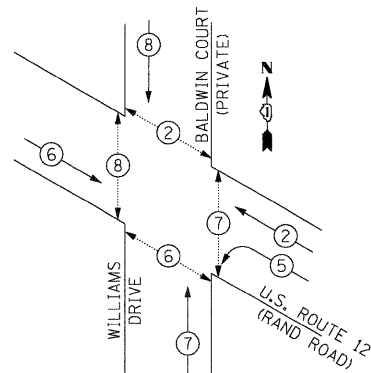


1/27/2009
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CONTROLLER SEQUENCE



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

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

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

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

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

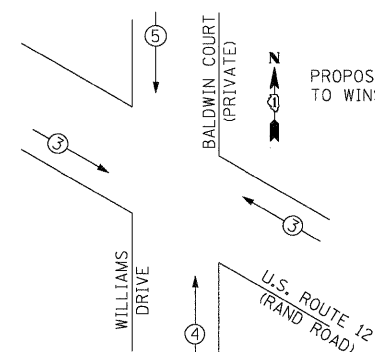
THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

- CABLE PLAN LEGEND**
- | EXISTING | PROPOSED | |
|------------------------------|------------------------------|---|
| | | 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 | NO. 14 1/C | NO. 14 1/C TRACER CABLE |
| FIBER OPTIC CABLE IN CONDUIT | FIBER OPTIC CABLE IN CONDUIT | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM-12F SM-12F |
| SIGNAL FACE WITH BACKPLATE | 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"	SO YD	14
SODDING	SO YD	14
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	1,312
DETECTABLE WARNINGS	SO FT	106
COMBINATION CURB AND GUTTER REMOVAL	SO FT	95
SIDEWALK REMOVAL	SO FT	1,364
CONCRETE CURB, TYPE B	FOOT	205
COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	95
SIGN PANEL - TYPE 1	SO FT	15
SIGN PANEL - TYPE 2	SO FT	25
THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	355
THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	99
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	119
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	599
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	13
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	68
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	16
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	26
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	274
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	696
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	763
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,805
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,509
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	960
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,454
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	268
TRAFFIC SIGNAL POST, GALVANIZED STEEL 15 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 40 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	7
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10
INDUCTIVE LOOP DETECTOR	EACH	7
DEFECTOR LOOP, TYPE 1	FOOT	508
PEDESTRIAN PUSH-BUTTON	EACH	6
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	9
REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	521
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	539

PHASE DESIGNATION DIAGRAM
EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↔	↑	↓

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

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

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

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

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

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

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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

FILE NAME = 17_CablePlan_Rand&Williams.dgn

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

REVISOR -
REVISOR -
REVISOR -
REVISOR -

DATE - 1/27/2009

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	28

CONTRACT NO. 60F87