

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

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

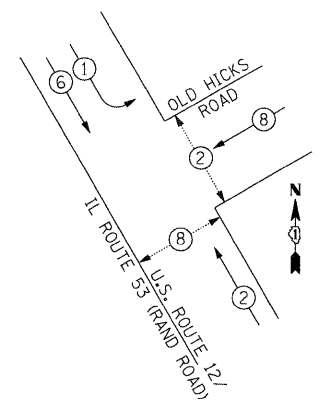
**CABLE PLAN LEGEND**

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

**SCHEDULE OF QUANTITIES**

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

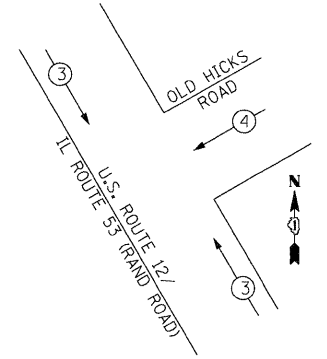
**CONTROLLER SEQUENCE**



**LEGEND**

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

**PHASE DESIGNATION DIAGRAM**  
 EMERGENCY VEHICLE PREEMPTION SEQUENCE



**PROPOSED EMERGENCY VEHICLE PREEMPTORS**

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↔

INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

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

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

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

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

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

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

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