

62736

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	1
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

D-91-170-04



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PLANS FOR PROPOSED
FEDERAL AID HIGHWAY**

**DISTRICT 1
CONGESTION MITIGATION AIR QUALITY**

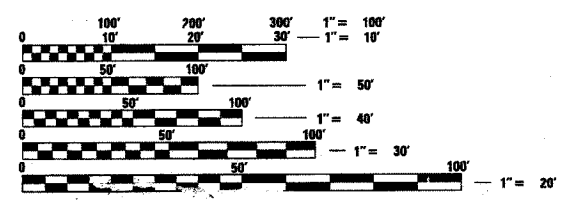
**FIBER OPTIC COMMUNICATIONS NETWORK
FAP ROUTE 344 U.S. ROUTE 12 (RAND RD.)
FROM ILL. ROUTE 83 (ELMHURST RD.) TO CAMP McDONALD RD.
FAP ROUTE 334 ILL. ROUTE 83 (ELMHURST RD.)
FROM U.S. ROUTE 12 (RAND RD.) TO WILLOW RD.
PROJECT: CMF-000S(463)
SECTION 2004-017 TS
COOK COUNTY
C-91-170-04**

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8. CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES - U.S. ROUTE 12 (RAND RD.) AT CAMP MCDONALD RD.
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- 19-21. EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION - U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) AND KENSINGTON/FOUNDRY RD.
22. TRAFFIC SIGNAL MODIFICATION PLAN - ILL. ROUTE 83 (ELMHURST RD.) AT RANDHURST SOUTH DR./MEADOW LANE
23. CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES - ILL. ROUTE 83 (ELMHURST RD.) AT RANDHURST SOUTH DR./MEADOW LANE
- 24-25. TRAFFIC SIGNAL MODIFICATION PLAN - ILL. ROUTE 83 (ELMHURST RD.) AT EUCLID AVE.
26. CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES - ILL. ROUTE 83 (ELMHURST RD.) AT EUCLID AVE.
- 27-28. TRAFFIC SIGNAL MODIFICATION PLAN - ILL. ROUTE 83 (ELMHURST RD.) AT CAMP MCDONALD RD.
29. CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES - ILL. ROUTE 83 (ELMHURST RD.) AT CAMP MCDONALD RD.
30. TRAFFIC SIGNAL MODIFICATION PLAN - ILL. ROUTE 83 (ELMHURST RD.) AT WILLOW RD.
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- 32-37. INTERCONNECT PLAN - U.S. ROUTE 12 (RAND RD.) FROM CAMP MCDONALD RD. TO ILL. RTE. 83 (ELMHURST RD.) AND KENSINGTON/FOUNDRY RD. - AND ILL. RTE. 83 (ELMHURST RD.) FROM U.S. RTE. 12 (RAND RD.) TO WILLOW RD.
38. INTERCONNECT SCHEMATIC

STANDARDS

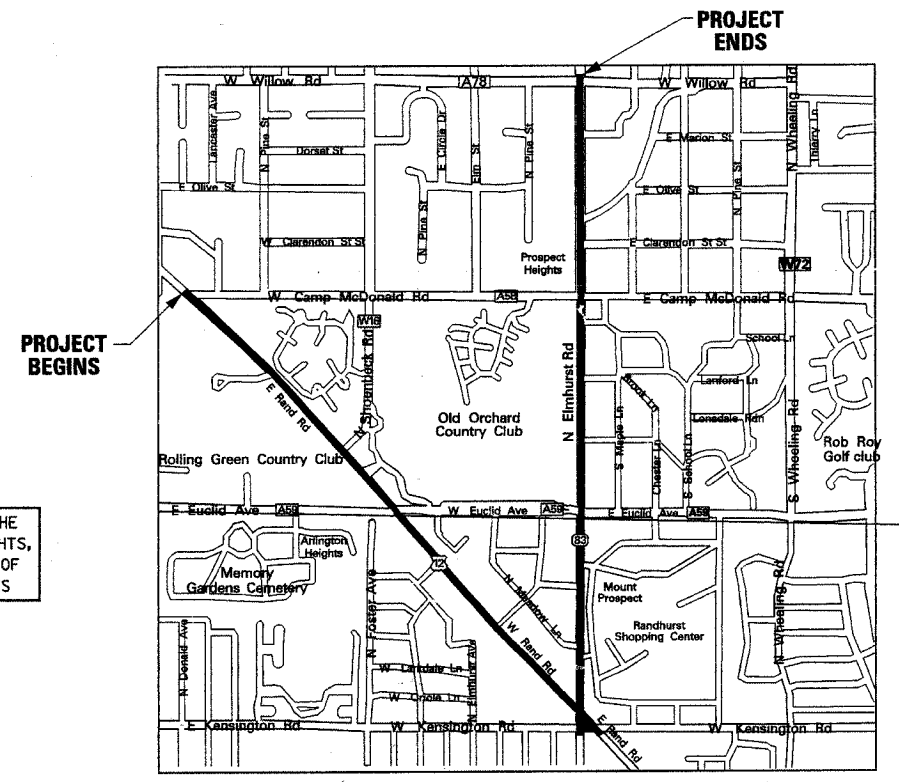
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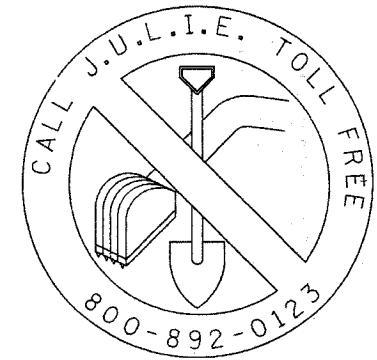
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

PREPARED BY: Terry Romm 3/20/05
TRAFFIC ENGINEER DATE

CONTRACT NO. 62736



WHEELING TOWNSHIP
LOCATION MAP



48 - HOURS BEFORE DIGGING

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED: March 22, 2005
Deane M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 13, 2005
Mike Kane
ENGINEER OF DESIGN AND ENVIRONMENT

May 13, 2005
Victor Modesto
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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

SUMMARY OF QUANTITIES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	2
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				

PERCENTAGES				LOCATION OF WORK								
				U.S. RTE. 12 (RAND RD.) AT CAMP McDONALD RD.	U.S. RTE. 12 (RAND RD.) AT SCHOENBECK RD.	U.S. RTE. 12 (RAND RD.) AT EUCLID AVE.	U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) / KENSINGTON-FOUNDRY RD.	ILL. RTE. 83 (ELMHURST RD.) AT RANDHURST/MEADOW LANE	ILL. RTE. 83 (ELMHURST RD.) AT EUCLID AVE.	ILL. RTE. 83 (ELMHURST RD.) AT CAMP McDONALD RD.	ILL. RTE. 83 (ELMHURST RD.) AT WILLOW RD.	INTERCONNECT U.S. RTE. 12 (RAND RD.) FROM CAMP McDONALD RD. TO ILL. RTE. 83 (ELMHURST RD.) AND ILL. RTE. 83 (ELMHURST RD.) FROM U.S. RTE. 12 (RAND RD.) TO WILLOW RD.

SUMMARY OF QUANTITIES				CONSTRUCTION CODE TYPE								
CODE NUMBER	ITEM	UNIT	TOTAL QUANTITIES	URBAN								
				Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F
44003100	MEDIAN REMOVAL	SQ FT	38							38		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4									
67100100	MOBILIZATION	L SUM	1									
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.12
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	663							663		
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	156							156		
* 78300400	THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ FT	76							76		
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	9297					190				9107
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	3635					210				3425
81400100	HANDHOLE	EACH	17									17
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	9297					190				9107
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	8	1	1	1	1	1	1	1	1	1
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET(SPECIAL)	EACH	7	1	1	1	1	1	1	1	1	1
86000105	MASTER CONTROLLER (SPECIAL)	EACH	1									1
86400100	TRANSCEIVER - FIBER OPTIC	EACH	8	1	1	1	1	1	1	1	1	1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	990					210	780			
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1776					216	1560			
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	4156	739			2672				745	
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	736	59	117	49		139	134	199	39	
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 14 FT.	EACH	3				1				2	
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	EACH	10				2	2	4		2	
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL, 18 FT.	EACH	5				4				1	
87900200	DRILL EXISTING HANDHOLE	EACH	19				6					13
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	40	4	4	8		8	4	8	4	
88500100	INDUCTIVE LOOP DETECTOR	EACH	62	7	5	9	6	7	8	10	10	
88800100	PEDESTRIAN PUSHBUTTON	EACH	16					2	6	4	4	
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	13				13					
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	956	40	196	60		120	115	405	20	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	8	1	1	1	1	1	1	1	1	
89502600	SIGNAL HEAD LENS, REMOVE AND REPLACE	EACH	6				6					
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1C	FOOT	16154									16154
X8050015	SERVICE INSTALLATION, POLE MOUNT	EACH	7	1	1	1		1	1	1	1	
X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	16336									16336
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	736	59	117	49		139	134	199	39	
X8800020	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION MAST ARM MOUNTED	EACH	16	3	3	3		1		4	2	
X8800035	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION BRACKET MOUNTED	EACH	13	4	3				3		3	
X8800040	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION BRACKET MOUNTED	EACH	6		1					4	1	
X8800045	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION MAST ARM MOUNTED	EACH	21	1	1	5		4	4	4	2	
X8800060	SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2	1	1							
X8800070	SIGNAL HEAD, L.E.D., 2-FACE, 5 SECTION, BRACKET MOUNTED	EACH	2			1			1			
X8805280	SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION, 5-SECTION, BRACKET MOUNTED	EACH	10	1		3		2	3		1	
X8805310	SIGNAL HEAD, L.E.D., 3-FACE, 3-SECTION, 2-5SECTION, BRACKET MOUNTED	EACH	2					2				
X8810610	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED	EACH	8					2	4		2	
X8810620	PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED	EACH	9						2	4	3	

* SPECIALTY ITEMS

REVISIONS	
NAME	DATE

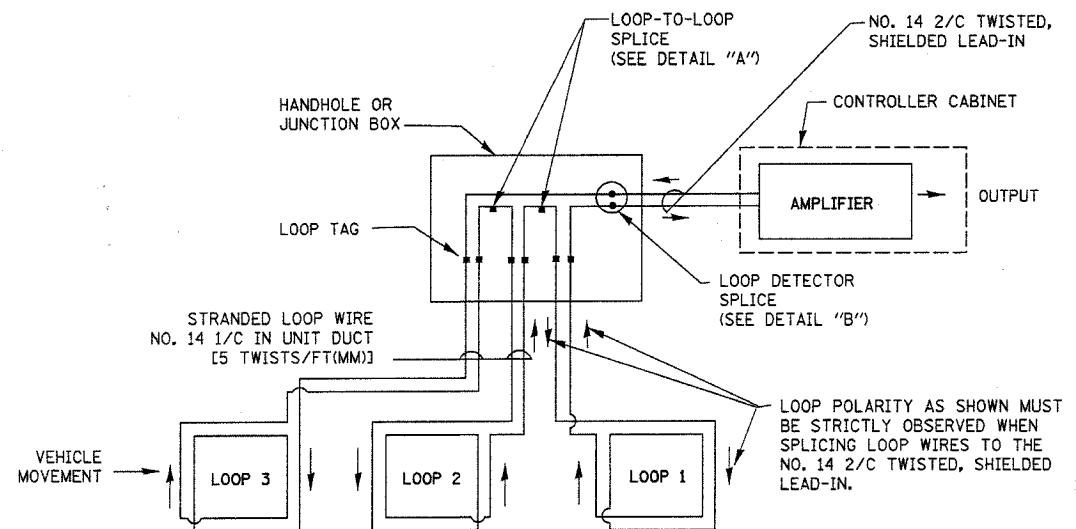
ILLINOIS DEPARTMENT OF TRANSPORTATION
 SUMMARY OF QUANTITIES
 U.S. RTE. 12 (RAND RD.) FROM CAMP
 McDONALD RD. TO ILL. ROUTE 83
 (ELMHURST RD.) AND
 ILL. RTE. 83 (ELMHURST RD.) FROM
 U.S. RTE. 12 (RAND RD.) TO WILLOW RD.
 SCALE: NONE
 DATE: JUNE 25, 2004
 DRAWN BY: BCK
 DESIGNED BY: SM
 CHECKED BY: DAD

FILE\$
 \$DATE\$

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-0177S	COOK	38	3
STA. 2004-0177S		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				

LOOP DETECTOR NOTES

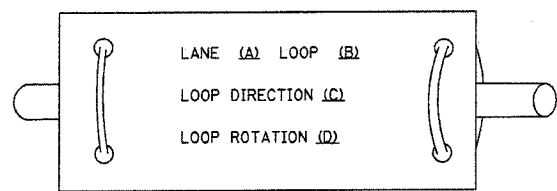
- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED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



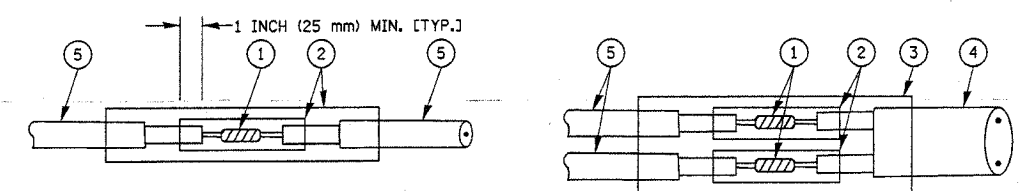
DETECTOR LOOP WIRING SCHEMATIC

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

LOOP LEAD-IN CABLE TAG



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



DETAIL "A" LOOP-TO-LOOP SPLICE

DETAIL "B" LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

TS-3

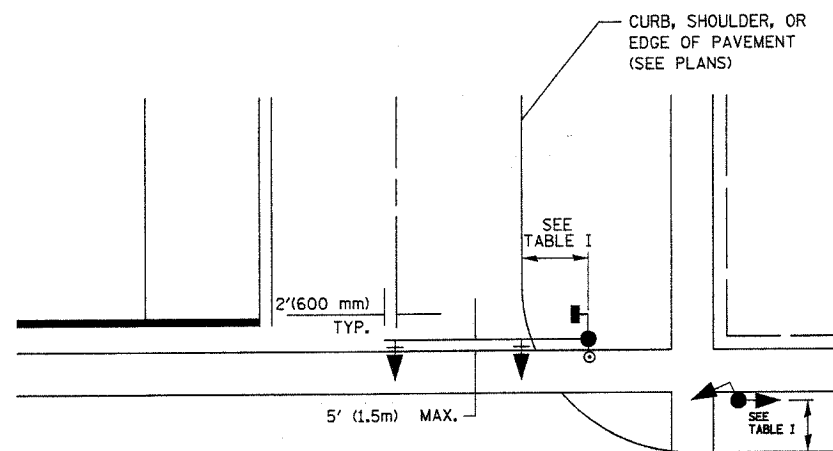
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT ONE
 STANDARD TRAFFIC SIGNAL
 DESIGN DETAILS
 SCALE: VERT. NONE
 HORIZ. DATE 1-01-02
 DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 1 OF 4

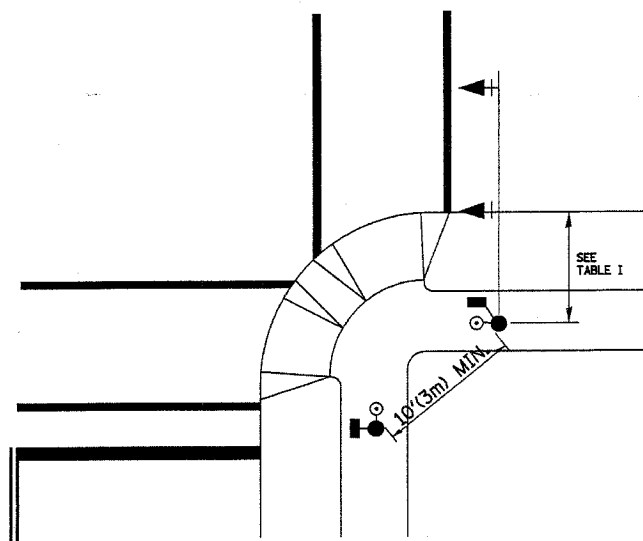
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TRAFFIC SIGNAL MAST ARM AND POST

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.

1. 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
2. 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.
 3. 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.
 4. 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

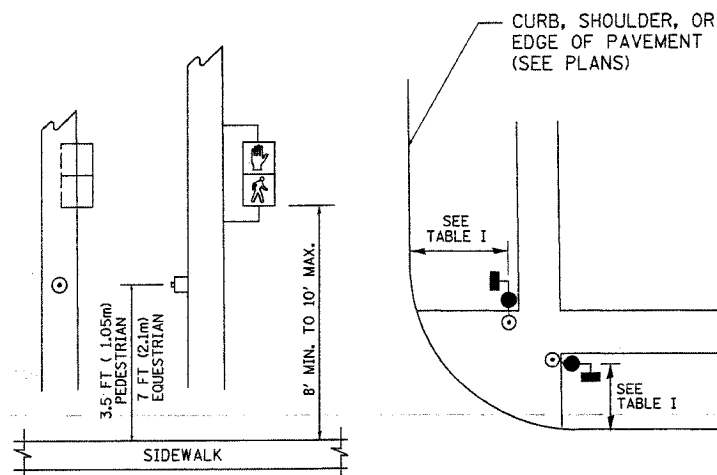


TABLE I

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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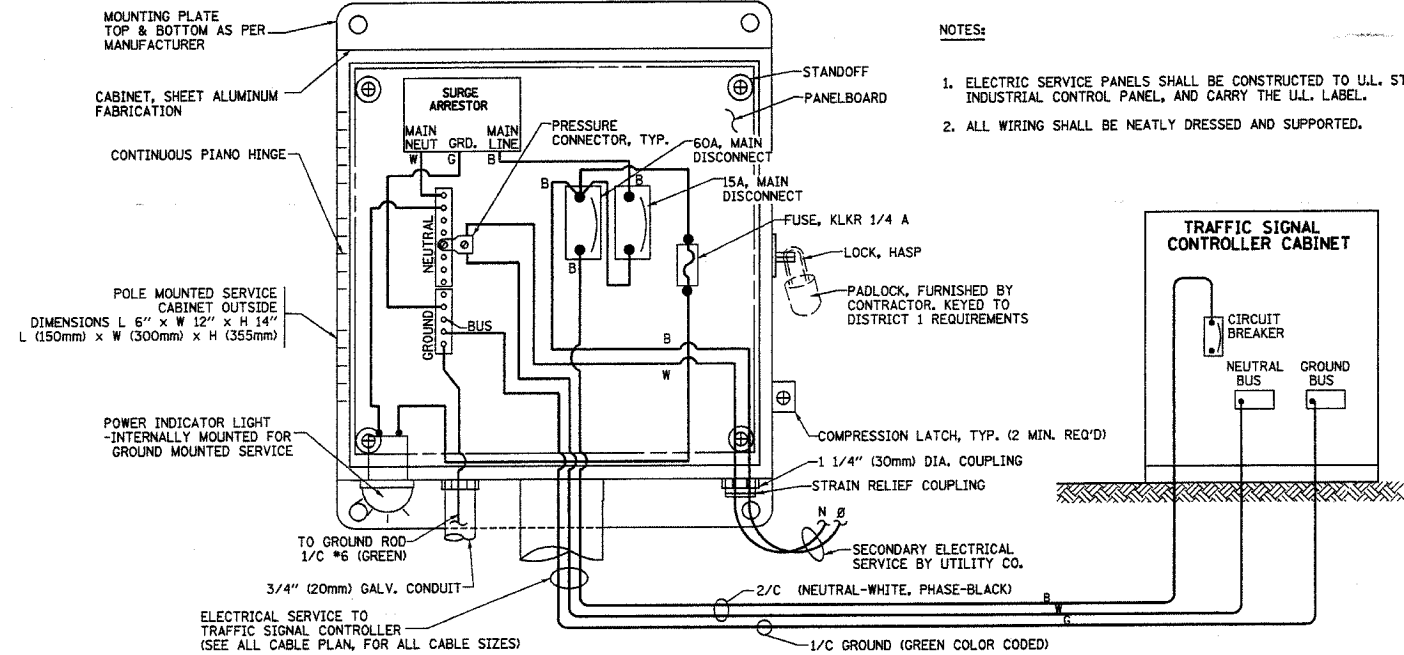
TS-4

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		DISTRICT STANDARD TRAFFIC SIGNAL DESIGN DETAILS

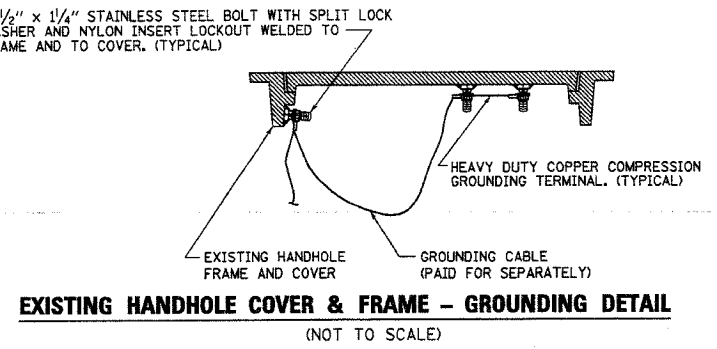
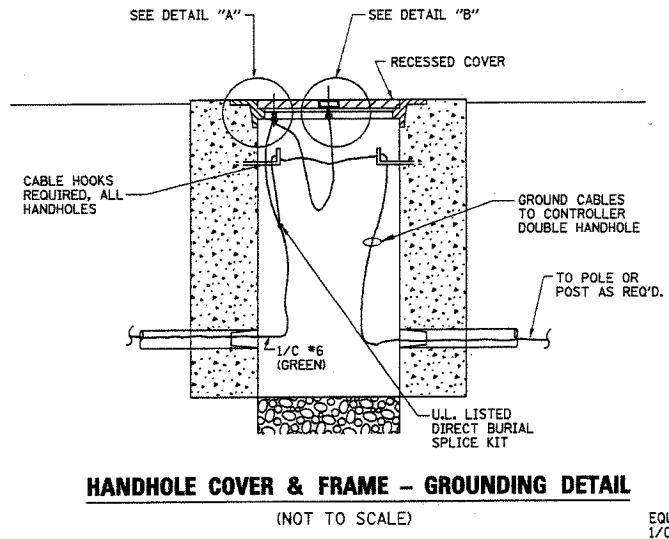
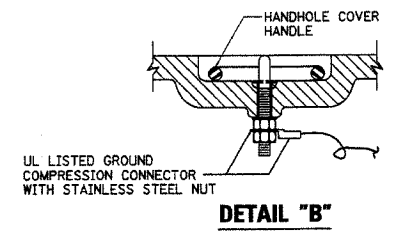
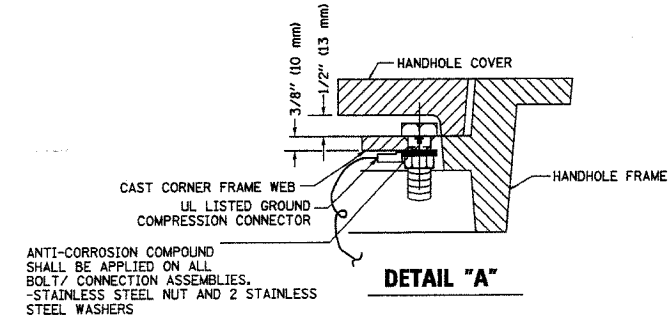
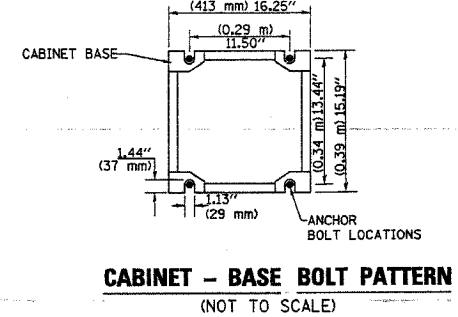
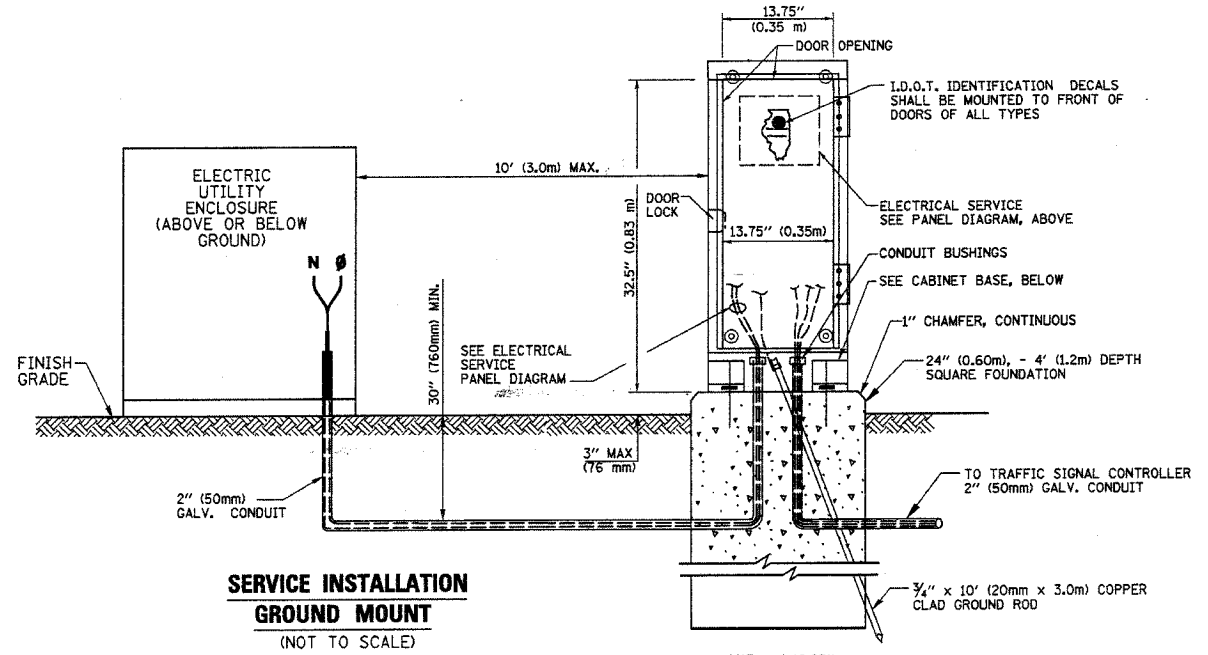
SCALE: VERT. NONE
HORIZ. NONE
DATE 1-01-02

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

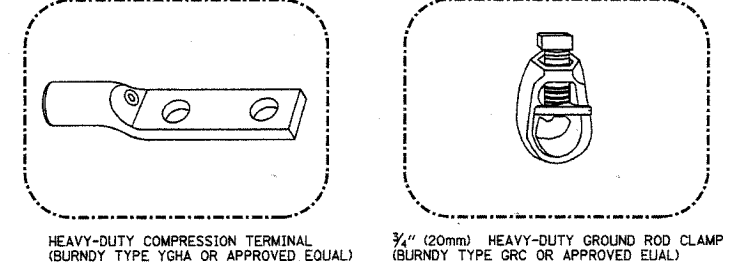
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	5
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				



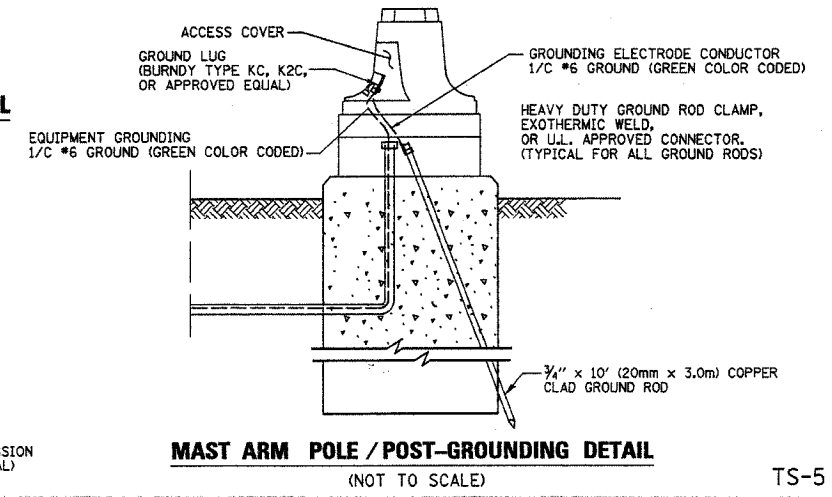
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



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



- 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.



REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

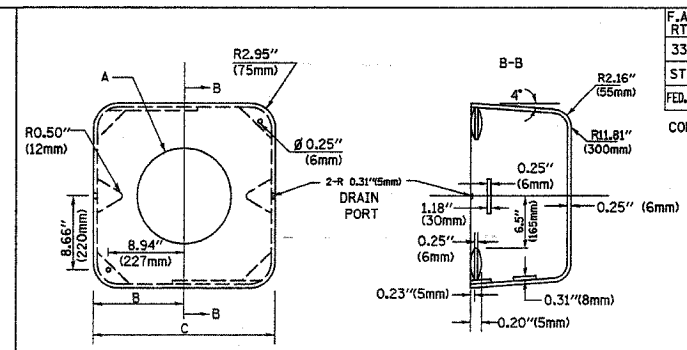
SCALE: VERT. NONE
 HORIZ. NONE
 DATE 1-01-02

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

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-01775	COOK	38	6
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				

MATERIAL:
 - ASTM A48 CLASS 30 GREY IRON
 - ASTM A123 HOT DIPPED GALVANIZED

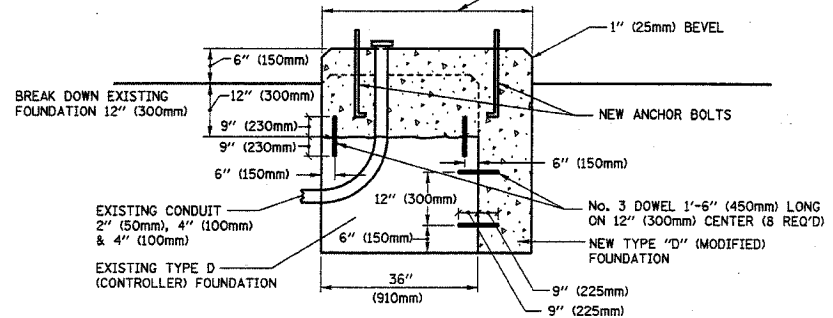


TYPE	A	B	C	HEIGHT	WEIGHT
I	∅ 10.125" (257mm)	9.5" (241mm)	19" (483mm)	12" (300mm)	24kg
II	∅ 11.125" (283mm)	10.75" (273mm)	21.5" (546mm)	12" (300mm)	26kg

SHROUD DETAIL

NOTE

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

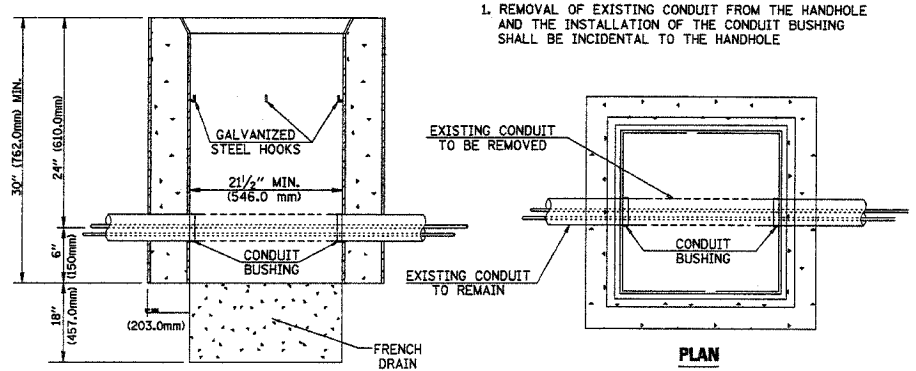


MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)

NOTE

1. REMOVAL OF EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHING SHALL BE INCIDENTAL TO THE HANDHOLE



DETAIL HANDHOLE TO INTERCEPT EXISTING CONDUIT

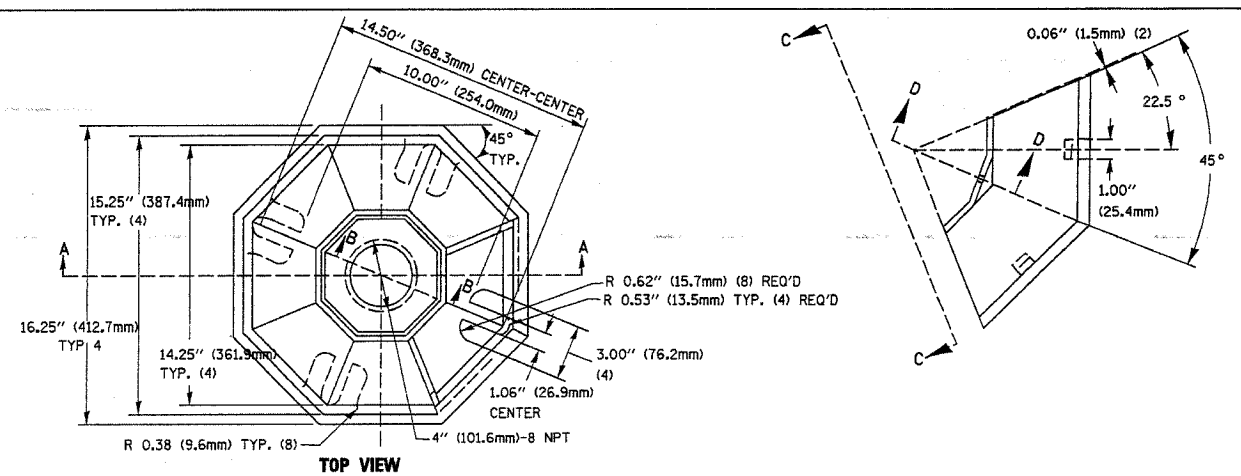
(NOT TO SCALE)

REVISIONS	
NAME	DATE

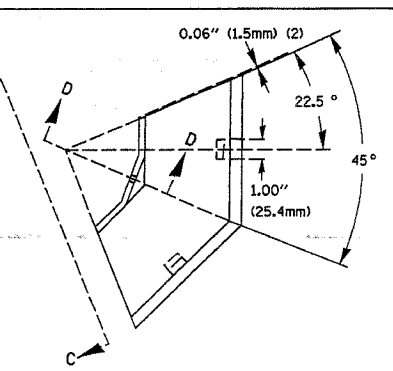
ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT 1
 STANDARD TRAFFIC SIGNAL
 DESIGN DETAILS

SCALE: VERT. NONE
 HORIZ. 1"=1'-0"
 DATE 1-01-02

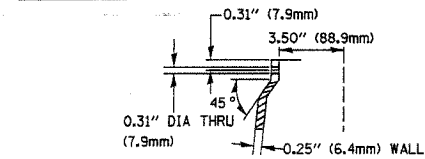
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 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 4 OF 4



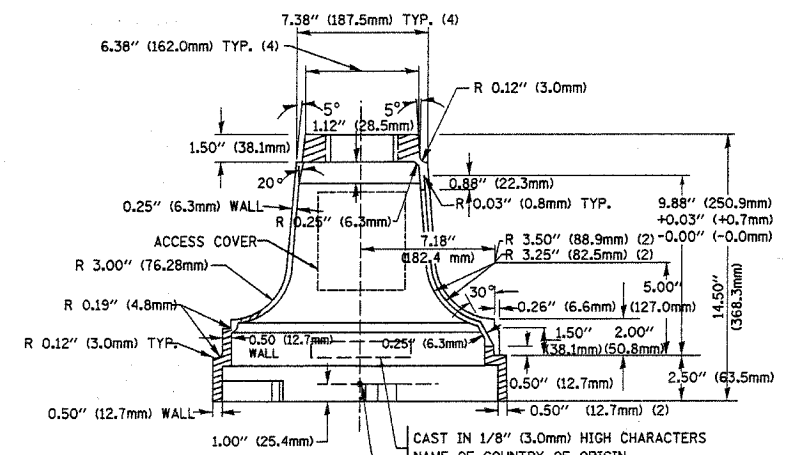
TOP VIEW



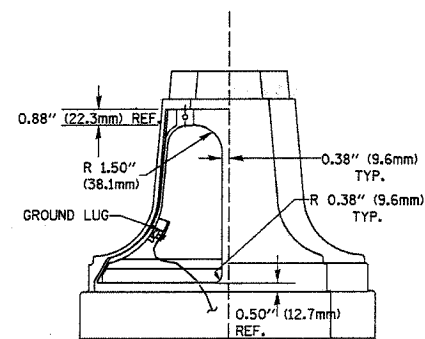
SECTION B-B



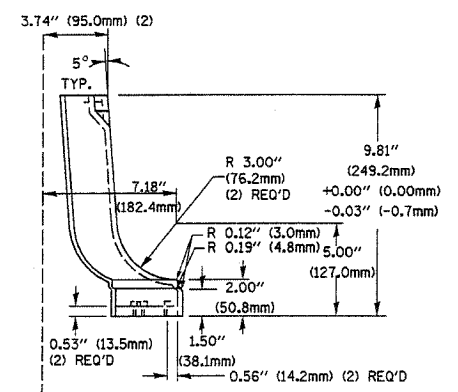
SECTION D-D



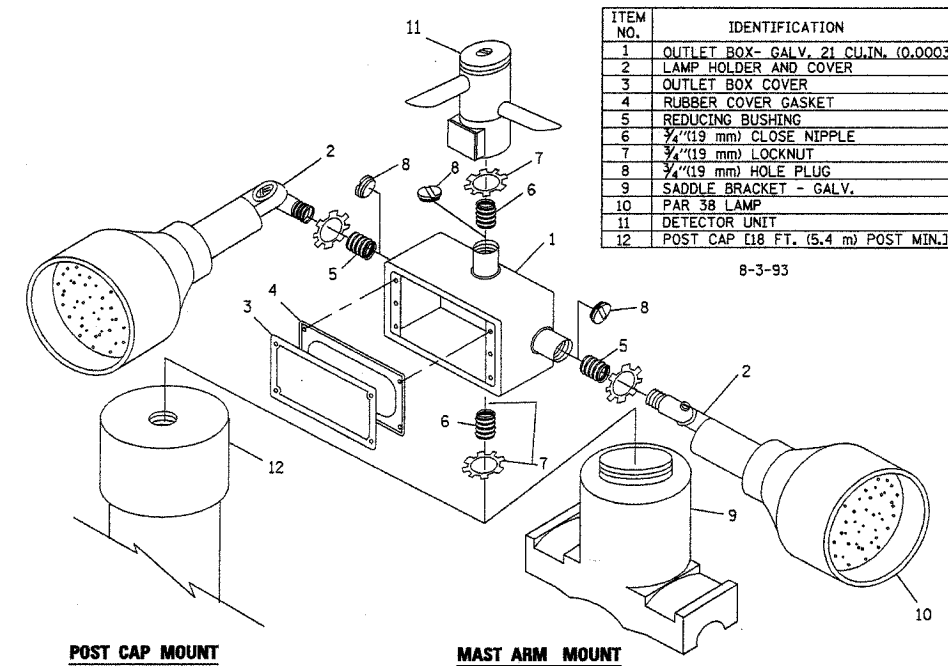
SECTION A-A



VIEW C-C



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



POST CAP MOUNT

MAST ARM MOUNT

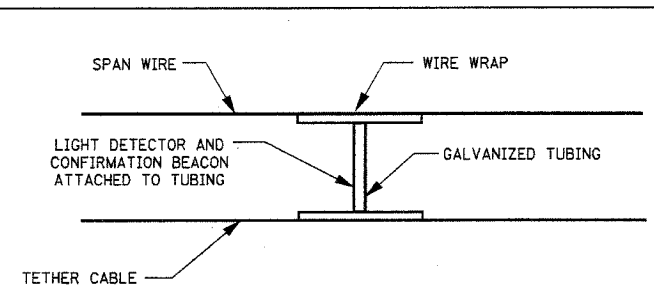
EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 21 CU. IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	PAR 38 LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

8-3-93

NOTES:

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

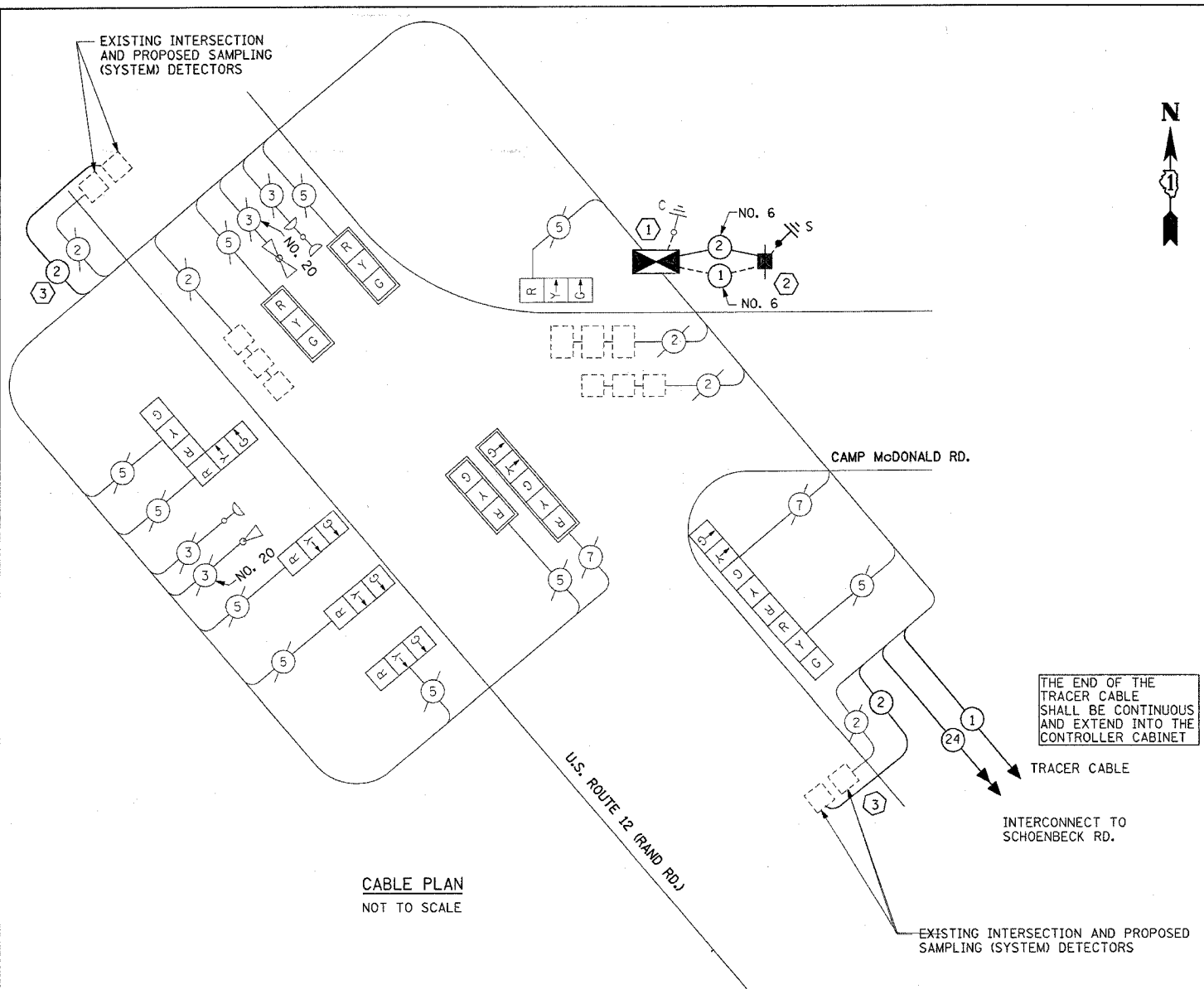


LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS

(NOT TO SCALE)

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	8
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
CONTRACT #62736				



CABLE PLAN LEGEND

EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		TELEPHONE INSTALLATION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION

SCHEDULE OF QUANTITIES

ITEM	UNIT	QNTY.
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.11
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	739
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	59
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	59
INDUCTIVE LOOP DETECTOR	EACH	7
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	40
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	3
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4

NOTE:
THE PROPOSED TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT IS "ECONOLITE".

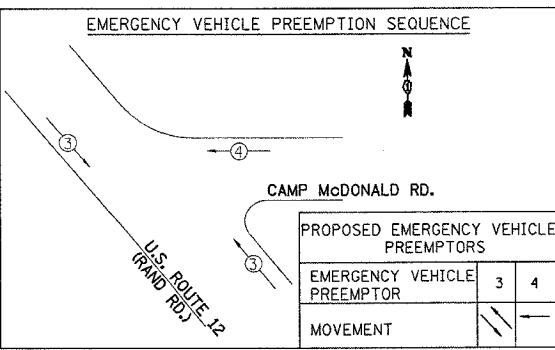
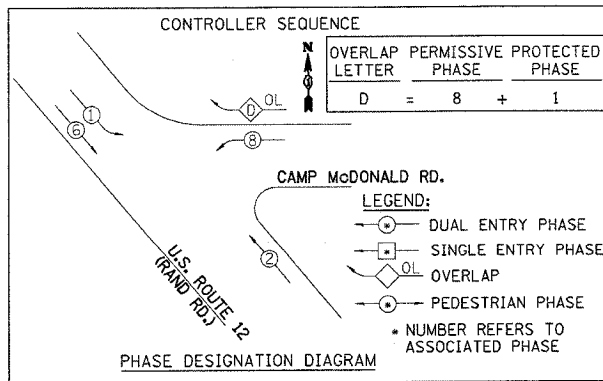
CABLE PLAN
NOT TO SCALE

CONSTRUCTION NOTES:

- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RE-USE EXISTING FOUNDATION. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CONTROLLER CABINET INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.
- REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.
- INSTALL NEW ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR.

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

TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	4	135	12	0.10	4.80
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					326.80



FOUNDATION (DEPTH)	(FT.) (m)	CABLE SLACK (FT.) (m)	CABLE SLACK (FT.) (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)
E - M. ARM POLE	2 (0.6)	SIGNAL POST	2 (0.6)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)
		ELECTRIC SERVICE	1 (0.5)
		GROUND CABLE	1 (0.5)
		POST MOUNTED	6 (1.8)

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 1
201 W Center Court / Schaumburg, Illinois 60196-1096

ENERGY SUPPLY: CONTACT: MS. JUDY SCHOMER
PHONE: (847)-870-2063
COMPANY: ComEd

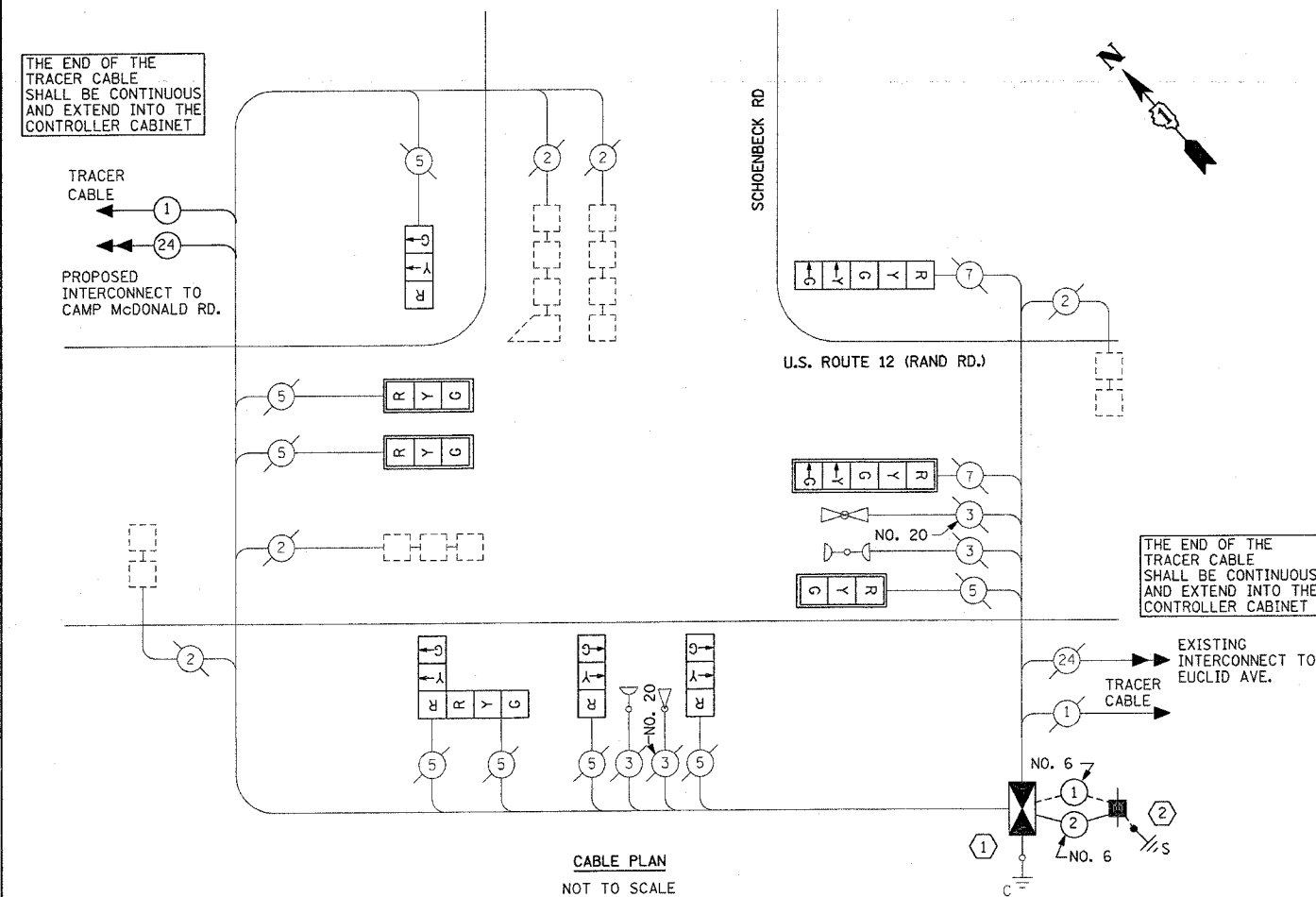
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM,
EMERGENCY VEHICLE PREEMPTION SEQUENCE
AND SCHEDULE OF QUANTITIES
U.S. ROUTE 12 (RAND RD.)
AT CAMP McDONALD ROAD

SCALE: NONE
DATE: JUNE 22, 2004

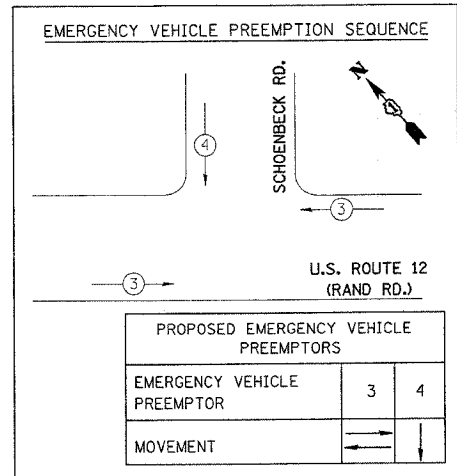
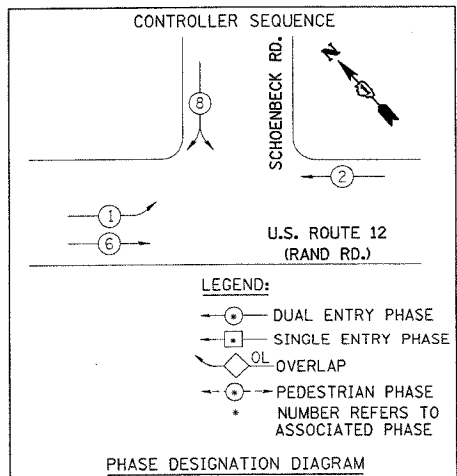
DRAWN BY: BCK
DESIGNED BY: SM
CHECKED BY: DAD

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-01TTS	COOK	38	10
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				



NOTE:
THE PROPOSED TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT IS "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND. LED	% OPERATION		
SIGNAL (RED)	10	135	17	0.50	85.00
(YELLOW)	10	135	25	0.25	62.50
(GREEN)	10	135	15	0.25	37.50
ARROW	4	135	12	0.10	4.80
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					189.80



CABLE PLAN LEGEND

- | EXISTING | PROPOSED | |
|----------|----------|-------------------------------------------------------------------------------------------------------------|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | TELEPHONE INSTALLATION |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F |
| | | SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD. |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) |
| | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |

SCHEDULE OF QUANTITIES

ITEM	UNIT	QNTY.
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.11
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	117
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	117
INDUCTIVE LOOP DETECTOR	EACH	5
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	196
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	3
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM		4

CONSTRUCTION NOTES:

- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RE-USE EXISTING FOUNDATION. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CONTROLLER CABINET INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.
- REMOVE EXISTING SERVICE CABLE, GROUND CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 1
201 W Center Court / Schaumburg, Illinois 60196-1096

ENERGY SUPPLY: CONTACT: MS. JUDY SCHOMER
PHONE: (847)-870-2063
COMPANY: ComEd

FOUNDATION (DEPTH)	(FT.) (m)	CABLE SLACK	(FT.) (m)	CABLE SLACK	(FT.) (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-L-2' (6m'-L-0.6m) =
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		<p>CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES U.S. ROUTE 12 (RAND RD.) AT SCHOENBECK ROAD</p> <p>SCALE: NONE DATE: JUNE 28, 2004</p> <p>DRAWN BY: BCK DESIGNED BY: SM CHECKED BY: DAD</p>

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	11
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
CONTRACT #62736				

TRAFFIC SIGNAL LEGEND

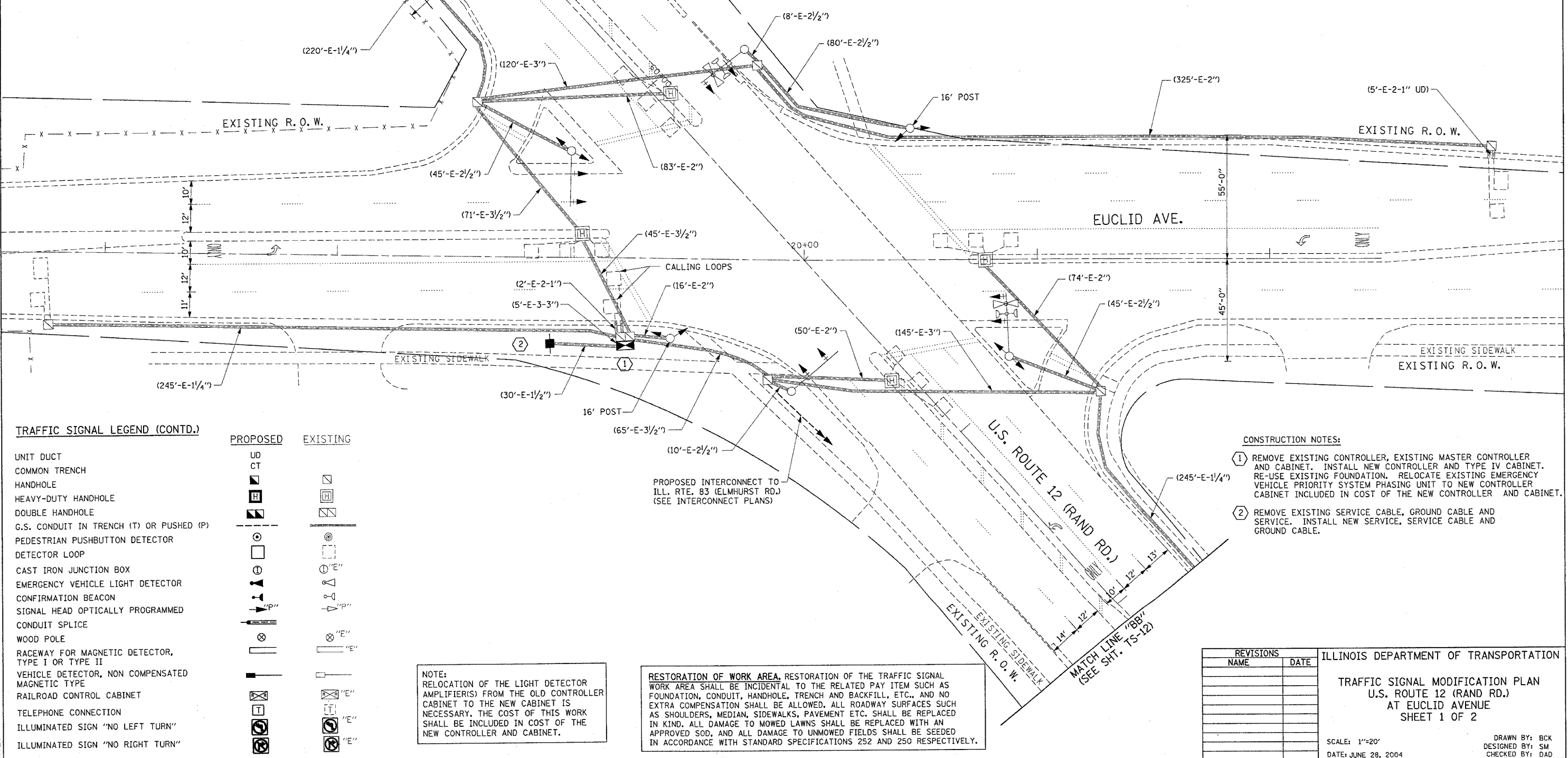
- | | | |
|--------------------------------------------------------------|--|--|
| CONTROLLER | | |
| SERVICE INSTALLATION | | |
| SIGNAL HEAD | | |
| SIGNAL HEAD WITH BACKPLATE | | |
| SIGNAL HEAD, PEDESTRIAN | | |
| SIGNAL POST | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | | |
| COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE | | |

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS:

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 1 EACH MASTER CONTROLLER

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

- 1 EACH SERVICE INSTALLATION
- 6 EACH SIGNAL HEAD, 3-SECTION
- 10 EACH SIGNAL HEAD, 5-SECTION
- 8 EACH TRAFFIC SIGNAL BACKPLATE



TRAFFIC SIGNAL LEGEND (CONTD.)

- | | | |
|--------------------------------------------------|--|--|
| UNIT DUCT | | |
| COMMON TRENCH | | |
| HANDHOLE | | |
| HEAVY-DUTY HANDHOLE | | |
| DOUBLE HANDHOLE | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | |
| DETECTOR LOOP | | |
| CAST IRON JUNCTION BOX | | |
| EMERGENCY VEHICLE LIGHT DETECTOR | | |
| CONFIRMATION BEACON | | |
| SIGNAL HEAD OPTICALLY PROGRAMMED | | |
| CONDUIT SPLICE | | |
| WOOD POLE | | |
| RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | |
| VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | | |
| RAILROAD CONTROL CABINET | | |
| TELEPHONE CONNECTION | | |
| ILLUMINATED SIGN "NO LEFT TURN" | | |
| ILLUMINATED SIGN "NO RIGHT TURN" | | |

PROPOSED INTERCONNECT TO ILL. RTE. 83 (ELMHURST RD.) (SEE INTERCONNECT PLANS)

CONSTRUCTION NOTES:

- 1 REMOVE EXISTING CONTROLLER, EXISTING MASTER CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RE-USE EXISTING FOUNDATION. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CONTROLLER CABINET INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.
- 2 REMOVE EXISTING SERVICE CABLE, GROUND CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.

NOTE: RELOCATION OF THE LIGHT DETECTOR AMPLIFIER(S) FROM THE OLD CONTROLLER CABINET TO THE NEW CABINET IS NECESSARY. THE COST OF THIS WORK SHALL BE INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.

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, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
U.S. ROUTE 12 (RAND RD.)
AT EUCLID AVENUE
SHEET 1 OF 2

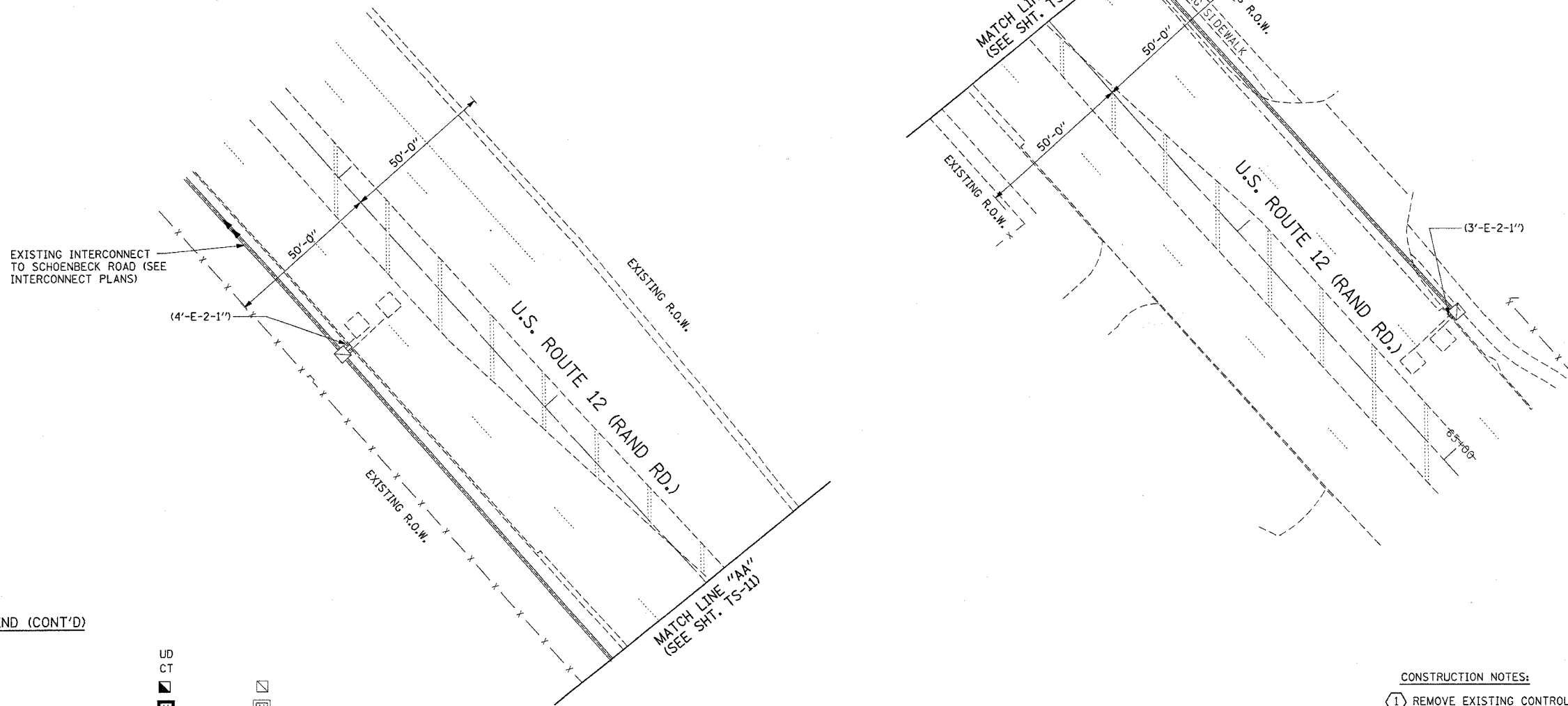
SCALE: 1"=20'
DATE: JUNE 28, 2004

DRAWN BY: BCK
DESIGNED BY: SM
CHECKED BY: DAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	12
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT
CONTRACT #62736				

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
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		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		



TRAFFIC SIGNAL LEGEND (CONT'D)

UNIT DUCT		UD
COMMON TRENCH		CT
HANDHOLE		
HEAVY-DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		"E"
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		"E"
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		"E"
RAILROAD CONTROL CABINET		"E"
TELEPHONE CONNECTION		"E"
ILLUMINATED SIGN "NO LEFT TURN"		"E"
ILLUMINATED SIGN "NO RIGHT TURN"		"E"

CONSTRUCTION NOTES:

- REMOVE EXISTING CONTROLLER, EXISTING MASTER CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RE-USE EXISTING FOUNDATION. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CONTROLLER CABINET INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.
- REMOVE EXISTING SERVICE CABLE, GROUND CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.

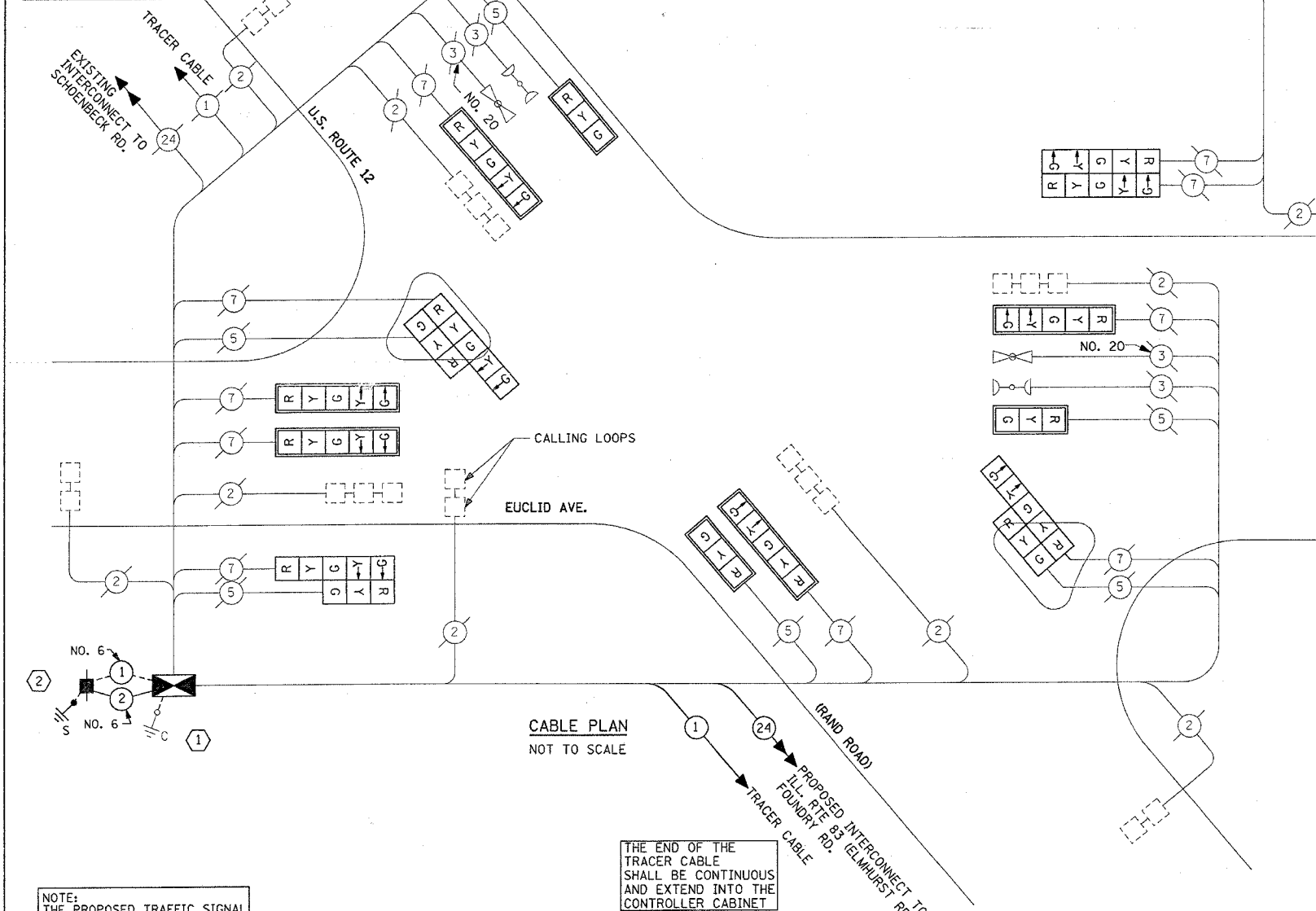
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL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

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
 U.S. ROUTE 12 (RAND RD.)
 AT EUCLID AVENUE
 SHEET 2 OF 2
 SCALE: 1"=20'
 DATE: JUNE 28, 2004
 DRAWN BY: BCK
 DESIGNED BY: SM
 CHECKED BY: DAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	13
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
CONTRACT #62736				

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



CABLE PLAN NOT TO SCALE

NOTE: THE PROPOSED TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT IS "ECONOLITE".

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

CABLE PLAN LEGEND

- | | |
|--|-------------------------------------------------------------------------------------------------------------|
| | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | CONTROLLER CABINET |
| | SERVICE INSTALLATION |
| | VEHICLE DETECTOR, INDUCTION LOOP |
| | TELEPHONE INSTALLATION |
| | MAGNETIC DETECTOR |
| | EMERGENCY VEHICLE LIGHT DETECTOR |
| | CONFIRMATION BEACON |
| | PUSHBUTTON DETECTOR |
| | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F |
| | SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD. |
| | RAILROAD CONTROL CABINET |
| | ILLUMINATED SIGN "NO LEFT TURN" |
| | ILLUMINATED SIGN "NO RIGHT TURN" |
| | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C) |
| | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |

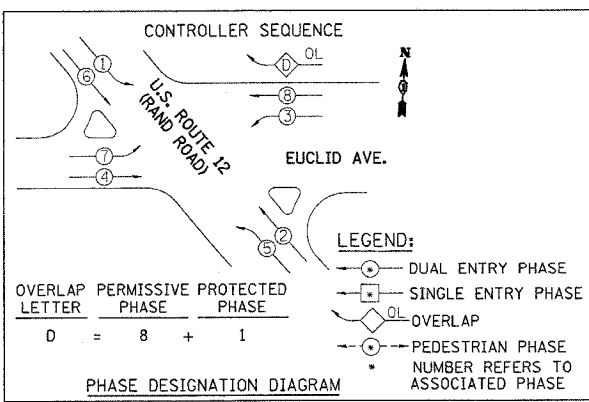
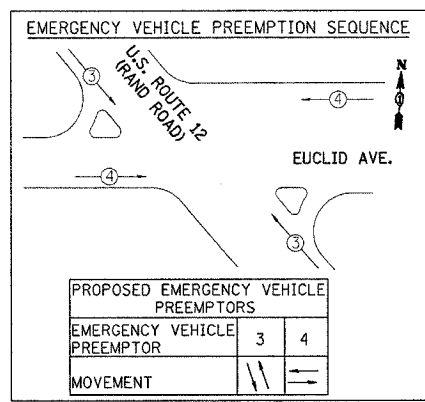
SCHEDULE OF QUANTITIES

ITEM	UNIT	QNTY.
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.11
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
TRANSCIEVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	49
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	49
INDUCTIVE LOOP DETECTOR	EACH	9
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	60
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1
SIGNAL HEAD, L.E.D., 3-SECTION MAST ARM MOUNTED	EACH	3
SIGNAL HEAD, L.E.D., 5-SECTION MAST ARM MOUNTED	EACH	5
SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION, 5-SECTION BRACKET MOUNTED	EACH	3
SIGNAL HEAD, L.E.D., 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8

CONSTRUCTION NOTES:

- REMOVE EXISTING CONTROLLER, EXISTING MASTER CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RE-USE EXISTING FOUNDATION. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CONTROLLER CABINET INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.
- REMOVE EXISTING SERVICE CABLE, GROUND CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	135	17	0.50	136.00
(YELLOW)	16	135	25	0.25	100.00
(GREEN)	16	135	15	0.25	60.00
ARROW	20	135	12	0.10	24.00
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					420.00



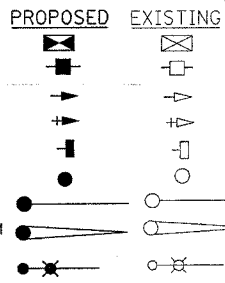
FOUNDATION (DEPTH)	(FT.) (m)	CABLE SLACK (FT.) (m)	CABLE SLACK (FT.) (m)	CABLE SLACK (FT.) (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	20'-H-L-2"
E - M. ARM POLE	4 (1.2)	SIGNAL POST	2 (0.6)	MAST ARM (L) POLE
24" (600mm)	10 (3.0)	CONTROL CAB.	1 (0.3)	BRACKET MOUNTED
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	13 (4.0)
		ELECTRIC SERVICE	1 (0.3)	4 (1.2)
		GROUND CABLE	1 (0.3)	ELECTRIC SERVICE
				SERVICE TO GROUND
				13.5 (4.1)
				6 (1.8)

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES U.S. ROUTE 12 (RAND RD.) AT EUCLID AVENUE SCALE: NONE DATE: JUNE 28, 2004

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	14
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				

TRAFFIC SIGNAL LEGEND

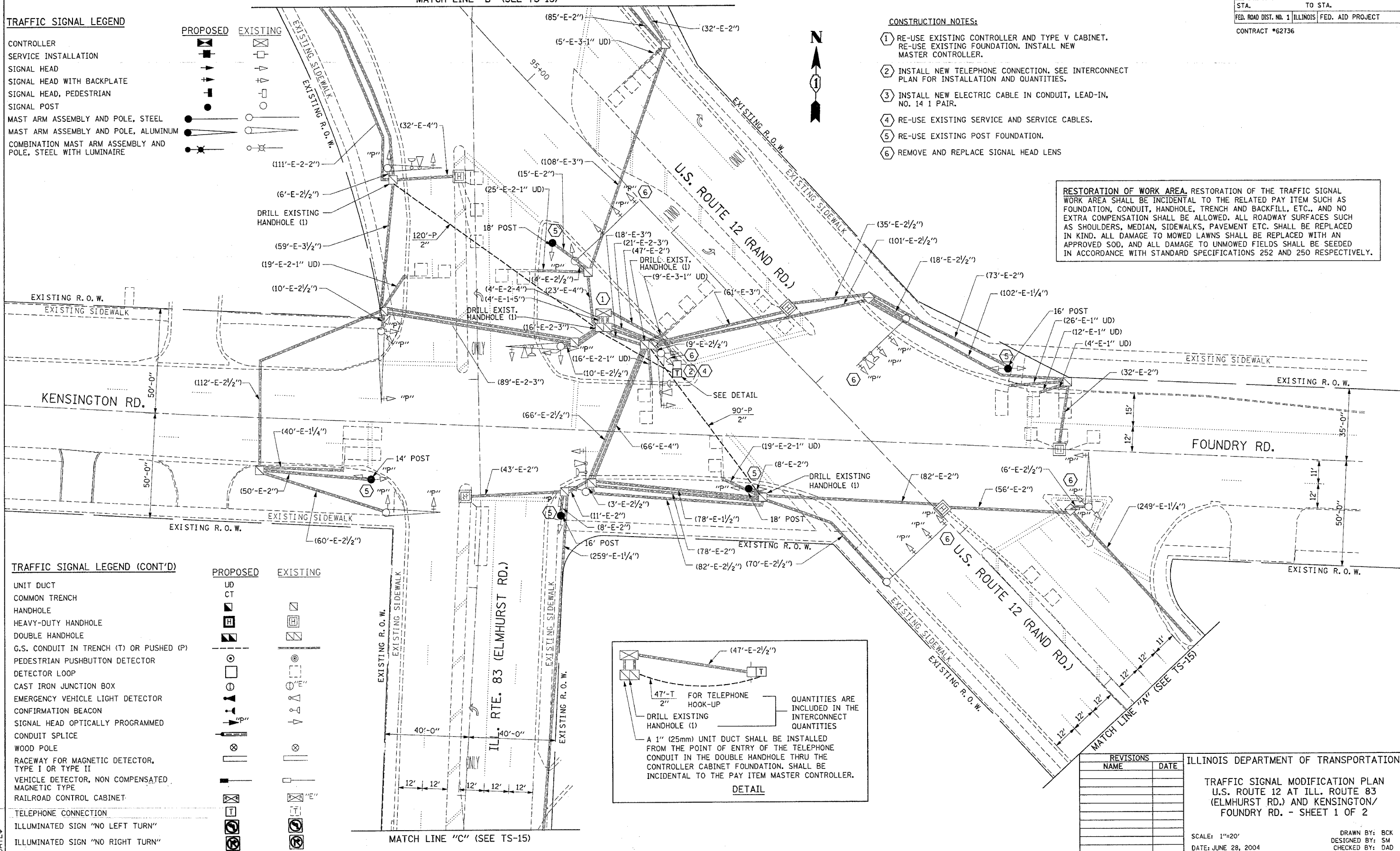
- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE



CONSTRUCTION NOTES:

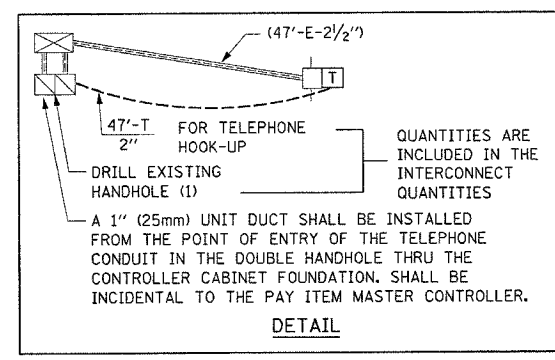
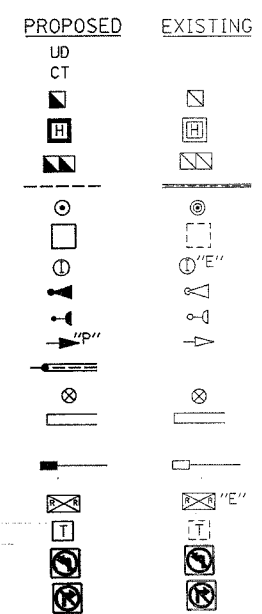
- 1 RE-USE EXISTING CONTROLLER AND TYPE V CABINET. RE-USE EXISTING FOUNDATION. INSTALL NEW MASTER CONTROLLER.
- 2 INSTALL NEW TELEPHONE CONNECTION. SEE INTERCONNECT PLAN FOR INSTALLATION AND QUANTITIES.
- 3 INSTALL NEW ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR.
- 4 RE-USE EXISTING SERVICE AND SERVICE CABLES.
- 5 RE-USE EXISTING POST FOUNDATION.
- 6 REMOVE AND REPLACE SIGNAL HEAD LENS

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, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



TRAFFIC SIGNAL LEGEND (CONT'D)

- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY-DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED, MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- TELEPHONE CONNECTION
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
U.S. ROUTE 12 AT ILL. ROUTE 83
(ELMHURST RD.) AND KENSINGTON/
FOUNDRY RD. - SHEET 1 OF 2

SCALE: 1"=20'
DATE: JUNE 28, 2004

DRAWN BY: BCK
DESIGNED BY: SM
CHECKED BY: DAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	15
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				

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]
COMBINATION 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 (T) OR PUSHED (P)	[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]

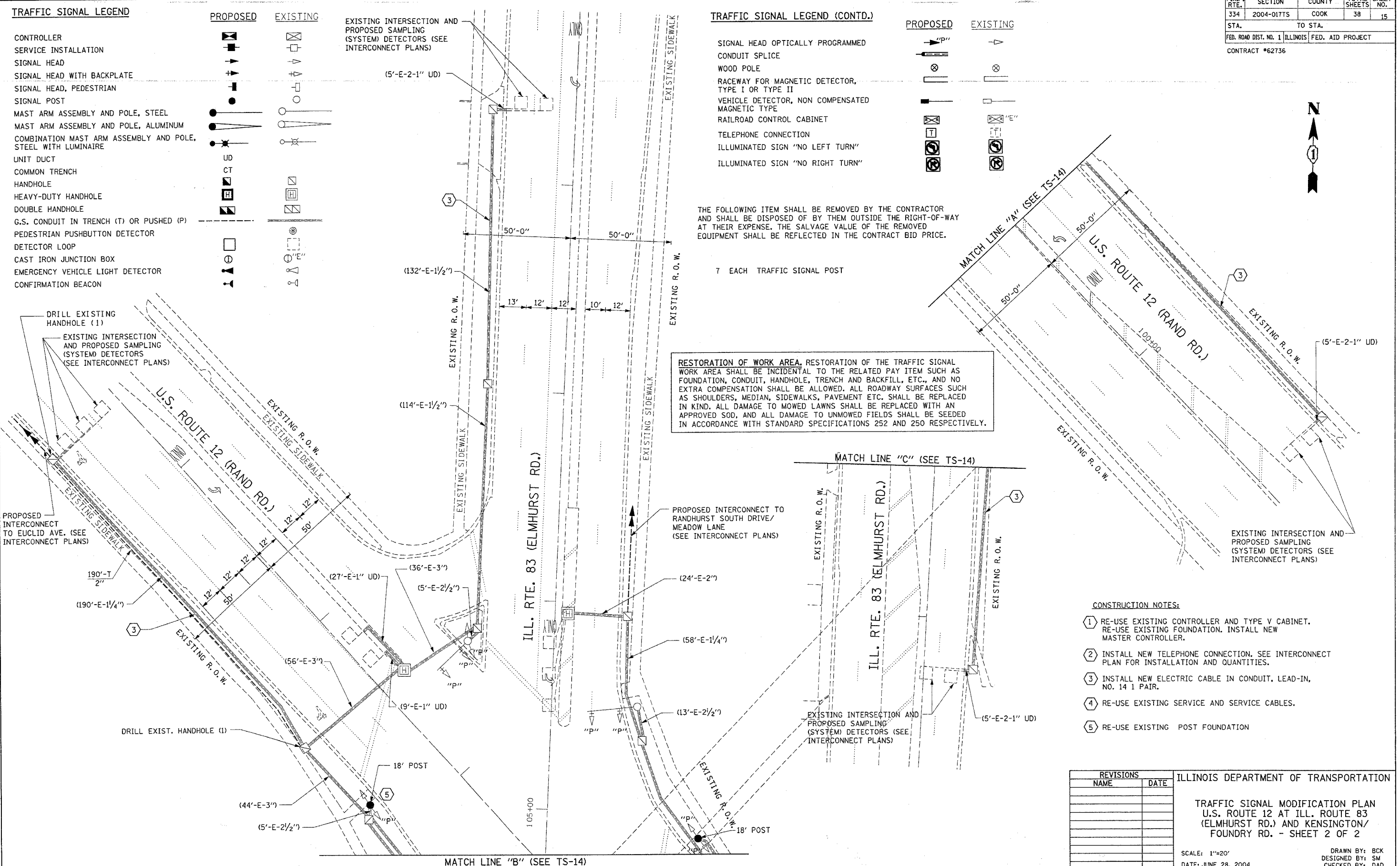
TRAFFIC SIGNAL LEGEND (CONTD.)

	PROPOSED	EXISTING
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]

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

7 EACH TRAFFIC SIGNAL POST

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, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



- CONSTRUCTION NOTES:**
- RE-USE EXISTING CONTROLLER AND TYPE V CABINET. RE-USE EXISTING FOUNDATION. INSTALL NEW MASTER CONTROLLER.
 - INSTALL NEW TELEPHONE CONNECTION. SEE INTERCONNECT PLAN FOR INSTALLATION AND QUANTITIES.
 - INSTALL NEW ELECTRIC CABLE IN CONDUIT. LEAD-IN, NO. 14 1 PAIR.
 - RE-USE EXISTING SERVICE AND SERVICE CABLES.
 - RE-USE EXISTING POST FOUNDATION

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		TRAFFIC SIGNAL MODIFICATION PLAN U.S. ROUTE 12 AT ILL. ROUTE 83 (ELMHURST RD.) AND KENSINGTON/ FOUNDRY RD. - SHEET 2 OF 2

SCALE: 1"=20'
DATE: JUNE 28, 2004
DRAWN BY: BCK
DESIGNED BY: SM
CHECKED BY: DAD

11:34:48 06/30/2004

FILES: 6/30/2004
DATE: 6/30/2004
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-01TTS	COOK	38	16
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				

SCHEDULE OF QUANTITIES

ITEM	UNIT	QNTY.
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.11
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	190
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	210
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	190
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2672
DRILL EXISTING HANDHOLE	EACH	6
INDUCTIVE LOOP DETECTOR	EACH	6
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 18 FT.	EACH	4
SIGNAL HEAD LENS, REMOVE AND REPLACE	EACH	6
RELOCATE EXISTING SIGNAL HEAD	EACH	13
TRAFFIC SIGNAL BACKPLATE LOUVERED, ALUMINUM	EACH	0
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

CABLE PLAN LEGEND

EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		TELEPHONE INSTALLATION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		H/C GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
		P GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		S GROUND ROD AT ELECTRIC SERVICE INSTALLATION

CONSTRUCTION NOTES:

- RE-USE EXISTING CONTROLLER AND TYPE V CABINET. RE-USE EXISTING FOUNDATION. INSTALL NEW MASTER CONTROLLER.
- INSTALL NEW TELEPHONE CONNECTION. SEE INTERCONNECT PLAN FOR INSTALLATION AND QUANTITIES.
- INSTALL NEW ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR.
- RE-USE EXISTING SERVICE AND SERVICE CABLES.
- REMOVE AND REPLACE SIGNAL HEAD LENS

EXISTING INTERSECTION AND PROPOSED SAMPLING (SYSTEM) DETECTORS (SEE INTERCONNECT PLANS)

PROPOSED INTERCONNECT TO RANDHURST SOUTH DR/ MEADOW LANE (SEE INTERCONNECT PLANS)

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

EXISTING INTERSECTION AND PROPOSED SAMPLING (SYSTEM) DETECTORS (SEE INTERCONNECT PLANS)

PROPOSED INTERCONNECT TO EUCLID AVE. (SEE INTERCONNECT PLANS)

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

NOTE: THE EXISTING TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS INTERSECTION IS "ECONOLITE".

NOTE: ALL SIGNAL HEADS ARE L.E.D. INCLUDING THOSE NOTED WITH "P".

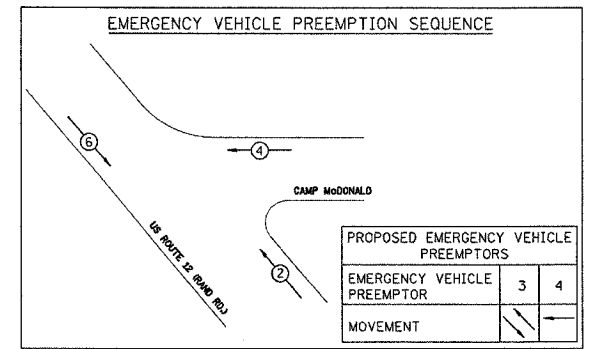
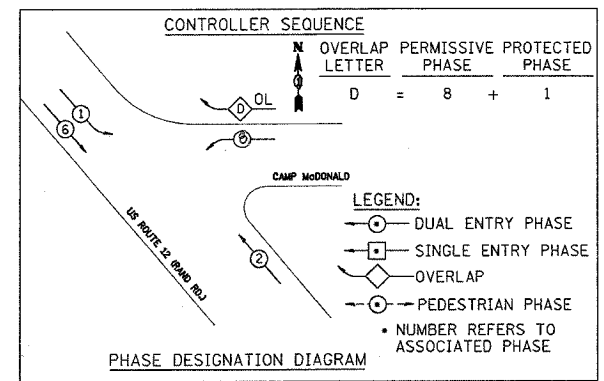
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)	51	135	17	0.50	433.50
(YELLOW)	51	135	25	0.25	318.75
(GREEN)	51	135	15	0.25	191.25
ARROW	12	135	12	0.10	14.40
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					1057.90

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 1
201 W Center Court / Schaumburg, Illinois 60196-1096

ENERGY SUPPLY: CONTACT: MS. JUDY SCHOMER
PHONE: (847)-870-2063
COMPANY: ComEd

FOUNDATION (DEPTH)	(FT.) (m)	CABLE SLACK (FT.) (m)	CABLE SLACK (FT.) (m)	CABLE SLACK (FT.) (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	20' H-L=2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)	6m H-L=0.6m=
		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED
		FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND
				POST MOUNTED

EXISTING INTERSECTION AND PROPOSED SAMPLING (SYSTEM) DETECTORS (SEE INTERCONNECT PLANS)



REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		CABLE PLAN, AND SCHEDULE OF QUANTITIES U.S. ROUTE 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) AND KENSINGTON/FOUNDRY RD.

SCALE: NONE
DATE: JUNE 28, 2004

DRAWN BY: BCK
DESIGNED BY: SM
CHECKED BY: DAD

SEQUENCE OF OPERATION

MOVEMENT	3+8					4+7								4+8				6						FLASH											
	15	16	17	18A	18B	19	20	21	22A	22B	22C	22D	23A	23B	23C	23D	24	25	26A	26B	26C	26D	27A		27B	27C	27D	28	29A	29B	29C	29D	30A	30B	30C
PHASE	3+8					4+7								4+8				6																	
INTERVAL	15	16	17	18A	18B	19	20	21	22A	22B	22C	22D	23A	23B	23C	23D	24	25	26A	26B	26C	26D	27A	27B	27C	27D	28	29A	29B	29C	29D	30A	30B	30C	30D
CHANGE TO		3+8	4+8	4+7		4+8			1, 6		2					4+8			1, 6		2						1			2					
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT SIGNALS	N/B	G	G	G	Y	R	G	G	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. MAST ARM AND FAR LEFT SIGNALS	N/B	G	G	G	Y	R	G	G	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) NEAR AND FAR RIGHT SIGNALS	N/B	R	R	R	R	R	G	G	R	R	R	R	R	R	R	R	R	G	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	G	G	R	R	R	R	R	R	R	R	R	G	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) NEAR AND FAR RIGHT SIGNALS	S/B	R	R	R	R	R	R	R	G	Y	R	R	R	Y	R	R	R	G	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) MAST ARM AND FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	R	G	Y	R	R	R	Y	R	R	R	G	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. ALL SIGNALS	S/B	R	R	R	R	R	R	R	G	G	G	Y	R	G	G	G	G	G	G	G	Y	R	G	G	G	G	R	R	R	R	R	R	R	R	
FOUNDRY RD. AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
FOUNDRY RD. AT U.S. RTE. 12 (RAND RD.) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
FOUNDRY RD. AT U.S. RTE. 12 (RAND RD.) ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
FOUNDRY RD. AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	NW/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. LEFT TURN SIGNALS	NW/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	NW/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) LEFT TURN SIGNALS	SE/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	G	G	G	G	G	G	G	G	G	Y	R	G	G	G	G	G	G	G	G	Y	R	G	G	G	G	R	R	R	R	R	R	R	R	
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. LEFT TURN SIGNALS	SE/B	G	G	G	G	G	G	G	G	G	Y	R	G	G	G	G	G	G	G	G	Y	R	G	G	G	G	R	R	R	R	R	R	R	R	

INFORMATION ONLY

TS-18

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE	SEQUENCE OF OPERATION	
		U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83	
		(ELMHURST RD.) AND FOUNDRY RD.	
		SHEET 2 OF 2	
		SCALE: NONE	DRAWN BY: RV/MD
		DATE: JUNE 15, 2004	DESIGNED BY: AZ
			CHECKED BY: AZ

K&E KAM ENGINEERING, INC.
CONSULTING ENGINEERS
707A Davis Road, Suite 205
Eglin, Illinois 60123-1369

G:\projects\JOB 337\SH1\12-83 foundry seq2.sht
06/09/2004

FIRE LANE NO. 1 PHASE 1

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

MOVEMENT	EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION																												FIRE LANE NO. 1	CLEAR TO
	1	3	9	15	19	21	25	28																						
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	2	NORMAL SEQUENCE				
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	2	1E	1F	1G	2	1J	2	1L	2	1N	1P	1Q	2	1S	1T	1U	2	1W	2									
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER																														
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	Y	R	Y	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	◇				
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R	Y	R	Y	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	◇				
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) NEAR & FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	◇				
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) MAST ARM & FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R	←Y	R	Y	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	◇				
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) NEAR & FAR RIGHT SIGNALS	S/B	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	◇				
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) MAST ARM & FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	R	R	←Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	◇				
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. ALL SIGNALS	S/B	R	Y	R	G	G	Y	R	R	R	R	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	◇				
FOUNDRY RD. AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	◇				
FOUNDRY RD. AT U.S. RTE. 12 (RAND RD.) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	◇				
FOUNDRY RD. AT U.S. RTE. 12 (RAND RD.) ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	◇				
FOUNDRY RD. AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	W/B	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G	◇				
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	NW/B	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇				
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. LEFT TURN SIGNALS	NW/B	←G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	←G	◇				
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	NW/B	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	G	G	◇				
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇				
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) LEFT TURN SIGNALS	SE/B	R	R	R	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	←G	◇				
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	Y	R	G	G	Y	R	Y	R	Y	R	G	G	Y	R	G	G	Y	R	R	R	R	R	R	◇				
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. LEFT TURN SIGNALS	SE/B	R	R	R	←G	←G	←Y	R	←Y	R	←Y	R	←G	←G	←Y	R	←G	←G	←Y	R	←G	←G	←Y	R	←G	◇				

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 OR 3 IS TERMINATED.

FIRE LANE NO. 2 PHASE 5

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

MOVEMENT	EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION																												FIRE LANE NO. 2	CLEAR TO
	1	3	9	15	19	21	25	28																						
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	2	NORMAL SEQUENCE				
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	1C	1D	2	1F	2	2	1J	2	1L	2	1N	2	1Q	2	1S	2													
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER																														
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	Y	R	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇				
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R	Y	R	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇				
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) NEAR & FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	R	Y	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇				
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) MAST ARM & FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R	R	←Y	R	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	◇				
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) NEAR & FAR RIGHT SIGNALS	S/B	R	R	R	R	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇				
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) MAST ARM & FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	R	R	R	←Y	R	R	R	Y	R	Y	R	Y	R	R	R	R	R	R	◇				
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. ALL SIGNALS	S/B	R	R	R	R	G	G	G	R	R	R	R	G	G	G	R	R	R	R	G	G	G	G	R	R	G	◇			
FOUNDRY RD. AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	◇				
FOUNDRY RD. AT U.S. RTE. 12 (RAND RD.) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	◇				
FOUNDRY RD. AT U.S. RTE. 12 (RAND RD.) ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	◇				
FOUNDRY RD. AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	W/B	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	◇				
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	NW/B	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇				
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. LEFT TURN SIGNALS	NW/B	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇				
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	NW/B	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	◇				
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	R	R	R	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	◇			
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) LEFT TURN SIGNALS	SE/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	←G	◇			
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	R	R	R	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	R	R	R	R	R	◇				
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. LEFT TURN SIGNALS	SE/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	←G	◇			

INFORMATION ONLY

TS-19

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) AND FOUNDRY RD. SHEET 1 OF 3

K&E KAM ENGINEERING, INC.
CONSULTING ENGINEERS
707A Davis Road, Suite 205
Egin, Illinois 60123-1569

SCALE: NONE
DATE: JUNE 15, 2004

DRAWN BY: RV/MD
DESIGNED BY: AZ
CHECKED BY: AZ

FIRE LANE NO. 3 PHASE 3+8

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

MOVEMENT	FIRE LANE NO. 3																				CLEAR TO NORMAL SEQUENCE			
	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V		1W	1X	2
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER																								
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER																								
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	1C	1D	2	1F	2	1H	1J	1K	2	2	2	1P	1Q	1R	2	1T	1U	1V	2	1Y	2		
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	G	G	R	R	R	R	G	G	G	G	R	R	G	◇
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	G	G	R	R	R	R	G	G	G	G	R	R	G	◇
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) NEAR & FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	R	G	R	R	R	R	G	G	G	G	R	R	G	◇
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) MAST ARM & FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	R	G	R	R	R	R	G	G	G	G	R	R	G	◇
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) NEAR & FAR RIGHT SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	R	R	◇
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) MAST ARM & FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	R	R	◇
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. ALL SIGNALS	S/B	R	R	R	R	Y	R	G	G	Y	R	R	R	G	G	Y	R	G	G	Y	R	R	R	◇
FOUNDRY RD. AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	◇
FOUNDRY RD. AT U.S. RTE. 12 (RAND RD.) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	◇
FOUNDRY RD. AT U.S. RTE. 12 (RAND RD.) ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	◇
FOUNDRY RD. AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	W/B	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	G	◇
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	NW/B	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. LEFT TURN SIGNALS	NW/B	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	NW/B	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	◇
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	R	R	R	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) LEFT TURN SIGNALS	SE/B	R	R	R	R	R	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	R	R	R	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	R	G	◇
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. LEFT TURN SIGNALS	SE/B	R	R	R	R	R	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	R	←G	◇

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 OR 3 IS TERMINATED.

FIRE LANE NO. 4 PHASE 4+7

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

MOVEMENT	FIRE LANE NO. 4																				CLEAR TO NORMAL SEQUENCE			
	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	2						
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER																								
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER																								
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	1C	1D	2	1F	2	1H	2	1K	2	1M	2	2	1Q	2	1S	2							
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	R	Y	R	Y	R	R	Y	R	R	R	R	R	R	R	◇	
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R	R	Y	R	Y	R	R	Y	R	R	R	R	R	R	R	◇	
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) NEAR & FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	R	Y	R	R	Y	R	R	Y	R	R	R	R	◇	
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) MAST ARM & FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	R	Y	R	R	Y	R	R	Y	R	R	R	R	◇	
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) NEAR & FAR RIGHT SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	R	R	R	R	G	◇	
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) MAST ARM & FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	R	R	R	R	R	G	◇	
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. ALL SIGNALS	S/B	R	R	R	R	G	G	G	G	R	R	R	R	R	G	G	G	R	R	R	R	G	◇	
FOUNDRY RD. AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	◇
FOUNDRY RD. AT U.S. RTE. 12 (RAND RD.) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	◇
FOUNDRY RD. AT U.S. RTE. 12 (RAND RD.) ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	◇
FOUNDRY RD. AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	W/B	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	◇
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	NW/B	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. LEFT TURN SIGNALS	NW/B	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	NW/B	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	◇
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	R	R	R	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) LEFT TURN SIGNALS	SE/B	R	R	R	R	R	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	R	R	R	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	R	G	◇	
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. LEFT TURN SIGNALS	SE/B	R	R	R	R	R	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	R	←G	◇	

INFORMATION ONLY

G:\projects\JOB 337\SH\TS-20.sht
06/09/2004

TS-20



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION
U.S. RTE 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) AND FOUNDRY RD.
SHEET 2 OF 3
SCALE: NONE
DATE: JUNE 15, 2004
DRAWN BY: RV/MD
DESIGNED BY: AZ
CHECKED BY: AZ

FIRE LANE NO. 5 PHASE 6 EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

MOVEMENT																					FIRE LANE NO. 5	CLEAR TO NORMAL SEQUENCE		
	1	3	9				15	19	21				25				28							
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	2	◇	
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	1D	2	1F	1G	1H	2	1K	2	1M	2	1P	1Q	1R	2	1T	1U	1V	2	2	◇	◇	
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	1D	2	1F	1G	1H	2	1K	2	1M	2	1P	1Q	1R	2	1T	1U	1V	2	2	◇	◇	
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	◇	
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	◇	
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) NEAR AND FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	Y	R	R	R	R	R	◇	
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R	←Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	◇	
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) S/B NEAR AND FAR RIGHT SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	R	◇	
ILL. RTE. 83 (ELMHURST RD.) AT U.S. RTE. 12 (RAND RD.) S/B MAST ARM AND FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	R	←Y	R	R	R	Y	R	R	R	Y	R	R	R	R	R	◇	
ILL. RTE. 83 (ELMHURST RD.) AT FOUNDRY RD. ALL SIGNALS	S/B	R	R	Y	R	G	G	Y	R	R	R	R	G	G	Y	R	G	G	Y	R	R	R	◇	
FOUNDRY RD. AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	◇
FOUNDRY RD. AT U.S. RTE. 12 (RAND RD.) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	◇
FOUNDRY RD. AT U.S. RTE. 12 (RAND RD.) ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	◇
FOUNDRY RD. AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	W/B	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	◇
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	NW/B	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. LEFT TURN SIGNALS	NW/B	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) ALL SIGNALS	NW/B	G	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	◇
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) SE/B NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	R	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) SE/B LEFT TURN SIGNALS	SE/B	R	R	R	R	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	R	Y	R	G	G	Y	R	Y	R	Y	R	G	G	Y	R	G	G	Y	R	R	R	◇
U.S. RTE. 12 (RAND RD.) AT FOUNDRY RD. LEFT TURN SIGNALS	SE/B	R	R	R	R	←G	←G	←Y	R	←Y	R	←Y	R	←G	←G	←Y	R	←G	←G	←Y	R	R	R	◇

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 OR 3 IS TERMINATED.

INFORMATION ONLY

GA:\projects\JOB 337\SHIT\TS-21.shd
06/09/2004

TS-21



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION
U.S. RTE. 12 (RAND RD.) AT ILL. RTE. 83 (ELMHURST RD.) AND FOUNDRY RD.
SHEET 3 OF 3
SCALE: NONE
DATE: JUNE 15, 2004
DRAWN BY: RV/MD
DESIGNED BY: AZ
CHECKED BY: AZ

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	23
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		
CONTRACT #62736				

SCHEDULE OF QUANTITIES

ITEM	UNIT	QNTY.
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.11
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	139
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	139
INDUCTIVE LOOP DETECTOR	EACH	7
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	120
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION MAST ARM MOUNTED	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION 1-5 SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, L.E.D., 3-FACE, 1-3 SECTION, 2-5 SECTION, BRACKET MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	210
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	216

CONSTRUCTION NOTES:

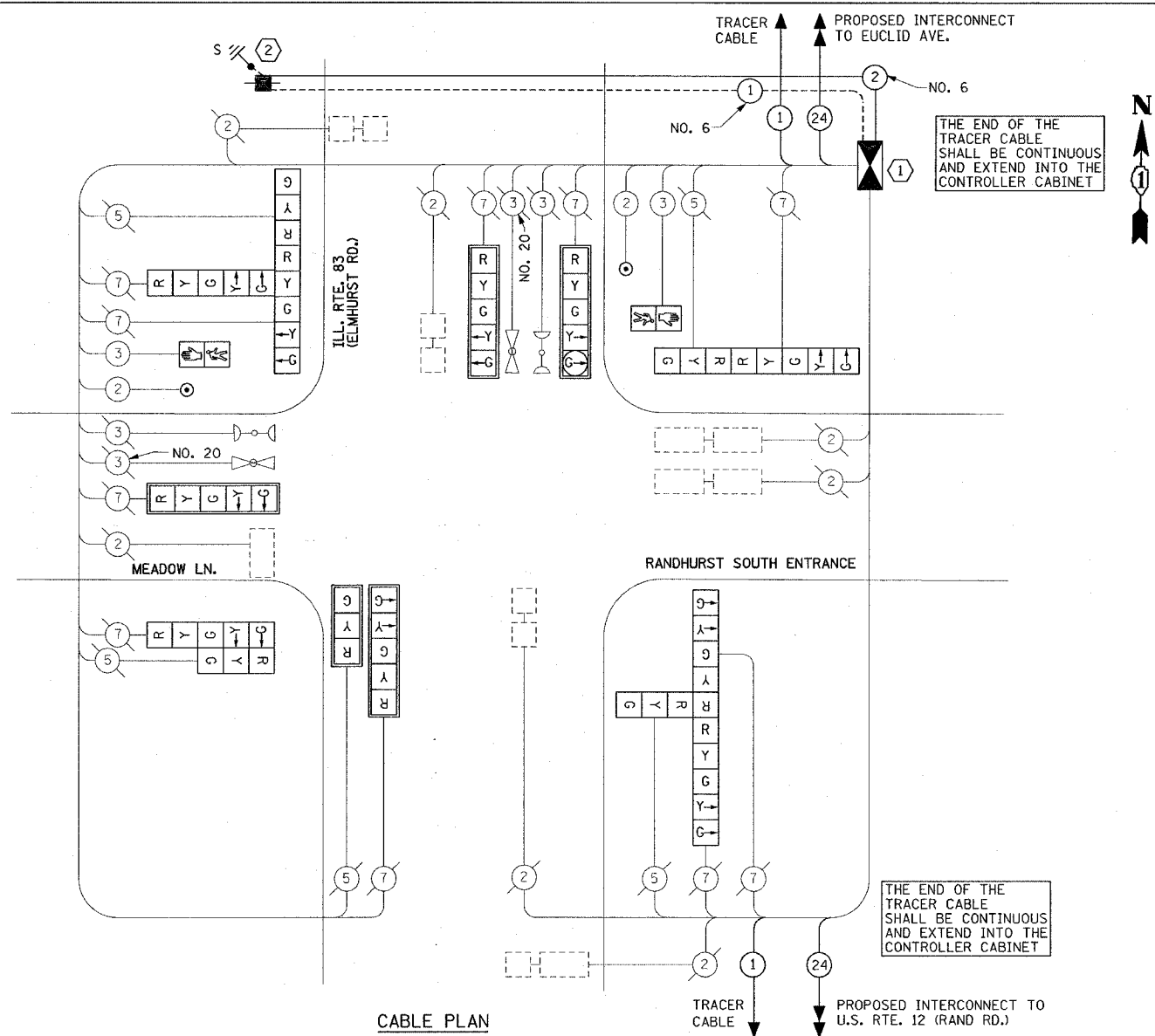
- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RE-USE EXISTING FOUNDATION. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CONTROLLER CABINET INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.
- REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.

TS-23

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES ILL. ROUTE 83 (ELMHURST RD.) AT RANDHURST SOUTH DRIVE/MEADOW LANE
SCALE: NONE		DRAWN BY: BCK
DATE: 3/22/2005		DESIGNED BY: SM
		CHECKED BY: DAD

CABLE PLAN LEGEND

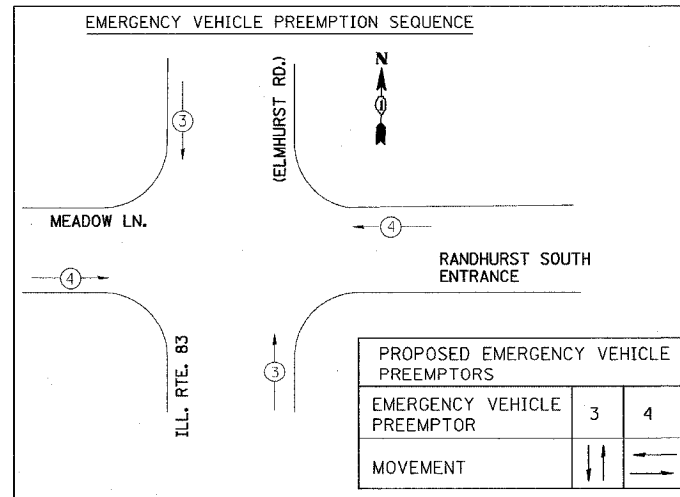
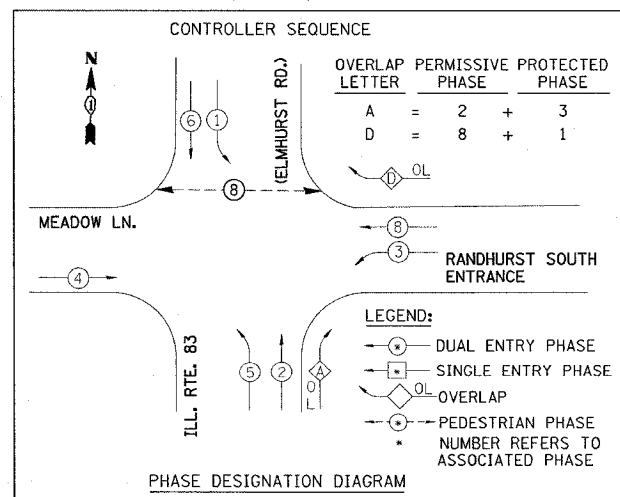
- | EXISTING | PROPOSED | |
|----------|----------|---------------------------------------------------------------------------------------------------------------|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | TELEPHONE INSTALLATION |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | 2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | 1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | 24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MMI2F SMI2F |
| | | SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD. |
| | | "E" RAILROAD CONTROL CABINET |
| | | "E" ILLUMINATED SIGN "NO LEFT TURN" |
| | | "E" ILLUMINATED SIGN "NO RIGHT TURN" |
| | | H/C 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 ELECTRIC SERVICE INSTALLATION |



CABLE PLAN
NOT TO SCALE

NOTE: THE PROPOSED TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT IS "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	15	135	17	0.50	127.50
(YELLOW)	15	135	25	0.25	93.50
(GREEN)	15	135	15	0.25	56.25
ARROW	20	135	12	0.10	24.00
PED. SIGNAL	2	90	25	1.00	50.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					451.50



FOUNDATION (DEPTH)	(FT.) (m)	CABLE SLACK (FT.) (m)	CABLE SLACK (FT.) (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	15 (4.0)
E - M. ARM POLE		SIGNAL POST	2 (1.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)
		ELECTRIC SERVICE	1 (0.5)
		GROUND CABLE	1 (0.5)
		ALL FOUNDATIONS	3.5 (1.0)
		MAST ARM (L) POLE	20'-H-2" (6m-H-0.6m)
		BRACKET MOUNTED	13 (4.0)
		PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	13.5 (4.1)
		SERVICE TO GROUND	13.5 (4.1)
		POST MOUNTED	6 (1.8)

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3/22/2005
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	24
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				

TRAFFIC SIGNAL LEGEND

- | | | |
|--------------------------------------------------------------|--|--|
| 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 | | |
| COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE | | |
| UNIT DUCT | | |
| COMMON TRENCH | | |
| HANDHOLE | | |
| HEAVY-DUTY HANDHOLE | | |
| DOUBLE HANDHOLE | | |
| G.S. CONDUIT IN TRENCH (T) OR PUSHED (P) | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | |
| DETECTOR LOOP | | |
| CAST IRON JUNCTION BOX | | |
| EMERGENCY VEHICLE LIGHT DETECTOR | | |
| CONFIRMATION BEACON | | |
| SIGNAL HEAD OPTICALLY PROGRAMMED | | |

TRAFFIC SIGNAL LEGEND (CONT'D)

- | | | |
|--------------------------------------------------|--|--|
| CONDUIT SPLICE | | |
| WOOD POLE | | |
| RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | |
| VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | | |
| RAILROAD CONTROL CABINET | | |
| TELEPHONE CONNECTION | | |
| ILLUMINATED SIGN "NO LEFT TURN" | | |
| ILLUMINATED SIGN "NO RIGHT TURN" | | |

ILL. RTE. 83 (ELMHURST RD.)

MATCHLINE "BB" (SEE SHT. TS-25)

MATCHLINE "AA" (SEE SHT. TS-25)

CONSTRUCTION NOTES:

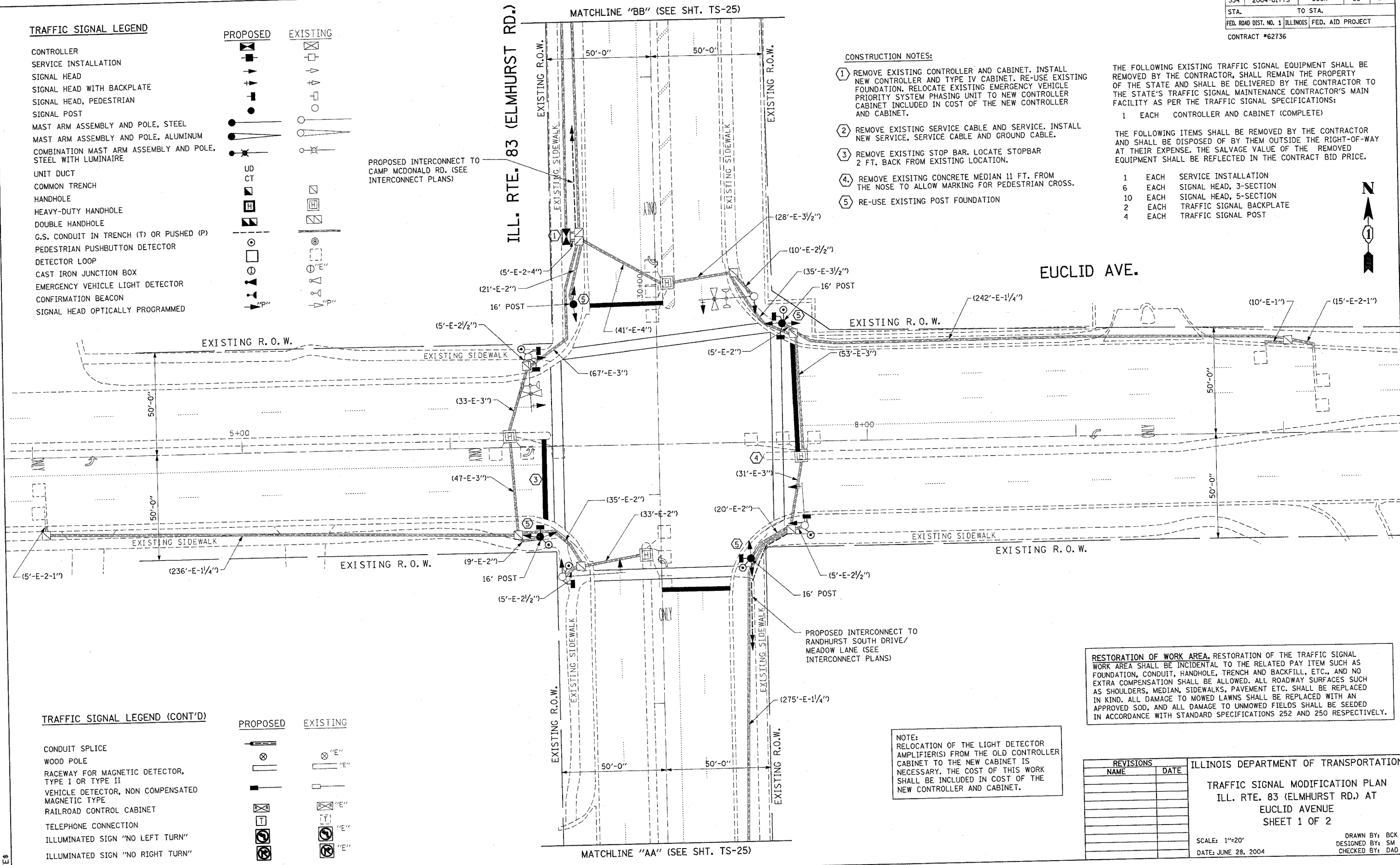
- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RE-USE EXISTING FOUNDATION. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CONTROLLER CABINET INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.
- REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.
- REMOVE EXISTING STOP BAR. LOCATE STOPBAR 2 FT. BACK FROM EXISTING LOCATION.
- REMOVE EXISTING CONCRETE MEDIAN 11 FT. FROM THE NOSE TO ALLOW MARKING FOR PEDESTRIAN CROSS.
- RE-USE EXISTING POST FOUNDATION

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS:

1 EACH CONTROLLER AND CABINET (COMPLETE)

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

- | | | |
|----|------|--------------------------|
| 1 | EACH | SERVICE INSTALLATION |
| 6 | EACH | SIGNAL HEAD, 3-SECTION |
| 10 | EACH | SIGNAL HEAD, 5-SECTION |
| 2 | EACH | TRAFFIC SIGNAL BACKPLATE |
| 4 | EACH | TRAFFIC SIGNAL POST |



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, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDD IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTE:
RELOCATION OF THE LIGHT DETECTOR AMPLIFIER(S) FROM THE OLD CONTROLLER CABINET TO THE NEW CABINET IS NECESSARY. THE COST OF THIS WORK SHALL BE INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
ILL. RTE. 83 (ELMHURST RD.) AT
EUCLID AVENUE
SHEET 1 OF 2

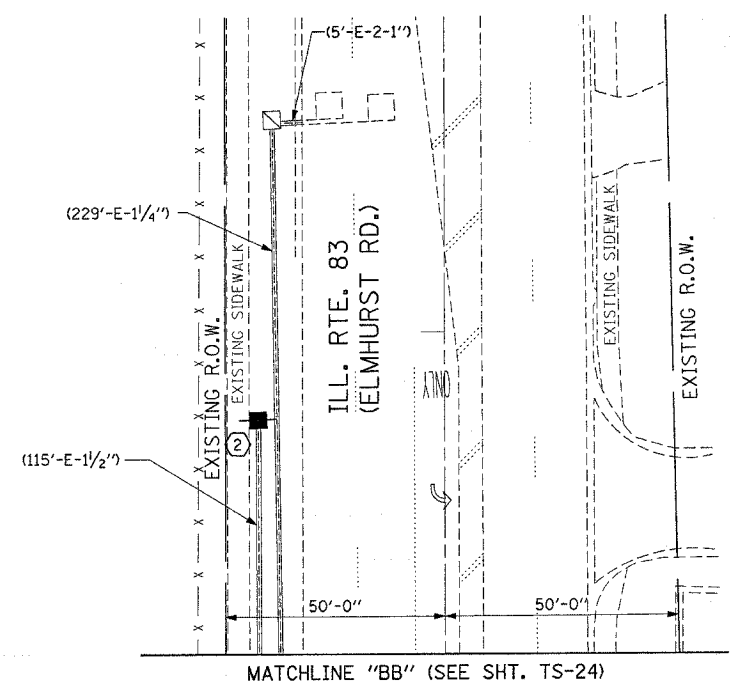
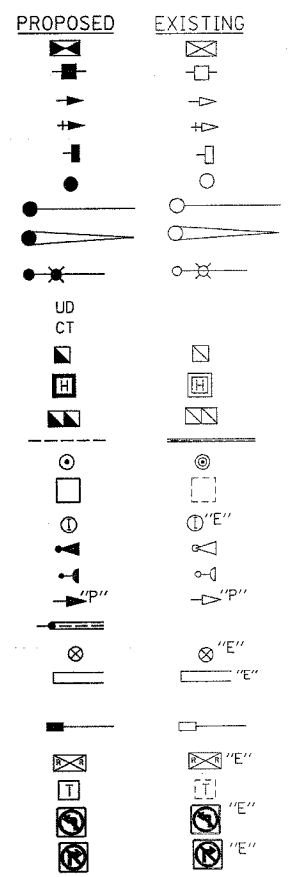
SCALE: 1"=20'
DATE: JUNE 28, 2004
DRAWN BY: BCK
DESIGNED BY: SM
CHECKED BY: DAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	25
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				

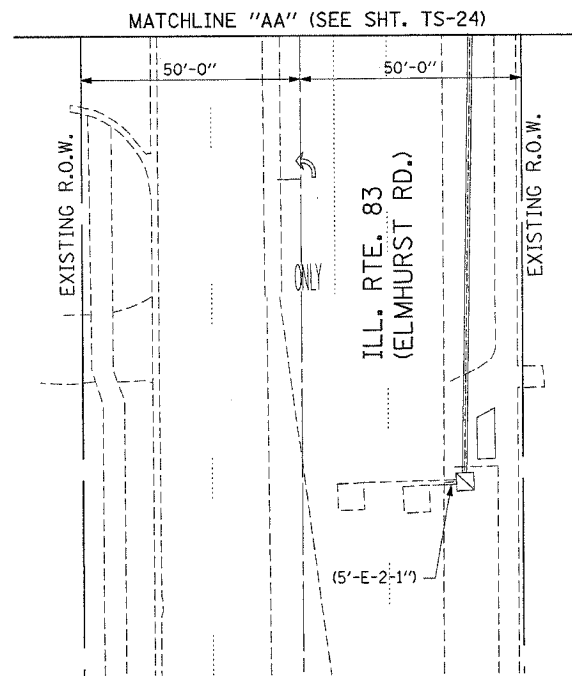


TRAFFIC SIGNAL LEGEND

- 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
- COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY-DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
- VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
- RAILROAD CONTROL CABINET
- TELEPHONE CONNECTION
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"



MATCHLINE "BB" (SEE SHT. TS-24)



MATCHLINE "AA" (SEE SHT. TS-24)

- CONSTRUCTION NOTES:**
- 1 REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RE-USE EXISTING FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.
 - 2 REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.

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, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
 ILL. RTE. 83 (ELMHURST RD.) AT
 EUCLID AVENUE
 SHEET 2 OF 2

SCALE: 1"=20'
 DATE: JUNE 28, 2004

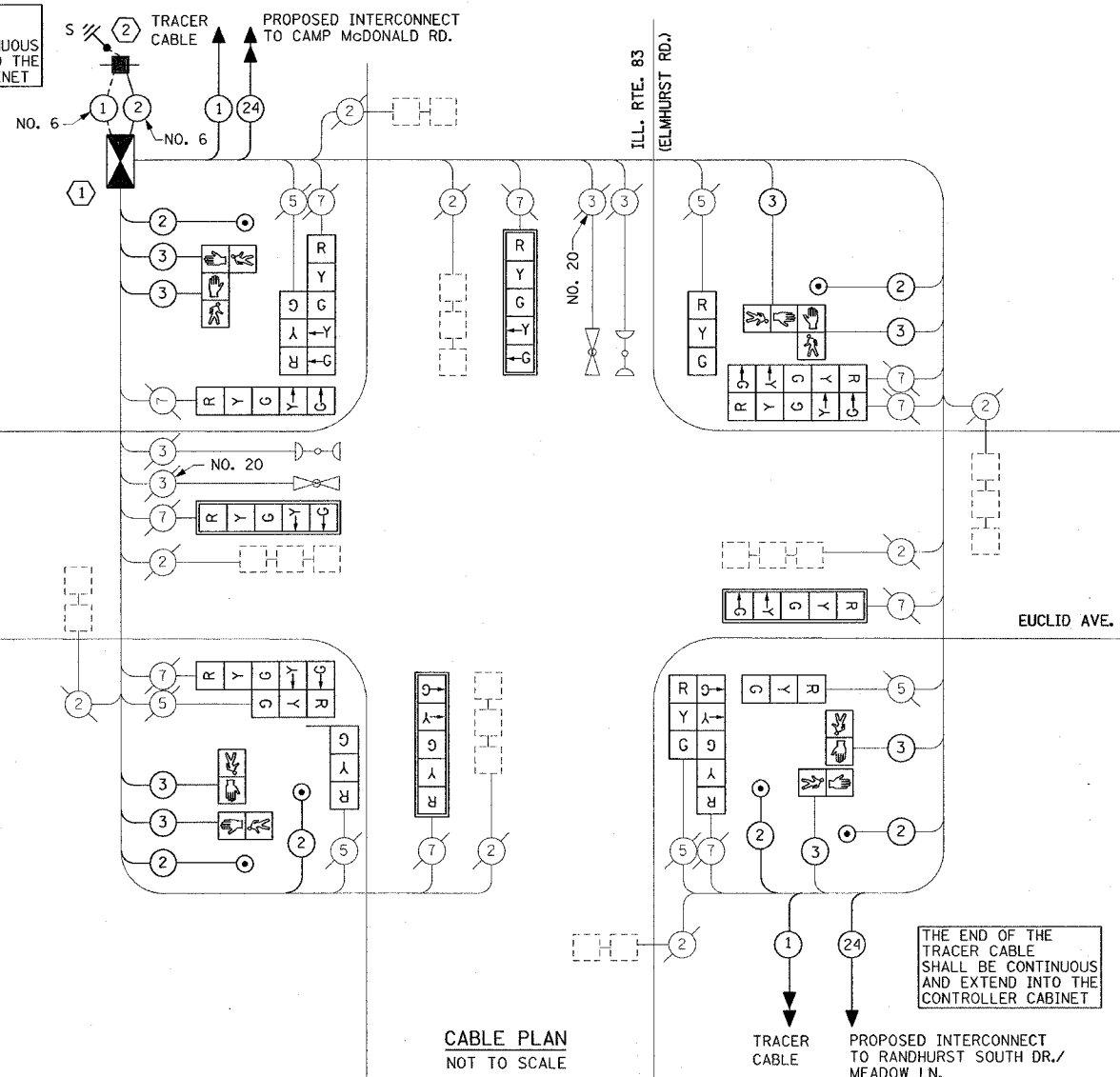
DRAWN BY: BCK
 DESIGNED BY: SM
 CHECKED BY: DAD

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	26
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				

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



CABLE PLAN NOT TO SCALE

CABLE PLAN LEGEND

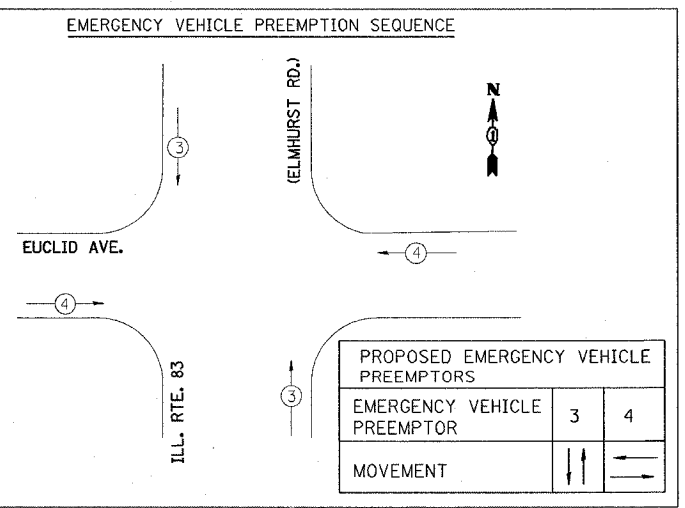
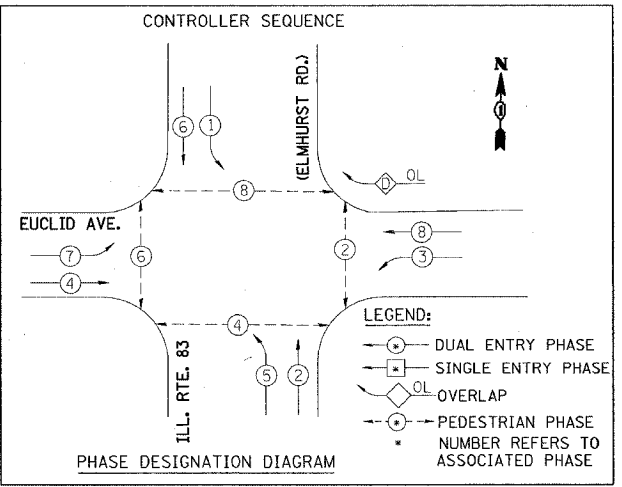
- | EXISTING | PROPOSED | |
|----------|----------|---------------------------------------------------------------------------------------------------------------|
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | TELEPHONE INSTALLATION |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | 2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | 1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | 24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SMI2F |
| | | SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD. |
| | | "E" RAILROAD CONTROL CABINET |
| | | "E" ILLUMINATED SIGN "NO LEFT TURN" |
| | | "E" ILLUMINATED SIGN "NO RIGHT TURN" |
| | | H/C GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) |
| | | P GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | S GROUND ROD AT ELECTRIC SERVICE INSTALLATION |

SCHEDULE OF QUANTITIES

ITEM	UNIT	QNTY.
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.11
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	134
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	134
INDUCTIVE LOOP DETECTOR	EACH	8
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	115
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION BRACKET MOUNTED	EACH	3
SIGNAL HEAD, L.E.D., 2-FACE, 2-5 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED	EACH	2
PEDESTRIAN PUSH BUTTON	EACH	6
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	EACH	4
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	780
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1560
TRAFFIC SIGNAL BACK PLATE, LOUVERED, ALUMINUM	EACH	4
THERMOPLASTIC PAVEMENT MARKING-LINE 24"	FOOT	156
MEDIAN REMOVAL	SQ. FT.	38
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED	EACH	4
THERMOPLASTIC PAVEMENT MARKING - 4"	FOOT	663
PAVEMENT REPLACEMENT	SQ. YD.	4.6
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ. FT.	76

NOTE: THE PROPOSED TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT IS "ECONOLITE".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	136.00
(YELLOW)	16	135	25	0.25	100.00
(GREEN)	16	135	15	0.25	60.00
ARROW	16	135	12	0.10	19.20
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					615.00



ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 1
201 W Center Court / Schaumburg, Illinois 60196-1096

ENERGY SUPPLY: CONTACT: MS. JUDY SCHOMER
PHONE: (847)-870-2063
COMPANY: ComEd

FOUNDATION (DEPTH)	(FT.) (m)	CABLE SLACK (FT.) (m)	CABLE SLACK (FT.) (m)
TYPE A - POST	4 (1.2)	HANDHOLE 6.5 (2.0)	ALL FOUNDATIONS 3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE 13 (4.0)	MAST ARM (L) POLE 20'-H-2= (6m-H-0.6m)=
E - M. ARM POLE		SIGNAL POST 2 (0.6)	BRACKET MOUNTED 13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB. 1 (0.3)	PED. PUSHBUTTON 4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC CAB. 13 (4.0)	ELECTRIC SERVICE 13.5 (4.1)
		ELECTRIC SERVICE 1 (0.3)	SERVICE TO GROUND 13.5 (4.1)
		GROUND CABLE 1 (0.3)	POST MOUNTED 6 (1.8)

- CONSTRUCTION NOTES:
- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RE-USE EXISTING FOUNDATION. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CONTROLLER CABINET INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.
 - REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES ILL. ROUTE 83 (ELMHURST RD.) AT EUCLID AVE.

SCALE: NONE
DATE: 3/22/2005

DRAWN BY: BCK
DESIGNED BY: SM
CHECKED BY: DAD

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F.A.P. RTE. 1	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-0177S	COOK	38	27
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				

TRAFFIC SIGNAL LEGEND

CONTROLLER		EXISTING	
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			
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE			
UNIT DUCT			
COMMON TRENCH			
HANDHOLE			
HEAVY-DUTY HANDHOLE			
DOUBLE HANDHOLE			
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)			
PEDESTRIAN PUSHBUTTON DETECTOR			
DETECTOR LOOP			

CONSTRUCTION NOTES:

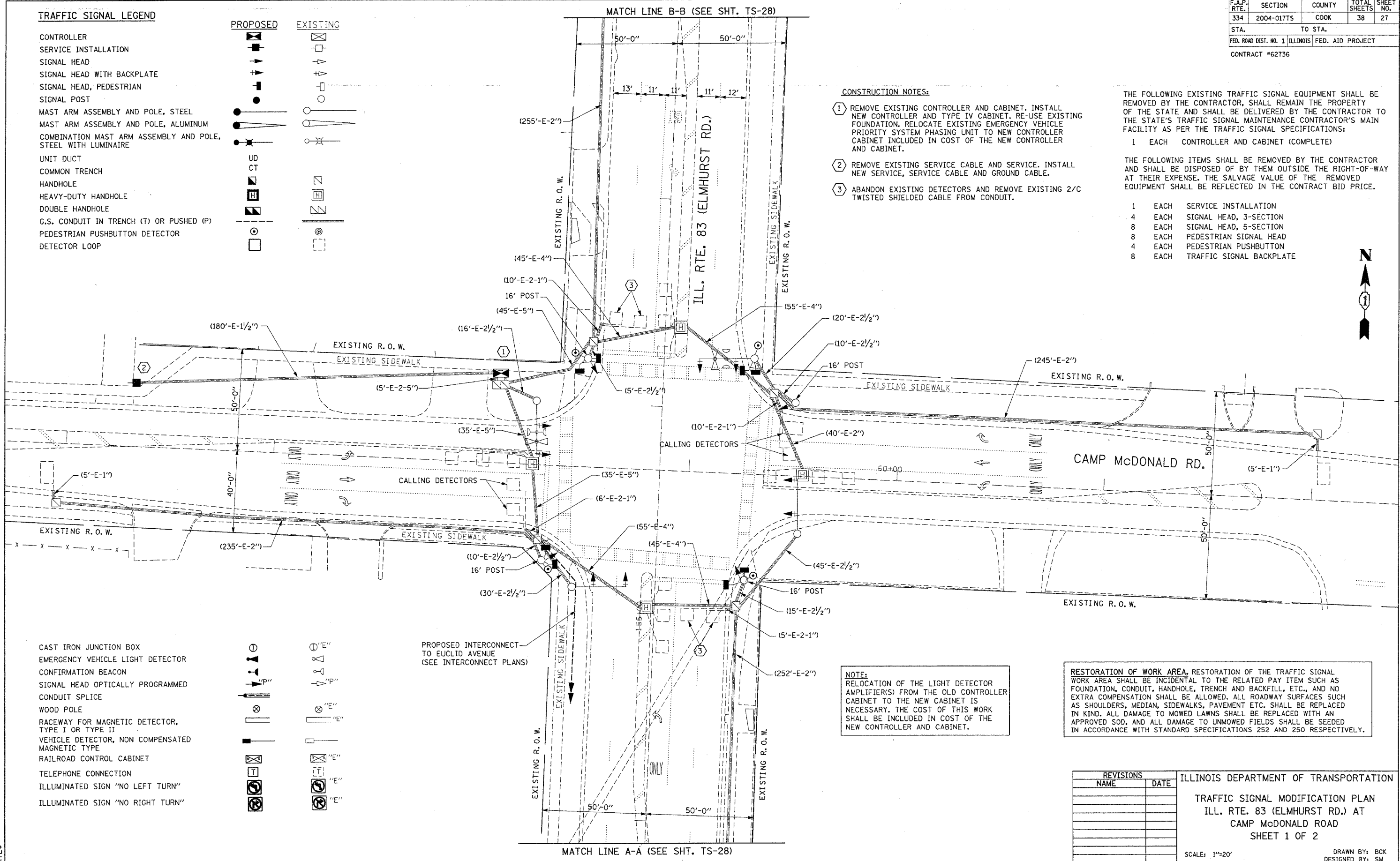
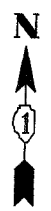
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- REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.
- ABANDON EXISTING DETECTORS AND REMOVE EXISTING 2/C TWISTED SHIELDED CABLE FROM CONDUIT.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS:

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

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

- 1 EACH SERVICE INSTALLATION
- 4 EACH SIGNAL HEAD, 3-SECTION
- 8 EACH SIGNAL HEAD, 5-SECTION
- 8 EACH PEDESTRIAN SIGNAL HEAD
- 4 EACH PEDESTRIAN PUSHBUTTON
- 8 EACH TRAFFIC SIGNAL BACKPLATE



NOTE:
RELOCATION OF THE LIGHT DETECTOR AMPLIFIER(S) FROM THE OLD CONTROLLER CABINET TO THE NEW CABINET IS NECESSARY. THE COST OF THIS WORK SHALL BE INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.

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, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

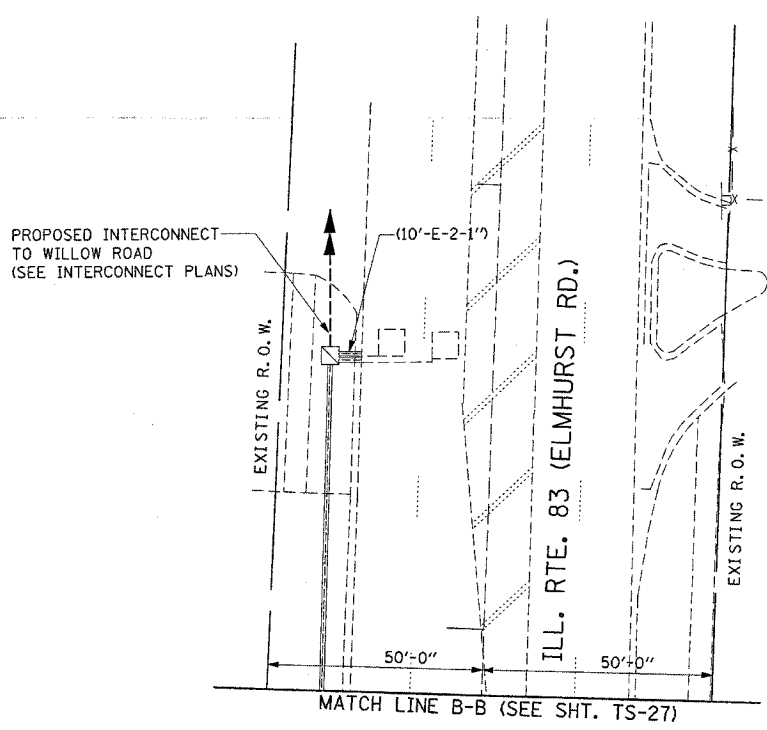
CAST IRON JUNCTION BOX		"E"	
EMERGENCY VEHICLE LIGHT DETECTOR		"E"	
CONFIRMATION BEACON		"E"	
SIGNAL HEAD OPTICALLY PROGRAMMED		"E"	
CONDUIT SPLICE		"E"	
WOOD POLE		"E"	
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		"E"	
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		"E"	
RAILROAD CONTROL CABINET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

PROPOSED INTERCONNECT TO EUCLID AVENUE (SEE INTERCONNECT PLANS)

REVISIONS	
NAME	DATE

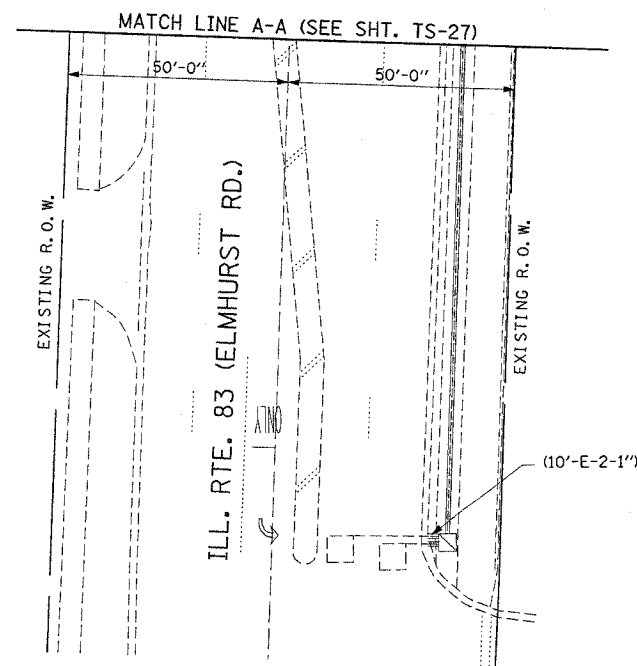
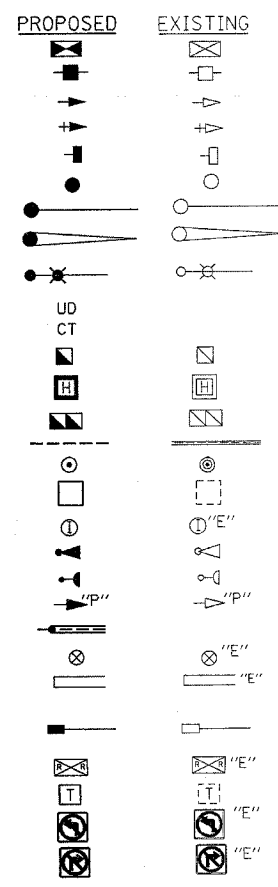
ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
 ILL. RTE. 83 (ELMHURST RD.) AT
 CAMP McDONALD ROAD
 SHEET 1 OF 2
 SCALE: 1"=20'
 DATE: JUNE 28, 2004
 DRAWN BY: BCK
 DESIGNED BY: SM
 CHECKED BY: DAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	28
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		
CONTRACT #62736				



TRAFFIC SIGNAL LEGEND

- 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
- COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY-DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE LIGHT DETECTOR
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- RAILROAD CONTROL CABINET
- TELEPHONE CONNECTION
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"



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, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
 ILL. RTE. 83 (ELMHURST RD.) AT
 CAMP McDONALD ROAD
 SEE SHEET 2 OF 2

SCALE: 1"=20'
 DATE: JUNE 28, 2004

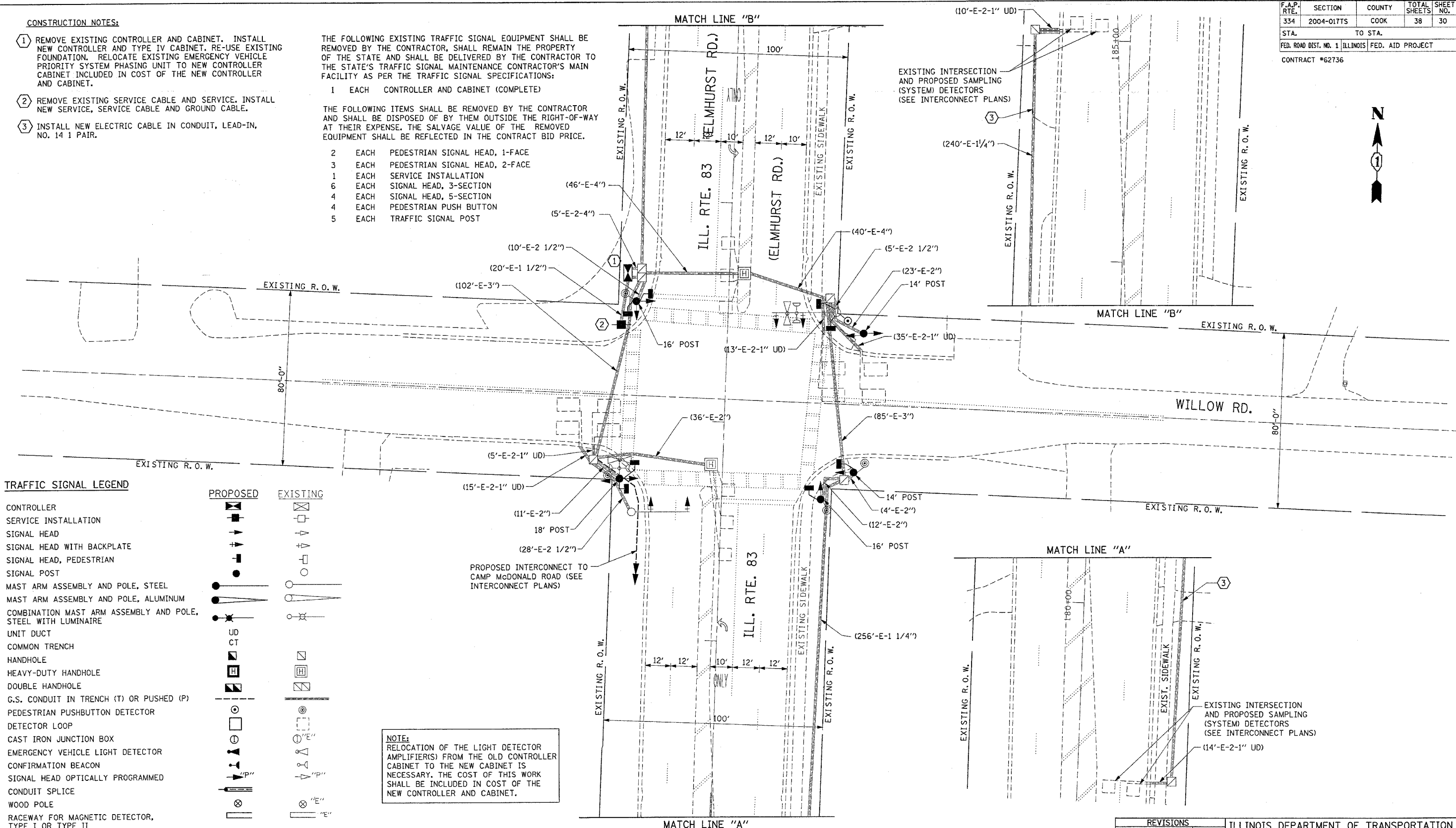
DRAWN BY: BCK
 DESIGNED BY: SM
 CHECKED BY: DAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	30
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
CONTRACT #62736				

- CONSTRUCTION NOTES:**
- 1 REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RE-USE EXISTING FOUNDATION. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CONTROLLER CABINET INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.
 - 2 REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.
 - 3 INSTALL NEW ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS:

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
 - 3 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
 - 1 EACH SERVICE INSTALLATION
 - 6 EACH SIGNAL HEAD, 3-SECTION
 - 4 EACH SIGNAL HEAD, 5-SECTION
 - 4 EACH PEDESTRIAN PUSH BUTTON
 - 5 EACH TRAFFIC SIGNAL POST



TRAFFIC SIGNAL LEGEND

PROPOSED	EXISTING

NOTE:
RELOCATION OF THE LIGHT DETECTOR AMPLIFIER(S) FROM THE OLD CONTROLLER CABINET TO THE NEW CABINET IS NECESSARY. THE COST OF THIS WORK SHALL BE INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.

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, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

REVISIONS	
NAME	DATE

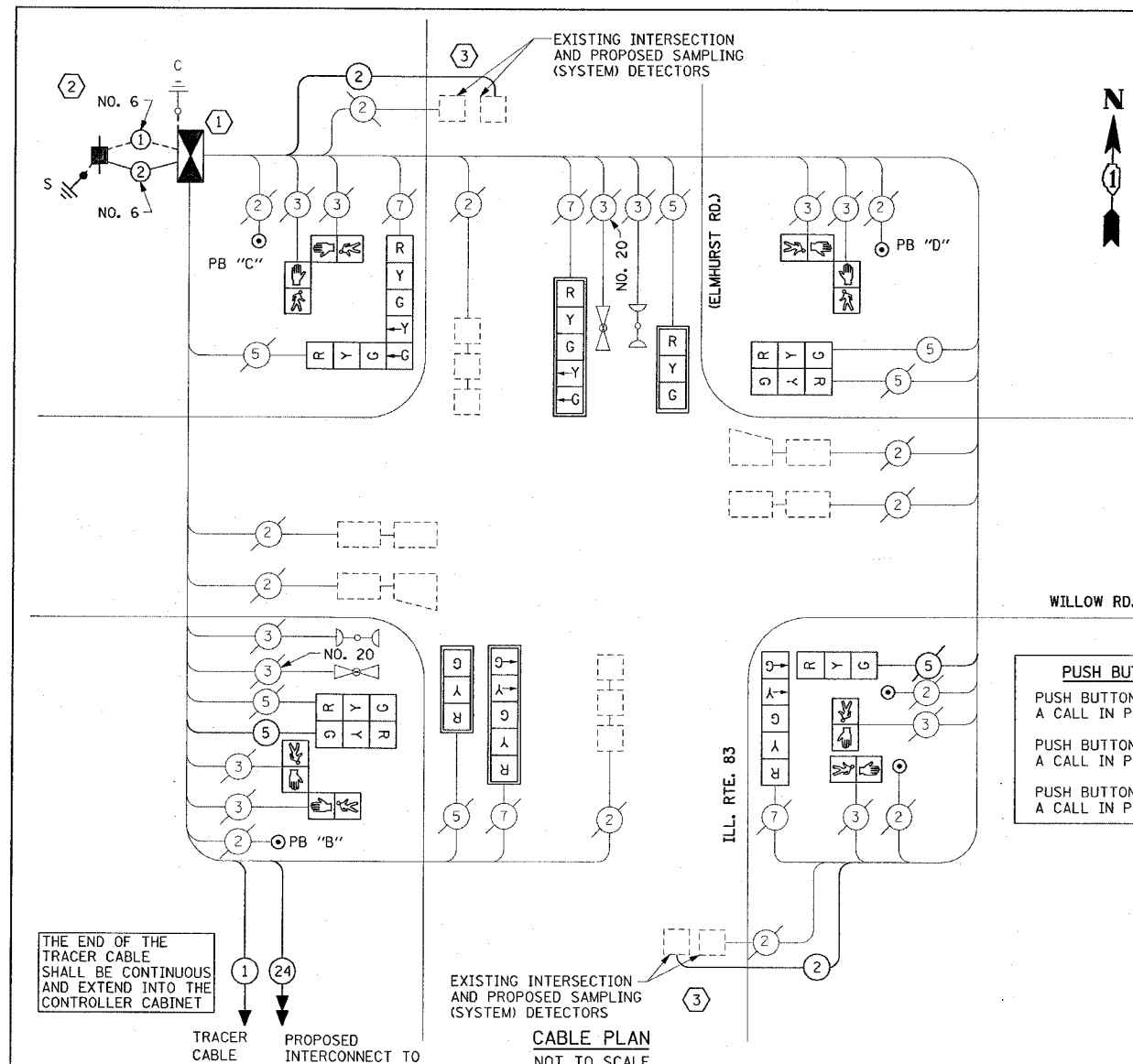
ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
ILL. RTE. 83 (ELMHURST RD.) AT
WILLOW ROAD

SCALE: 1"=20'
DATE: JUNE 28, 2004

DRAWN BY: BCK
DESIGNED BY: SM
CHECKED BY: DAD

F.A.P. RTE. 334	SECTION 2004-01TTS	COUNTY COOK	TOTAL SHEETS 38	SHEET NO. 31
STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		
CONTRACT #62736				



PUSH BUTTON NOTES

PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6

PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8

PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

CABLE PLAN LEGEND

- | EXISTING | PROPOSED | |
|----------|----------|-------------------------------------------------------------------------------------------------------------|
| (G) | (G) | 8" (200mm) TRAFFIC SIGNAL SECTION |
| (R) | (R) | 12" (300mm) TRAFFIC SIGNAL SECTION |
| (W) | (W) | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| (P) | (P) | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| (C) | (C) | CONTROLLER CABINET |
| (S) | (S) | SERVICE INSTALLATION |
| (V) | (V) | VEHICLE DETECTOR, INDUCTION LOOP |
| (T) | (T) | TELEPHONE INSTALLATION |
| (M) | (M) | MAGNETIC DETECTOR |
| (E) | (E) | EMERGENCY VEHICLE LIGHT DETECTOR |
| (B) | (B) | CONFIRMATION BEACON |
| (D) | (D) | PUSHBUTTON DETECTOR |
| (2) | (2) | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| (1) | (1) | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| (24) | (24) | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F |
| (R) | (R) | SIGNAL FACE WITH BACKPLATE |
| (P) | (P) | "P" INDICATES PROGRAMMED HEAD. |
| (E) | (E) | RAILROAD CONTROL CABINET |
| (E) | (E) | ILLUMINATED SIGN "NO LEFT TURN" |
| (E) | (E) | ILLUMINATED SIGN "NO RIGHT TURN" |
| H/C | 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 ELECTRIC SERVICE INSTALLATION |

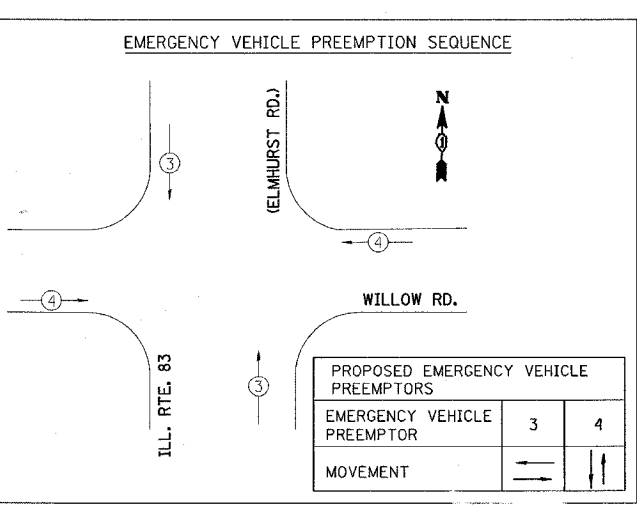
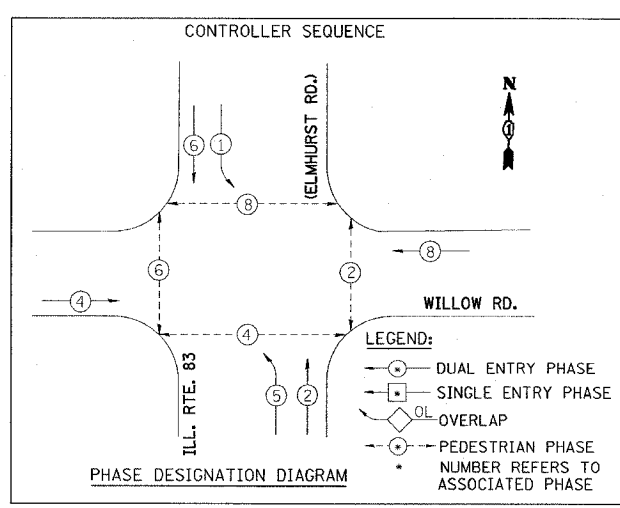
SCHEDULE OF QUANTITIES

ITEM	UNIT	QNTY.
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.11
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.11
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	400
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	745
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	39
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	39
INDUCTIVE LOOP DETECTOR	EACH	10
PEDESTRIAN PUSH-BUTTON	EACH	5
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1
SIGNAL HEAD, L.E.D., 3-SECTION, MAST ARM MOUNTED	EACH	2
SIGNAL HEAD, L.E.D., 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, L.E.D., 2-FACE, 3 SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, L.E.D., 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, L.E.D., 5-SECTION, MAST ARM MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED	EACH	3
TRAFFIC SIGNAL POST, GALVANIZED 14 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED 16 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED 18 FT.	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4

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

EXISTING INTERSECTION AND PROPOSED SAMPLING (SYSTEM) DETECTORS

CABLE PLAN NOT TO SCALE



NOTE: THE PROPOSED TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT IS "ECONOLITE".

CONSTRUCTION NOTES:

- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RE-USE EXISTING FOUNDATION. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CONTROLLER CABINET INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.
- REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.
- INSTALL NEW ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR.

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

TYPE	NO. LAMPS	WATTAGE INCAND	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	8	135	12	0.10	9.60
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84	35	0.05	
FLASHER		135	25	0.50	
TOTAL =					531.60

FOUNDATION (DEPTH)	(FT.) (m)	CABLE SLACK	(FT.) (m)	CABLE SLACK	(FT.) (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2'=(6m-H-0.6m)=
E - M. ARM POLE		SIGNAL POST	2 (0.6)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

ENERGY COST TO: Illinois Department of Transportation
Division of Highways / District 1
201 W Center Court / Schaumburg, Illinois 60196-1096

ENERGY SUPPLY: CONTACT: MS. JUDY SCHOMER
PHONE: (847)-870-2063
COMPANY: ComEd

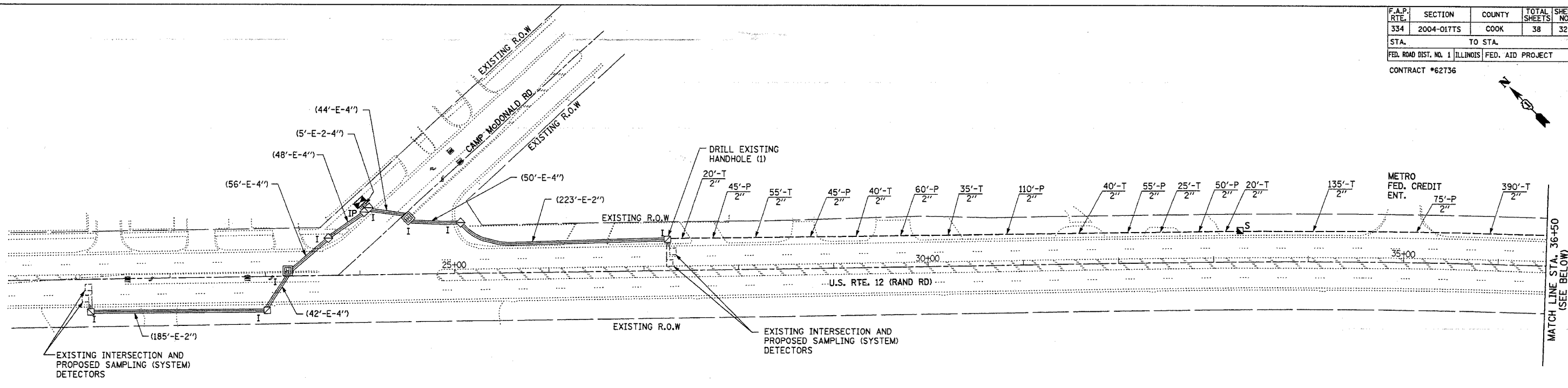
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES ILL. ROUTE 83 AT WILLOW ROAD

SCALE: NONE
DATE: 3/22/2005

DRAWN BY: BCK
DESIGNED BY: SM
CHECKED BY: DAD

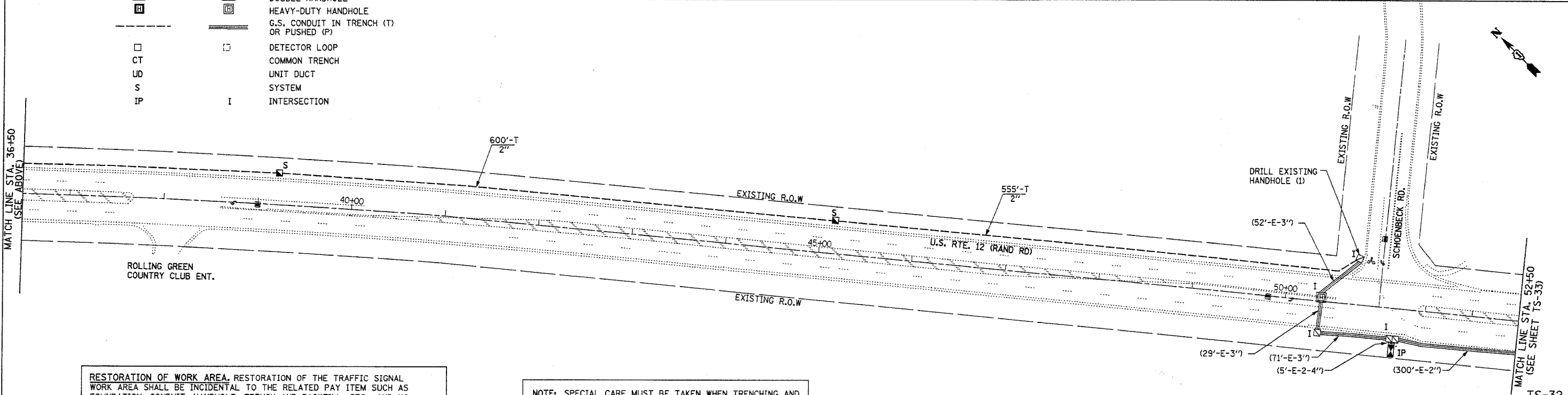
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	32
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
CONTRACT #62736				



INTERCONNECT PLAN LEGEND

PROPOSED	EXISTING	
		CONTROLLER
		HANDHOLE
		DOUBLE HANDHOLE
		HEAVY-DUTY HANDHOLE
		G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
		DETECTOR LOOP
CT		COMMON TRENCH
UD		UNIT DUCT
S		SYSTEM
IP	I	INTERSECTION



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, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTE: SPECIAL CARE MUST BE TAKEN WHEN TRENCHING AND PUSHING CONDUIT, INSTALLING HANDHOLES, ETC. TO AVOID HITTING BURIED CABLES, UTILITIES, TREES, ORNAMENTAL PLANTS, ETC.

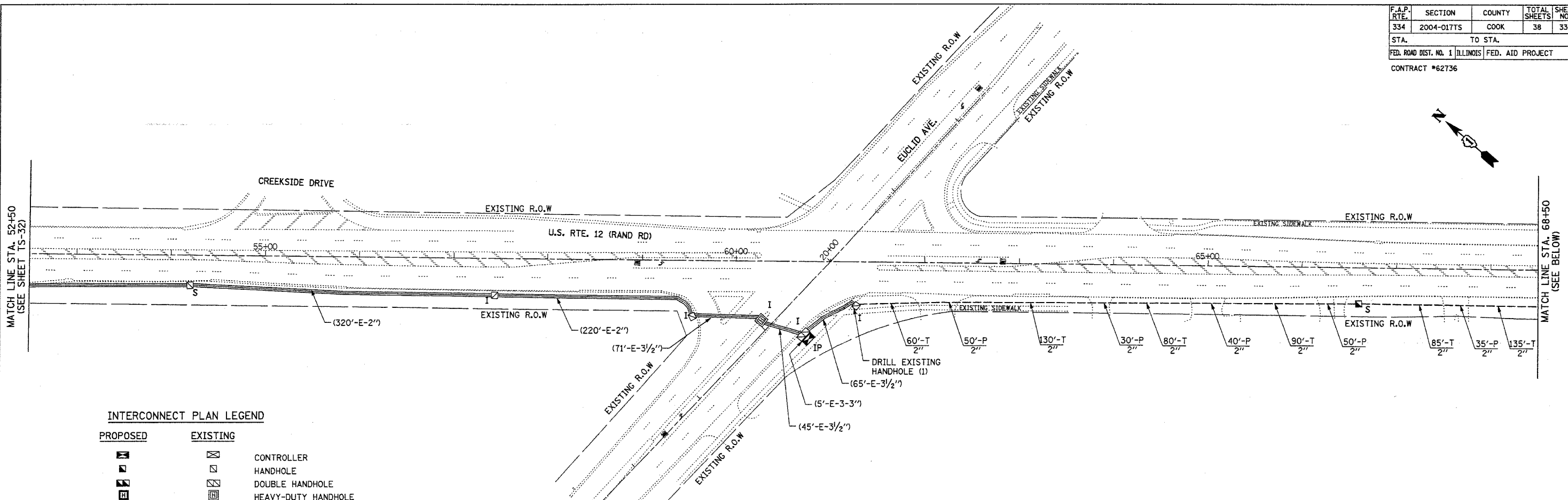
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 INTERCONNECT PLAN
 U.S. ROUTE 12 (RAND RD.)
 FROM CAMP McDONALD RD. TO/
 ILL. RTE. 83 (ELMHURST RD.)
 SHEET 1 OF 3
 SCALE: 1"=50'
 DATE: JUNE 15, 2004
 DRAWN BY: RV/MD
 DESIGNED BY: AZ
 CHECKED BY: AZ

K&E KAM ENGINEERING, INC.
 CONSULTING ENGINEERS
 707A Davis Road, Suite 205
 Egin, Illinois 60123-1369

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 06/09/2004

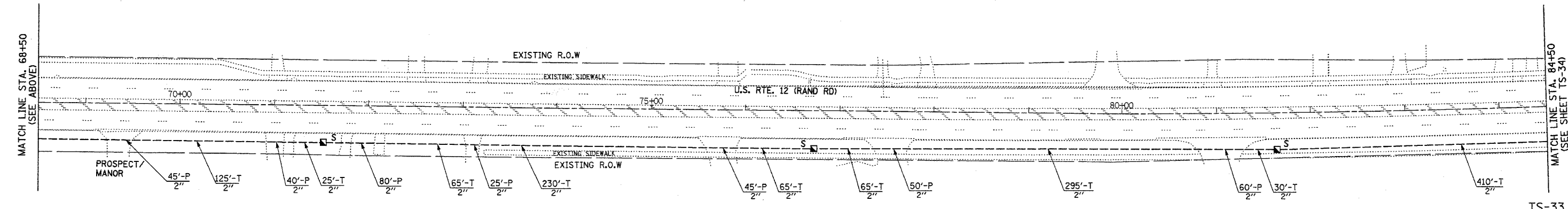
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	33
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
CONTRACT #62736				



INTERCONNECT PLAN LEGEND

PROPOSED	EXISTING	
		CONTROLLER
		HANDHOLE
		DOUBLE HANDHOLE
		HEAVY-DUTY HANDHOLE
		G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
		DETECTOR LOOP
		COMMON TRENCH
		UNIT DUCT
		SYSTEM
		INTERSECTION

NOTE: SPECIAL CARE MUST BE TAKEN WHEN TRENCHING AND PUSHING CONDUIT, INSTALLING HANDHOLES, ETC. TO AVOID HITTING BURIED CABLES, UTILITIES, TREES, ORNAMENTAL PLANTS, ETC.



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REVISIONS	
NAME	DATE

K&E KAM ENGINEERING, INC.
CONSULTING ENGINEERS
7074 Davis Road, Suite 205
Eglin, Illinois 6023-1369

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
U.S. ROUTE 12 (RAND RD.)
FROM CAMP McDONALD RD. TO/
ILL. RTE. 83 (ELMHURST RD.)
SHEET 2 OF 3

SCALE: 1"=50'
DATE: JUNE 15, 2004

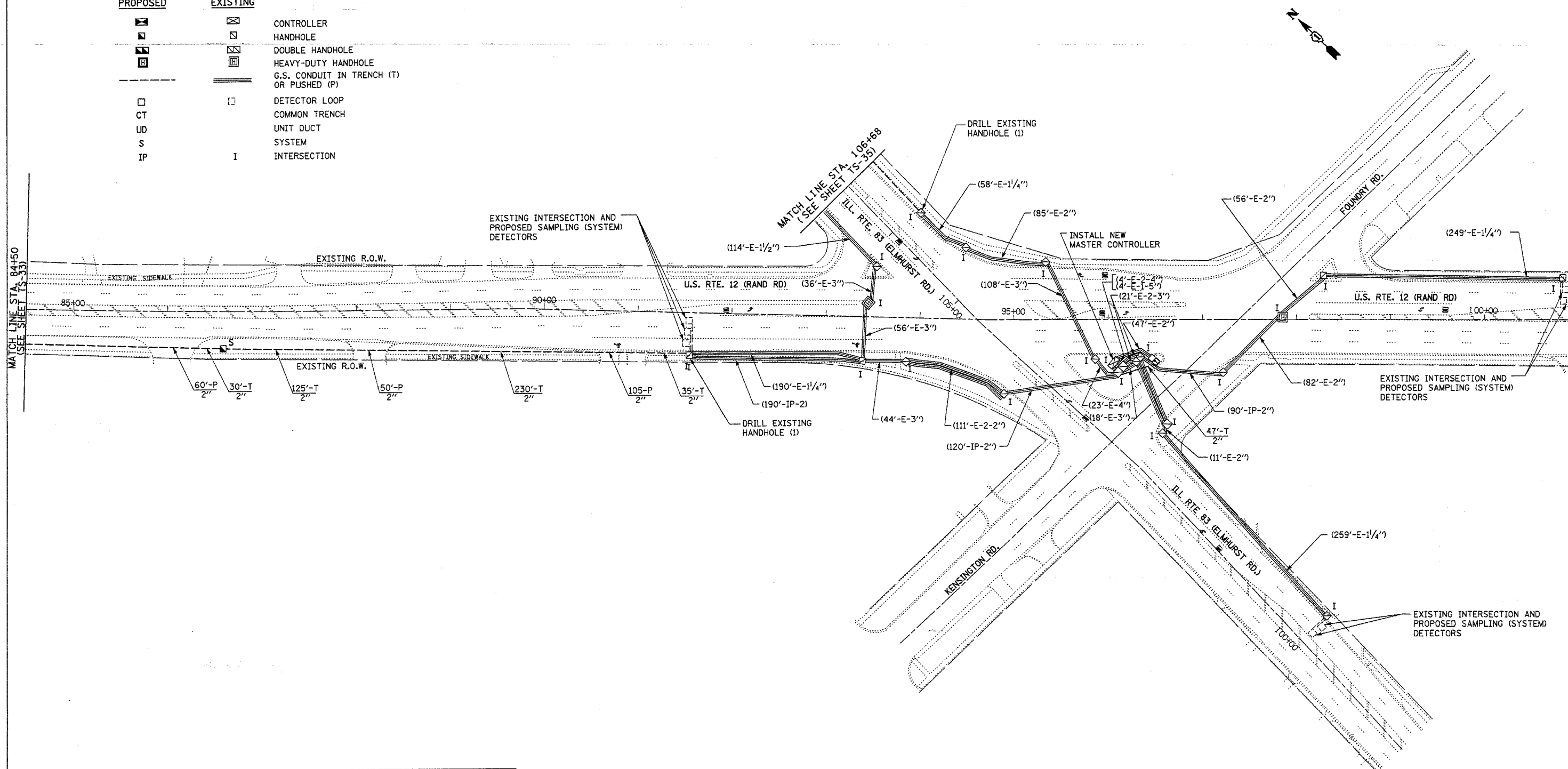
DRAWN BY: RV/MD
DESIGNED BY: AZ
CHECKED BY: AZ

TS-33

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	34
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				

INTERCONNECT PLAN LEGEND

PROPOSED	EXISTING	
		CONTROLLER
		HANDHOLE
		DOUBLE HANDHOLE
		HEAVY-DUTY HANDHOLE
		G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
		DETECTOR LOOP
CT		COMMON TRENCH
UD		UNIT DUCT
S		SYSTEM
IP	I	INTERSECTION



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, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTE: SPECIAL CARE MUST BE TAKEN WHEN TRENCHING AND PUSHING CONDUIT, INSTALLING HANDHOLES, ETC. TO AVOID HITTING BURIED CABLES, UTILITIES, TREES, ORNAMENTAL PLANTS, ETC.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
INTERCONNECT PLAN
 U.S. ROUTE 12 (RAND RD.)
 FROM CAMP McDONALD RD. TO/
 ILL. RTE. 83 (ELMHURST RD.)
 SHEET 3 OF 3
 SCALE: 1"=50'
 DATE: JUNE 15, 2004
 DRAWN BY: RV/MD
 DESIGNED BY: AZ
 CHECKED BY: AZ

K&E KAM ENGINEERING, INC.
 CONSULTING ENGINEERS
 707A Davis Road, Suite 205
 Eglw, Illinois 60123-1363

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06/09/2004

TS-34

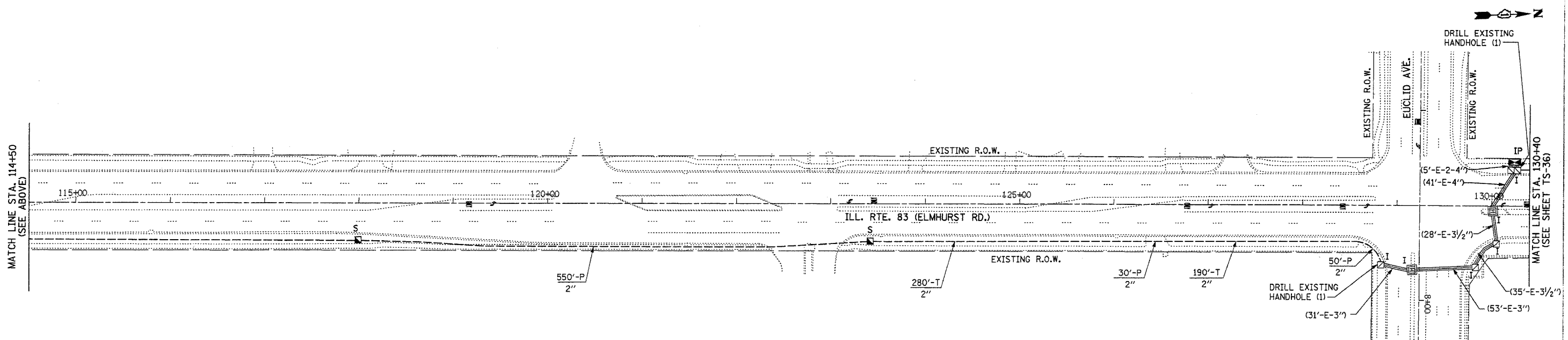
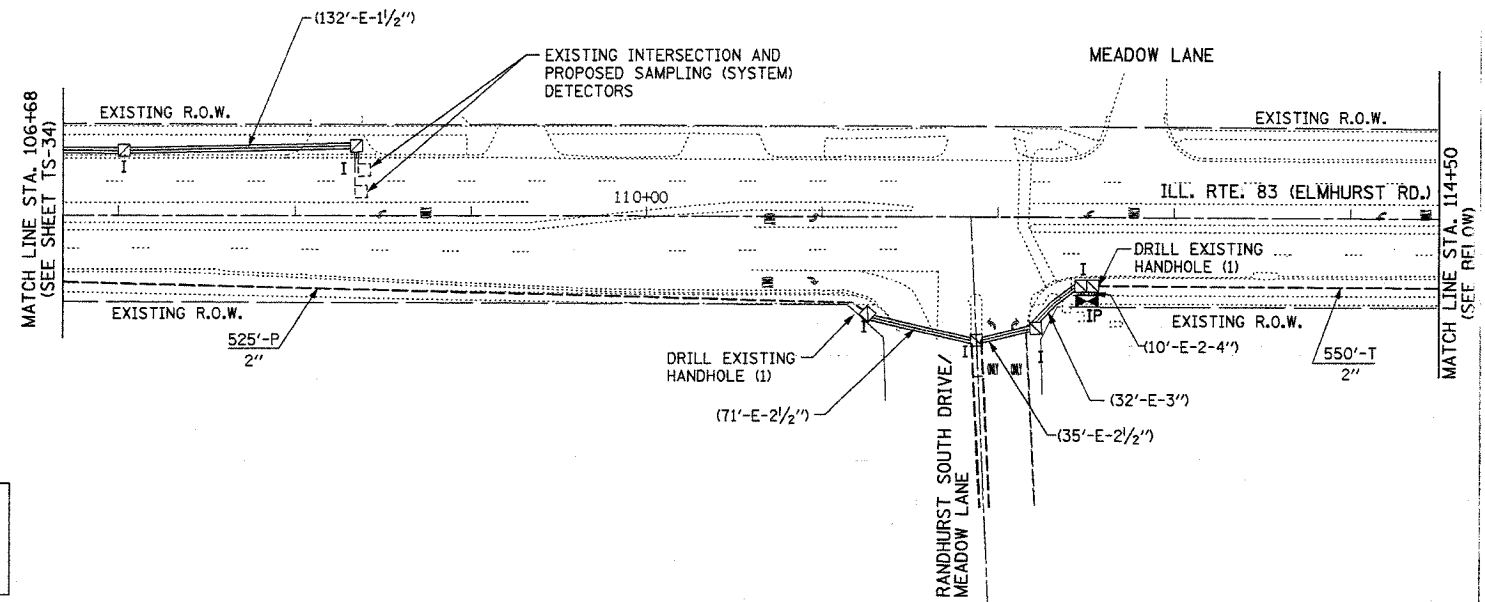
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	35
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
CONTRACT #62736				

INTERCONNECT PLAN LEGEND

PROPOSED	EXISTING	
		CONTROLLER
		HANDHOLE
		DOUBLE HANDHOLE
		HEAVY-DUTY HANDHOLE
		G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
		DETECTOR LOOP
		COMMON TRENCH
		UNIT DUCT
		SYSTEM
		INTERSECTION

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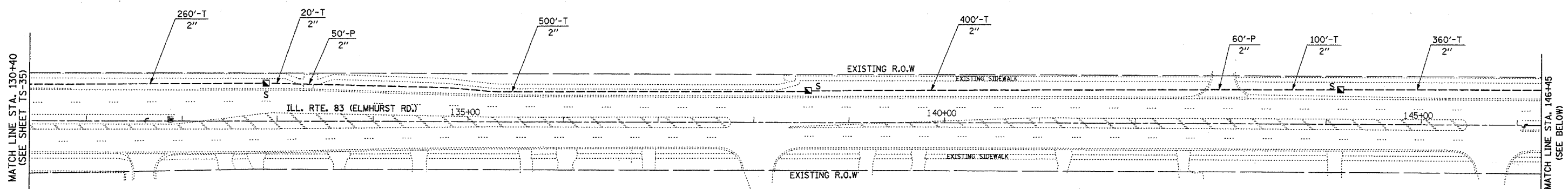
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 INTERCONNECT PLAN
 ILL. RTE. 83 (ELMHURST RD.)
 FROM U.S. RTE. 12 (RAND RD.)
 TO WILLOW RD.
 SHEET 1 OF 3
 SCALE: 1"=50'
 DATE: JUNE 15, 2004
 DRAWN BY: RV/MD
 DESIGNED BY: AZ
 CHECKED BY: AZ

K&E KAM ENGINEERING, INC.
 CONSULTING ENGINEERS
 707A Davis Road, Suite 205
 Elgin, Illinois 60123-1369

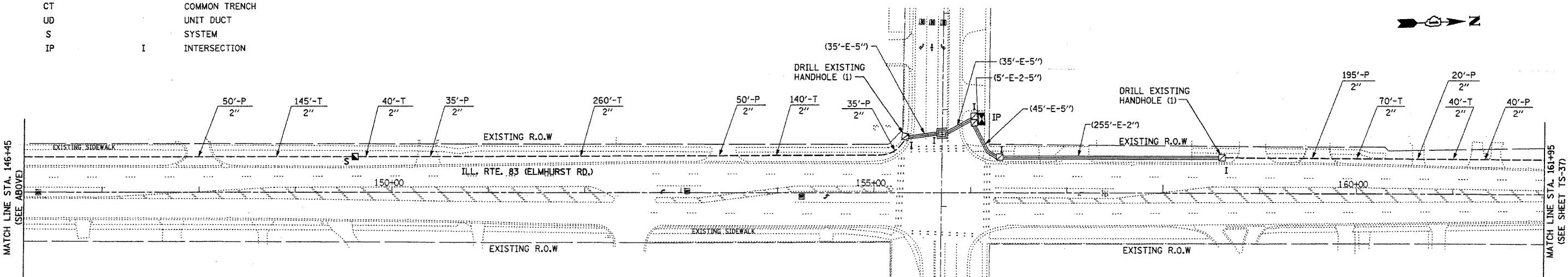
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 06/09/2004

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	36
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				



INTERCONNECT PLAN LEGEND

PROPOSED	EXISTING	
		CONTROLLER
		HANDHOLE
		DOUBLE HANDHOLE
		HEAVY-DUTY HANDHOLE
		G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
		DETECTOR LOOP
CT		COMMON TRENCH
UD		UNIT DUCT
S		SYSTEM
IP	I	INTERSECTION



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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
ILL. RTE. 83 (ELMHURST RD.)
FROM U.S. RTE. 12 (RAND RD.)
TO WILLOW RD.
SHEET 2 OF 3

SCALE: 1"=50'
DATE: JUNE 15, 2004

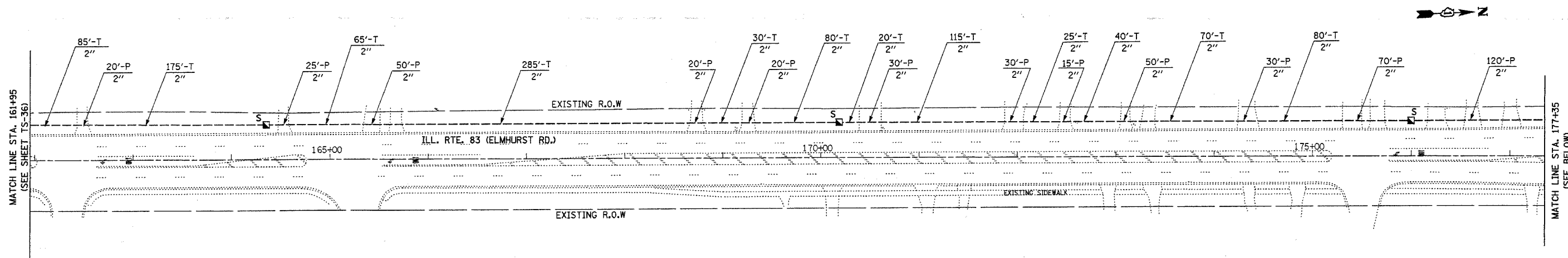
DRAWN BY: RV/MD
DESIGNED BY: AZ
CHECKED BY: AZ

K&E KAM ENGINEERING, INC.
CONSULTING ENGINEERS
707A Davis Road, Suite 205
Elgin, Illinois 60123-1369

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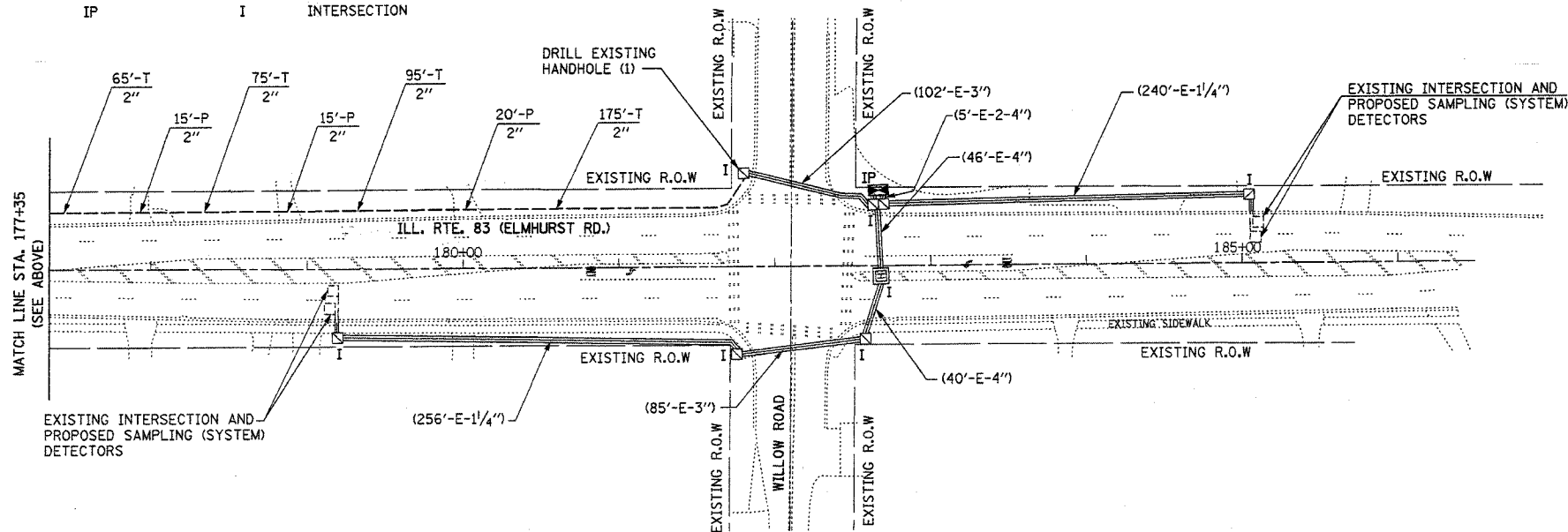
TS-36

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	37
STA.		TO STA.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT #62736				



INTERCONNECT PLAN LEGEND

PROPOSED	EXISTING	
		CONTROLLER
		HANDHOLE
		DOUBLE HANDHOLE
		HEAVY-DUTY HANDHOLE
		G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
		DETECTOR LOOP
		COMMON TRENCH
		UNIT DUCT
		SYSTEM
		INTERSECTION



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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 INTERCONNECT PLAN
 ILL. RTE. 83 (ELMHURST RD.)
 FROM U.S. RTE. 12 (RAND RD.)
 TO WILLOW RD.
 SHEET 3 OF 3
 SCALE: 1"=50'
 DATE: JUNE 15, 2004
 DRAWN BY: RV/MD
 DESIGNED BY: AZ
 CHECKED BY: AZ

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 06/09/2004

TS-37

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	2004-017TS	COOK	38	38
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
CONTRACT #62736				



INTERCONNECT SCHEMATIC LEGEND

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

SCHEDULE OF INTERCONNECT QUANTITIES

ITEM	UNIT	QNTY.
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	0.12
TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	0.12
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	0.12
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	0.12
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	9107
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	3425
HANDHOLE	EACH	17
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	9107
MASTER CONTROLLER (SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1C	FOOT	16154
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	16336
DRILL EXISTING HANDHOLE	EACH	13

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 INTERCONNECT SCHEMATIC
 U.S. ROUTE 12 (RAND RD.) FROM
 CAMP McDONALD RD. TO ILL. RTE. 83
 (ELMHURST RD.) AND ILL. RTE. 83
 (RAND RD.) TO WILLOW RD.

SCALE: NONE
 DATE: JUNE 28, 2004

DRAWN BY: BCK
 DESIGNED BY: SM
 CHECKED BY: DAD