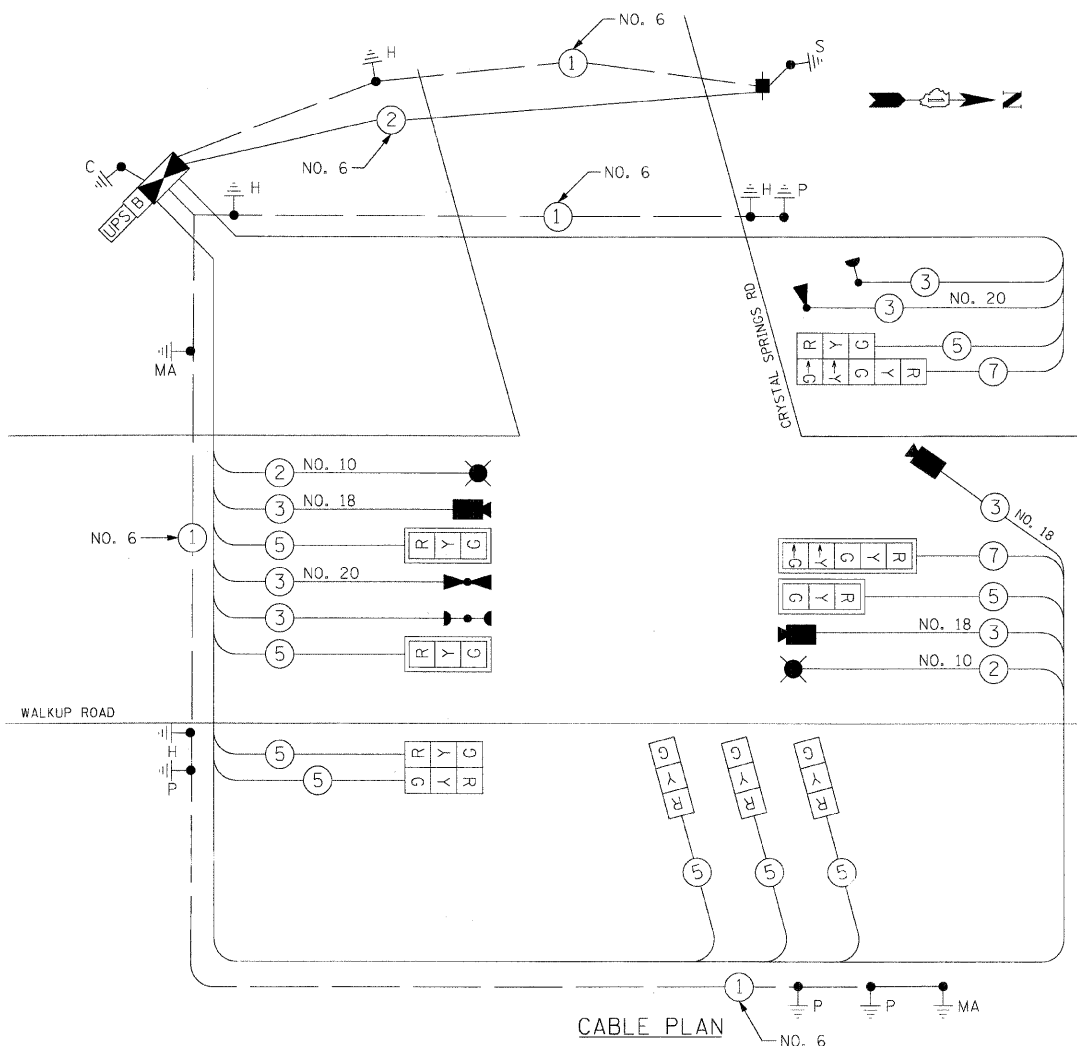


F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0085	00-00246-01-FP	MCHENRY	236	150
STA.	TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	
			CONTRACT NO: 63266	

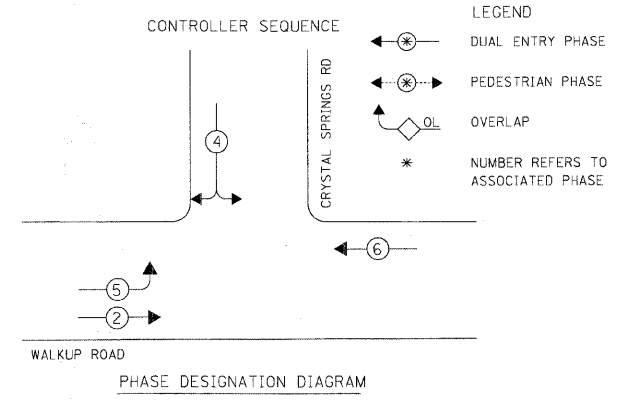
CABLE PLAN LEGEND

- PROPOSED**
- [G] 8" TRAFFIC SIGNAL SECTION
 - [R] 12" TRAFFIC SIGNAL SECTION
 - [16' X 18'] 16" X 18" PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER
 - [CONTROLLER CABINET]
 - [SERVICE INSTALLATION]
 - [TELEPHONE INSTALLATION]
 - [VEHICLE DETECTOR, INDUCTION LOOP]
 - [MAGNETIC DETECTOR]
 - [EMERGENCY VEHICLE LIGHT DETECTOR]
 - [CONFIRMATION BEACON]
 - [PUSH-BUTTON DETECTOR]
 - (2) DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
 - (1) GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
 - (24) FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM2F & SM2F
 - [R Y G] 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"]
 - [HANDHOLE]
 - [C] GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
 - [P] GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
 - [S] GROUND ROD AT ELECTRIC SERVICE INSTALLATION
 - [B] BATTERY BACKUP SYSTEM
 - [VIDEO DETECTION CAMERA]
 - [LUMINAIRE, 250W HPS]



CABLE PLAN

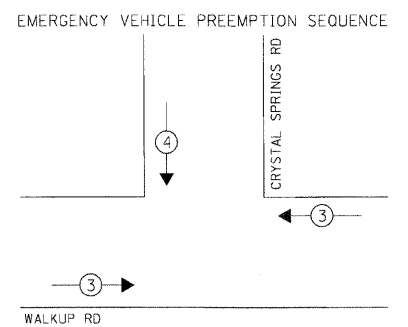
- NOTES:**
- ALL TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL BE ECONOLITE TRAFFIC CONTROL EQUIPMENT.
 - VIDEO DETECTION CAMERA SHALL BE AUTOSCOPE TERRA.
 - VIDEO DETECTION CABLE SHALL BE #18, 3C.
 - CONTROLLER SHALL BE ECONOLITE ASC3.
 - TYPE IV CABINET.
 - EVP CABLE SHALL BE 3C #20, TWISTED, SHIELDED.
 - 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.



PHASE DESIGNATION DIAGRAM

- LEGEND**
- [DUAL ENTRY PHASE]
 - [PEDESTRIAN PHASE]
 - [OVERLAP]
 - [NUMBER REFERS TO ASSOCIATED PHASE]

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓



PAY CODE	DESCRIPTION	UNIT	QUANTITY
72000100	SIGN PANEL - TYPE 1	SO. FT.	9
72000200	SIGN PANEL - TYPE 2	SO. FT.	30
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	52
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	135
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	128
81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	40
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	65
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	207
81400100	HANDHOLE	EACH	3
81400300	DOUBLE HANDHOLE	EACH	1
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	350
81700215	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-IC NO. 10	FOOT	391
82103250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL 250 WATT	EACH	2
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	290.5
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1721.5
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	473
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	141.5
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
87702880	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	1
87702930	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 40 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
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
88700200	LIGHT DETECTOR	EACH	2
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1
X8050015	SERVICE INSTALLATION-POLE MOUNTED	EACH	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	484
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	290.5
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
XX005723	VIDEO DETECTION SYSTEM COMPLETE INTERSECTION	EACH	1
	ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 18 3C	FOOT	669
88030210	SIGNAL HEAD, LED, 2 FACE, 3 SECTION, BRACKET MOUNTED	EACH	1
X8620020	UNINTERRUPTIBLE POWER SUPPLY (UPS)	EACH	1

MCDOT TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE	LED X % OPERATION		
SIGNAL (RED)	11	X	10	0.50	55.0
(YELLOW)	11	X	19	0.10	20.9
(GREEN)	11	X	11	0.40	48.4
ARROW	4	X	9	0.10	3.6
CONTROLLER	1	X	300	1.00	300
LUMINAIRE	2	X	250	0.50	250
FLASHER	X	X	X	0.50	X
TOTAL =					677.9

ENERGY COSTS TO:
MCHENRY COUNTY DIVISION OF TRANSPORTATION
16111 NELSON ROAD
WOODSTOCK, IL 60098

ENERGY SUPPLY: CONTACT: MS. ELLIE SARALLO
PHONE: 847-608-2400
COMPANY: COM. ED.

FOUNDATION (DEPTH)	FT.	CABLE SLACK	FT.	VERTICAL	FT.
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE	-	SIGNAL POST	2		
	24" (600mm)	CONTROLLER CAB.	1	BRACKET MOUNTED	13
	30" (750mm)	FIBER OPTIC	13	PED. PUSHBUTTON	4
	36" (900mm)	ELECTRIC SERVICE	1	ELECTRIC SERVICE	13.5
		GROUND CABLE	1	SERVICE TO GROUND	13.5
				POST MOUNTED	6

REVISIONS	
NAME	DATE

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

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

WALKUP RD AND CRYSTAL SPRINGS RD

SCALE: N.T.S. DRAWN BY: MZD
DATE: 08/17/09 CHECKED BY: RRM

TENG
TENG & ASSOCIATES, INC.
ENGINEERS/ARCHITECTS/PLANNERS
205 N. MICHIGAN AVE., CHICAGO, IL 60601
TELEPHONE: 312/616-0000

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