

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
336	112R-N	McHENRY	266	172
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

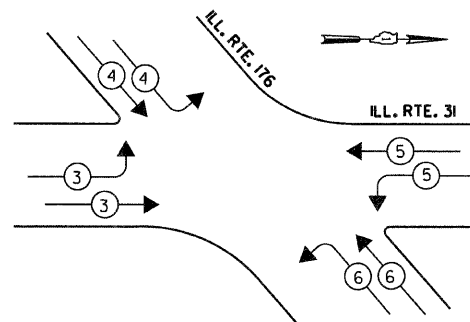
CONTRACT NO. - 62537

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
71.5	SO FT	SIGN PANEL - TYPE 1
1	EACH	SERVICE INSTALLATION - POLE MOUNTED
1367	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
144	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
29	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1001	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
7	EACH	HANDHOLE
4	EACH	HEAVY-DUTY HANDHOLE
3	EACH	DOUBLE HANDHOLE
1	EACH	TRANSCEIVER - FIBER OPTIC
350	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1810	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
3815	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
2411	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
7920	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
36	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
1129	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 54 FT.
20	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
58	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
4	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
12	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
21	EACH	INDUCTIVE LOOP DETECTOR
1269	FOOT	PREFORMED DETECTOR LOOP
4	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
3	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
11	EACH	REMOVE EXISTING HANDHOLE
10	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	FULL-ACTUATED CONTROLLER AND CABINET, TYPE V, SPECIAL
1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
1341	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING

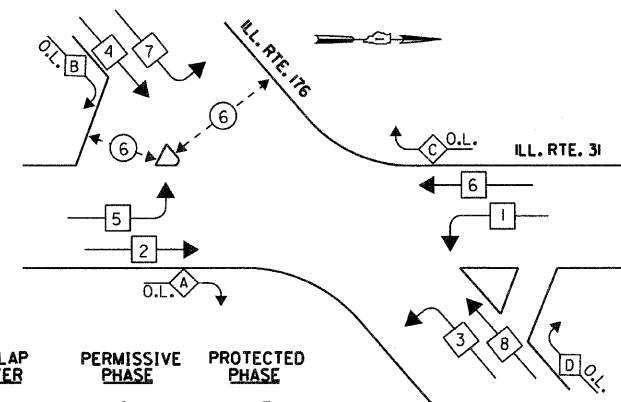
• 100% COST TO CITY OF CRYSTAL LAKE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	←	↑

CONTROLLER SEQUENCE



OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
B	= 4	+ 5
C	= 6	+ 7
D	= 8	+ 1

PHASE DESIGNATION DIAGRAM

GO GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
6035 N. NORTHWEST HIGHWAY
SUITE 306
CHICAGO, ILLINOIS 60631 TEL. (773) 774-5910

- LEGEND**
- ←○→ DUAL ENTRY PHASE
 - ←□→ SINGLE ENTRY PHASE
 - ←◇→ O.L. OVERLAP
 - ←○→ PEDESTRIAN PHASE
 - NUMBER REFERS TO ASSOCIATED PHASE

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

REVISIONS	
NAME	DATE
EA	11/21/2011

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM,
EMERGENCY VEHICLE PREEMPTION SEQUENCE,
SCHEDULE OF QUANTITIES - ILLINOIS
ROUTE 31 AT ILLINOIS ROUTE 176

SCALE: N.T.S. DRAWN BY: KGP
DESIGNED BY: PKG
DATE: 02/10/2012 CHECKED BY: PKG

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	INCAND. WATTAGE	LED WATTAGE	%OPERATION	
SIGNAL (RED)	20	135	17	0.50	170.0
(YELLOW)	20	135	25	0.25	125.0
(GREEN)	20	135	15	0.25	75.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	4	90	25	1.00	100.0
CONTROLLER ILLUM. SIGN	1	100	100	1.00	100.0
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 589.2

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096
ENERGY SUPPLY CONTACT: LISA COOK
PHONE: (815) 477-5204
COMPANY: COMED

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