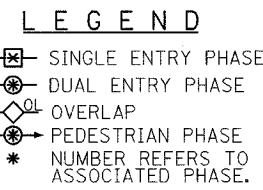
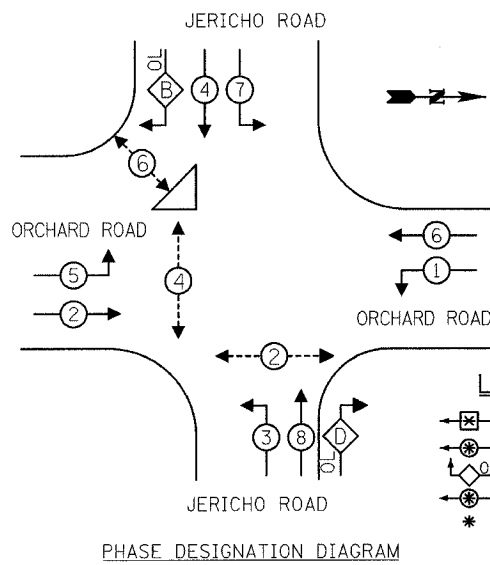


CONTROLLER SEQUENCE



RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
D	= 8	+ 1

SCHEDULE OF QUANTITIES

657	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	16	FOOT	CONCRETE FOUNDATION, TYPE A
134	FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	1	EACH	TRANSCEIVER - FIBEROPTIC	4	FOOT	CONCRETE FOUNDATION, TYPE D
12	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	677	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	30	FOOT	CONCRETE FOUNDATION, TYPE E
16	FOOT	CONDUIT IN TRENCH, 3 1/2" DIA., GALVANIZED STEEL	1245	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	30	FOOT	CONCRETE FOUNDATION, TYPE E
57	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	500	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
32	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL	2,696	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	4	EACH	INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT
54	FOOT	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	1,764	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN NO. 14 1-PAIR	5	EACH	PEDESTRIAN PUSH-BUTTON
138	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	111	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
118	FOOT	CONDUIT PUSHED, 5" DIA., GALVANIZED STEEL	4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
60	FOOT	CONDUIT ENCASED IN CONCRETE, 2 1/2" DIA., PVC	1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 34 FT.	801	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C (GREEN)
6	EACH	HANDHOLE	1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 36 FT.	180	FOOT	TRAFFIC SIGNAL BATTERY BACKUP
1	EACH	DOUBLE HANDHOLE	1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 42 FT.	1	EACH	PREFORMED DETECTOR LOOP
891	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK	1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 44 FT.	2	EACH	SERVICE INSTALLATION - POLE MOUNTED SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED (SPECIAL)

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE	% OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	16	10	0.50	80.0
(YELLOW)	16	18	0.25	72.0
(GREEN)	16	14	0.25	56.0
ARROW	12	9	0.10	10.8
PED. SIGNAL	6	7	1.00	42.0
CONTROLLER	1	100	1.00	100.0
ILLUM. SIGN				
FLASHER LED		0.50		
TOTAL =				360.80

ENERGY COSTS - BILLED TO: Village of Montgomery
1300 S. Broadway
Montgomery, IL 60538

ENERGY SUPPLY - CONTACT: Mr. Al Arends
PHONE: (630) 691-4379
COMPANY: Com Ed Customer Const. & Design

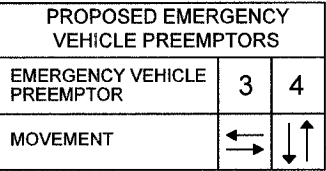
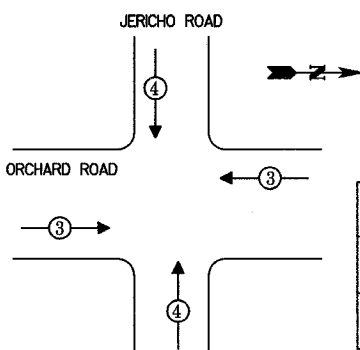
FOUNDATION (DEPTH) (FT.)	CABLE SLACK (FT.)	VERTICAL (FT.)
TYPE A - POST 4	HANDHOLE 6.5	ALL FOUNDATIONS 3.5
D - CONTROLLER 4	DOUBLE HANDHOLE 13	MAST ARM (L) POLE 20' HL-2 = 13
E - M ARM POLE 24"	SIGNAL POST 2	BRACKET MOUNTED 13
30"	CONTROLLER CAB. 1	PED. PUSHBUTTON 4
	FIBER OPTIC 13	ELECTRIC SERVICE 13.5
	ELECTRIC SERVICE 1	SERVICE TO GROUND 13.5
	GROUND CABLE 1	POST MOUNTED 6

- BILL OF MATERIALS - VIDEO DETECTION SYSTEM (ITERIS)

QTY.	UNIT	ITEM
4	EACH	ITERIS COLOR CAMERA, MODEL RZ-4
4	EACH	CAMERA BRACKET, PEDESTAL MOUNT
2	EACH	EDGE 2-2N PROCESSOR
1	EACH	9" MONITOR
4	EACH	VIDEO PATCH CABLE
4	EACH	SURGE SURRESTOR, PANEL MOUNT
4	EACH	CAMKIT2 CONNECTOR KIT
1	EACH	MOUSE (POINTING DEVICE)
1005	FOOT	BELDEN 8281, VIDEO CABLE
1005	FOOT	BELDEN NO. 16, 3/C STRANDED, POWER CABLE

NOTE: THE COST OF SUPPLYING AND INSTALLING THE BELDEN CABLES WILL BE CONSIDERED INCLUDED IN THE COST OF PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

EMERGENCY VEHICLE PREEMPTION SEQUENCE



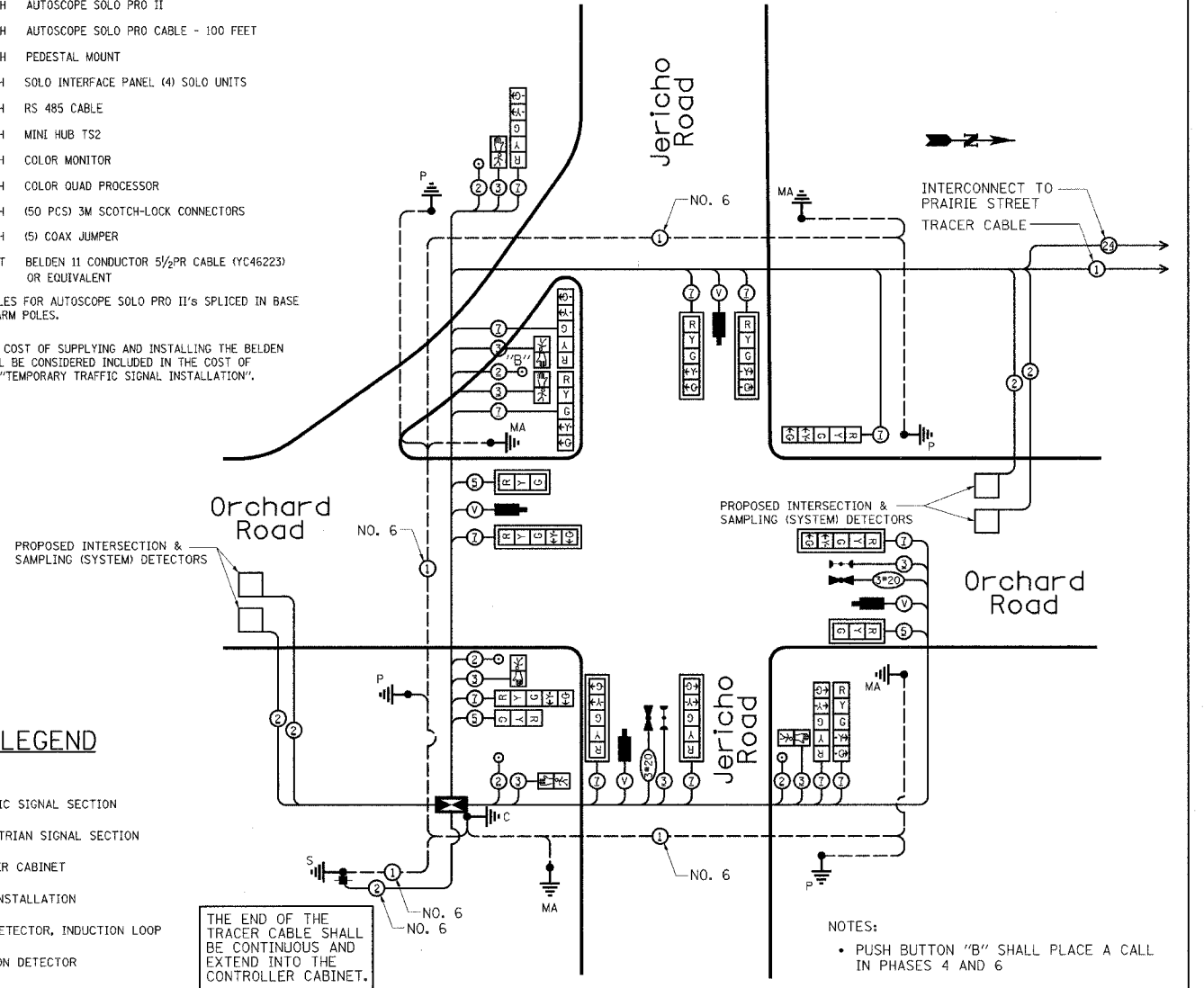
- BILL OF MATERIALS - VIDEO DETECTION SYSTEM (AUTOSCOPE)

QTY.	UNIT	ITEM
4	EACH	AUTOSCOPE SOLO PRO II
4	EACH	AUTOSCOPE SOLO PRO CABLE - 100 FEET
4	EACH	PEDESTAL MOUNT
1	EACH	SOLO INTERFACE PANEL (4) SOLO UNITS
1	EACH	RS 485 CABLE
1	EACH	MINI HUB TS2
1	EACH	COLOR MONITOR
1	EACH	COLOR QUAD PROCESSOR
1	EACH	(50 PCS) 3M SCOTCH-LOCK CONNECTORS
1	EACH	(5) COAX JUMPER
1005	FOOT	BELDEN 11 CONDUCTOR 5/2 PR CABLE (YC46223) OR EQUIVALENT

NOTE: CABLES FOR AUTOSCOPE SOLO PRO II'S SPLICED IN BASE OF MAST ARM POLES.

NOTE: THE COST OF SUPPLYING AND INSTALLING THE BELDEN CABLE WILL BE CONSIDERED INCLUDED IN THE COST OF PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".

CABLE PLAN



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
Ⓜ	Ⓜ	12" TRAFFIC SIGNAL SECTION
Ⓜ	Ⓜ	12" PEDESTRIAN SIGNAL SECTION
Ⓜ	Ⓜ	CONTROLLER CABINET
Ⓜ	Ⓜ	SERVICE INSTALLATION
Ⓜ	Ⓜ	VEHICLE DETECTOR, INDUCTION LOOP
Ⓜ	Ⓜ	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 2-MM12F SM12F
Ⓜ	Ⓜ	SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD "E" INDICATES EXISTING SIGNAL HEAD OR EXISTING PEDESTRIAN SIGNAL HEAD
C	C	GROUND ROD AT CONTROLLER (C)
MA	MA	GROUND ROD AT MAST ARM POLE (MA)
P	P	GROUND ROD AT POST (P)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
Ⓜ	Ⓜ	IMAGE SENSOR
Ⓜ	Ⓜ	AUTOSCOPE - VIDEO CABLE IN CONDUIT, NO. 16, 11/C, SHIELDED ITERIS - POWER AND VIDEO COAXIAL CABLE IN CONDUIT, NO. 16 3/C POWER AND NO. 20 SOLID BC COAXIAL
Ⓜ	Ⓜ	EMERGENCY VEHICLE LIGHT DETECTOR
Ⓜ	Ⓜ	CONFIRMATION BEACON

- ### NOTES:
- TRAFFIC CONTROL EQUIPMENT SHALL BE MANUFACTURED BY EAGLE TO MATCH ADJACENT SIGNAL SYSTEM.
 - A BATTERY BACKUP SYSTEM, NOVUS XT 1000P-700 WATT (MANUFACTURED BY "ALPHA TECHNOLOGIES") SHALL BE INSTALLED IN THE TYPE IV CONTROLLER CABINET WITH A BSM-4 EXTERNAL BATTERY ENCLOSURE. THE EXTERNAL BATTERY ENCLOSURE SHOULD MOUNT TO THE POWER PANEL SIDE OF THE TYPE IV CABINET WITH 4 SHELVES TO STORE THE BATTERIES. THE SYSTEM SHALL BE CAPABLE OF 3-HOUR MINIMUM BATTERY LIFE TO PROVIDE ONE HOUR OF FULL FUNCTIONING SIGNAL AND 2 HOURS OF FLASHING RED.
 - ALL TRAFFIC SIGNAL HEADS SHALL BE L.E.D. (LIGHT EMITTING DIODE), AND MANUFACTURED BY DIALITE OR APPROVED EQUIVALENT.
 - ALL PEDESTRIAN TRAFFIC SIGNAL HEADS SHALL BE L.E.D. (LIGHT EMITTING DIODE) WITH COUNTDOWN FEATURE AND MANUFACTURED BY DIALITE OR APPROVED EQUIVALENT.
 - VIDEO DETECTION SYSTEM SHALL BE MANUFACTURED BY AUTOSCOPE OR ITERIS.
 - STREET LIGHTING INSTALLED AND ENERGIZED AS PART OF THE ROADWAY LIGHTING PLANS.
 - MAST ARM MOUNTED STREET NAME SIGNS SHALL BE INSTALLED BY THE KANE COUNTY HIGHWAY DEPARTMENT.
 - THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT SHALL BE MANUFACTURED BY TOMAR.

rjngroup
Excellence through Ownership
200 West Front Street
Wheaton, IL 60187

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
KANE COUNTY DIVISION OF TRANSPORTATION
ORCHARD ROAD RECONSTRUCTION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM ORCHARD ROAD AND JERICHO ROAD

SCALE: DATE: 11/04/05 DRAWN BY: JMC CHECKED BY: SPF