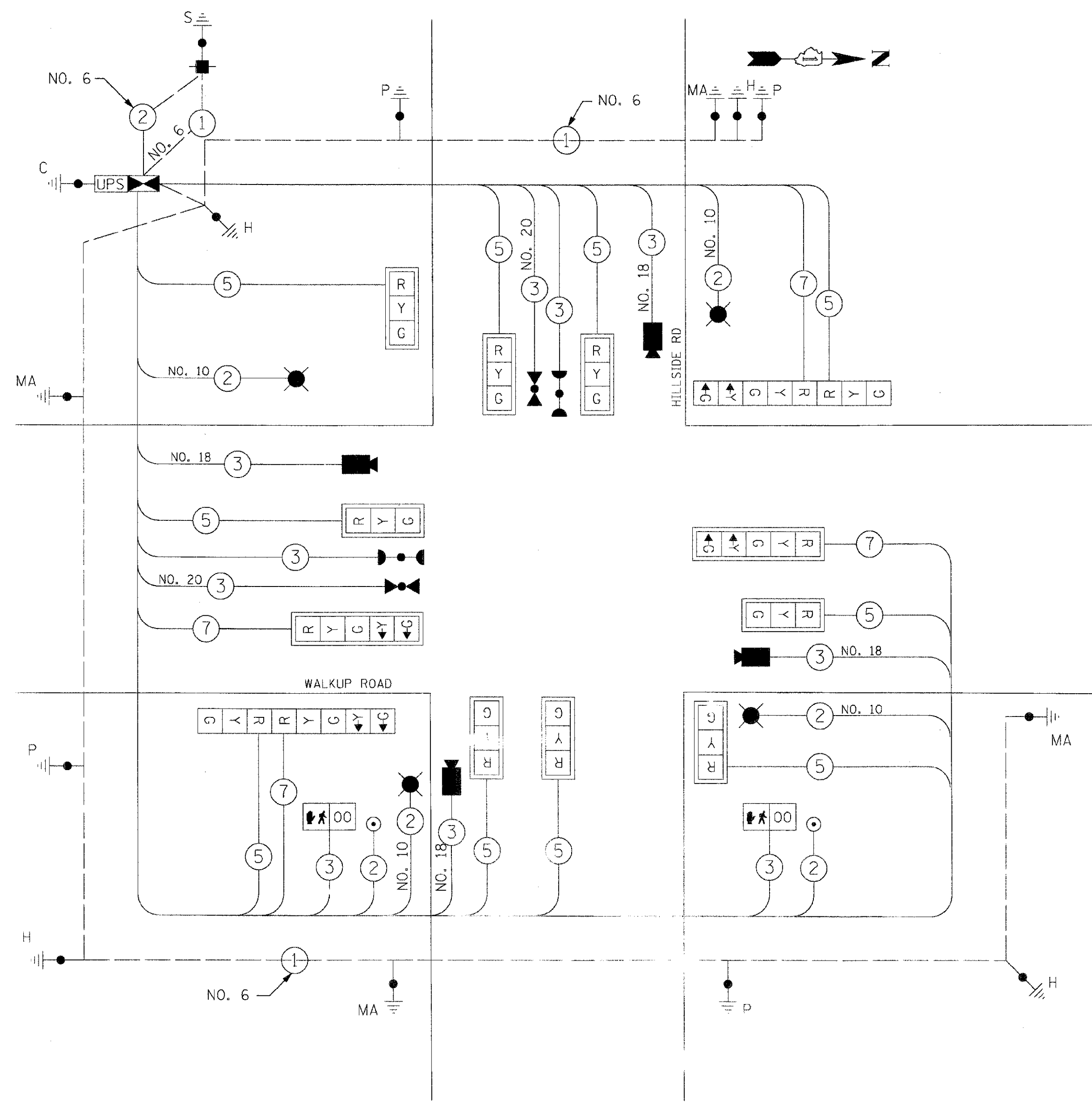
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0085	00-00246-01-FP	MCHENRY	236	144
STA.		TO STA.		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CONTRACT NO: 63266

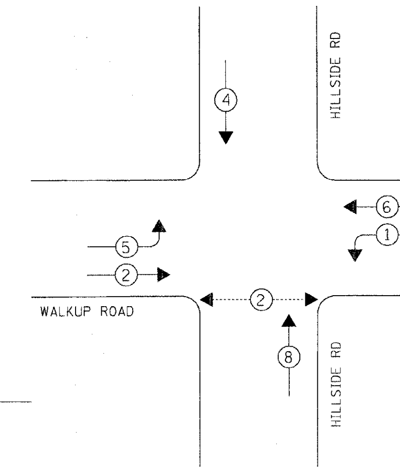
CABLE PLAN LEGEND

EXISTING	PROPOSED	
		12" TRAFFIC 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 MM12F & SM12F
"P"	"P"	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
"E"		RAILROAD CONTROL CABINET
"E"		ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
"E"		ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
H/C	C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (H)
P	P	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		VIDEO DETECTION CAMERA
		PTZ CAMERA
		LUMINAIRE
"E"		VIDEO COMMUNICATIONS CABINET
ST NAME	ST NAME	L.E.D. STREET NAME SIGN
UPS	UPS	UNINTERRUPTED POWER SUPPLY



CABLE PLAN

CONTROLLER SEQUENCE



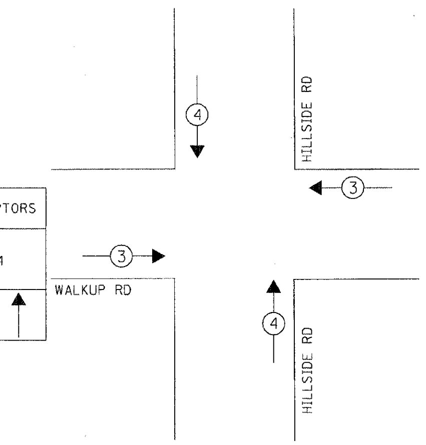
PHASE DESIGNATION DIAGRAM

LEGEND

- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- OL OVERLAP
- * NUMBER REFERS TO ASSOCIATED PHASE

PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

EMERGENCY VEHICLE PREEMPTION SEQUENCE



SCHEDULE OF QUANTITIES			
PAY CODE	DESCRIPTION	UNIT	QUANTITY
72000100	SIGN PANEL - TYPE 1	SQ. FT.	36
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	17
81000700	CONDUIT IN TRENCH, 2½" DIA., GALVANIZED STEEL	FOOT	79
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	76
81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	96
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	210
81400100	HANDHOLE	EACH	3
81400300	DOUBLE HANDHOLE	EACH	1
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	258
81700215	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1C NO. 10	FOOT	761
82103250	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL 250 WATT	EACH	4
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	225.5
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	726
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1760
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	619
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	35
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
87702880	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT.	EACH	1
87702890	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.	EACH	3
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	60
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED, WITH COUNTDOWN TIMER	EACH	2
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
88700200	LIGHT DETECTOR	EACH	2
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1
88800100	PEDESTRIAN PUSH-BUTTON	EACH	2
X8050015	SERVICE INSTALLATION-POLE MOUNTED	EACH	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	587.5
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	261.5
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
XX005723	VIDEO DETECTION SYSTEM COMPLETE INTERSECTION	EACH	1
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 18 3C	FOOT	781
88030050	SIGNAL HEAD, LED, 1 FACE, 3 SECTION, BRACKET MOUNTED	EACH	2
X8620020	UNINTERRUPTIBLE POWER SUPPLY (UPS)	EACH	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
89502380	REMOVE EXISTING HANDHOLE	EACH	11
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1

NOTES:

1. ALL TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL BE ECONOLITE TRAFFIC CONTROL EQUIPMENT.
2. VIDEO DETECTION CAMERA SHALL BE AUTOSCOPE TERRA.
3. VIDEO DETECTION CABLE SHALL BE NO.18, 3C.
4. CONTROLLER SHALL BE ECONOLITE ASC3.
5. TYPE IV CABINET.
6. EVP CABLE SHALL BE 3C #20, TWISTED, SHIELDED.
7. CONFIRMATION BEACON CABLE SHALL BE 3C #14.
8. ALL PEDESTRIAN HEADS SHALL BE COUNTDOWN HEAD. SIDE BY SIDE 16" X 18".
9. GROUNDING OF SIGNAL EQUIPMENT INCIDENTAL TO FOUNDATION PAY ITEM.
10. CONFIRMATION BEACON SHALL BE LED.

MCDOT
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS X	WATTAGE INCAND.	WATTAGE LED X	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	X	10	0.50	70
(YELLOW)	14	X	19	0.10	26.6
(GREEN)	14	X	11	0.40	61.6
ARROW	8	X	9	0.10	7.2
PED. SIGNAL	2	X	9	1.00	18
CONTROLLER	1	X	3	1.00	3
LUMINAIRE	--	250		0.50	125
FLASHER	X	X		0.50	
				TOTAL =	311.4

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.
TYPE A - POST	4
C - CONT. W/UPS	4
D - CONTROLLER	4
E - M. ARM POLE	15

CABLE SLACK	FT.
HANDHOLE	6.5
DOUBLE HANDHOLE	13
SIGNAL POST	2
CONTROLLER CAB.	1
FIBER OPTIC	13
GROUND CABLE	1
ELECTRIC SERVICE	1

VERTICAL	FT.
ALL FOUNDATIONS	3.5
MAST ARM (L) POLE	20'+L-2=
BRACKET MOUNTED	13
PED. PUSHBUTTON	4
ELECTRIC SERVICE	13.5
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 HILLSIDE 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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