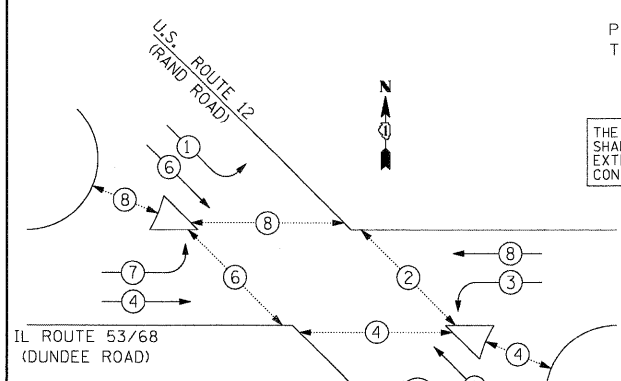


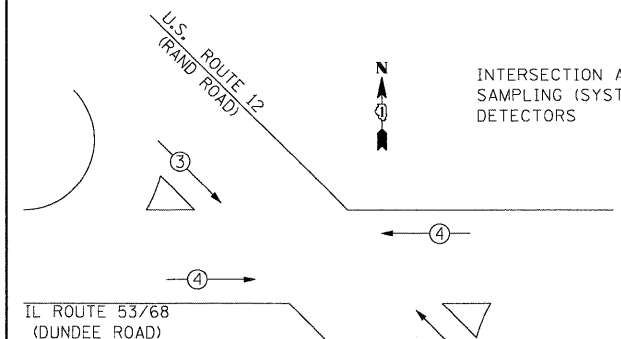
1/27/2009  
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 DESIGNED - CH, RP  
 DRAWN - NY  
 CHECKED - MJL  
 DATE - 1/27/2009  
 REVISIONS  
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**CONTROLLER SEQUENCE**



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

**PHASE DESIGNATION DIAGRAM**  
 EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

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

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

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

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

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

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

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

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

**CABLE PLAN LEGEND**

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

**SCHEDULE OF QUANTITIES**

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

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

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

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

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

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

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