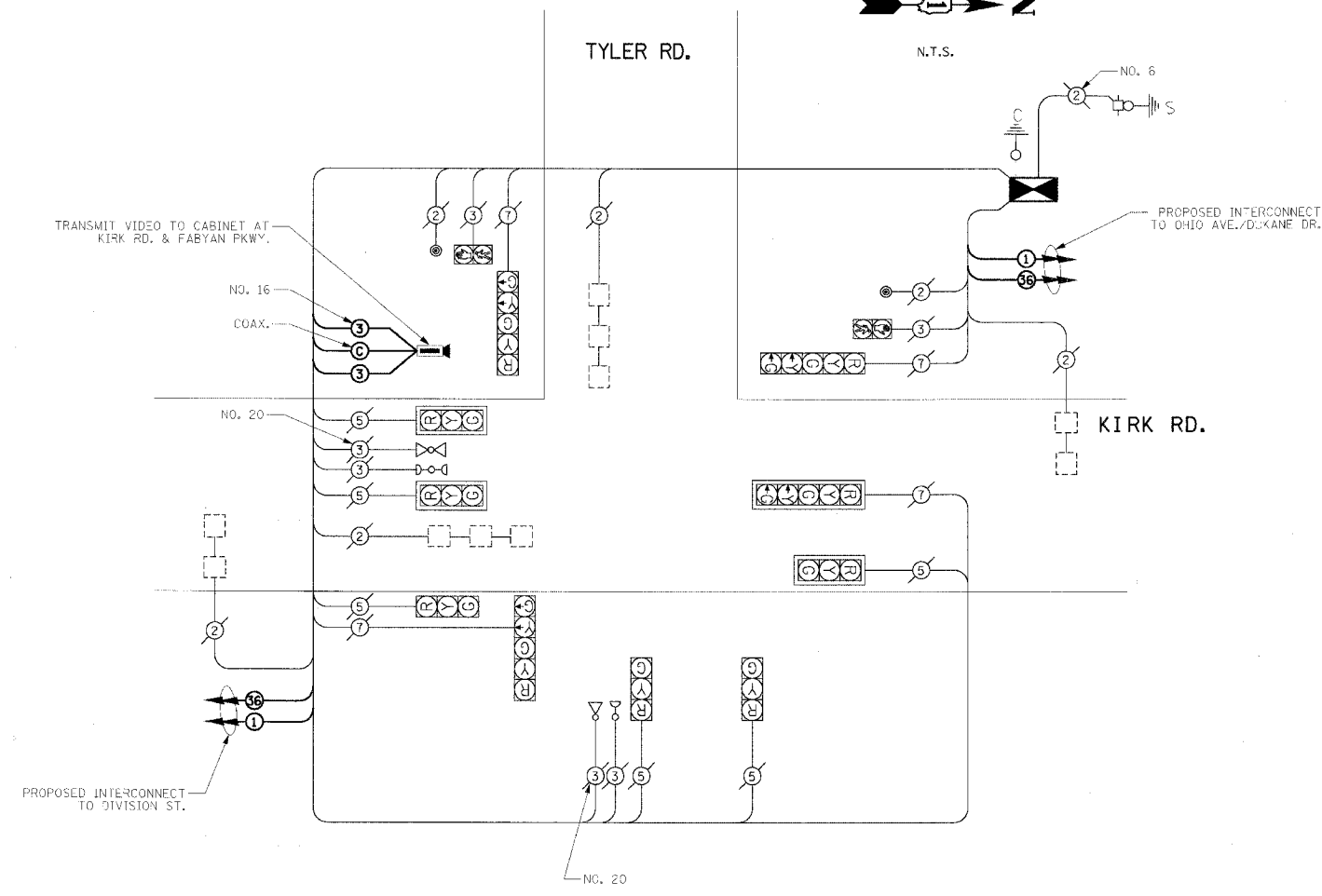


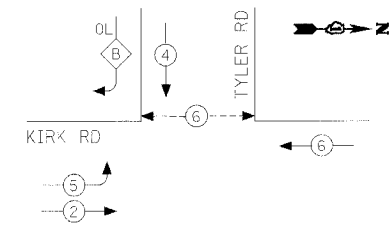
CABLE PLAN LEGEND

- | | | |
|-----------------|-----------------|---|
| EXISTING | PROPOSED | |
| | | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON 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 |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C) |
| | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | MICROWAVE VEHICLE SENSOR |
| | | 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
 - OVERFLAP
 - PEDESTRIAN PHASE
 - NUMBER REFERS TO ASSOCIATED PHASE

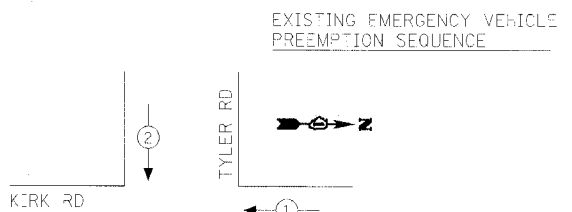
PHASE DESIGNATION DIAGRAM

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
221	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
221	FOOT	VIDEO ELECTRIC CABLE IN CONDUIT, NO. 16 3C
221	FOOT	VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT
2	EACH	DRILL EXISTING HANDHOLE
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOTE-CONTROLLED VIDEO SYSTEM

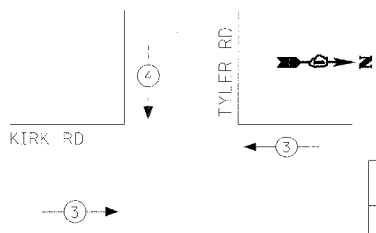
NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.



EXISTING EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	←	↓

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↓

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	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	2	90	25	1.00	180.0
CONTROLLER	1	100	100	1.00	100.0
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					1738.0

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" (6m+L-0.6m)
E - M. ARM POLE		SIGNAL POST	2 (0.6)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.3)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.3)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.3)	POST MOUNTED	6 (1.8)

ENERGY COSTS TO:
CITY OF ST. CHARLES
2 E. MAIN STREET
ST. CHARLES, ILLINOIS 60174
CONTACT: TOM BRUHL
PHONE: (630) 377-4401
COMPANY: CITY OF ST. CHARLES

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 TYLER RD
SCALE: NONE
DATE: 07/19/05
DRAWN BY: DMS
DESIGNED BY: DMS
CHECKED BY: DMS