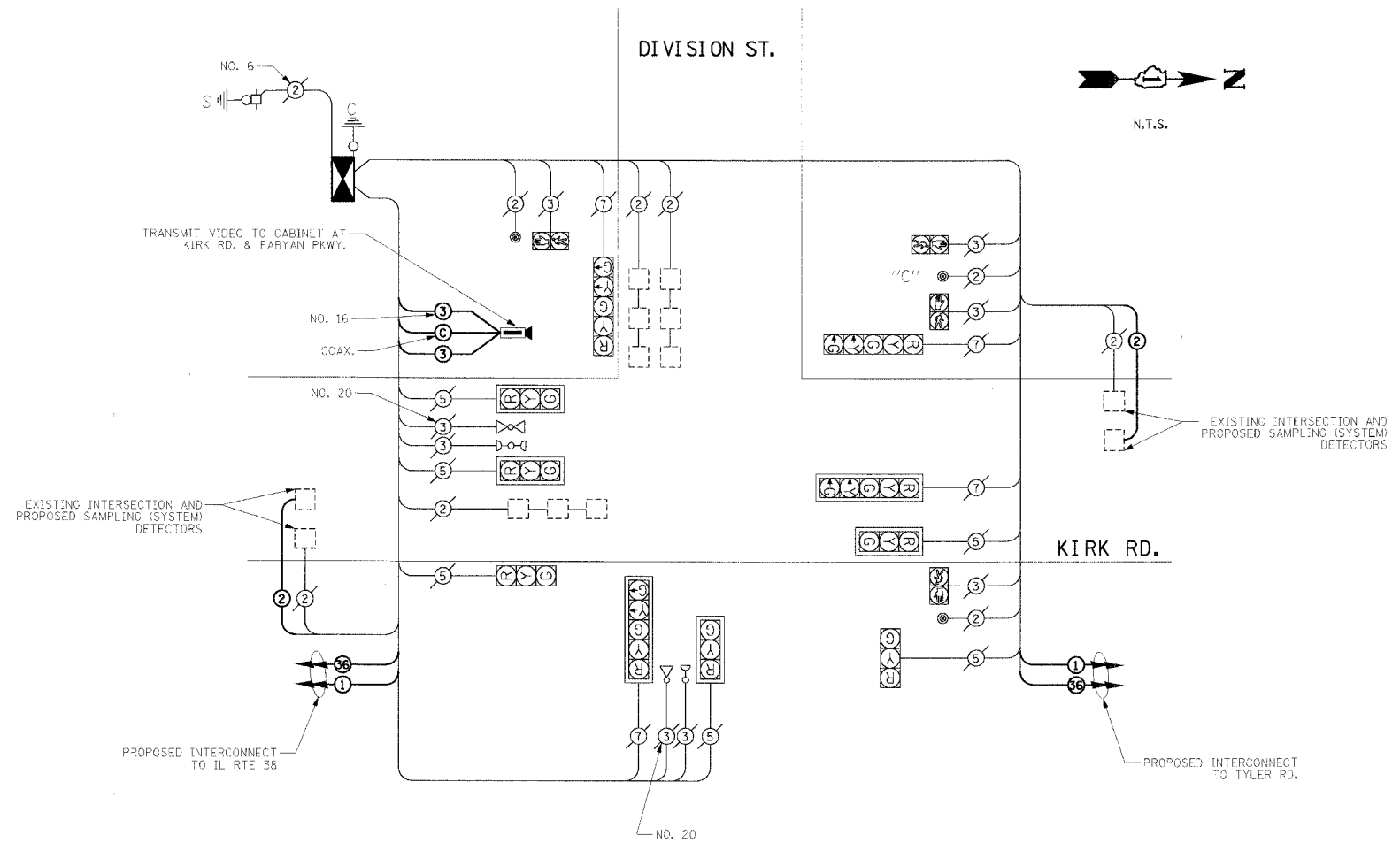


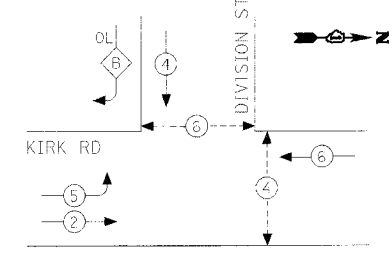
### CABLE PLAN LEGEND

- |  |  |   |
|--|--|---|
|  |  | 8" (200mm) TRAFFIC SIGNAL SECTION   |
|  |  | 12" (300mm) PEDESTRIAN SIGNAL SECTION   |
|  |  | CONTROLLER CABINET  |
|  |  | SERVICE INSTALLATION  |
|  |  | VEHICLE DETECTOR, INDUCTION LOOP  |
|  |  | MAGNETIC DETECTOR   |
|  |  | EMERGENCY VEHICLE LIGHT DETECTOR  |
|  |  | CONFIRMATION BEACON   |
|  |  | PUSHBUTTON 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)  |
|  |  | 2 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F   |
|  |  | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.  |
|  |  | "E" RAILROAD CONTROL CABINET  |
|  |  | "E" ILLUMINATED SIGN "NO LEFT TURN"   |
|  |  | "E" ILLUMINATED SIGN "NO RIGHT TURN"  |
|  |  | H/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   |
|  |  | MICROWAVE VEHICLE SENSOR  |
|  |  | 56 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM24F SM12F  |
|  |  | PAN-TILT-ZOOM CAMERA  |

### CABLE PLAN



### PROPOSED CONTROLLER SEQUENCE



- LEGEND
- DUAL ENTRY PHASE
  - SINGLE ENTRY PHASE
  - OVERLAP
  - PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	4	5

### SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL
1	EACH	TRANSCIVER - FIBER OPTIC
80	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
806	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
80	FOOT	VIDEO ELECTRIC CABLE IN CONDUIT, NO. 16 3C
80	FOOT	VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT
2	EACH	DRILL EXISTING HANDHOLE
2	EACH	INDUCTIVE LOOP DETECTOR
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOTE-CONTROLLED VIDEO SYSTEM

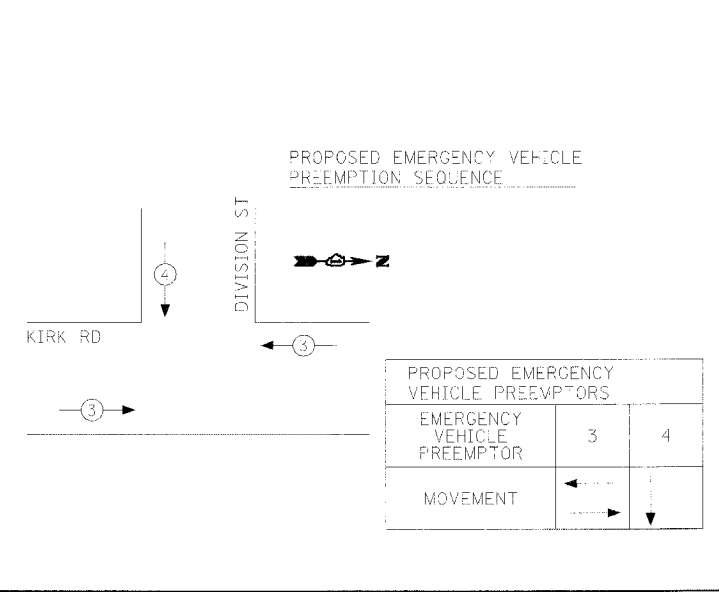
**NOTE:**  
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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	675.0
(YELLOW)	10	135	25	0.25	337.5
(GREEN)	10	135	15	0.25	337.5
ARROW	8	135	12	0.10	108.0
PED. SIGNAL	4	90	25	1.00	360.0
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					1918.0

ENERGY COSTS TO:  
CITY OF ST. CHARLES  
2 E. MAIN STREET  
ST. CHARLES, ILLINOIS 60174

ENERGY SUPPLY CONTACT: JENNIFER HILKEMANN  
PHONE: (630) 232-1503  
COMPANY: CITY OF GENEVA

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-0.6m)=	
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)



**KENIG, LINDGREN, O'HARA, ABOONA, INC.**  
9575 West Higgins Road, Suite 400  
Rosemont, Illinois 60018  
(847) 518-9990 FAX (847) 518-9987

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
CABLE PLAN, PHASE DESIGNATION DIAGRAM,  
SCHEDULE OF QUANTITIES  
KIRK RD AT DIVISION ST

SCALE: NONE  
DATE: 07/19/05

DRAWN BY: DMS  
DESIGNED BY: DMS  
CHECKED BY: DMS