMATED. IF, IN THE ENGINEER'S OPINION, ANY WORK IS NOT REQUIRED, THAT ITEM WILL BE DEDUCTED FROM THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES FOR EXAMINATION AND CONFIRMATION WITH THE ENGINEER PRIOR TO INSTALLATION OF LIGHTING FOUNDATIONS.
- 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 INSTALLATION OF CONDUITS, UNIT DUCTS AND THE TOP OF THE FOUNDATION HEIGHTS REMAIN WITH THE CONTRACTOR.
- WHEN SPLICING TO EXISTING POLE, ANY AND ALL WORK REQUIRED TO RUN THE PROPOSED UNIT DUCT INTO EXISTING FOUNDATION SLEEVE AND SPLICING IN EXISTING POLE SHALL BE COVERED AND INCLUDED IN THE PAY ITEM FOR THE UNIT DUCT. THIS PAY ITEM SHALL ALSO INCLUDE NEW FUSE KITS FOR THE EXISTING LIGHT POLES BEING AFFECTED BY THE PROPOSED WORK.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE ANY LIGHT STANDARD IS ERECTED.
- ANY DAMAGE TO PAVEMENT, SIDEWALK, CURB, OR ANY OTHER PORTION OF THE ROADWAY NOT SPECIFICALLY TO BE REMOVED AND REPLACED SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST AND REPLACEMENT SHALL MEET THE APPROVAL OF THE ENGINEER.
- COORDINATE WITH TRAFFIC SIGNAL PLANS FOR EXACT LOCATIONS OF COMBINATION POLES. COMBINATION POLES ARE IN TRAFFIC SIGNAL PAY ITEMS, LUMINAIRES ARE IN PROPOSED LIGHTING PAY ITEMS.
- OFFSET CALL-OFFS ARE FROM THE CENTER OF POLES TO FACE OF CURB (F.O.C.).
- TEMPORARY LIGHTING SHALL BE INSTALLED AND OPERATIONAL BEFORE DISCONNECTING AND REMOVING EXISTING LIGHTING UNITS.
- TEMPORARY LIGHTING SHALL REMAIN OPERATIONAL UNTIL THE PROPOSED LIGHTING SYSTEM IS INSTALLED AND IS OPERATIONAL.
- AT NO TIME SHALL THE ROADWAY BE LEFT UNLIT.

LIGHTING BILL OF MATERIALS

CODED PAY ITEM NUMBER	ITEMS	UNIT	QUANTITY
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	320
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	1195
81603051	UNIT DUCT, 600V, 3-1C NO.6, 1/C NO.8 GROUND, (XLP-TYPE USE), 1 1/4" DIA.	FOOT	3386
81702460	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/C NO. 3/0	FOOT	330
81800330	AERIAL CABLE, 3-1/C NO.6 WITH MESSENGER WIRE	FOOT	2708
82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	13
82500365	LIGHTING CONTROLLER, BASE MOUNTED, 480 VOLT, 150 AMP	EACH	1
83050810	LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 FT. MAST ARM	EACH	7
83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	70
83800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	7
84200804	REMOVAL OF POLE FOUNDATION	EACH	2
84400105	RELOCATE EXISTING LIGHTING UNIT	EACH	2
84500110	REMOVAL OF LIGHTING CONTROLLER	EACH	1
84500120	REMOVAL ELECTRIC SERVICE INSTALLATION	EACH	1
84500130	REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	12208
Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	2
X0326148	TEMPORARY WOOD POLE, 60 FT., CLASS 4, 15 FT. MAST ARM	EACH	5
X0327349	TEMPORARY WOOD POLE, 40 FT., CLASS 4	EACH	3
X8210040	TEMPORARY LUMINAIRE, HIGH PRESSURE SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	8
X8360215	LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET	FOOT	12
X8410103	REMOVE TEMPORARY LIGHTING SYSTEM	L SUM	1
X8772115	TEMPORARY MAST ARM, ALUMINUM, 15 FT.	EACH	8



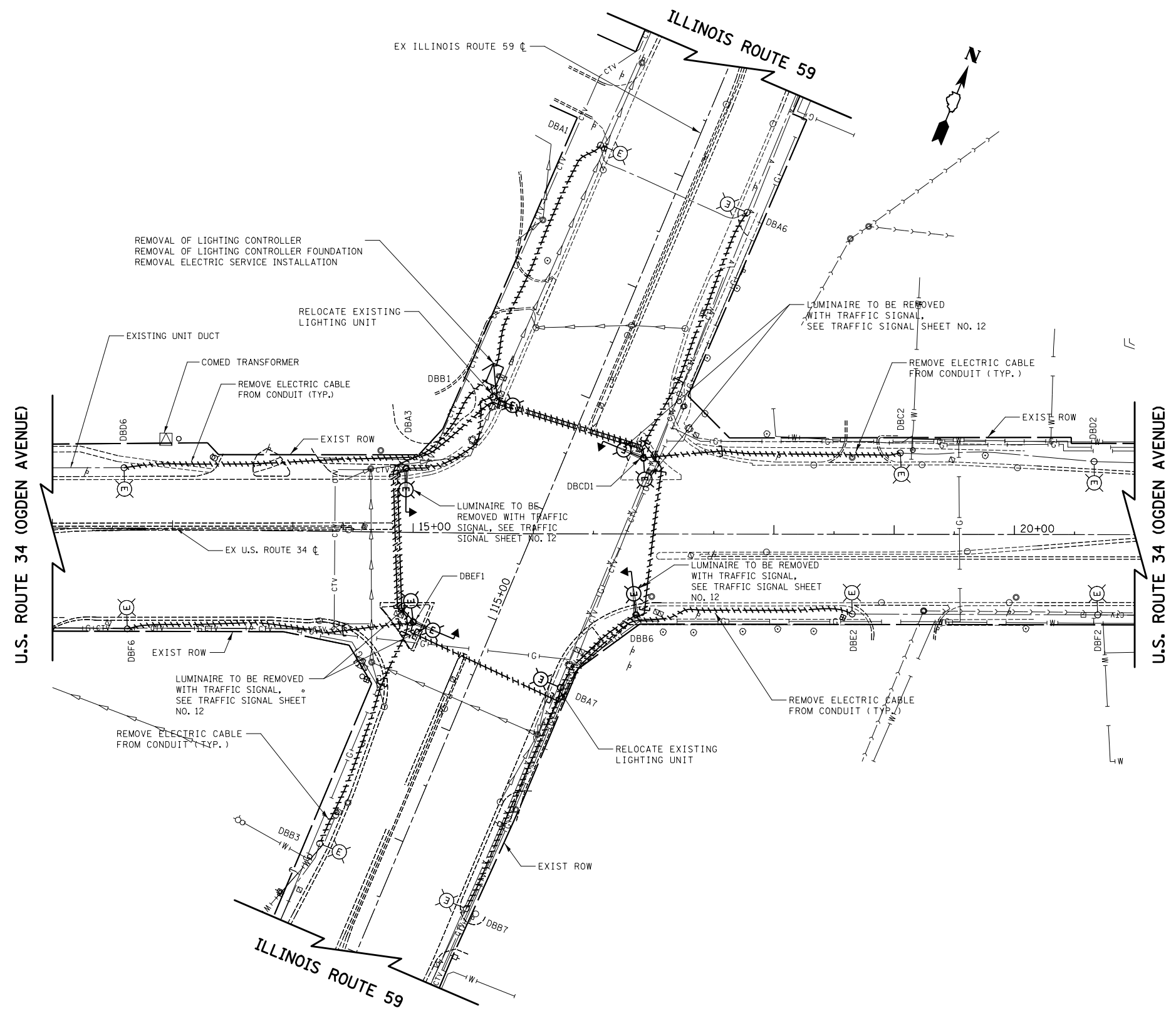
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PLOT DATE = 3/7/2014	DATE - 1/30/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIGHTING NOTES, LEGEND, AND SCHEDULE OF QUANTITIES
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59**

SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS		49	35
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X34	



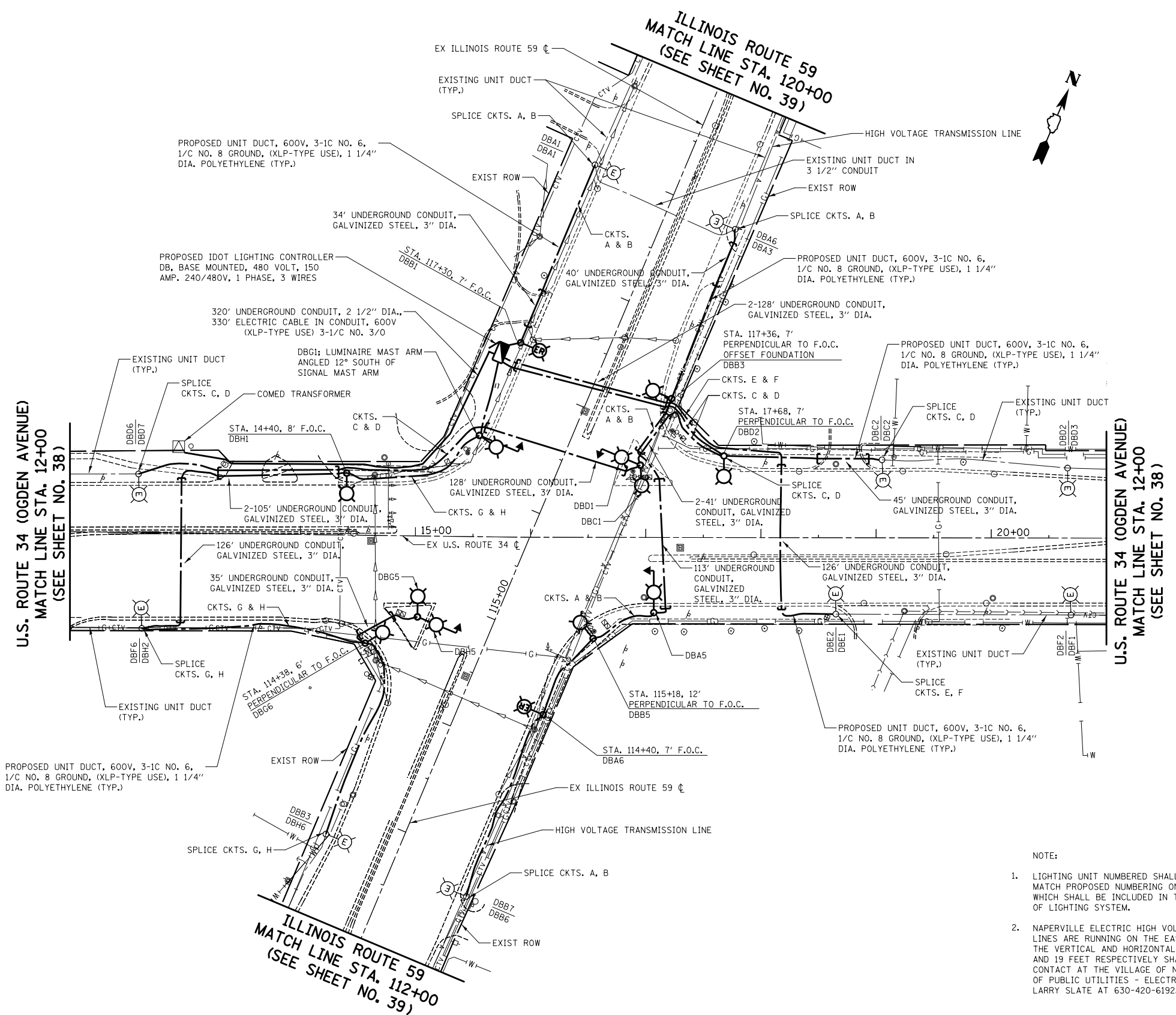
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	DRAWN - NEM	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - DNM	REVISED -
PLOT DATE = 1/30/2014	DATE - 1/30/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING / REMOVAL LIGHTING PLAN
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59**

SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	36
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				



LEGEND

DBB3 EXISTING POLE NUMBER
 DBB4 PROPOSED POLE NUMBER

- NOTE:
1. LIGHTING UNIT NUMBERED SHALL BE MODIFIED TO MATCH PROPOSED NUMBERING ON SHEET NO. 42 WHICH SHALL BE INCLUDED IN THE COST OF MAINTENANCE OF LIGHTING SYSTEM.
 2. NAPERVILLE ELECTRIC HIGH VOLTAGE TRANSMISSION LINES ARE RUNNING ON THE EAST SIDE OF IL ROUTE 59. THE VERTICAL AND HORIZONTAL CLEARANCES OF 20.5 FEET AND 19 FEET RESPECTIVELY SHALL BE FOLLOWED. THE CONTACT AT THE VILLAGE OF NAPERVILLE IN THE DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC SHALL BE LARRY SLATE AT 630-420-6192.



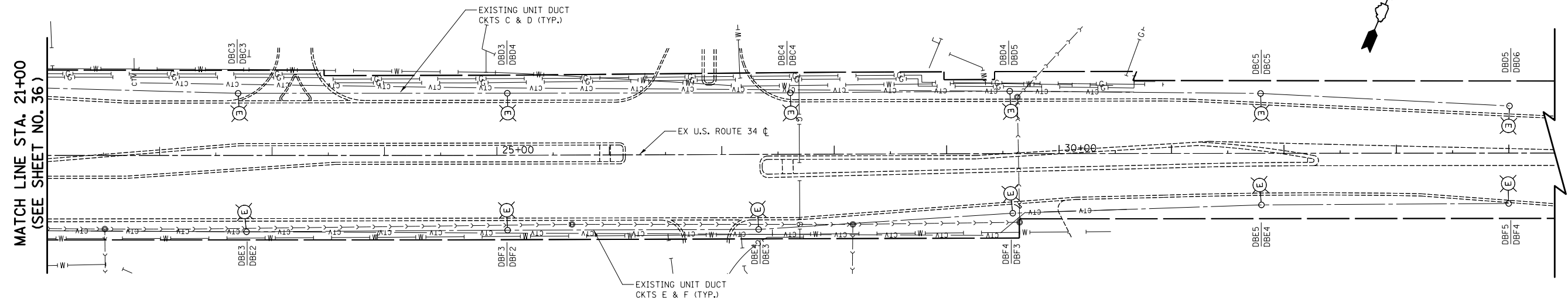
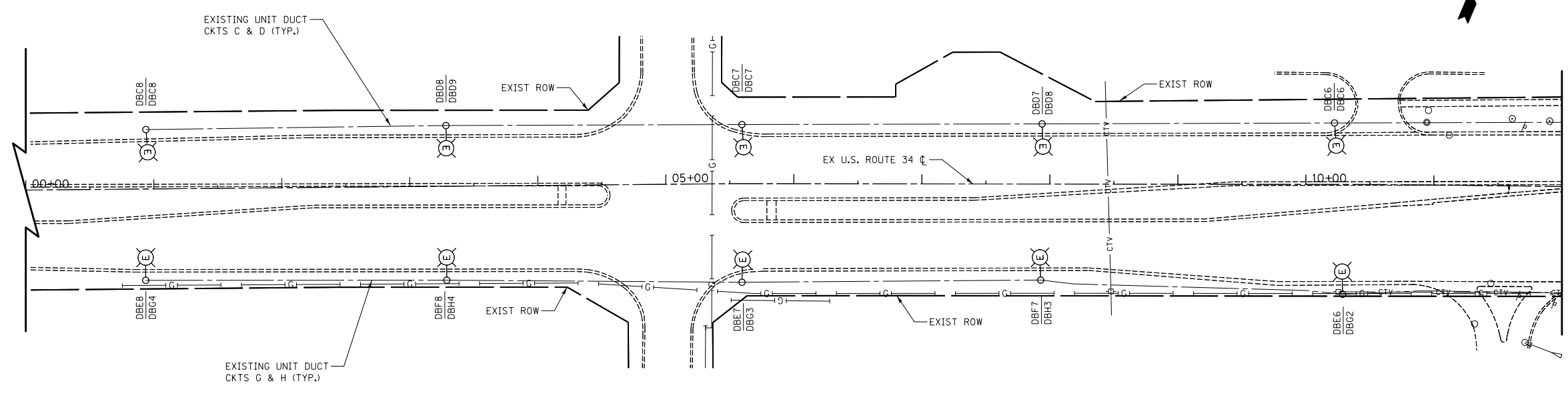
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PLOT SCALE = 100.0000' / in.	DRAWN - NEM	REVISED -
PLOT DATE = 1/30/2014	CHECKED - DNM	REVISED -
	DATE - 1/30/2014	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN
 US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	37
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				

SHEET NO. 1 OF 3 SHEETS STA. TO STA.



LEGEND

DBE3 EXISTING POLE NUMBER
 DBE4 PROPOSED POLE NUMBER

U.S. ROUTE 34 (OGDEN AVENUE)



USER NAME = jrt
 PLOT SCALE = 100.0000' / in.
 PLOT DATE = 1/30/2014

DESIGNED - SJC
 DRAWN - NEM
 CHECKED - DNM
 DATE - 1/30/2014

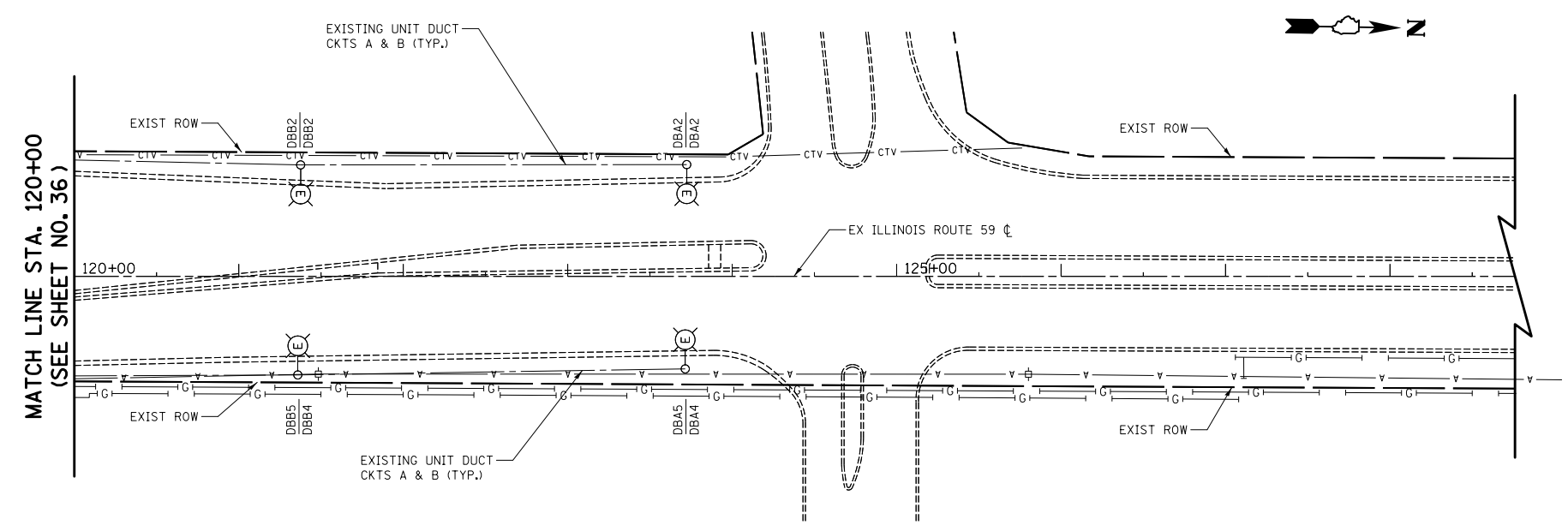
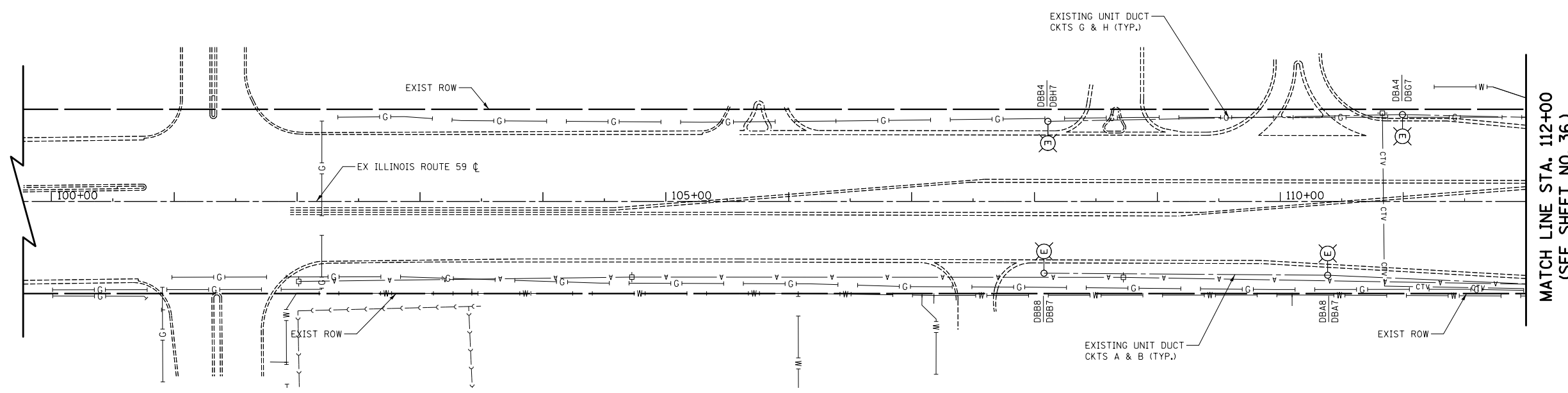
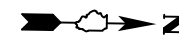
REVISED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN
 US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59**

SHEET NO. 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	38
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				



LEGEND

DBA4 EXISTING POLE NUMBER
 DBA5 PROPOSED POLE NUMBER

IL ROUTE 59



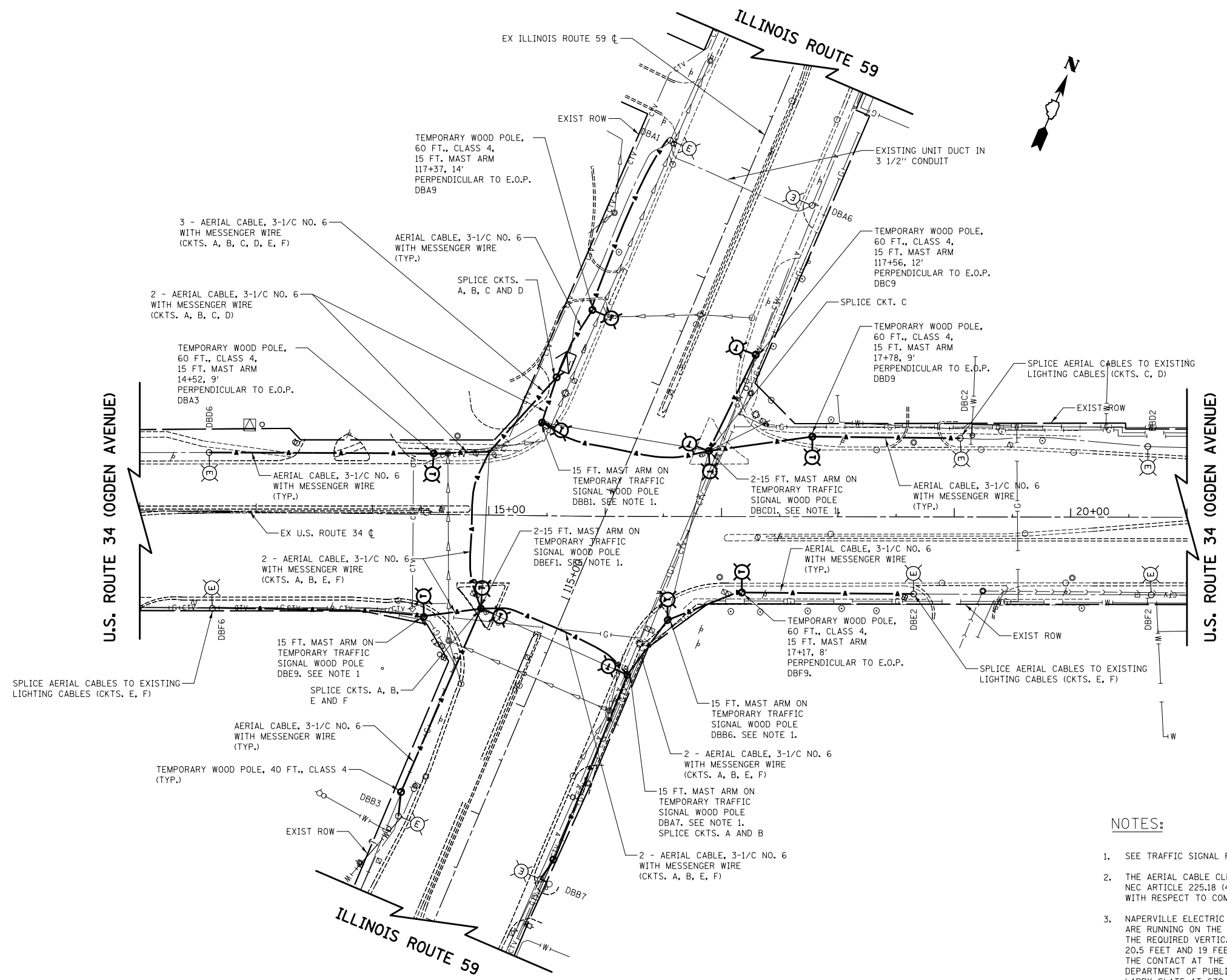
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	DRAWN - NEM	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - DNM	REVISED -
PLOT DATE = 1/30/2014	DATE - 1/30/2014	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLANS
 US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59**

SHEET NO. 3 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	39
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				



NOTES:

1. SEE TRAFFIC SIGNAL PLANS FOR EXACT LOCATION.
2. THE AERIAL CABLE CLEARANCES SHOULD CONFORM TO NEC ARTICLE 225.18 (4) AND SHALL ALSO MEET CLEARANCE WITH RESPECT TO COMED STANDARDS.
3. NAPERVILLE ELECTRIC HIGH VOLTAGE TRANSMISSION LINES ARE RUNNING ON THE EAST SIDE OF IL ROUTE 59. THE REQUIRED VERTICAL AND HORIZONTAL CLEARANCES OF 20.5 FEET AND 19 FEET RESPECTIVELY SHALL BE FOLLOWED. THE CONTACT AT THE VILLAGE OF NAPERVILLE IN THE DEPARTMENT OF PUBLIC UTILITIES - ELECTRIC SHALL BE LARRY SLATE AT 630-420-6192.



USER NAME = jrt	DESIGNED - SJC	REVISED -
	DRAWN - NEM	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - DNM	REVISED -
PLOT DATE = 1/30/2014	DATE - 1/30/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY LIGHTING PLAN
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59**

SHEET NO. 1 OF 1 SHEET STA. TO STA.

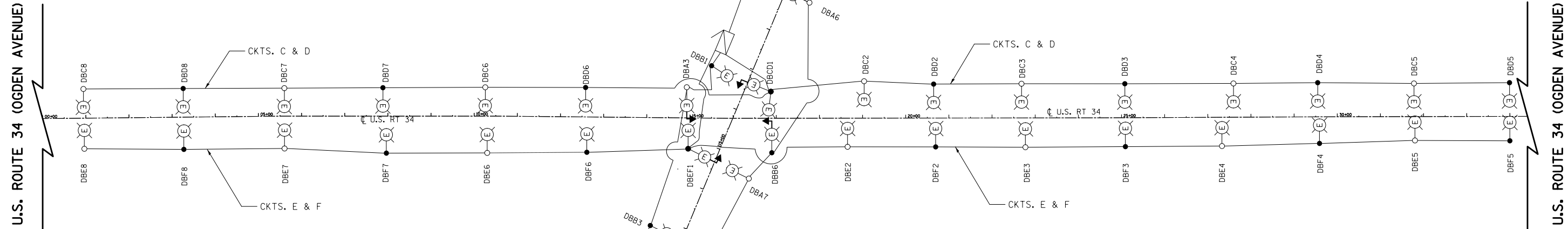
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	40
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				

CONTROLLER DB CIRCUIT LOAD TABLE (EXISTING LIGHTING)							
RED				BLACK			
CIRCUIT	QTY	AMP	KW	CIRCUIT	QTY	AMP	KW
A	8	14.67	3.52	B	8	14.67	3.52
C	8	14.67	3.52	D	8	14.67	3.52
E	8	14.67	3.52	F	8	14.67	3.52
TOTAL		44.01	10.56	TOTAL		44.01	10.56

400 WATT, 240V HPS LUMINAIRE = 1.83 AMPS

CONTROLLER DB CIRCUIT LOAD TABLE (TEMPORARY LIGHTING)							
RED				BLACK			
CIRCUIT	QTY	AMP	KW	CIRCUIT	QTY	AMP	KW
A	9	16.50	3.96	B	8	14.67	3.52
C	9	16.50	3.96	D	9	16.50	3.96
E	9	16.50	3.96	F	9	16.50	3.96
TOTAL		49.50	11.88	TOTAL		47.67	11.44

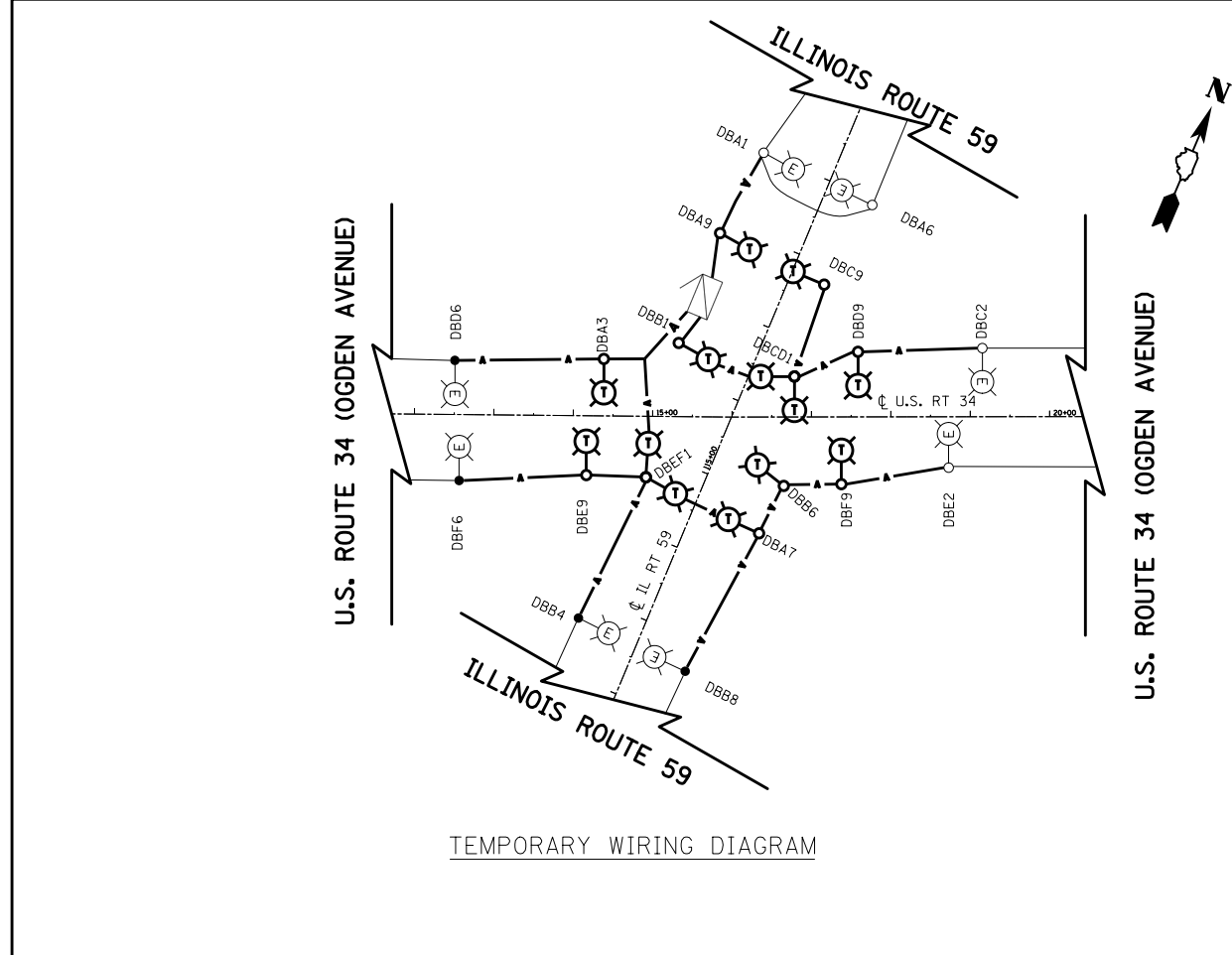
400 WATT, 240V HPS LUMINAIRE = 1.83 AMPS



EXISTING WIRING DIAGRAM

LEGEND

- LUMINAIRE ON BLACK WIRE
- LUMINAIRE ON RED WIRE
- COMBINATION TRAFFIC SIGNAL AND LIGHTING
- TEMPORARY LUMINAIRE, HIGH PRESSURE SODIUM VAPOR, 400 WATT ON TEMPORARY TRAFFIC SIGNAL POLES
- EXISTING UNIT DUCT
- AERIAL CABLE, 3-1/C NO. 6 WITH MESSENGER WIRE
- EXISTING LIGHTING CONTROLLER
- LUMINAIRE CIRCUIT
- LIGHTING UNIT IDENTIFICATION
- POLE NUMBER
- CONTROLLER



TEMPORARY WIRING DIAGRAM



USER NAME = jrt	DESIGNED - SJC	REVISED -
PLOT SCALE = 240.0000' / in.	DRAWN - NEM	REVISED -
PLOT DATE = 1/30/2014	CHECKED - DNM	REVISED -
	DATE - 1/30/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AND TEMPORARY WIRING DIGRAM
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59

F.A.P. RTE. 311	SECTION 2013-062TS	COUNTY DUPAGE	TOTAL SHEETS 49	SHEET NO. 41
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				

SHEET NO. 1 OF 1 SHEET STA. TO STA.

PROPOSED LIGHTING CONTROLLER DB CIRCUIT LOAD TABLE							
RED				BLACK			
CIRCUIT	QTY	AMP	KW	CIRCUIT	QTY	AMP	KW
A	7	14.0	3.36	B	7	14.0	3.36
C	8	16.0	3.84	D	9	18.0	4.32
E	4	8.0	1.92	F	4	8.0	1.92
G	7	14.0	3.36	H	7	14.0	3.36
TOTAL		52.0	12.48	TOTAL		54.0	12.96

400 WATT, 240V HPS LUMINAIRE = 2.0 AMPS

NOTE:
THE COST FOR CHANGING DECALS ON EXISTING POLES SHALL BE INCLUDED IN THE COST OF MAINTENANCE OF LIGHTING SYSTEM.



U.S. ROUTE 34 (OGDEN AVENUE)

U.S. ROUTE 34 (OGDEN AVENUE)

PROPOSED WIRING DIAGRAM

LEGEND

- PROPOSED 400 WATT, 240V HPS LUMINAIRE ON BLACK WIRE
- PROPOSED 400 WATT, 240V HPS LUMINAIRE ON RED WIRE
- RELOCATED 400 WATT, 240V HPS LUMINAIRE EXISTING LIGHTING UNIT
- EXISTING 400 WATT, 240V HPS LUMINAIRE ON BLACK WIRE
- EXISTING 400 WATT, 240V HPS LUMINAIRE ON RED WIRE
- PROPOSED COMBINATION TRAFFIC SIGNAL AND LIGHTING 400 WATT, 240V ON BLACK WIRE
- PROPOSED COMBINATION TRAFFIC SIGNAL AND LIGHTING 400 WATT, 240V ON RED WIRE
- EXISTING 1 1/4" UNIT DUCT WITH 3 1/2 NO. 6 (EPR-TYPE RHW) AND 1 1/2 NO. 8 GROUND (EPR-TYPE RHW)
- PROPOSED UNIT DUCT UNIT DUCT, 600V, 3-1C NO. 6, 1/2 NO. 8 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE
- PROPOSED LIGHTING CONTROLLER 240 / 480 VOLT, 150 AMP, BASE MOUNTED
- LUMINAIRE CIRCUIT
- LIGHTING UNIT IDENTIFICATION
- POLE NUMBER
- CONTROLLER
- DBB8 EXISTING POLE NUMBER
- DBB10 PROPOSED POLE NUMBER



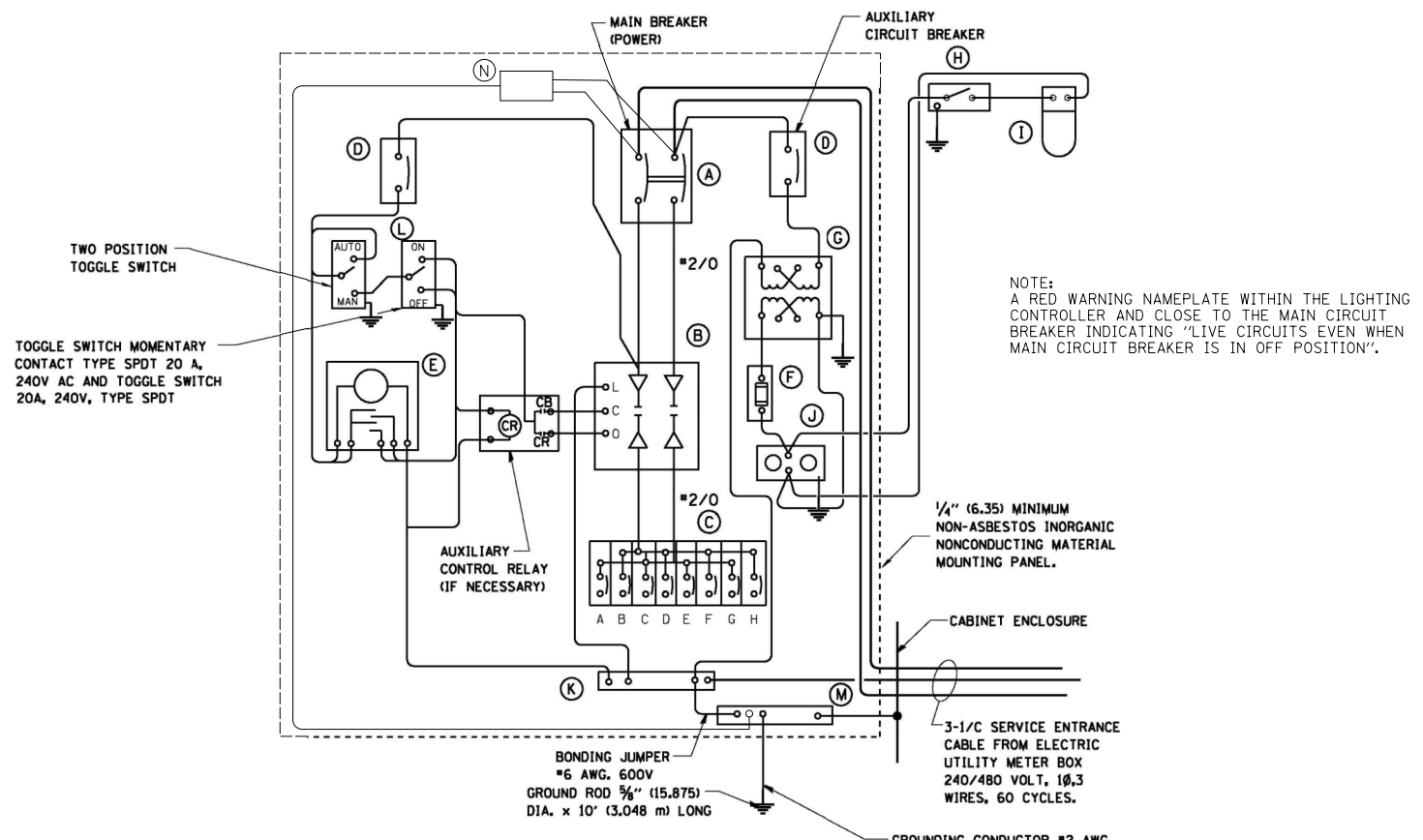
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED WIRING DIAGRAM
US ROUTE 34 (OGDEN AVENUE) AT IL ROUTE 59

SHEET NO. 1 OF 1 SHEET STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	42
CONTRACT NO. 60X34				
ILLINOIS FED. AID PROJECT				



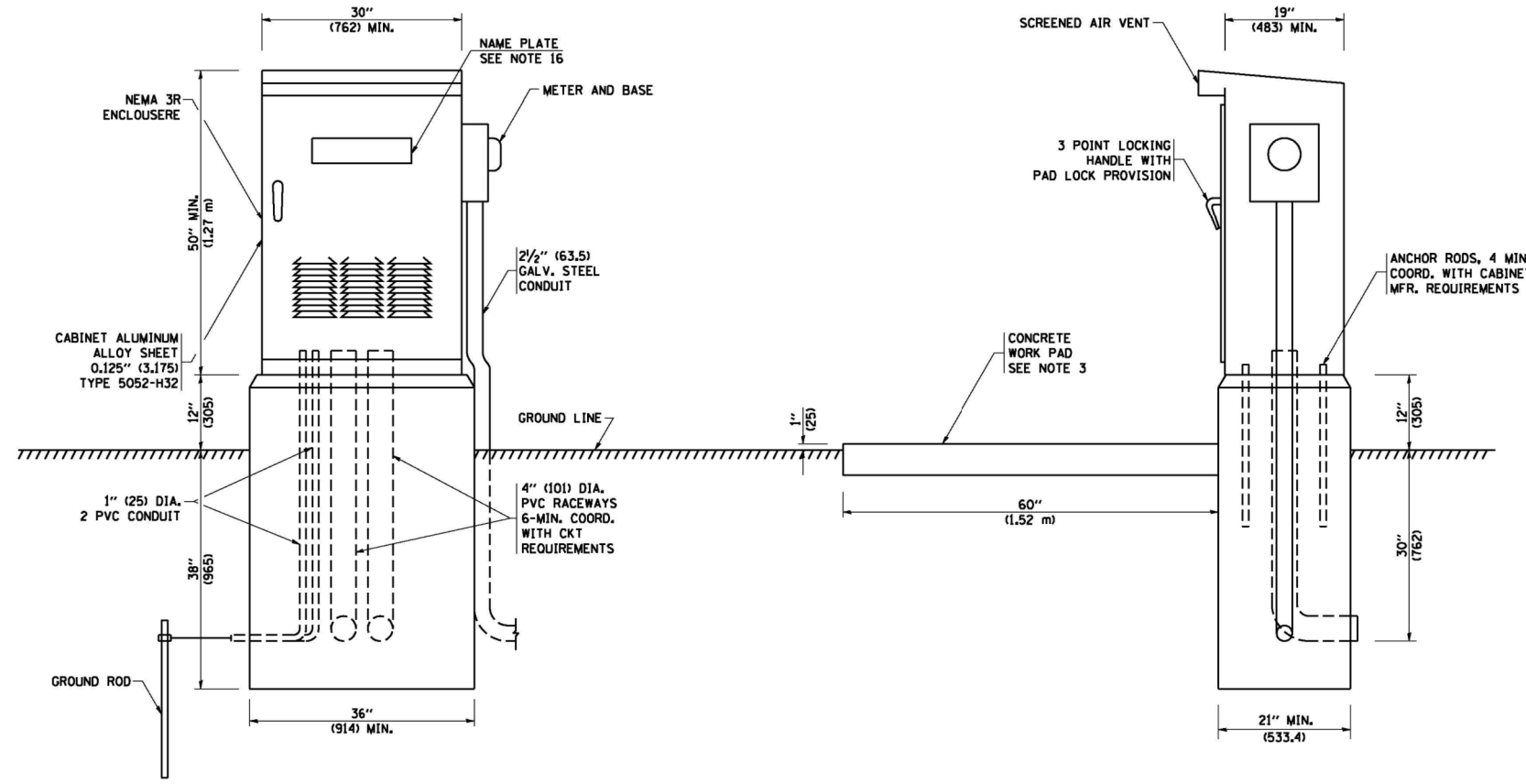
PANEL WIRING DIAGRAM

PANEL EQUIPMENT

BILL OF MATERIAL		
ITEM	QUANTITY	DESCRIPTION
A	1	MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT 100 AMP. FRAME, 100 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22000 AMP. AT 480 VOLT.
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 100 AMP., 600 VOLTS CONTROL CIRCUIT 240 VOLT.
C	8	CIRCUIT BREAKERS, 1 POLE, 100AMP. FRAME, 50 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-10,000 AMP. AT 240 V.
D	2	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 V., 100 AMP. FRAME, 15 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-5000 AMP. AT 240 V.
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER [TIME SWITCH].
F	1	20 A., 120 V. FUSE.
G	1	1.5 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240 X 480 / 120 X 240 VOLT, 60 HZ.
H	1	SPST 20A SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN,
I	1	INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60 WATT, 120 V. LAMP.
J	1	20 A., 120 V., DUPLEX RECEPTACLE, GFCI.
K	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
L	1	TOGGLE SWITCHES MOUNTED IN 4" (101.6) X 4" (101.6 mm) BOX.
M	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND SPARE LUGS
N	1	SURGE ARRESTER

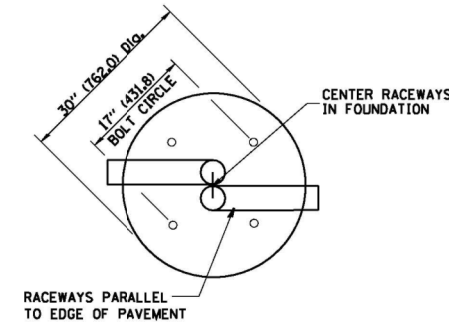
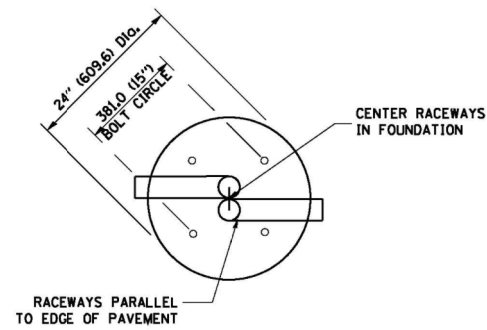
NOTES:

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- FOUNDATION SIZE SHALL BE COORDINATED WITH CABINET SIZE AND MFR.
- IN FRONT OF CONTROL CABINET DOOR, REMOVE VEGETATION AND 2" (50.8 mm) TOP SOIL, LEVEL THE AREA AND ON TOP, PLACE LENGTH WISE PARALLEL TO CONTROL CABINET, A CONCRETE PAD 36" (914.4 mm) x 60" (18.288 m) x 4" (101 mm) MIN. SIZE. THE COST OF LABOR AND MATERIALS ARE INCLUDED IN THE COST OF THE CONTROLLER.
- DOOR SHALL BE CONSTRUCTED FROM SAME TYPE OF MATERIAL AND THICKNESS AS CABINET.
- DOOR SHALL BE EQUIPPED WITH THREE POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP THE BOTTOM.
- DOOR HINGE SHALL BE A HEAVY GAUGE CONTINUOUS HINGE WITH A 1/4" (6.35 mm) DIA. STAINLESS STEEL HINGE PIN.
- ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
- CONTROL WIRING TO BE #12 AWG, 600V, TYPE "SIS" GRAY SWITCH BOARD WIRE, STRANDED COPPER.
- METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET, NEAR TO THE SERVICE POLE.
- CABINETS SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- THE HEADS OF CONNECTORS SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
R = RED BL = BLUE W = WHITE
B = BLACK Y = YELLOW G = GREEN
- PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
- THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
- 12" (304.8) X 16" (406.4 mm) STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.



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/SO. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SO.FT	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SO. 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)

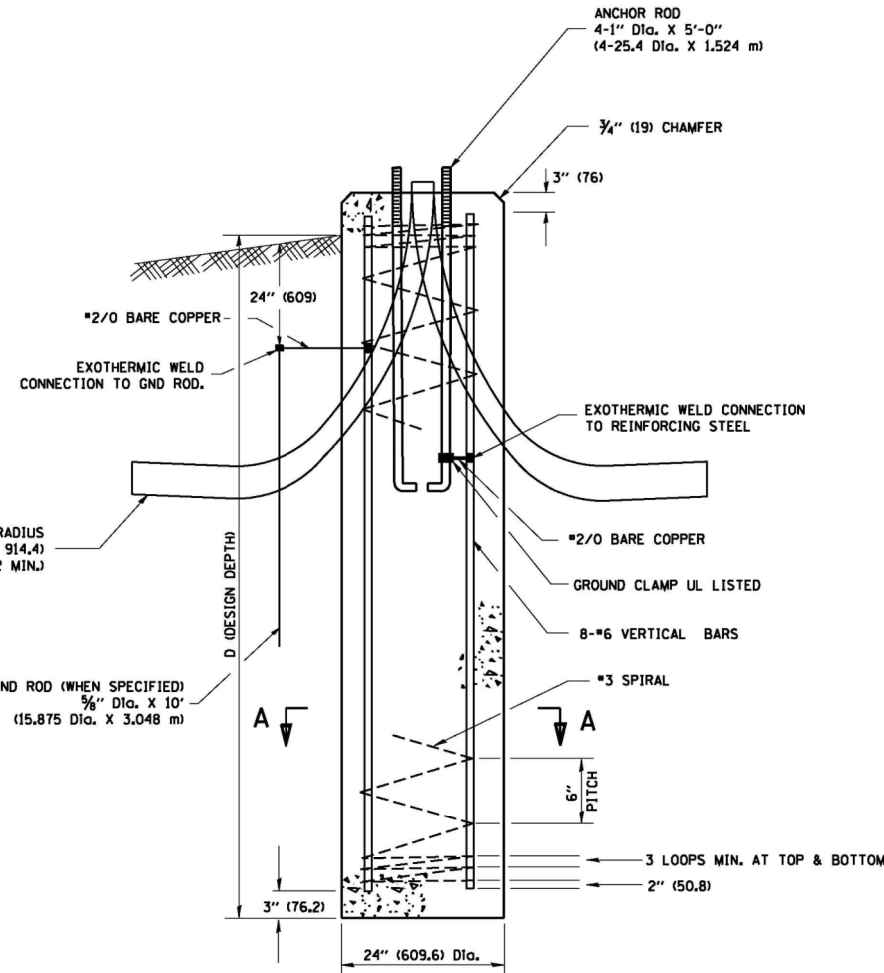


TOP VIEW

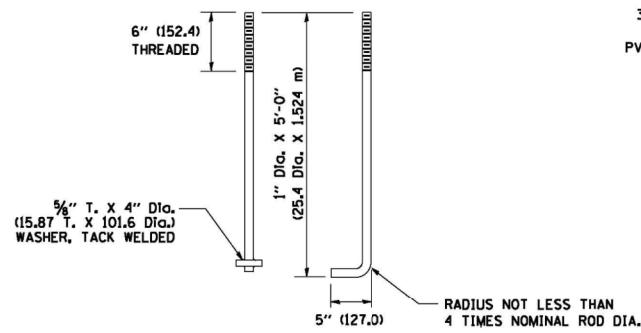
TOP VIEW

NOTES

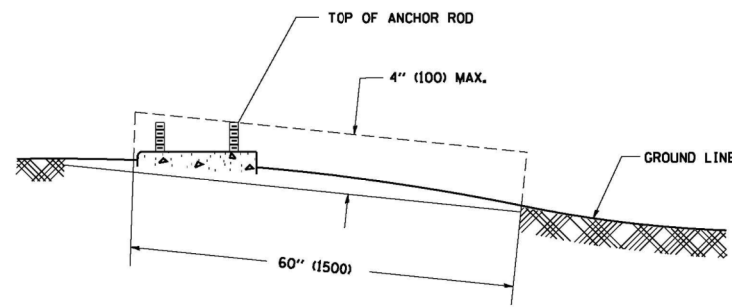
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, 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 S1. 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 UMG 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.



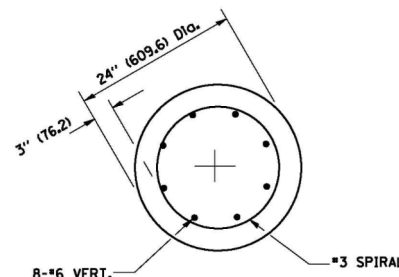
FOUNDATION DETAIL



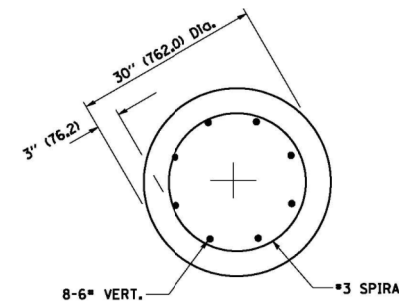
ANCHOR ROD DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

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 PLOT DATE = 1/4/2008

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED - 04-22-02
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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. TO STA.

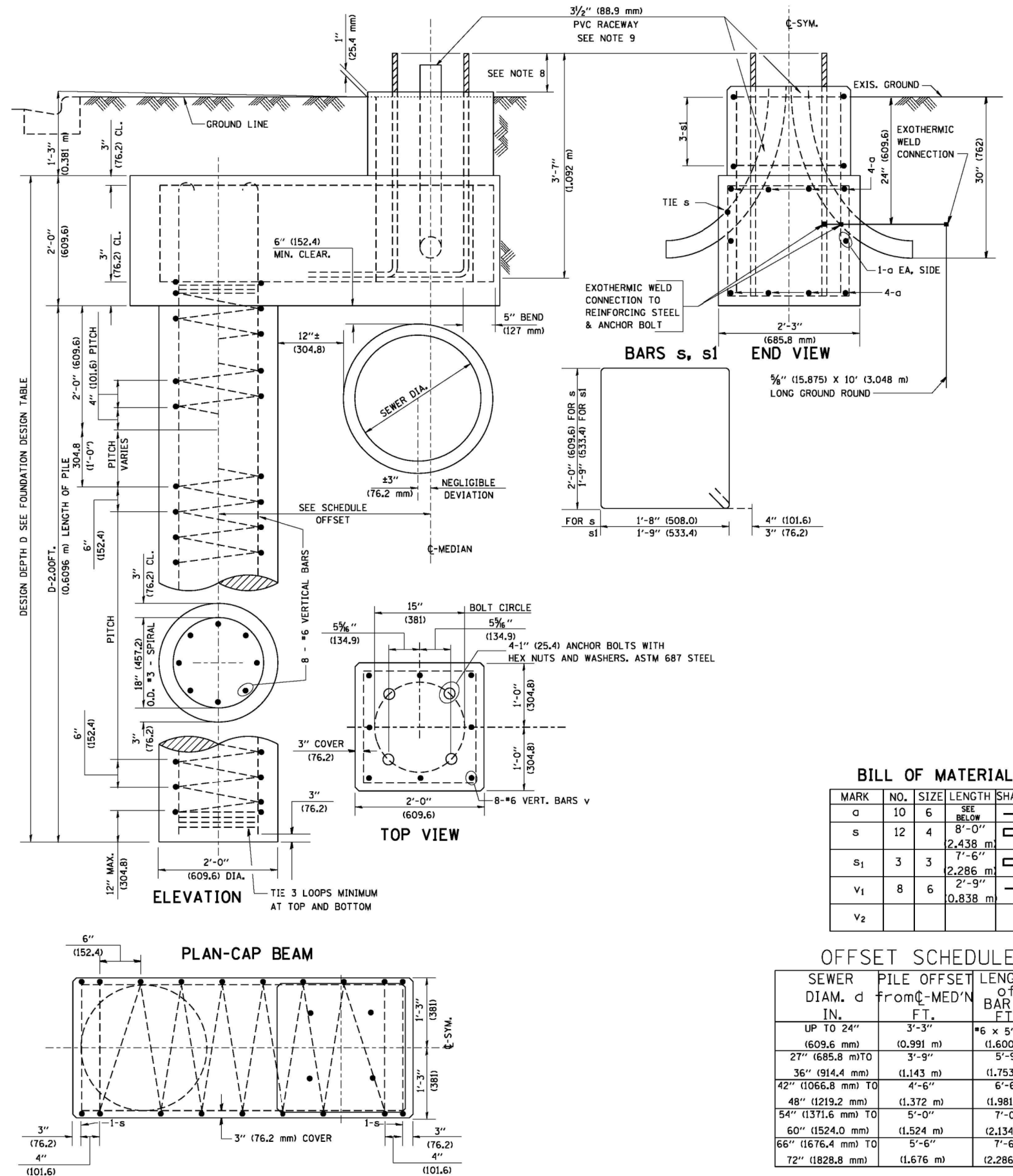
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	44
BE-301		CONTRACT NO. 60X34		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

- 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.
- 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 BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
- 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.
- 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 2 3/4" (69.9 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
- 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 ERRECTED.



BILL OF MATERIAL

MARK	NO.	SIZE	LENGTH	SHAPE
a	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 DIAM. d IN.	PILE OFFSET FROM C-MED'N FT.	LENGTH OF BAR a FT.
UP TO 24" (609.6 mm)	3'-3" (0.991 m)	#6 x 5'-3" (1.600 m)
27" (685.8 mm) TO	3'-9" (1.143 m)	5'-9" (1.753 m)
36" (914.4 mm)	4'-6" (1.372 m)	6'-6" (1.981 m)
42" (1066.8 mm) TO	5'-0" (1.524 m)	7'-0" (2.134 m)
48" (1219.2 mm) TO	5'-6" (1.676 m)	7'-6" (2.286 m)
54" (1371.6 mm) TO		
60" (1524.0 mm) TO		
66" (1676.4 mm) TO		
72" (1828.8 mm)		

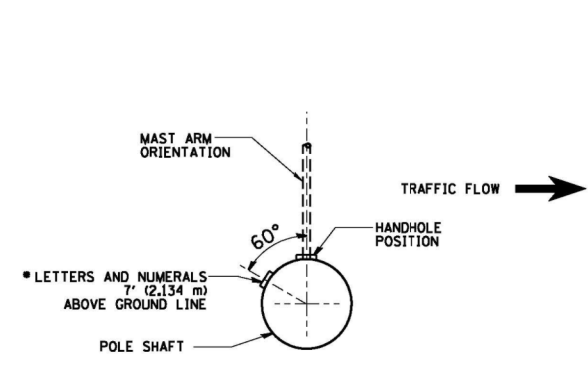
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

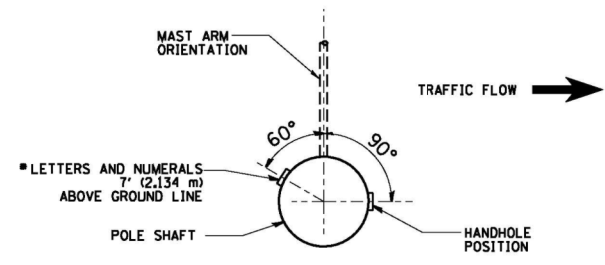
LIGHT POLE FOUNDATION OFFSET
40' (12.192 m) TO 47 1/2' (14.478 m) M.H.
15" (381 mm) BOLT CIRCLE

SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

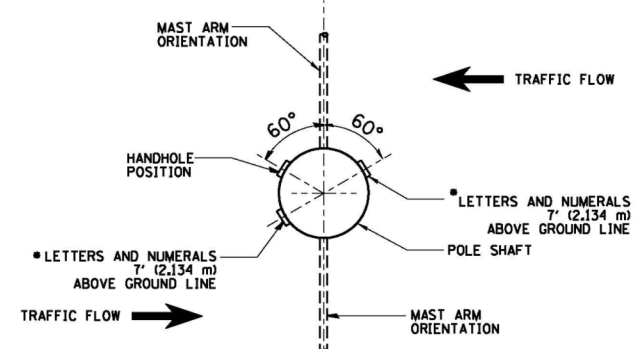
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BE-310		CONTRACT NO. 60X34		
ILLINOIS FED. AID PROJECT				



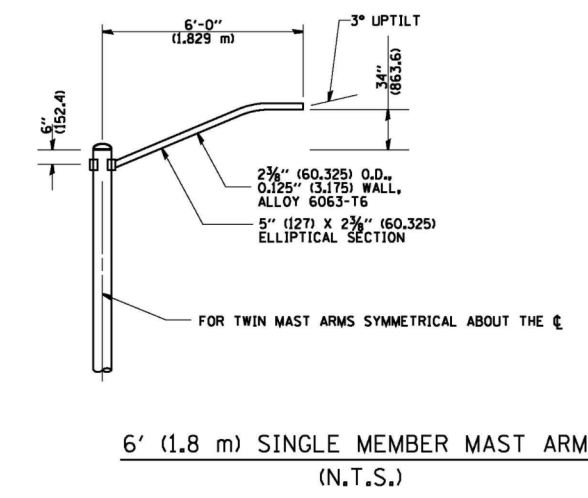
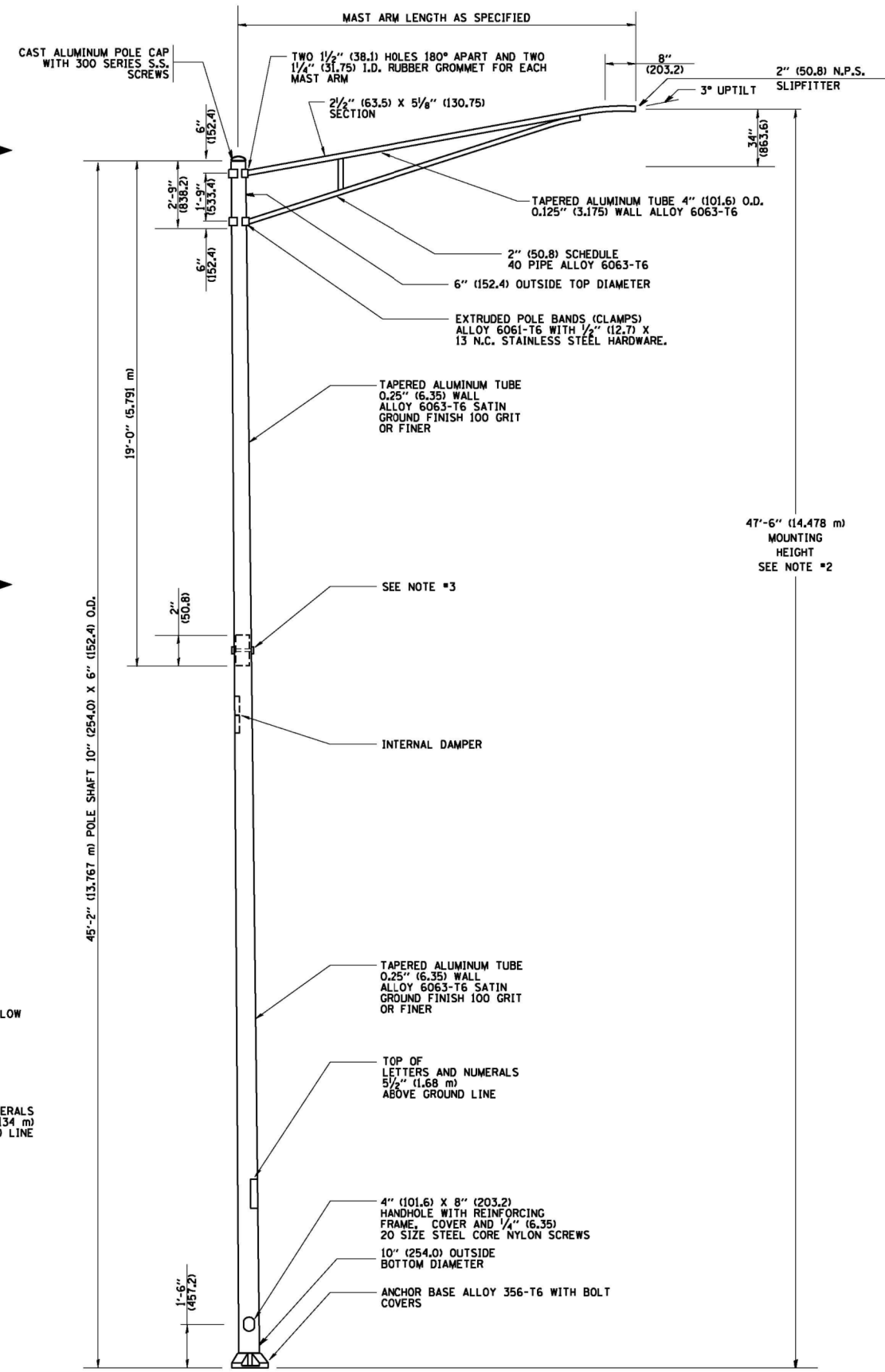
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES

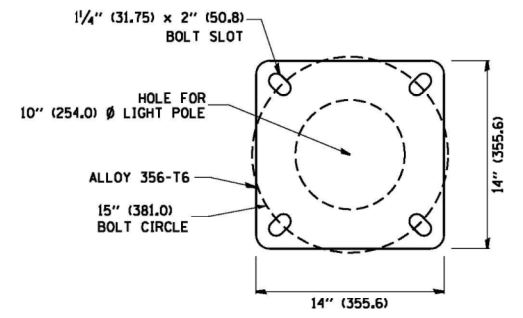


POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES

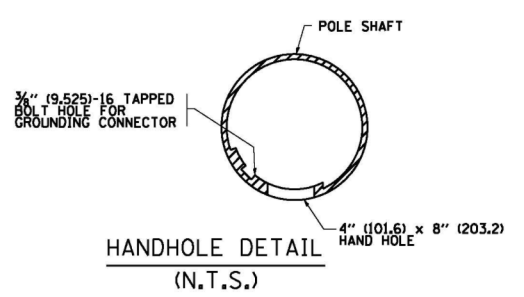


6' (1.8 m) SINGLE MEMBER MAST ARM (N.T.S.)

- NOTES:**
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
 4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
 5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
 6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
 7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
 8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



LIGHT POLE BASE PLATE DETAIL
15 INCH (381.0) BOLT CIRCLE



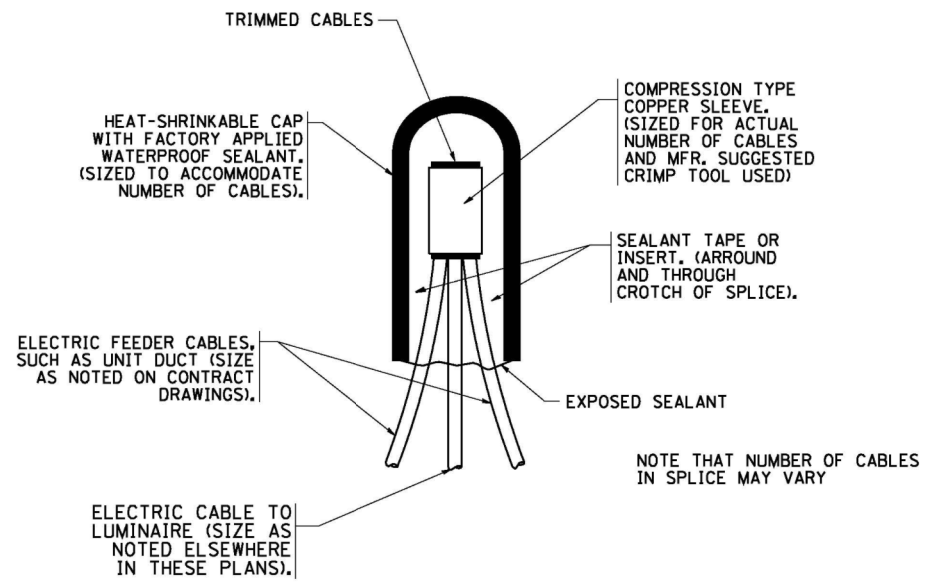
HANDHOLE DETAIL (N.T.S.)

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		DRAWN -	REVISED - R. TOMSONS 09-03-03
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

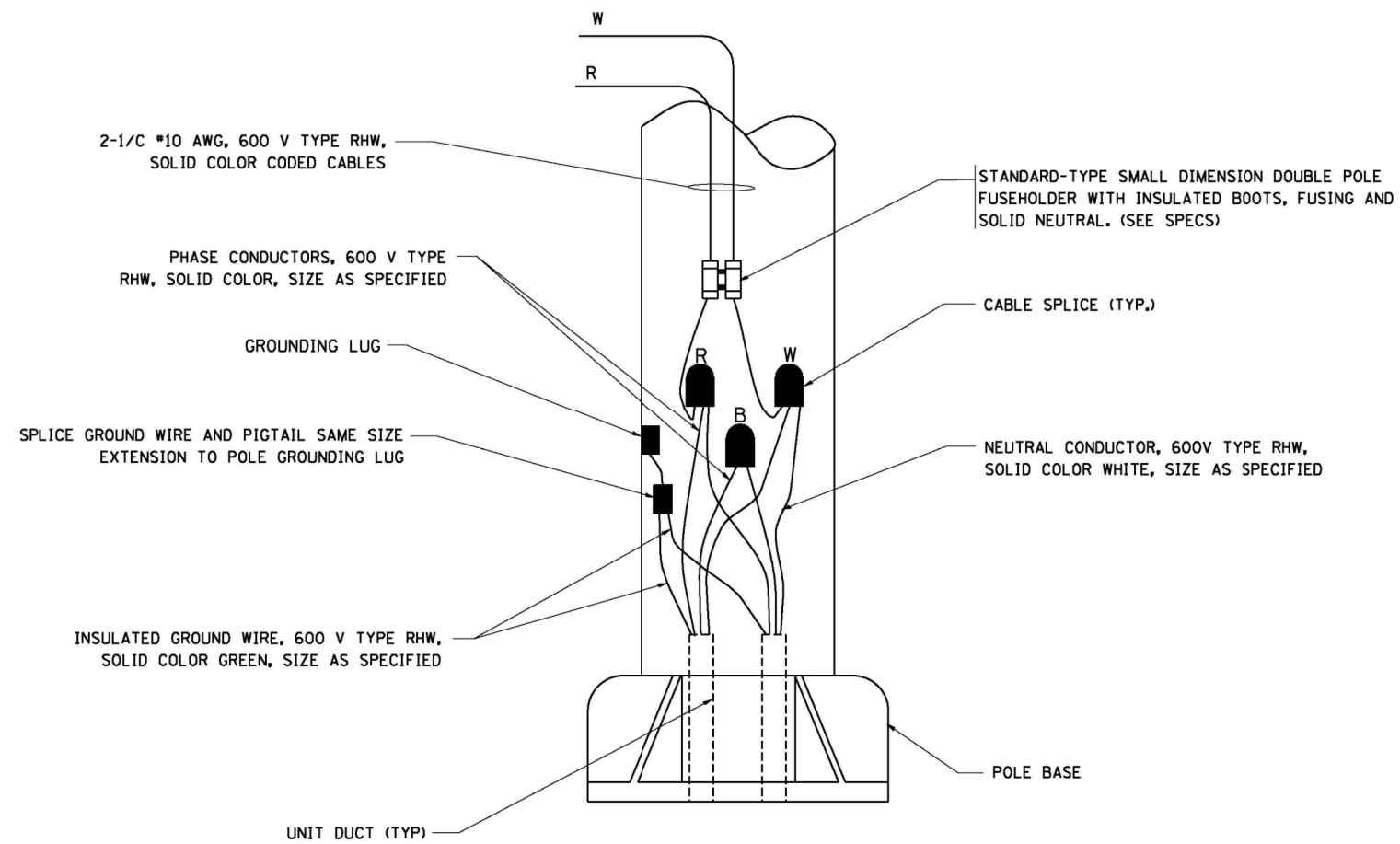
ALUMINUM LIGHT POLE			
47'-6" (14.478 m) MOUNTING HEIGHT			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	46
BE-400		CONTRACT NO. 60X34		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



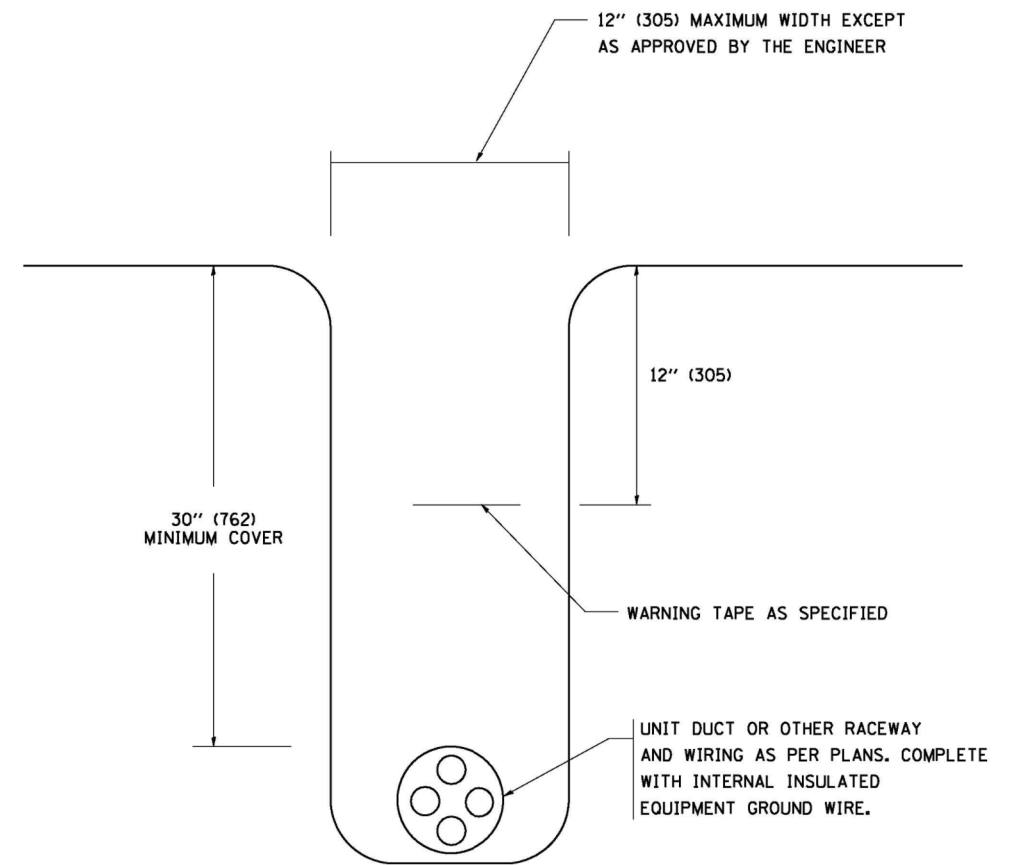
TYPICAL SPLICE DETAIL

N.T.S.



POLE WIRING DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

N.T.S.

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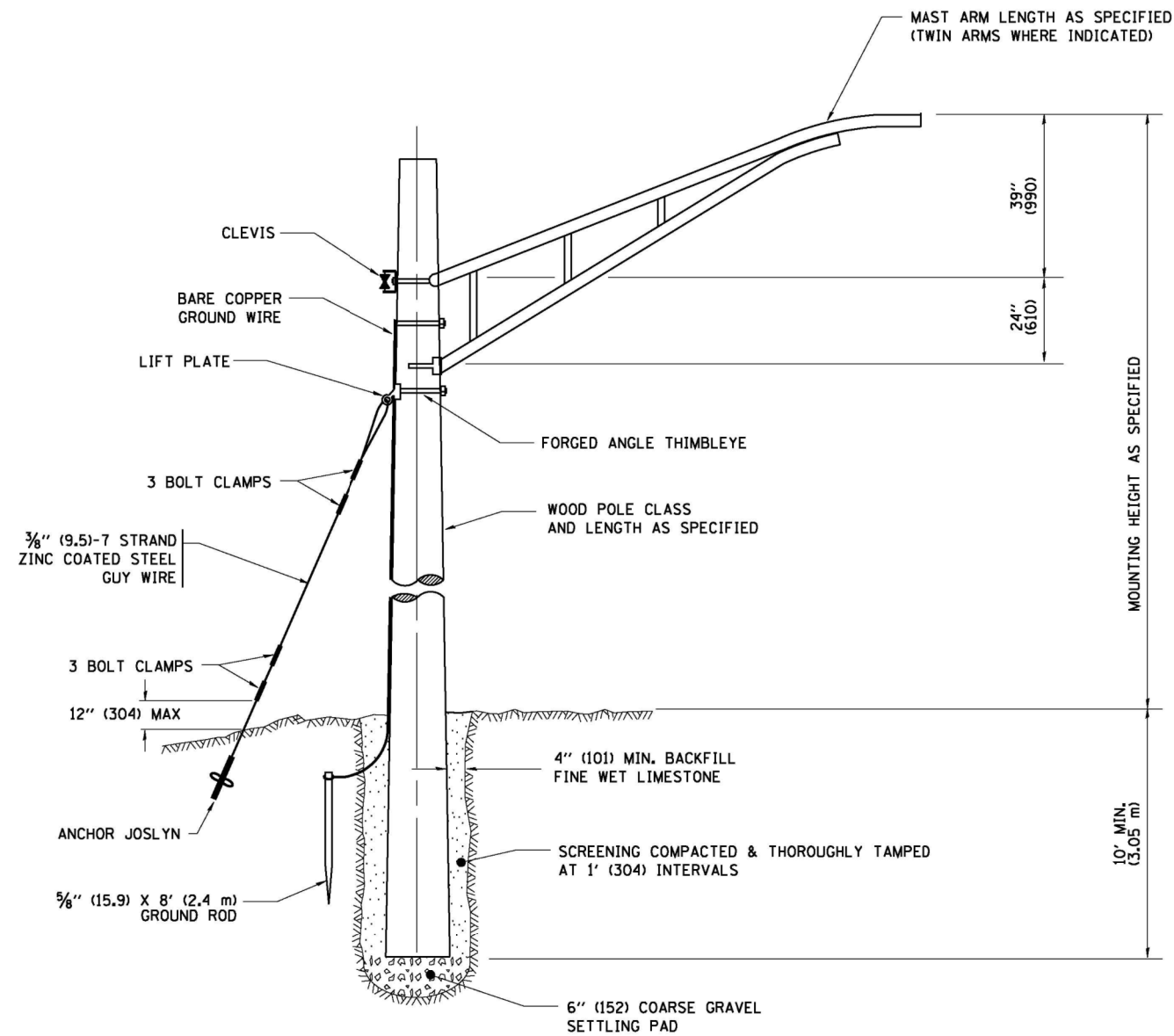
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DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

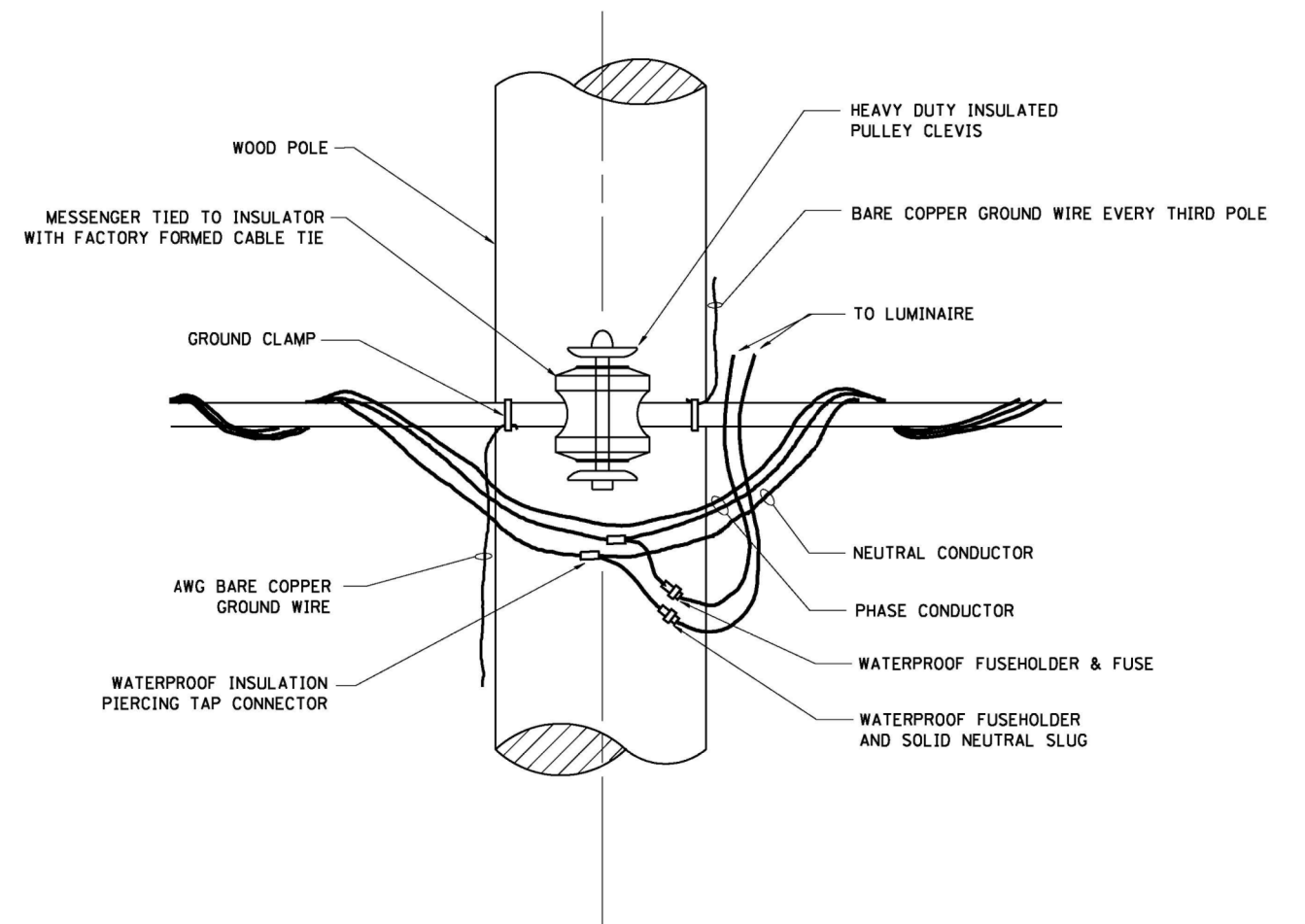
**MISC. ELECTRICAL DETAILS
 SHEET A**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	47
BE-702		CONTRACT NO. 60X34		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TEMPORARY LIGHT POLE DETAIL



TEMPORARY LIGHT POLE ATTACHMENT DETAIL

NOTES:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

FILE NAME = W:\diststd\22x34\be800.dgn

USER NAME = gaglienobt

DESIGNED -	REVISED - 08-08-03
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

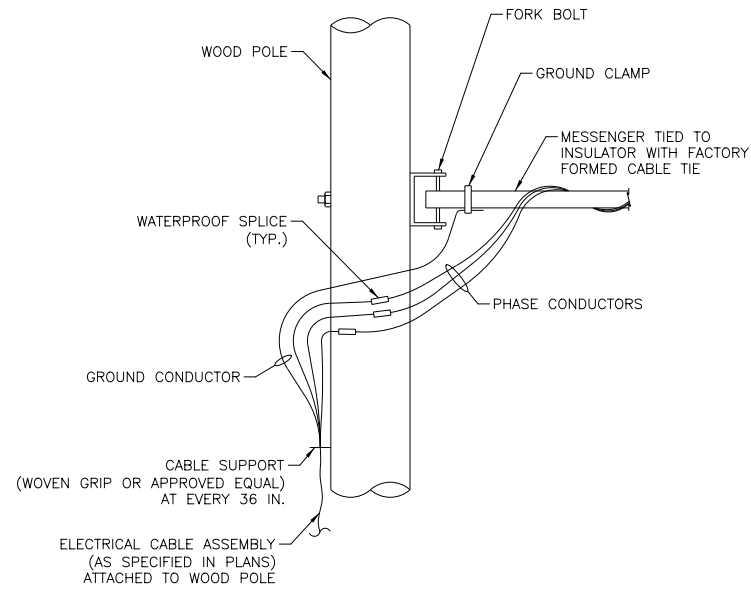
TEMPORARY LIGHT POLE DETAILS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

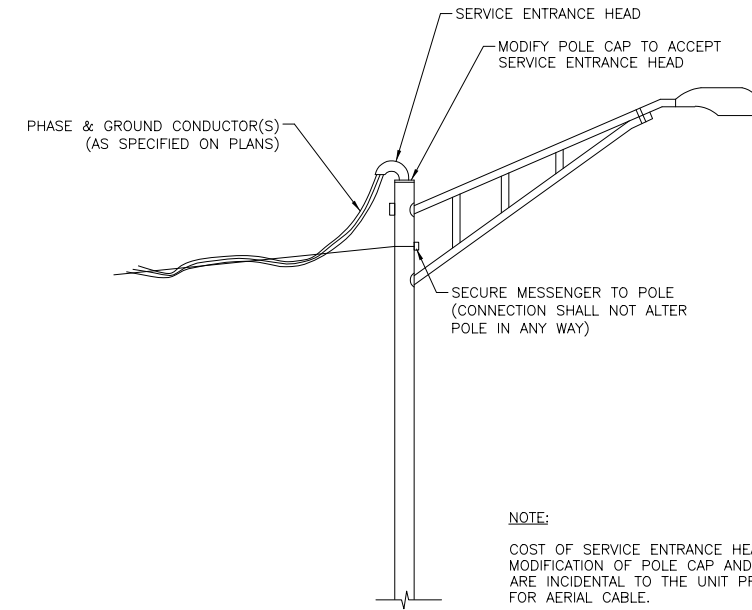
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	48
BE-800		CONTRACT NO. 60X34		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO.	

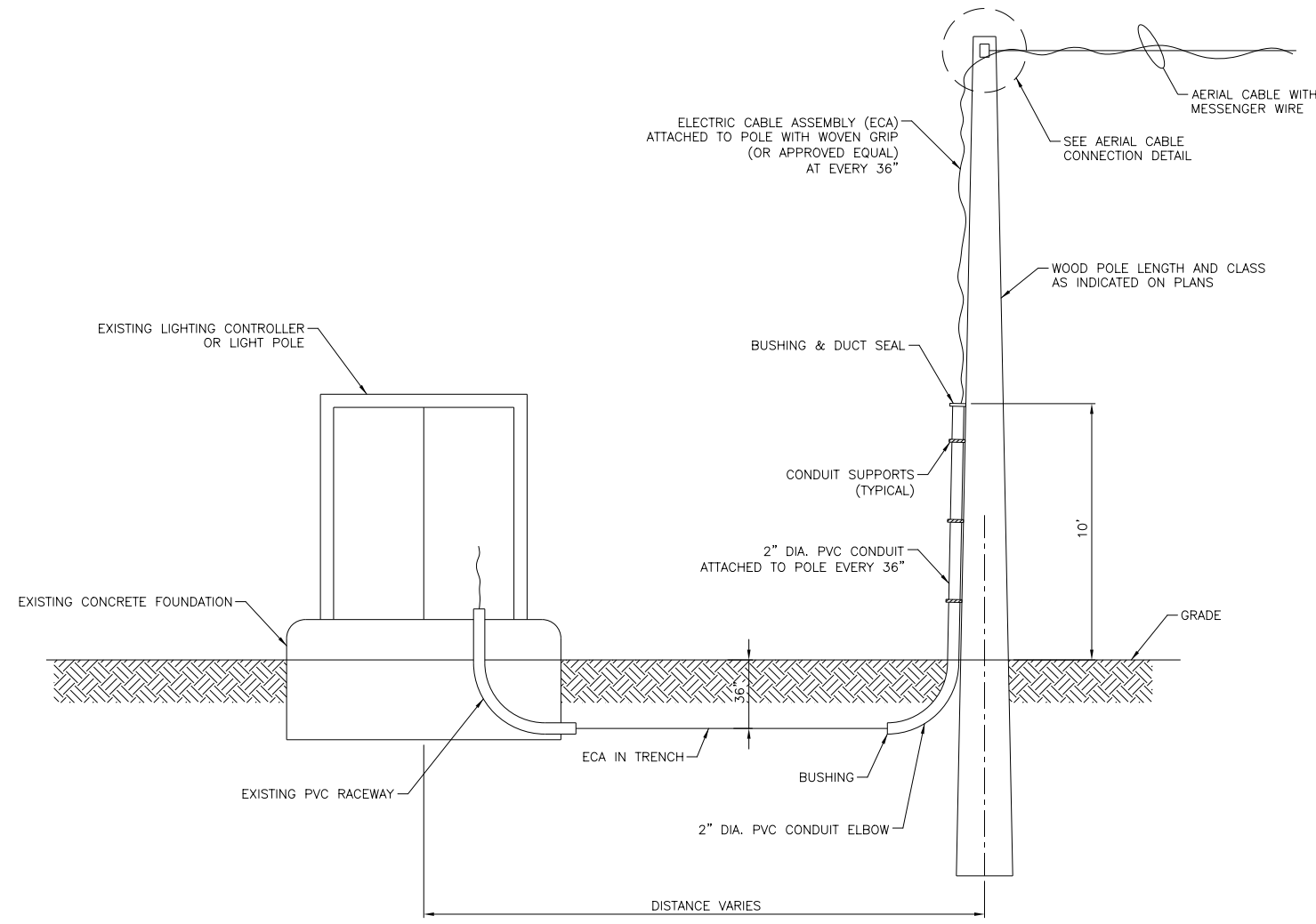
PROFILE	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO.	



AERIAL CABLE CONNECTION DETAIL
N.T.S.



AERIAL CABLE CONNECTION TO EXISTING LIGHT POLE
N.T.S.



WIRING CONNECTION DETAIL
WOOD POLE TO EXISTING LIGHTING CONTROLLER OR LIGHT POLE
N.T.S.

FILE NAME =	USER NAME = j-t	DESIGNED - SJC	REVISED -
...CAD\Sheets\60X34-049.dgn		DRAWN - SJC	REVISED -
		CHECKED - DNM	REVISED -
		DATE - 1/30/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING DETAILS	
SHEET NO. 1 OF 1 SHEETS	

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
311	2013-062TS	DUPAGE	49	49
CONTRACT NO. 60X34				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				