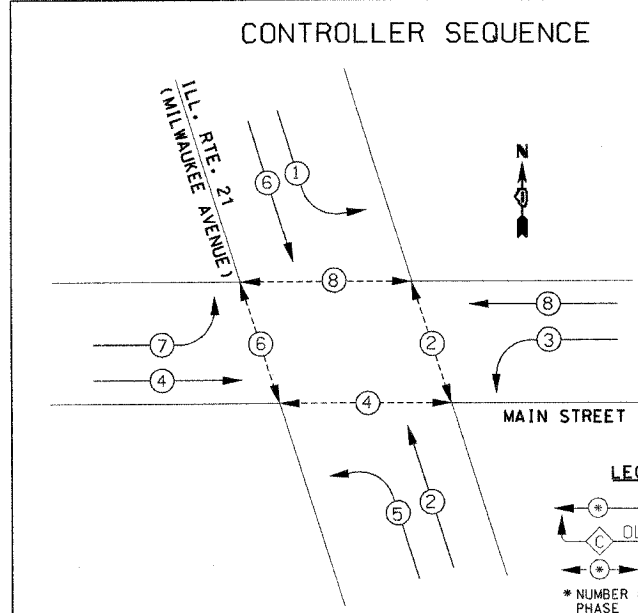
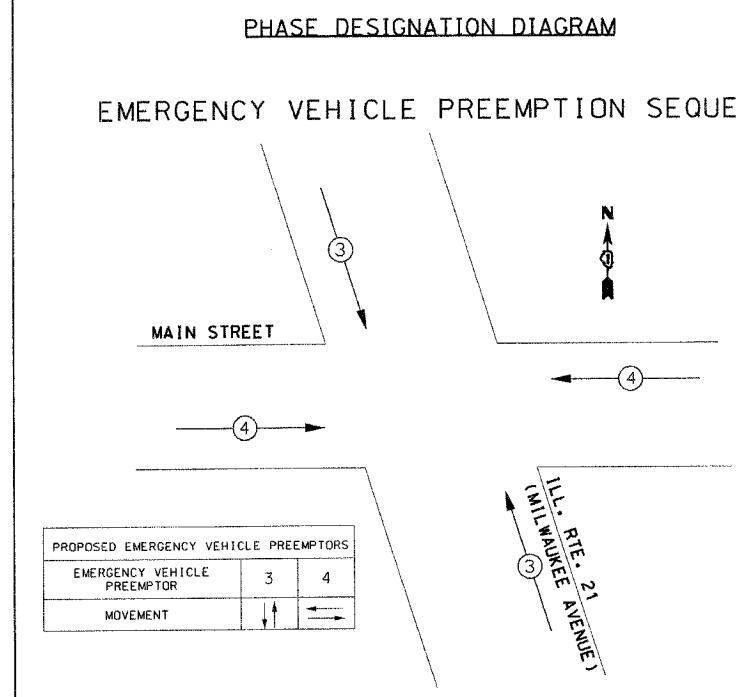


F.A.P. SECTION COUNTY TOTAL SHEETS NO.	374 2004-020 TS COOK 13 10
STA. TO STA.	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	
CONTRACT NUMBER: 62739	

INFRASTRUCTURE ENGINEERING, INC.
 29 S. LASALLE ST., SUITE 345
 CHICAGO, IL 60604
 PHONE: 312-425-9584
 FAX: 312-425-9584
 info@infrastructure-eng.com



LEGEND
 * DUAL ENTRY PHASE
 * OVERLAP
 * PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	% OPERATION	
SIGNAL (RED)	10	135	17	0.50	675
(YELLOW)	10	135	25	0.25	337.5
(GREEN)	10	135	15	0.25	337.5
ARROW	16	135	12	0.10	216
PED. SIGNAL	8	90	25	1.00	270
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	-
FLASHER					0.05
TOTAL =					1936

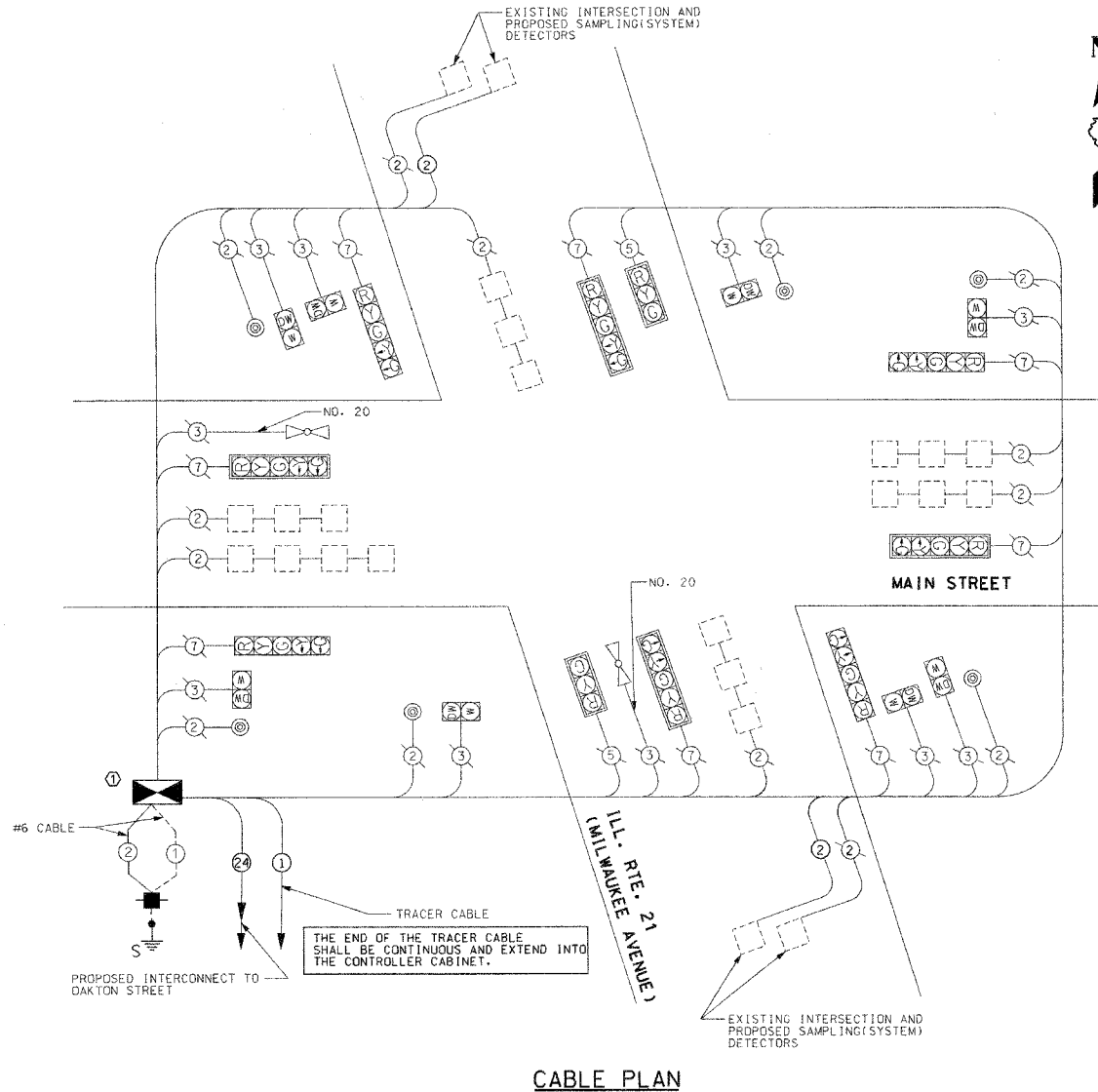
ENERGY COSTS TO:
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 201 WEST CENTER COURT
 SCHAMBOURG, ILLINOIS 60196-1096

ENERGY SUPPLY CONTACT: RICK BILL
 PHONE: (630) 844-6238
 COMPANY: COMMONWEALTH EDISON

SCHEDULE OF QUANTITIES

QUANTITIES	UNIT	ITEM
0.33	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201
0.33	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406
0.33	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
781	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
10	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET(SPECIAL)
1	EACH	TRANSCIVER - FIBER OPTIC
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	SERVICE INSTALLATION, POLE MOUNT
35	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
35	FOOT	ELECTRIC CABLE IN CONDUIT, GROUND, NO. 6 1C

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20' H-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6mm)=	
24" (600MM)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750MM)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)



CABLE PLAN LEGEND

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

CONSTRUCTION NOTES:
 ① REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET. RE-USE EXISTING FOUNDATION. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT TO NEW CONTROLLER CABINET. THE RELOCATION OF THE EVP PHASING UNIT SHALL BE INCLUDED IN THE COST OF THE CONTROLLER CABINET ITEM.

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

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN
 PHASE DESIGNATION DIAGRAM
 EMERGENCY VEHICLE PREEMPTION SEQUENCE
 AND SCHEDULE OF QUANTITIES
 ILL. RTE 21 (MILWAUKEE AVENUE)
 AT MAIN STREET

SCALE: N.T.S. DRAWN BY N.B.
 DESIGNED BY N.B.
 DATE 09-20-04 CHECKED BY D.B./M.S.