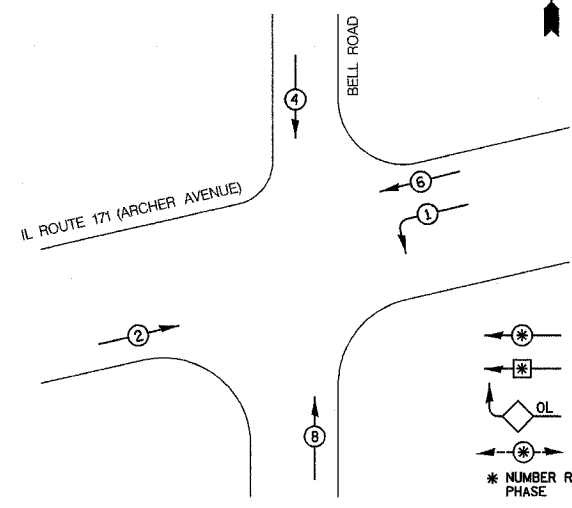


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
577	2006-004TS	COOK/DUPAGE	19	9
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 60819				

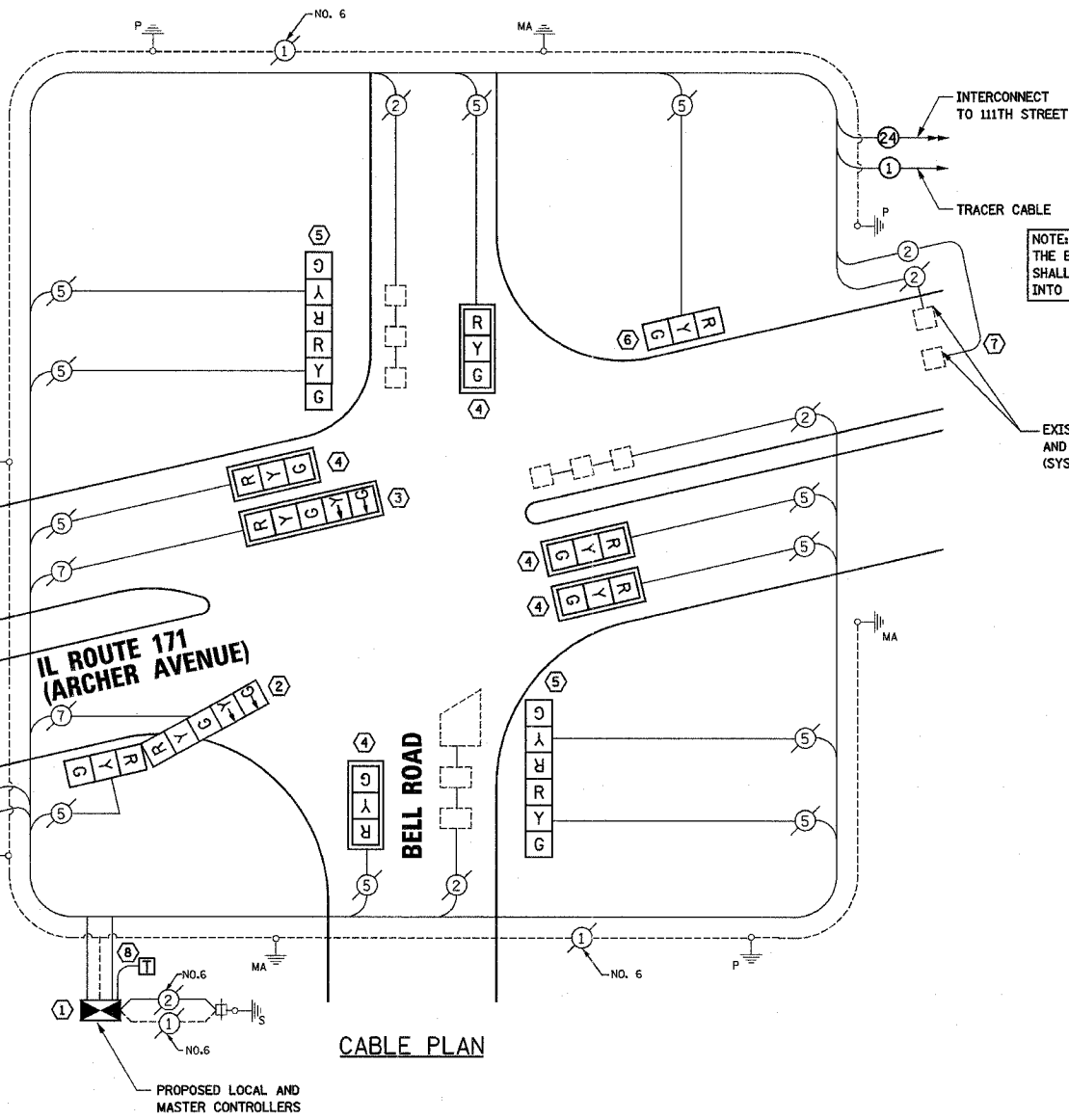
CONTROLLER SEQUENCE



- LEGEND**
- ⊛ DUAL ENTRY PHASE
 - ⊠ SINGLE ENTRY PHASE
 - OL OVERLAP
 - ⊠ PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

EXISTING INTERSECTION AND PROPOSED SAMPLING (SYSTEM) DETECTORS



CABLE PLAN

CONSTRUCTION NOTES:

- 1 REMOVE EXISTING CONTROLLER AND CABINET. INSTALL MASTER CONTROLLER AND LOCAL CONTROLLER AND TYPE V CABINET, RE-USE EXISTING FOUNDATION.
- 2 REMOVE EXISTING SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED. INSTALL NEW SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION BRACKET MOUNTED.
- 3 REMOVE EXISTING SIGNAL HEAD, 1-FACE, 5-SECTION. INSTALL NEW SIGNAL HEAD, L.E.D. 1-FACE, 5-SECTION, MAST ARM MOUNTED, AND TRAFFIC SIGNAL BACKPLATE.
- 4 REMOVE EXISTING SIGNAL HEAD, 1-FACE, 3-SECTION. INSTALL NEW SIGNAL HEAD, L.E.D. 1-FACE, 3-SECTION, MAST ARM MOUNTED, AND TRAFFIC SIGNAL BACKPLATE.
- 5 REMOVE EXISTING SIGNAL HEAD, 2-FACE, 3-SECTION, BRACKET MOUNTED. INSTALL NEW SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION, BRACKET MOUNTED.
- 6 REMOVE EXISTING SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED. INSTALL NEW SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED.
- 7 INSTALL NEW ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.14, 1 PAIR.
- 8 INSTALL 1" UNIT DUCT FOR THE AMERITECH SERVICE FROM THE POINT OF ENTRY OF THE TELEPHONE CONDUIT IN THE DOUBLE HANDHOLE THROUGH THE CONTROLLER CABINET FOUNDATION. THIS WORK SHALL BE INCIDENTAL TO THE MASTER CONTROLLER PAY ITEM.
- 9 THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN THE OPERATION OF THE TRAFFIC SIGNALS DURING THE ENTIRE PROJECT.

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION
⊛	⊛	8" (200mm) TRAFFIC SIGNAL SECTION	⊛	⊛	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
⊠	⊠	12" (300mm) TRAFFIC SIGNAL SECTION	⊠	⊠	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
⊠	⊠	12" (300mm) PEDESTRIAN SIGNAL SECTION	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊠	⊠	12" (300mm) PEDESTRIAN SIGNAL SECTION	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊠	⊠	CONTROLLER CABINET	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊠	⊠	SERVICE INSTALLATION	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊠	⊠	TELEPHONE CONNECTION	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊠	⊠	VEHICLE DETECTOR, INDUCTION LOOP	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊠	⊠	MAGNETIC DETECTOR	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊠	⊠	EMERGENCY VEHICLE LIGHT DETECTOR	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊠	⊠	CONFIRMATION BEACON	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊠	⊠	PUSHBUTTON DETECTOR	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊠	⊠	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C).	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊠	⊠	GROUND ROD AT POST (P), OR MAST ARM POLE (MA).	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊠	⊠	GROUND ROD AT ELECTRIC SERVICE INSTALLATION	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊠	⊠	MICROWAVE VEHICLE SENSOR	⊠	⊠	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	1
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	251
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	251
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	1
MASTER CONTROLLER	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14, 1 PAIR	FOOT	781
DRILL EXISTING HANDHOLE	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	6
INDUCTIVE LOOP DETECTOR	EACH	7
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.5
(YELLOW)	13	135	25	0.25	81.25
(GREEN)	13	135	15	0.25	48.75
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	100	100	1.00	100.0
TOTAL =					345.3

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 - FOUNDATION	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20' + L - 2 = (6m + L - 0.6m) =
C - M. ARM POLE		SIGNAL POST	2 (0.6)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
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	6 (1.8)

ENERGY COSTS - BILLED TO: ILLINOIS DEPT. OF TRANSPORTATION
 (ADDRESS) 201 WEST CENTER COURT
 SCHALMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY - CONTACT: DOLORES KREMNITZER
 PHONE: (815) 724-5716
 COMPANY: COM ED

SETON ENGINEERING
 SERVICE CORPORATION
 CIVIL ENGINEERS

19 S. BOWWELL STREET
 PALATINE, ILLINOIS 60067
 VOICE: 847-776-7200 FAX: 847-776-7239

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
 IL ROUTE 171 (ARCHER AVENUE)
 AT BELL ROAD
 LEMONT, ILLINOIS

SCALE: N.T.S.
 DATE 08-15-06

DRAWN BY BR
 DESIGNED BY VO
 CHECKED BY TJM