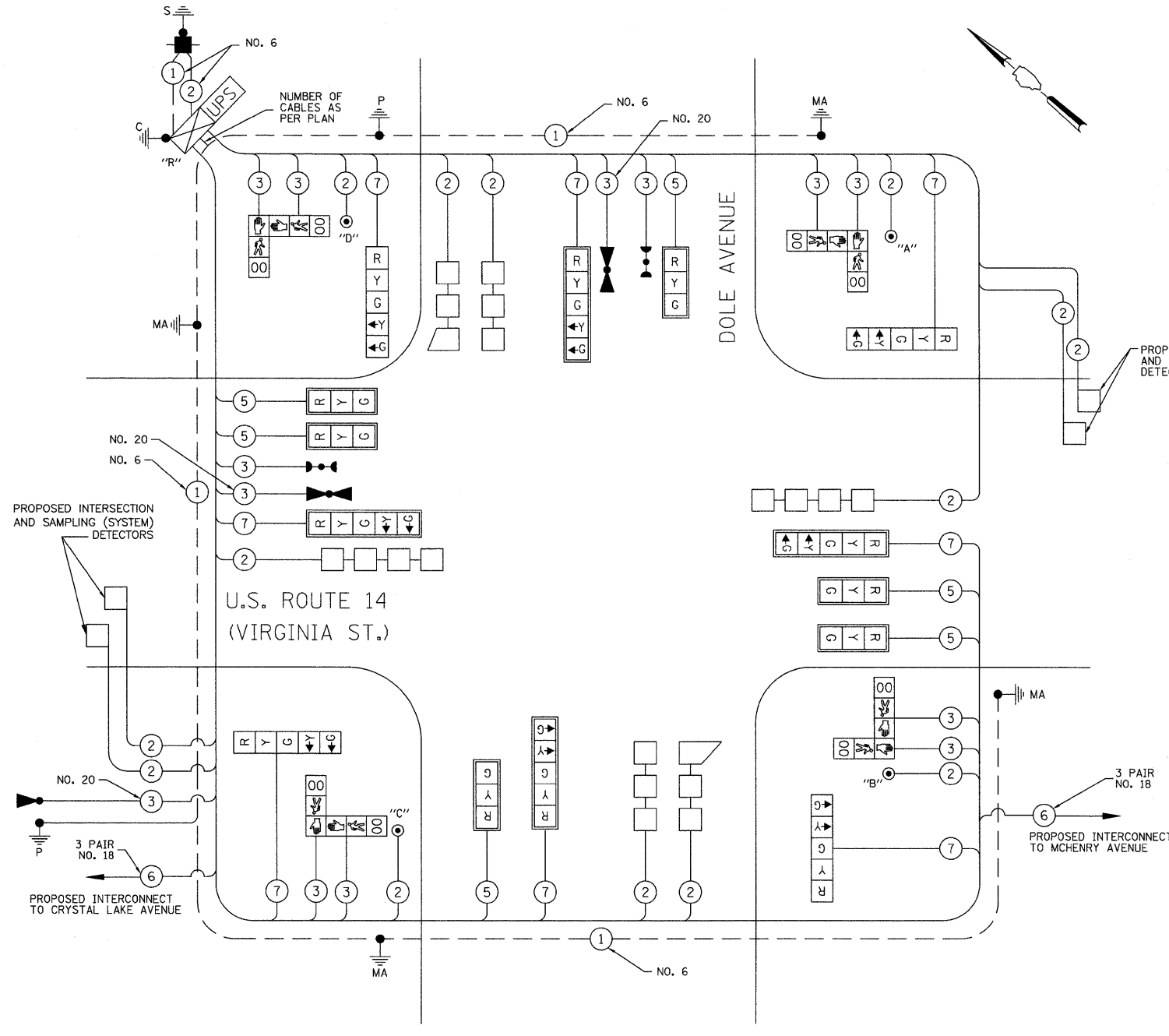


CABLE PLAN LEGEND

- EXISTING: [Symbol] 8" (200mm) TRAFFIC SIGNAL SECTION
- PROPOSED: [Symbol] 12" (300mm) TRAFFIC SIGNAL SECTION
- [Symbol] 12" (300mm) PEDESTRIAN SIGNAL SECTION
- [Symbol] 16"x18" PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER
- [Symbol] CONTROLLER CABINET
- [Symbol] SERVICE INSTALLATION
- [Symbol] TELEPHONE CONNECTION
- [Symbol] MAGNETIC DETECTOR
- [Symbol] EMERGENCY VEHICLE LIGHT DETECTOR
- [Symbol] CONFIRMATION BEACON
- [Symbol] PUSHBUTTON DETECTOR
- [Symbol] VEHICLE DETECTOR, INDUCTION LOOP
- [Symbol] DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- [Symbol] MICROWAVE VEHICLE SENSOR
- [Symbol] SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
- [Symbol] RAILROAD CONTROL CABINET
- [Symbol] ILLUMINATED SIGN "NO LEFT TURN"
- [Symbol] ILLUMINATED SIGN "NO RIGHT TURN"
- [Symbol] GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C).
- [Symbol] GROUND ROD AT POST (P), OR MAST ARM POLE (MA).
- [Symbol] GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- [Symbol] GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
- [Symbol] FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F
- [Symbol] UNINTERRUPTIBLE POWER SUPPLY
- "R" EXISTING EQUIPMENT TO BE RELOCATED

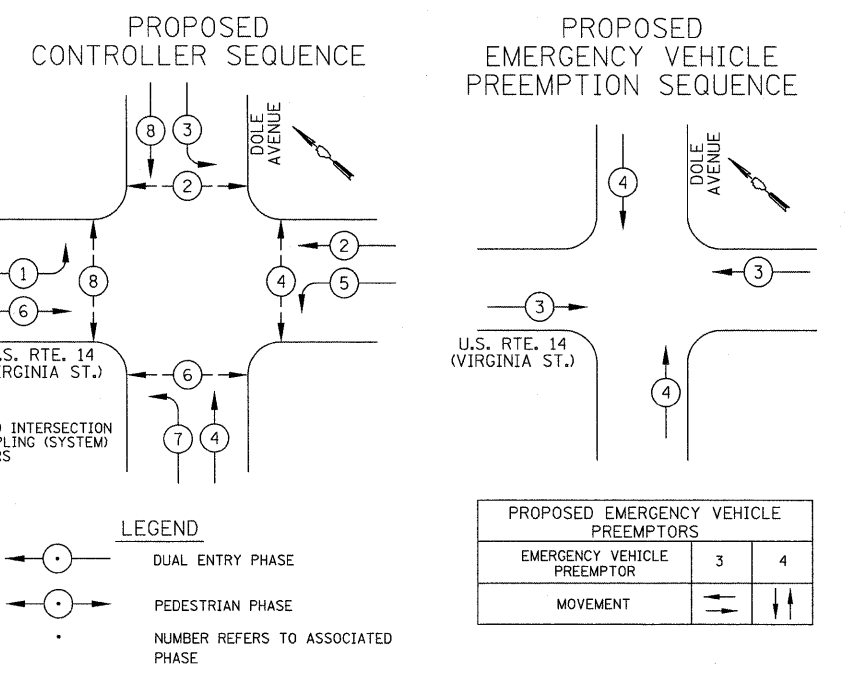


CABLE PLAN
NOT TO SCALE

NOTE:
PUSH-BUTTON "A" SHALL PLACE A CALL TO PHASES 2 AND 4
PUSH-BUTTON "B" SHALL PLACE A CALL TO PHASES 4 AND 6
PUSH-BUTTON "C" SHALL PLACE A CALL TO PHASES 6 AND 8
PUSH-BUTTON "D" SHALL PLACE A CALL TO PHASES 8 AND 2

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 (2.0)
D- CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-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 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

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



PHASE DESIGNATION DIAGRAM

PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	← → ↑ ↓

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
SIGN PANEL - TYPE 1	SQ FT	12
SIGN PANEL - TYPE 2	SQ FT	25
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	6
CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	679
CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	38
CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT	56
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	340
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	11
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	567
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1451
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1088
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1372
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.14 1 PAIR	FOOT	2303
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	29
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 16 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 18 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	30
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10
INDUCTIVE LOOP DETECTOR	EACH	2
DETECTOR LOOP, TYPE 1	FOOT	677
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	11
REMOVE EXISTING CONCRETE FOUNDATION	EACH	10
PAINT NEW MAST ARM POLE, UNDER 40 FEET	EACH	2
PAINT NEW MAST ARM POLE, 40 FEET AND OVER	EACH	2
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
SERVICE INSTALLATION, POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	755
ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED	FOOT	672
RELOCATE EXISTING TRAFFIC SIGNAL CONTROLLER AND CABINET, COMPLETE	EACH	1
PAINT NEW TRAFFIC SIGNAL POST	EACH	2

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	14	17	0.50	119	
(YELLOW)	14	25	0.25	88	
(GREEN)	14	15	0.25	53	
ARROW	16	12	0.10	19	
PED. SIGNAL	8	25	1.00	200	
CONTROLLER	1	100	1.00	100	
FLASHER			0.50		
TOTAL =					579

ENERGY COSTS TO: CITY OF CRYSTAL LAKE
100 WEST MUNICIPAL COMPLEX, P.O. BOX 597
CRYSTAL LAKE, IL 60039
CONTACT: LISA COOK
PHONE: (815) 477-5204
COMPANY: COM ED

FILE NAME =	USER NAME =	DESIGNED - BRD	REVISED
		DRAWN - OJT	REVISED
		CHECKED - JJE	REVISED
		DATE 8-31-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES
U.S. ROUTE 14 (VIRGINIA ST.) AND DOLE AVENUE

F.A.P. RTE. 305	SECTION 09-00112-00-TL	COUNTY McHENRY	TOTAL SHEETS 24	SHEET NO. 6
SCALE: 1" = 20'			SHEET NO. 6 OF 24 SHEETS	
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT ARA-9003(419)	