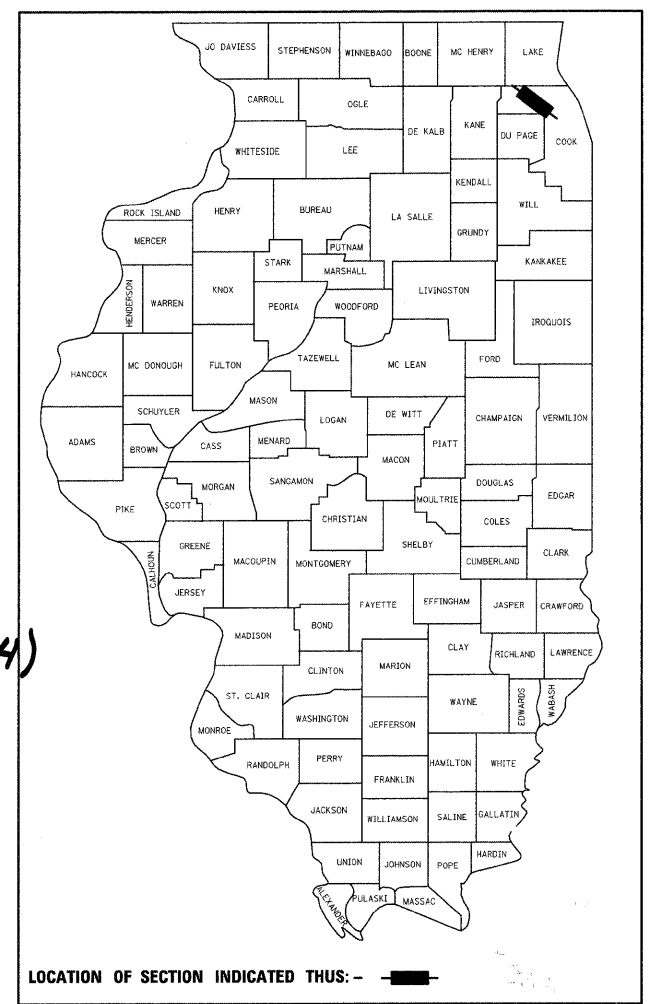


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	60F87	

★ 80+1=81

D-91-277-09



LOCATION OF SECTION INDICATED THIS: - [shaded box] -

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

DISTRICT 1
HIGHWAY SAFETY IMPROVEMENT PROJECT
LIGHTING AND TRAFFIC SIGNAL MODERNIZATION

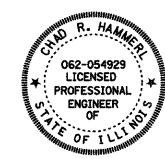
U.S. ROUTE 12 (RAND ROAD)
FROM OLD HICKS ROAD TO WEST
FRONTAGE ROAD /IL ROUTE 53 WEST RAMP
F.A.P. ROUTE 334

PROJECT: HSIP-000S(664)

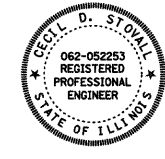
IL ROUTE 53 /68 (DUNDEE ROAD)
FROM LYNDA DRIVE TO IL ROUTE 53 WEST RAMP
F.A.P. ROUTE 343

SECTION 2008-08-31
JOB D-91-277-09
COUNTY COOK

C-91-277-09



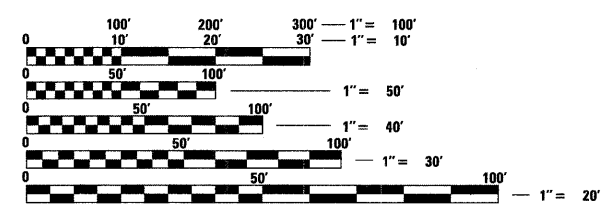
SIGNED [Signature]
DATE Jan 27, 2009
EXPIRES Nov 30, 2009
FOR DRAWINGS 1 TO 44



SIGNED [Signature]
DATE 1/27/2009
EXPIRES Nov 30, 2009
FOR DRAWINGS 45 TO 80

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN THE VILLAGE OF PALATINE



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

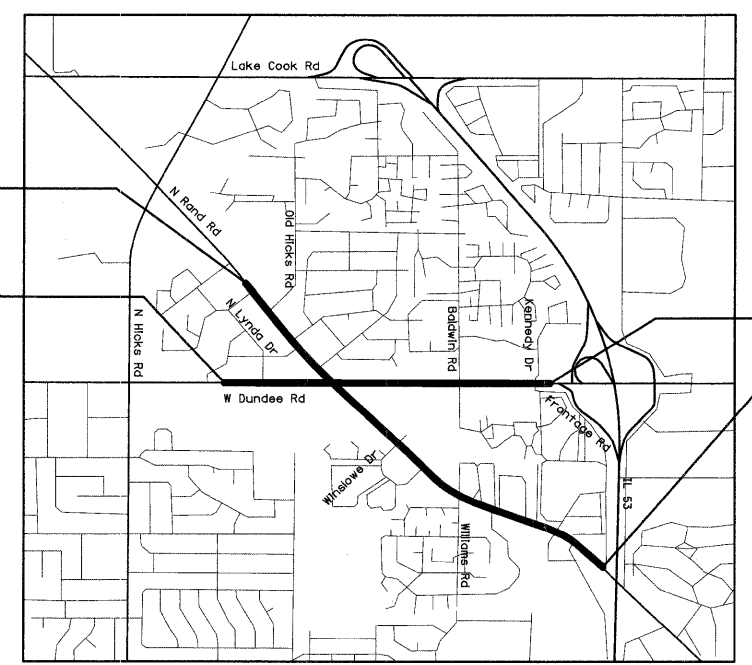
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

BEGINNING OF PROJECT
N RAND RD - STA. 100+00

BEGINNING OF PROJECT
W DUNDEE RD - 1007+71

END OF PROJECT
W DUNDEE RD 1060+50

END OF PROJECT
N RAND RD 171+91



LOCATION MAP (N.T.S.)

PROJECT ENGINEER - SIGNALS: CHAD HAMMERL
PROJECT ENGINEER - LIGHTING: CECIL STOVAL
PROJECT MANAGER - KENNETH GLASSMAN
CONTRACT NO. 60F87

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Jan 30, 2009

[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 27, 2009
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

March 27, 2009
[Signature]
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

DISTRICT 1 - BUREAU OF TRAFFIC: STEVE TRAVIA / DARYLE DREW (847) 705-4420

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25-28	U.S. ROUTE 12 (RAND ROAD) AND WILLIAMS DRIVE -TEMPORARY TRAFFIC SIGNAL INSTALLATION -REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN -TEMPORARY CABLE PLAN -TEMPORARY PHASE DESIGNATION DIAGRAM -TRAFFIC SIGNAL MODERNIZATION PLAN -CABLE PLAN, PHASE DESIGNATION DIAGRAM SUMMARY OF QUANTITIES
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38-40	U.S. ROUTE 53/68 (DUNDEE ROAD) - FROM HICKS ROAD TO RAND ROAD -INTERCONNECT PLAN -INTERCONNECT SCHEMATIC
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71-79	DISTRICT 1 STANDARD ELECTRICAL DETAILS
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LIST OF STANDARDS

000001-05	SYMBOLS, ABBREVIATIONS, AND PATTERNS
001006	DECIMAL EQUIVALENTS OF AN INCH AND FOOT
424001-04	CURB RAMPS FOR SIDEWALK
424001-05	SIDEWALK, CURB RAMPS FOR
606001-04	CURB TYPE B AND COMBINATION CURB AND GUTTER, CONCRETE
606301-04	MEDIAN, CONCRETE
701501-05	2L, 2W, UNDIVIDED
701502-05	2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701601-06	MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701606-06	MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-06	MULTILANE INTERSECTION
720016-02	MAST ARM MOUNTED STREET NAME SIGNS
805001-01	ELECTRICAL SERVICE INSTALLATION DETAILS
814001-02	HANDHOLES, POLYMER CONCRETE, SINGLE
814006-02	HANDHOLES, CONCRETE AND POLYMER CONCRETE, DOUBLE
857001-01	PHASE SEQUENCES
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
877001-04	MAST ARM ASSEMBLY AND POLE 16' THROUGH 55', STEEL
877006-03	MAST ARM ASSEMBLY AND POLE, STEEL, DUAL MAST ARMS
877011-04	MAST ARM ASSEMBLY AND POLE 16' THROUGH 55', STEEL COMBINATION
880001-01	TRAFFIC SIGNAL MOUNTING DETAILS, SPAN WIRE MOUNTED AND FLASHING BEACON
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS, POST AND BRACKET MOUNTED
886001-01	DETECTOR LOOP INSTALLATIONS

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	2
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 60F87

FILE NAME = 00_INDEX.dgn	USER NAME = \$USER\$	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -
	PLOT DATE = 1/27/2009	DATE - 1/27/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

INDEX OF SHEETS, STATE STANDARDS			
SCALE: NONE	SHEET NO.	OF SHEETS	STA. TO STA.

1/27/2009

SUMMARY OF QUANTITIES

FAP 334

FAP 343

FAP 334

FAP 343

CODE	ITEM DESCRIPTION	UNIT	90% FED. 10% STATE TOTAL QUANTITY URBAN	CONSTRUCTION TYPE CODE														
				US 12 (RAND RD.) @ OLD HICKS		US 12 (RAND RD.) @ IL 53/68 (DUNDEE RD.)		US 12 (RAND RD.) @ WINSLOWE		US 12 (RAND RD.) @ WILLIAMS		IL 53/68 (DUNDEE RD.) @ BALDWIN LN.		IL 53/68 (DUNDEE RD.) @ KENNEDY		INTERCONNECT U.S. 12 (RAND RD.)	INTERCONNECT IL 53/68 (DUNDEE RD.)	STREET LIGHTING
				Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031-1F	Y031-1F	Y030-1E
20101700	SUPPLEMENTAL WATERING	UNIT	1			0.34		0.33		0.33								
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	50			8		28		14								
25200100	SODDING	SQ YD	50			8		28		14								
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	8,697	443		2,714		1,110		1,312		62				3,056		
42400800	DETECTABLE WARNINGS	SQ FT	414	48		151		93		106		16						
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	597	30		193		89		95		20		170				
44000600	SIDEWALK REMOVAL	SQ FT	7,521	460		1,691		908		1,364		42				3,056		
44003100	MEDIAN REMOVAL	SQ FT	1,356			1,044								312				
60255500	MANHOLES TO BE ADJUSTED	EACH	1			1												
60600605	CONCRETE CURB, TYPE B	FOOT	702	86		121		264		205		26						
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	170											170				
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	427	30		193		89		95		20						
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	312											312				
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	2		2		2		2		1		1		2		
67100100	MOBILIZATION	L SUM	1	0.167		0.167		0.167		0.167		0.167		0.167				
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	0.167		0.167		0.167		0.167		0.167		0.167				
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.167		0.167		0.167		0.167		0.167		0.167				
** 72000100	SIGN PANEL - TYPE 1	SQ FT	69	18				18		15		18						
** 72000200	SIGN PANEL - TYPE 2	SQ FT	215	15		50		25		25		30		70				
** 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	2,067			889		407		355		416						
** 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	696	93		263		113		99				128				
** 78300400	THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ FT	819	120		194		277		119				109				
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1													1		
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1													1		
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	2,713	430		760		454		599		64		406				
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	61	22						13				26				
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	231	26		63		34		68				40				
81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	1,931	59		116		12		16				12		1,716		
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	1,067	150		385		212		26				294				
81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	28	28														
81018700	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT	4,466	16												4,450		
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	3,404	158		724		270		274				262		1,716		

** SPECIALTY ITEMS

* 100% OF THE COST WILL BE PAID FOR BY THE VILLAGE OF PALATINE

FILE NAME = 2020A.SDG.dgn

USER NAME = \$USER\$	DESIGNED -	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - AEG	REVISED -
PLOT DATE = 1/27/2009	CHECKED - CH, CS	REVISED -
	DATE - 1/22/2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES - SHEET 1 OF 4

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



ONE NORTH FRANKLIN
CHICAGO IL, 60606
312-251-3000

F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 3
FED. ROAD DIST. NO. [ILLINOIS]		FED. AID PROJECT CONTRACT NO. 60F87		

1/27/2009

SUMMARY OF QUANTITIES

FAP 334

FAP 343

FAP 334

FAP 343

CODE	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY 90% FED. 10% STATE URBAN	CONSTRUCTION TYPE CODE														
				US 12 (RAND RD.) @ OLD HICKS		US 12 (RAND RD.) @ IL 53/68 (DUNDEE RD.)		US 12 (RAND RD.) @ WINSLOWE		US 12 (RAND RD.) @ WILLIAMS		IL 53/68 (DUNDEE RD.) @ BALDWIN LN.		IL 53/68 (DUNDEE RD.) @ KENNEDY		INTERCONNECT U.S. 12 (RAND RD.)	INTERCONNECT IL 53/68 (DUNDEE RD.)	STREET LIGHTING
				Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031-1F
81100900	CONDUIT ATTACHED TO STRUCTURE, 3 1/2" DIA., GALVANIZED STEEL	FOOT	75														75	
81400100	HANDHOLE	EACH	30	4		10		6		5					5			
81400200	HEAVY-DUTY HANDHOLE	EACH	3	1		4		3		2					3			
81400300	DOUBLE HANDHOLE	EACH	6	1		2		1		1					1			
81603000	UNIT DUCT, 600V, 3 IC NO.2, 1/2" NO.4 GROUND, OLP TYPE USE, 1 1/4" DIA. POLYETHYLENE	FOOT	27,721														27,721	
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	4,839	537		939		500		696		64		484			1619	
82102310	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 310 WATT	EACH	136														136	
83600215	LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET	FOOT	4														4	
83600400	POLE FOUNDATION, METAL	EACH	112														112	
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3												2	1		
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	4	1				1		1		1						
85700305	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1			1												
86400100	TRANSCEIVER - FIBER OPTIC	EACH	5	1		1		1		1		1						
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	3,993	518		1,833		560		763					319			
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	8,560	712		3,125		1,089		1,805					1,829			
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	7,288	1,000		2,596		1,047		1,509		339			797			
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	7,356	226		3,315		1,346		960					1,709			
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	10,298	1,594		5,673		1,447		1,454					130			
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	7,58	62		82		86		268		158			2			
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1	1														
87502490	TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.	EACH	1							1								
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2	1						1								
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1	1														
87700180	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1			1												
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1							1								
87702820	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 18 FT.	EACH	1			1												
87702880	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	2					1		1								
87702890	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH	2					1		1								
87702900	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT.	EACH	1															
87702910	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	2	1		1												
87702920	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT.	EACH	3			2		1										
87702930	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 40 FT.	EACH	2	1						1								
87702940	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 42 FT.	EACH	1												1			
87702950	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.	EACH	1					1										

* 100% OF THE COST WILL BE PAID FOR BY THE VILLAGE OF PALATINE

JACOBS ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000

F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 4
CONTRACT NO. 60F87		FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT		

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES - SHEET 2 OF 4

FILE NAME = 0206_S02.dgn	USER NAME = \$USER\$	DESIGNED -	REVISED -
		DRAWN - AEG	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -
	PLOT DATE = 1/27/2009	DATE - 1/22/2009	REVISED -

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

P:\2009\CX\93728\CADD\Sheet\0206_S02.dgn

1/27/2009

SUMMARY OF QUANTITIES *FAP 334*

FAP 343

FAP 334

FAP 343

CODE	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY <i>90% FED. 10% STATE URBAN</i>	CONSTRUCTION TYPE CODE														
				US 12 (RAND RD.) @ OLD HICKS		US 12 (RAND RD.) @ IL 53/68 (DUNDEE RD.)		US 12 (RAND RD.) @ WINSLOWE		US 12 (RAND RD.) @ WILLIAMS		IL 53/68 (DUNDEE RD.) @ BALDWIN LN.		IL 53/68 (DUNDEE RD.) @ KENNEDY		INTERCONNECT U.S. 12 (RAND RD.)	INTERCONNECT IL 53/68 (DUNDEE RD.)	STREET LIGHTING
				Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*			
87702970	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1													1		
87703000	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 55 FT.	EACH	1			1												
87704345	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 26 FT. AND 38 FT.	EACH	1													1		
87704480	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 44 FT. AND 34 FT.	EACH	1													1		
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	35	12		3		4		8						8		
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	20	4		4		4		4						4		
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30			30												
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	270	30		60		60		60						60		
87900200	DRILL EXISTING HANDHOLE	EACH	1	1														
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	39	4		10		6		7		4				8		
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	7	2						1						4		
88030070	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2							2								
88030080	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2							2								
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	10	1				4		1		4						
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	20	1		6		4		1		4				4		
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1	1														
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2			2												
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	10			4		2		4								
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	9			1		2		2		4						
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	61	5		16		10		10		8				12		
88500100	INDUCTIVE LOOP DETECTOR	EACH	53	6		14		8		7		12				6		
88600100	DETECTOR LOOP, TYPE I	FOOT	2,919	505		782		682		508						442		
88800100	PEDESTRIAN PUSH-BUTTON	EACH	21			7		4		6		4						
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	5	1		1		1		1						1		
89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	3	3														
89500400	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	3	3														
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	6	1		1		1		1		1				1		
89502380	REMOVE EXISTING HANDHOLE	EACH	45	6		14		8		9						8		
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	39	7		8		9		7						8		
X0323574	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	6													6		
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	102.8													51.4		
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	3,153													2,768		

* 100% OF THE COST WILL BE PAID FOR BY THE VILLAGE OF PALATINE

P:\2009\CAD\3720\CADD\Sheets\060C.dgn

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		DRAWN - AEG	REVISED -
		CHECKED -	REVISED -
		DATE - 1/22/2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES - SHEET 3 OF 4

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

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 5
FED. ROAD DIST. NO. ILLINOIS		CONTRACT NO. 60F87		

1/27/2009

SUMMARY OF QUANTITIES **FAP 334**

FAP 343

CODE	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY <i>90% FED 10% STATE URBAN</i>	CONSTRUCTION TYPE CODE										FAP 334		FAP 343		
				US 12 (RAND RD.) @ OLD HICKS		US 12 (RAND RD.) @ IL 53/68 (DUNDEE RD.)		US 12 (RAND RD.) @ WINSLOWE		US 12 (RAND RD.) @ WILLIAMS		IL 53/68 (DUNDEE RD.) @ BALDWIN LN.		IL 53/68 (DUNDEE RD.) @ KENNEDY		INTERCONNECT U.S. 12 (RAND RD.)	INTERCONNECT IL 53/68 (DUNDEE RD.)	STREET LIGHTING
				Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	Y031 1F	Y032-1F*	
X0324280	LIGHTING CONTROLLER, RADIO CONTROL, DUPLEX CONSOLE TYPE, WITH SCADA AND VIDEO POWER	EACH	1															1
X0324387	LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	136															136
X0324520	VIDEO SYSTEM DETECTION CAMERA, VIDEO SYSTEM DETECTION PROCESSOR	EACH	1											1				
X0325035	PAINT NEW COMBINATION MAST ARM AND POLE, UNDER 40 FT	EACH	3									3						
X0325036	PAINT NEW COMBINATION MAST ARM AND POLE, OVER 40 FT	EACH	1									1						
X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	2													1	1	
X0325737	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	5	1		1		1		1		1						
X0325825	PAVEMENT REPLACEMENT	SQ YD	60											60				
X0329863	INTERCEPT EXISTING CONDUIT	EACH	15	1		2						1				8	3	
X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	6	1		1		1		1		1		1				
X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	6	1		1		1		1		1		1				
X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	11,346													9,389	1,957	
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	3,081	392		1,302		452		521		38		376				
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	1,731	157		420		296		539				319				
X8950100	RELOCATE EXISTING MASTER CONTROLLER	EACH	1			1												
XX002189	RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER AND CABINET, COMPLETE	EACH	1											1				
XX004913	REMOVE FIBER OPTIC CABLE FROM CONDUIT	FOOT	11,346													9,389	1,957	
XX006937	GROUND ROD, 5/8" DIA, X 10FT.	EACH	21															21
X0326269	PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2			2												
X0326404	MAST ARM, ALUMINUM, 15 FT.	EACH	24															24
X0326438	LIGHT POLE, ALUMINUM, 47.5 ^{FT.} M.H., 12 FT. MAST ARM, INSTALL ONLY, FROM STATE STOCK	EACH	112															112
B1603203	UNIT DUCT, 600V, 3-1C NO.2, 1/C NO.4 GROUND, (EPR-TYPE RHW), 1 1/2" DIA. POLYETHYLENE	FOOT	22,940															22,940
X0326403	MAST ARM, ALUMINUM, 12 FT. (FURNISH ONLY)	EACH	56															56
B0076600	TRAINEES	HR	500	500														
B3050800	LIGHT POLE, ALUMINUM, 47.5 ^{FT.} M.H., 12 FT. MAST ARM	EACH	1															1
B3800205	BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	112															112

* 100% OF THE COST WILL BE PAID FOR BY THE VILLAGE OF PALATINE
 © YD&D

JACOBS ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000

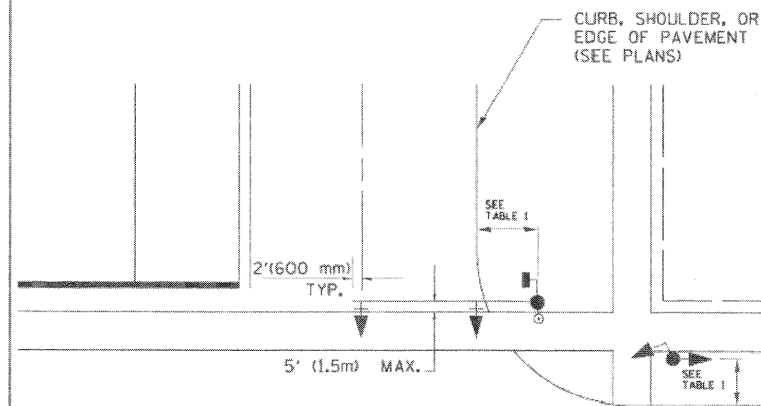
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PLOT DATE = 1/27/2009	DATE - 1/22/2009	REVISED -								

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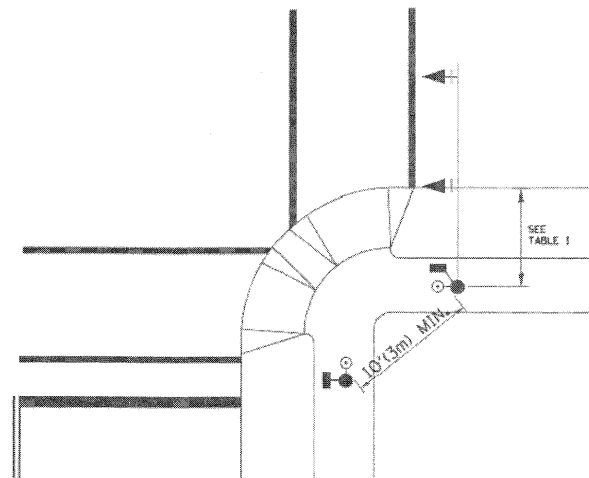
F.A.P. DIST.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	8
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.
 AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.
 PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL-WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK.
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

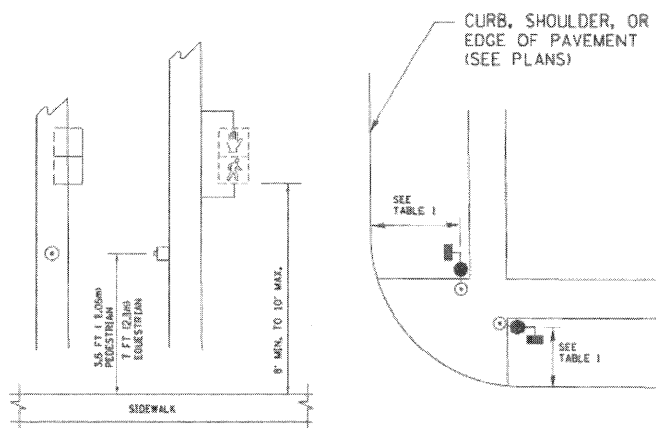


TABLE 1

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

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REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	1/01/02

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1
 STANDARD TRAFFIC SIGNAL
 DESIGN DETAILS

SCALE: NONE

DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 2 OF 4
 TS05

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -
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		CHECKED -	REVISED -
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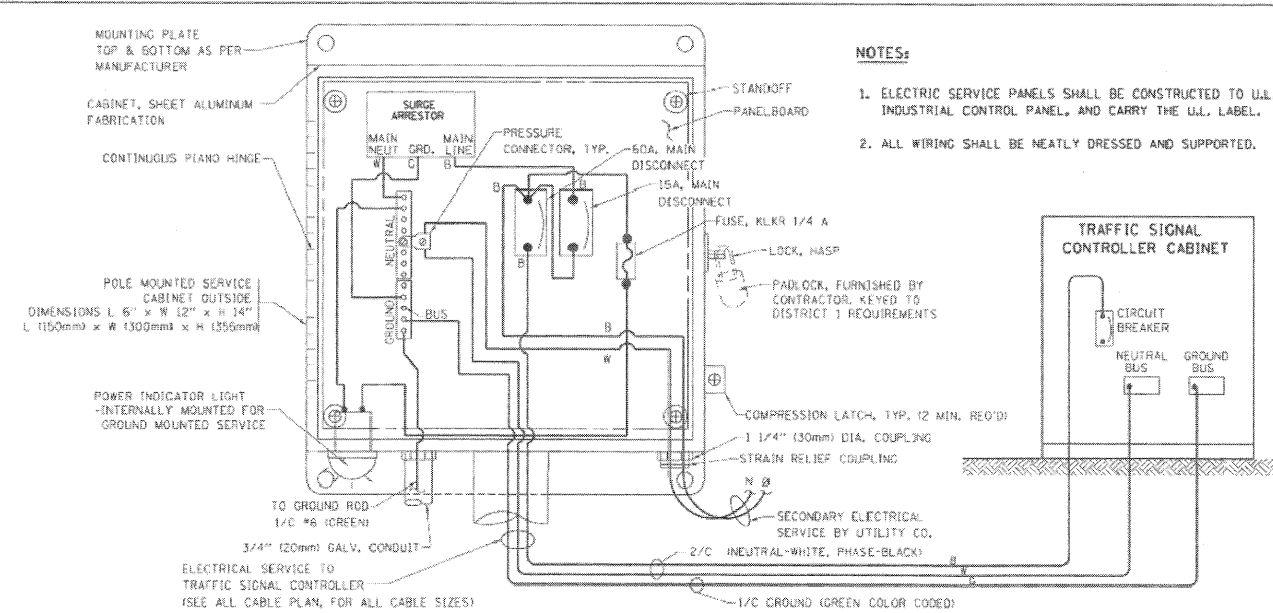
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DISTRICT 1 STANDARD
 TRAFFIC SIGNAL DESIGN DETAILS
 SHEET 2 OF 4

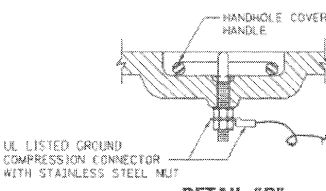
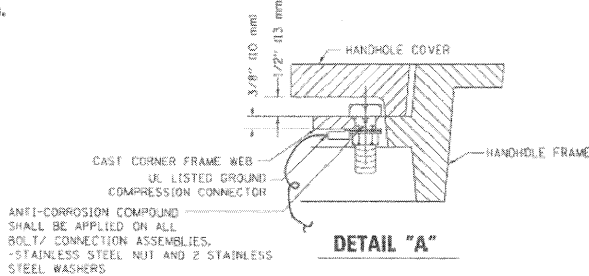
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	8
CONTRACT NO. 60F87				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

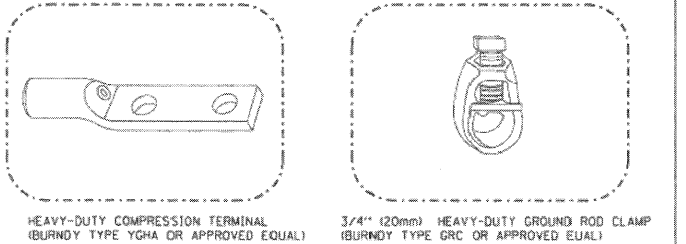
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334	2008-08-31	COOK	80	9
STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT



- NOTES:**
1. ELECTRICAL SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
 2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

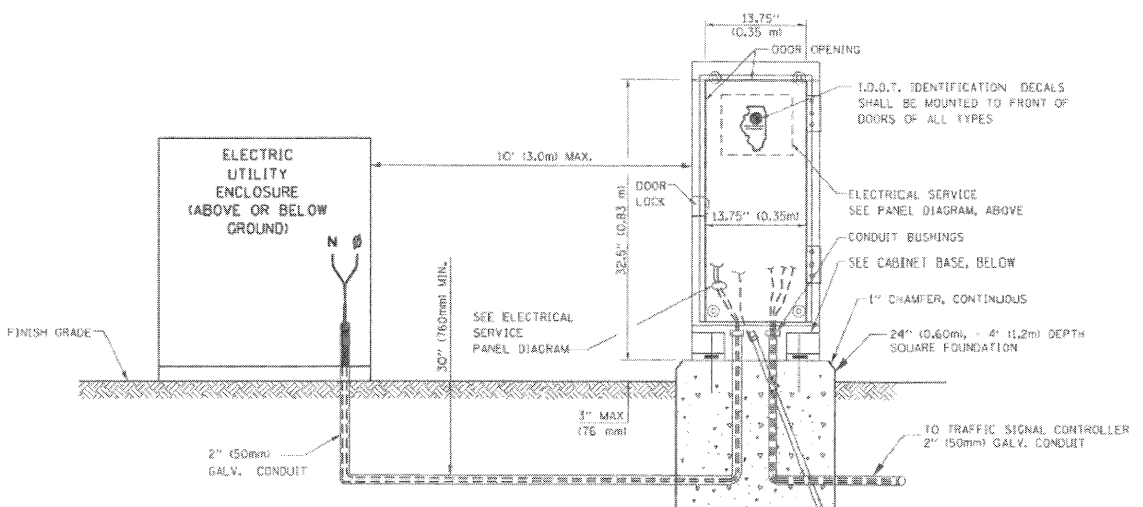


- NOTES:**
- GROUNDING SYSTEM**
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4\"/>
 - 2. 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.
 - 3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
 - 4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

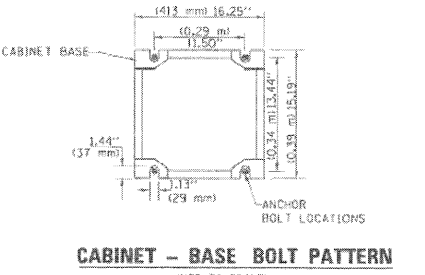


- NOTES:**
- * ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
 - * GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

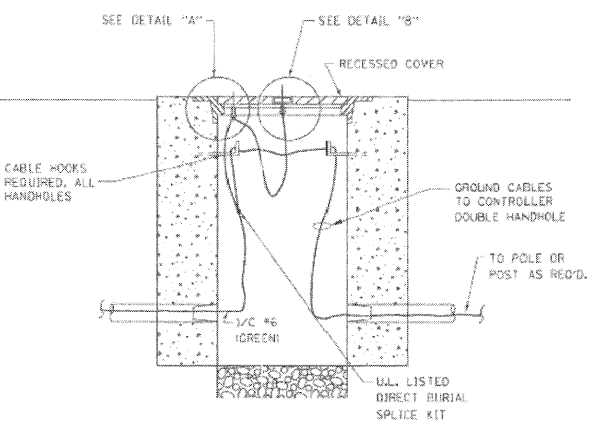
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



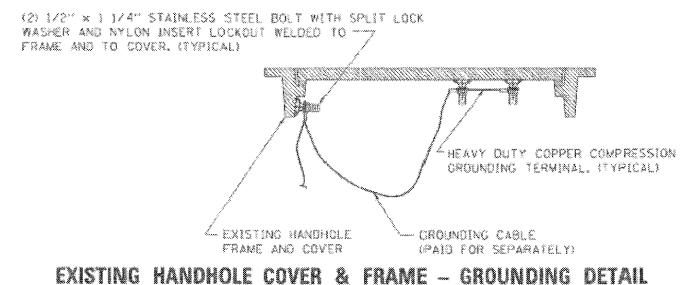
SERVICE INSTALLATION GROUND MOUNT
 (NOT TO SCALE)



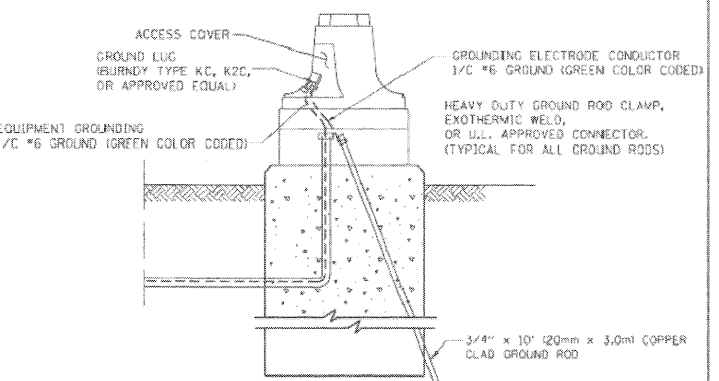
CABINET - BASE BOLT PATTERN
 (NOT TO SCALE)



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



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



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

REVISIONS	
NAME	DATE
CADD	5/30/00
CADD	3/15/01
BUREAU OF TRAFFIC	1/01/02

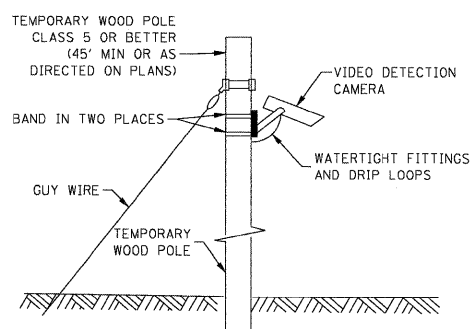
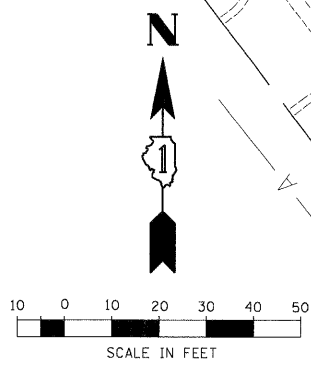
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: NONE

DRAWN BY: RWP
 DESIGNED BY: DAZ
 CHECKED BY: DAZ
 SHEET 3 OF 4

TS05

1/27/2009



- TEMPORARY TRAFFIC SIGNAL LEGEND**
- ▶ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
 - ◀ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
 - ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER)
 - DOWN GUY
 - ☒ TEMPORARY CONTROLLER CABINET
 - TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
 - ☒ TEMPORARY SERVICE INSTALLATION
 - ☒ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
 - ⊙ PEDESTRIAN PUSHBUTTON DETECTOR
 - ⊙ EMERGENCY VEHICLE LIGHT DETECTOR
 - ⊙ CONFIRMATION BEACON
 - ⊙ VEHICLE DETECTOR, INDUCTION LOOP
 - CT COMMON TRENCH
 - UD UNIT DUCT
 - G.S. CONDUIT IN TRENCH OR PUSHED
 - ☒ HANDHOLE
 - ☒ HEAVY DUTY HANDHOLE
 - ▶ VIDEO DETECTION CAMERA
 - ⊙ RADIO INTERCONNECT
 - ⊙ VIDEO DETECTION ZONE

- EXISTING EQUIPMENT TO BE REMOVED LEGEND**
- "E"▶ EXISTING SIGNAL HEAD TO BE REMOVED
 - "E"☒ EXISTING SERVICE INSTALLATION TO BE REMOVED
 - "E"⊙ EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
 - "E"⊗ EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
 - "E"☒ EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
 - "E"☒ EXISTING HANDHOLE TO BE REMOVED
 - "E"☒ EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
 - "E"⊙ EXISTING PEDESTRIAN PUSH-BUTTON TO BE REMOVED
 - "E"⊙ EMERGENCY VEHICLE SYSTEM DETECTOR TO BE RELOCATED
 - "E"⊙ CONFIRMATION BEACON TO BE RELOCATED
 - "E"☒ HEAVY DUTY HANDHOLE TO BE REMOVED
 - "E"⊙ MAST ARM ASSEMBLY AND POLE TO BE REMOVED
 - "R" RELOCATE
 - "A" ABANDON
 - "S" SAVE EQUIPMENT IN CURRENT LOCATION
 - * EQUIPMENT TO BE ABANDONED, REMOVED, RELOCATED AFTER PROPOSED SIGNAL INSTALLED

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED 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)
- 2 EACH MAST ARM ASSEMBLY AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 3 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3-SECTION, 1-5-SECTION
- 1 EACH SIGNAL HEAD, 3-FACE, 3-SECTION
- 1 EACH SERVICE INSTALLATION, TYPE C

THE CONTRACTOR SHALL REMOVE THE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM CONSISTING OF:

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

AND SHALL DELIVER IT TO THE VILLAGE OF PALATINE FIRE DEPARTMENT AT THE ADDRESS BELOW FOR STORAGE. AFTER THE NEW TRAFFIC SIGNAL EQUIPMENT IS IN PLACE, THE CONTRACTOR SHALL BE REQUIRED TO PICK UP ALL DELIVERED EQUIPMENT AND INSTALL THE PHASING UNIT IN THE CONTROLLER CABINET AND THE DETECTOR UNIT ON THE PROPOSED MAST ARM AS INDICATED ON THE PLANS.

PALATINE FIRE DEPARTMENT
39 EAST COLFAX
PALATINE, IL 60067

NOTES FOR TEMPORARY TRAFFIC SIGNALS

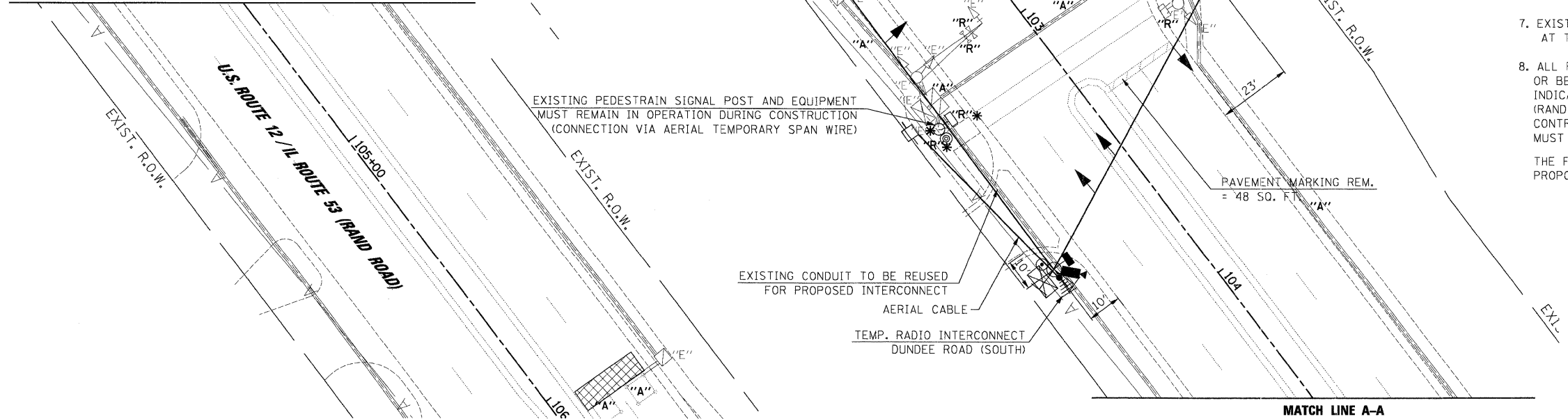
1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY SIGNALS SHALL BE FULLY ACTUATED NEMA MICRO-PROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1. INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK 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.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES AND RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. ALL LABOR AND MATERIAL REQUIRED TO COMPLY WITH THESE REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL TO THE BID PRICE OF TEMPORARY SIGNAL INSTALLATION.
7. EXISTING SIDEWALK/DETECTABLE WARNINGS SHALL BE MAINTAIN OR REPLACED AT THE CONTRACTORS EXPENSE.
8. ALL PEDESTRIAN EQUIPMENT (SIGNAL HEADS AND PUSH BUTTONS) WILL REMAIN OR BE REMOVED AND REINSTALLED ON PROPOSED SIGNAL EQUIPMENT AS INDICATED. PEDESTRIAN SIGNAL EQUIPMENT ON SOUTH SIDE OF INTERSECTION (RAND XING) FACING NORTH MUST REMAIN IN OPERATION DURING CONSTRUCTION. CONTRACTOR TO CONNECT TEMPORARY WIRE TO SIGNAL POST. CONNECTION MUST BE WEATHER TIGHT.

THE FOLLOWING ITEMS SHALL BE REMAIN AND BE INCORPORATED INTO THE PROPOSED SIGNAL.

- 1 EACH TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT
- 4 EACH SIGNAL HEAD, LED, 2-FACE BRACKET MOUNTED COUNTDOWN TIMER
- 4 EACH PEDESTRIAN PUSH BUTTON

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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.

MATCH LINE A-A



FILE NAME =	USER NAME = \$USER\$	DESIGNED - CH, JS	REVISED -
0:\TempSignal\Plan_Rand&OldHicks.dgn		DRAWN - NY, MP	REVISED -
		CHECKED - MJL	REVISED -
		DATE - 1/22/2009	REVISED -

DESIGNED - CH, JS	REVISED -
DRAWN - NY, MP	REVISED -
CHECKED - MJL	REVISED -
DATE - 1/22/2009	REVISED -

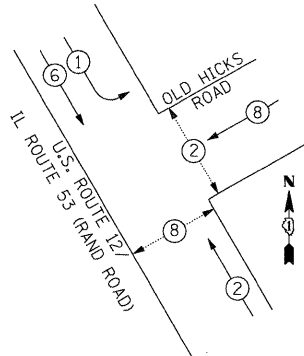
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TEMPORARY TRAFFIC SIGNAL INSTALLATION REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN U.S. ROUTE 12 / IL ROUTE 53 (RAND ROAD) AND OLD HICKS ROAD			
SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA. TO STA.

JACOBS					ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
334	2008-08-31	COCK	80	11		
CONTRACT NO. 60F87						
FED. ROAD DIST. NO.					ILLINOIS FED. AID PROJECT	

1/27/2009
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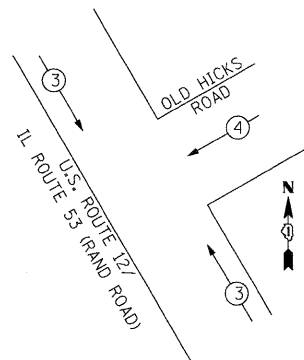
TEMPORARY CONTROLLER SEQUENCE



LEGEND

- ⊕ DUAL ENTRY PHASE
- ⊕ SINGLE ENTRY PHASE
- OL OVERLAP
- ⊕ PEDESTRIAN PHASE
- # NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY PHASE DESIGNATION DIAGRAM
 EMERGENCY VEHICLE PREEMPTION SEQUENCE



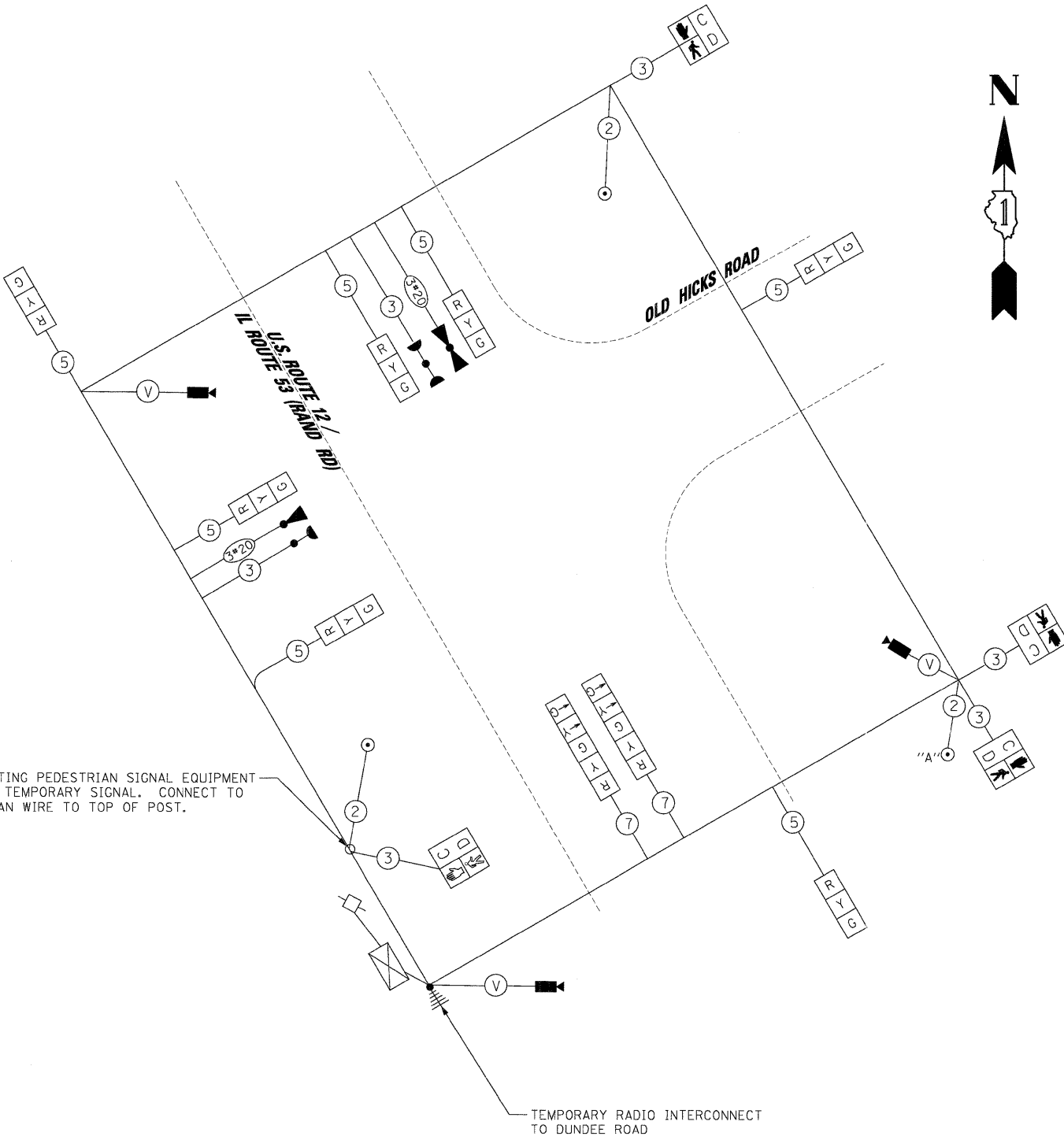
PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↙

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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.

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

TEMPORARY CABLE DIAGRAM LEGEND

- R TEMPORARY TRAFFIC SIGNAL SECTION
- C/D 12" PEDESTRIAN SIGNAL SECTION
C/D INDICATES COUNTDOWN SIGNAL HEAD
- ⊠ TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION
- VEHICLE DETECTOR, INDUCTION LOOP
- 📷 VEHICLE DETECTION CAMERA
- 🚓 EMERGENCY VEHICLE LIGHT DETECTOR
- 📡 CONFIRMATION BEACON
- ⊙ PEDESTRIAN PUSHBUTTON
- ⊕ # DENOTES NUMBER OF CONDUCTORS IN CABLE. ALL CABLE NO. 14 AWG. WIRE UNLESS OTHERWISE NOTED.
- ⊙ VENDOR CABLE
- ⚡ RADIO INTERCONNECT



MAINTAIN EXISTING PEDESTRIAN SIGNAL EQUIPMENT AND POST FOR TEMPORARY SIGNAL. CONNECT TO TEMPORARY SPAN WIRE TO TOP OF POST.

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 8.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	x WATTAGE INCAND.	x WATTAGE LED	x % OPERATION	
SIGNAL (RED)	9		17	0.50	76.5
(YELLOW)	9		25	0.25	56.3
(GREEN)	9		15	0.25	33.8
ARROW	4		12	0.10	4.8
PED. SIGNAL	4		25	1.0	100.0
CONTROLLER	1		100	1.0	100.0
ILLUM. SIGN	-		25	1.0	-
FLASHER	-		-	-	-
TOTAL =					371.4

ENERGY COST TO : ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS / DISTRICT 1
 201 WEST CENTER COURT / SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: MICKI MULERO-WILLIAMS
 PHONE: (630) 691-4721
 COMPANY: COMED

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
C - CONTROLLER W/UPS	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'-H.-2 =
D - CONTROLLER	4	SIGNAL POST	2	BRACKET MOUNTED	13
E - MAST ARM POLE		CONTROLLER CAB.	1	PED. PUSHBUTTON	6
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
36"	15	ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
42"	25	GROUND CABLE	1	POST MOUNTED	6

FILE NAME =
 02_TempCablePlan_Rand&OldHicks.dgn

USER NAME = #USER#
 DESIGNED - CH, RP
 DRAWN - NY
 CHECKED - MJL
 PLOT SCALE = #SCALE#
 PLOT DATE = 1/27/2009

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

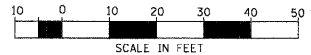
TEMPORARY CABLE PLAN
TEMPORARY PHASE DESIGNATION DIAGRAM
U.S. ROUTE 12 / IL ROUTE 53 (RAND ROAD) AND OLD HICKS ROAD

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 12
CONTRACT NO. 60F87				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

1/27/2009

FILE NAME = 03_SignalPlan_Rand&OldHicks.dgn



- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH OR PUSHED
- DEPRESSED CURB
- DETECTABLE WARNING TILE
- UNINTERRUPTIBLE POWER SUPPLY
- RELOCATED

TRAFFIC SIGNAL LEGEND		PROPOSED	EXISTING
PEDESTRIAN PUSHBUTTON DETECTOR	PROPOSED		
DETECTOR LOOP	PROPOSED		
CAST IRON JUNCTION BOX	PROPOSED		
EMERGENCY VEHICLE LIGHT DETECTOR	PROPOSED		
CONFIRMATION BEACON	PROPOSED		
SIGNAL HEAD OPTICALLY PROGRAMMED	PROPOSED		
CONDUIT SPLICE	PROPOSED		
WOOD POLE	PROPOSED		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	PROPOSED		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	PROPOSED		
RAILROAD CONTROL CABINET	PROPOSED		
TELEPHONE CONNECTION	PROPOSED		
ILLUMINATED SIGN, "NO LEFT TURN"	PROPOSED		
ILLUMINATED SIGN, "NO RIGHT TURN"	PROPOSED		
RADIO INTERCONNECT	PROPOSED		

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

CONSTRUCTION NOTES:

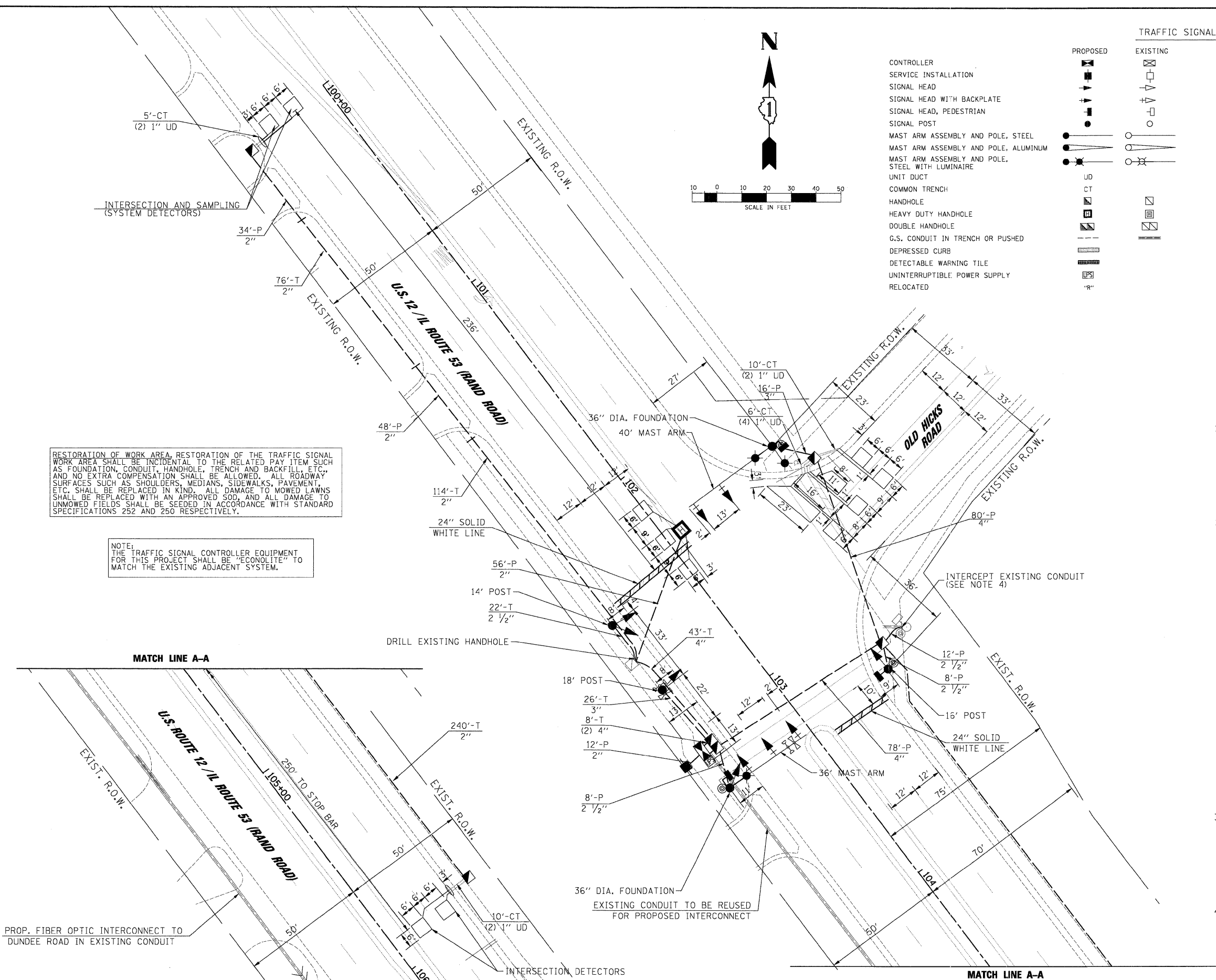
- INSTALL NEW CONTROLLER AND TYPE IV CABINET (SPECIAL). RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT TO NEW CONTROLLER CABINET AND RELOCATE DETECTOR UNIT ON NEW SIGNAL POST. RELOCATION OF THE EMERGENCY PRIORITY SYSTEM EQUIPMENT WILL BE INCLUDED IN THE NEW CONTROLLER AND TYPE IV CABINET (SPECIAL) UNIT PRICE.
- EXISTING PEDESTRIAN SIGNAL EQUIPMENT (SIGNAL HEADS AND PUSH BUTTONS) TO REMAIN OR BE REMOVED AND REINSTALLED ON PROPOSED EQUIPMENT AS FOLLOWS:

EAST CROSSWALK - CROSSING RAND ROAD (SOUTH SIDE);
- EXISTING PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSH BUTTON MUST REMAIN IN PLACE AND IN OPERATION DURING CONSTRUCTION. AT THE CONCLUSION OF CONSTRUCTION, EXISTING PEDESTRIAN SIGNAL EQUIPMENT TO BE RELOCATED TO PROPOSED SIGNAL POLE AND THE EXISTING POST AND TYPE A FOUNDATION WILL BE REMOVED.

EAST CROSSWALK - CROSSING RAND ROAD (NORTH SIDE)
- EXISTING PEDESTRIAN SIGNAL HEAD EQUIPMENT TO BE REMOVED AND REINSTALLED ON PROPOSED SIGNAL POST.

NORTH CROSSWALK - CROSSING OLD HICKS ROAD (EAST SIDE)
- EXISTING PEDESTRIAN SIGNAL EQUIPMENT TO REMAIN AND BE REUSED AS PART OF THE PROPOSED TRAFFIC SIGNAL.

NORTH CROSSWALK - CROSSING OLD HICKS ROAD (WEST SIDE)
- EXISTING PEDESTRIAN SIGNAL EQUIPMENT TO BE REMOVED AND REINSTALLED ON PROPOSED SIGNAL POLE ON A PROPOSED FOUNDATION.
- CONTRACTOR MAY INTERCEPT THE CONDUIT ON THE SOUTHEAST SIDE OF THE SIDEWALK PROVIDED THAT THE ENGINEER APPROVES THE CONDITION OF THE EXISTING CONDUIT. ANY WORK COMPLETED TO CLEAN, REMOVE EXISTING CABLE, OR OTHER ELEMENT TO MAKE THE EXISTING CONDUIT IN A NEW CONDITION WILL BE PAID FOR AS CONDUIT PUSHED, 2 1/2" GALVANIZED STEEL AT THE DISTANCE INDICATED ON THE PLANS.
- CONDUIT TO BE PUSHED UNDER EXISTING SIDEWALK.



JACOBS ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000

F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 13
CONTRACT NO. 60F87				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN U.S. ROUTE 12 / IL ROUTE 53 (RAND ROAD) AND OLD HICKS ROAD

FILE NAME = 03_SignalPlan_Rand&OldHicks.dgn	USER NAME = #USER#	DESIGNED - CH	REVISED -
		DRAWN - MP, AG	REVISED -
		CHECKED - MJL	REVISED -
		DATE - 1/22/2009	REVISED -

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

1/27/2009
 FILE NAME = 04_CablePlan_Rand&OldHicks.dgn
 USER NAME = USER*
 DESIGNED - CH, RP
 DRAWN - NY
 CHECKED - MJL
 DATE - 1/22/2009
 REVISIONS
 REVISED -
 REVISED -
 REVISED -
 REVISED -
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND SUMMARY OF QUANTITIES
 U.S. ROUTE 12 / IL 53 (RAND ROAD) AND OLD HICKS ROAD
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.
 F.A.P. RTE. SECTION COUNTY SHEETS NO. SHEET NO.
 334 2008-08-31 COOK 80 14
 CONTRACT NO. 60F87
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

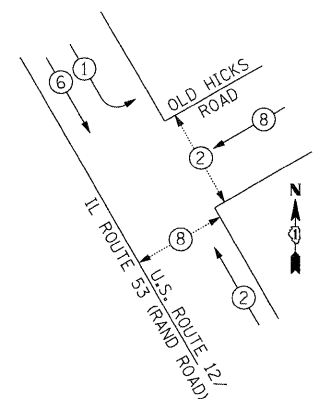
CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
(C)	(G)	8" TRAFFIC SIGNAL SECTION
(R)	(R)	12" TRAFFIC SIGNAL SECTION
(C/D)	(C/D)	12" PEDESTRIAN SIGNAL SECTION C/D INDICATES COUNTDOWN SIGNAL HEAD
(CAB)	(CAB)	CONTROLLER CABINET
(S)	(S)	SERVICE INSTALLATION
(V)	(V)	VEHICLE DETECTOR, INDUCTION LOOP
(E)	(E)	EMERGENCY VEHICLE LIGHT DETECTOR
(B)	(B)	CONFIRMATION BEACON
(P)	(P)	PEDESTRIAN PUSHBUTTON
(#)	(#)	# DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(1)	(1)	NO. 14 1/C TRACER CABLE
(24)	(24)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM-12F SM-12F
(R)	(R)	SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD
(E)	(E)	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
(E)	(E)	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
(T)	(T)	TELEPHONE CONNECTION
(H/C)	(H/C)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE(H), OR CONTROLLER(C)
(P)	(P)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(S)	(S)	GROUND ROD AT ELECTRICAL SERVICE
(UPS)	(UPS)	UNINTERRUPTIBLE POWER SUPPLY
(R)	(R)	RELOCATED

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	443
DETECTABLE WARNINGS	SQ FT	48
COMBINATION CURB AND GUTTER REMOVAL	FOOT	30
SIDEWALK REMOVAL	SQ FT	460
CONCRETE CURB, TYPE B	FOOT	86
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	30
SIGN PANEL - TYPE 1	SQ FT	18
SIGN PANEL - TYPE 2	SQ FT	15
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	93
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ FT	120
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	430
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	22
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	26
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	59
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	150
CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	28
CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT	16
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	158
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	1
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	537
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	518
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	712
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,000
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	226
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,554
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	62
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 40 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	30
DRILL EXISTING HANDHOLE	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	5
INDUCTIVE LOOP DETECTOR	EACH	6
DETECTOR LOOP, TYPE 1	FOOT	505
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	3
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	3
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	6
REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
INTERCEPT EXISTING CONDUIT	EACH	1
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	392
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	157

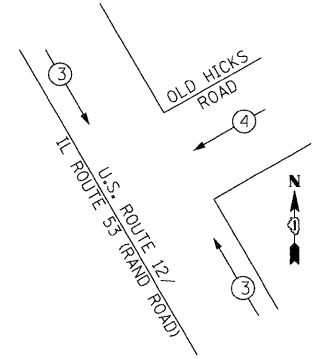
CONTROLLER SEQUENCE



LEGEND

- (#) DUAL ENTRY PHASE
- (#) SINGLE ENTRY PHASE
- OL OVERLAP
- (#) PEDESTRIAN PHASE
- # NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM
EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↔

INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

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

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
C - CONTROLLER W/UPS	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'-H-2 =
D - CONTROLLER	4	SIGNAL POST	2	BRACKET MOUNTED	13
E - MAST ARM POLE	4	CONTROLLER CAB.	1	PED. PUSHBUTTON	4
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
36"	15	ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
42"	25	GROUND CABLE	1	POST MOUNTED	6

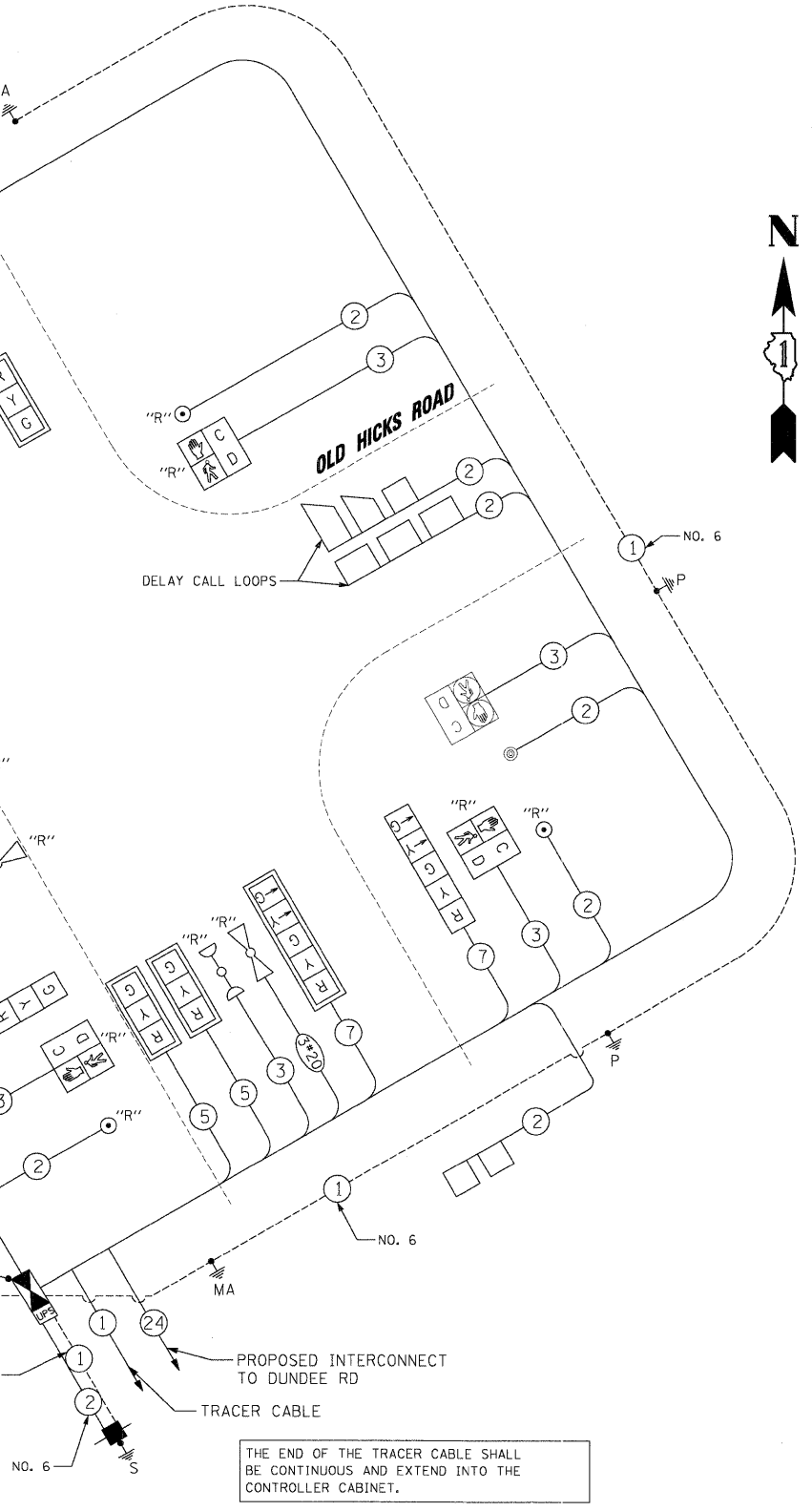
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	x WATTAGE	x % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	10	17	0.50	85.0
(YELLOW)	10	25	0.25	62.5
(GREEN)	10	15	0.25	37.5
ARROW	4	12	0.10	4.8
PED. SIGNAL	4	25	1.0	100.0
CONTROLLER	1	100	1.0	100.0
ILLUM. SIGN	-	25	1.0	-
FLASHER	-	-	-	-
TOTAL =				389.8

ENERGY COST TO : ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS / DISTRICT 1
 201 WEST CENTER COURT / SCHAMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: MICKI MULERO-WILLIAMS
 PHONE: (630) 691-4721
 COMPANY: COMED

FILE NAME =	USER NAME = USER*	DESIGNED - CH, RP	REVISED -
04_CablePlan_Rand&OldHicks.dgn		DRAWN - NY	REVISED -
PLOT SCALE = #SCALE#		CHECKED - MJL	REVISED -
PLOT DATE = 1/27/2009		DATE - 1/22/2009	REVISED -



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

PROPOSED INTERCONNECT TO DUNDEE RD

TRACER CABLE

NO. 6

1/27/2009
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RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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.

NOTES FOR TEMPORARY TRAFFIC SIGNALS
 SEE SHEET 2 OF 2

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED 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 MAST ARM ASSEMBLY AND POLE
- 2 EACH TRAFFIC SIGNAL POST
- 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTIONS
- 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION (MAST ARM)
- 4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION (MAST ARM)
- 2 EACH SIGNAL HEAD, 2-FACE, 1-3-SECTION, 1-5-SECTION
- 2 EACH SIGNAL HEAD, 3-FACE, 2-3-SECTION, 1-5-SECTION
- 14 EACH PEDESTRIAN SIGNAL HEAD
- 6 EACH PEDESTRIAN PUSH BUTTON
- 1 EACH SERVICE INSTALLATION, TYPE C

THE FOLLOWING ITEMS SHALL REMAIN AND BE INCORPORATED AS PART OF THE PROPOSED SIGNAL.

- 2 EACH TRAFFIC SIGNAL POST, GALVANIZED STEEL, 10 FT
- 2 EACH CONCRETE FOUNDATION, TYPE A

THE CONTRACTOR SHALL REMOVE THE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM CONSISTING OF:

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

AND SHALL DELIVER IT TO THE VILLAGE OF PALATINE FIRE DEPARTMENT AT THE ADDRESS BELOW FOR STORAGE. AFTER THE NEW TRAFFIC SIGNAL EQUIPMENT IS IN PLACE, THE CONTRACTOR SHALL BE REQUIRED TO PICK UP ALL DELIVERED EQUIPMENT AND INSTALL THE PHASING UNIT IN THE CONTROLLER CABINET AND THE DETECTOR UNIT ON THE PROPOSED MAST ARM AS INDICATED ON THE PLANS.

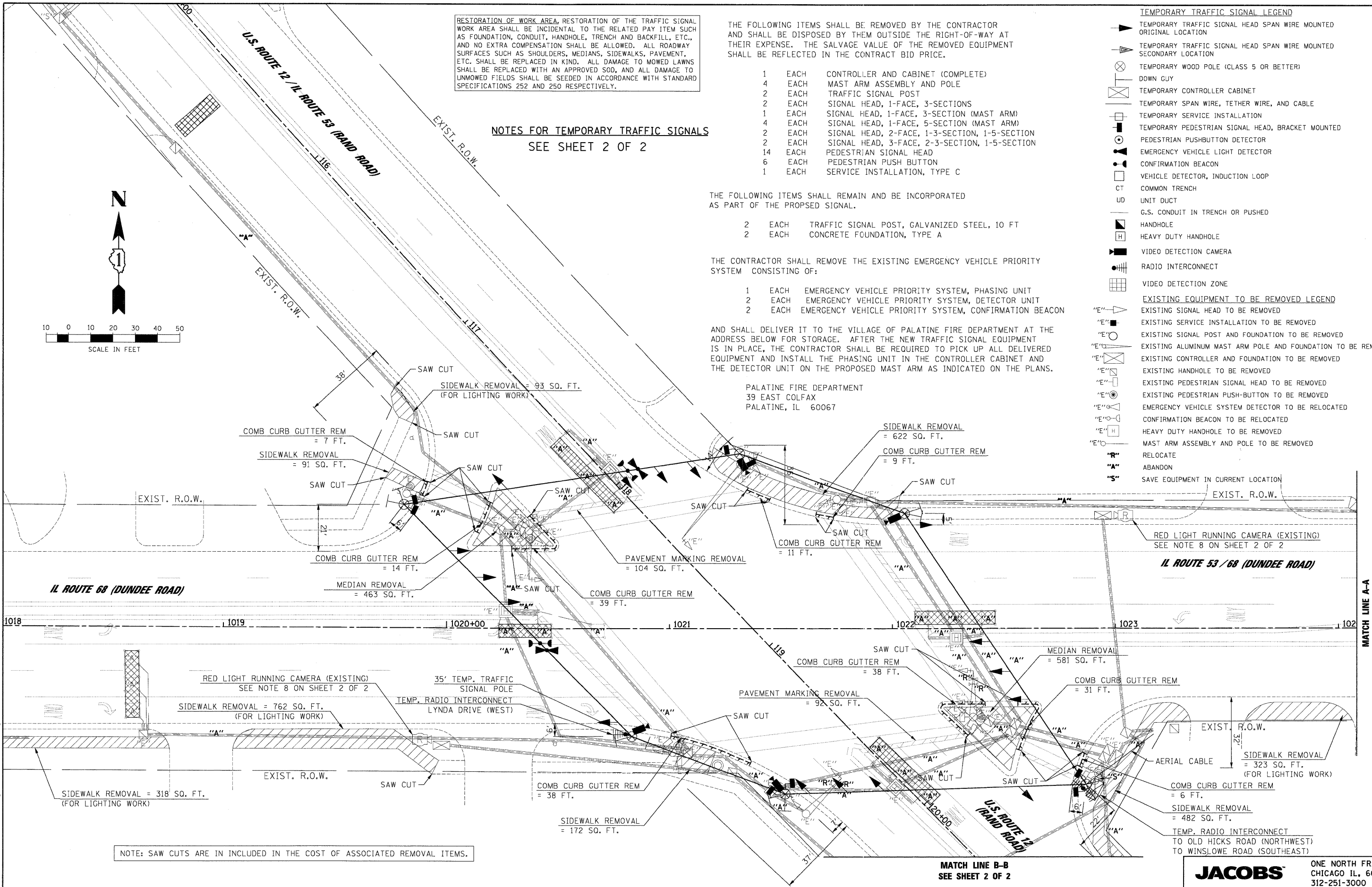
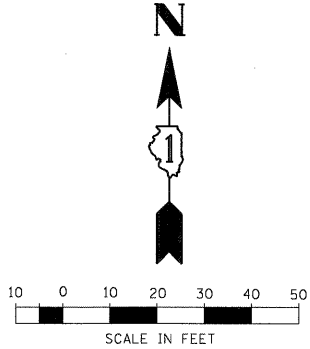
PALATINE FIRE DEPARTMENT
 39 EAST COLFAX
 PALATINE, IL 60067

TEMPORARY TRAFFIC SIGNAL LEGEND

- ▲ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
- ▲ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER)
- DOWN GUY
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY SERVICE INSTALLATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- PEDESTRIAN PUSHBUTTON DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- VEHICLE DETECTOR, INDUCTION LOOP
- CT COMMON TRENCH
- UD UNIT DUCT
- G.S. CONDUIT IN TRENCH OR PUSHED
- HANDHOLE
- HEAVY DUTY HANDHOLE
- VIDEO DETECTION CAMERA
- RADIO INTERCONNECT
- VIDEO DETECTION ZONE

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- "E"▲ EXISTING SIGNAL HEAD TO BE REMOVED
- "E"■ EXISTING SERVICE INSTALLATION TO BE REMOVED
- "E"○ EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- "E"□ EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E"□ EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E"□ EXISTING HANDHOLE TO BE REMOVED
- "E"□ EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- "E"○ EXISTING PEDESTRIAN PUSH-BUTTON TO BE REMOVED
- "E"○ EXISTING EMERGENCY VEHICLE SYSTEM DETECTOR TO BE RELOCATED
- "E"○ CONFIRMATION BEACON TO BE RELOCATED
- "E"□ HEAVY DUTY HANDHOLE TO BE REMOVED
- "E"□ MAST ARM ASSEMBLY AND POLE TO BE REMOVED
- "R" RELOCATE
- "A" ABANDON
- "S" SAVE EQUIPMENT IN CURRENT LOCATION



NOTE: SAW CUTS ARE INCLUDED IN THE COST OF ASSOCIATED REMOVAL ITEMS.

MATCH LINE A-A
 SEE SHEET 2 OF 2

MATCH LINE B-B
 SEE SHEET 2 OF 2

FILE NAME =	USER NAME = #USER#	DESIGNED - CH, JS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION- SHEET 1 OF 2 REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN U.S. ROUTE 12 (RAND ROAD) AND IL ROUTE 53 / 68 (DUNDEE ROAD)	F.A.P. RTE. =	SECTION =	COUNTY =	TOTAL SHEETS =	SHEET NO. =
#5A_TempSignalPlan_Rand&Dundee.dgn		DRAWN - MP	REVISED -			334	2008-08-31	COCK	80	15
PLOT SCALE = #SCALE#		CHECKED - MJL	REVISED -			CONTRACT NO. 60F87				
PLOT DATE = 1/27/2009		DATE - 1/22/2009	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
				SCALE: 1"=20'	SHEET NO. OF SHEETS STA. TO STA.					

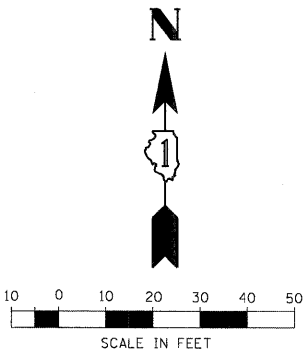
JACOBS ONE NORTH FRANKLIN
 CHICAGO IL, 60606
 312-251-3000

1/27/2009

NOTES FOR TEMPORARY TRAFFIC SIGNALS

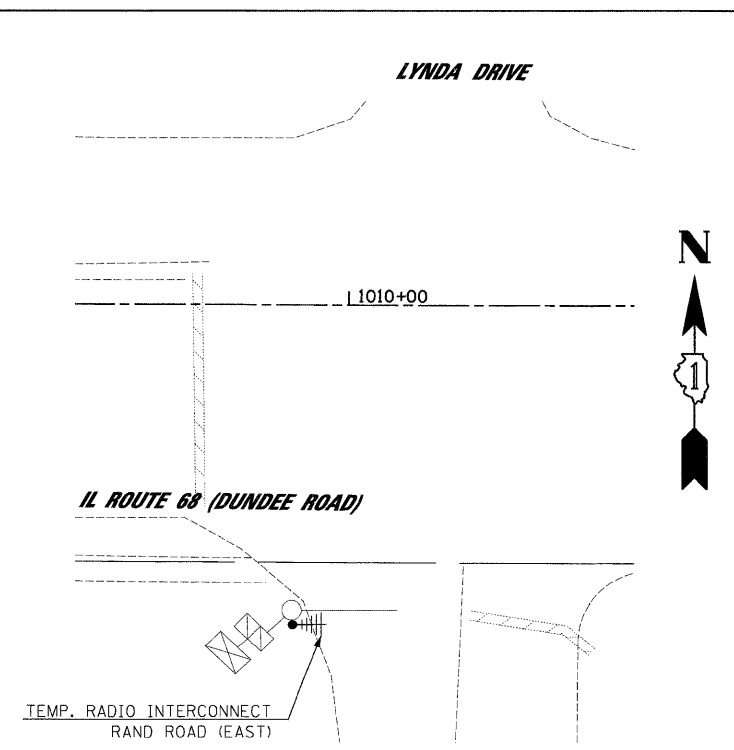
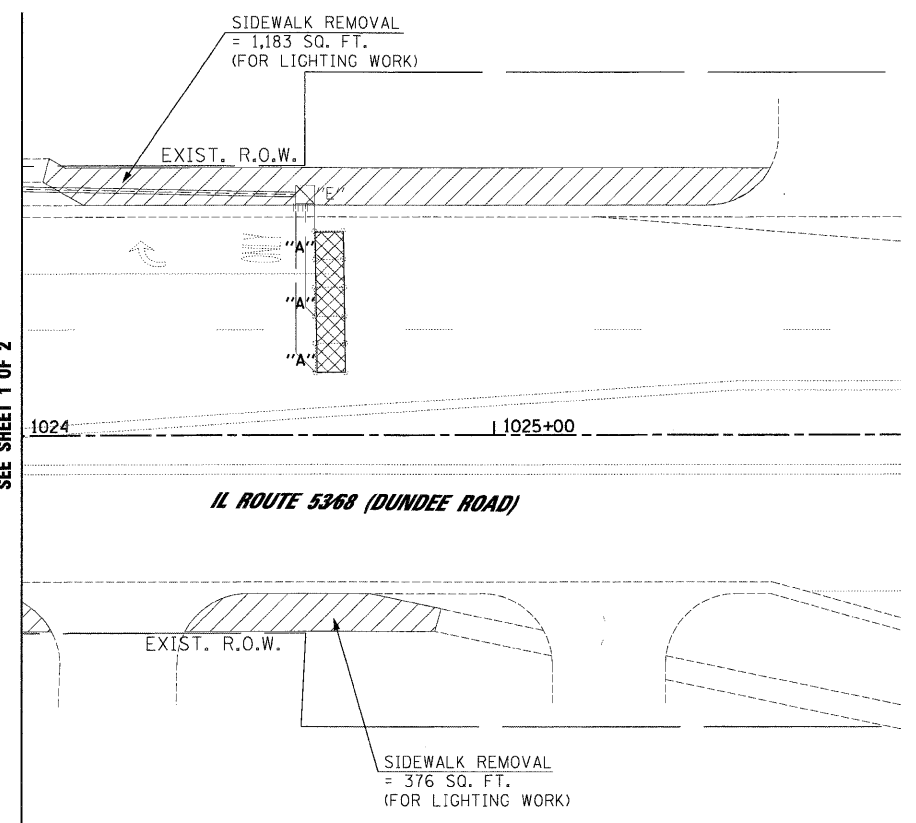
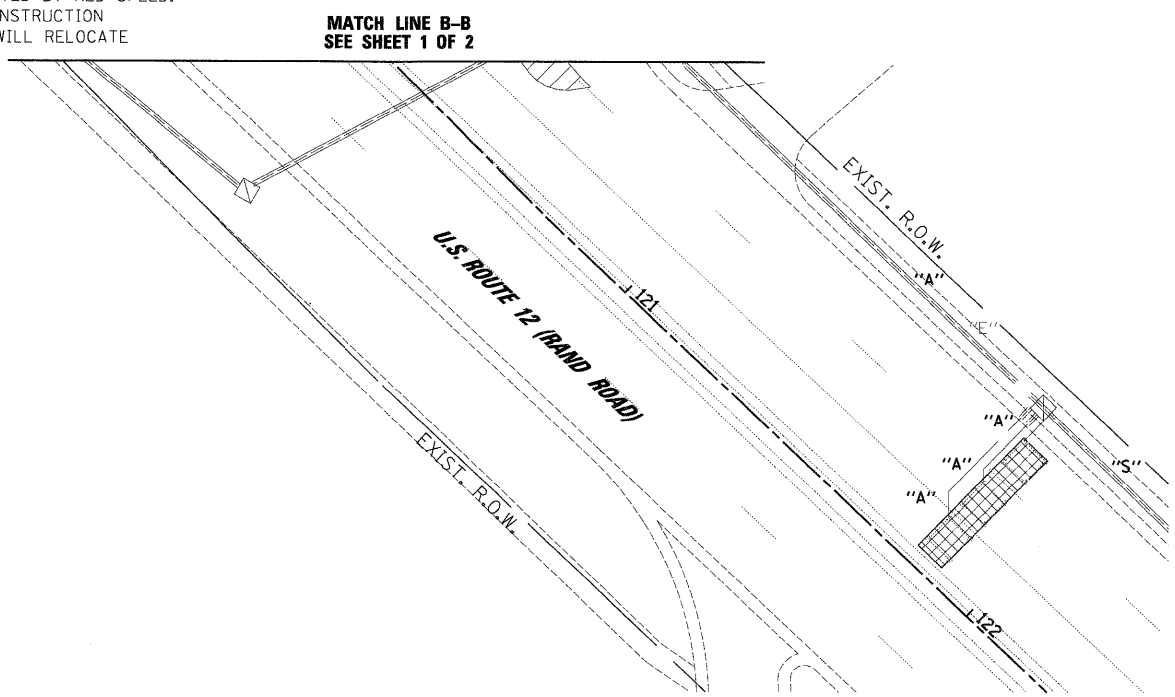
- 1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE OF THE 12".
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES AND RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. ALL LABOR AND MATERIAL REQUIRED TO COMPLY WITH THESE REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL TO THE BID PRICE OF TEMPORARY SIGNAL INSTALLATION.
7. TEMPORARY SIGNAL AERIAL CABLE CROSSES AERIAL UTILITY LINES. CONTRACTOR TO COORDINATE WITH COMED TO RUBBERIZE ELECTRICAL LINES.
8. TEMPORARY MASTER CONTROLLER TO BE PLACED IN TEMPORARY RAND AND DUNDEE CABINET AND OPERATE THE EXISTING RAND AND DUNDEE SYSTEM SHOWN ON SHEET 38.
9. EXISTING RED LIGHT CAMERAS AT RAND AND DUNDEE WILL BE DISCONNECTED BY RED SPEED. CONTRACTOR TO CONTACT THE PERSON LISTED BELOW TO COORDINATE CONSTRUCTION ACTIVITIES AROUND RED SPEED EQUIPMENT. IF NECESSARY, RED SPEED WILL RELOCATE THEIR EQUIPMENT INCLUDING CAMERAS, HANDHOLES, AND/OR CONDUITS.

SCOTT HEMMINGS
RED SPEED
DIRECT - (630)-317-5740
CELL (630)-234-9789



TEMPORARY TRAFFIC SIGNAL LEGEND
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
TEMPORARY WOOD POLE (CLASS 5 OR BETTER)
DOWN GUY
TEMPORARY CONTROLLER CABINET
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
TEMPORARY SERVICE INSTALLATION
TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
PEDESTRIAN PUSHBUTTON DETECTOR
EMERGENCY VEHICLE LIGHT DETECTOR
CONFIRMATION BEACON
VEHICLE DETECTOR, INDUCTION LOOP
COMMON TRENCH
UNIT DUCT
G.S. CONDUIT IN TRENCH OR PUSHED
HANDHOLE
HEAVY DUTY HANDHOLE
VIDEO DETECTION CAMERA
RADIO INTERCONNECT
VIDEO DETECTION ZONE

EXISTING EQUIPMENT TO BE REMOVED LEGEND
EXISTING SIGNAL HEAD TO BE REMOVED
EXISTING SERVICE INSTALLATION TO BE REMOVED
EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
EXISTING HANDHOLE TO BE REMOVED
EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
EXISTING PEDESTRIAN PUSH-BUTTON TO BE REMOVED
EMERGENCY VEHICLE SYSTEM DETECTOR TO BE RELOCATED
CONFIRMATION BEACON TO BE RELOCATED
HEAVY DUTY HANDHOLE TO BE REMOVED
MAST ARM ASSEMBLY AND POLE TO BE REMOVED
RELOCATE
ABANDON
SAVE EQUIPMENT IN CURRENT LOCATION



TEMPORARY INTERCONNECT DETAIL
LYNDA DRIVE RADIO INTERCONNECT

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED.

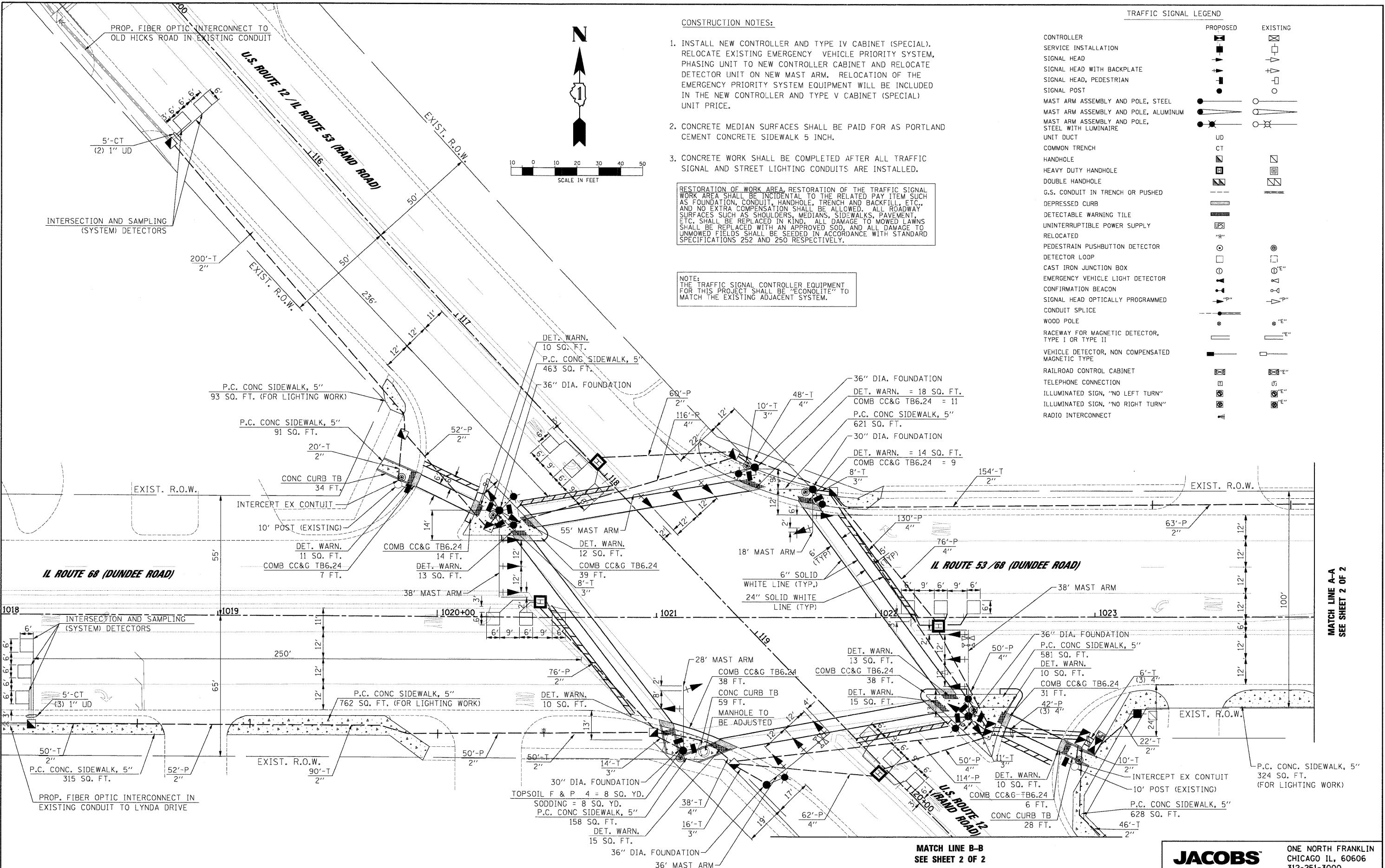
Table with columns: FILE NAME, USER NAME, DESIGNED, DRAWN, CHECKED, PLOT DATE, REVISIONS.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION - SHEET 2 OF 2
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN
U.S. ROUTE 12 (RAND ROAD) AND IL ROUTE 53 / 68 (DUNDEE ROAD)
SCALE: 1"=20'

JACOBS ONE NORTH FRANKLIN
CHICAGO IL, 60606
312-251-3000
F.A.P. RTE. 334 SECTION 2008-08-31 COUNTY COOK TOTAL SHEETS 80 SHEET NO. 16 CONTRACT NO. 60F87

1/27/2009
P:\2008\113726\113726_CADD\Sheet\113726_SignalPlan_Rand&Dundee.dgn



CONSTRUCTION NOTES:

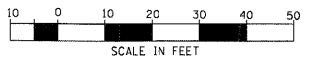
1. INSTALL NEW CONTROLLER AND TYPE IV CABINET (SPECIAL), RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT TO NEW CONTROLLER CABINET AND RELOCATE DETECTOR UNIT ON NEW MAST ARM. RELOCATION OF THE EMERGENCY PRIORITY SYSTEM EQUIPMENT WILL BE INCLUDED IN THE NEW CONTROLLER AND TYPE V CABINET (SPECIAL) UNIT PRICE.
2. CONCRETE MEDIAN SURFACES SHALL BE PAID FOR AS PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH.
3. CONCRETE WORK SHALL BE COMPLETED AFTER ALL TRAFFIC SIGNAL AND STREET LIGHTING CONDUITS ARE INSTALLED.

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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.

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

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
DEPRESSED CURB	[Symbol]	[Symbol]
DETECTABLE WARNING TILE	[Symbol]	[Symbol]
UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]
RELOCATED	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
CONDUIT SPLICE	[Symbol]	[Symbol]
WOOD POLE	[Symbol]	[Symbol]
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
ILLUMINATED SIGN, "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN, "NO RIGHT TURN"	[Symbol]	[Symbol]
RADIO INTERCONNECT	[Symbol]	[Symbol]



MATCH LINE A-A
SEE SHEET 2 OF 2

MATCH LINE B-B
SEE SHEET 2 OF 2

FILE NAME =	USER NAME = #USERS#
07_SignalPlan_Rand&Dundee.dgn	
PLOT SCALE = #SCALE#	
PLOT DATE = 1/27/2009	

DESIGNED - CH	REVISED -
DRAWN - MP, AG	REVISED -
CHECKED - MJL	REVISED -
DATE - 1/27/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN - SHEET 1 OF 2
U.S. ROUTE 12 (RAND ROAD) AND IL ROUTE 53/68 (DUNDEE ROAD)**

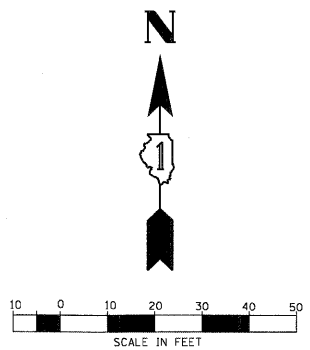
SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.
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JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80
		SHEET NO. 18	
		CONTRACT NO. 60F87	
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

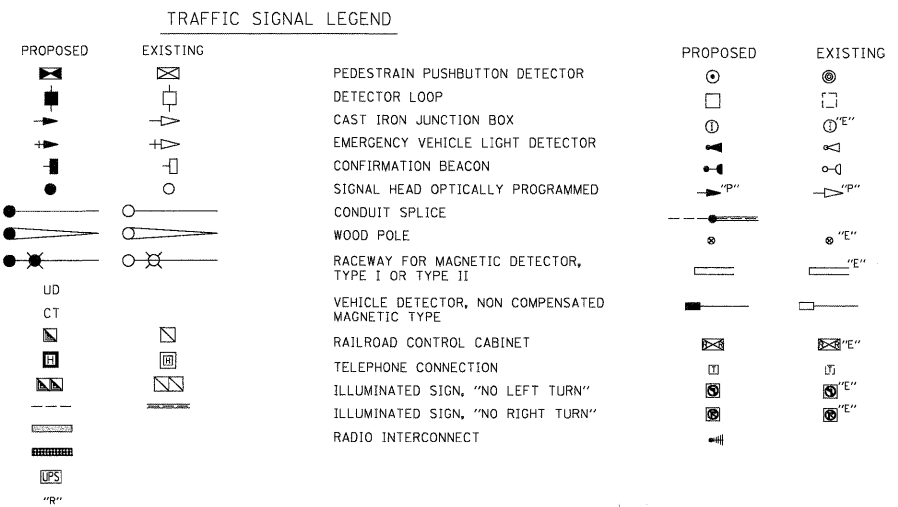
1/27/2009

CONSTRUCTION NOTES:

1. INSTALL NEW CONTROLLER AND TYPE IV CABINET (SPECIAL), RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT TO NEW CONTROLLER CABINET AND RELOCATE DETECTOR UNIT ON NEW MAST ARM. RELOCATION OF THE EMERGENCY PRIORITY SYSTEM EQUIPMENT WILL BE INCLUDED IN THE NEW CONTROLLER AND TYPE IV CABINET (SPECIAL) UNIT PRICE.
2. CONCRETE MEDIAN SURFACES SHALL BE PAID FOR AS PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH.
3. CONCRETE WORK SHALL BE COMPLETED AFTER ALL TRAFFIC SIGNAL AND STREET LIGHTING CONDUITS ARE INSTALLED.

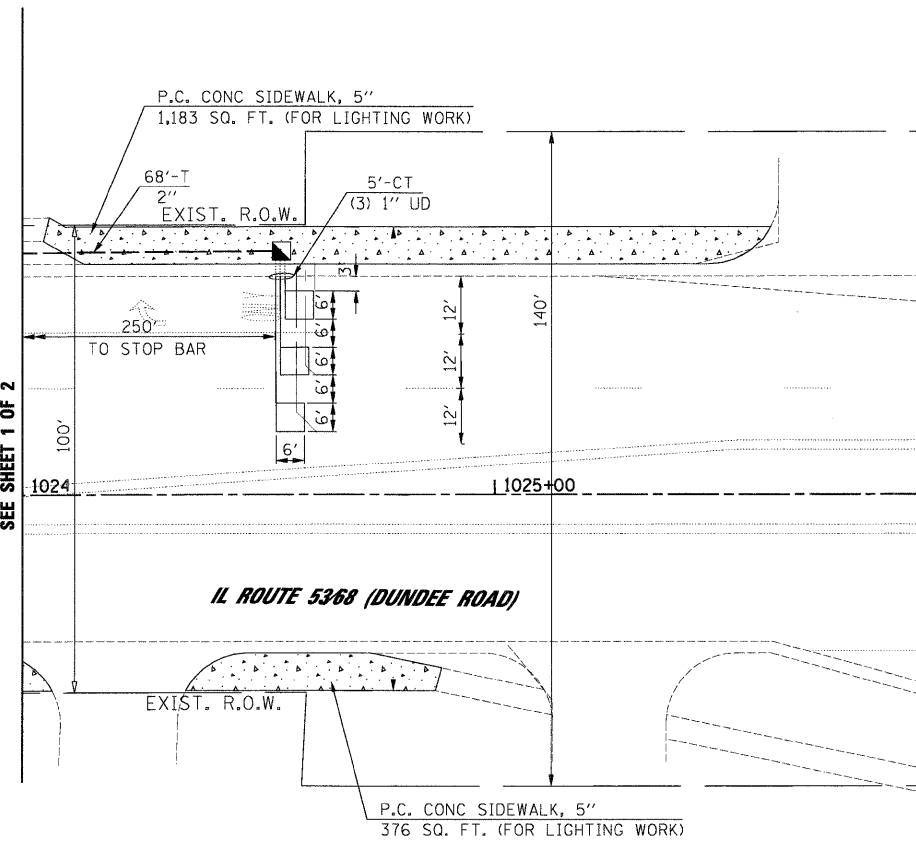
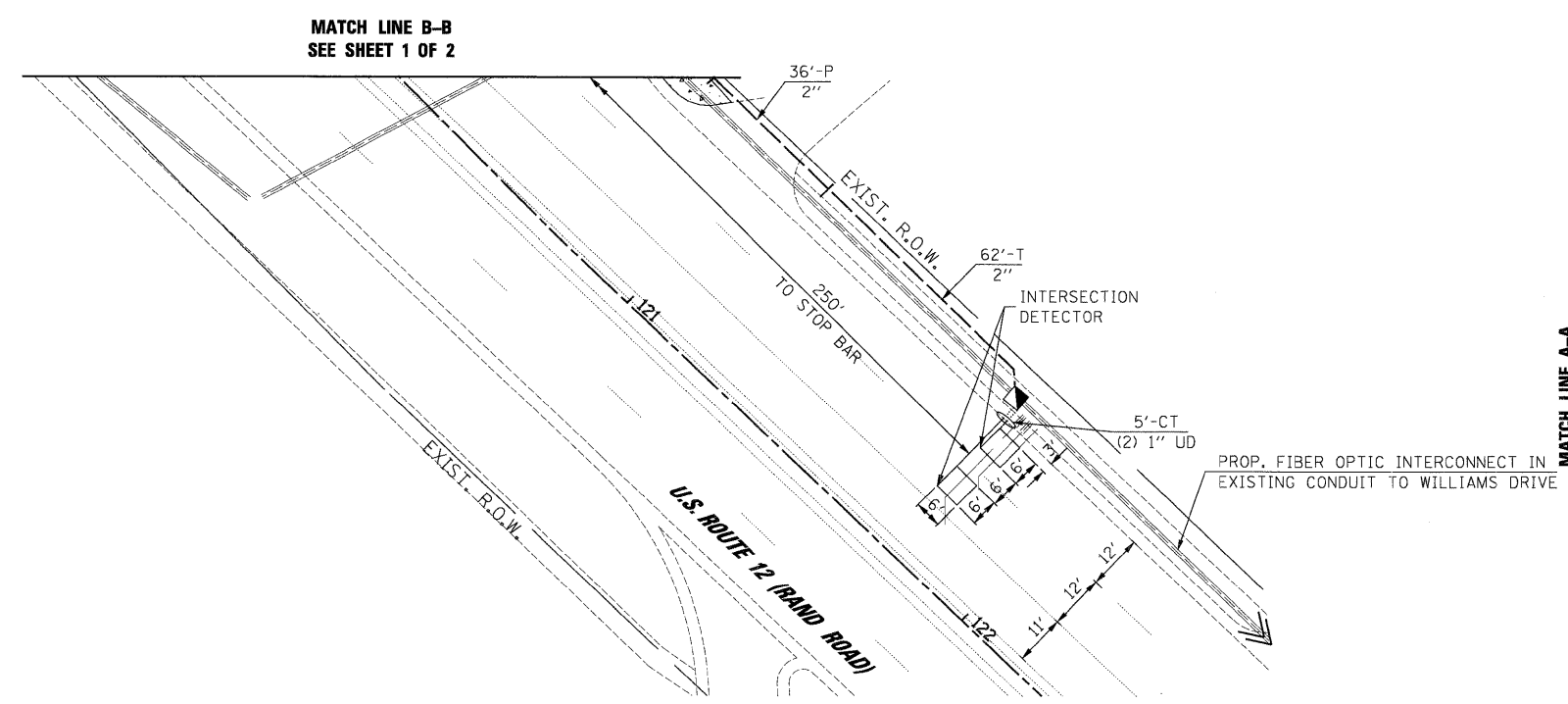


- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH OR PUSHED
- DEPRESSED CURB
- DETECTABLE WARNING TILE
- UNINTERRUPTIBLE POWER SUPPLY RELOCATED



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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.

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



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PLOT SCALE = #SCALE#
PLOT DATE = 1/27/2009

DESIGNED - CH	REVISED -
DRAWN - MP, AG	REVISED -
CHECKED - MJL	REVISED -
DATE - 1/22/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN - SHEET 2 OF 2
U.S. ROUTE 12 (RAND ROAD) AND IL ROUTE 53 / 68 (DUNDEE ROAD)**

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

JACOBS ONE NORTH FRANKLIN
CHICAGO IL, 60606
312-251-3000

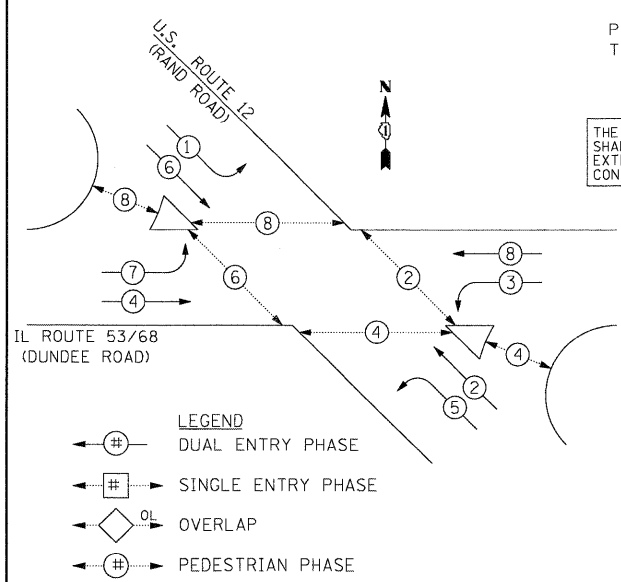
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334	2008-08-31	COOK	80	19

CONTRACT NO. 60F87

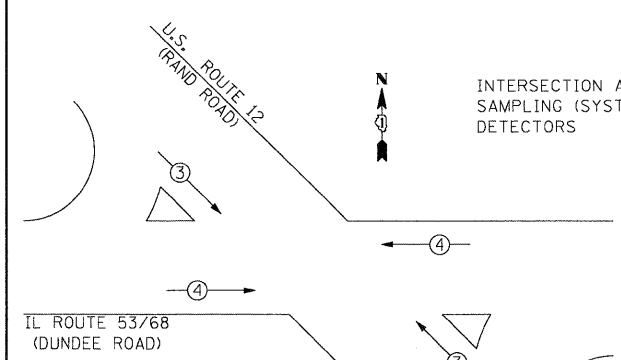
PA_2009\C9\037208_CADD\Sheet\08_SignalPlan_Rand&Dundee.dgn

1/27/2009
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 FILE NAME = USER NAME = #USER#
 DESIGNED - CH, RP
 DRAWN - NY
 CHECKED - MJL
 PLOT DATE = 1/27/2009
 DATE - 1/27/2009

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM
 EMERGENCY VEHICLE PREEMPTION SEQUENCE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	x INCAND.	x WATTAGE LED	x % OPERATION	
SIGNAL (RED)	20		17	0.50	170.0
(YELLOW)	20		25	0.25	125.0
(GREEN)	20		15	0.25	75.0
ARROW	16		12	0.10	19.2
PED. SIGNAL	12		25	1.0	300.0
CONTROLLER	1		100	1.0	100.0
ILLUM. SIGN	-		25	1.0	-
FLASHER	-		-	-	-
TOTAL =					789.2

ENERGY COST TO : ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS / DISTRICT 1
 201 WEST CENTER COURT / SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: MICKI MULERO-WILLIAMS
 PHONE: (630) 691-4721
 COMPANY: COMED

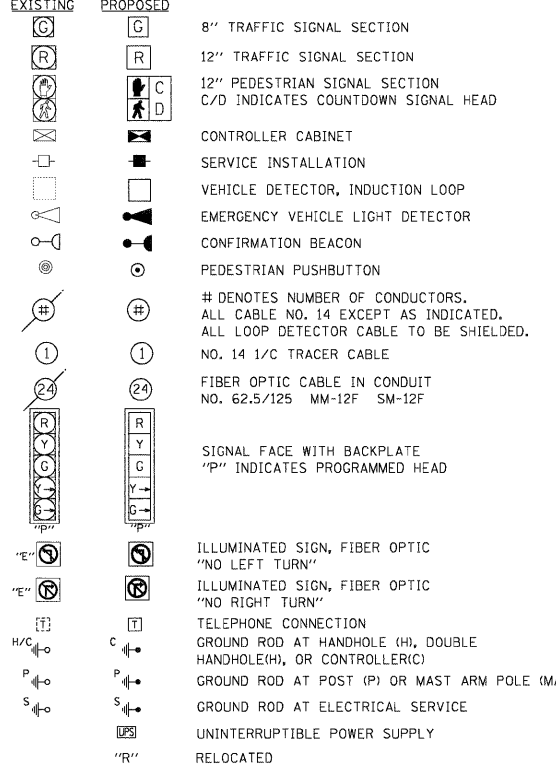
THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

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

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
C - CONTROLLER W/UPS	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'-H-2 =
D - CONTROLLER	4	SIGNAL POST	2	BRACKET MOUNTED	13
E - MAST ARM POLE		CONTROLLER CAB.	1	PED. PUSHBUTTON	6
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
36"	15	ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
42"	25	GROUND CABLE	1	POST MOUNTED	6

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CABLE PLAN LEGEND



SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
TOPSOIL FURNISH AND PLACE, 4"	50 YD	8
SODDING	50 YD	8
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	50 FT	2,714
DETECTABLE WARNINGS	50 FT	151
COMBINATION CURB AND GUTTER REMOVAL	FOOT	193
SIDEWALK REMOVAL	50 FT	1,691
MEDIAN REMOVAL	50 FT	1,044
MANHOLES TO BE ADJUSTED	EACH	1
CONCRETE CURB, TYPE B	FOOT	121
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	193
SIGN PANEL - TYPE 2	50 FT	50
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	889
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	263
THERMOPLASTIC PAVEMENT MARKING REMOVAL	50 FT	194
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	760
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	63
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	116
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	385
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	724
HANDHOLE	EACH	10
DOUBLE HANDHOLE	EACH	4
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	2
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	939
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1,833
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	3,125
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2,596
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	3,315
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	5,673
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	82
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 18 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 55 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	3
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	10
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
INDUCTIVE LOOP DETECTOR	EACH	16
DETECTOR LOOP, TYPE I	FOOT	14
PEDESTRIAN PUSH-BUTTON	FOOT	782
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	7
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	14
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
INTERCEPT EXISTING CONDUIT	EACH	2
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	1,302
ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED	FOOT	420
RELOCATE EXISTING MASTER CONTROLLER	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM
SUMMARY OF QUANTITIES
U.S. 12 (RAND ROAD) AND IL ROUTE 53 / 68 (DUNDEE ROAD)
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

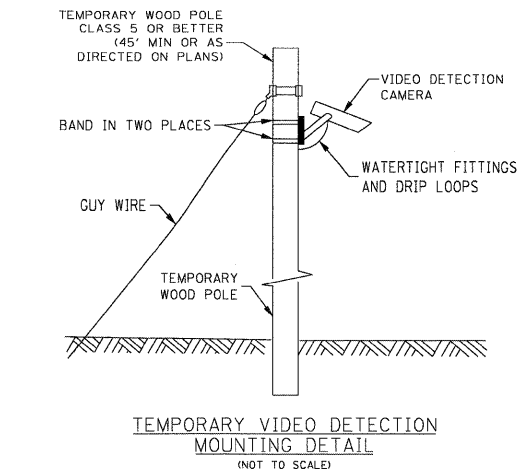
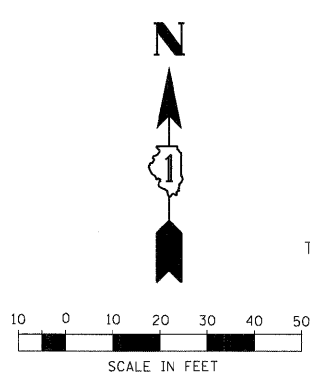
JACOBS ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	20

CONTRACT NO. 60F87
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

1/27/2009

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED 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 MAST ARM ASSEMBLY AND POLE
- 4 EACH TRAFFIC SIGNAL POST
- 4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 4 EACH SIGNAL HEAD, 1-FACE, 3-SECTION (MAST ARM)
- 4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION (MAST ARM)
- 2 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH PEDESTRIAN PUSH BUTTON
- 1 EACH SERVICE INSTALLATION, TYPE C

THE CONTRACTOR SHALL REMOVE THE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM CONSISTING OF:

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

AND SHALL DELIVER IT TO THE VILLAGE OF PALATINE FIRE DEPARTMENT AT THE ADDRESS BELOW FOR STORAGE. AFTER THE NEW TRAFFIC SIGNAL EQUIPMENT IS IN PLACE, THE CONTRACTOR SHALL BE REQUIRED TO PICK UP ALL DELIVERED EQUIPMENT AND INSTALL THE PHASING UNIT IN THE CONTROLLER CABINET AND THE DETECTOR UNIT ON THE PROPOSED MAST ARM AS INDICATED ON THE PLANS.

PALATINE FIRE DEPARTMENT
39 EAST COLFAX
PALATINE, IL 60067

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -
10_TempSignalPlan_Rand&Winslowe.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE - 1/27/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN
U.S. ROUTE 12 (RAND ROAD) AND WINSLOWE DRIVE**

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

- TEMPORARY TRAFFIC SIGNAL LEGEND**
- ▲ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
 - ▲ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
 - ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER)
 - DOWN GUY
 - ☒ TEMPORARY CONTROLLER CABINET
 - TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
 - ☐ TEMPORARY SERVICE INSTALLATION
 - ☐ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
 - ⊙ PEDESTRIAN PUSHBUTTON DETECTOR
 - ⊙ EMERGENCY VEHICLE LIGHT DETECTOR
 - ⊙ CONFIRMATION BEACON
 - ⊙ VEHICLE DETECTOR, INDUCTION LOOP
 - CT COMMON TRENCH
 - UD UNIT DUCT
 - G.S. CONDUIT IN TRENCH OR PUSHED
 - HANDHOLE
 - HEAVY DUTY HANDHOLE
 - ⊙ VIDEO DETECTION CAMERA
 - ⊙ RADIO INTERCONNECT
 - ⊙ VIDEO DETECTION ZONE

- EXISTING EQUIPMENT TO BE REMOVED LEGEND**
- "E"▲ EXISTING SIGNAL HEAD TO BE REMOVED
 - "E"■ EXISTING SERVICE INSTALLATION TO BE REMOVED
 - "E"○ EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
 - "E"⊗ EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
 - "E"☒ EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
 - "E"☐ EXISTING HANDHOLE TO BE REMOVED
 - "E"☐ EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
 - "E"⊙ EXISTING PEDESTRIAN PUSH-BUTTON TO BE REMOVED
 - "E"⊙ EMERGENCY VEHICLE SYSTEM DETECTOR TO BE RELOCATED
 - "E"⊙ CONFIRMATION BEACON TO BE RELOCATED
 - "E"⊙ HEAVY DUTY HANDHOLE TO BE REMOVED
 - "E"○ MAST ARM ASSEMBLY AND POLE TO BE REMOVED
 - "R" RELOCATE
 - "A" ABANDON
 - "S" SAVE EQUIPMENT IN CURRENT LOCATION

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. 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 SIGNALS SHALL BE FULLY ACTUATED NEMA MICRO-PROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK 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.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES AND RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. ALL LABOR AND MATERIAL REQUIRED TO COMPLY WITH THESE REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL TO THE BID PRICE OF TEMPORARY SIGNAL INSTALLATION.

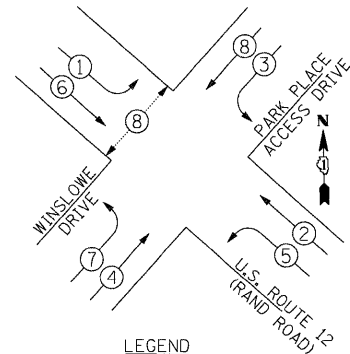
NOTE: SAW CUTS ARE INCLUDED IN THE COST OF ASSOCIATED REMOVAL ITEMS.

JACOBS ONE NORTH FRANKLIN
CHICAGO IL, 60606
312-251-3000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	21
CONTRACT NO. 60F87				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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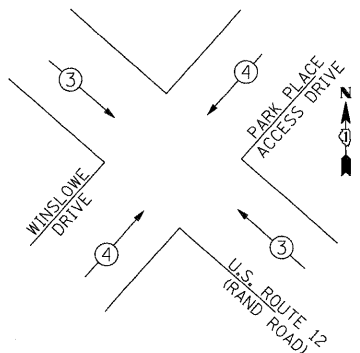
TEMPORARY CONTROLLER SEQUENCE



- LEGEND**
- ◀●▶ DUAL ENTRY PHASE
 - ◀■▶ SINGLE ENTRY PHASE
 - ◀◇▶ OVERLAP
 - ◀●▶ PEDESTRIAN PHASE
 - NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY PHASE DESIGNATION DIAGRAM

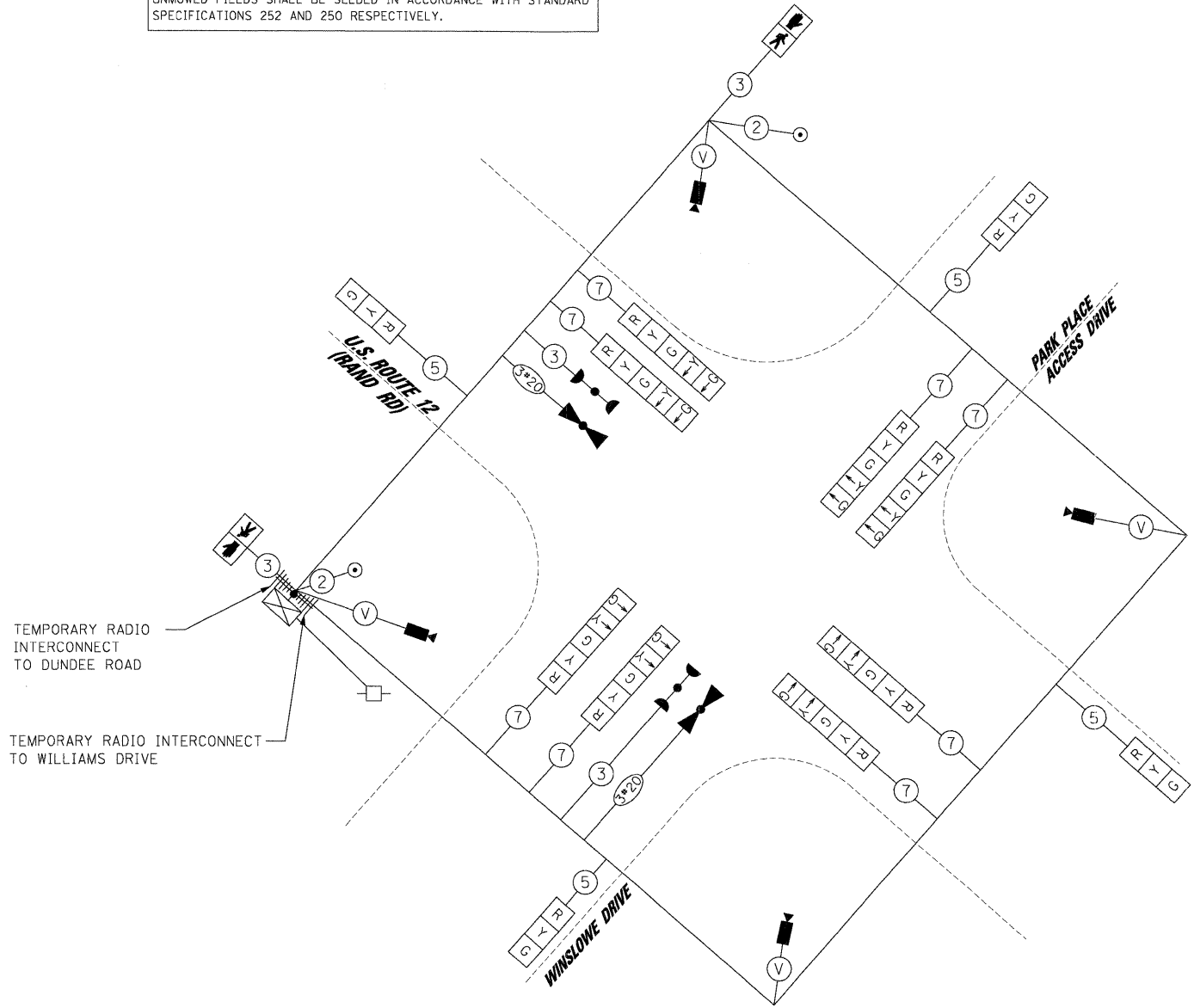
EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↔

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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.

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



TEMPORARY CABLE DIAGRAM LEGEND

- ◻ R TEMPORARY TRAFFIC SIGNAL SECTION
- ◻ 12" PEDESTRIAN SIGNAL SECTION
- C/D INDICATES COUNTDOWN SIGNAL HEAD
- ◻ TEMPORARY CONTROLLER CABINET
- ◻ TEMPORARY SERVICE INSTALLATION
- ◻ VEHICLE DETECTOR, INDUCTION LOOP
- ◻ VEHICLE DETECTION CAMERA
- ◻ EMERGENCY VEHICLE LIGHT DETECTOR
- ◻ CONFIRMATION BEACON
- ◻ PEDESTRIAN PUSHBUTTON
- ⊕ # DENOTES NUMBER OF CONDUCTORS IN CABLE. ALL CABLE NO. 14 AWG. WIRE UNLESS OTHERWISE NOTED.
- ⊙ V VENDOR CABLE
- ⊕ RADIO INTERCONNECT

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	12		25	0.25	75.0
(GREEN)	12		15	0.25	45.0
ARROW	16		12	0.10	19.2
PED. SIGNAL	2		25	1.0	50.0
CONTROLLER	1	100		1.0	100.0
ILLUM. SIGN	-		25	1.0	-
FLASHER	-				-
TOTAL =					391.2

ENERGY COST TO : ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS / DISTRICT 1
201 WEST CENTER COURT / SCHAMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: MICKI MULERO-WILLIAMS
PHONE: (630) 691-4721
COMPANY: COMED

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
C - CONTROLLER W/UPS	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'-H-2 =
D - CONTROLLER	4	SIGNAL POST	2	BRACKET MOUNTED	13
E - MAST ARM POLE		CONTROLLER CAB.	1	PED. PUSHBUTTON	6
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
36"	15	ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
42"	25	GROUND CABLE	1	POST MOUNTED	6

FILE NAME =	USER NAME = \$USER\$	DESIGNED - CH, RP	REVISED -
11_TempCab.ePlan_Rand&Winslowe.dgn		DRAWN - NY	REVISED -
		CHECKED - MJL	REVISED -
		DATE - 1/27/2009	REVISED -

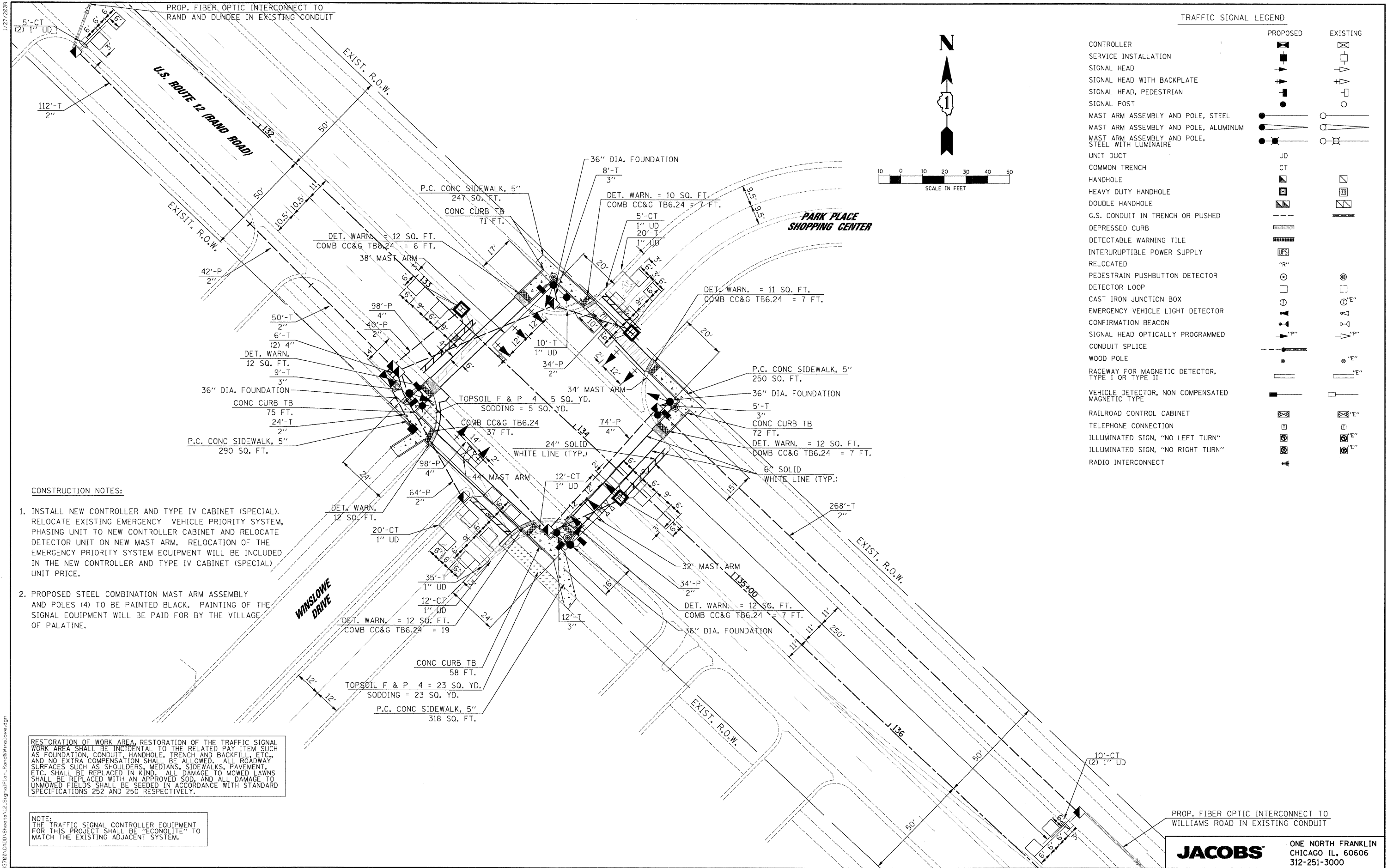
DESIGNED - CH, RP	REVISED -
DRAWN - NY	REVISED -
CHECKED - MJL	REVISED -
DATE - 1/27/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN
TEMPORARY PHASE DESIGNATION DIAGRAM
U.S. 12 ROUTE (RAND ROAD) AND WINSLOWE DRIVE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	22
CONTRACT NO. 60F87				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
DEPRESSED CURB	[Symbol]	[Symbol]
DETECTABLE WARNING TILE	[Symbol]	[Symbol]
INTERURPTIBLE POWER SUPPLY	[Symbol]	[Symbol]
RELOCATED	[Symbol]	[Symbol]
PEDESTRAIN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
CONDUIT SPLICE	[Symbol]	[Symbol]
WOOD POLE	[Symbol]	[Symbol]
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
ILLUMINATED SIGN, "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN, "NO RIGHT TURN"	[Symbol]	[Symbol]
RADIO INTERCONNECT	[Symbol]	[Symbol]

CONSTRUCTION NOTES:

1. INSTALL NEW CONTROLLER AND TYPE IV CABINET (SPECIAL). RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT TO NEW CONTROLLER CABINET AND RELOCATE DETECTOR UNIT ON NEW MAST ARM. RELOCATION OF THE EMERGENCY PRIORITY SYSTEM EQUIPMENT WILL BE INCLUDED IN THE NEW CONTROLLER AND TYPE IV CABINET (SPECIAL) UNIT PRICE.
2. PROPOSED STEEL COMBINATION MAST ARM ASSEMBLY AND POLES (4) TO BE PAINTED BLACK. PAINTING OF THE SIGNAL EQUIPMENT WILL BE PAID FOR BY THE VILLAGE OF PALATINE.

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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.

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

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12.SignalPlan_Rend&Winslowe.dgn	
PLOT SCALE = #SCALE#	
PLOT DATE = 1/27/2009	

DESIGNED - CH	REVISED -
DRAWN - MP, AG	REVISED -
CHECKED - MJL	REVISED -
DATE - 1/22/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN
U.S. ROUTE 12 (RAND ROAD) AND WINSLOWE DRIVE**

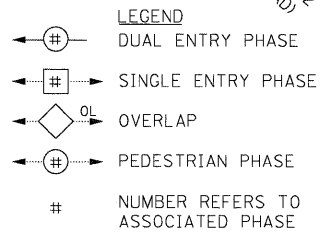
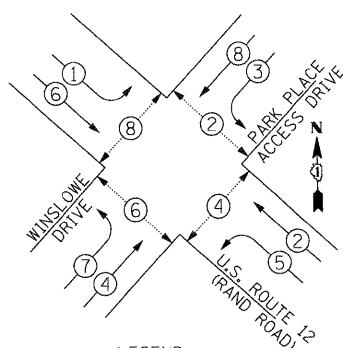
SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

PROP. FIBER OPTIC INTERCONNECT TO WILLIAMS ROAD IN EXISTING CONDUIT

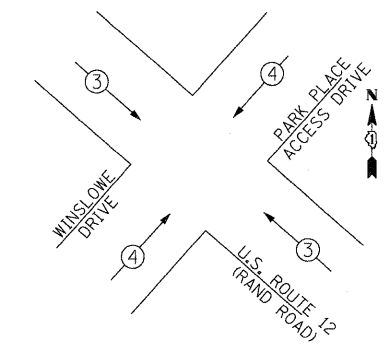
JACOBS	ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000
F.A.P. RTE. 334	SECTION 2008-08-31
COUNTY COOK	TOTAL SHEETS 80
ILLINOIS FED. AID PROJECT	SHEET NO. 23
CONTRACT NO. 60F87	

1/27/2009
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CONTROLLER SEQUENCE



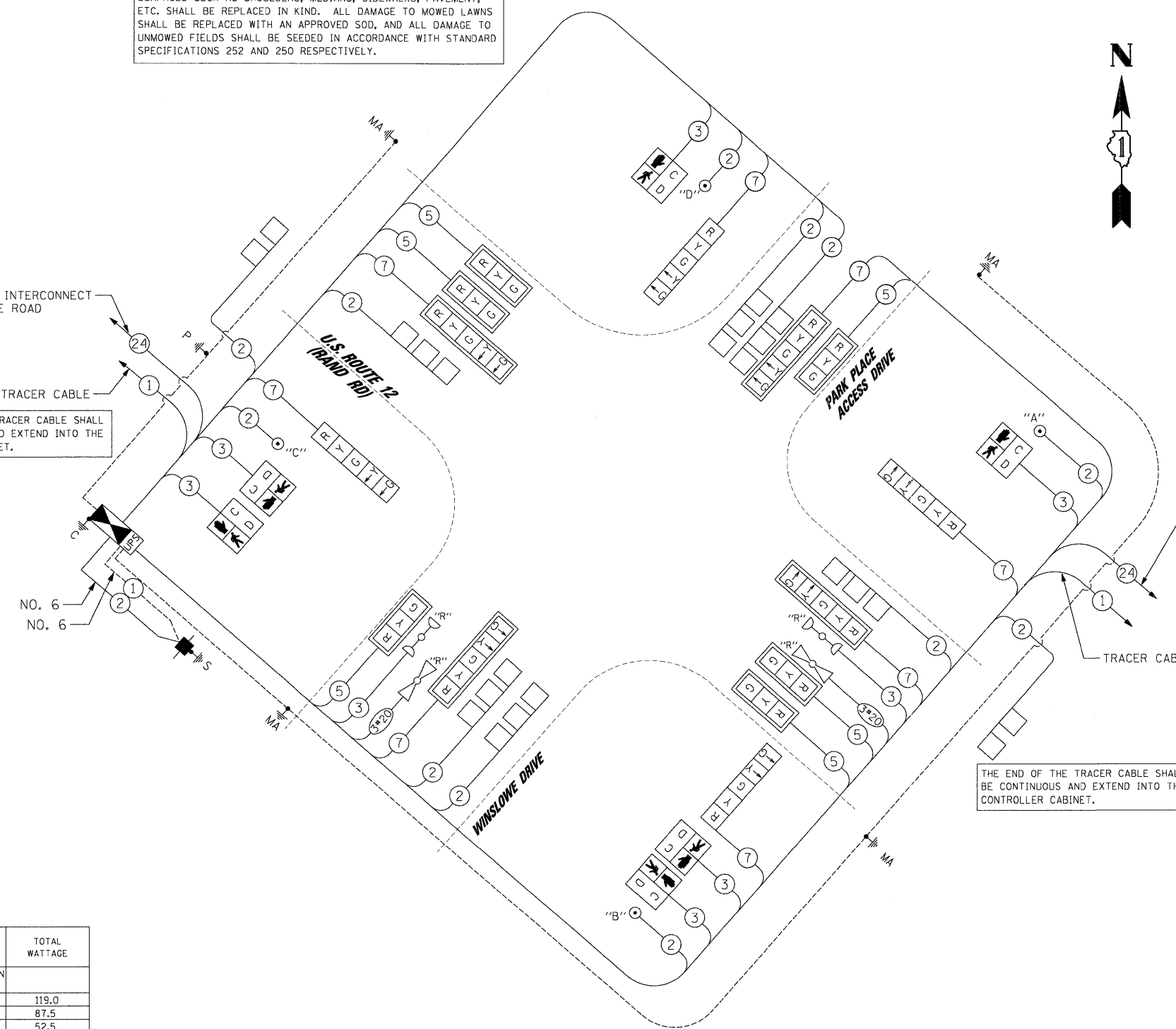
PHASE DESIGNATION DIAGRAM
 EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
(G)	(G)	8" TRAFFIC SIGNAL SECTION
(R)	(R)	12" TRAFFIC SIGNAL SECTION
(C)	(C)	12" PEDESTRIAN SIGNAL SECTION
(D)	(D)	C/D INDICATES COUNTDOWN SIGNAL HEAD
(CAB)	(CAB)	CONTROLLER CABINET
(S)	(S)	SERVICE INSTALLATION
(V)	(V)	VEHICLE DETECTOR, INDUCTION LOOP
(E)	(E)	EMERGENCY VEHICLE LIGHT DETECTOR
(B)	(B)	CONFIRMATION BEACON
(P)	(P)	PEDESTRIAN PUSHBUTTON
(#)	(#)	# DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(1)	(1)	NO. 14 1/C TRACER CABLE
(24)	(24)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM-12F SM-12F
(R)	(R)	SIGNAL FACE WITH BACKPLATE
(P)	(P)	"P" INDICATES PROGRAMMED HEAD
(E)	(E)	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
(E)	(E)	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
(T)	(T)	TELEPHONE CONNECTION
(H)	(H)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE(HH), OR CONTROLLER(C)
(P)	(P)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(S)	(S)	GROUND ROD AT ELECTRICAL SERVICE
(PS)	(PS)	UNINTERRUPTIBLE POWER SUPPLY
(R)	(R)	RELOCATED

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
TOPSOIL FURNISH AND PLACE, 4"	SO YD	28
SODDING	SO YD	28
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	1,110
DETECTABLE CURBS	SO FT	93
COMBINATION CURB AND GUTTER REMOVAL	SO FT	89
CONCRETE CURB, TYPE B	SO FT	264
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	SO FT	89
SIGN PANEL - TYPE 1	SO FT	18
SIGN PANEL - TYPE 2	SO FT	25
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	407
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	113
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SO FT	277
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	454
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	34
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	12
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	212
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	270
HANDHOLE	EACH	6
HEAVY-DUTY HANDHOLE	EACH	3
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	500
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	560
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,089
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,047
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,346
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,474
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	86
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10
INDUCTIVE LOOP DETECTOR	EACH	8
DETECTOR LOOP, TYPE 1	FOOT	682
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	8
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	452
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	296

* 100% FUNDED BY THE VILLAGE OF PALATINE

I.D.O.T.
 TRAFFIC SIGNAL INSTALLATION
 ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	x WATTAGE INCAND.	x % OPERATION LED	TOTAL WATTAGE
SIGNAL (RED)	14	17	0.50	119.0
(YELLOW)	14	25	0.25	87.5
(GREEN)	14	15	0.25	52.5
ARROW	16	12	0.10	19.2
PED. SIGNAL	6	25	1.0	150.0
CONTROLLER	1	100	1.0	100.0
ILLUM. SIGN	-	25	1.0	-
FLASHER	-	-	-	-
TOTAL				528.2

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
C - CONTROLLER W/U/S	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'±L-2 =
D - CONTROLLER	4	SIGNAL POST	2	BRACKET MOUNTED	13
E - MAST ARM POLE	1	CONTROLLER CAB.	1	PED. PUSHBUTTON	6
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
36"	15	ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
42"	25	GROUND CABLE	1	POST MOUNTED	6

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

ENERGY COST TO : ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS / DISTRICT 1
 201 WEST CENTER COURT / SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: MICKI MULERO-WILLIAMS
 PHONE: (630) 691-4721
 COMPANY: COMED

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND SUMMARY OF QUANTITIES
 U.S. 12 ROUTE (RAND ROAD) AND WINSLOWE DRIVE**

FILE NAME = 13_CablePlan_Rand&Winslowe.dgn	USER NAME = #USERS	DESIGNED - CH, RP	REVISIONS	SCALE: N.T.S.	SHEET NO. OF SHEETS STA. TO STA.	F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 24	CONTRACT NO. 60F87
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JACOBS ONE NORTH FRANKLIN
 CHICAGO IL, 60606
 312-251-3000

1/27/2009
 14_TempSignalPlan_RandW11.ams.dgn
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 DESIGNED - CH, JS
 DRAWN - MP
 PLOT SCALE = #SCALE#
 CHECKED - MJL
 PLOT DATE = 1/27/2009
 DATE - 1/22/2009
 REVISIONS
 REVISIONS
 REVISIONS
 REVISIONS

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED 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)
- 2 EACH MAST ARM ASSEMBLY AND POLE
- 4 EACH TRAFFIC SIGNAL POST
- 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION (MAST ARM)
- 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION (MAST ARM)
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3-SECTION, 1-4-SECTION
- 1 EACH SIGNAL HEAD, 3-FACE, 1-3-SECTION, 1-4-SECTION, 1-5-SECTION
- 2 EACH SIGNAL HEAD, 3-FACE, 2-3-SECTION, 1-4-SECTION
- 8 EACH PEDESTRAIN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSH BUTTON
- 1 EACH SERVICE INSTALLATION, TYPE C

THE CONTRACTOR SHALL REMOVE THE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM CONSISTING OF:

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

AND SHALL DELIVER IT TO THE VILLAGE OF PALATINE FIRE DEPARTMENT AT THE ADDRESS BELOW FOR STORAGE. AFTER THE NEW TRAFFIC SIGNAL EQUIPMENT IS IN PLACE, THE CONTRACTOR SHALL BE REQUIRED TO PICK UP ALL DELIVERED EQUIPMENT AND INSTALL THE PHASING UNIT IN THE CONTROLLER CABINET AND THE DETECTOR UNIT ON THE PROPOSED MAST ARM AS INDICATED ON THE PLANS.

PALATINE FIRE DEPARTMENT
 39 EAST COLFAX
 PALATINE, IL 60067

NOTES FOR TEMPORARY TRAFFIC SIGNALS

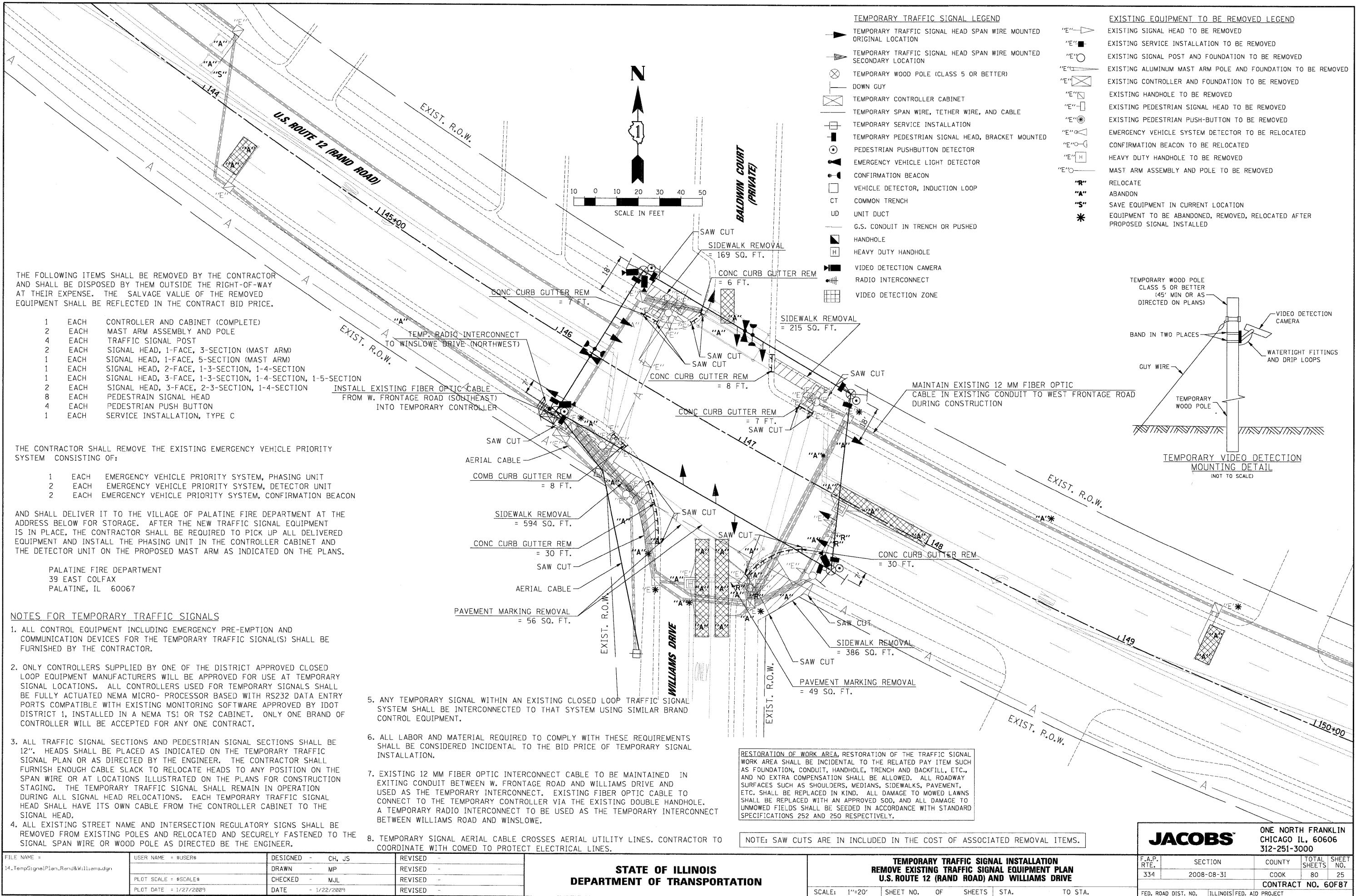
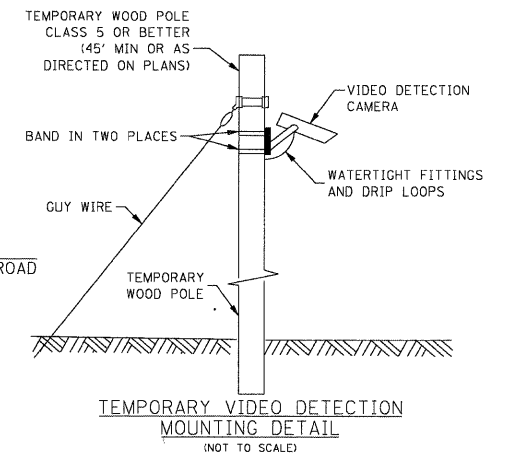
1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY SIGNALS SHALL BE FULLY ACTUATED NEMA MICRO- PROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK 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.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES AND RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. ALL LABOR AND MATERIAL REQUIRED TO COMPLY WITH THESE REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL TO THE BID PRICE OF TEMPORARY SIGNAL INSTALLATION.
7. EXISTING 12 MM FIBER OPTIC INTERCONNECT CABLE TO BE MAINTAINED IN EXISTING CONDUIT BETWEEN W. FRONTAGE ROAD AND WILLIAMS DRIVE AND USED AS THE TEMPORARY INTERCONNECT. EXISTING FIBER OPTIC CABLE TO CONNECT TO THE TEMPORARY CONTROLLER VIA THE EXISTING DOUBLE HANDHOLE. A TEMPORARY RADIO INTERCONNECT TO BE USED AS THE TEMPORARY INTERCONNECT BETWEEN WILLIAMS ROAD AND WINSLOWE.
8. TEMPORARY SIGNAL AERIAL CABLE CROSSES AERIAL UTILITY LINES. CONTRACTOR TO COORDINATE WITH COMED TO PROTECT ELECTRICAL LINES.

RESTORATION OF WORK AREA: RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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.

NOTE: SAW CUTS ARE INCLUDED IN THE COST OF ASSOCIATED REMOVAL ITEMS.

- TEMPORARY TRAFFIC SIGNAL LEGEND**
- ▲ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
 - ▼ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
 - ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER)
 - DOWN GUY
 - ☒ TEMPORARY CONTROLLER CABINET
 - TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
 - ☐ TEMPORARY SERVICE INSTALLATION
 - ☐ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
 - ⊙ PEDESTRIAN PUSHBUTTON DETECTOR
 - ⊙ EMERGENCY VEHICLE LIGHT DETECTOR
 - ☐ CONFIRMATION BEACON
 - ☐ VEHICLE DETECTOR, INDUCTION LOOP
 - CT COMMON TRENCH
 - UD UNIT DUCT
 - G.S. CONDUIT IN TRENCH OR PUSHED
 - ☐ HANDHOLE
 - ☐ HEAVY DUTY HANDHOLE
 - ☐ VIDEO DETECTION CAMERA
 - ⊙ RADIO INTERCONNECT
 - ☐ VIDEO DETECTION ZONE

- EXISTING EQUIPMENT TO BE REMOVED LEGEND**
- "E" ◀ EXISTING SIGNAL HEAD TO BE REMOVED
 - "E" ■ EXISTING SERVICE INSTALLATION TO BE REMOVED
 - "E" ○ EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
 - "E" ☒ EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
 - "E" ☐ EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
 - "E" ☐ EXISTING HANDHOLE TO BE REMOVED
 - "E" ☐ EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
 - "E" ☐ EXISTING PEDESTRIAN PUSH-BUTTON TO BE REMOVED
 - "E" ☐ EMERGENCY VEHICLE SYSTEM DETECTOR TO BE RELOCATED
 - "E" ☐ CONFIRMATION BEACON TO BE RELOCATED
 - "E" ☐ HEAVY DUTY HANDHOLE TO BE REMOVED
 - "E" ☐ MAST ARM ASSEMBLY AND POLE TO BE REMOVED
 - "R" RELOCATE
 - "A" ABANDON
 - "S" SAVE EQUIPMENT IN CURRENT LOCATION
 - * EQUIPMENT TO BE ABANDONED, REMOVED, RELOCATED AFTER PROPOSED SIGNAL INSTALLED



**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

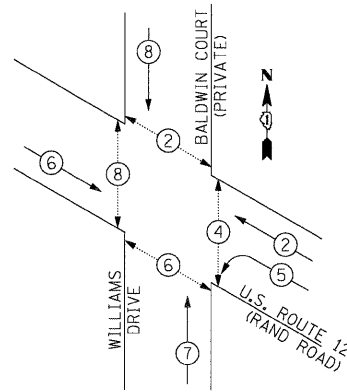
**TEMPORARY TRAFFIC SIGNAL INSTALLATION
 REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN
 U.S. ROUTE 12 (RAND ROAD) AND WILLIAMS DRIVE**

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
334	2008-08-31	COOK	80
		SHEET NO. 25	
		CONTRACT NO. 60F87	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

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

1/27/2009
 FILE NAME = 15_TempCablePlan_Rand&Williams.dgn
 USER NAME = #USER#
 DESIGNED - CH, RP
 DRAWN - NY
 CHECKED - MJL, ER
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 REVISIONS -
 REVISIONS -
 REVISIONS -

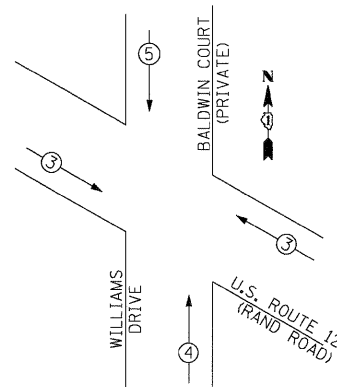
TEMPORARY CONTROLLER SEQUENCE



LEGEND

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

TEMPORARY PHASE DESIGNATION DIAGRAM
 EMERGENCY VEHICLE PREEMPTION SEQUENCE



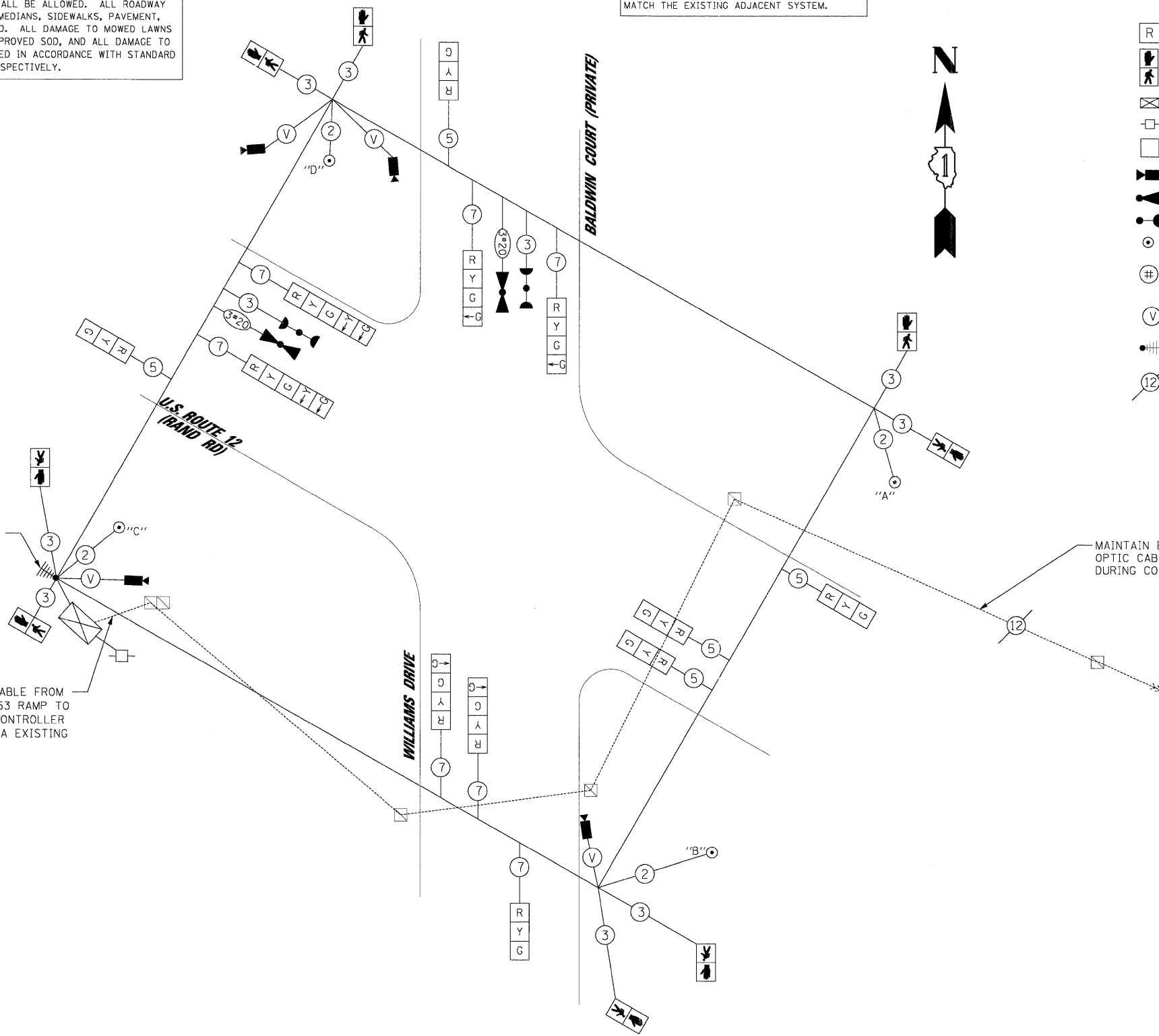
PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↘	↑	↓

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL
 WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

TEMPORARY CABLE DIAGRAM LEGEND

- ⊠ TEMPORARY TRAFFIC SIGNAL SECTION
- ⊠ 12" PEDESTRIAN SIGNAL SECTION
C/D INDICATES COUNTDOWN SIGNAL HEAD
- ⊠ TEMPORARY CONTROLLER CABINET
- ⊠ TEMPORARY SERVICE INSTALLATION
- ⊠ VEHICLE DETECTOR, INDUCTION LOOP
- ⊠ VEHICLE DETECTION CAMERA
- ⊠ EMERGENCY VEHICLE LIGHT DETECTOR
- ⊠ CONFIRMATION BEACON
- ⊠ PEDESTRIAN PUSHBUTTON
- # DENOTES NUMBER OF CONDUCTORS IN CABLE. ALL CABLE NO. 14 AWG. WIRE UNLESS OTHERWISE NOTED.
- ⊠ V VENDOR CABLE
- ⊠ RADIO INTERCONNECT
- ⊠ EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE



TEMPORARY RADIO INTERCONNECT TO WINSLOWE DRIVE

EXISTING INTERCONNECT CABLE FROM WEST FRONTAGE ROAD/IL 53 RAMP TO CONNECT TO TEMPORARY CONTROLLER AT RAND AND WILLIAMS VIA EXISTING DOUBLE HANDHOLE.

MAINTAIN EXISTING 12 MM FIBER OPTIC CABLE TO WEST FRONTAGE ROAD DURING CONSTRUCTION

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	x WATTAGE	x % OPERATION		
SIGNAL (RED)	12	17	0.50		102.0
(YELLOW)	12	25	0.25		75.0
(GREEN)	12	15	0.25		45.0
ARROW	8	12	0.10		9.6
PED. SIGNAL	8	25	1.0		200.0
CONTROLLER	1	100	1.0		100.0
ILLUM. SIGN	-	25	1.0		-
FLASHER	-	-	-		-
TOTAL =					531.6

ENERGY COST TO : ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS / DISTRICT 1
 201 WEST CENTER COURT / SCHAMBOURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: MICKI MULERO-WILLIAMS
 PHONE: (630) 691-4721
 COMPANY: COWI

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
C - CONTROLLER W/UPS	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'HL-2 =
D - CONTROLLER	4	SIGNAL POST	2	BRACKET MOUNTED	13
E - MAST ARM POLE		CONTROLLER CAB.	1	PED. PUSHBUTTON	6
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
36"	15	ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
42"	25	GROUND CABLE	1	POST MOUNTED	6

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

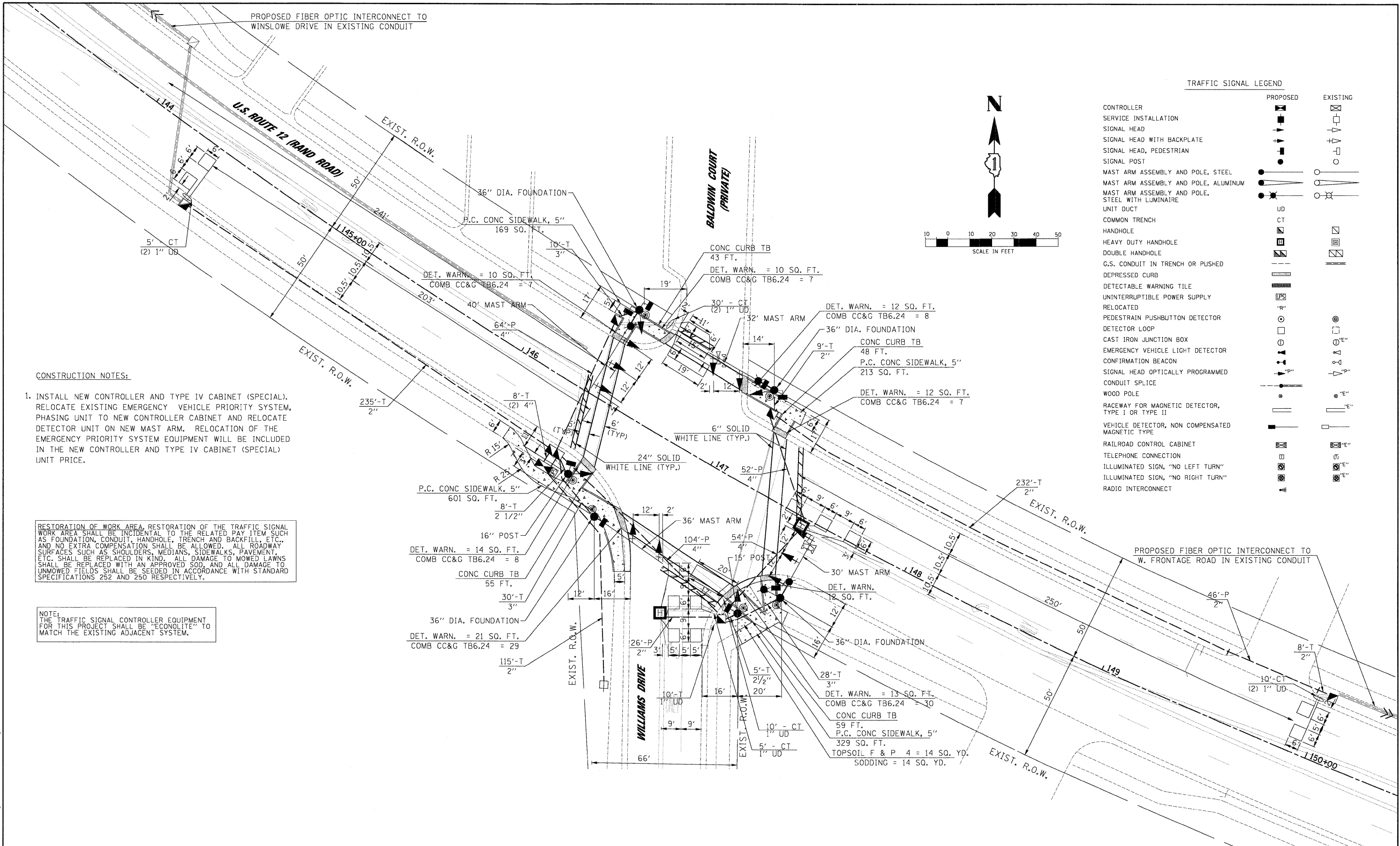
TEMPORARY CABLE PLAN
TEMPORARY PHASE DESIGNATION DIAGRAM
U.S. ROUTE 12 (RAND ROAD) AND WILLIAMS DRIVE

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

JACOBS ONE NORTH FRANKLIN
 CHICAGO IL, 60606
 312-251-3000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	26
CONTRACT NO. 60F87				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

1/27/2009

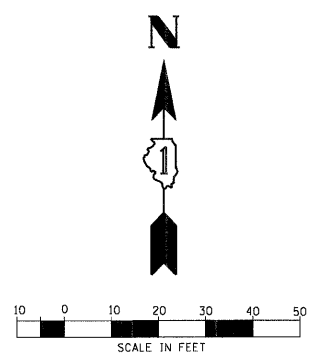


CONSTRUCTION NOTES:

1. INSTALL NEW CONTROLLER AND TYPE IV CABINET (SPECIAL). RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT TO NEW CONTROLLER CABINET AND RELOCATE DETECTOR UNIT ON NEW MAST ARM. RELOCATION OF THE EMERGENCY PRIORITY SYSTEM EQUIPMENT WILL BE INCLUDED IN THE NEW CONTROLLER AND TYPE IV CABINET (SPECIAL) UNIT PRICE.

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
DEPRESSED CURB	[Symbol]	[Symbol]
DETECTABLE WARNING TILE	[Symbol]	[Symbol]
UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]
RELOCATED	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
CONDUIT SPLICE	[Symbol]	[Symbol]
WOOD POLE	[Symbol]	[Symbol]
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
ILLUMINATED SIGN, "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN, "NO RIGHT TURN"	[Symbol]	[Symbol]
RADIO INTERCONNECT	[Symbol]	[Symbol]

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN
U.S. ROUTE 12 (RAND ROAD) AND WILLIAMS DRIVE**

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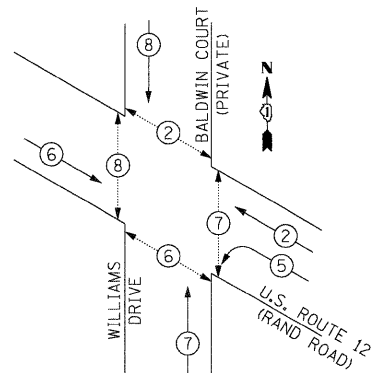
JACOBS ONE NORTH FRANKLIN
CHICAGO IL, 60606
312-251-3000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-3I	COOK	80	27
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 60F87

PA: 2/20/09, C:\3137202\CADD\Shemas\B_SignalPlan_Rand&Williams.dgn

1/27/2009
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 PLOT SCALE = #SCALE#
 PLOT DATE = 1/27/2009

CONTROLLER SEQUENCE



LEGEND
 # DUAL ENTRY PHASE
 # SINGLE ENTRY PHASE
 O OVERLAP
 # PEDESTRIAN PHASE
 # NUMBER REFERS TO ASSOCIATED PHASE

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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.

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

* 7 CONDUCTOR CABLE TO ALLOW FOR FUTURE PHASING MODIFICATIONS IF NEEDED

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

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

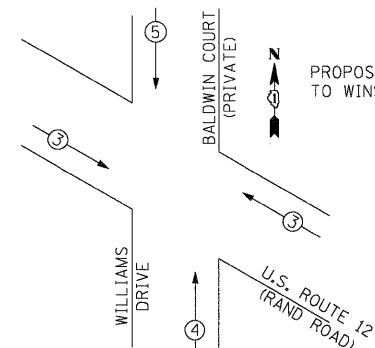
CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
(C)	(C)	8" TRAFFIC SIGNAL SECTION
(R)	(R)	12" TRAFFIC SIGNAL SECTION
(C/D)	(C/D)	12" PEDESTRIAN SIGNAL SECTION C/D INDICATES COUNTDOWN SIGNAL HEAD
(CAB)	(CAB)	CONTROLLER CABINET
(S)	(S)	SERVICE INSTALLATION
(V)	(V)	VEHICLE DETECTOR, INDUCTION LOOP
(E)	(E)	EMERGENCY VEHICLE LIGHT DETECTOR
(B)	(B)	CONFIRMATION BEACON
(P)	(P)	PEDESTRIAN PUSHBUTTON
(#)	(#)	# DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(14)	(14)	NO. 14 1/C TRACER CABLE
(F)	(F)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM-12F SM-12F
(SFB)	(SFB)	SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD
(ILN)	(ILN)	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
(ILR)	(ILR)	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
(T)	(T)	TELEPHONE CONNECTION
(H)	(H)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE(H), OR CONTROLLER(C)
(P)	(P)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(E)	(E)	GROUND ROD AT ELECTRICAL SERVICE
(UPS)	(UPS)	UNINTERRUPTIBLE POWER SUPPLY
(R)	(R)	RELOCATED

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
TOPSOIL FURNISH AND PLACE, 4"	SO YD	14
SODDING	SO YD	14
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	1,312
DETECTABLE WARNINGS	SO FT	106
COMBINATION CURB AND GUTTER REMOVAL	SO FT	95
SIDEWALK REMOVAL	SO FT	1,364
CONCRETE CURB, TYPE B	FOOT	205
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	95
SIGN PANEL - TYPE 1	SO FT	15
SIGN PANEL - TYPE 2	SO FT	25
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	355
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	99
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	119
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	599
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	13
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	68
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	16
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	26
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	274
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	696
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	763
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,805
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,509
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	960
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,454
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	268
TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 40 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	7
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
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	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10
INDUCTIVE LOOP DETECTOR	EACH	7
DEFECTOR LOOP, TYPE 1	FOOT	508
PEDESTRIAN PUSH-BUTTON	EACH	6
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	9
REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	521
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	539

PHASE DESIGNATION DIAGRAM
 EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↔	↑	↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	x WATTAGE INCAND.	x % OPERATION LED	TOTAL WATTAGE
SIGNAL (RED)	14	17	0.50	119.0
(YELLOW)	14	25	0.25	87.5
(GREEN)	14	15	0.25	52.5
ARROW	8	12	0.10	9.6
PED. SIGNAL	8	25	1.0	200.0
CONTROLLER	1	100	1.0	100.0
ILLUM. SIGN	-	25	1.0	-
FLASHER	-	-	-	-
TOTAL =				568.6

ENERGY COST TO : ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS / DISTRICT 1
 201 WEST CENTER COURT / SCHAMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: MICKI MULERO-WILLIAMS
 PHONE: (630) 691-4721
 COMPANY: COMED

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
C - CONTROLLER W/UPS	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'-H-2 =
D - CONTROLLER	4	SIGNAL POST	2	BRACKET MOUNTED	13
E - MAST ARM POLE		CONTROLLER CAB.	1	PED. PUSHBUTTON	6
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
36"	15	ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
42"	25	GROUND CABLE	1	POST MOUNTED	6

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM SUMMARY OF QUANTITIES
 U.S. ROUTE 12 (RAND ROAD) AND WILLIAMS DRIVE

JACOBS ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	28

CONTRACT NO. 60F87

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

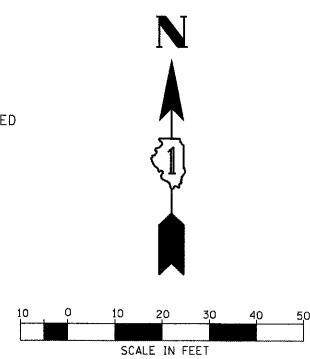
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

1/27/2009

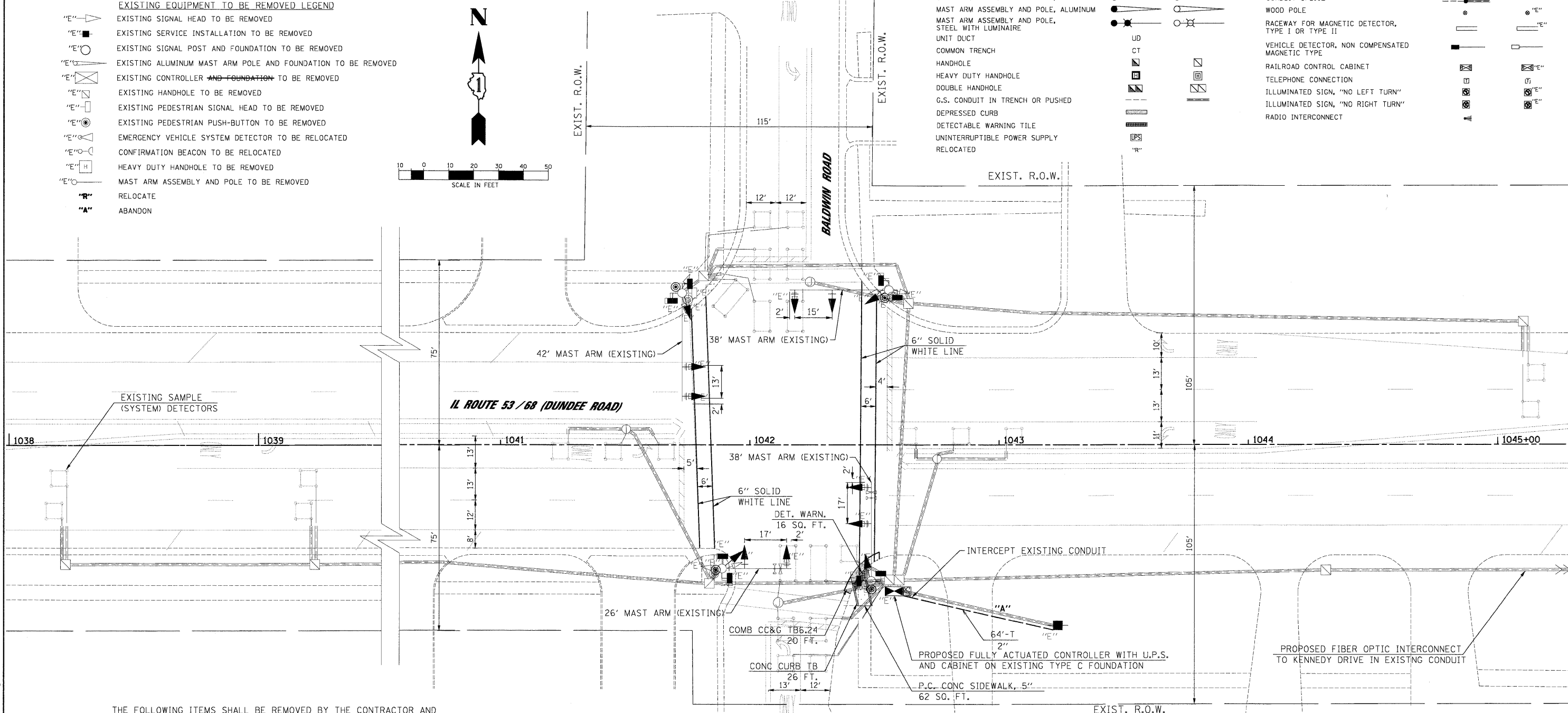
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

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

- EXISTING EQUIPMENT TO BE REMOVED LEGEND**
- "E" -> EXISTING SIGNAL HEAD TO BE REMOVED
 - "E" -■- EXISTING SERVICE INSTALLATION TO BE REMOVED
 - "E" -○- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
 - "E" -□- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
 - "E" -⊠- EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
 - "E" -□- EXISTING HANDHOLE TO BE REMOVED
 - "E" -□- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
 - "E" -⊙- EXISTING PEDESTRIAN PUSH-BUTTON TO BE REMOVED
 - "E" -⊙- EMERGENCY VEHICLE SYSTEM DETECTOR TO BE RELOCATED
 - "E" -○- CONFIRMATION BEACON TO BE RELOCATED
 - "E" -H- HEAVY DUTY HANDHOLE TO BE REMOVED
 - "E" -○- MAST ARM ASSEMBLY AND POLE TO BE REMOVED
 - "R" -> RELOCATE
 - "A" -> ABANDON



- TRAFFIC SIGNAL LEGEND**
- | | | | | | |
|--|----------|----------|--|----------|----------|
| CONTROLLER | PROPOSED | EXISTING | PEDESTRIAN PUSHBUTTON DETECTOR | PROPOSED | EXISTING |
| SERVICE INSTALLATION | ■ | □ | DETECTOR LOOP | ○ | ⊙ |
| SIGNAL HEAD | ▲ | ▲ | CAST IRON JUNCTION BOX | ⊠ | ⊠ |
| SIGNAL HEAD WITH BACKPLATE | ▲ | ▲ | EMERGENCY VEHICLE LIGHT DETECTOR | ⊙ | ⊙ |
| SIGNAL HEAD, PEDESTRIAN | ▲ | ▲ | CONFIRMATION BEACON | ⊙ | ⊙ |
| SIGNAL POST | ● | ○ | SIGNAL HEAD OPTICALLY PROGRAMMED | ⊙ | ⊙ |
| MAST ARM ASSEMBLY AND POLE, STEEL | ● | ○ | CONDUIT SPLICE | ⊙ | ⊙ |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | ● | ○ | WOOD POLE | ⊙ | ⊙ |
| MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE | ● | ○ | RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | ⊙ | ⊙ |
| UNIT DUCT | UD | UD | VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | ⊙ | ⊙ |
| COMMON TRENCH | CT | CT | RAILROAD CONTROL CABINET | ⊙ | ⊙ |
| HANDHOLE | □ | □ | TELEPHONE CONNECTION | ⊙ | ⊙ |
| HEAVY DUTY HANDHOLE | □ | □ | ILLUMINATED SIGN, "NO LEFT TURN" | ⊙ | ⊙ |
| DOUBLE HANDHOLE | □ | □ | ILLUMINATED SIGN, "NO RIGHT TURN" | ⊙ | ⊙ |
| G.S. CONDUIT IN TRENCH OR PUSHED | — | — | RADIO INTERCONNECT | ⊙ | ⊙ |
| DEPRESSED CURB | — | — | | | |
| DETECTABLE WARNING TILE | — | — | | | |
| UNINTERRUPTIBLE POWER SUPPLY | UPS | UPS | | | |
| RELOCATED | R | R | | | |



THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED 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)
- 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION (MAST ARM)
- 4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION (MAST ARM)
- 4 EACH SIGNAL HEAD, 2-FACE, 1-3-SECTION, 1-5-SECTION
- 6 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 4 EACH PEDESTRIAN PUSH BUTTON
- 1 EACH SERVICE INSTALLATION, TYPE C

- CONSTRUCTION NOTES:**
- EXISTING MASTARMS, POLES, HANDHOLES, CONDUIT AND TYPE C CONTROLLER FOUNDATION TO BE MAINTAINED.
 - INSTALL NEW CONTROLLER AND TYPE IV CABINET (SPECIAL). RELOCATE EXISTING EMERGENCY VEHICLE PHASING UNIT TO NEW CONTROLLER CABINET AND RELOCATE DETECTOR UNIT ON NEW MAST ARM. RELOCATION OF THE EMERGENCY PRIORITY SYSTEM EQUIPMENT WILL BE INCLUDED IN THE NEW CONTROLLER AND TYPE IV CABINET (SPECIAL) UNIT PRICE.

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PLOT SCALE = #SCALE#	DRAWN - MP, AG	REVISED -
PLOT DATE = 1/27/2009	CHECKED - MJL	REVISED -
	DATE - 1/27/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN
TRAFFIC SIGNAL MODERNIZATION PLAN
IL ROUTE 53 / 68 (DUNDEE ROAD) & BALDWIN ROAD**

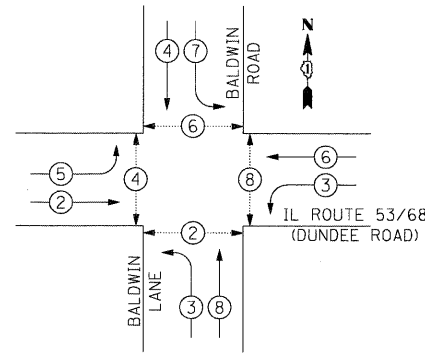
SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 29
CONTRACT NO. 60F87				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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1/27/2009
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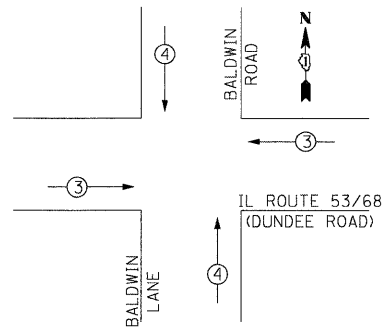
CONTROLLER SEQUENCE



- LEGEND**
- ◄●► DUAL ENTRY PHASE
 - ◄■► SINGLE ENTRY PHASE
 - ◄◇► OVERLAP
 - ◄○► PEDESTRIAN PHASE
 - NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE

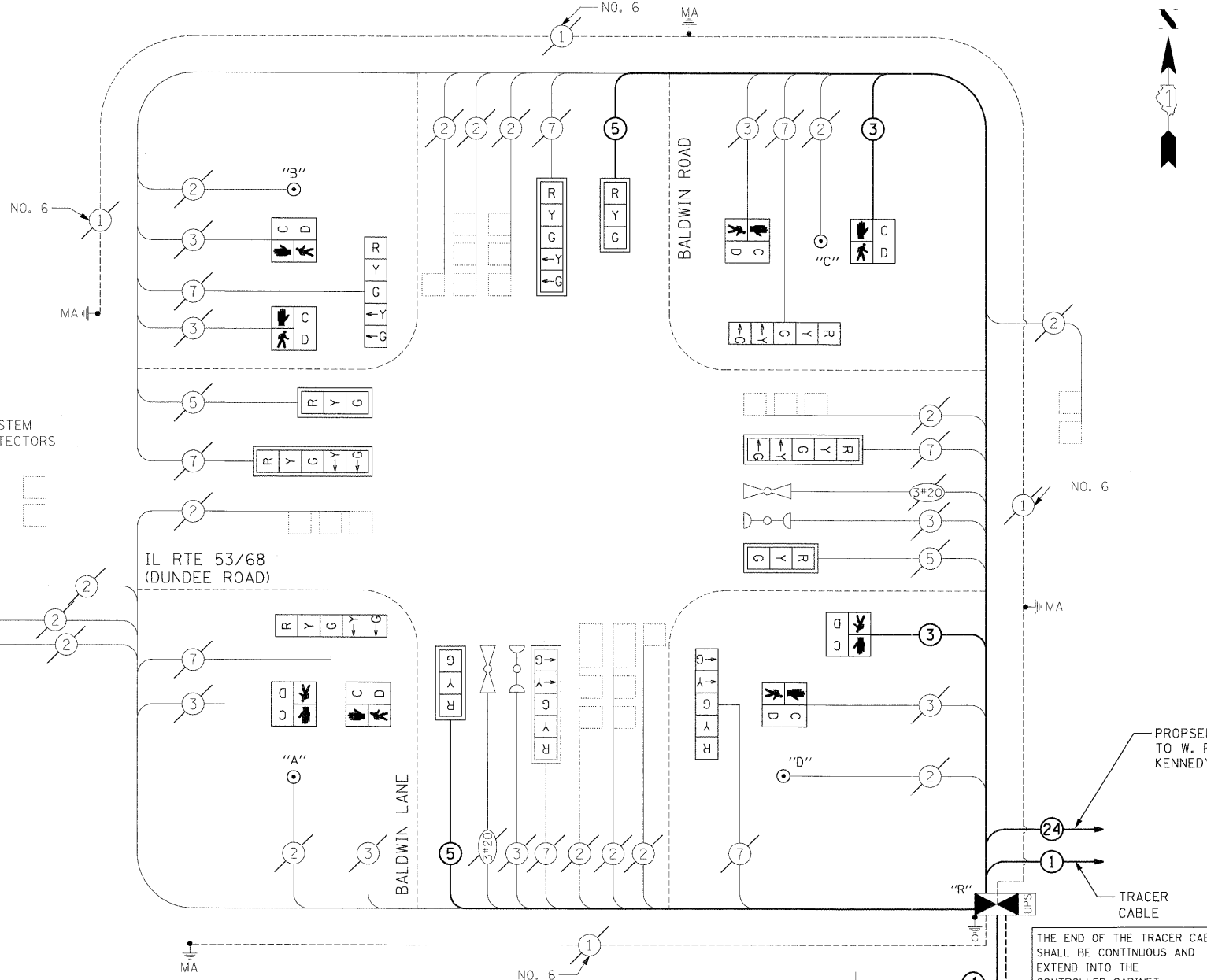


PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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



- CABLE PLAN LEGEND**
- | EXISTING | PROPOSED | |
|----------|----------|---|
| ⊗ | ⊗ | 8" TRAFFIC SIGNAL SECTION |
| ⊙ | ⊙ | 12" TRAFFIC SIGNAL SECTION |
| ⊕ | ⊕ | 12" PEDESTRIAN SIGNAL SECTION |
| ⊖ | ⊖ | C/D INDICATES COUNTDOWN SIGNAL HEAD |
| ⊗ | ⊗ | CONTROLLER CABINET |
| ⊙ | ⊙ | SERVICE INSTALLATION |
| ⊕ | ⊕ | VEHICLE DETECTOR, INDUCTION LOOP |
| ⊖ | ⊖ | EMERGENCY VEHICLE LIGHT DETECTOR |
| ⊗ | ⊗ | CONFIRMATION BEACON |
| ⊙ | ⊙ | PEDESTRIAN PUSHBUTTON |
| # | # | # DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| ① | ① | NO. 14 1/C TRACER CABLE |
| ② | ② | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM-12F SM-12F |
| ⊗ | ⊗ | SIGNAL FACE WITH BACKPLATE |
| "P" | "P" | "P" INDICATES PROGRAMMED HEAD |
| ⊗ | ⊗ | ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN" |
| ⊙ | ⊙ | ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN" |
| ⊕ | ⊕ | TELEPHONE CONNECTION |
| H/C | H/C | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE(H), OR CONTROLLER(C) |
| P | P | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| S | S | GROUND ROD AT ELECTRICAL SERVICE |
| ⊕ | ⊕ | UNINTERRUPTIBLE POWER SUPPLY |
| "R" | "R" | RELOCATED |

CONSTRUCTION NOTE:
 EXISTING SIGNAL CABLE TO BE MAINTAINED. NEW CABLING TO BE INSTALLED IN EXISTING CONDUIT FOR ADDITIONAL SIGNAL HEADS (2) AND PEDESTRIAN SIGNAL HEADS (2).

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	62
DETECTABLE WARNINGS	SQ FT	16
COMBINATION CURB AND GUTTER REMOVAL	FOOT	20
SIDEWALK REMOVAL	SQ FT	42
CONCRETE CURB, TYPE B	FOOT	26
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	20
SIGN PANEL - TYPE 1	SQ FT	18
SIGN PANEL - TYPE 2	SQ FT	30
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	416
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	64
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	64
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	339
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	158
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
INDUCTIVE LOOP DETECTOR	EACH	12
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
INTERCEPT EXISTING CONDUIT	EACH	1
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	38

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	x INCAND.	WATTAGE LED	x % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	12		25	0.25	75.0
(GREEN)	12		15	0.25	45.0
ARROW	16		12	0.10	19.2
PED. SIGNAL	8		25	1.0	200.0
CONTROLLER	1		100	1.0	100.0
ILLUM. SIGN	-		25	1.0	-
FLASHER	-		-	-	-
TOTAL					541.2

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
C - CONTROLLER W/UPS	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'+L-2 =
D - CONTROLLER	4	SIGNAL POST	2	BRACKET MOUNTED	13
E - MAST ARM POLE		CONTROLLER CAB.	1	PED. PUSHBUTTON	6
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
36"	15	ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
42"	25	GROUND CABLE	1	POST MOUNTED	6

NOTE: PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4. PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6. PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8. PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 8 AND 2.

ENERGY COST TO : ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS / DISTRICT 1
 201 WEST CENTER COURT / SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: MICKI MULERO-WILLIAMS
 PHONE: (630) 691-4721
 COMPANY: COMED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SUMMARY OF QUANTITIES
 IL ROUTE 53 / 68 (DUNDEE ROAD AND BALDWIN ROAD)

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

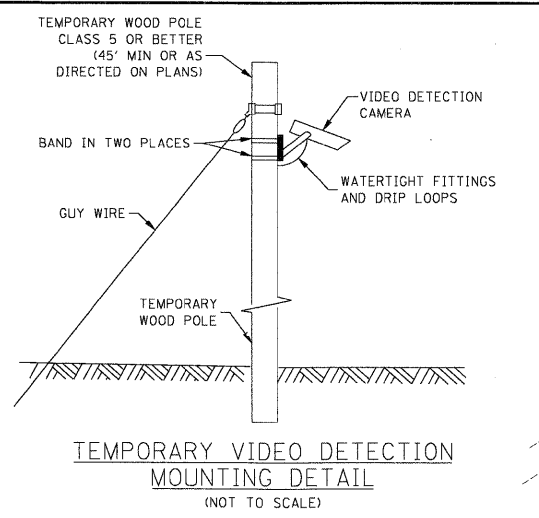
JACOBS ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	30

CONTRACT NO. 60F87
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

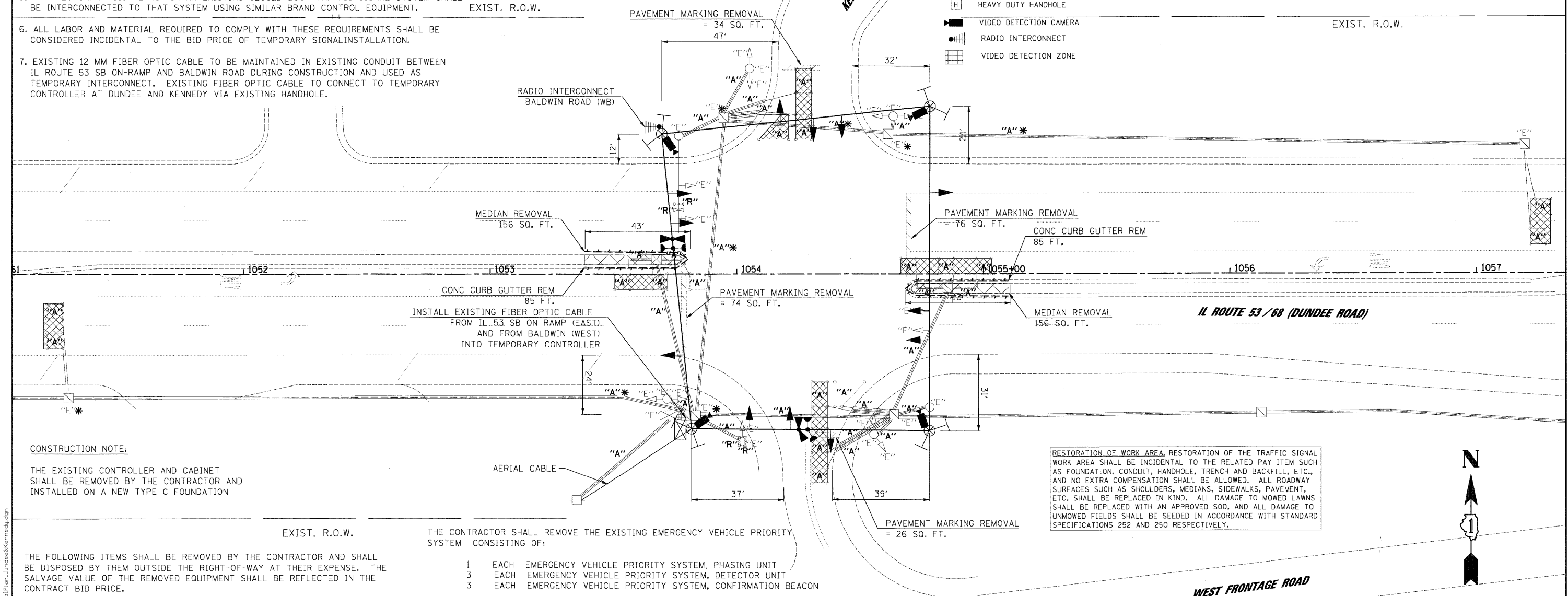
NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. 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 SIGNALS SHALL BE FULLY ACTUATED NEMA MICRO-PROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK 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.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES AND RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. ALL LABOR AND MATERIAL REQUIRED TO COMPLY WITH THESE REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL TO THE BID PRICE OF TEMPORARY SIGNAL INSTALLATION.
7. EXISTING 12 MM FIBER OPTIC CABLE TO BE MAINTAINED IN EXISTING CONDUIT BETWEEN IL ROUTE 53 SB ON-RAMP AND BALDWIN ROAD DURING CONSTRUCTION AND USED AS TEMPORARY INTERCONNECT. EXISTING FIBER OPTIC CABLE TO CONNECT TO TEMPORARY CONTROLLER AT DUNDEE AND KENNEDY VIA EXISTING HANDHOLE.



- TEMPORARY TRAFFIC SIGNAL LEGEND**
- ▶ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION
 - ◀ TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
 - ⊗ TEMPORARY WOOD POLE (CLASS 5 OR BETTER)
 - DOWN GUY
 - TEMPORARY CONTROLLER CABINET
 - TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
 - ▣ TEMPORARY SERVICE INSTALLATION
 - ▣ TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
 - ⊙ PEDESTRIAN PUSHBUTTON DETECTOR
 - ⊙ EMERGENCY VEHICLE LIGHT DETECTOR
 - ⊙ CONFIRMATION BEACON
 - VEHICLE DETECTOR, INDUCTION LOOP
 - CT COMMON TRENCH
 - UD UNIT DUCT
 - G.S. CONDUIT IN TRENCH OR PUSHED
 - ▣ HANDHOLE
 - ▣ HEAVY DUTY HANDHOLE
 - ▶ VIDEO DETECTION CAMERA
 - RADIO INTERCONNECT
 - ▣ VIDEO DETECTION ZONE

- EXISTING EQUIPMENT TO BE REMOVED LEGEND**
- ◀ "E" EXISTING SIGNAL HEAD TO BE REMOVED
 - ◀ "E" EXISTING SERVICE INSTALLATION TO BE REMOVED
 - ◀ "E" EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
 - ◀ "E" EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
 - ◀ "E" EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
 - ◀ "E" EXISTING HANDHOLE TO BE REMOVED
 - ◀ "E" EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
 - ◀ "E" EXISTING PEDESTRIAN PUSH-BUTTON TO BE REMOVED
 - ◀ "E" EMERGENCY VEHICLE SYSTEM DETECTOR TO BE RELOCATED
 - ◀ "E" CONFIRMATION BEACON TO BE RELOCATED
 - ◀ "E" HEAVY DUTY HANDHOLE TO BE REMOVED
 - ◀ "E" MAST ARM ASSEMBLY AND POLE TO BE REMOVED
 - ◀ "R" RELOCATE
 - ◀ "A" ABANDON
 - ◀ "S" SAVE EQUIPMENT IN CURRENT LOCATION
 - ◀ * EQUIPMENT TO BE ABANDON/REMOVED/RELOCATED AFTER PROPOSED SIGNAL INSTALLED



CONSTRUCTION NOTE:
THE EXISTING CONTROLLER AND CABINET SHALL BE REMOVED BY THE CONTRACTOR AND INSTALLED ON A NEW TYPE C FOUNDATION

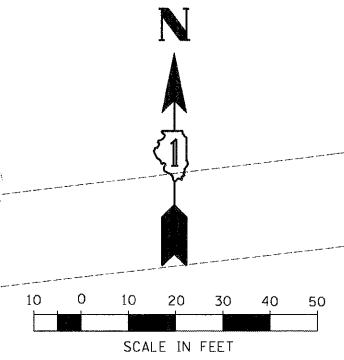
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL 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.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED 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.

- THE CONTRACTOR SHALL REMOVE THE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM CONSISTING OF:
- 1 EACH EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
 - 3 EACH EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT
 - 3 EACH EMERGENCY VEHICLE PRIORITY SYSTEM, CONFIRMATION BEACON
- AND SHALL DELIVER IT TO THE VILLAGE OF PALATINE FIRE DEPARTMENT AT THE ADDRESS BELOW FOR STORAGE. AFTER THE NEW TRAFFIC SIGNAL EQUIPMENT IS IN PLACE, THE CONTRACTOR SHALL BE REQUIRED TO PICK UP ALL DELIVERED EQUIPMENT AND INSTALL THE PHASING UNIT IN THE CONTROLLER CABINET AND THE DETECTOR UNIT ON THE PROPOSED MAST ARM AS INDICATED ON THE PLANS.

PALATINE FIRE DEPARTMENT
39 EAST COLFAX
PALATINE, IL 60067

- 2 EACH MAST ARM ASSEMBLY AND POLE
- 5 EACH TRAFFIC SIGNAL POST
- 1 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION (MAST ARM)
- 2 EACH SIGNAL HEAD, 1-FACE, 5-SECTION (MAST ARM)
- 2 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 2 EACH SIGNAL HEAD, 2-FACE, 1-3-SECTION, 1-5-SECTION
- 1 EACH SERVICE INSTALLATION, TYPE C

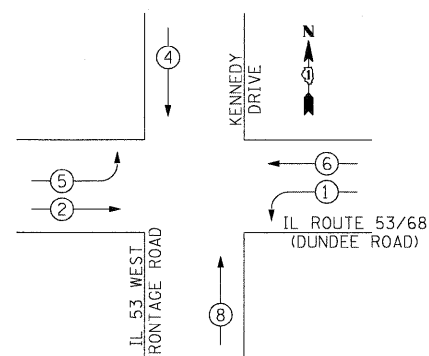


FILE NAME = 20_TempSignalPlan_Dundee&Kennedy.dgn	USER NAME = #USER#	DESIGNED - CH, JS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT PLAN IL ROUTE 53 / 68 (DUNDEE ROAD) & KENNEDY DRIVE / WEST FRONTAGE ROAD	F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 31
PLOT SCALE = #SCALE#	CHECKED - MJL	REVISED -	SCALE: 1"=20'			SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			
PLOT DATE = 1/27/2009	DATE = 1/22/2009	REVISED -								

JACOBS ONE NORTH FRANKLIN
CHICAGO IL, 60606
312-251-3000

1/27/2009 10:39:03 AM C:\DOD\Sheet\20_TempSignalPlan_Dundee&Kennedy.dgn

TEMPORARY CONTROLLER SEQUENCE

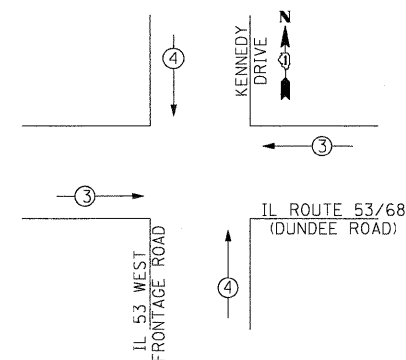


LEGEND

- ◀●▶ DUAL ENTRY PHASE
- ◀■▶ SINGLE ENTRY PHASE
- ◀◇▶ OVERLAP
- ◀●▶ PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

TEMPORARY PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

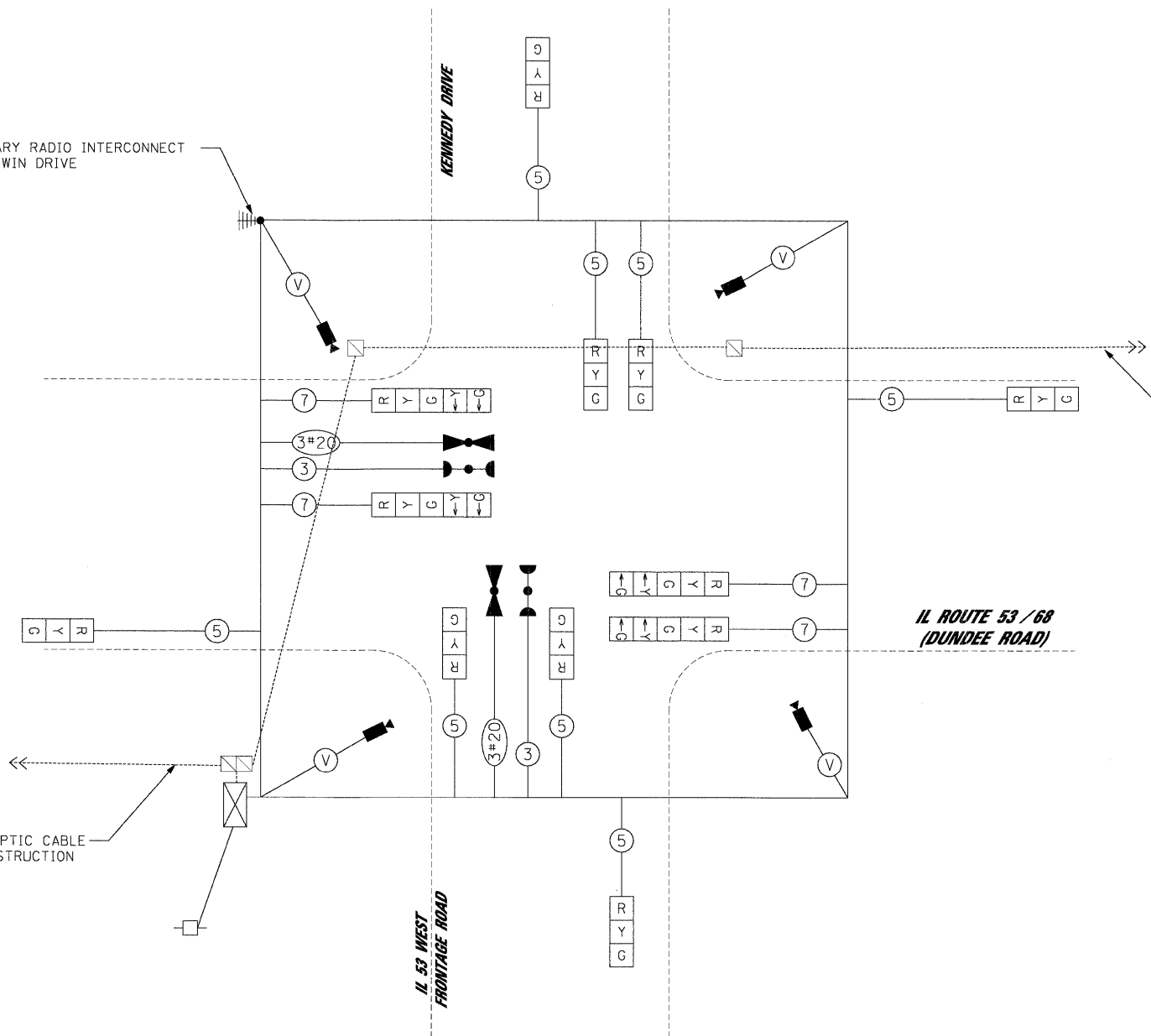
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

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

TEMPORARY CABLE DIAGRAM LEGEND

- [R] TEMPORARY TRAFFIC SIGNAL SECTION
- [P] 12" PEDESTRIAN SIGNAL SECTION
C/D INDICATES COUNTDOWN SIGNAL HEAD
- [C] TEMPORARY CONTROLLER CABINET
- [S] TEMPORARY SERVICE INSTALLATION
- [V] VEHICLE DETECTOR, INDUCTION LOOP
- [CAM] VEHICLE DETECTION CAMERA
- [EVL] EMERGENCY VEHICLE LIGHT DETECTOR
- [CB] CONFIRMATION BEACON
- [PB] PEDESTRIAN PUSHBUTTON
- # DENOTES NUMBER OF CONDUCTORS IN CABLE. ALL CABLE NO. 14 AWG. WIRE UNLESS OTHERWISE NOTED.
- [V] VENDOR CABLE
- [RI] RADIO INTERCONNECT

TEMPORARY RADIO INTERCONNECT TO BALDWIN DRIVE



MAINTAIN 12 MM FIBER OPTIC CABLE TO IL ROUTE 53 SB ON RAMP DURING CONSTRUCTION

MAINTAIN 12 MM FIBER OPTIC CABLE TO BALDWIN DURING CONSTRUCTION

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	x INCAND.	WATTAGE LED	x % OPERATION	
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	12		25	0.25	75.0
(GREEN)	12		15	0.25	45.0
ARROW	8		12	0.10	9.6
PED. SIGNAL	-		25	1.0	-
CONTROLLER	1		100	1.0	100.0
ILLUM. SIGN	-		25	1.0	-
FLASHER	-		-	-	-
TOTAL =					331.6

ENERGY COST TO : ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS / DISTRICT 1
201 WEST CENTER COURT / SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: MICKI MULERO-WILLIAMS
PHONE: (630) 691-4721
COMPANY: COMED

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
C - CONTROLLER W/UPS	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'+L-2 =
D - CONTROLLER	4	SIGNAL POST	2	BRACKET MOUNTED	13
E - MAST ARM POLE		CONTROLLER CAB.	1	PED. PUSHBUTTON	6
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
36"	15	ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
42"	25	GROUND CABLE	1	POST MOUNTED	6

FILE NAME = 21_TempCablePlan_Dundee&Kennedy.dgn

USER NAME = #USER#

DESIGNED - CH, RP
DRAWN - NY

REVISOR -
REVISION -

PLLOT SCALE = #SCALE#
PLLOT DATE = 1/27/2009

CHECKED - MJL, ER
DATE - 1/27/2009

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN
TEMPORARY PHASE DESIGNATION DIAGRAM
IL ROUTE 53 / 68 (DUNDEE ROAD) AND KENNEDY DRIVE / WEST FRONTAGE ROAD

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

JACOBS ONE NORTH FRANKLIN
CHICAGO IL, 60606
312-251-3000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	32

CONTRACT NO. 60F87

FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT

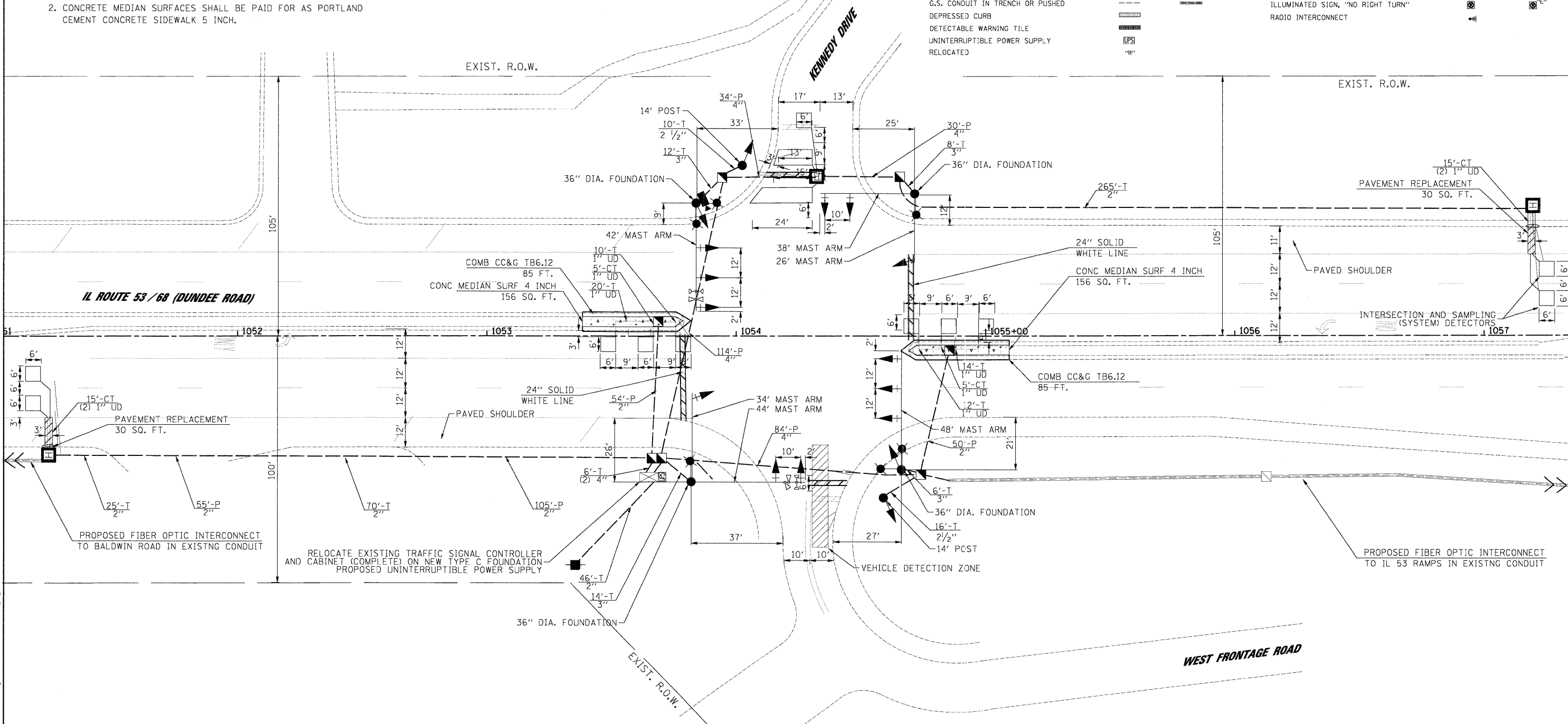
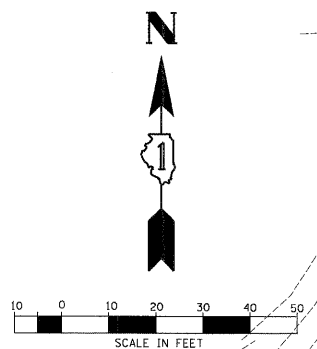
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

CONSTRUCTION NOTES:

1. RELOCATE EXISTING CONTROLLER AND TYPE IV CABINET, COMPLETE. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT TO NEW CONTROLLER CABINET AND RELOCATE DETECTOR UNIT ON NEW MAST ARM. RELOCATION OF THE EMERGENCY PRIORITY SYSTEM EQUIPMENT WILL BE INCLUDED IN THE RELOCATE EXISTING CONTROLLER AND TYPE IV CABINET, COMPLETE UNIT PRICE.
2. CONCRETE MEDIAN SURFACES SHALL BE PAID FOR AS PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]	PEDESTRAIN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]	DETECTOR LOOP	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]	CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]	CONFIRMATION BEACON	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]	SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]	CONDUIT SPLICE	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]	WOOD POLE	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	[Symbol]	[Symbol]	RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]	VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]	RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]	TELEPHONE CONNECTION	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]	ILLUMINATED SIGN, "NO LEFT TURN"	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]	ILLUMINATED SIGN, "NO RIGHT TURN"	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]	RADIO INTERCONNECT	[Symbol]	[Symbol]
DEPRESSED CURB	[Symbol]	[Symbol]			
DETECTABLE WARNING TILE	[Symbol]	[Symbol]			
UNINTERRUPTIBLE POWER SUPPLY RELOCATED	[Symbol]	[Symbol]			
	[Symbol]	[Symbol]			



FILE NAME = 22.SignalPlan_Dundee&Kennedy.dgn
 USER NAME = #USER#
 PLOT SCALE = #SCALE#
 PLOT DATE = 1/27/2009

DESIGNED - CH	REVISED -
DRAWN - MP, AG	REVISED -
CHECKED - MJL	REVISED -
DATE - 1/22/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN
IL ROUTE 53 / 68 (DUNDEE ROAD) & KENNEDY DRIVE / WEST FRONTAGE ROAD**

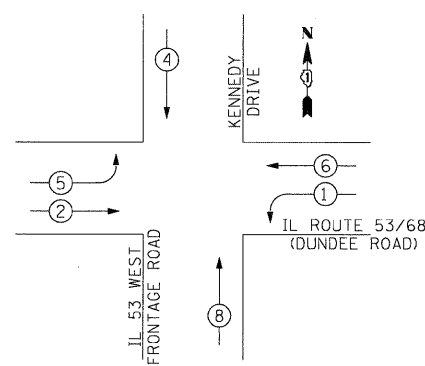
SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

JACOBS ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000

F.A.P. RTE. 334	SECTION 2008-08-3I	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 33
CONTRACT NO. 60F87				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

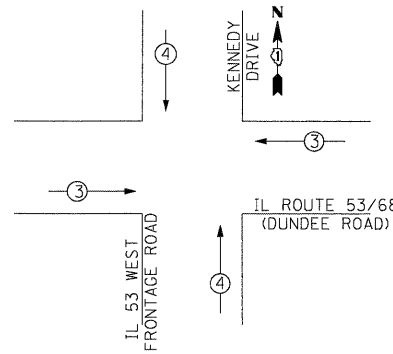
1/27/2009
 FILE NAME = 23_CablePlan_Dundee&Kennedy.dgn
 USER NAME = #USER#
 DESIGNED - CH, RP
 DRAWN - NY
 CHECKED - MJL
 DATE - 1/27/2009
 PLOT SCALE = #SCALE#
 PLOT DATE = 1/27/2009

CONTROLLER SEQUENCE



- LEGEND**
- ⊕ DUAL ENTRY PHASE
 - ⊕ SINGLE ENTRY PHASE
 - ⊕ OVERLAP
 - ⊕ PEDESTRIAN PHASE
 - # NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM
EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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.

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

CABLE PLAN LEGEND

- | | | |
|----------|----------|---|
| EXISTING | PROPOSED | |
| ⊕ | ⊕ | 8" TRAFFIC SIGNAL SECTION |
| ⊕ | ⊕ | 12" TRAFFIC SIGNAL SECTION |
| ⊕ | ⊕ | 12" PEDESTRIAN SIGNAL SECTION |
| ⊕ | ⊕ | C/D INDICATES COUNTDOWN SIGNAL HEAD |
| ⊕ | ⊕ | CONTROLLER CABINET |
| ⊕ | ⊕ | SERVICE INSTALLATION |
| ⊕ | ⊕ | VEHICLE DETECTOR, INDUCTION LOOP |
| ⊕ | ⊕ | EMERGENCY VEHICLE LIGHT DETECTOR |
| ⊕ | ⊕ | CONFIRMATION BEACON |
| ⊕ | ⊕ | PEDESTRIAN PUSHBUTTON |
| # | # | # DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| ⊕ | ⊕ | NO. 14 1/C TRACER CABLE |
| ⊕ | ⊕ | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM-12F SM-12F |
| ⊕ | ⊕ | SIGNAL FACE WITH BACKPLATE |
| ⊕ | ⊕ | "P" INDICATES PROGRAMMED HEAD |
| ⊕ | ⊕ | ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN" |
| ⊕ | ⊕ | ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN" |
| ⊕ | ⊕ | TELEPHONE CONNECTION |
| ⊕ | ⊕ | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE(H), OR CONTROLLER(C) |
| ⊕ | ⊕ | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| ⊕ | ⊕ | GROUND ROD AT ELECTRICAL SERVICE |
| ⊕ | ⊕ | UNINTERRUPTIBLE POWER SUPPLY |
| ⊕ | ⊕ | RELOCATED |
| ⊕ | ⊕ | VIDEO SYSTEM DETECTION CAMERA |
| ⊕ | ⊕ | VIDEO DETECTION CAMERA CABLE |

SCHEDULE OF QUANTITIES

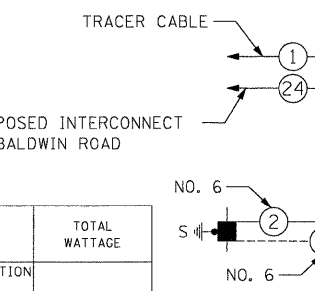
ITEM	UNIT	TOTAL
COMBINATION CURB AND GUTTER REMOVAL	FOOT	170
MEDIAN REMOVAL	SO FT	312
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	170
CONCRETE MEDIAN SURFACE, 4 INCH	SO FT	312
SIGN PANEL - TYPE 2	SO FT	70
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	128
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SO FT	109
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	406
CONDUIT IN TRENCH, 1 1/2" DIA., GALVANIZED STEEL	FOOT	26
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	40
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	12
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	294
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	262
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	3
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	484
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	319
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,829
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	797
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,709
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	130
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 42 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 26 FT. AND 38 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 44 FT. AND 34 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	8
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	12
INDUCTIVE LOOP DETECTOR	EACH	6
DETECTOR LOOP, TYPE 1	FOOT	442
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	8
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
VIDEO SYSTEM DETECTION CAMERA, VIDEO SYSTEM DETECTION PROCESSOR	EACH	1
PAVEMENT REPLACEMENT	SO YD	60
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	376
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	319
RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER AND CABINET, COMPLETE	EACH	1

INTERSECTION DETECTORS

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

TRACER CABLE

PROPOSED INTERCONNECT TO BALDWIN ROAD



FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
C - CONTROLLER W/UPS	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'-H-2 =
D - CONTROLLER	4	SIGNAL POST	2	BRACKET MOUNTED	13
E - MAST ARM POLE		CONTROLLER CAB.	1	PED. PUSHBUTTON	6
	30"	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
	36"	ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
	42"	GROUND CABLE	1	POST MOUNTED	6

I.D.O.T.
 TRAFFIC SIGNAL INSTALLATION
 ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	17	0.50	136.0
(YELLOW)	16	25	0.25	100
(GREEN)	16	15	0.25	60
ARROW	8	12	0.10	9.6
PED. SIGNAL	-	25	1.0	-
CONTROLLER	1	100	1.0	100.0
ILLUM. SIGN	-	25	1.0	-
FLASHER	-	-	-	-
TOTAL =				405.6

ENERGY COST TO : ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS / DISTRICT 1
 201 WEST CENTER COURT / SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: MICKI MULERO-WILLIAMS
 PHONE: (630) 691-4721
 COMPANY: COMED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

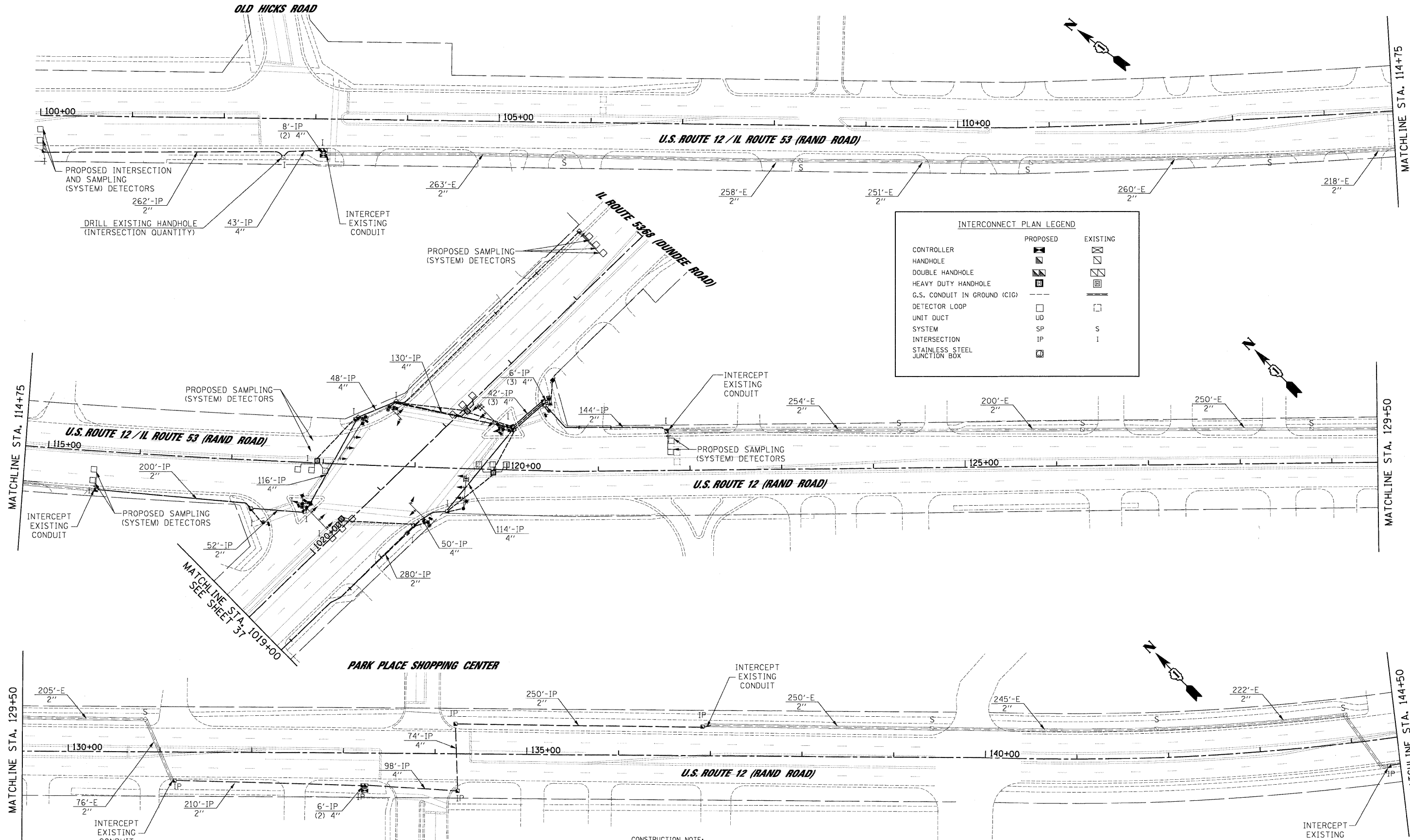
CABLE PLAN, PHASE DESIGNATION DIAGRAM
SUMMARY OF QUANTITIES
IL ROUTE 53 / 68 (DUNDEE ROAD) AND KENNEDY DR./IL 53 WEST FRONTAGE ROAD

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

JACOBS ONE NORTH FRANKLIN
 CHICAGO IL, 60606
 312-251-3000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	34
CONTRACT NO. 60F87				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

1/27/2009



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN GROUND (CIG)		
DETECTOR LOOP		
UNIT DUCT	UD	S
SYSTEM	SP	S
INTERSECTION	IP	I
STAINLESS STEEL JUNCTION BOX		

CONSTRUCTION NOTE:
 AVAILABILITY OF CONDUITS, HAVE NOT BEEN FIELD VERIFIED.
 CONTRACTOR MUST VERIFY EXISTING CONDITIONS BEFORE COMMENCING WORK.

FILE NAME = 31-InterconnectPlan_Rand.dgn

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PLOT SCALE = #SCALE#	DRAWN - MP	REVISED -
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	DATE - 1/22/2009	REVISED -

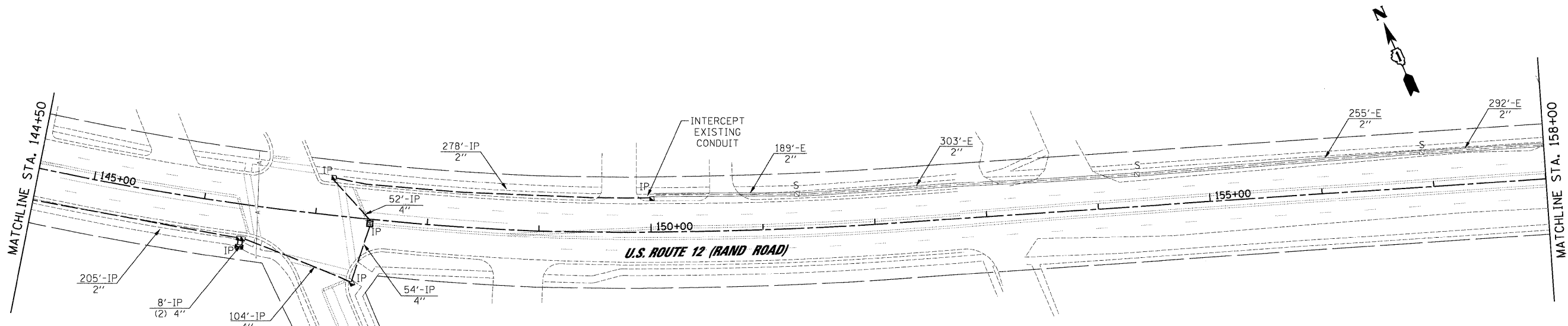
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

INTERCONNECT PLAN
 U.S. ROUTE 12 (RAND ROAD) - FROM OLD HICKS ROAD TO KENNICOTT DRIVE
 IL ROUTE 68 (DUNDEE ROAD) - FROM HICKS ROAD TO RAND ROAD

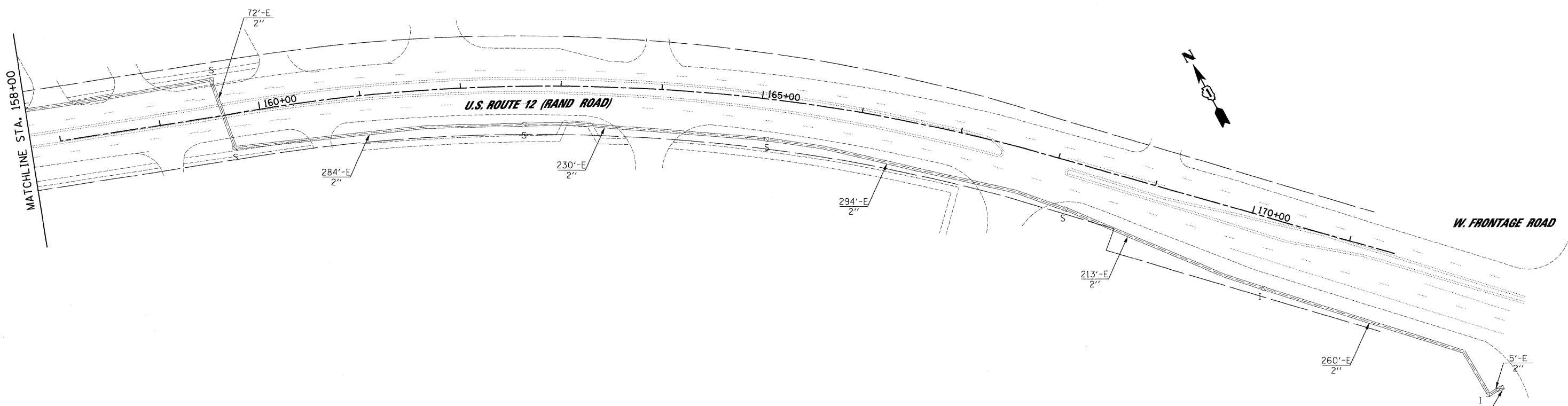
SCALE: 1"=50' SHEET NO. OF SHEETS STA. TO STA.

JACOBS ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000

F.A.P. RTE. 334	SECTION 2008-08-3I	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 35
CONTRACT NO. 60F87			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	



THE EXISTING INTERCONNECT CABLE FROM RAND AND WILLIAMS EAST TO WEST FRONTAGE ROAD WILL BE MAINTAINED IN THE EXISTING CONDUIT AS THE TEMPORARY INTERCONNECT. THE EXISTING 12 MM FIBER OPTIC CABLE CAN BE ABANDON AT THE FOLLOWING THE INSTALLATION OF THE PROPOSED 24 FIBER OPTIC CABLE.



PROPOSED FIBER OPTIC INTERCONNECT TERMINATED IN WEST FRONTAGE ROAD

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN GROUND (CIG)		
DETECTOR LOOP		
UNIT DUCT		
SYSTEM	SP	S
INTERSECTION	IP	I
STAINLESS STEEL JUNCTION BOX		

CONSTRUCTION NOTE:

AVAILABILITY OF CONDUITS, HAVE NOT BEEN FIELD VERIFIED. CONTRACTOR MUST VERIFY EXISTING CONDITIONS BEFORE COMMENCING WORK.

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PLD1 DATE = 1/27/2009	

DESIGNED - MJL, JS	REVISED -
DRAWN - MP	REVISED -
CHECKED - CH	REVISED -
DATE - 1/22/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

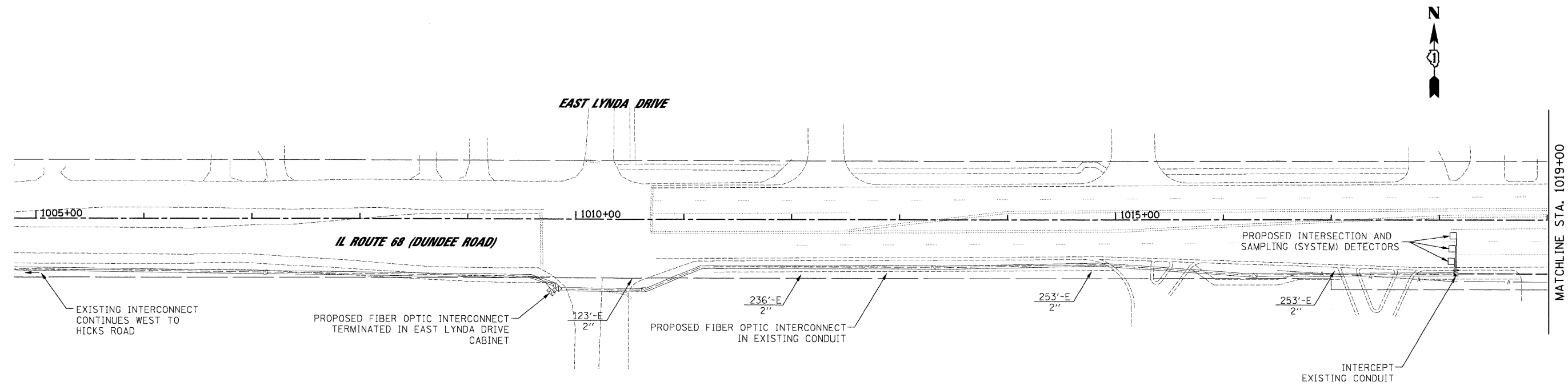
INTERCONNECT PLAN			
U.S. ROUTE 12 (RAND ROAD) - FROM OLD HICKS ROAD TO KENNICOTT DRIVE			
IL ROUTE 68 (DUNDEE ROAD) - FROM HICKS ROAD TO RAND ROAD			
SCALE: 1"=50'	SHEET NO.	OF SHEETS	STA. TO STA.

JACOBS					ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 36	CONTRACT NO. 60F87	
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT						

1/27/2009

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN GROUND (CIG)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	SP	S
INTERSECTION	IP	I
STAINLESS STEEL JUNCTION BOX		



CONSTRUCTION NOTE:
 AVAILABILITY OF CONDUITS, HAVE NOT BEEN FIELD VERIFIED.
 CONTRACTOR MUST VERIFY EXISTING CONDITIONS BEFORE COMMENCING WORK.

P:_2009\12\13\1700_CADD\Sheets\33-InterconnectPlan-Dundee.dgn

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	PLOT DATE = 1/27/2009	CHECKED - CH	REVISED -
		DATE - 1/22/2009	REVISED -

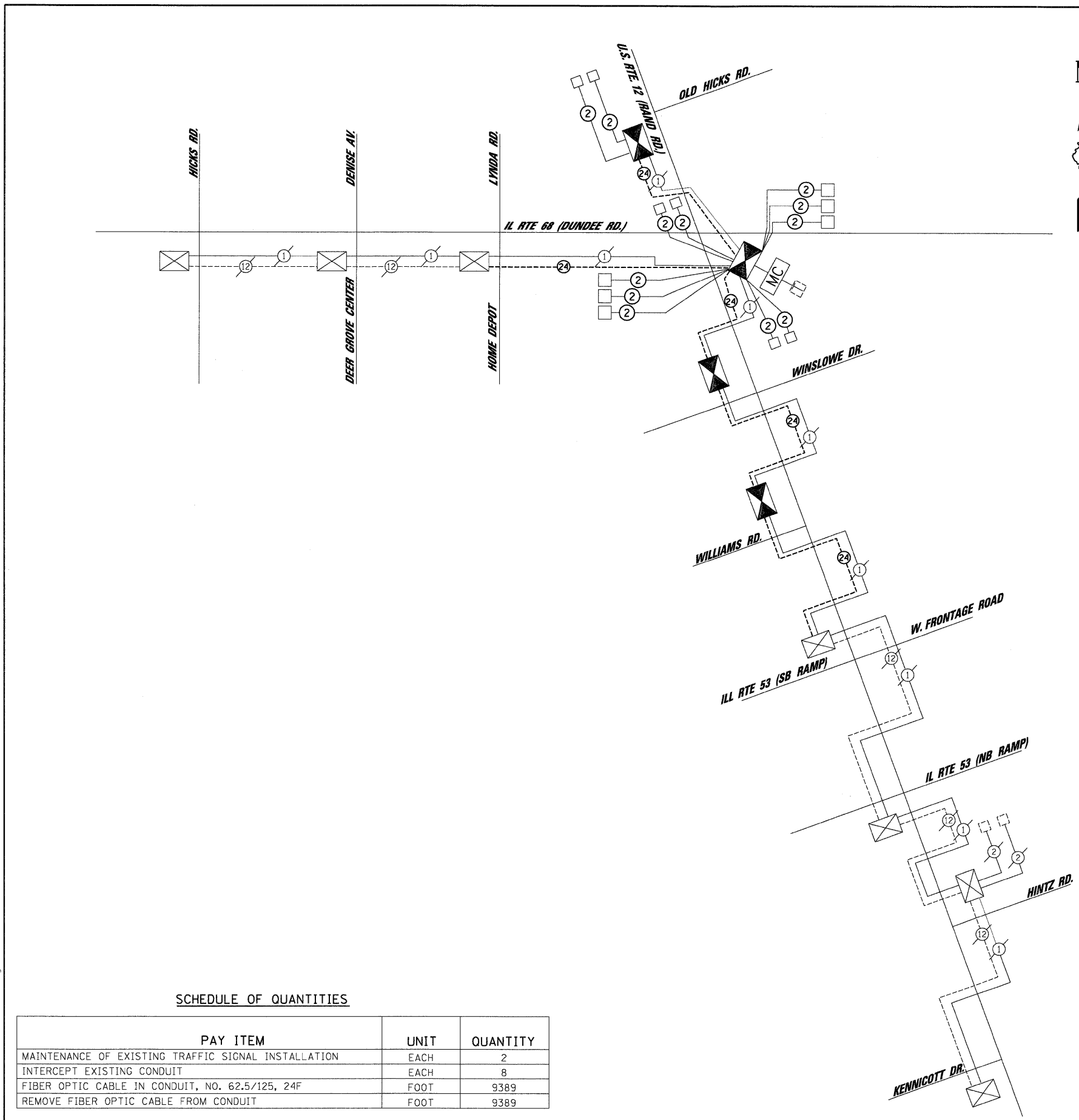
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

INTERCONNECT PLAN
U.S. ROUTE 12 (RAND ROAD) - FROM OLD HICKS ROAD TO KENNICOTT DRIVE
IL ROUTE 68 (DUNDEE ROAD) - FROM HICKS ROAD TO RAND ROAD

SCALE: 1"=50' SHEET NO. OF SHEETS STA. TO STA.

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 37
CONTRACT NO. 60F87				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

1/27/2009



INTERCONNECT SCHEMATIC LEGEND

- EXISTING INTERSECTION CONTROLLER ☒
- PROPOSED INTERSECTION CONTROLLER ☒
- EXISTING MASTER CONTROLLER EMC
- PROPOSED MASTER CONTROLLER MC
- MASTER MASTER CONTROLLER MMC
- EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS ☐
- PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS ☐
- EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F ---(24)---
- PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F ---(24)---
- EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE ---(12)---
- PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE ---(12)---
- EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED ---(6)---
- PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED ---(6)---
- EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED ---(2)---
- PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED ---(2)---
- EXISTING ELECTRIC CABLE 1/C (AS SPECIFIED) ---(1)---
- PROPOSED ELECTRIC CABLE, 1/C (AS SPECIFIED) ---(1)---
- EXISTING TELEPHONE CONNECTION ☐

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2
INTERCEPT EXISTING CONDUIT	EACH	8
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 24F	FOOT	9389
REMOVE FIBER OPTIC CABLE FROM CONDUIT	FOOT	9389

FILE NAME = 34_INI_RAND_Schematic.dgn	USER NAME = \$USER\$	DESIGNED - CH	DRAWN - KM	REVISED -
		CHECKED - MJL		REVISED -
		DATE - 1/27/2009		REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

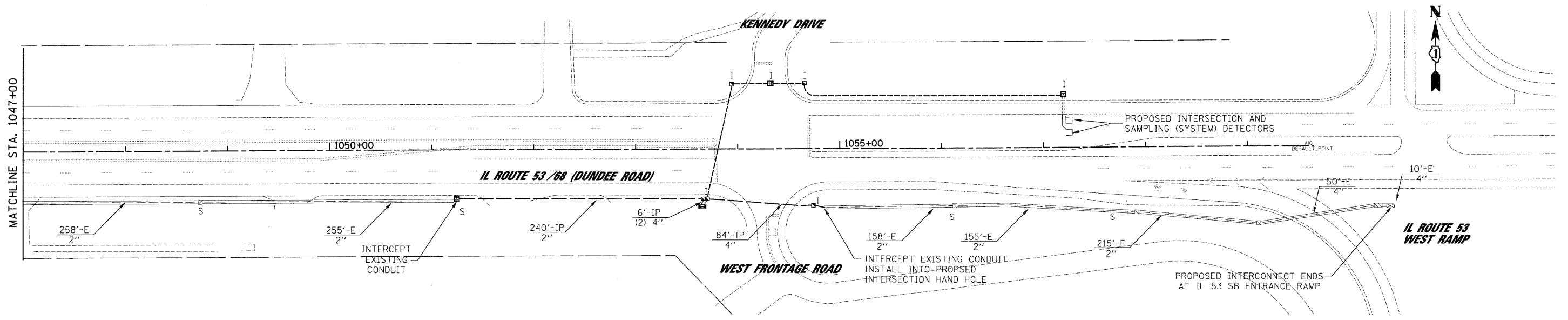
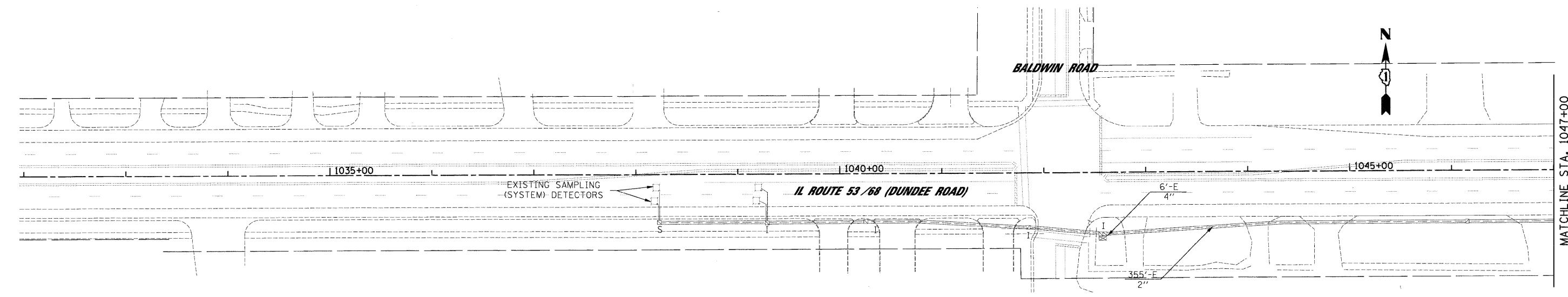
**INTERCONNECT SCHEMATIC
U.S. ROUTE 12 (RAND ROAD) - FROM OLD HICKS ROAD TO KENNICOTT DRIVE
IL ROUTE 68 (DUNDEE ROAD) - FROM HICKS ROAD TO RAND ROAD**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE. 334	SECTION 2008-08-3I	COUNTY COOK	TOTAL SHEETS 80
			SHEET NO. 38
		CONTRACT NO. 60F87	
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			

FILE: 2009, 09/13/2009, CADD, Sheet 34, INI_RAND_Schematic.dgn

1/22/2009



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
DOUBLE HANDHOLE		
HEAVY DUTY HANDHOLE		
G.S. CONDUIT IN GROUND (CIG)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	SP	S
INTERSECTION	IP	I
STAINLESS STEEL JUNCTION BOX		

CONSTRUCTION NOTE:

AVAILABILITY OF CONDUITS, HAVE NOT BEEN FIELD VERIFIED. CONTRACTOR MUST VERIFY EXISTING CONDITIONS BEFORE COMMENCING WORK.

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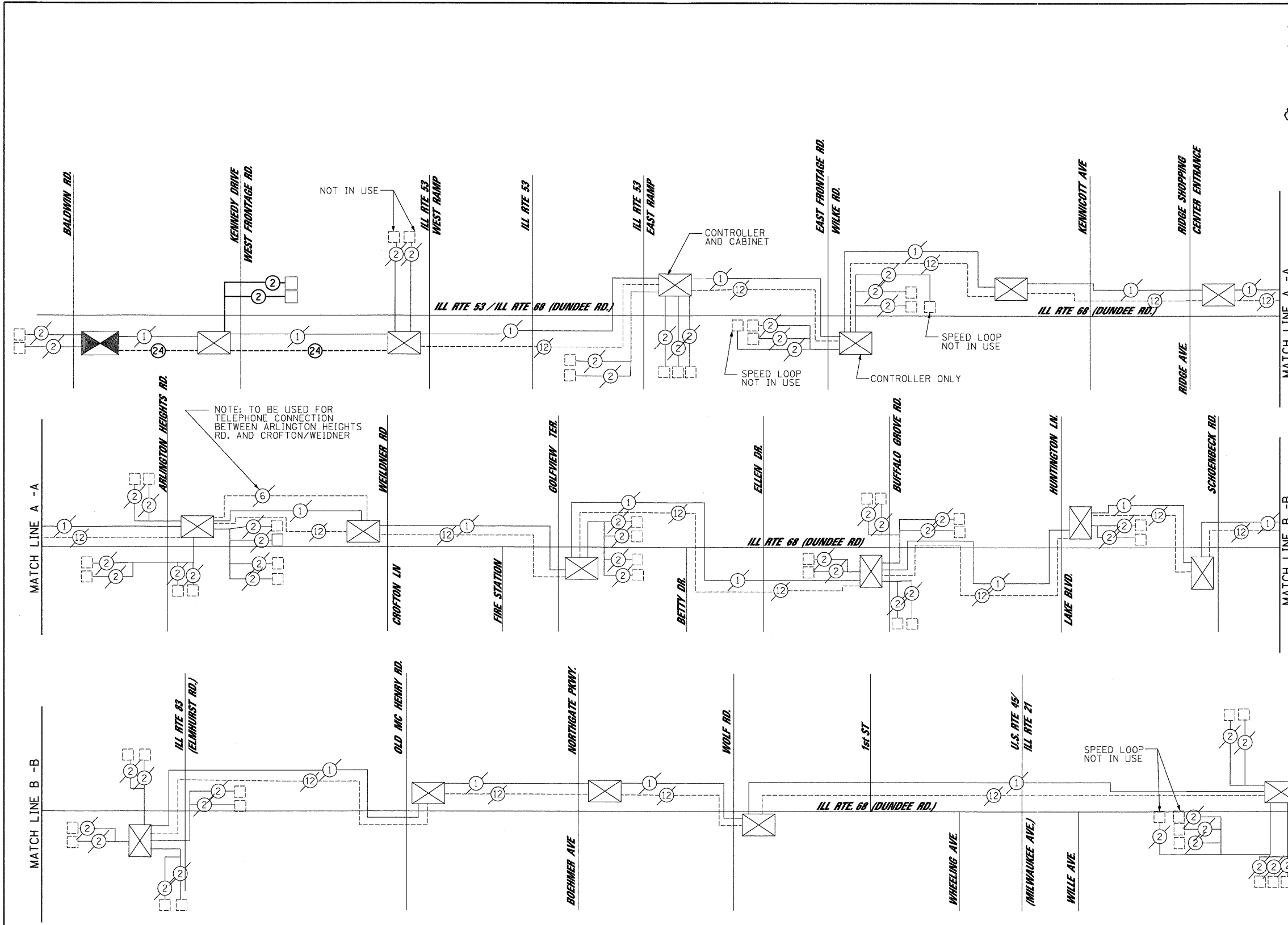
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 PLOT DATE = 1/27/2009

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE - 1/22/2009	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**INTERCONNECT PLAN
 IL ROUTE 53 /IL ROUTE 68 (DUNDEE ROAD)
 BALDWIN ROAD TO U.S. ROUTE 45 /IL ROUTE 21 (MILWAUKEE AVENUE)**
 SCALE: 1"=50' SHEET NO. OF SHEETS STA. TO STA.

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 39
CONTRACT NO. 60F87				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



- INTERCONNECT SCHEMATIC LEGEND**
- EXISTING INTERSECTION CONTROLLER
 - PROPOSED INTERSECTION CONTROLLER
 - EXISTING MASTER CONTROLLER
 - PROPOSED MASTER CONTROLLER
 - MASTER MASTER CONTROLLER
 - EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS
 - PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
 - EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
 - PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
 - EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
 - PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
 - EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
 - PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
 - EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
 - PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
 - EXISTING ELECTRIC CABLE 1/C (AS SPECIFIED)
 - PROPOSED ELECTRIC CABLE, 1/C (AS SPECIFIED)
 - EXISTING TELEPHONE CONNECTION

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
INTERCEPT EXISTING CONDUIT	EACH	3
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 24F	FOOT	1957
REMOVE FIBER OPTIC CABLE FROM CONDUIT	FOOT	1957

FILE NAME = 36_DUNDEE_SCHEM.dgn	USER NAME = #USER#	DESIGNED - MJL, JS	REVISED -
		DRAWN - MP	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

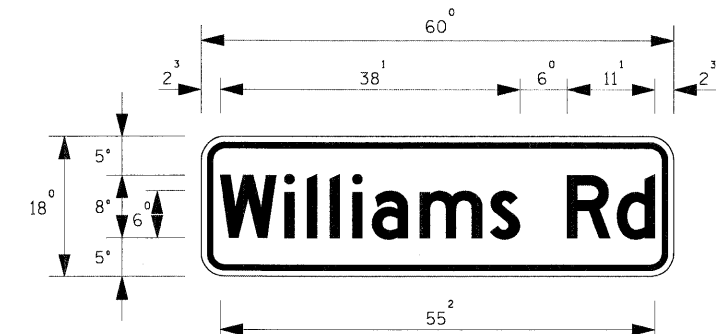
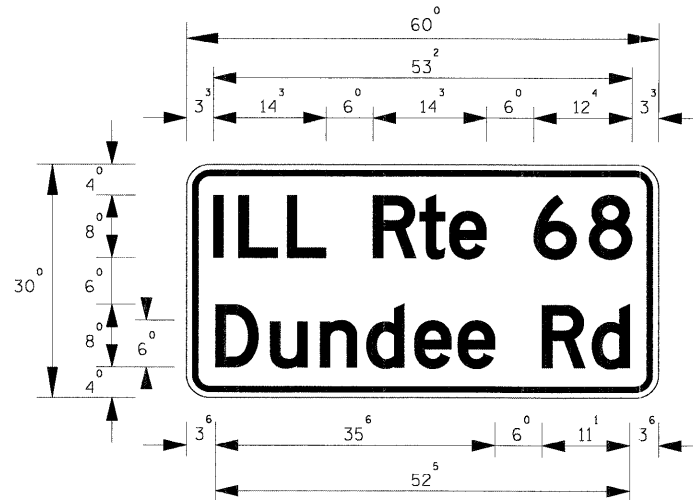
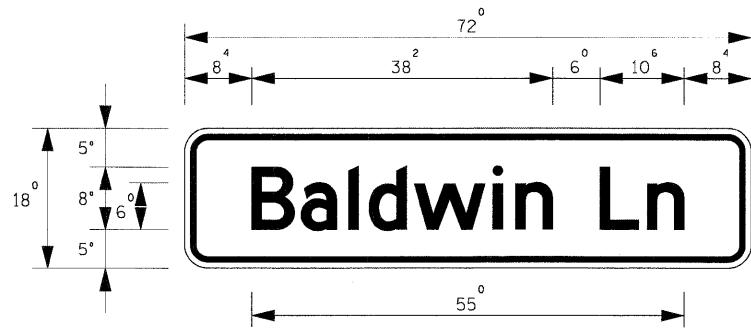
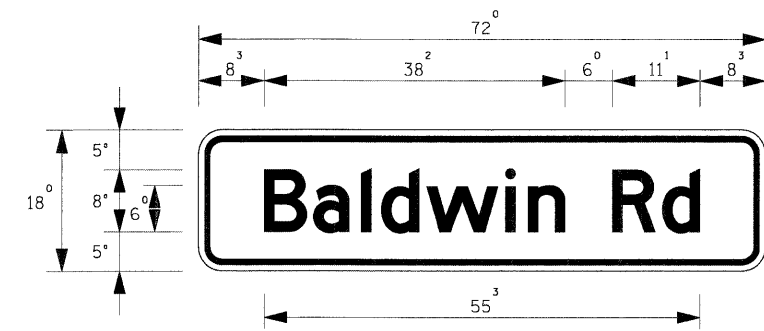
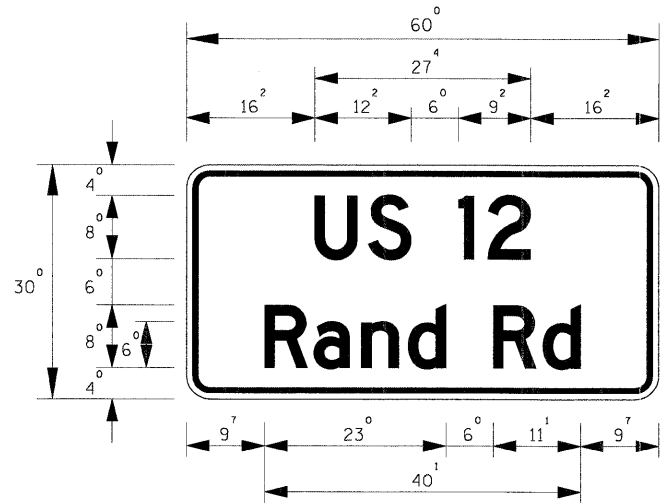
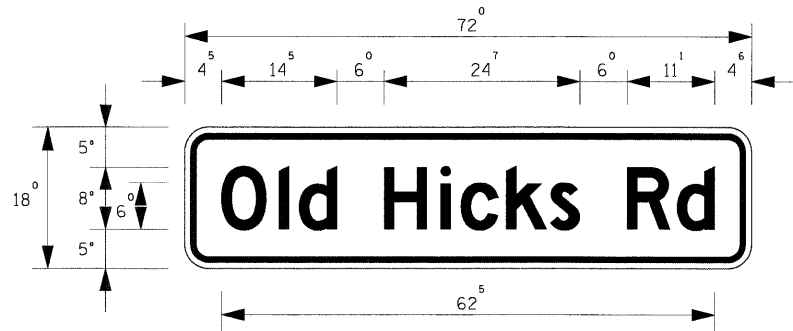
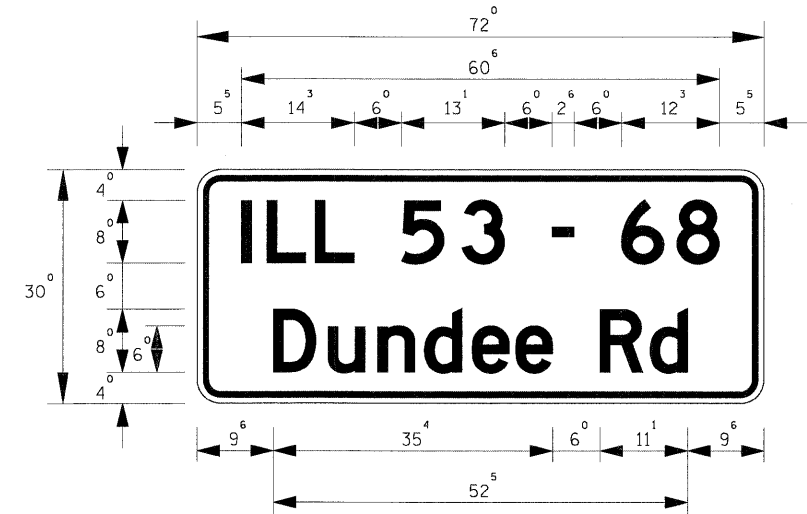
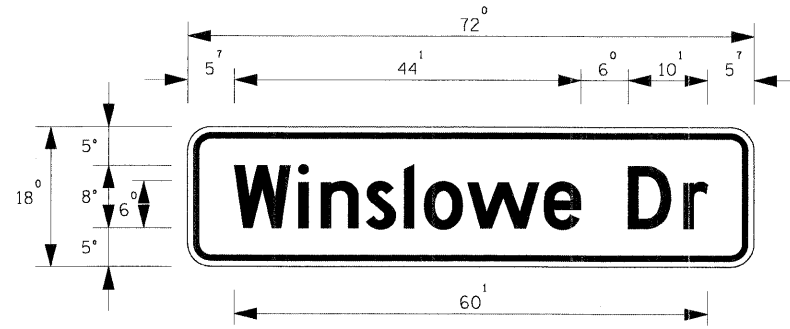
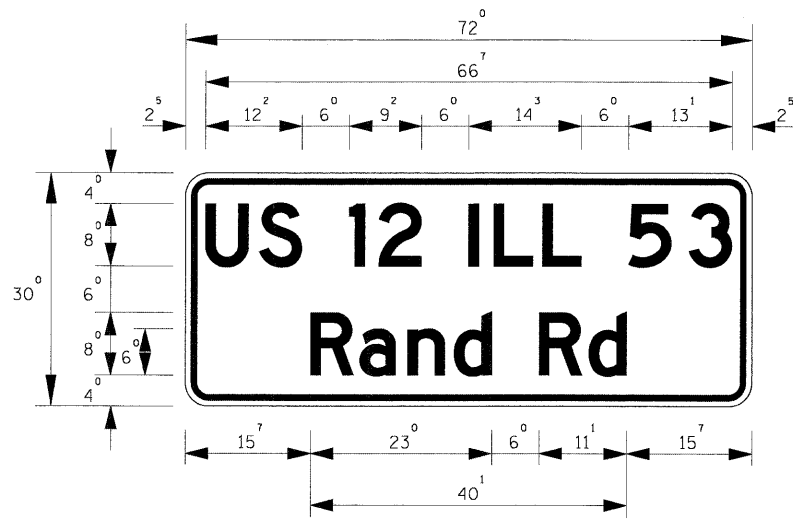
**INTERCONNECT SCHEMATIC
IL ROUTE 53 / 68 (DUNDEE ROAD)
BALDWIN ROAD TO U.S. ROUTE 45 / IL ROUTE 21 (MILWAUKEE AVENUE)**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

JACOBS ONE NORTH FRANKLIN
CHICAGO IL, 60606
312-251-3000

F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 40
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 60F87



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PLOT DATE = 1/27/2009	

DESIGNED -	REVISOR -
DRAWN -	REVISOR -
CHECKED -	REVISOR -
DATE - 1/22/2009	REVISOR -

DESIGNED -	REVISOR -
DRAWN -	REVISOR -
CHECKED -	REVISOR -
DATE - 1/22/2009	REVISOR -

DESIGNED -	REVISOR -
DRAWN -	REVISOR -
CHECKED -	REVISOR -
DATE - 1/22/2009	REVISOR -

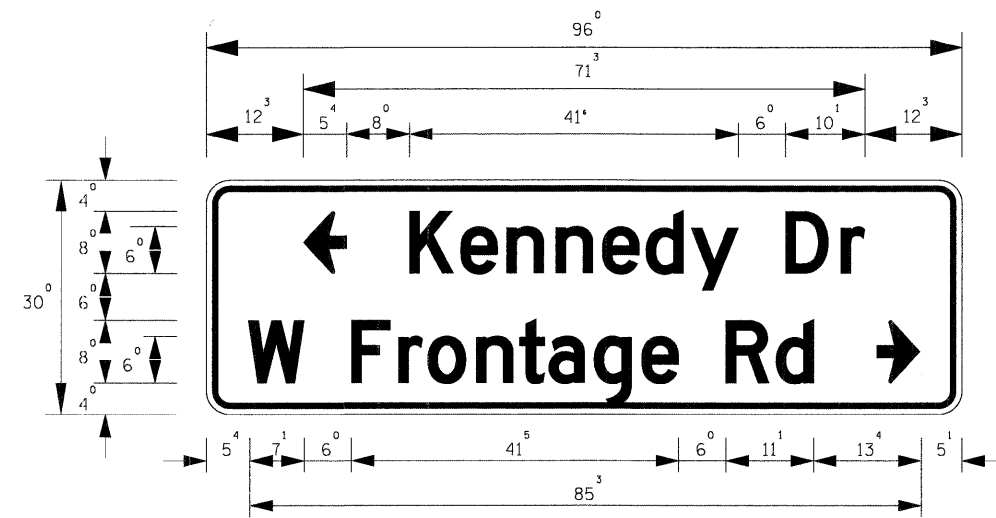
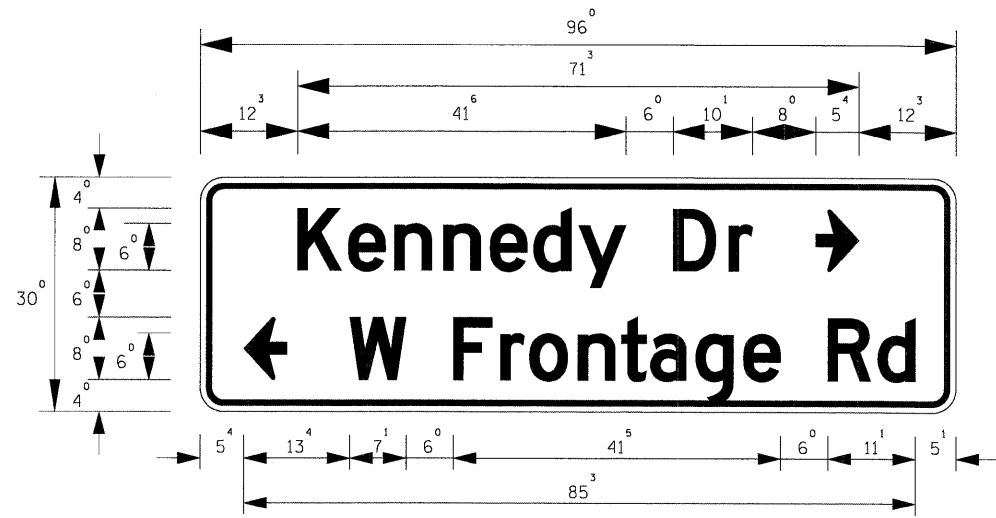
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUPPLEMENTAL SHEETS FOR IDOT DISTRICT CADD DETAIL TS-02

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

NOTE: FOR IDOT DISTRICT ONE CADD DETAIL TS-02 SEE SHEET DET-3

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-3I	COOK	80	42
CONTRACT NO. 60F87				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



FILE NAME =	43_Detail1_TS02_Signs_2.dgn
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PLOT DATE =	1/27/2009

DESIGNED -	REVISED -
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CHECKED -	REVISED -
DATE - 1/22/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

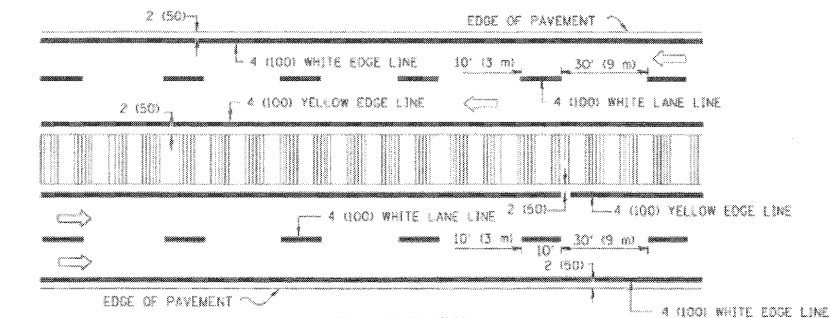
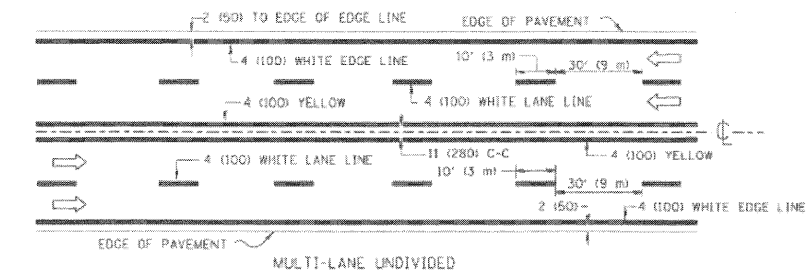
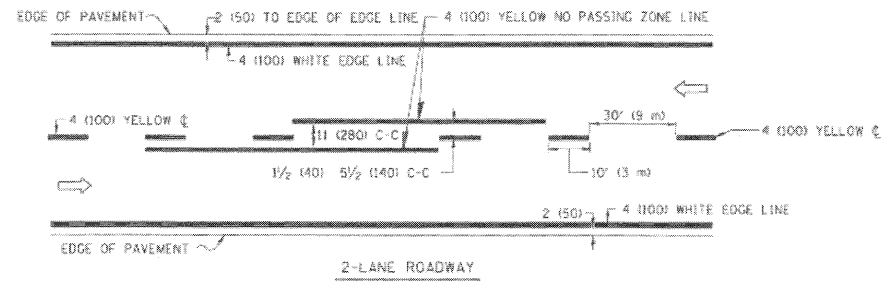
SUPPLEMENTAL SHEETS FOR IDOT DISTRICT CADD DETAIL TS-02

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

NOTE: FOR IDOT DISTRICT ONE CADD DETAIL TS-02 SEE SHEET DET-3

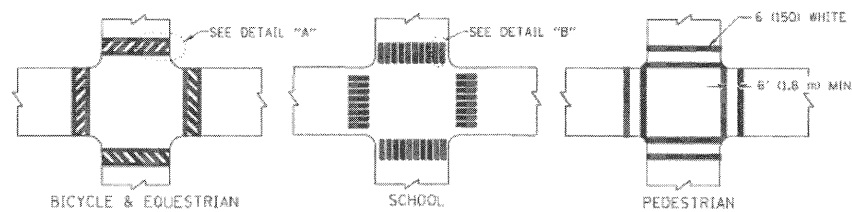
JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
334	2008-08-31	COOK	80
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	SHEET NO.
			43
CONTRACT NO. 60F87			

F.A.P. RITE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	44
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

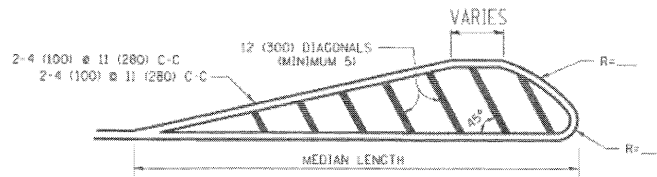
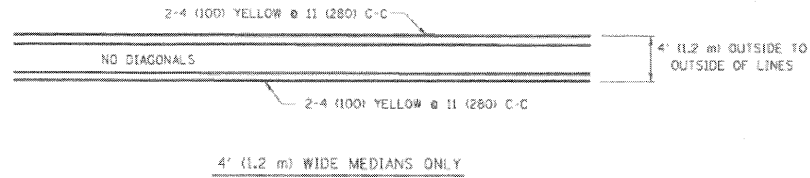


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING



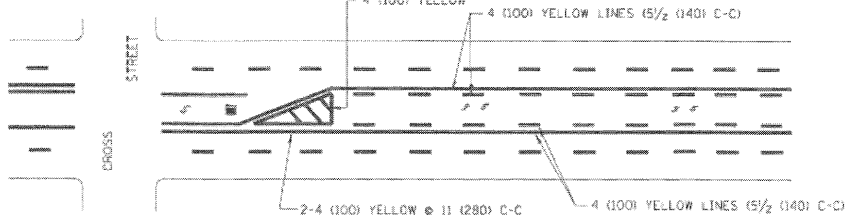
TYPICAL CROSSWALK MARKING



FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
 150' (45 m) C-C (OVER 45MPH (70 km/h))

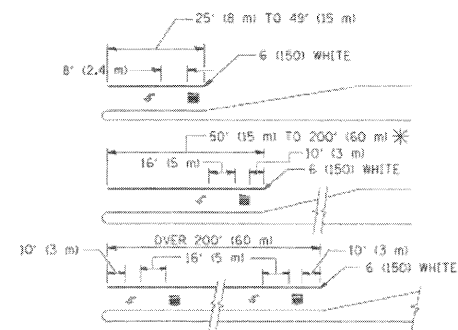
MEDIANS OVER 4' (1.2 m) WIDE



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.



TYPICAL PAINTED MEDIAN MARKING

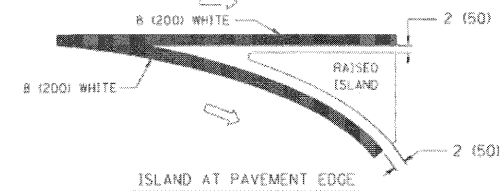
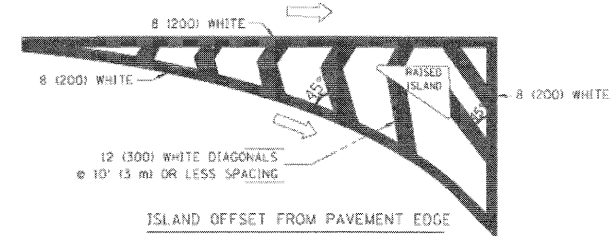


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

* 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 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" 15 6' (1.8 m) LETTERS; 15 (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.

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT ONE
 TYPICAL PAVEMENT MARKINGS

SCALE: NONE

DRAWN BY CADD
 CHECKED BY
 TC-13

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE DETAILS IN THE PLANS, THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS, AND THE LATEST EDITION OF THE FOLLOWING STATE OF ILLINOIS SPECIFICATIONS: •THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION• (REFERED TO AS THE •STANDARD SPECIFICATIONS•), THE •SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS•, THE •MANUAL OF TEST PROCEDURES FOR MATERIALS•. THE STREET LIGHTING IMPROVEMENTS SHALL BE INSTALLED IN ACCORDANCE WITH AMERICAN NATIONAL STANDARD PRACTICE FOR ROADWAY LIGHTING (ANSI/IES RP8 LATEST EDITION) AND THE NATIONAL ELECTRICAL CODE (NEC, NFPA, 70, LATEST EDITION).
2. THE LOCATIONS OF PUBLIC OR PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND IDOT DOES NOT GUARANTEE THEIR ACCURACY. THE CONTRACTOR SHALL HAVE THE RESPECTIVE UTILITY COMPANIES FIELD LOCATE ALL THEIR FACILITIES PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL ALSO VERIFY THE DEPTHS OF THE EXISTING UTILITIES IF NECESSARY. ANY RELOCATION OR LOWERING OF UTILITIES SHALL BE COORDINATED BY THE CONTRACTOR.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER OR CITY.
4. THE CONTRACTOR SHALL NOTIFY THE CITY PUBLIC WORKS ADMINISTRATOR AT LEAST 48 HOURS IN ADVANCE OF BEGINNING WORK TO OBTAIN CITY UTILITY LOCATIONS AND SHALL COORDINATE ALL CONSTRUCTION OPERATIONS WITH THE ENGINEER.
5. NOT USED.
6. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS OR PROPERTY OR REFERENCE MARKERS AS APPROVED BY THE CITY DIRECTOR OF PUBLIC WORKS OR DESIGNATED PROJECT MANAGER. UNTIL THE OWNERS, HIS AGENT OR AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.
7. ACCESS TO PRIVATE DRIVEWAYS SHALL BE PROVIDED AT ALL TIMES EXCEPT DURING ACTUAL CONSTRUCTION ADJACENT THERE TO.
8. NOT USED.
9. THE CONTRACTOR SHALL PROVIDE WARRANTIES OR GUARANTEES PROVIDING FOR SATISFACTORY IN-SERVICE OPERATION OF THE ELECTRICAL EQUIPMENT AND RELATED COMPONENTS OPERATION OF THE ELECTRICAL EQUIPMENT AND RELATED COMPONENTS AS PER I.D.O.T. STANDARDS.
10. NOT USED.
11. 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 CITY DIRECTOR OF PUBLIC WORKS OR DESIGNATED PROJECT MANAGER.
12. NOT USED.
13. NOT USED.
14. NOT USED.

15. ALL LIGHT POLE FOUNDATIONS WILL BE HELIX TYPE, UNLESS NOTED OTHERWISE ON PLANS. SEE DETAIL BE-305.
16. ALL CONDUITS UNDER ROADWAYS AND DRIVEWAYS SHALL BE PUSHED. CONDUIT LENGTHS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE ACTUAL DISTANCE REQUIREMENTS IN THE FIELD.
17. THE CONTRACTOR SHALL MAKE SPECIAL NOTE OF THE REQUIREMENTS FOR WIRE MARKERS AND SHALL TAG ALL WIRE MARKERS AND SHALL TAG ALL WIRING ACCORDINGLY.
18. THE CITY AND ENGINEER SHALL BE NOTIFIED 48 HOURS PRIOR TO COMMENCING EACH CONSTRUCTION PHASE.
19. THE CONTRACTOR WILL BE REIMBURSED BY THIS CONTRACT TO THE EXACT AMOUNT OF MONEY AS BILLED BY COM-ED FOR THEIR SERVICES. AND NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR ANY INCIDENTAL MATERIALS AND LABOR REQUIRED TO FULFILL THE REQUIREMENTS AS SHOWN ON THE PLANS AND SPECIFIED HEREIN. SEE SECTION 109.05 •STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION•.
20. ALL ELECTRICAL DEVICES AND MATERIALS SHALL BE U/L LISTED WHERE APPLICABLE.
21. CONTRACTOR IS RESPONSIBLE FOR DECOMMISSIONING EXISTING ISOLATED INTERSECTION LIGHTING PER DIRECTIONS OF THESE PLANS AND SHALL BE REMOVED IN A PROFESSIONAL WORKMANSHIP LIKE MANNER.
22. CONTACT JULIE AT 1-800-892-0123 FOR UTILITY LOCATES PRIOR TO BEGINNING AND EXCAVATION WORK. WORK PROACTIVELY WITH UTILITY COMPANIES FOR THE PURPOSE OF DAMAGE PREVENTION.
23. ALL POLES AND MAST ARMS WILL BE SUPPLIED FROM IDOT STATE STOCK UNLESS NOTED OTHERWISE.
24. ALL POLES SHALL BE POSITIONED 2 FT. OFFSET FROM BACK OF THE CURB UNLESS NOTED OTHERWISE.
25. COORDINATE WITH TRAFFIC SIGNAL MODERNIZATION PLANS FOR EXACT LOCATIONS OF COMBINATION POLES. COMBINATION POLES ARE IN TRAFFIC SIGNAL MODERNIZATION PAY ITEMS, LUMINAIRES ARE IN PROPOSED LIGHTING PAY ITEMS.

LEGEND

PROPOSED	EXISTING	
		UNIT DUCT. 600V, 3-1/C NO.2, 1/C NO.4 GROUND (EPR-TYPE RHW), 1-1/2" DIA, POLYETHYLENE UNLESS OTHERWISE NOTED IN DRAWINGS.
		3" RGS PUSHED CONDUIT UNLESS NOTED OTHERWISE.
		EXPOSED CONDUIT. SIZE AS INDICATED.
		LIGHTING CONTROLLER, RADIO CONTROL, DUPLEX CONSOLE TYPE WITH SCADA.
		UTILITY SERVICE CONNECTION. POLE MOUNTED TRANSFORMER 240/480 VOLT, SINGLE PHASE, 3 WIRE.
		ALUMINUM LIGHT POLE. 47.5' MOUNTING HEIGHT WITH 12' MAST ARM AND 310 W H.P.S M-C-III 240 VOLTS LUMINAIRE AND HELIX FOUNDATION. SEE IDOT STANDARD DETAIL BE-400.
		EXISTING LIGHT POLE TO BE REMOVED.
		COMBINATION LIGHT POLE. 45' MOUNTING HEIGHT WITH 15' MAST ARM AND 310 W H.P.S M-C-III 240 VOLTS LUMINAIRE.
		COMBINATION LIGHT POLE ANGLED. 45' MOUNTING HEIGHT WITH 15' MAST ARM AND 310 W H.P.S M-C-III 240 VOLTS LUMINAIRE.
		GROUND ROD, 5/8" DIA. x 10 FT.
		ELECTRICAL HANDHOLE.
		UTILITY POLE.
		STATION REFERENCE: STA=STATION NUMBER, RT (LT)=RIGHT (LEFT) OFFSET FROM STATION CENTER LINE.
		UTILITY AERIAL LINES.
		RIGHT OF WAY LINE.

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		DRAWN - MJO	REVISED -
		CHECKED - CDS	REVISED -
		DATE - 1/22/2009	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN
GENERAL NOTES, LEGEND**

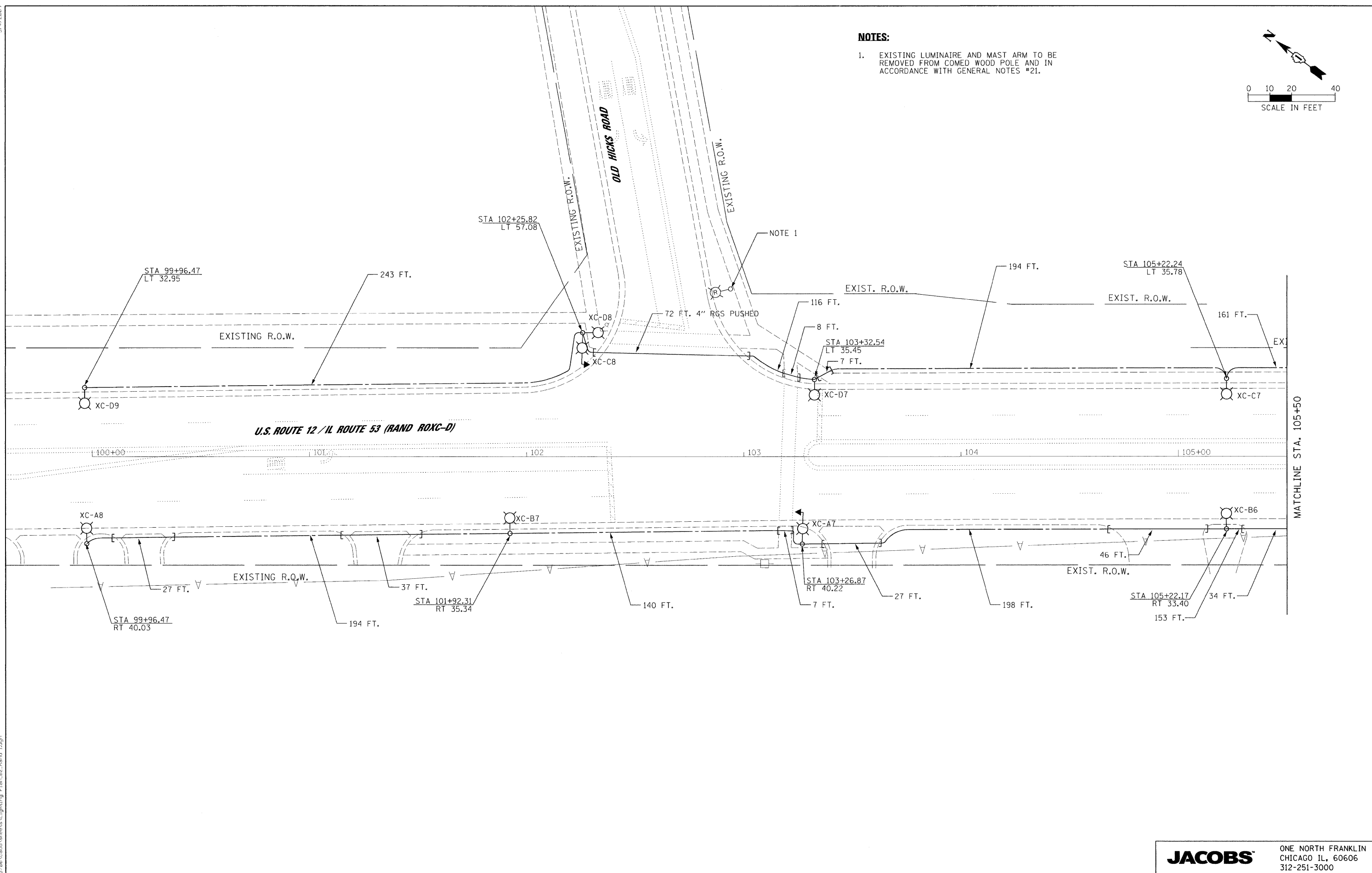
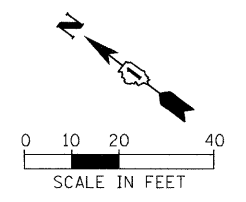
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F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81	SHEET NO. 45
CONTRACT NO. 60F87				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

3/4/2009

NOTES:

- 1. EXISTING LUMINAIRE AND MAST ARM TO BE REMOVED FROM COMED WOOD POLE AND IN ACCORDANCE WITH GENERAL NOTES #21.



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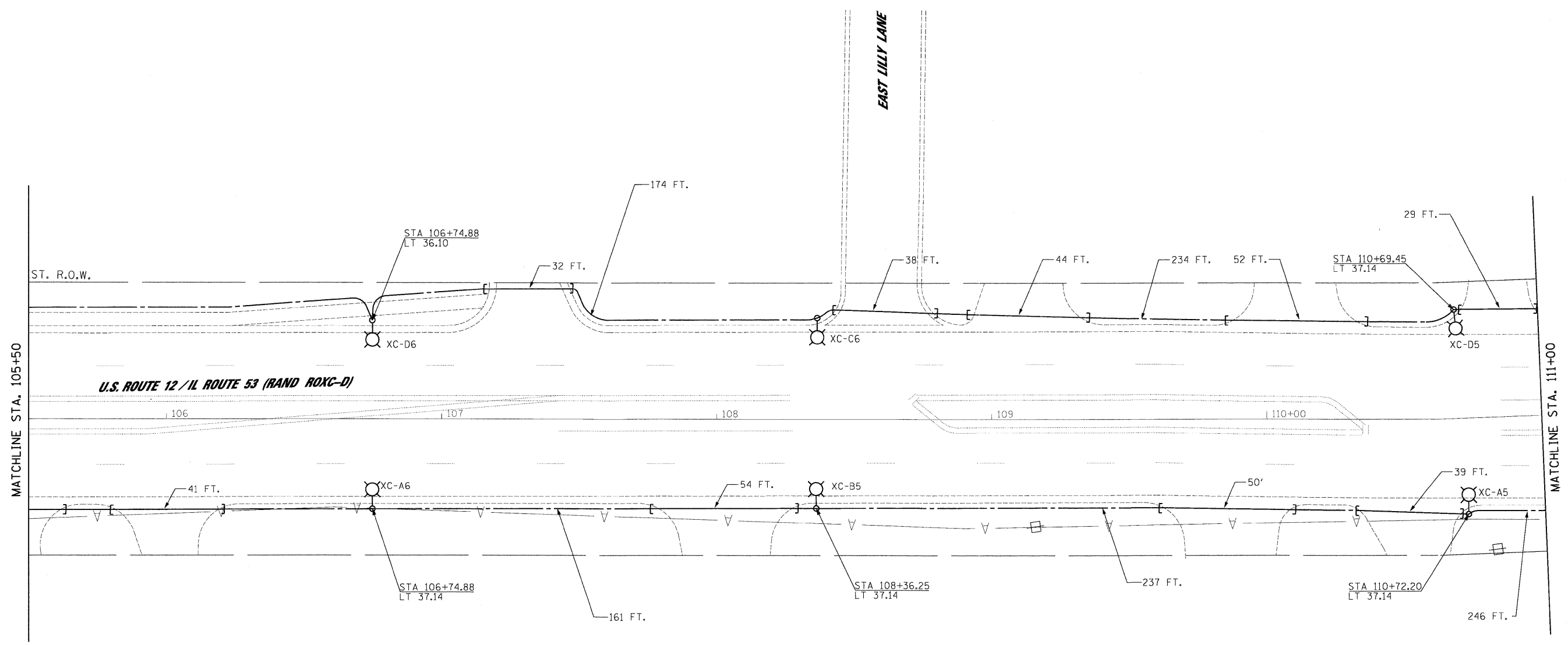
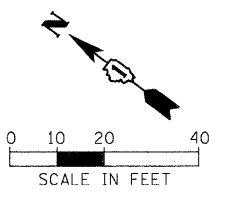
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN			
SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA. 100+00 TO STA. 105+00

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81	SHEET NO. 46
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60F87				

1/27/2009



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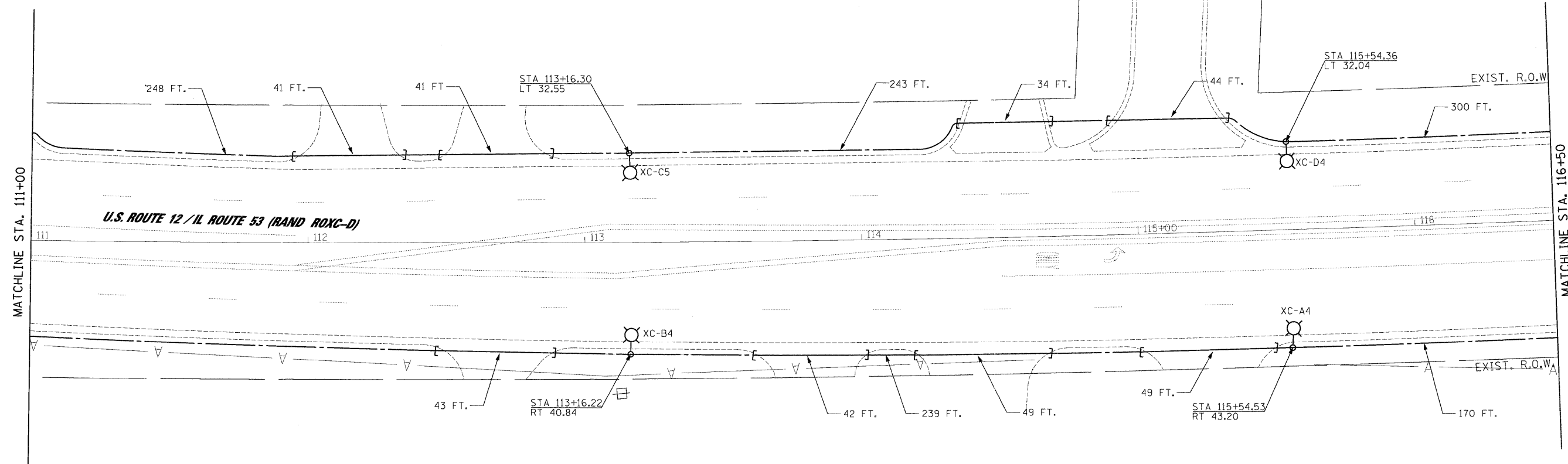
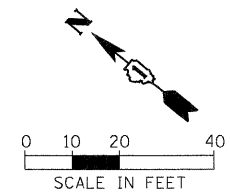
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING PLAN			
SCALE: 1"=20'	SHEET NO.	OF	SHEETS
	STA. 105+50	TO	STA. 111+00

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE. 334	SECTION 2008-08-3I	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 47
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60F87				

1/27/2009



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DATE - 1/22/2009

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

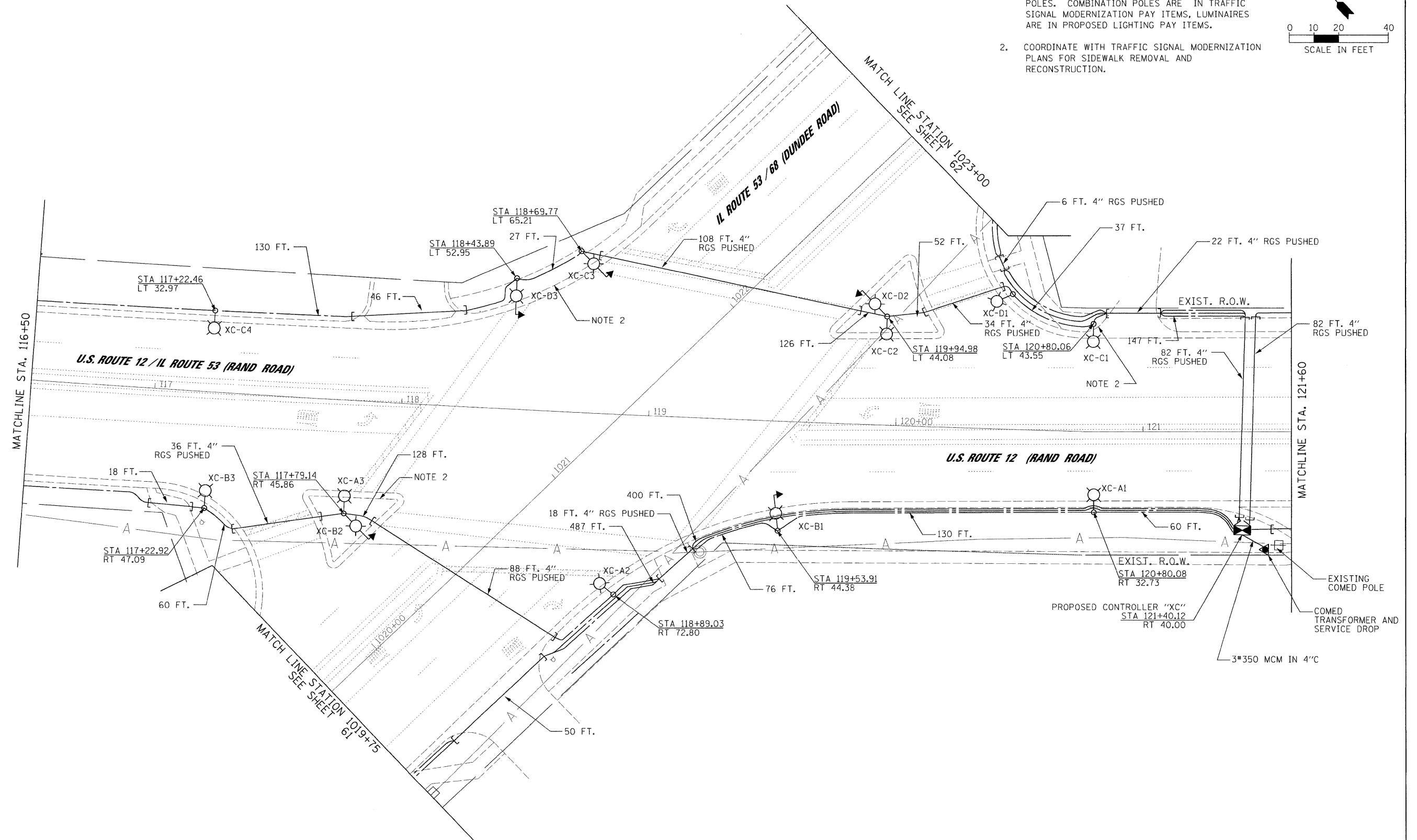
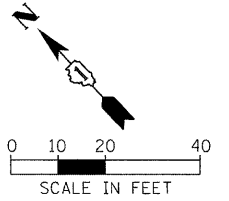
PROPOSED LIGHTING PLAN
SCALE: 1"=20' SHEET NO. OF SHEETS STA. 111+00 TO STA. 116+50

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
334	2008-08-3I	COOK	80
		SHEET NO. 48	
		CONTRACT NO. 60F87	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

3/4/2009

NOTES:

- COORDINATE WITH TRAFFIC SIGNAL MODERNIZATION PLANS FOR EXACT LOCATIONS OF COMBINATION POLES. COMBINATION POLES ARE IN TRAFFIC SIGNAL MODERNIZATION PAY ITEMS, LUMINAIRES ARE IN PROPOSED LIGHTING PAY ITEMS.
- COORDINATE WITH TRAFFIC SIGNAL MODERNIZATION PLANS FOR SIDEWALK REMOVAL AND RECONSTRUCTION.



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DATE - 1/22/2009	REVISOR -

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PLOT DATE = 3/4/2009	

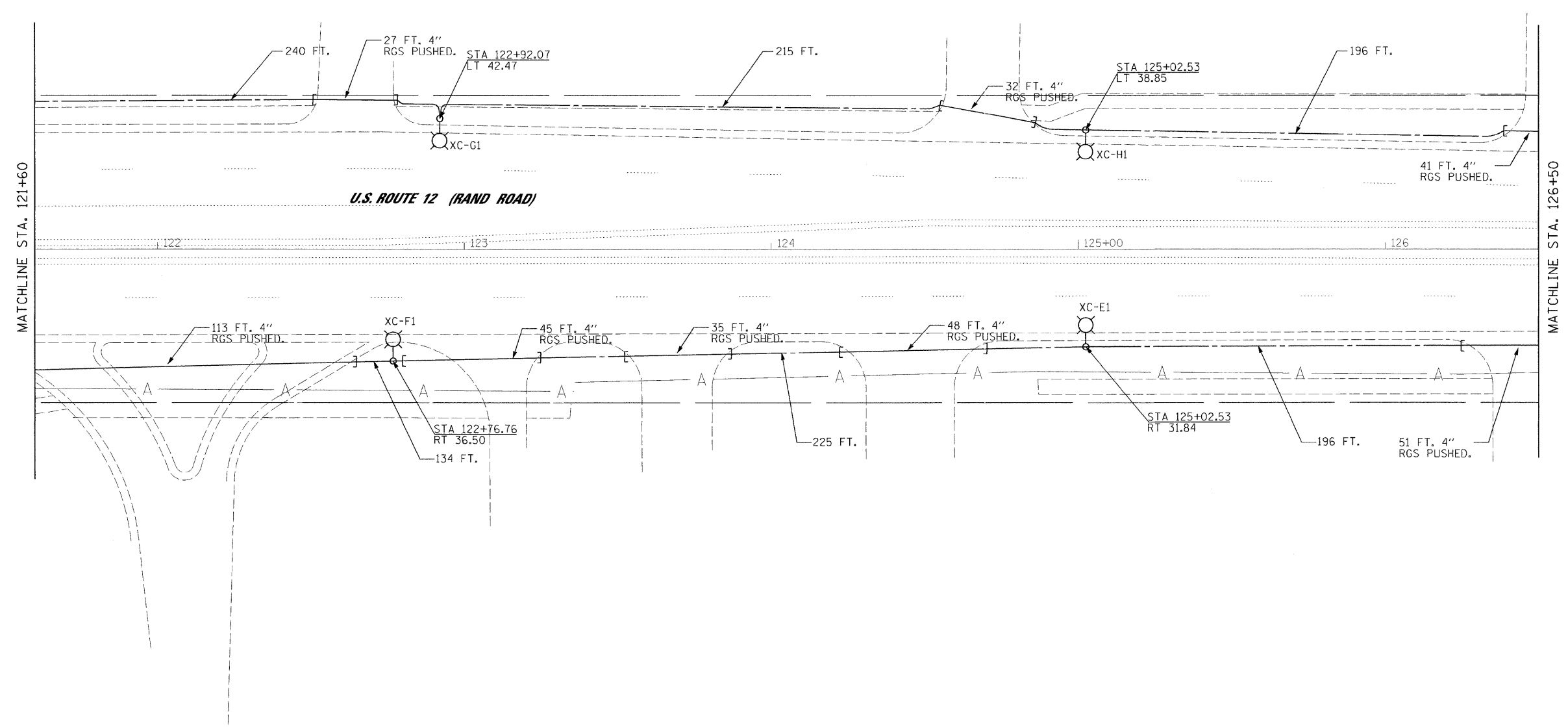
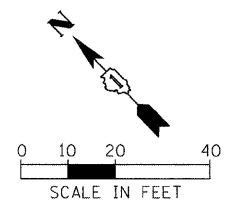
STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN			
SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA. 116+50 TO STA. 121+60

JACOBS					ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.					
334	2008-08-31	COOK	81	49					
CONTRACT NO. 60F87					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

3/4/2009



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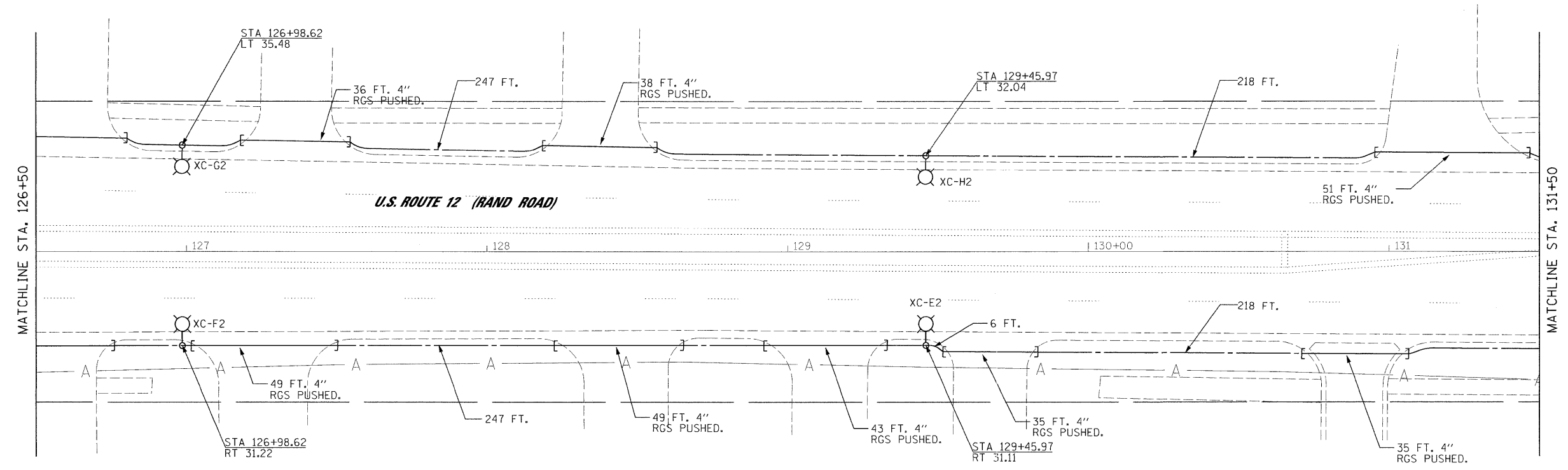
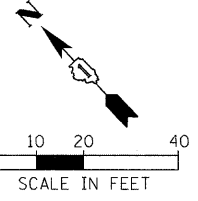
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN

SCALE: 1"=20' SHEET NO. OF SHEETS STA. 121+60 TO STA. 126+50

JACOBS		ONE NORTH FRANKLIN CHICAGO IL. 60606 312-251-3000	
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81
		SHEET NO. 50	
		CONTRACT NO. 60F87	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

3/4/2009



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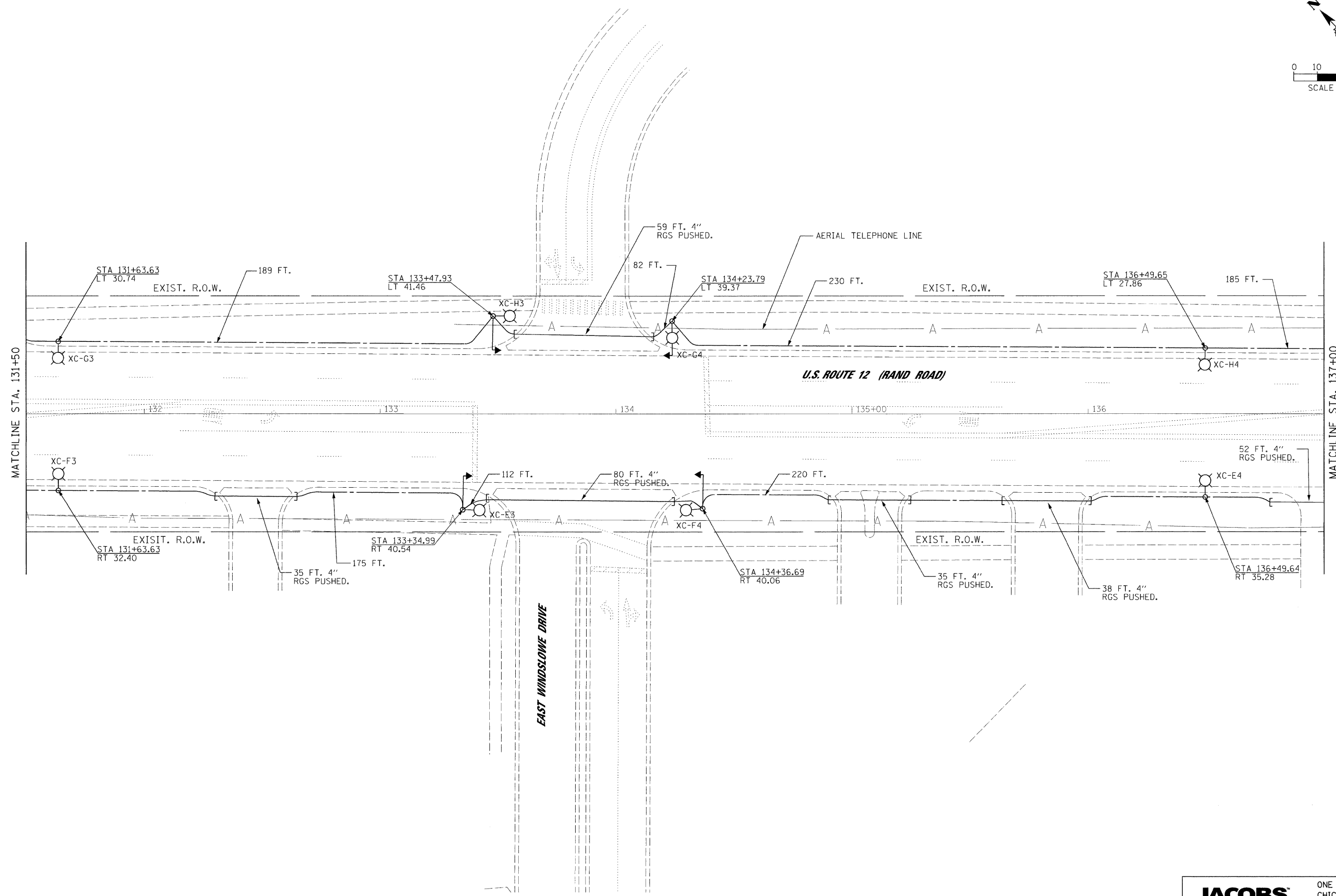
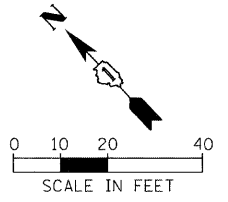
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN			
SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA. 126+50 TO STA. 131+50

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81	SHEET NO. 51
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60F87				

3/4/2009



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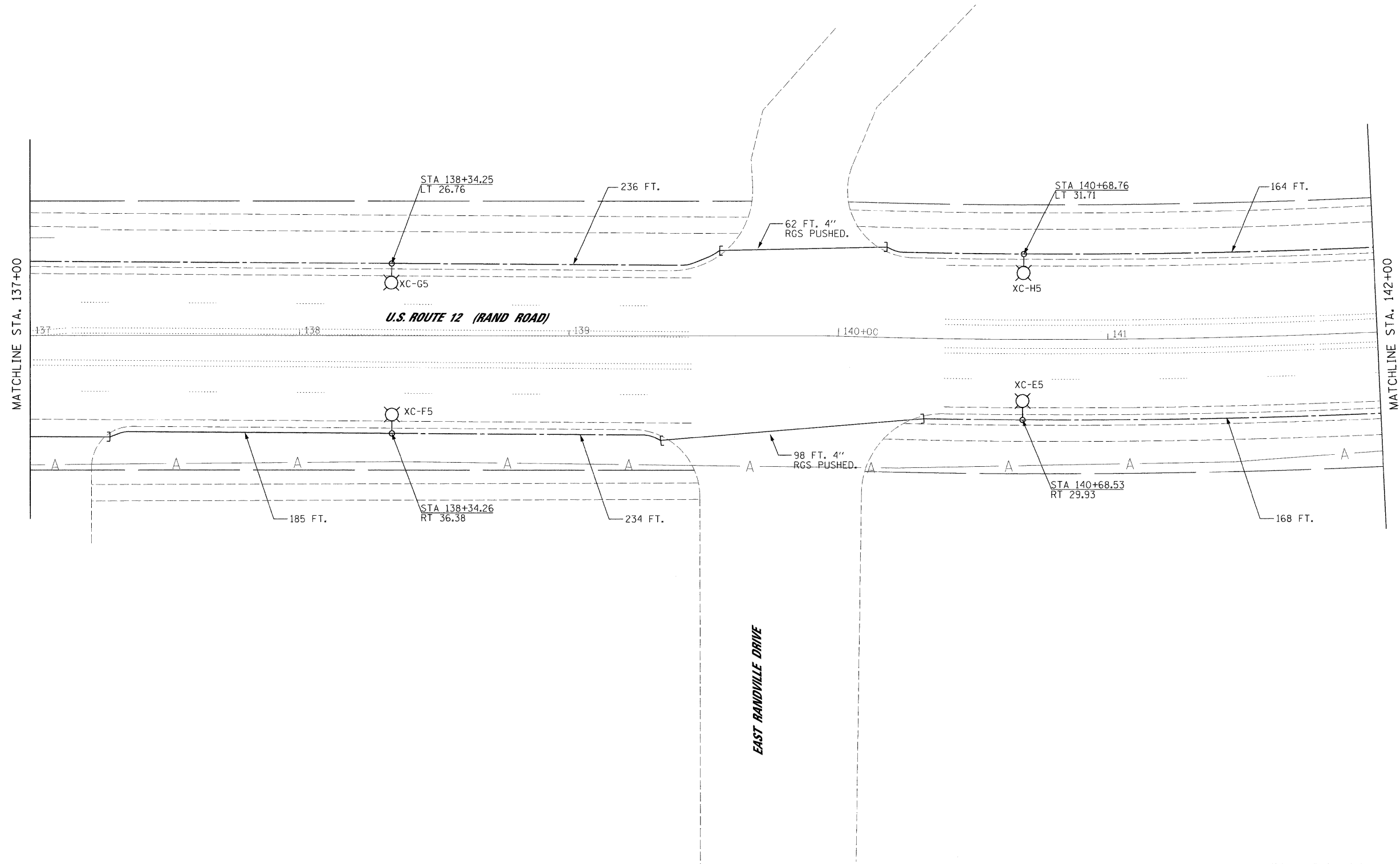
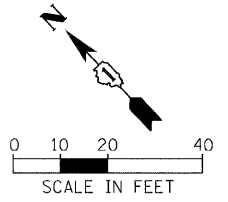
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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING PLAN	
F.A.P. RTE. 334	SECTION 2008-08-31
COUNTY COOK	TOTAL SHEETS 81
CONTRACT NO. 60F87	

ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000

JACOBS	
ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	



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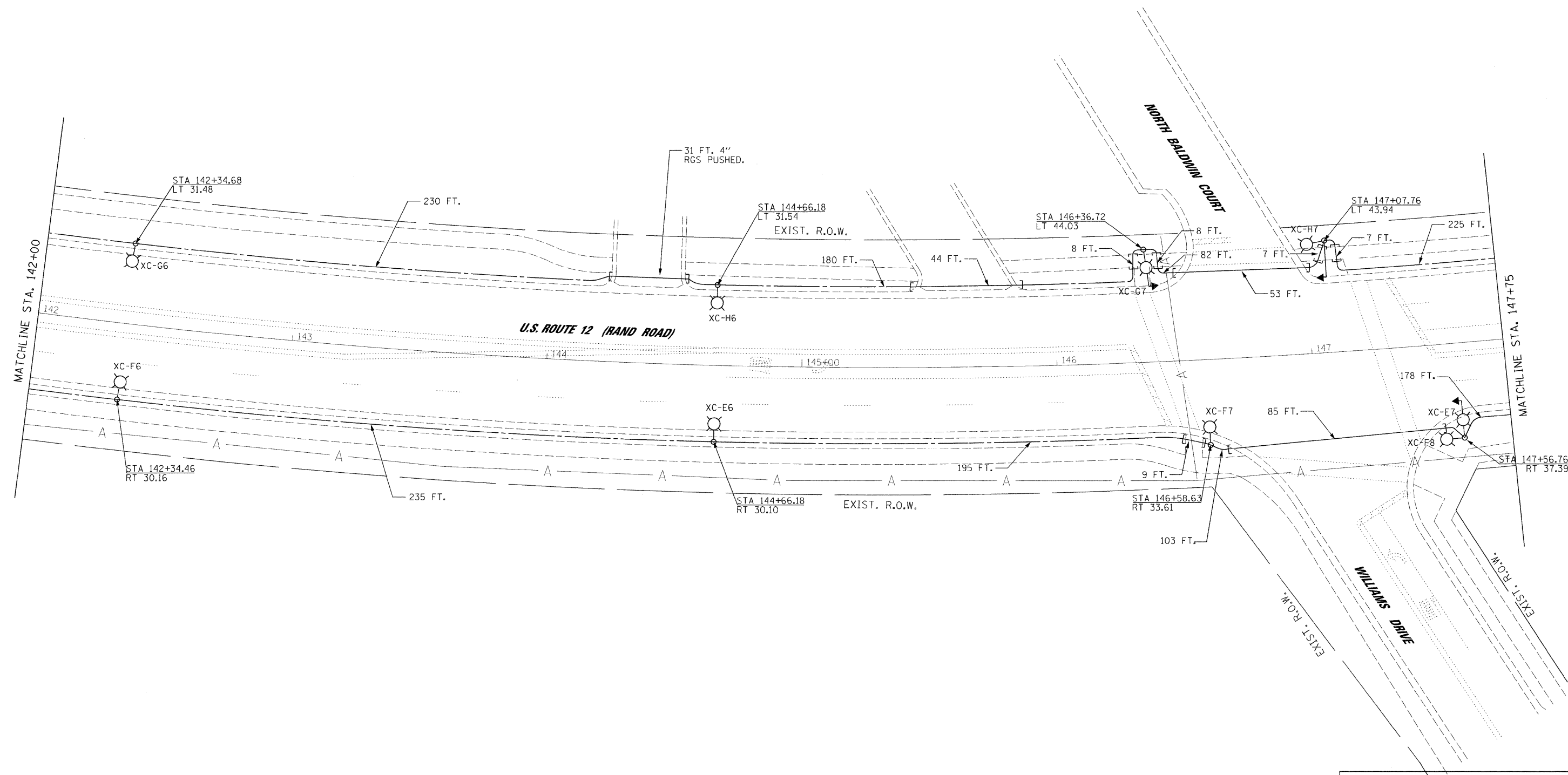
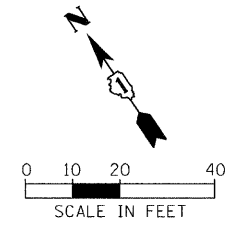
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN			
SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. 137+00 TO STA. 142+00	

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81
		SHEET NO. 53	
		CONTRACT NO. 60F87	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

3/4/2009



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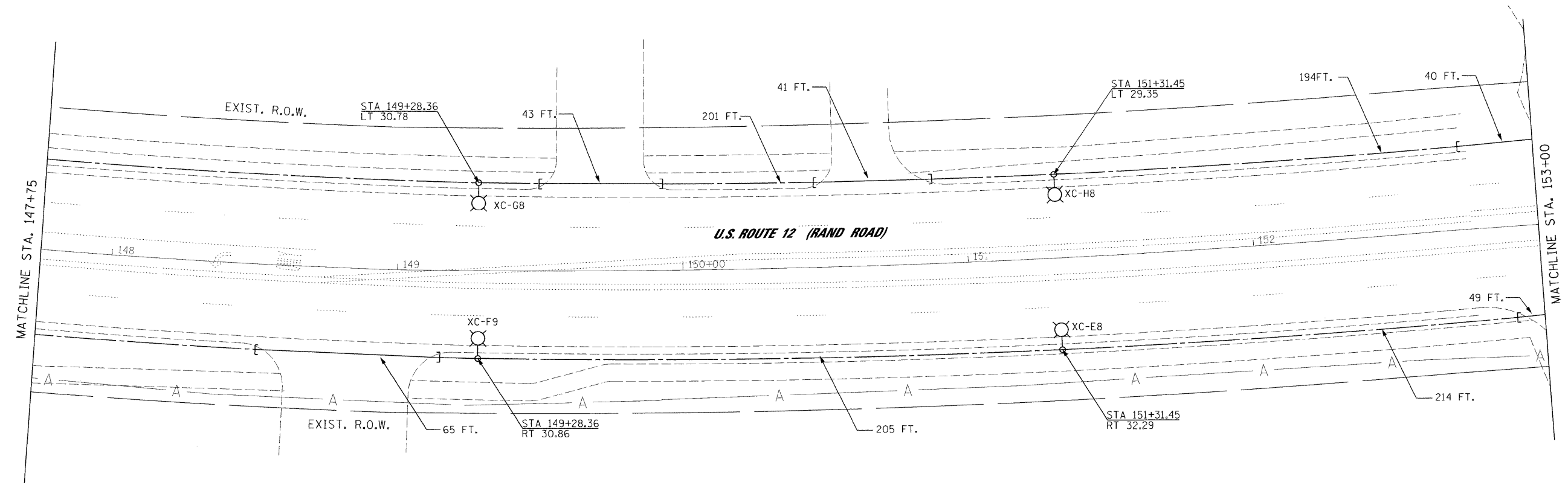
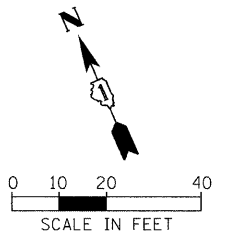
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN

SCALE: 1"=20' SHEET NO. OF SHEETS STA. 142+00 TO STA. 147+75

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81	SHEET NO. 54
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	CONTRACT NO. 60F87



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PLOT DATE = 3/4/2009	

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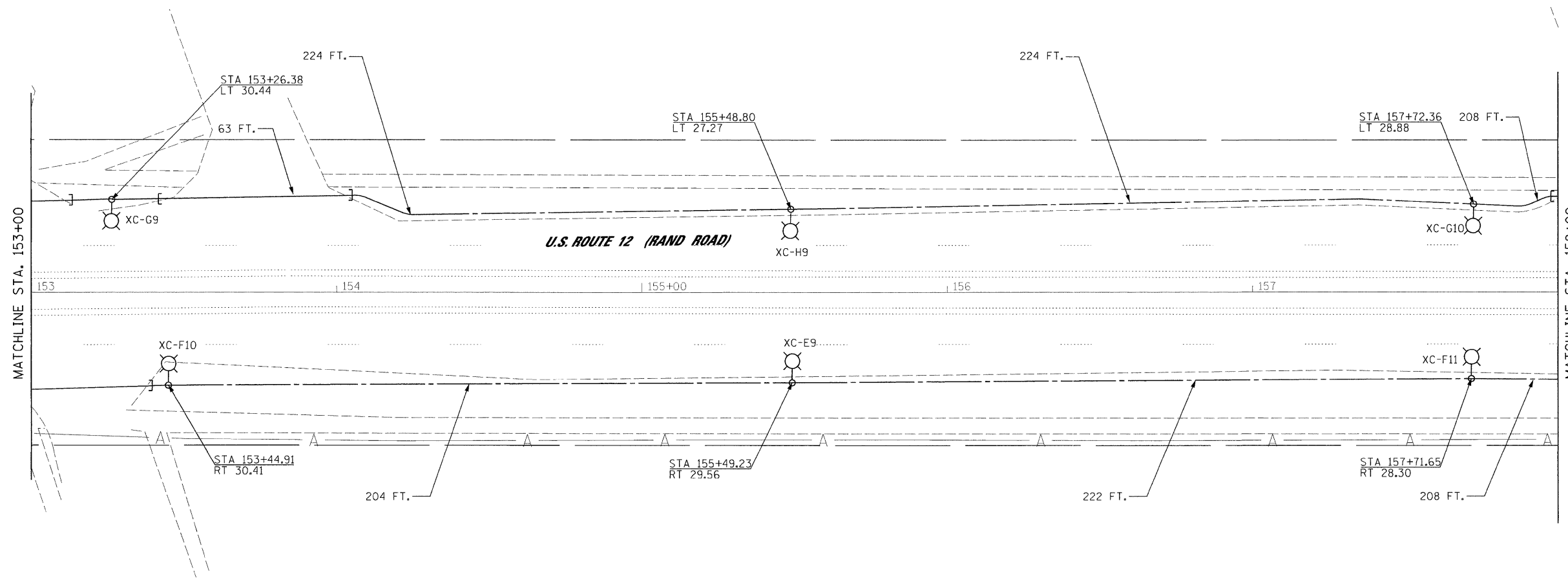
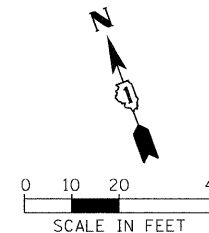
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN

SCALE: 1"=20' SHEET NO. OF SHEETS STA. 147+75 TO STA. 153+00

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81
		SHEET NO. 55	
		CONTRACT NO. 60F87	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

3/4/2009



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DRAWN - MJO
CHECKED - CDS
DATE - 1/22/2009

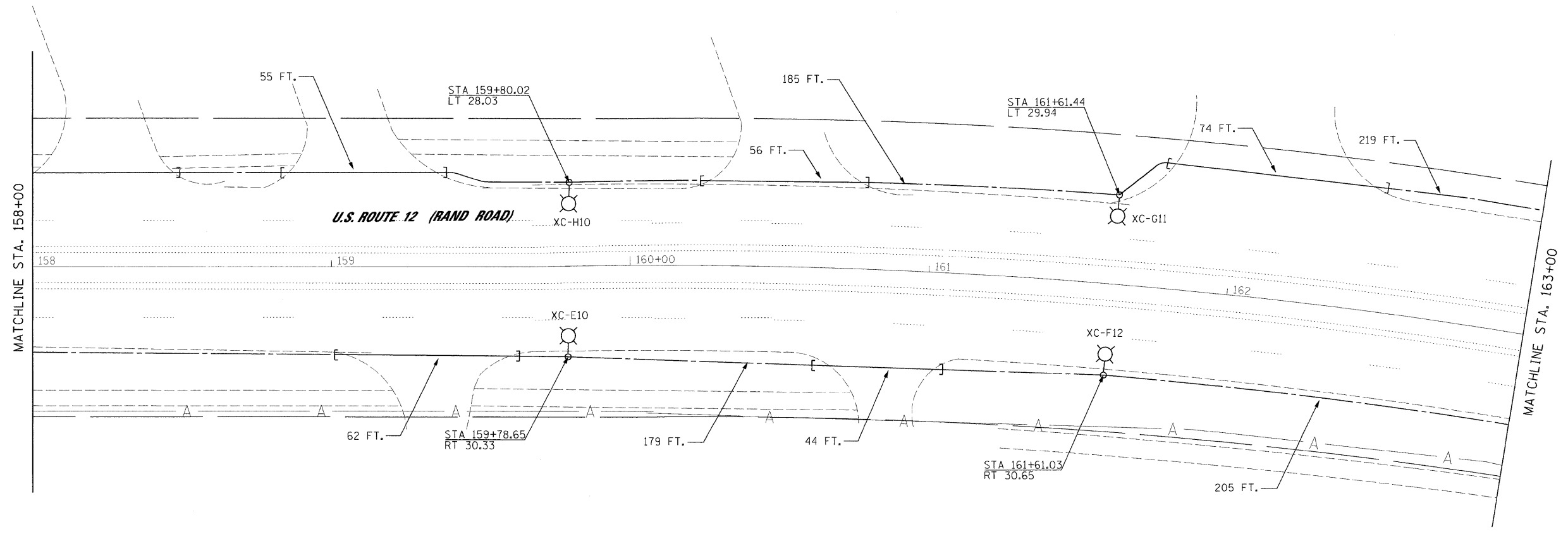
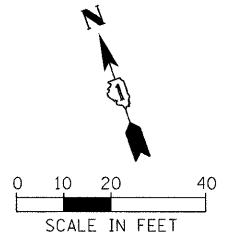
REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN			
SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA. 153+00 TO STA. 158+00

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81	SHEET NO. 56
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60F87				

3/4/2009



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DRAWN - MJO	REVISIONS
CHECKED - CDS	REVISIONS
DATE - 1/22/2009	REVISIONS

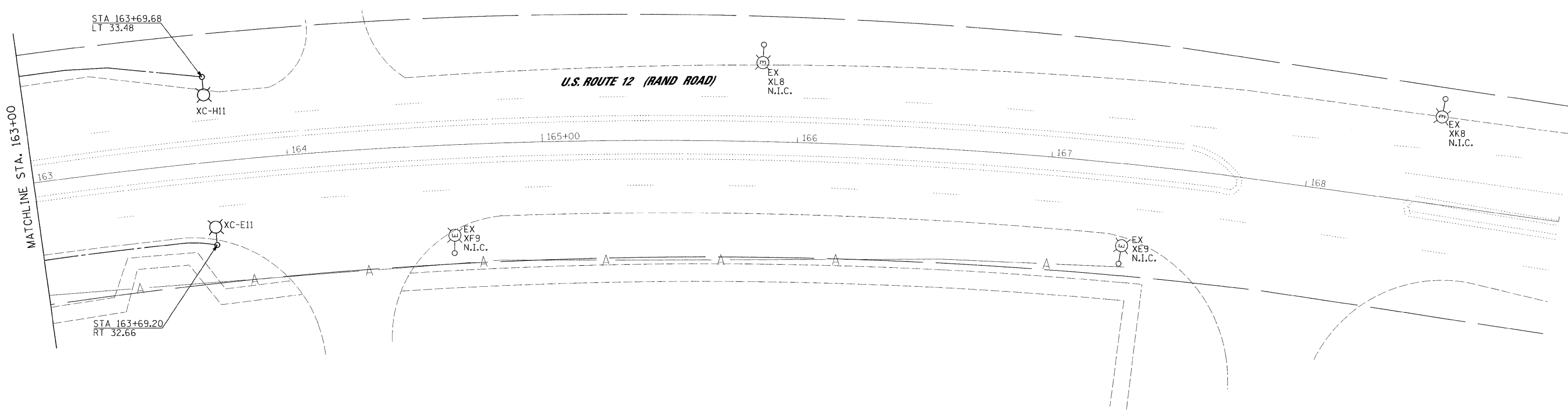
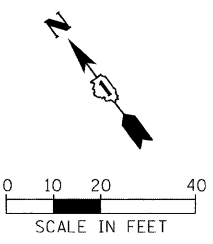
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN

SCALE: 1"=20' SHEET NO. OF SHEETS STA. 158+00 TO STA. 163+00

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81	SHEET NO. 57
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60F87				

3/4/2009



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DRAWN - MJO
CHECKED - CDS
DATE - 1/22/2009

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REVISED -

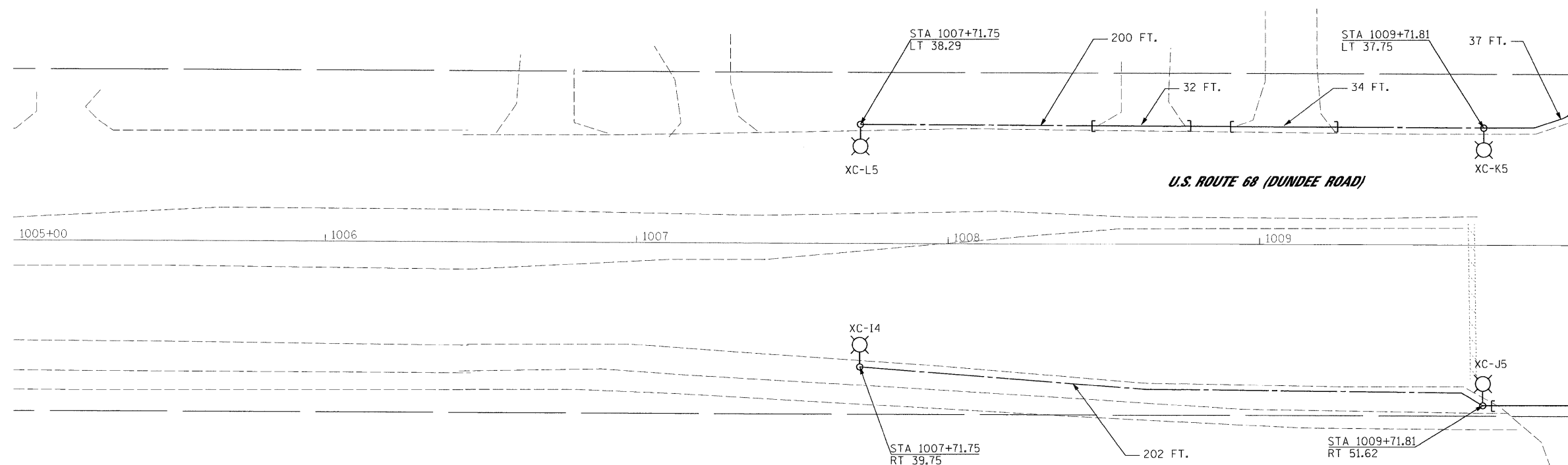
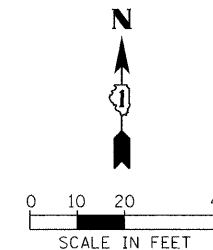
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN

SCALE: 1"=20' SHEET NO. OF SHEETS STA. 163+00 TO STA. 169+00

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81	SHEET NO. 58
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60F87				

3/4/2009



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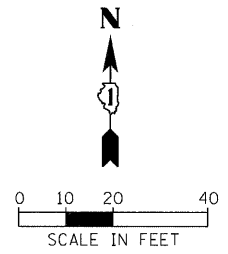
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		DATE - 1/22/2009	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED LIGHTING PLAN
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SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. 1005+00 TO STA. 1010+00
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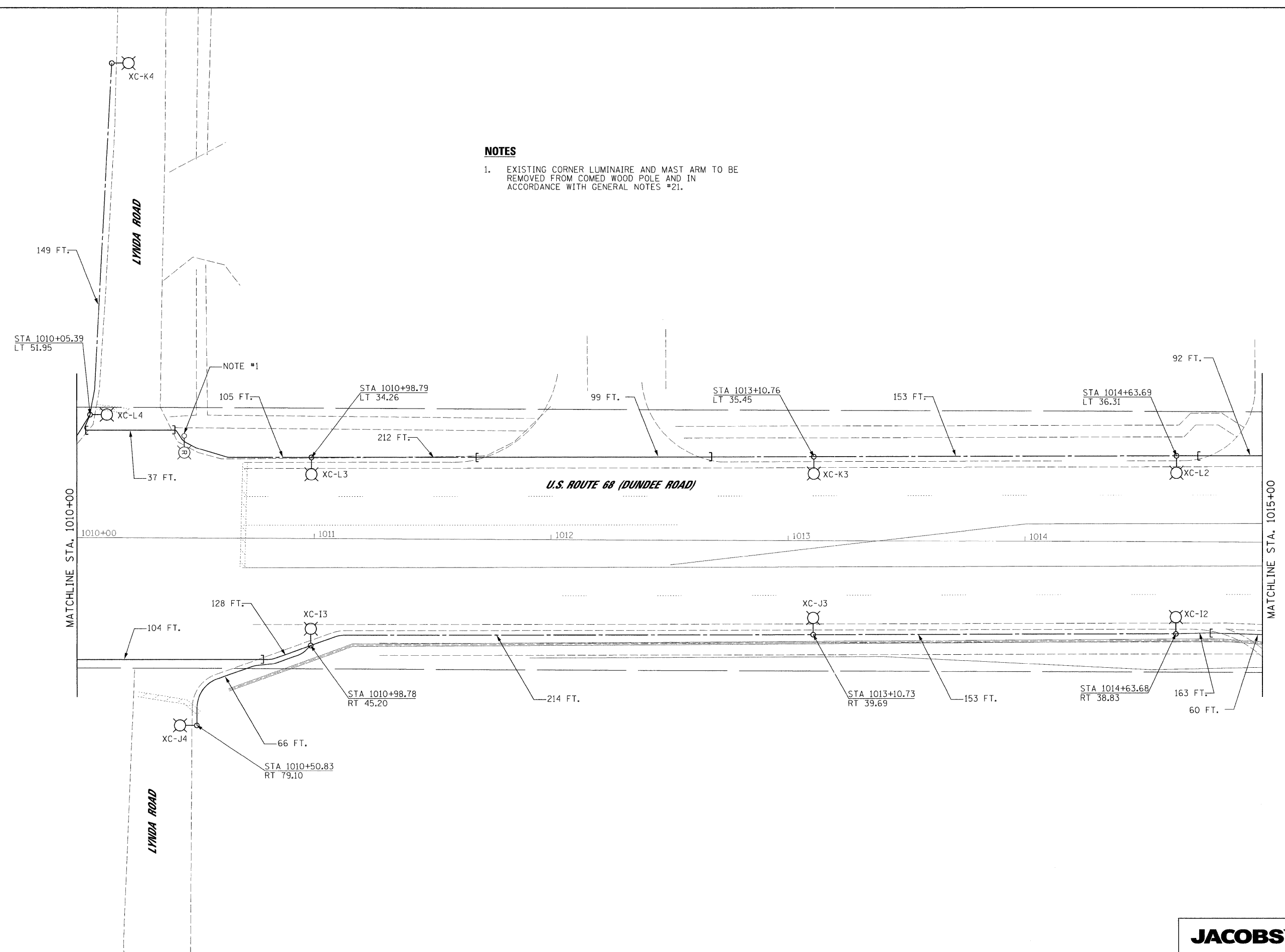
JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81
		SHEET NO. 59	
		CONTRACT NO. 60F87	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			

3/4/2009



NOTES

- EXISTING CORNER LUMINAIRE AND MAST ARM TO BE REMOVED FROM COMED WOOD POLE AND IN ACCORDANCE WITH GENERAL NOTES #21.



p:\2009\ak\3700\Acad\Sheets\Lighting Plan_16_Dundee 2.dgn

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DRAWN -	MJO
CHECKED -	CDS
DATE -	1/22/2009

REVISED -	
REVISED -	
REVISED -	
REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

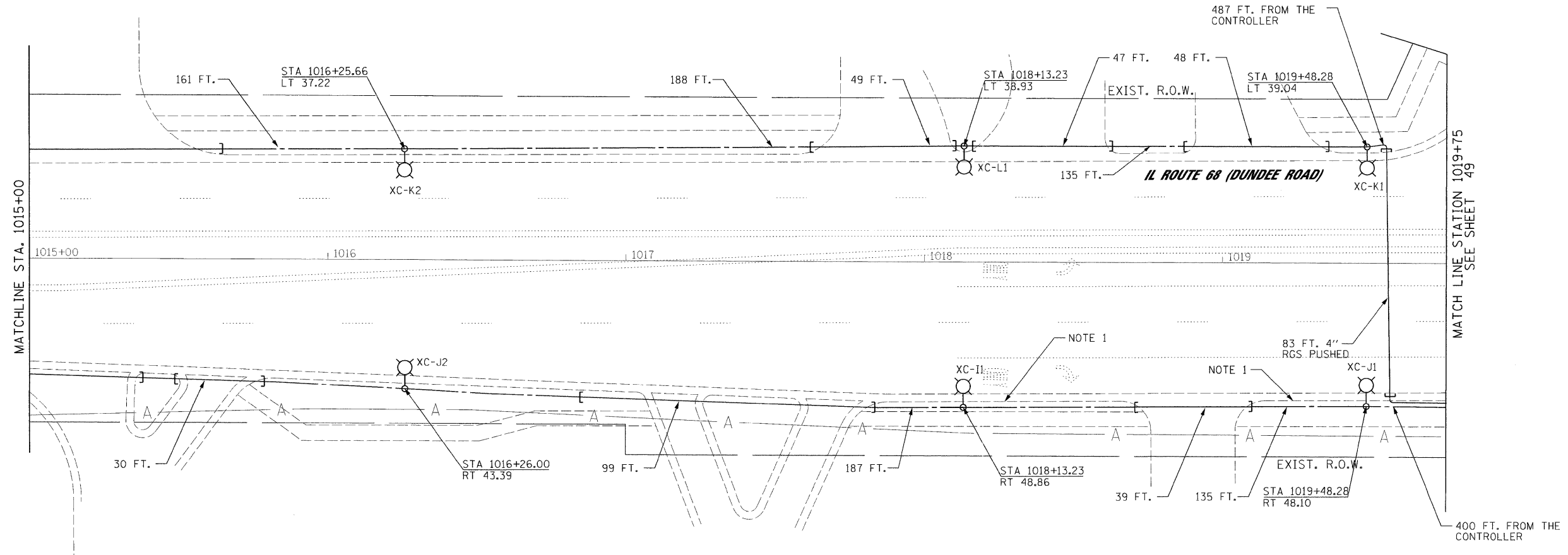
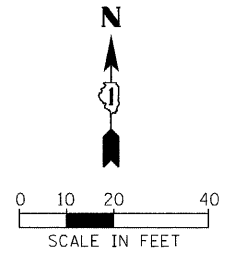
PROPOSED LIGHTING PLAN

SCALE: 1"=20' SHEET NO. OF SHEETS STA. 1010+00 TO STA. 1015+00

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
334	2008-08-31	COOK	81
		SHEET NO. 60	
		CONTRACT NO. 60F87	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			

NOTES:

- 1. COORDINATE WITH TRAFFIC SIGNAL MODERNIZATION PLANS FOR SIDEWALK REMOVAL AND PC CONC SIDEWALK 5 INCH.



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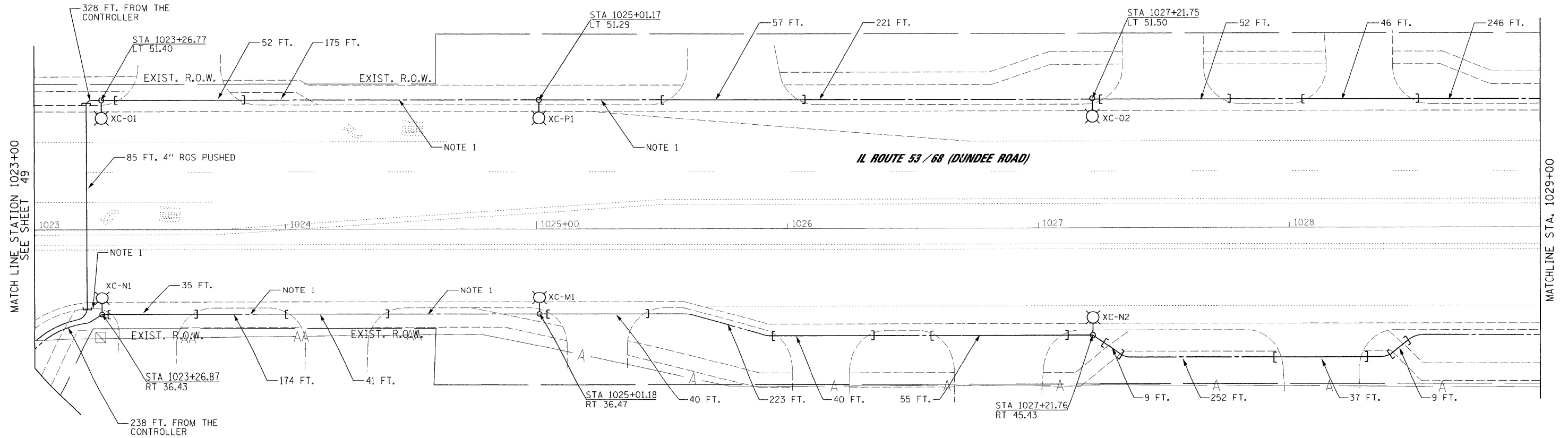
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED LIGHTING PLAN
---	------------------------

SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. 1015+00 TO STA. 1020+00
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JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000		
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81	SHEET NO. 61
CONTRACT NO. 60F87		ILLINOIS FED. AID PROJECT		

NOTES:

- COORDINATE WITH TRAFFIC SIGNAL MODERNIZATION PLANS FOR SIDEWALK REMOVAL AND PC CONC SIDEWALK 5 INCH.



MATCH LINE STATION 1023+00
SEE SHEET 49

MATCHLINE STA. 1029+00

IL ROUTE 53 / 68 (DUNDEE ROAD)

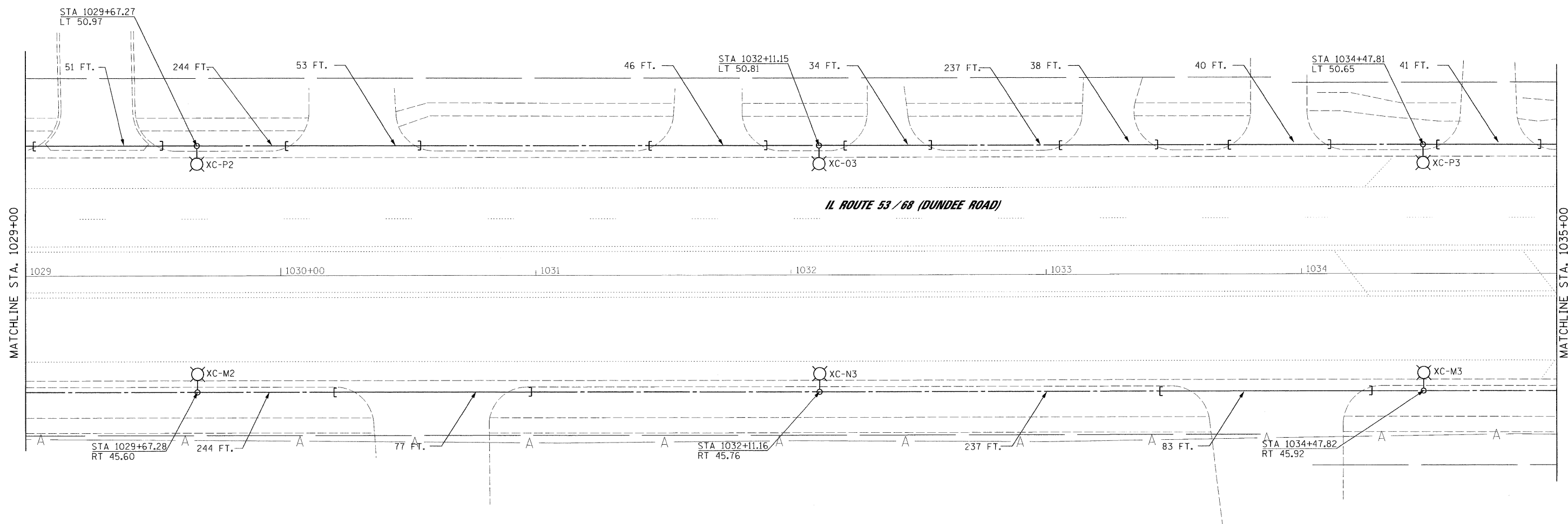
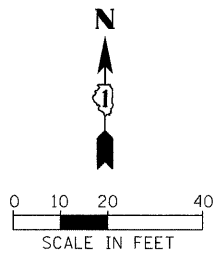
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F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81
SCALE: 1"=20'		SHEET NO. OF SHEETS STA. 1025+00 TO STA. 1030+00	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	
CONTRACT NO. 60F87			

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN

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	PLOT DATE = 3/4/2009	DATE - 1/22/2009	REVISED -

3/4/2009



MATCHLINE STA. 1029+00

MATCHLINE STA. 1035+00

IL ROUTE 53 / 68 (DUNDEE ROAD)

JACOBS ONE NORTH FRANKLIN
 CHICAGO IL. 60606
 312-251-3000

FILE NAME =
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 PLOT SCALE = #SCALE#
 PLOT DATE = 3/4/2009

DESIGNED - HS
 DRAWN - MJO
 CHECKED - CDS
 DATE - 1/22/2009

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN

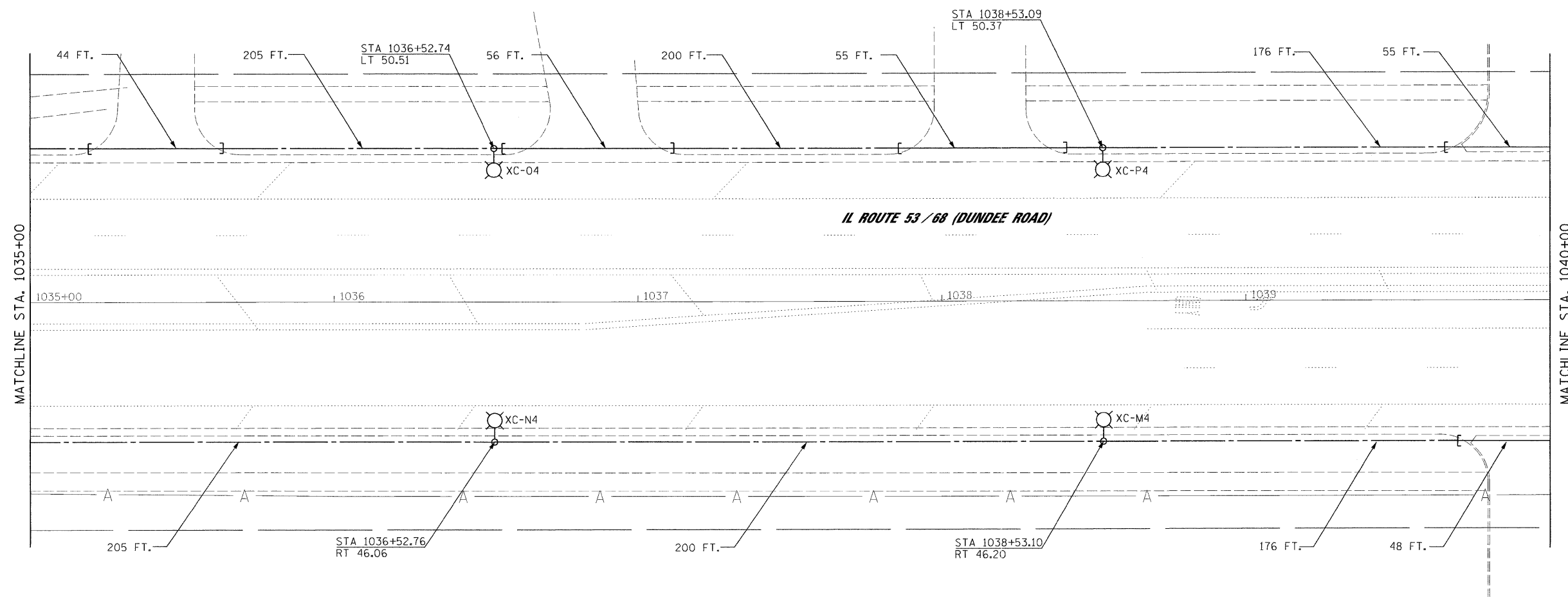
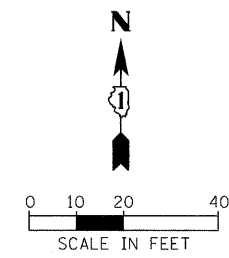
SCALE: 1"=20' SHEET NO. OF SHEETS STA. 1030+00 TO STA. 1035+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	81	63
CONTRACT NO. 60F87				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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3/4/2009



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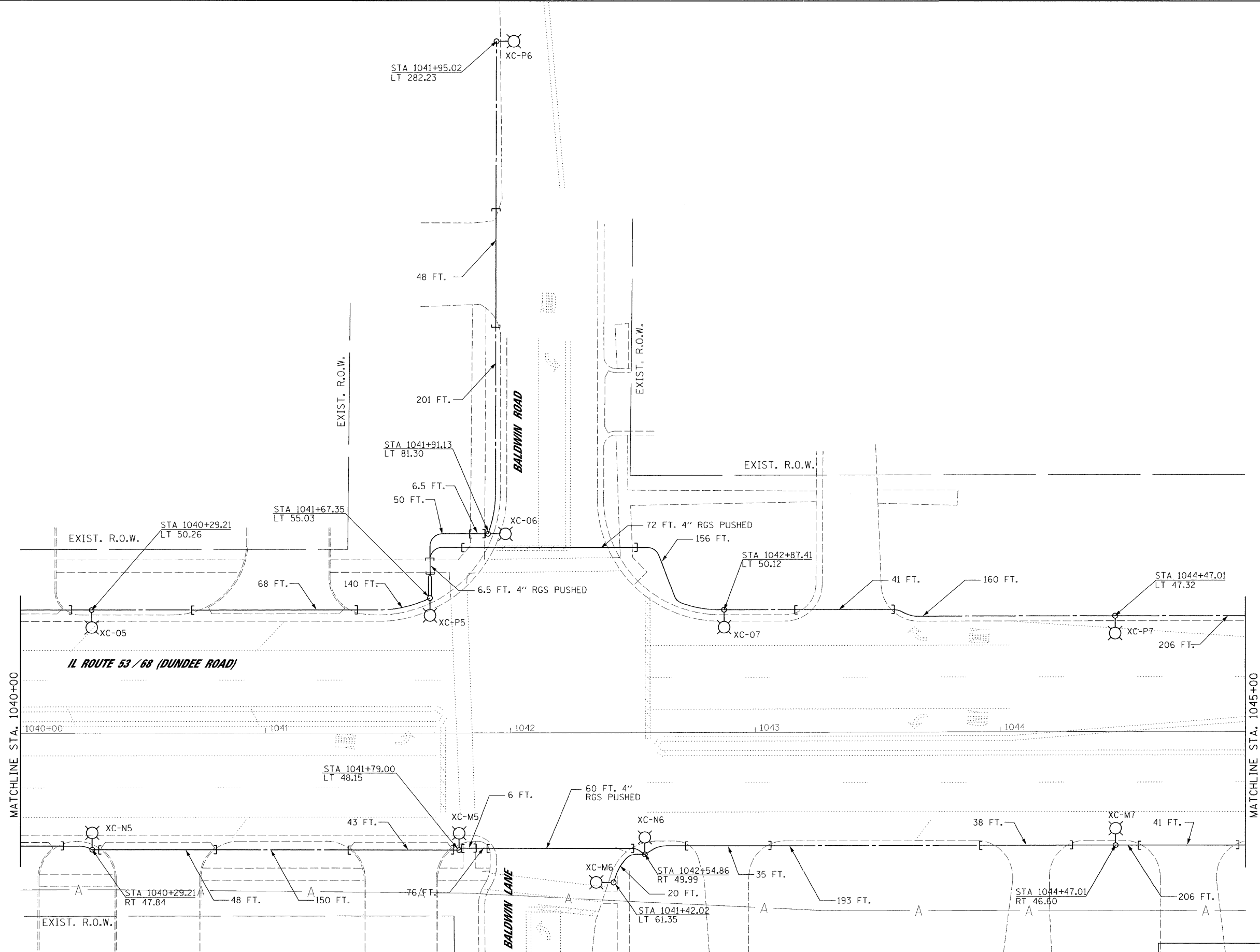
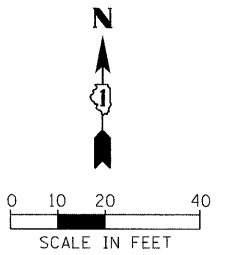
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DRAWN - MJO
CHECKED - CDS
DATE - 1/22/2009

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN			
SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA. 1035+00 TO STA. 1040+00

JACOBS				ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81	SHEET NO. 64	CONTRACT NO. 60F87
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



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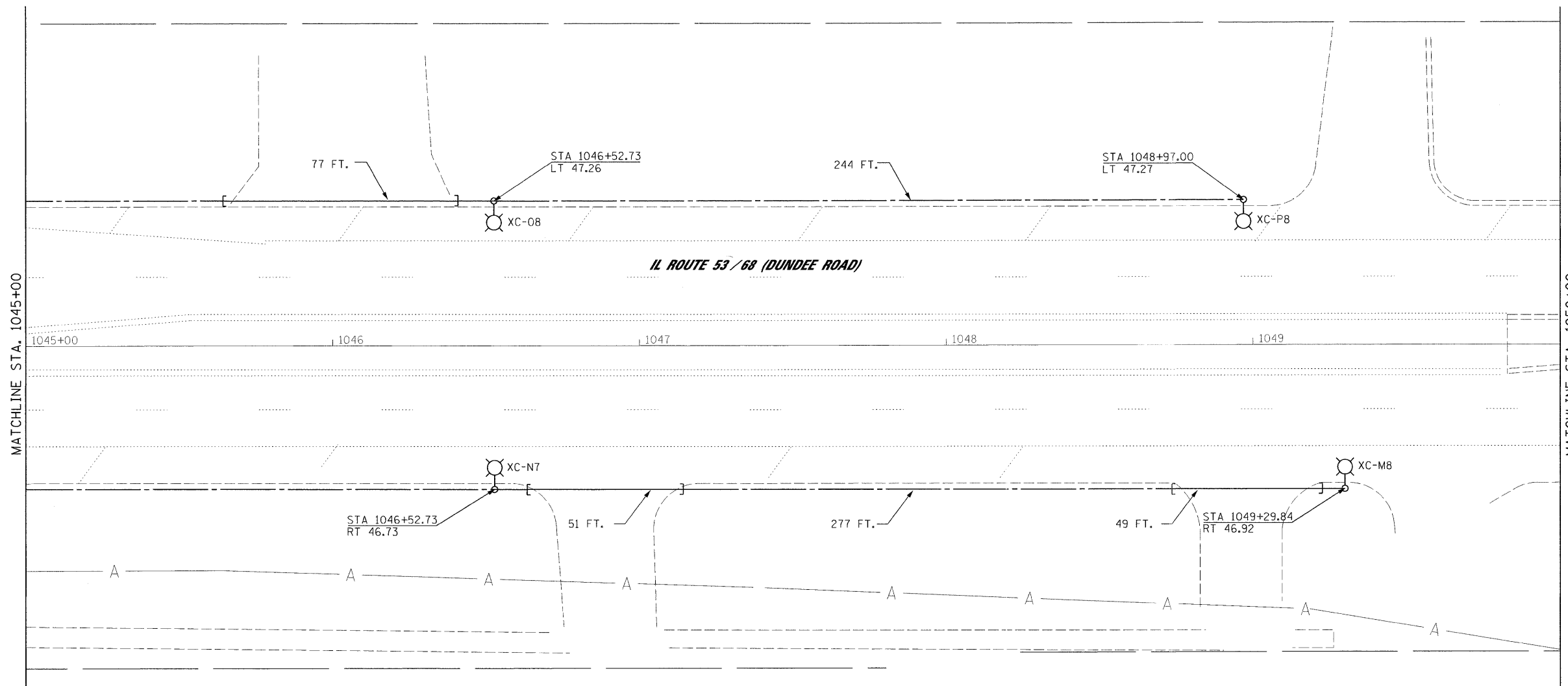
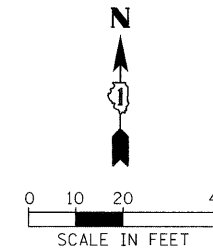
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN

SCALE: 1"=20' SHEET NO. OF SHEETS STA. 1040+00 TO STA. 1045+00

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81
		SHEET NO. 65	
		CONTRACT NO. 60F87	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			

3/4/2009



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CHECKED - CDS
DATE - 1/22/2009

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REVISI...
REVISI...
REVISI...

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING PLAN
SCALE: 1"=20' SHEET NO. OF SHEETS STA. 1045+00 TO STA. 1050+00

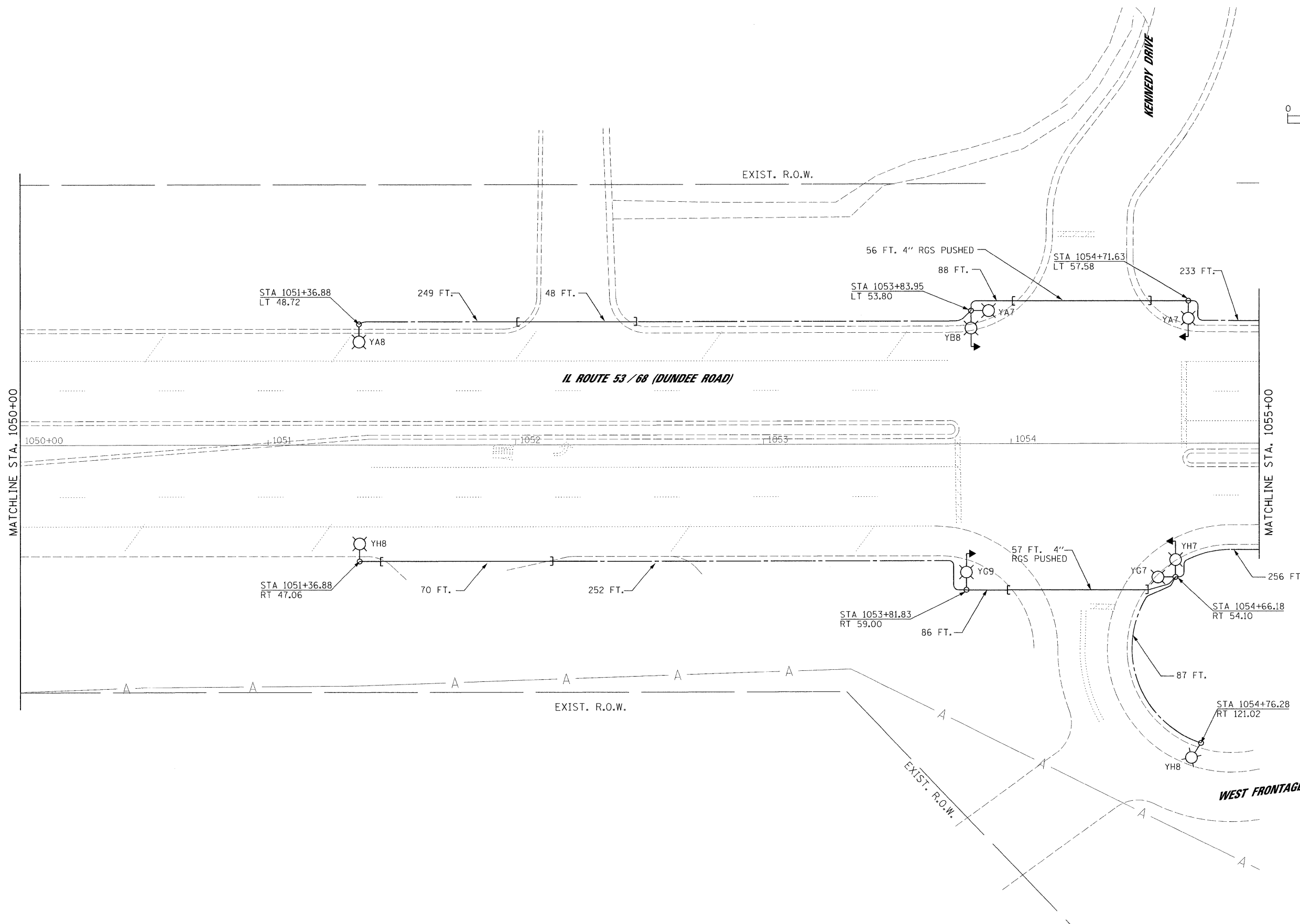
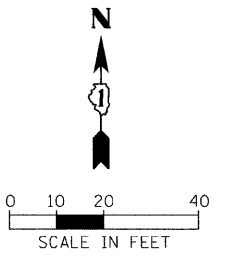
F.A.P. RTE. 334 SECTION 2008-08-31 COUNTY COOK TOTAL SHEETS 81 SHEET NO. 66 CONTRACT NO. 60F87

JACOBS ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	81	66
CONTRACT NO. 60F87				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

3/4/2009



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DATE - 1/22/2009

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN
SCALE: 1"=20' SHEET NO. OF SHEETS STA. 1050+00 TO STA. 1055+00

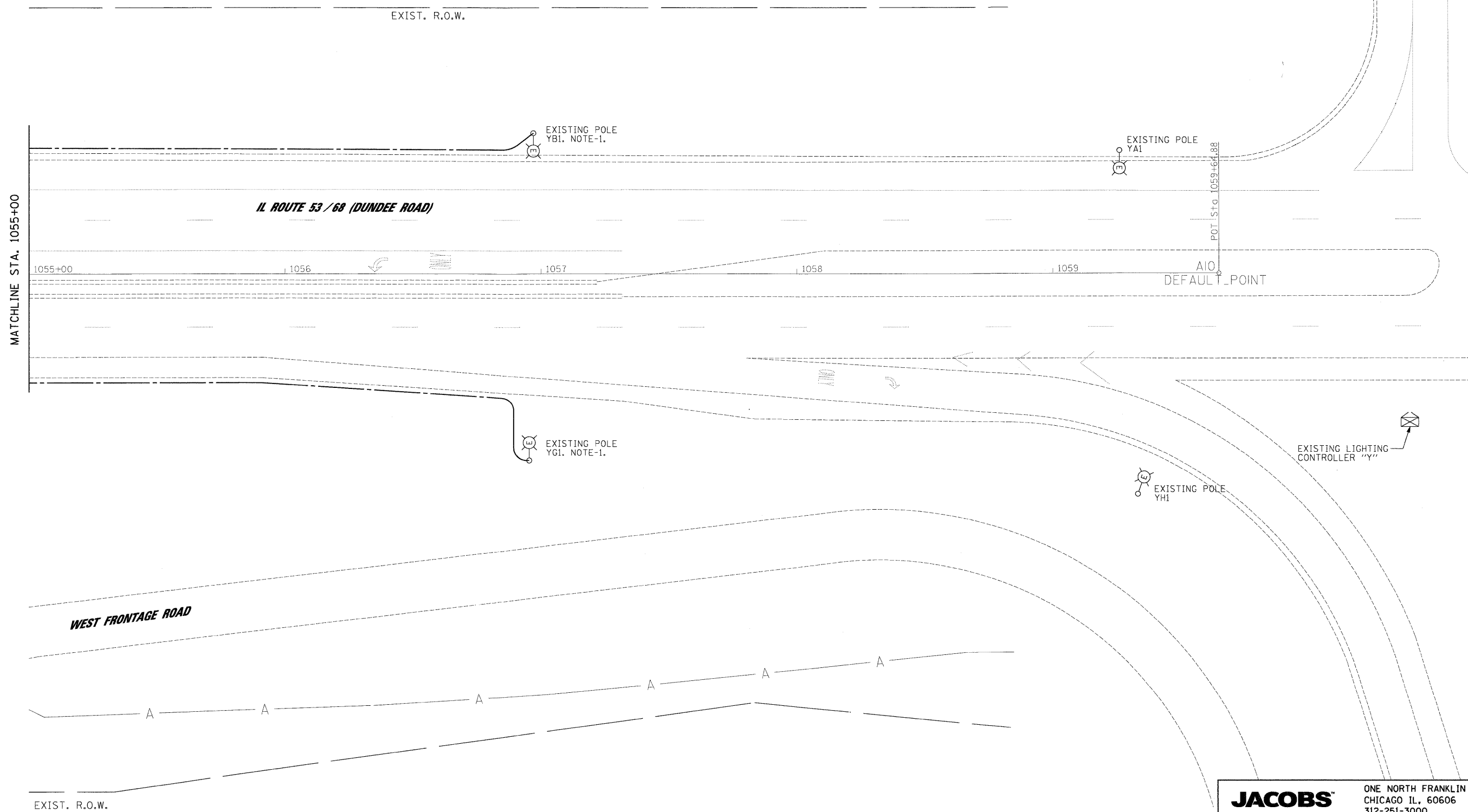
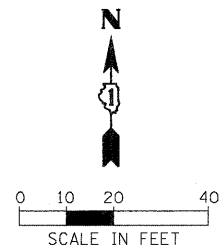
JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS NO. 81 67
CONTRACT NO. 60F87		ILLINOIS FED. AID PROJECT	

pt:\2009\9493720\cadd\sheets\Lighting Plan_23_Dundee 18.dgn

1/27/2009

NOTES:

- 1. INTERCEPT EXISTING CIRCUITS WITHIN LIGHT POLE HAND HOLE AND EXTEND WEST ON DUNDEE ROAD TO NEW PROPOSED STREET LIGHTING.



FILE NAME =
Lighting Plan_24_Dundee 11.dgn

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CHECKED - CDS
DATE - 1/22/2009

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REVISED -

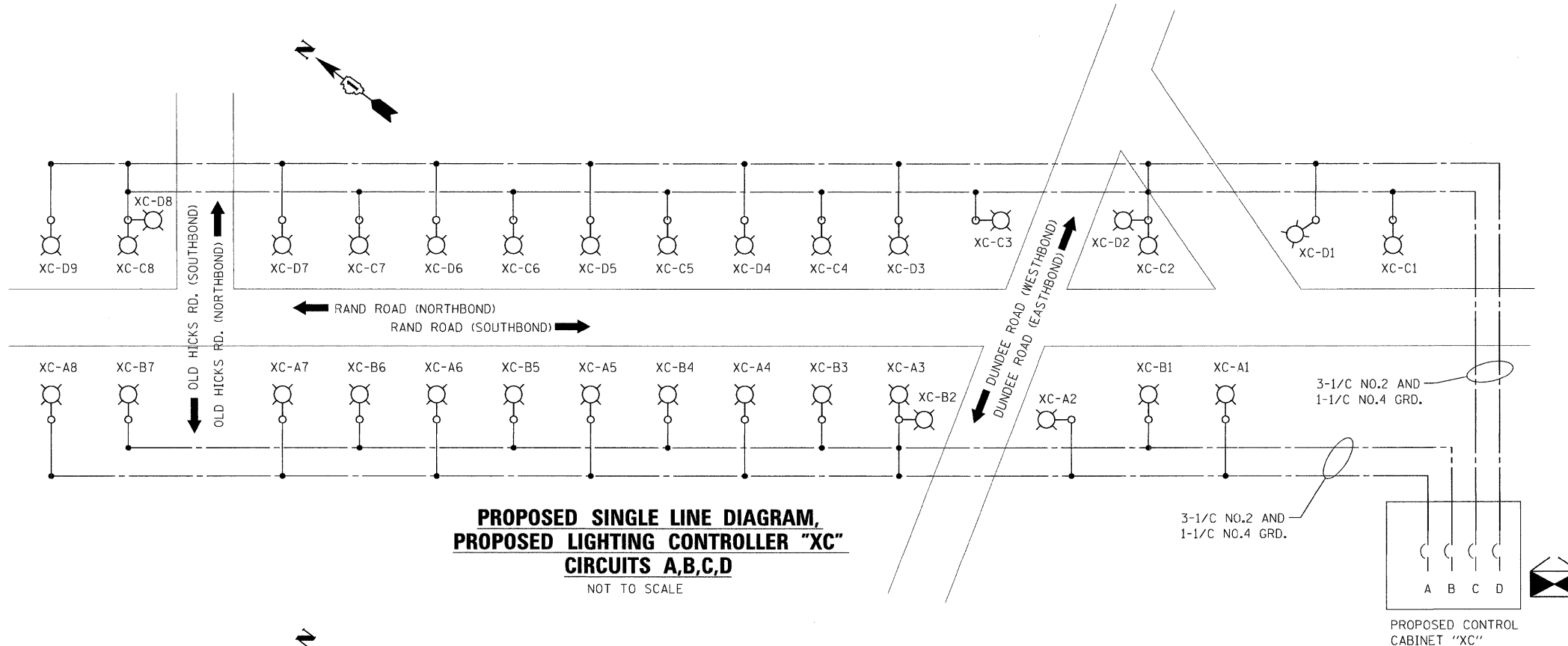
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN

SCALE: 1"=20' SHEET NO. OF SHEETS STA. 1055+00 TO STA. 1060+00

JACOBS		ONE NORTH FRANKLIN CHICAGO IL, 60606 312-251-3000	
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
334	2008-08-3I	COOK	80
		SHEET NO. 68	
CONTRACT NO. 60F87			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

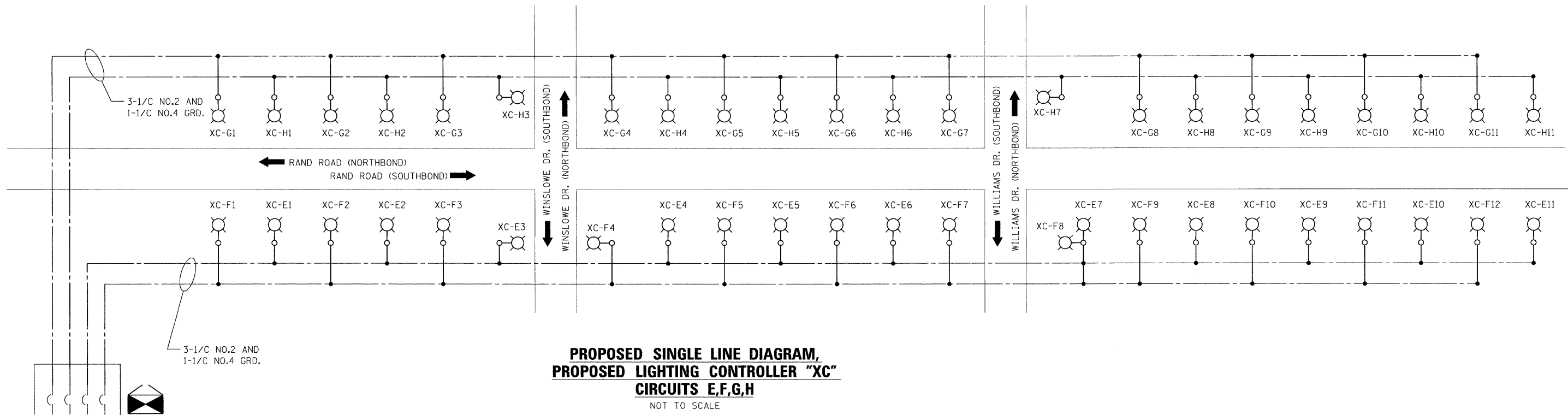
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**PROPOSED SINGLE LINE DIAGRAM,
PROPOSED LIGHTING CONTROLLER "XC"
CIRCUITS A,B,C,D**
NOT TO SCALE

LOAD TABLE LIGHTING CONTROLLER "XC"					
CIRCUIT	BLACK PHASE		CIRCUIT	RED PHASE	
	AMPS	WATTS		AMPS	WATTS
A	13.50	3240	B	11.81	2835
C	13.50	3240	D	15.19	3645
E	18.56	4455	F	20.25	4860
G	18.56	4455	H	18.56	4455
I	6.75	1620	J	8.44	2025
K	8.44	2025	L	8.44	2025
M	13.50	3240	N	11.81	2835
O	13.50	3240	P	13.50	3240
TOTAL	106.31	25515	TOTAL	108.00	25920

LEGEND	
	310 W. H.P.S. LUMINAIRE - PROPOSED
	LIGHTING CONTROLLER - PROPOSED



**PROPOSED SINGLE LINE DIAGRAM,
PROPOSED LIGHTING CONTROLLER "XC"
CIRCUITS E,F,G,H**
NOT TO SCALE

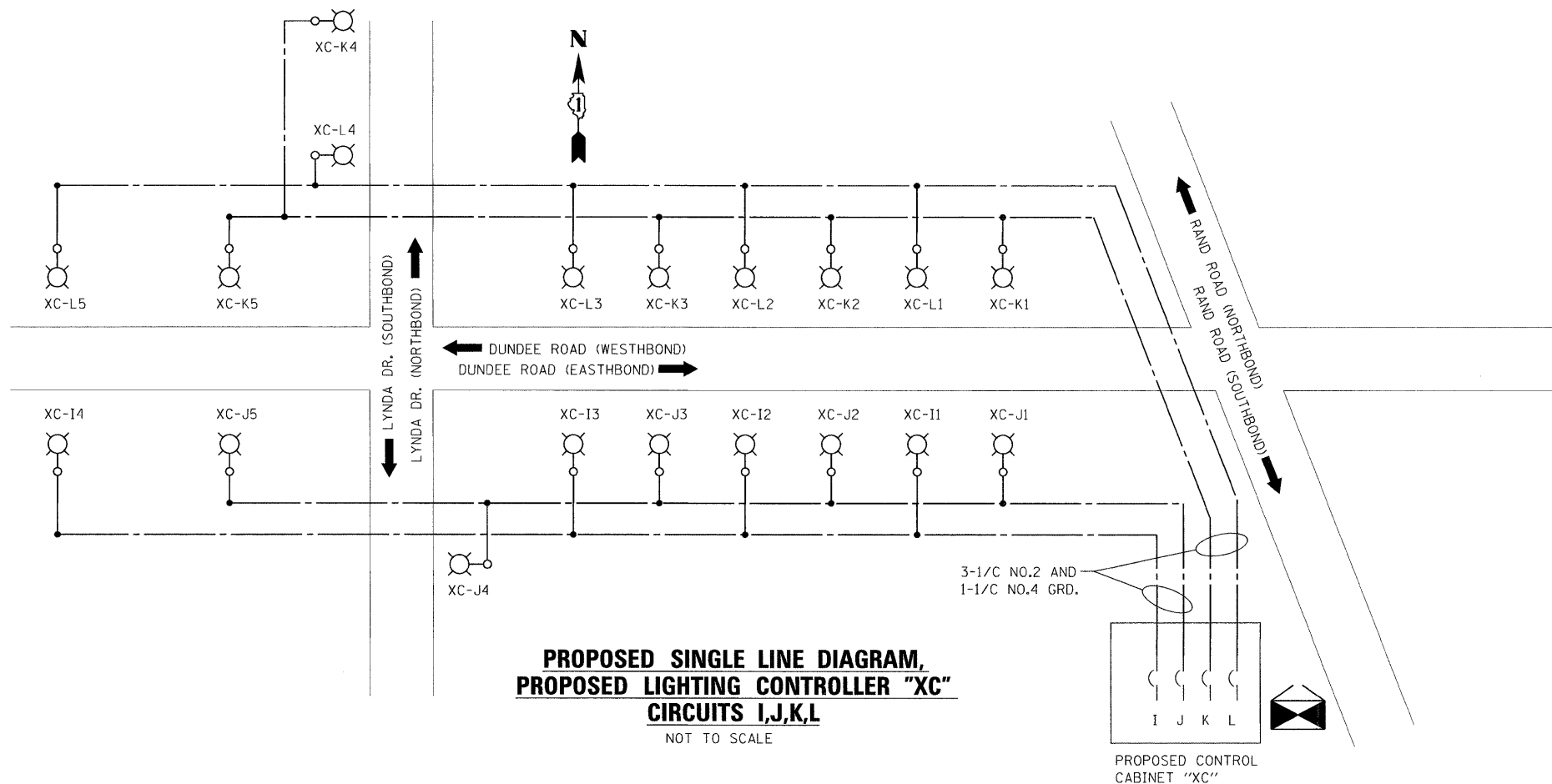
JACOBS		ONE NORTH FRANKLIN CHICAGO IL. 60606 312-251-3000	
F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81
CONTRACT NO. 60F87		SHEET NO. 69	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN
ONE LINE DIAGRAM
RAND ROAD**
SCALE: N.T.S. SHEET NO. OF SHEETS STA. - TO STA. -

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		DRAWN - MJO	REVISED -
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3/4/2009
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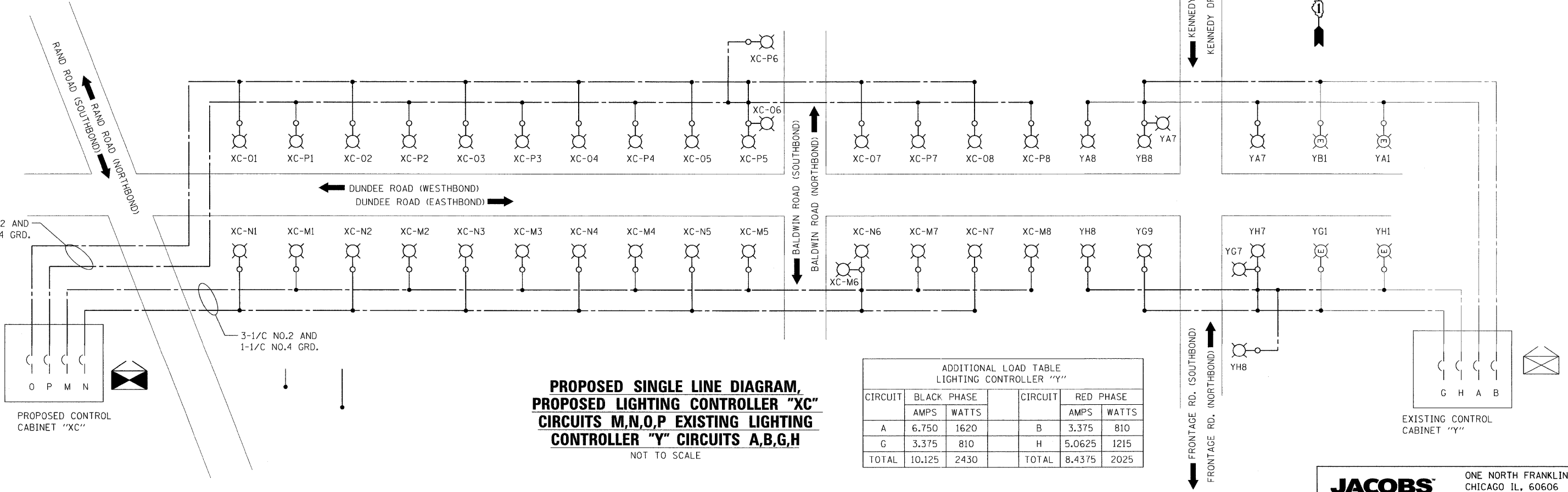
**PROPOSED SINGLE LINE DIAGRAM,
PROPOSED LIGHTING CONTROLLER "XC"
CIRCUITS I,J,K,L**
NOT TO SCALE

LEGEND

- 310 W. H.P.S. LUMINAIRE - PROPOSED
- LIGHTING CONTROLLER - PROPOSED
- LIGHTING CONTROLLER - EXISTING
- LIGHTING CONTROLLER - EXISTING

LOAD TABLE LIGHTING CONTROLLER "XC"

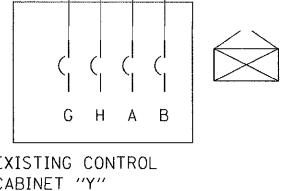
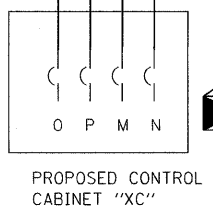
CIRCUIT	BLACK PHASE		CIRCUIT	RED PHASE	
	AMPS	WATTS		AMPS	WATTS
A	13.50	3240	B	11.81	2835
C	13.50	3240	D	15.19	3645
E	18.56	4455	F	20.25	4860
G	18.56	4455	H	18.56	4455
I	6.75	1620	J	8.44	2025
K	8.44	2025	L	8.44	2025
M	13.50	3240	N	11.81	2835
O	13.50	3240	P	13.50	3240
TOTAL	106.31	25515	TOTAL	108.00	25920



**PROPOSED SINGLE LINE DIAGRAM,
PROPOSED LIGHTING CONTROLLER "XC"
CIRCUITS M,N,O,P EXISTING LIGHTING
CONTROLLER "Y" CIRCUITS A,B,G,H**
NOT TO SCALE

**ADDITIONAL LOAD TABLE
LIGHTING CONTROLLER "Y"**

CIRCUIT	BLACK PHASE		CIRCUIT	RED PHASE	
	AMPS	WATTS		AMPS	WATTS
A	6.750	1620	B	3.375	810
G	3.375	810	H	5.0625	1215
TOTAL	10.125	2430	TOTAL	8.4375	2025



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED LIGHTING PLAN
ONE LINE DIAGRAM
DUNDEE ROAD**
SCALE: N.T.S. SHEET NO. OF SHEETS STA. - TO STA. -

JACOBS ONE NORTH FRANKLIN
CHICAGO IL, 60606
312-251-3000

F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 81	SHEET NO. 70
CONTRACT NO. 60F87				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

FILE NAME = Lighting Plan_26_One Line Diagram - Dundee.dgn	USER NAME = #USER#	DESIGNED - HS	REVISED -
PLOT SCALE = #SCALE#	CHECKED - MJO	DRAWN - MJO	REVISED -
PLOT DATE = 3/4/2009	DATE - 1/22/2009	CHECKED - CDS	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	71
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

BILL OF MATERIALS

ITEM	QTY	DESCRIPTION
A	2	MAIN CIRCUIT BREAKERS 2 POLE 175 AMP WITH AUX CONTACT
B	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1, C2*	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D	1	FINGERSAFE FUSE HOLDER WITH KTK-15 FUSE
D1	2	FINGERSAFE FUSE HOLDER WITH KTK-1/2 FUSE
E	1	2.0 KVA 277V-240/120 TRANSFORMER
F	1	VOLTAGE TRANSDUCER WITH COVERED TERMINALS
G	1	15 AMP GFCI DUPLEX OUTLET W/COVER
H	2	DOOR SWITCH
I	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
K	1	SURGE ARRESTER
L	2	PANEL BOARD 480/240V 1 PHASE, 250 AMP COPPER BUS
M	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
O	1	SQUARE D, 9001KS11BH13, 2 POSITION SWITCH IN 9001KY1 ENCLOSURE OR APPROVED EQUAL
P	2	BREAKER 1P 15A
Q	2	COPPER GROUND AND NEUTRAL BUS 1 x 16 x 1/4
Q1	1	COPPER NEUTRAL BUS WITH 1 #6 AND 8 #12 CONDUCTOR POINTS
R	1	CURRENT TRANSDUCER
S	1	MOTOROLA MOSCAD-L RADIO, 240 V
T*	1	CONTROL RELAY ASSEMBLY 240V COILS WITH 4 3 PDT 25A RELAYS (W389ACX-15) (R1, R2, R3, R4) . QTY 32
V	20	TERMINAL BLOCKS
X*	1	620 AMP SLPIECE BLOCK
Y	1	40-80 DEG THERMOSTAT
Z	1	375 WATT HEATER

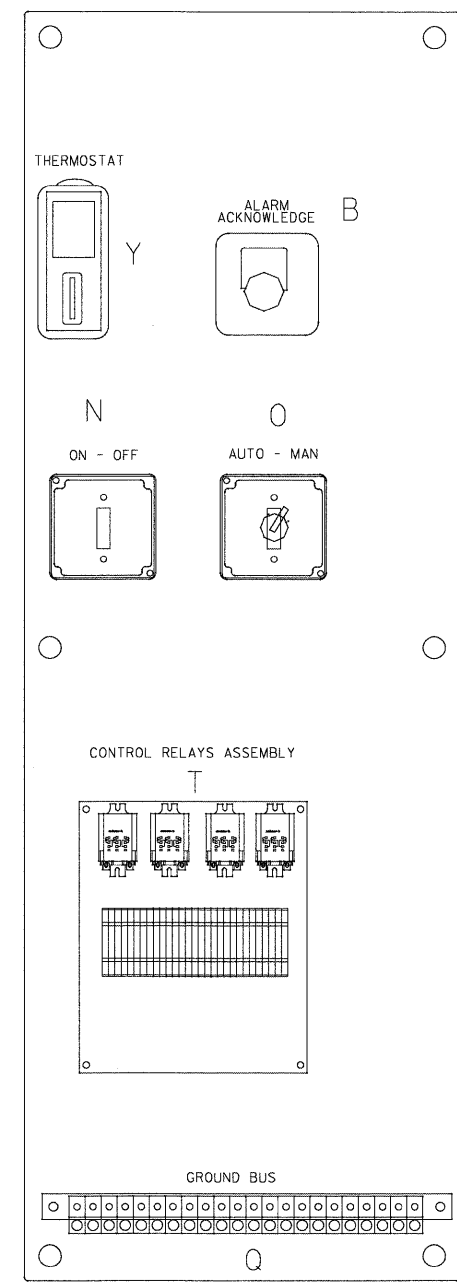
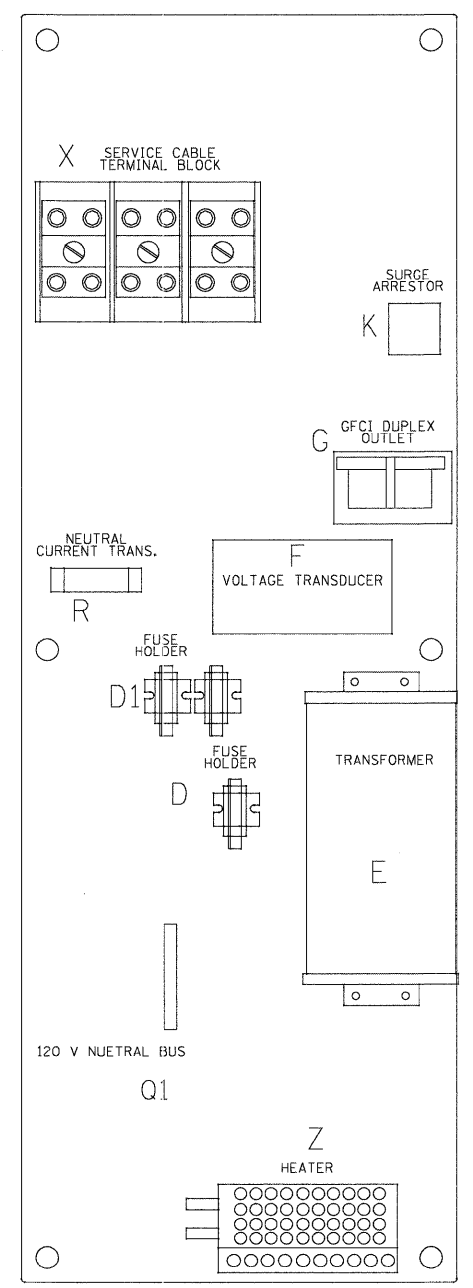
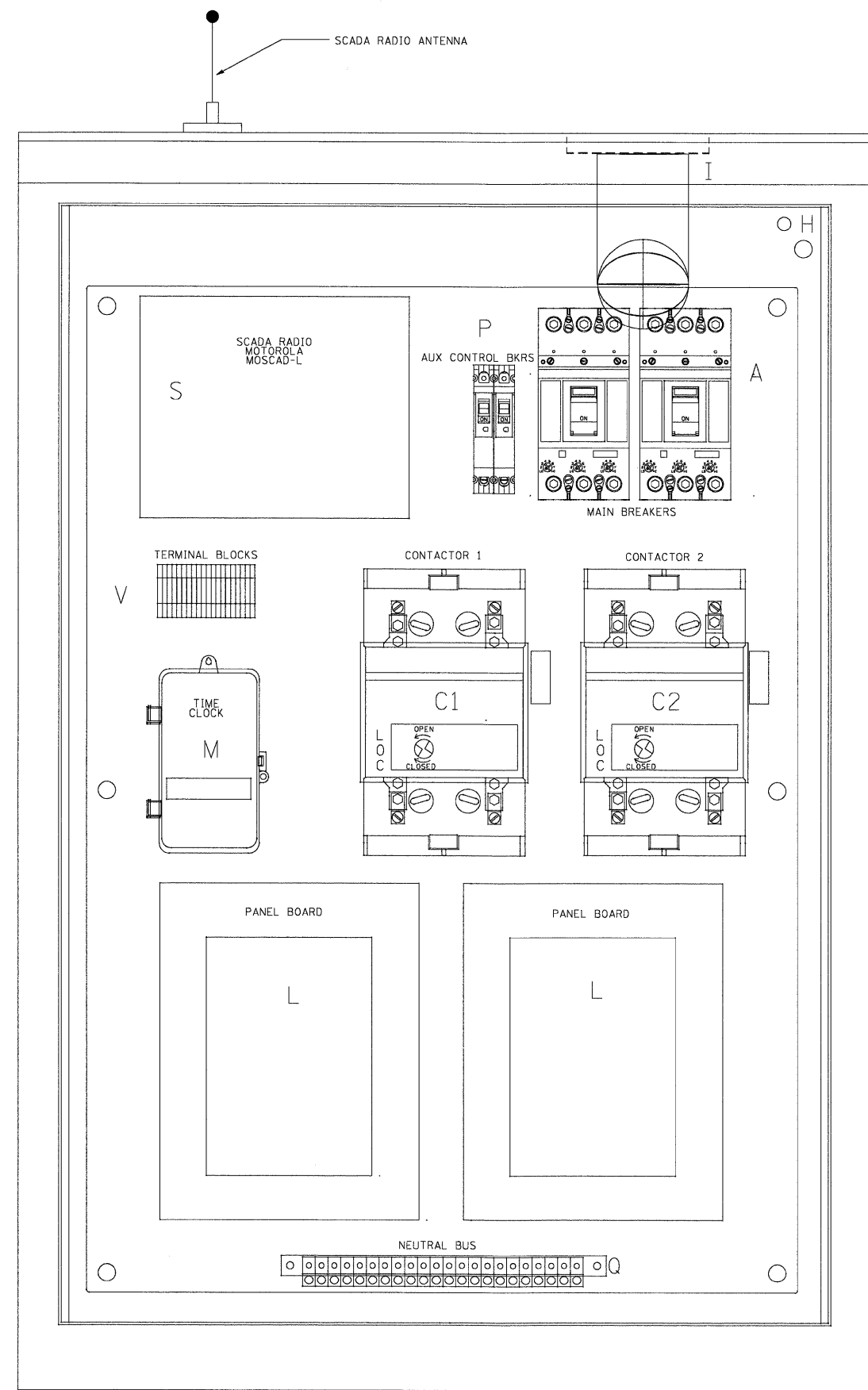
* TERMINALS SHALL BE COVERED WITH CLEAR PLEXIGLASS SHEET

REVISIONS	
NAME	DATE
R. TOMSONS	8/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
LIGHTING CONTROLLER, RADIO CONTROL
DUPLEX TYPE WITH SCADA
BE-205 SHT 1 OF 4

SCALE: NONE
DATE: 2/15/2006
DRAWN BY CADD
CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	71
CONTRACT NO. 60F87				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



LEFT SIDE PANEL

RIGHT SIDE PANEL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING CONTROLLER, RADIO CONTROL
DUPLEX TYPE WITH SCADA
BE-205 SHT 1 OF 4

FILE NAME = Lighting Plan_27_Detail-1-2005 1 of 4.dgn	USER NAME = USER*	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE - 1/27/2009	REVISED -

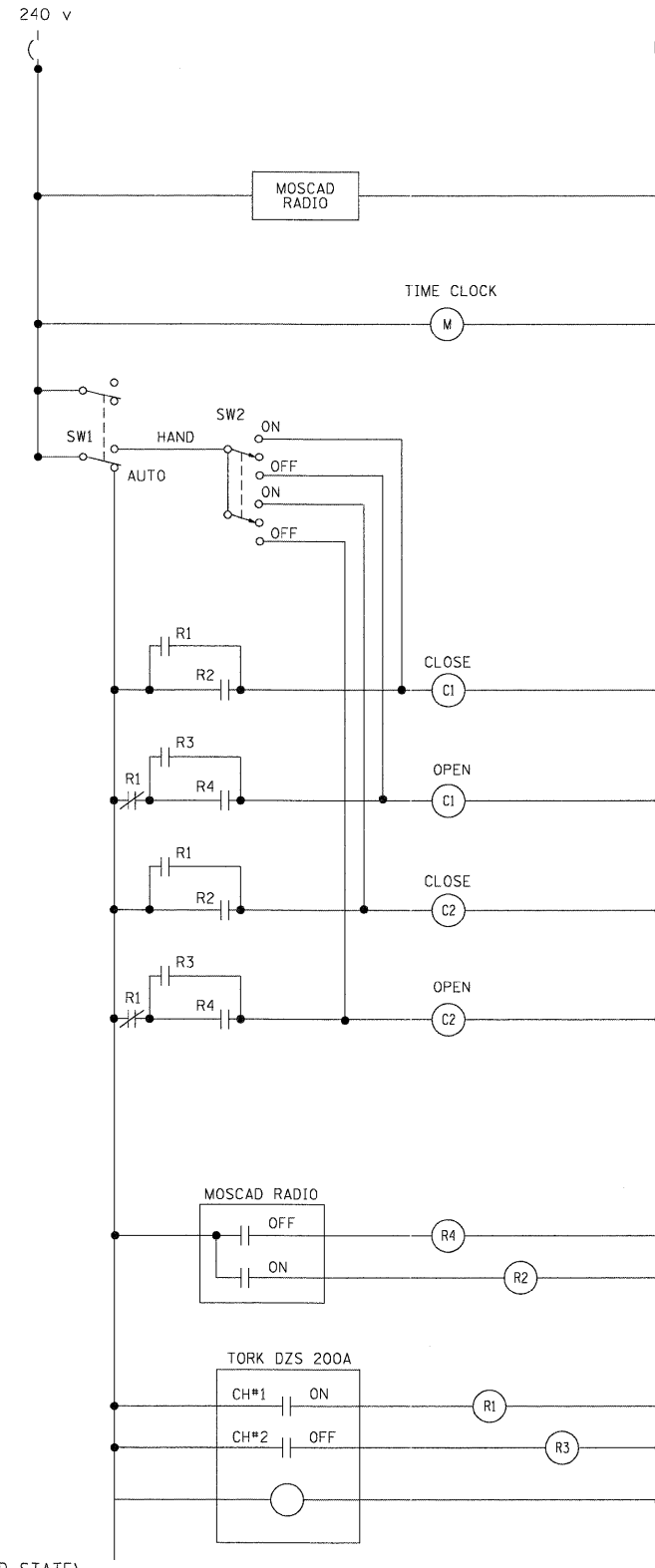
1/27/2009
PA_2009\CADD\Sheets\Lighting Plan_27_Detail-1-2005 1 of 4.dgn

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	74
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

NOTES

- CABINET SHALL BE FABRICATED FROM 3.175 (0.125-INCH) SHEET ALUMINUM # 3003H14, FORMED AND ARC WELDED.
- ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL, UNLESS OTHERWISE NOTED.
- NAME PLATE SHALL HAVE ENGRAVED 19.05 (0.75-INCH) HIGH LETTERS FILLED IN BLACK: "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.
- ONE INCH THICK POLYISOCYANURATE INSULATION SHALL BE INSTALL AND PERMANENTLY CEMENTED ON ALL SIDES OF THE CABINET AND DOORS.
- CABINET SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- NOT USED.
- THE COMPLETED CONTROLLER SHALL BE U.L. LISTED AS AN INDUSTRIAL CONTROL PANEL UNDER UL508.
- METAL MOUNTING PANEL SHALL BE FABRICATED FROM THE SAME MATERIAL AS THE CABINET AND SHALL BE FLANGED BACK 0.75-INCHES I.D. ON 4 SIDES.
- CIRCUIT BREAKERS AND CONTACTORS AND OTHER COMPONENTS SHALL BE MOUNTED ON 3.175 (0.125-INCH) THICK GLASTIC INSULATION BACK PANEL.
- ALL DEVICES SHALL BE FRONT REMOVABLE.
- TIME CLOCK CHANNEL 1 N.O. CONTACT IS CLOSED NIGHT AND OPEN DAY (LIGHTS ON).
- SET LATITUDE TO 42 DEGREES. SET CH.1 TO 25 MINUTES AFTER ASTRONOMICAL SUNSET, 40 MINUTES BEFORE ASTRONOMICAL SUNRISE. SET CH.2 TO 60 MINUTES AFTER ASTRONOMICAL SUNSET (WITH A SIGNAL LENGTH OF 1 SECOND), +20 MINUTES AFTER ASTRONOMICAL SUNRISE (WITH A SIGNAL LENGTH OF 7 SECONDS.)
- BUS BAR SHALL HAVE 22 LUG TERMINALS SIZED TO ACCOMMODATE REQUIRED WIRE SIZES. 240V NEUTRAL BUS SHALL BE PAINTED WHITE, GROUND BUS SHALL BE PAINTED GREEN, AND THE 120V NEUTRAL BUS SHALL BE PAINTED GREY.
- ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
- ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE
- ALL CONTROL WIRING SHALL BE 600V #12 TYPE MTW.
- ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED:

R - RED	Y - YELLOW
B - BLACK	W - WHITE
BL - BLUE	G - GREEN
	GR - GREY
- MOSCAD I/O WIRING SHALL BE:
 DIGITAL INPUT (DI) WIRING SHALL BE #16 MTW PURPLE
 ANALOG INPUT (AI) WIRING SHALL BE #18, 2/C SHIELDED.
 AI AND DI WIRING MAY BE BUNDLED TOGETHER, BUT SHALL NOT BE BUNDLED WITH OTHER WIRING.
- ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE INDICATED.
- SCHEMATIC SHOWN WITH BREAKER OPEN, CONTACTOR OPEN, CABINET DOOR CLOSED, CLOCK NOT ACTIVE (DE-ENERGIZED STATE).
- A LAMINATED COPY OF THE CIRCUIT SCHEMATIC AND SCADA I/O DIAGRAM (NO SMALLER THAN 11"x17" EACH) SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER WITH STAINLESS STEEL SCREWS.



CONTROL CIRCUIT LADDER LOGIC DIAGRAM

MOSCAD I/O ASSIGNMENTS		
TERM	MOSCAD DESTINATION	DESCRIPTION OF INPUT
1	Analog Input 1 (+)	CABINET NEUTRAL CURRENT
2	Analog Input 1 (-)	CABINET NEUTRAL CURRENT
3	Analog Input 2 (+)	CABINET SERVICE VOLTAGE
4	Analog Input 2 (-)	CABINET SERVICE VOLTAGE
5	P. Ground	GROUND
6	Digital Input 1	ALARM KNOWLEDGE
7	Digital Input 2	DOOR OPEN
8	Digital Input 3	MAINS) BREAKER OPEN
9	Digital Input 4	CONTACTOR 1 OPEN
10	Digital Input 5	CONTACTOR 2 OPEN
11	Digital Input 6	CABINET IN NON-AUTO
12	Digital Input 7	BACK-UP CLOCK OFF CALL
13	Digital Input 8	BACK-UP CLOCK ON CALL
14	DI Common	COMMON
15	K1 NO	LIGHTS ON CALL
16	K1 C	K1 COMMON
17	K2 NO	LIGHTS OFF CALL
18	K2 C	K2 COMMON
19	24 V+	24+VDC
20	24 V-	24-VDC

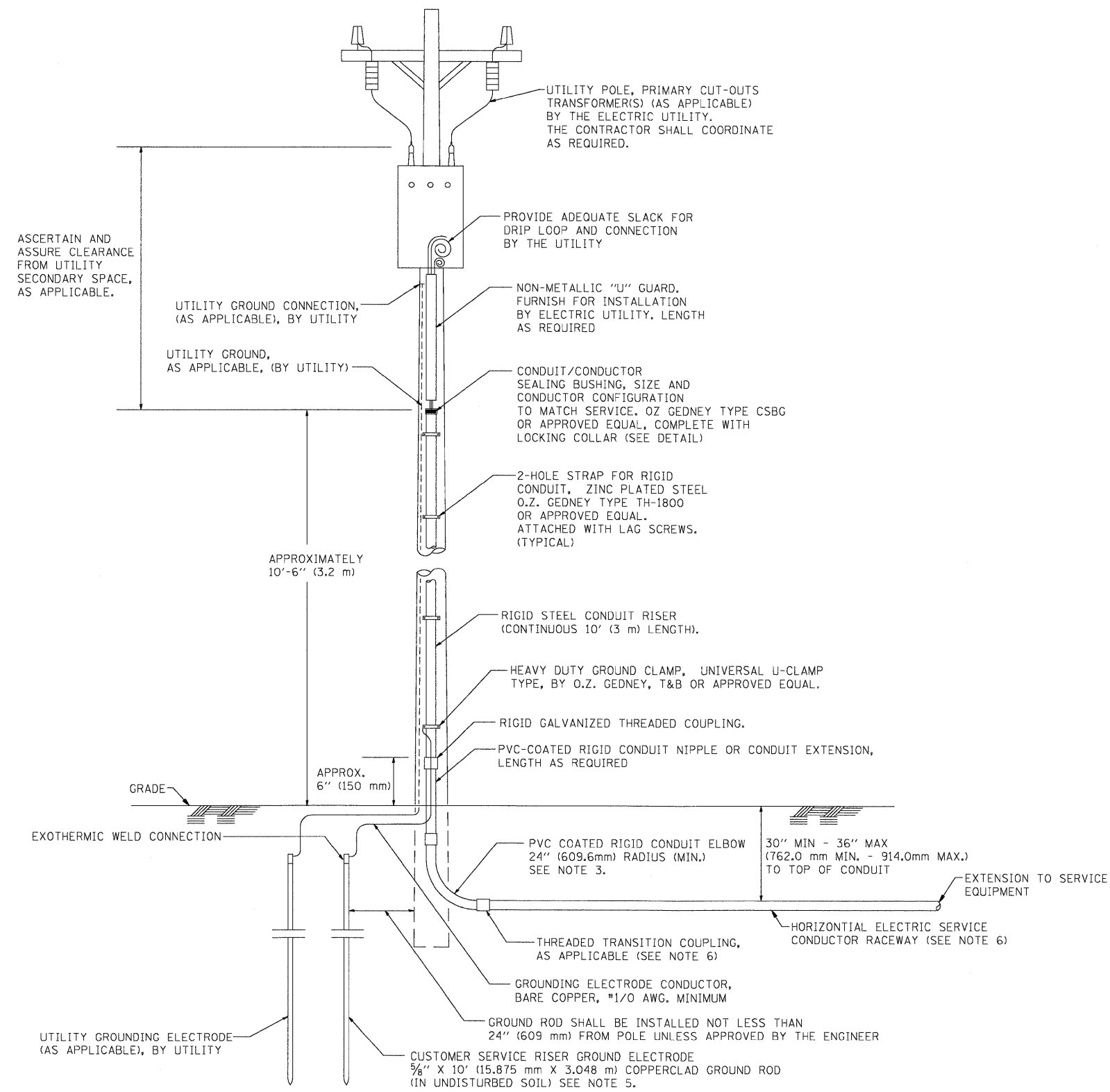
All analog inputs will be 4-20 mA only. Digital output relays will be Electrically energized and momentarily held
 Mixed I/O module model number V436

REVISIONS	
NAME	DATE
R. TOMSONS	8/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
 LIGHTING CONTROLLER, RADIO CONTROL
 DUPLEX TYPE WITH SCADA
 BE-205 SHT 4 OF 4

SCALE: NONE DRAWN BY CADD
 DATE: 2/15/2006 CHECKED BY

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	75
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

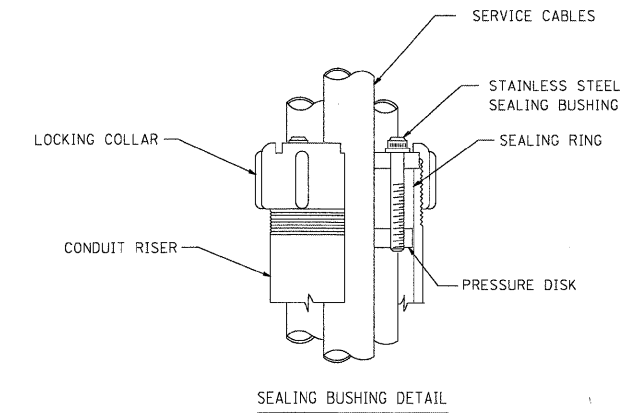


APPLICATION

THIS DETAIL APPLIES FOR LOW VOLTAGE ELECTRIC SERVICE (660 V OR LESS) FROM AN OVERHEAD UTILITY SUPPLY TO SEPERATLY-MOUNTED SERVICE EQUIPMENT.

NOTES

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



BE-220

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE	ELECTRIC SERVICE INSTALLATION AERIAL, REMOTE DISCONNECT BE - 220	
		SCALE: NONE	
		DRAWN BY	
		CHECKED BY MEA	
		DATE: 1/9/2007	

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -
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	PLOT SCALE = #SCALE#	CHECKED -	REVISED -
	PLOT DATE = 1/27/2009	DATE - 1/22/2009	REVISED -

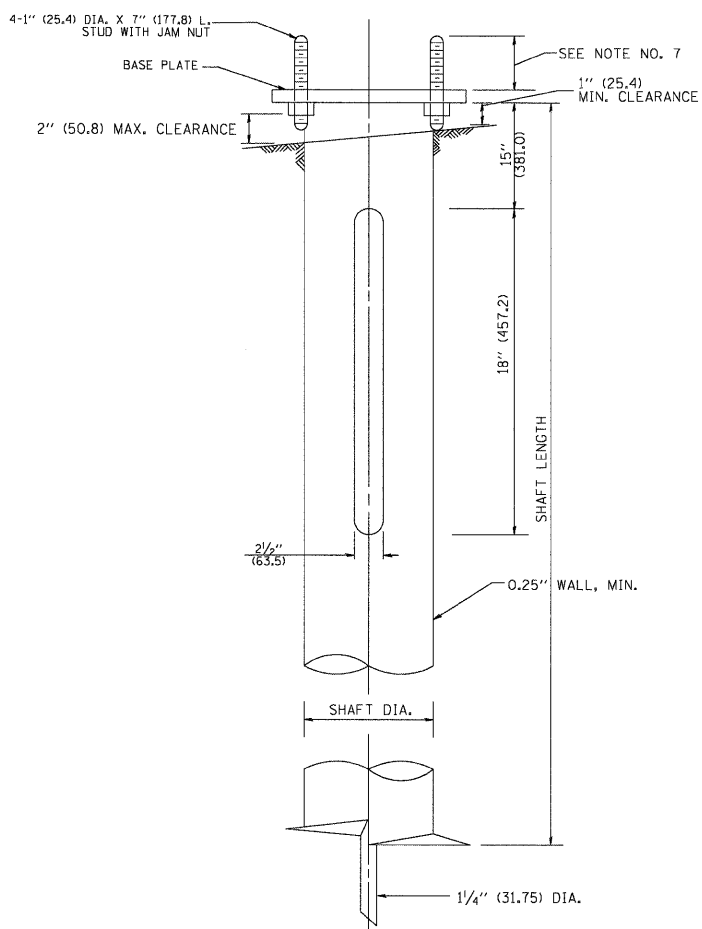
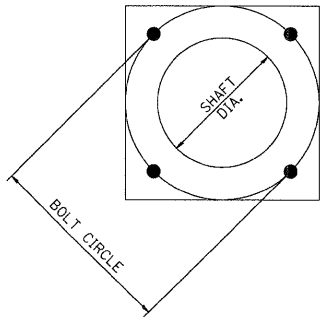
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ELECTRIC SERVICE INSTALLATION
AERIAL, REMOTE DISCONNECT
BE-220**

SCALE: N.T.S.	SHEET NO. OF SHEETS	STA. - TO STA. -	F.A.P. RTE. 334	SECTION 2008-08-31	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 75
			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
			CONTRACT NO. 60F87				

1/27/2009 P:\2008\334\334\000\CADD\Sheets\Lighting Plan_31_Detail-BE220.dgn

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-3I	COOK	80	76
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



HELIX FOUNDATION SIZE

POLE MOUNTING HEIGHT	BOLT CIRCLE	SHAFT DIAMETER	SHAFT LENGTH	BASEPLATE
30 FT.	11 1/2"	8 5/8"	6 FT.	12"x12"x1"
31 FT.-35 FT.	11 1/2"	8 5/8"	6 FT.	12"x12"x1"
36 FT.-40 FT.	15"	8 5/8"	6 FT.	15"x15"x1 1/4"
41 FT.-45 FT.	15"	8 5/8"	6 FT.	15"x15"x1 1/4"
46 FT.-50 FT.	15"	10"	8 FT.	15"x15"x1 1/4"

METAL HELIX FOUNDATION MATERIALS

ITEM	MATERIAL REQUIREMENT
BASEPLATE	AASHTO M 270M, GRADE 36 (M270M, GRADE 250)
SHAFT	ASTM A 252, GRADE 2 (PHOSPHOROUS 0.04% MAXIMUM, SULFUR 0.05% MAXIMUM)
HELIX SCREW	AASHTO M 183 (ASTM A 635)
PILOT POINT	AASHTO M 270 (ASTM A 575)
ANCHOR RODS/STUDS	AASHTO M 314 (ASTM F 1554)
HEXAGON NUTS	AASHTO M 291M (ASTM A 563) GRADE DH, OR AASHTO M 292 (ASTM A 194) GRADE 2H
WASHERS	AASHTO M 293 (ASTM F 436)

NOTES:

- ALL DIMENSION IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- ALL MATERIAL SHALL BE GALVINIZED ACCORDING TO AASHTO M111, UNLESS OTHERWISE SPECIFIED.
- ALL WELDS SHALL BE CONTINUOUS AND NOT LESS THAN 1/4" (6.35 mm) FILLET WELDS. THE WELDED FOUNDATION SHALL BE CAPABLE OF WITHSTANDING 10,000 FT/LBS (13558.18 n.m) OF INSTALLATION TORQUE APPLIED ABOUT THE AXIS OF THE FOUNDATION.
- THE HELIX FOUNDATION SHAFT SHALL BE INSTALLED VERTICAL AND THE BASE PLATE SHALL BE IN LEVEL. THE BREAKAWAY COUPLINGS AND HARDWARE SHALL NOT BE USED TO ALIGN THE POLE INSTALLATION.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE INSTALLATION OF THE LIGHT POLE.
- THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF THE BASE PLATE WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS.
- ANY VOIDS WITHIN THE METAL FOUNDATION SHALL BE FILLED WITH FINE AGGREGATE.
- METAL FOUNDATIONS SHALL BE INSTALLED IN UNDISTURBED SOIL. PREDRILLING A PILOT HOLE AND/OR BACKFILLING AROUND THE FOUNDATION IS NOT ALLOWED.
- THE METAL FOUNDATION SHALL NOT BE INSTALLED TO A TORQUE WHICH EXCEEDS THE MANUFACTURER'S MAXIMUM TORQUE RATING NOR SHALL IT BE INSTALLED TO AN INSTALLATION TORQUE VALUE OF LESS THAN 3,500 FT LB (4,750 KNM). METAL FOUNDATIONS THAT ARE NOT INSTALLED TO FULL INSTALLATION DEPTH OR DO NOT ACHIEVE THE MINIMUM INSTALLATION TORQUE SHALL BE REMOVED AND REPLACED WITH A CONCRETE FOUNDATION AT NO ADDITIONAL COST.
- THE BASEPLATE SHALL BE PERPENDICULAR TO THE SHAFT AXIS (± 1°) AND THE HOLE CENTERLINE SHALL BE CONCENTRIC (± 0.188) TO THE SHAFT AXIS.
- THE PILOT POINT AND SHAFT AXIS SHALL BE CONCENTRIC (± 0.125) AND IN LINE (± 2°).
- THE BASEPLATE SHALL BE STAMPED WITH THE MANUFACTURERS NAME AND DATE OF MANUFACTURE.

BE-305

ILLINOIS DEPARTMENT OF TRANSPORTATION
 LIGHT POLE FOUNDATION, METAL
 SCALE: NONE
 DATE: 2/27/2007
 DRAWN BY: DB
 CHECKED BY:

1/27/2009 1/27/2009 I:\2009\09\09\09\CADD\Sheets\Lighting Plan_32.dwg:BE305.dgn

FILE NAME = Lighting Plan_32_Detail-BE305.dgn	USER NAME = #USER#	DESIGNED - DRAWN -	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHT POLE FOUNDATION, METAL BE-305	F.A.P. RTE. 334	SECTION 2008-08-3I	COUNTY COOK	TOTAL SHEETS 80	SHEET NO. 76		
PLOT SCALE = #SCALE#	CHECKED -	REVISED -	SCALE: N.T.S.			SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO. 60F87				
PLOT DATE = 1/27/2009	DATE = 1/22/2009	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT									

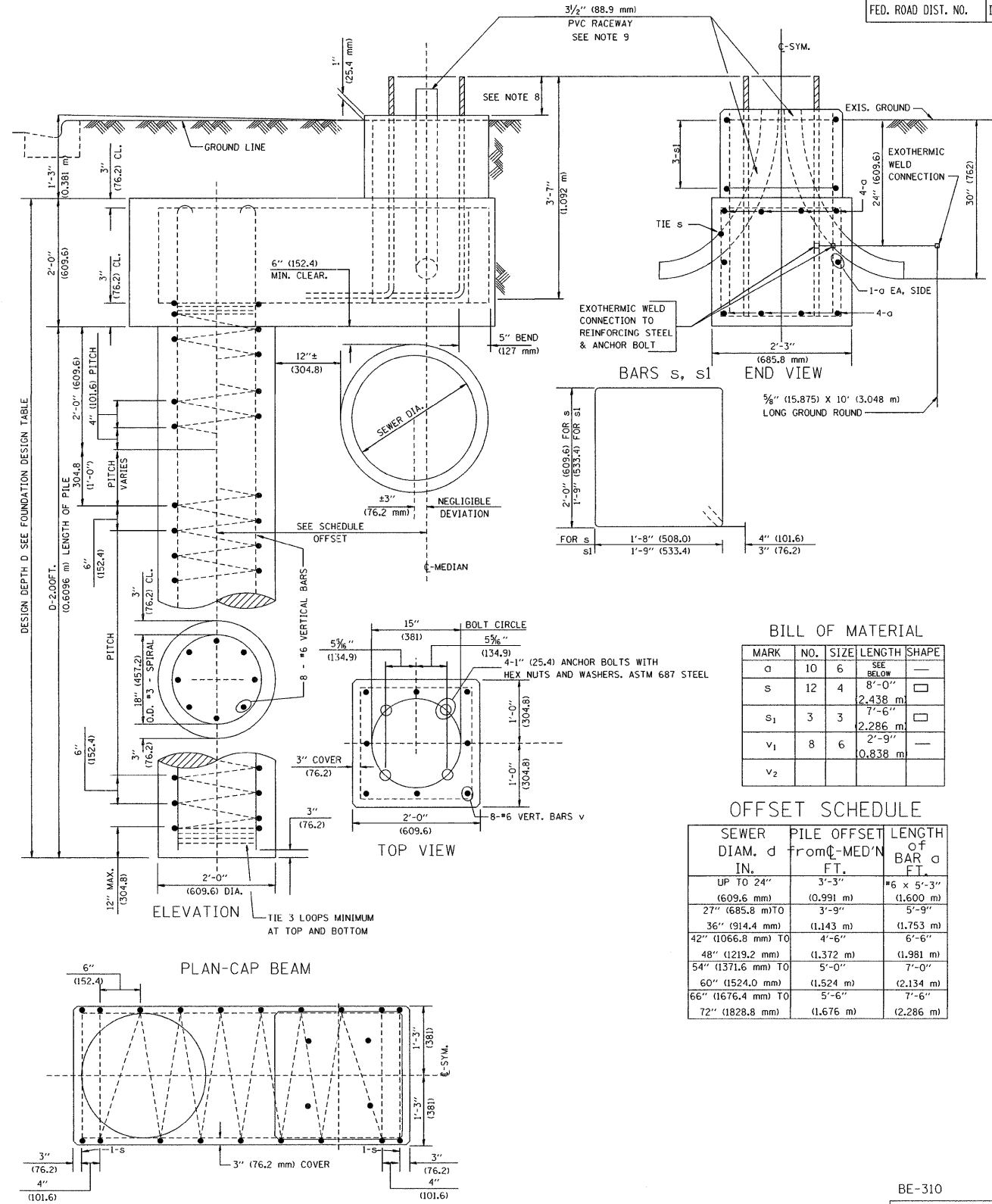
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	81	76A
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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

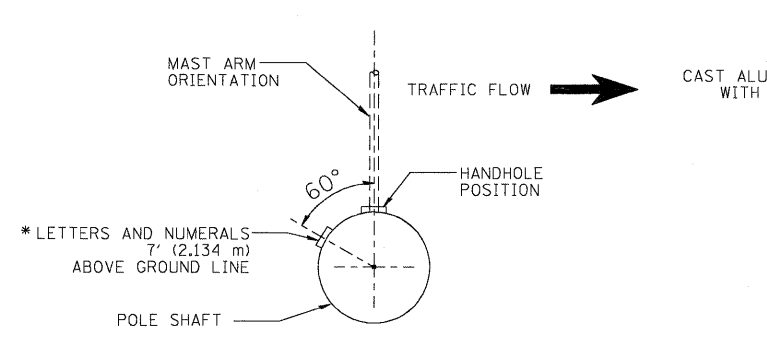
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
- EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" (609.6 mm) OR 30" (762.0 mm) IN 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.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE 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 ERECTED.



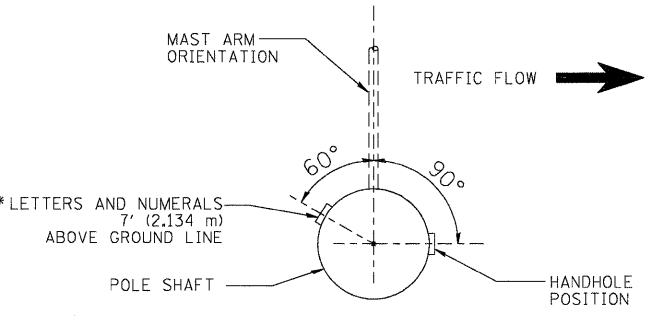
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

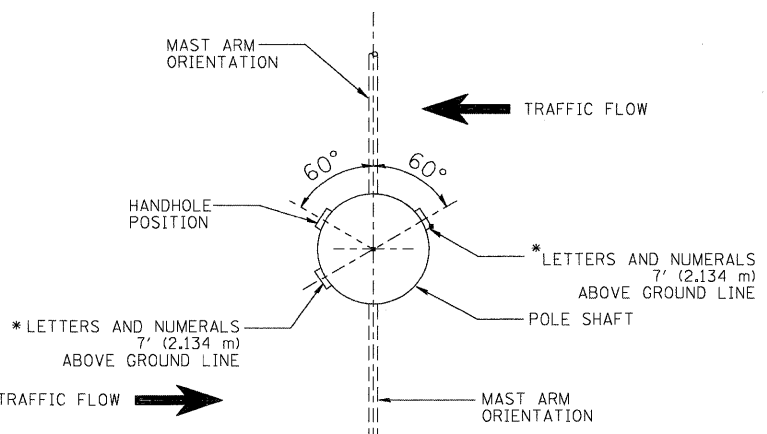
- NOTES:**
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 - MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 - TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE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



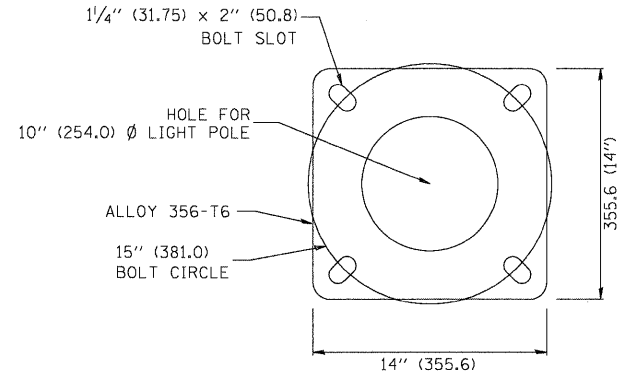
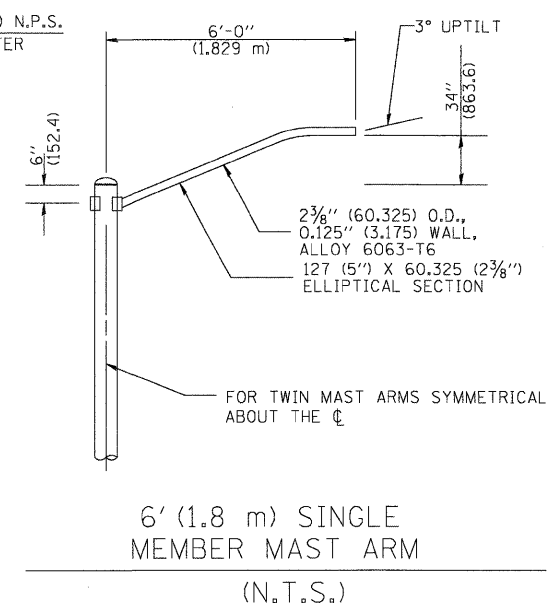
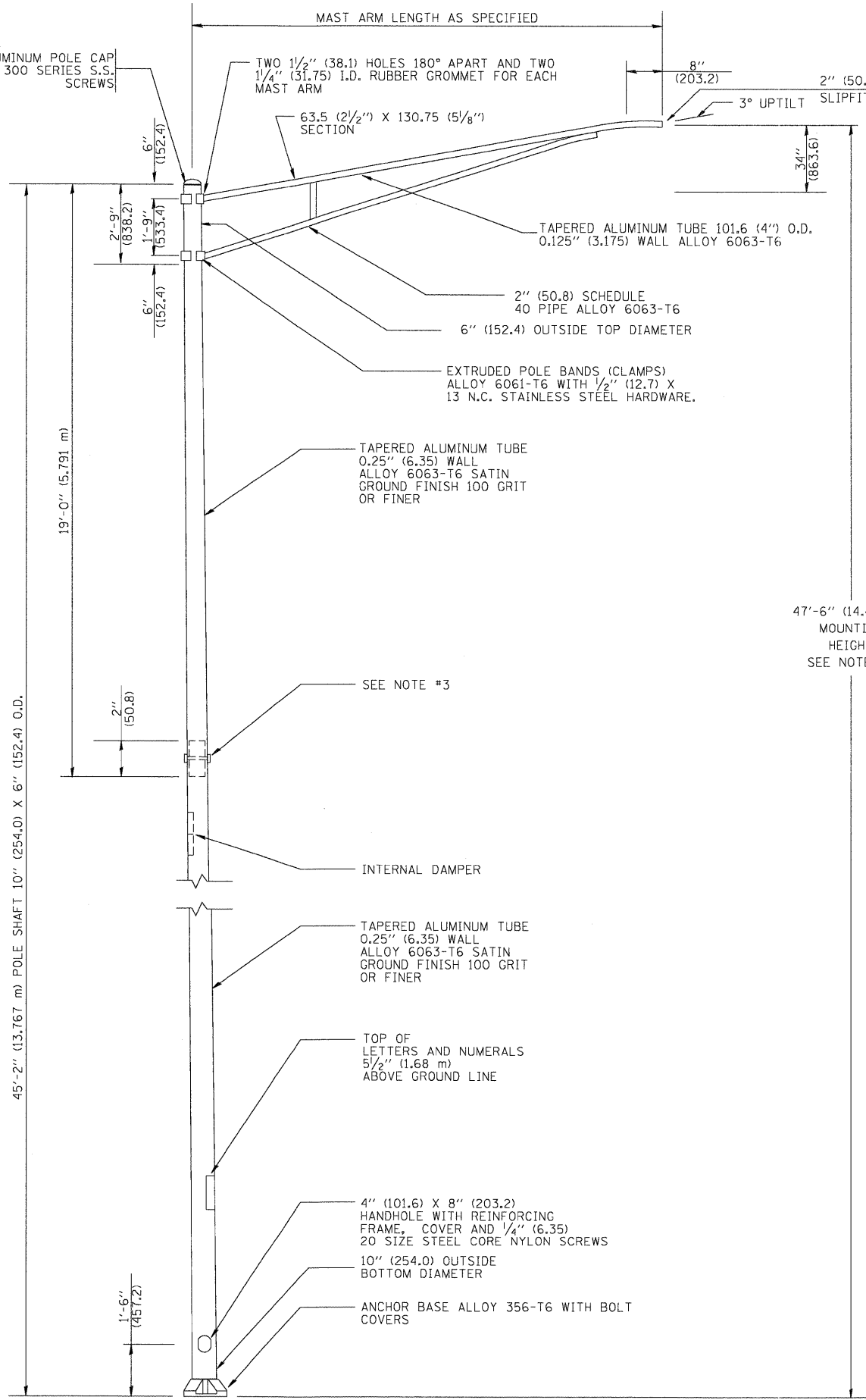
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



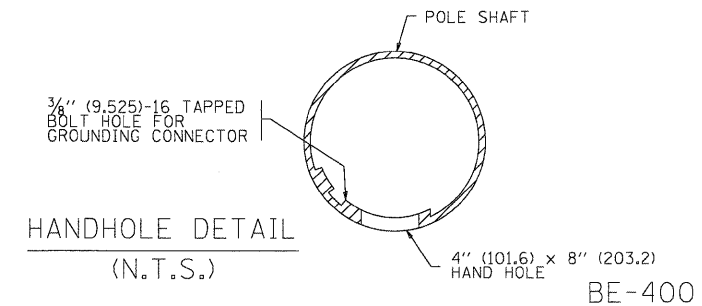
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES



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



HANDHOLE DETAIL
(N.T.S.)

REVISIONS	
NAME	DATE
R. TOMSONS	9-6-00
R. TOMSONS	8-12-03

ILLINOIS DEPARTMENT OF TRANSPORTATION
ALUMINUM LIGHT POLE
47'-6" (14.478 m)
MOUNTING HEIGHT

SCALE: NONE
DATE: 1/10/2007

DRAWN BY _____
CHECKED BY _____

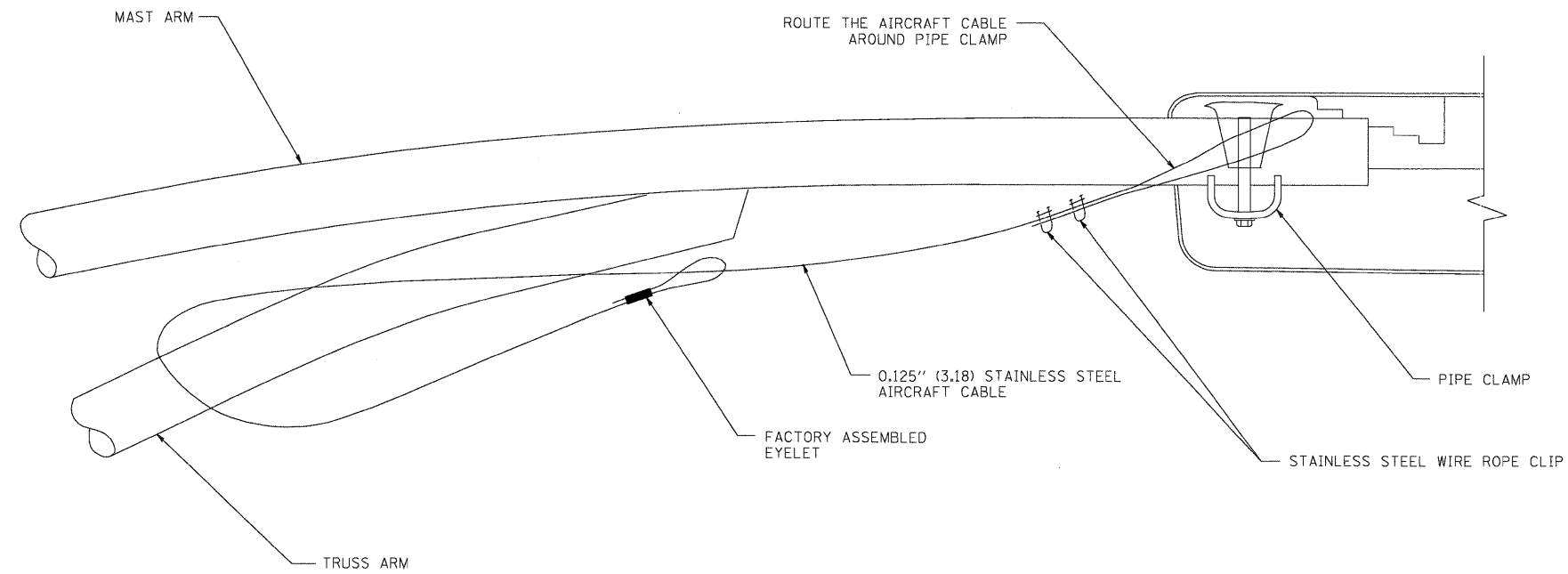
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PLOT SCALE = #SCALE#	PLOT DATE = 1/27/2009	DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE = 1/22/2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

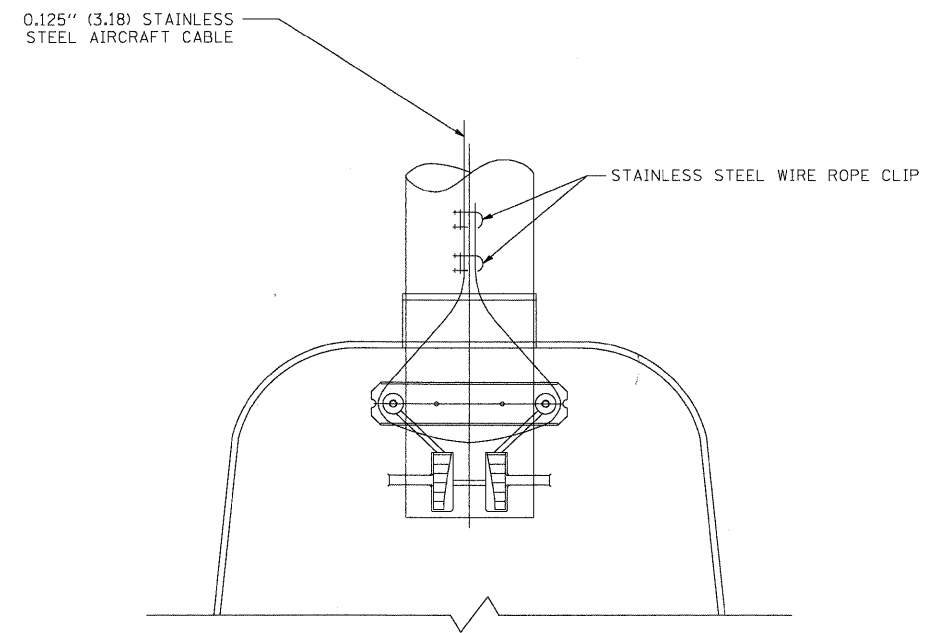
ALUMINUM LIGHT POLE 47'-6" (14.478 m) MOUNTING HEIGHT BE-400				
SCALE: N.T.S.	SHEET NO. _____	OF _____	SHEETS _____	STA. - _____
				TO STA. - _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	77
CONTRACT NO. 60F87				
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		

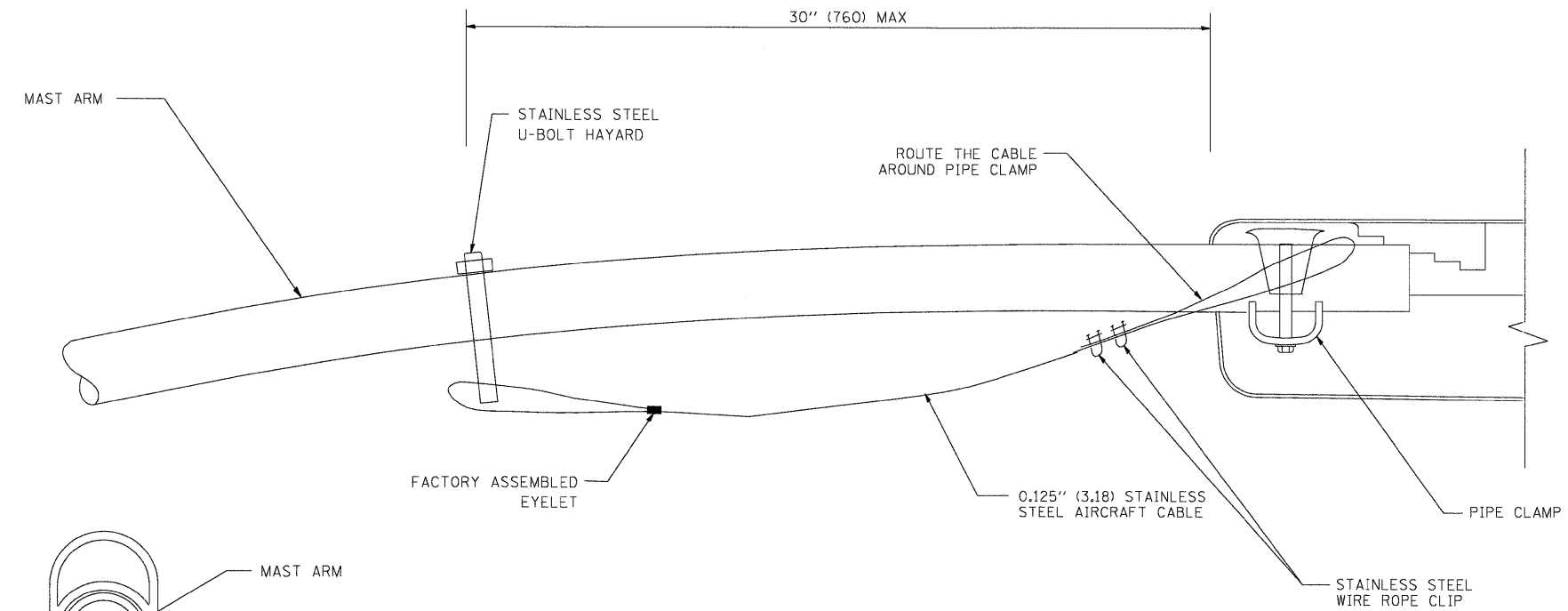
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	78
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



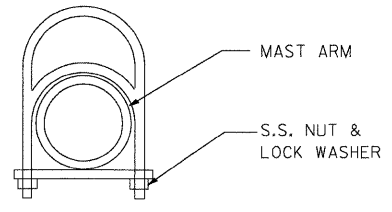
SIDE VIEW (TRUSS ARM)
N.T.S.



BOTTOM VIEW
N.T.S.



SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)
N.T.S.



STAINLESS STEEL U-BOLT HAYARD

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

REVISIONS	
NAME	DATE
	08/08/03

ILLINOIS DEPARTMENT OF TRANSPORTATION

LUMINAIRE SAFETY CABLE ASSEMBLY

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY

FILE NAME = Lighting Plan_34_Detail-BE781.dgn	USER NAME = #USER#	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE - 1/22/2009	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

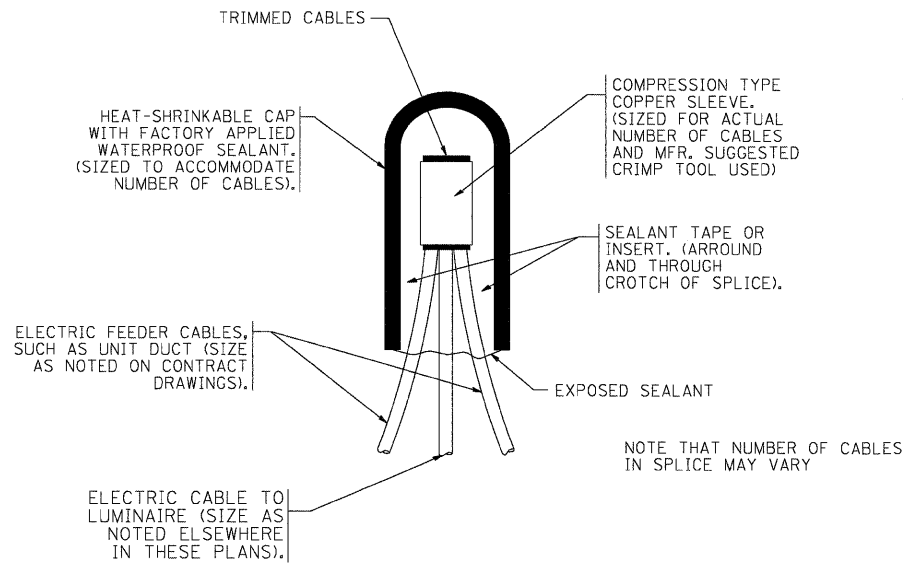
LUMINAIRE SAFETY CABLE ASSEMBLY
BE-701

SCALE: N.T.S. SHEET NO. OF SHEETS STA. - TO STA. -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	78
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 60F87				

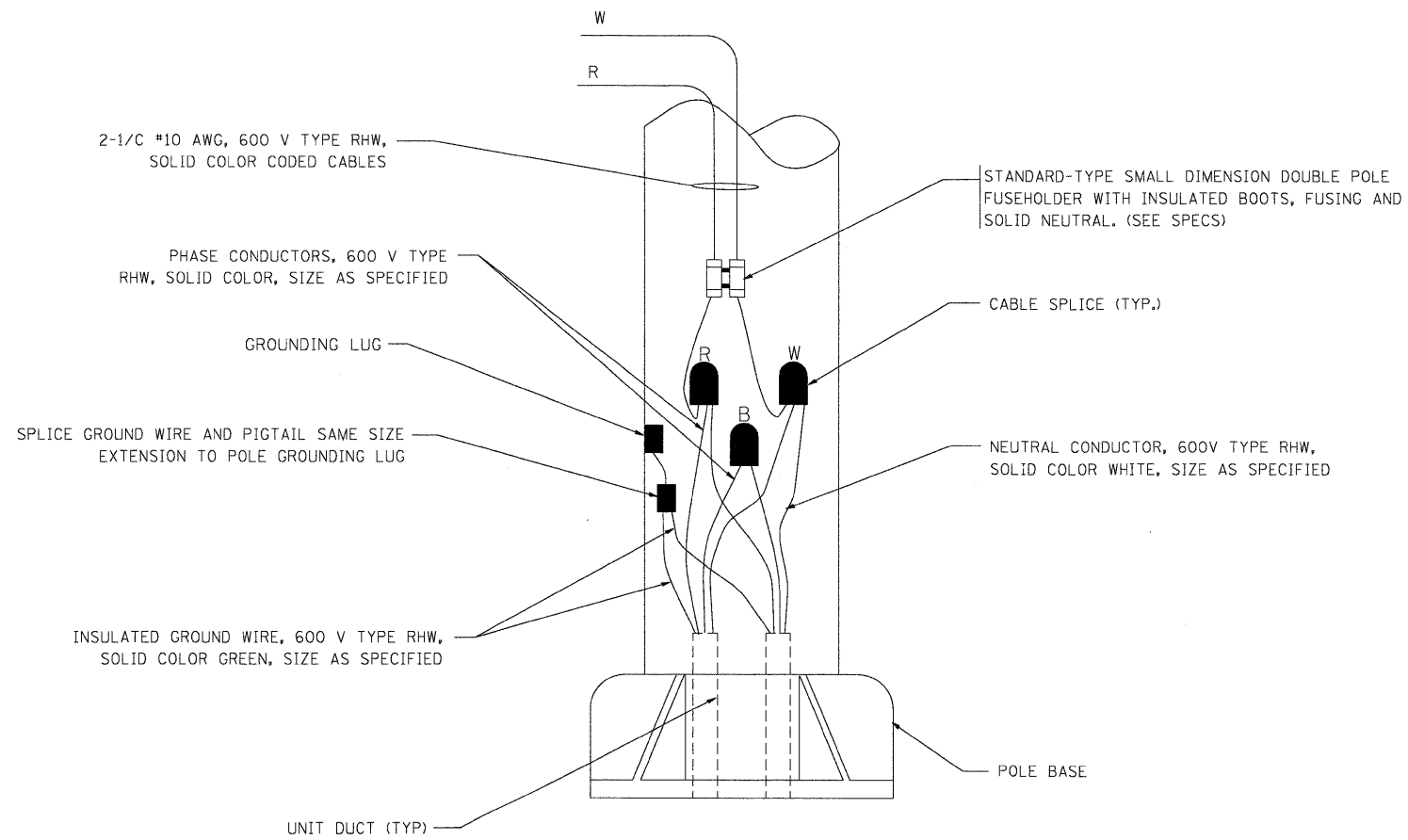
1/27/2009

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	79
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



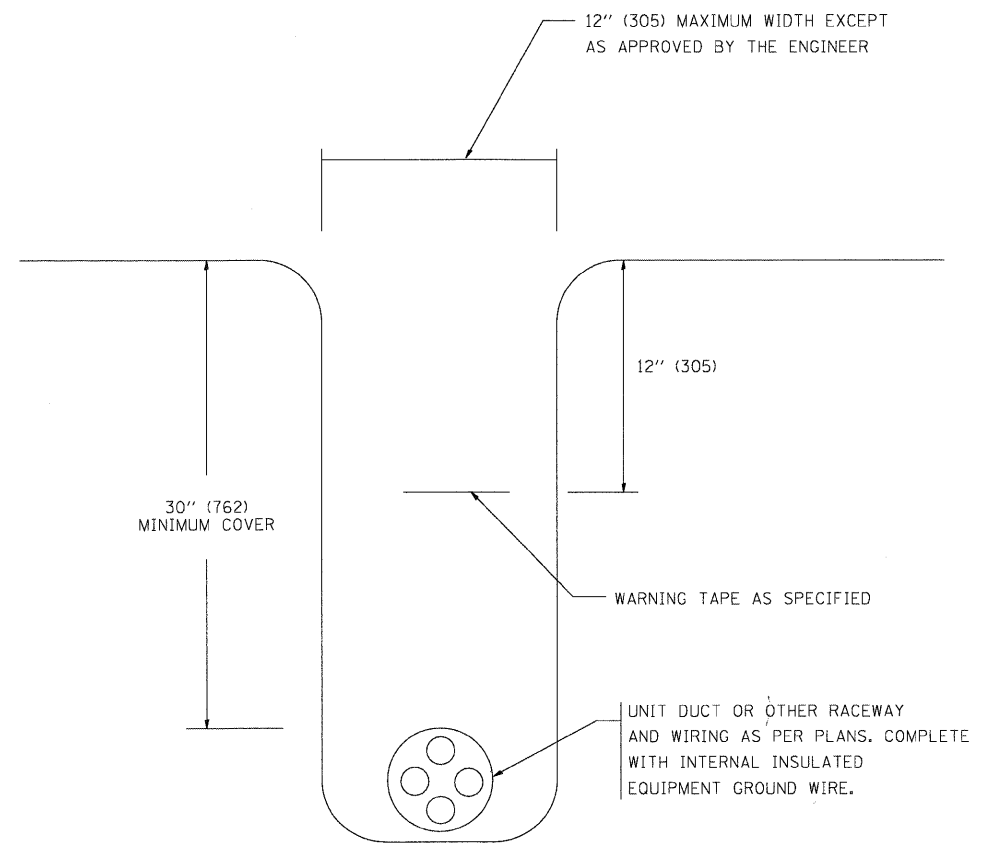
TYPICAL SPLICE DETAIL

N.T.S.



POLE WIRING DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

N.T.S.

REVISIONS	
NAME	DATE
	08/08/03

ILLINOIS DEPARTMENT OF TRANSPORTATION

MISC. ELECTRICAL DETAILS
SHEET A

SCALE: VERT. NONE
HORIZ.

DRAWN BY
CHECKED BY

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	PLDT SCALE = #SCALE#	DRAWN -	REVISED -
	PLDT DATE = 1/27/2009	CHECKED -	REVISED -
		DATE = 1/22/2009	REVISED -

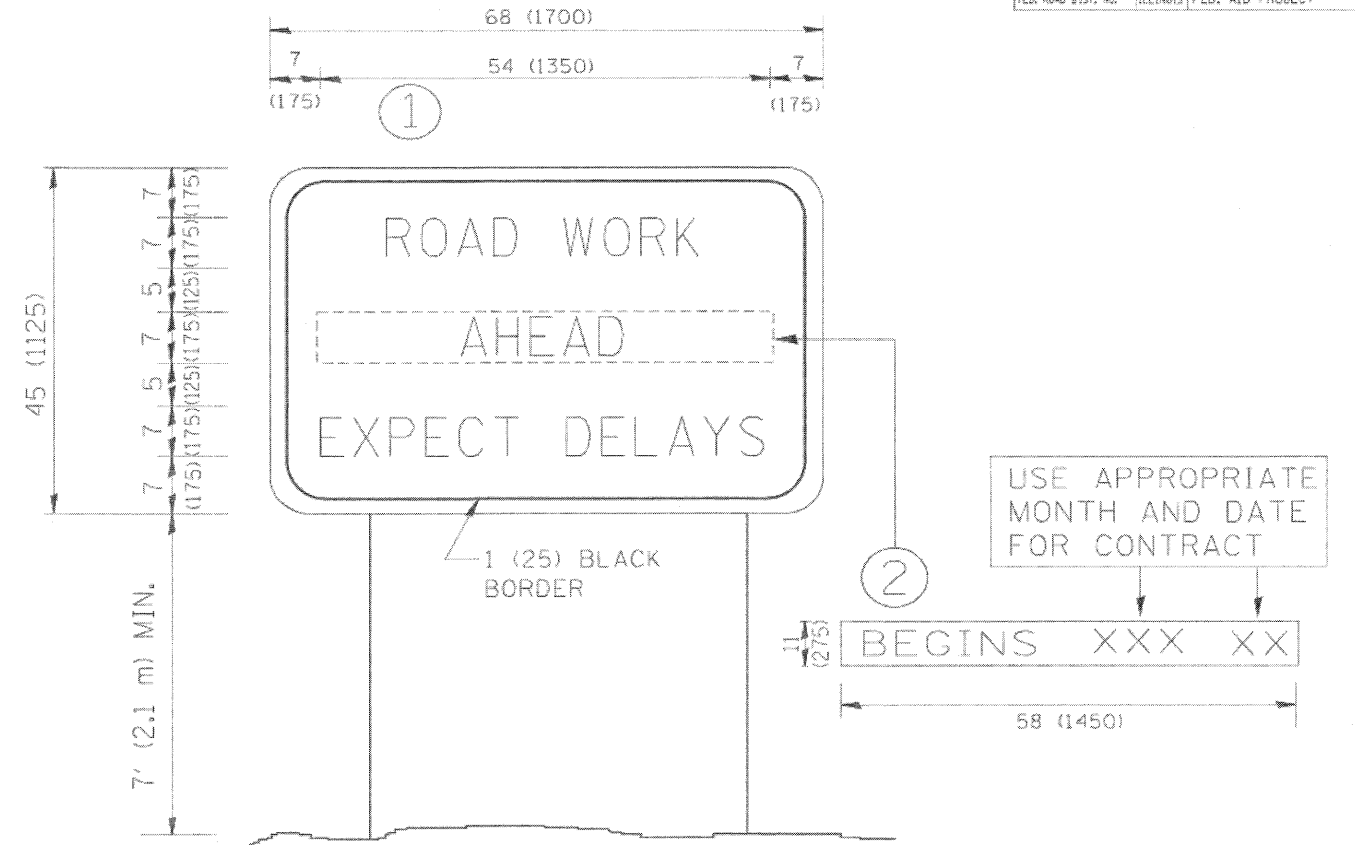
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISC. ELECTRICAL DETAILS
SHEET A
BE-702

SCALE: N.T.S. SHEET NO. OF SHEETS STA. - TO STA. -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	79
CONTRACT NO. 60F87				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2008-08-31	COOK	80	80
STA.		TO STA.		
FED. ROAD DIST. NO.		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.

REVISIONS	
NAME	DATE
R. MJRS	9-15-97
H. MJRS	12-11-97
T. RAUMACHER	2-2-99
C. JUCTUS	1-31-07

ILLINOIS DEPARTMENT OF TRANSPORTATION
**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE

DRAWN BY DESIGN
CHECKED BY
TC22

PLOT DATE = 3/9/2007
FILE = I:\projects\60f87\1022.dwg
PLOT SCALE = 50:1000 / 1"=20'
USER NAME = bward