PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
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Aurora, Illinois 60504-9675
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2845	3152WRS	COOK	19	96
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62742

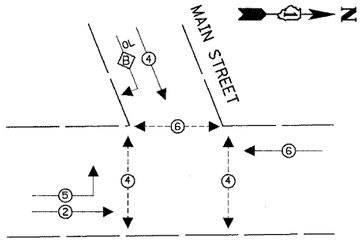
CABLE PLAN LEGEND

EXISTING	PROPOSED	
(G)	G	8" (200mm) TRAFFIC SIGNAL SECTION
(R)	R	12" (300mm) TRAFFIC SIGNAL SECTION
(W)	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSH-BUTTON DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
(2)	(2)	DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(1)	(1)	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(24)	(24)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(R) (Y) (G) (←) (↑) "P"	R Y G ←Y ↑G "P"	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
"E"	"E"	RAILROAD CONTROL CABINET
"E"	"E"	ILLUMINATED SIGN "NO LEFT TURN"
"E"	"E"	ILLUMINATED SIGN "NO RIGHT TURN"
H/C	C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P	P	GROUND ROD AT POST (P), OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION

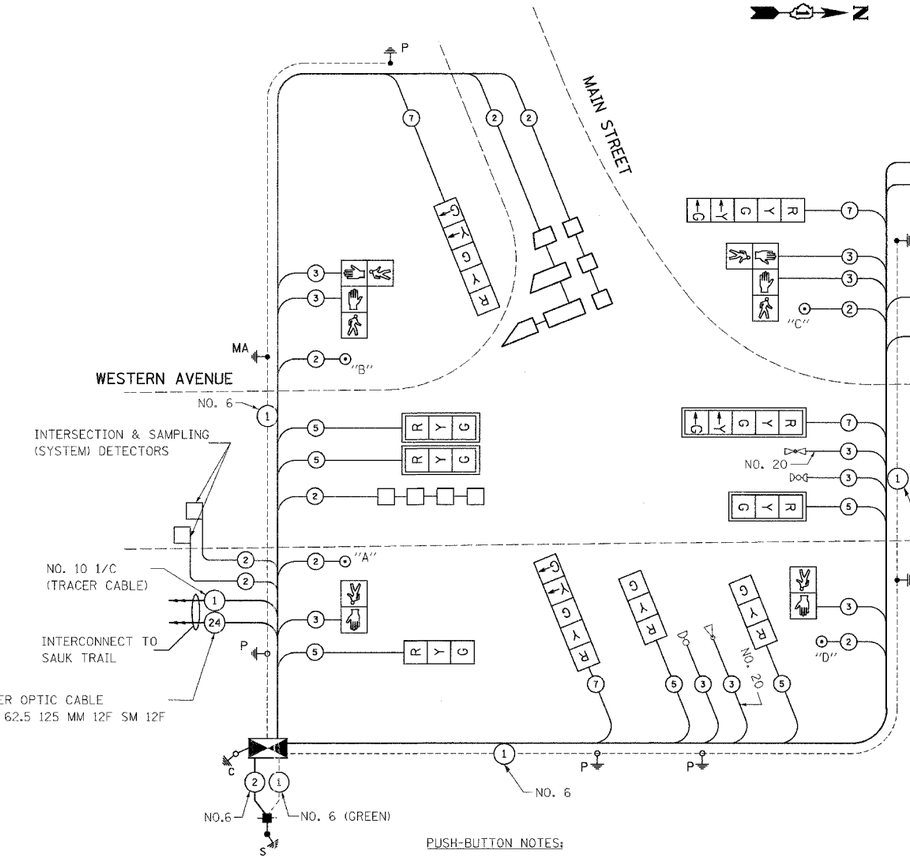
SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
RELOCATE SIGN PANEL, TYPE 1	SQ FT	18
RELOCATE SIGN PANEL, TYPE 2	SQ FT	25
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	268
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	96
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	48
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	188
HANDHOLE	EACH	3
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	449
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	690
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1449
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	782
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	725
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1486
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	18
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	30
DRILL EXISTING HANDHOLE	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
INDUCTIVE LOOP DETECTOR	EACH	7
DETECTOR LOOP, TYPE I	FOOT	538
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RELOCATE EXISTING MAST ARM ASSEMBLYAND POLE	EACH	2
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	4200
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
SERVICE INSTALLATION, GROUND MOUNTED	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6, 1C	FOOT	402
RELOCATE LIGHT DETECTOR	EACH	2
ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED & SHIELDED	FOOT	297
UNINTERRUPTIBLE POWER SUPPLY	EACH	1

CONTROLLER SEQUENCE



PROPOSED PHASE DESIGNATION DIAGRAM

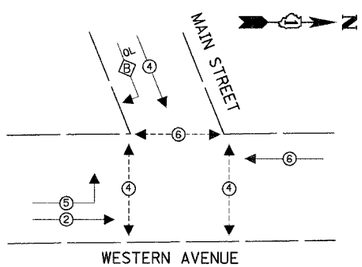


PUSH-BUTTON NOTES:

1. PUSH-BUTTON "B" SHALL PLACE A CALL TO PHASES 4 AND 6.
2. PUSH-BUTTON "C" SHALL PLACE A CALL TO PHASES 4 AND 6.

CABLE PLAN

CONTROLLER SEQUENCE



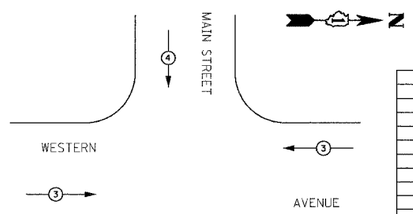
EXISTING PHASE DESIGNATION DIAGRAM

LEGEND
- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE
- OL — OVERLAP

RIGHT TURN OVERLAP PHASE DESIGNATION

LETTER		OVERLAP PHASE		PERMISSIVE PHASE		PROTECTED DISPLAY
B	=	4	+	5	-	4

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	⇐	↓

NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE".

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

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	TOTAL WATTAGE
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	10	135	25	0.25	62.5
(GREEN)	10	135	15	0.25	37.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
				TOTAL =	444.6

ENERGY COSTS TO: 1/3 TO IDOT
2/3 TO VILLAGE OF PARK FOREST
330 VICTORY DRIVE
PARK FOREST, ILLINOIS 60466

ENERGY SUPPLY CONTACT: Jim Werner
PHONE: (708) 235-2694
COMPANY: Commonwealth Edison

FOUNDATION (DEPTH)	FT.	(m)	CABLE SLACK	FT.	(m)	VERTICAL	FT.	(m)
TYPE A - POST	4	(1.2)	HANDHOLE	6.5	(2.0)	ALL FOUNDATIONS	3.0	(1.0)
D - CONTROLLER	4	(1.2)	DOUBLE HANDHOLE	13	(4.0)	MAST ARM (L) POLE	20.0	(6.0)
E - M. ARM POLE			SIGNAL POST	0	(0.0)	BRACKET MOUNTED	13	(4.0)
24" (600mm)	10	(3.0)	CONTROLLER CAB.	0	(0.0)	PED. PUSH-BUTTON	6	(2.0)
30" (750mm)	15	(4.6)	FIBER OPTIC	13	(4.0)	ELECTRIC SERVICE	13.5	(4.1)
			ELECTRIC SERVICE	1	(0.5)	SERVICE TO GROUND	13.5	(4.1)
			GROUND CABLE	1	(0.5)	POST MOUNTED	13	(4.0)

REVISIONS NAME	DATE
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ILLINOIS DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES

WESTERN AVENUE AT MAIN STREET

SCALE: VERT. NONE
HORIZ.
DATE 5/17/2007

DRAWN BY JLA
DESIGNED BY KK/BPT
CHECKED BY JTL/BPT

PLOT DATE = 5/18/2007
FILE NAME = j:\micros\3528054\dgn\wht\10_C_Main.dgn
PLOT SCALE = 1'=20'
USER NAME = JLA