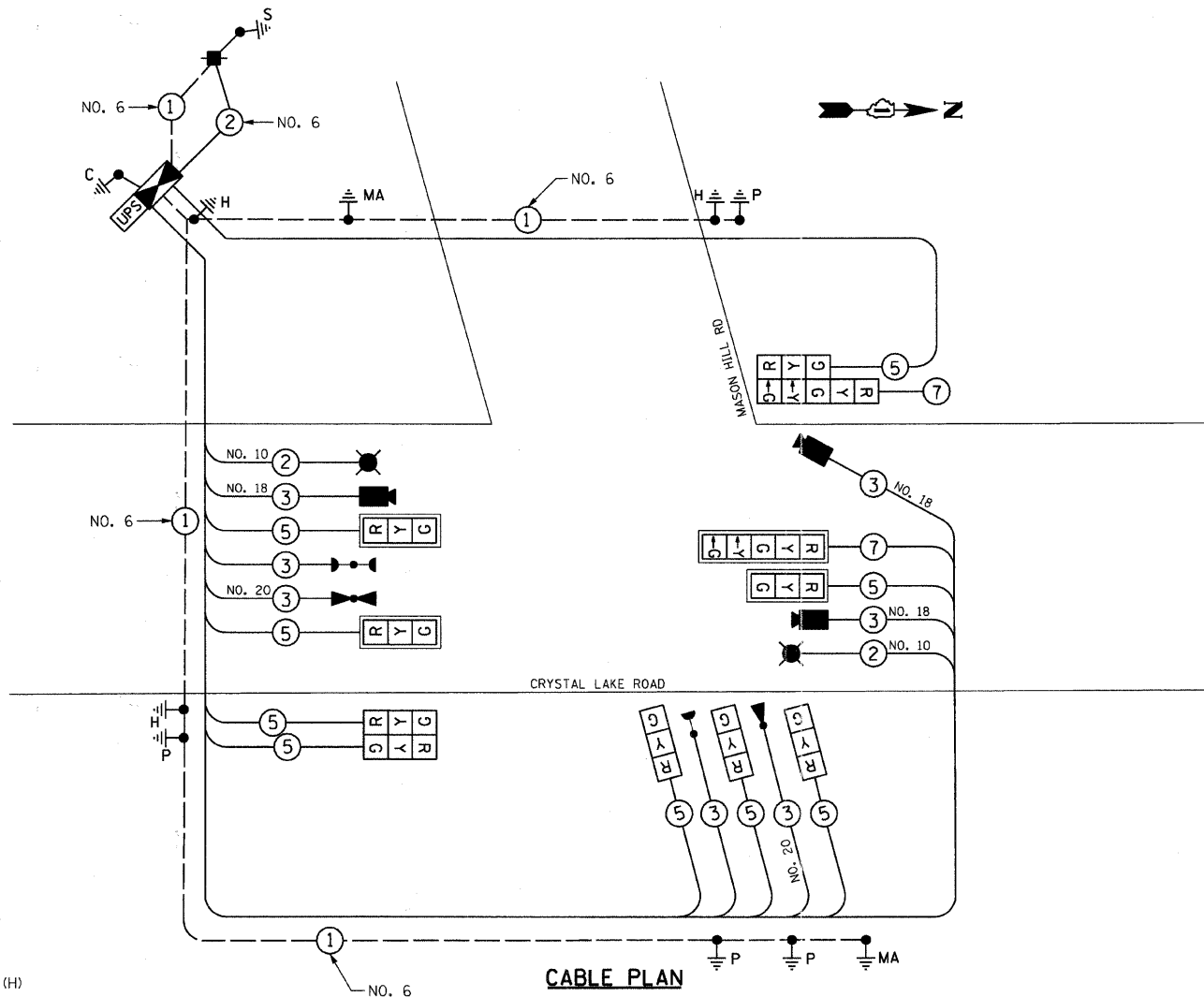


### CABLE PLAN LEGEND

- PROPOSED**
- 12" TRAFFIC SIGNAL SECTION
  - 12" PEDESTRIAN SIGNAL SECTION
  - 16" X 18" PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER
  - CONTROLLER CABINET
  - SERVICE INSTALLATION
  - TELEPHONE INSTALLATION
  - VEHICLE DETECTOR, INDUCTION LOOP
  - EMERGENCY VEHICLE LIGHT DETECTOR
  - CONFIRMATION BEACON
  - PUSH-BUTTON 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, FIBER OPTIC "NO LEFT TURN"
  - ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
  - GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (H)
  - GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
  - GROUND ROD AT ELECTRIC SERVICE INSTALLATION
  - LUMINAIRE
  - VIDEO DETECTION CAMERA
  - PTZ CAMERA
  - VIDEO COMMUNICATIONS CABINET
  - TELEPHONE DROP
  - L.E.D. STREET NAME SIGN
  - UNINTERRUPTIBLE POWER SUPPLY

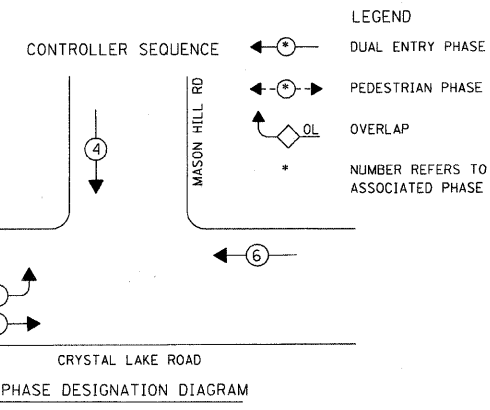


**CABLE PLAN**

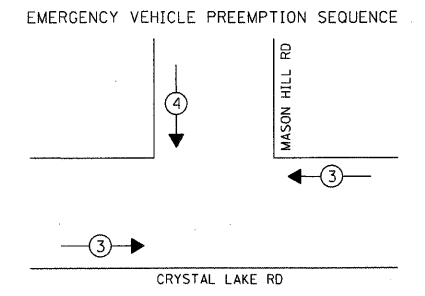
**NOTES:**

- ALL TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL BE ECONOLITE TRAFFIC CONTROL EQUIPMENT.
- VIDEO DETECTION CAMERA SHALL BE AUTOSCOPE TERRA.
- VIDEO DETECTION CABLE SHALL BE #18, 3C.
- CONTROLLER SHALL BE ECONOLITE ASC3.
- TYPE IV CABINET.
- EVP CABLE SHALL BE 3C #20, TWISTED, SHIELDED.
- CONFIRMATION BEACON CABLE SHALL BE 3C #14.
- ALL PEDESTRIAN HEADS SHALL BE COUNTDOWN HEAD. SIDE BY SIDE 16" X 18".
- GROUNDING OF SIGNAL EQUIPMENT INCIDENTAL TO FOUNDATION PAY ITEM.
- CONFIRMATION BEACON SHALL BE LED.

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



**PHASE DESIGNATION DIAGRAM**



**PROPOSED EMERGENCY VEHICLE PREEMPTORS**

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↓

SCHEDULE OF QUANTITIES			
PAY CODE	DESCRIPTION	UNIT	QUANTITY
72000200	SIGN PANEL - TYPE 2	SO. FT.	30
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	35
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	34
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	74
81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10
81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	45
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	183
81400100	HANDHOLE	EACH	2
81400300	DOUBLE HANDHOLE	EACH	1
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	148
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	282
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1372
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	392
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	53
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3
87702900	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT.	EACH	1
87702940	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 42 FT.	EACH	1
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	30
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
88700200	LIGHT DETECTOR	EACH	2
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1
80500020	SERVICE INSTALLATION-POLE MOUNTED	EACH	1
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT, GROUNDING CONDUCTOR, NO. 6 1C	FOOT	540
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	282
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
XX005230	VIDEO DETECTION SYSTEM COMPLETE INTERSECTION	L. SUM	1
87301290	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 18 3C	FOOT	617
82103250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL 250 WATT	EACH	2
81700215	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1C NO. 10	FOOT	408
86200120	UNINTERRUPTIBLE POWER SUPPLY (UPS)	EACH	1
88030210	SIGNAL HEAD, LED, 2 FACE, 3 SECTION, BRACKET MOUNTED	EACH	1

MCDOT TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS X INCAND.	WATTAGE	LED X % OPERATION		
SIGNAL (RED)	11	135	10	0.50	55.0
(YELLOW)	11	135	19	0.10	20.9
(GREEN)	11	135	11	0.40	48.4
ARROW	4	135	9	0.10	3.6
PED. SIGNAL	--	90	9	1.00	--
CONTROLLER	1	--	300	1.00	300.0
LUMINAIRE	2	--	250	0.50	250.0
ENERGY COSTS TO: BRAD COUSIN 815-334-4971 TOTAL =					677.9
MCHENRY COUNTY DIVISION OF TRANSPORTATION 16111 NELSON ROAD WOODSTOCK, IL 60098					
ENERGY SUPPLY: CONTACT: LISA COOK PHONE: 815-477-5204 COMPANY: COM. ED.					

REVISIONS	
NAME	DATE

MCHENRY COUNTY DIVISION OF TRANSPORTATION  
WALKUP ROAD F.A.U. 0085

**SOQ, CABLE PLAN,  
PHASE DESIGNATION DIAGRAM,  
EMERGENCY VEHICLE SEQUENCE**

CRYSTAL LAKE RD & MASON HILL RD

SCALE: N.T.S. DRAWN BY: SNB  
DATE: 04/15/11 CHECKED BY: RRM

**TENG**  
TENG & ASSOCIATES, INC.  
ENGINEERS/ARCHITECTS/PLANNERS  
205 N. MICHIGAN AVE. CHICAGO, IL 60601  
TELEPHONE: 312-644-6000

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