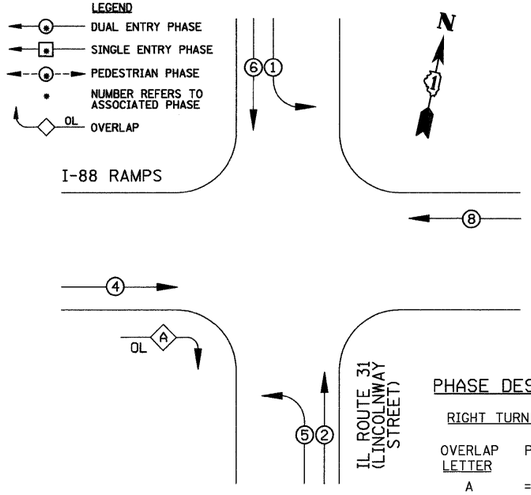
CONTROLLER SEQUENCE



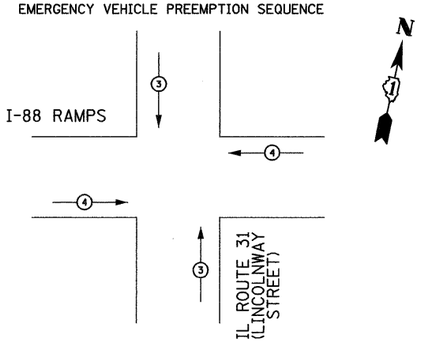
PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP DESIGNATION

OVERLAP LETTER		PERMISSIVE PHASE		PROTECTED PHASE
A	=	4	+	5

PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↑

CABLE PLAN LEGEND

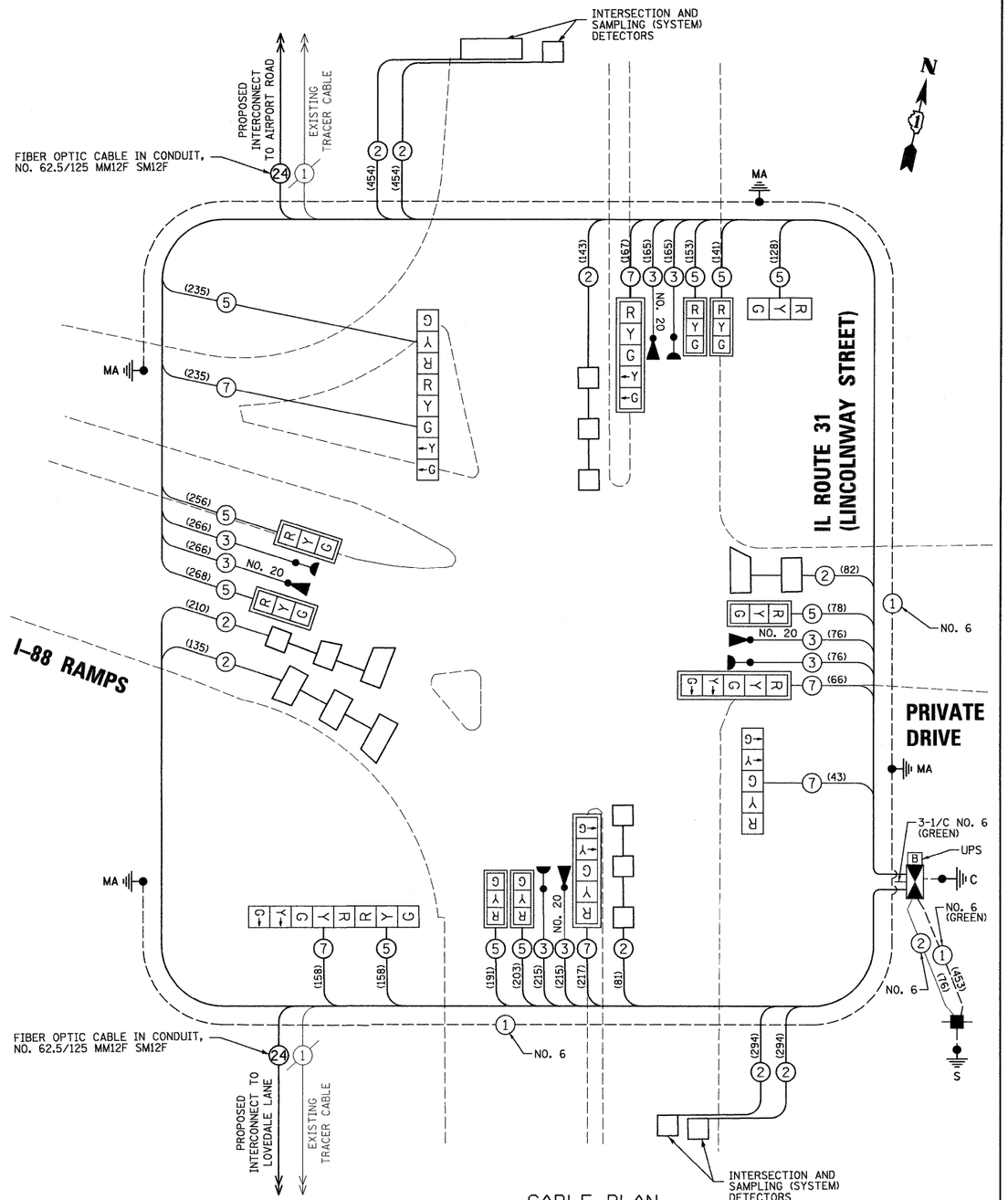
EXISTING	PROPOSED	
	G	8" (200mm) TRAFFIC SIGNAL SECTION
	R	12" (300mm) TRAFFIC SIGNAL SECTION
	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
	04	12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSH-BUTTON DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
(2)	(2)	DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.

EXISTING	PROPOSED	
(1)	(1)	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(24)	(24)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
"P"	"P"	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
"E"	"E"	RAILROAD CONTROL CABINET
"E"	"E"	ILLUMINATED SIGN "NO LEFT TURN"
"E"	"E"	ILLUMINATED SIGN "NO RIGHT TURN"
H/C	C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P	P	GROUND ROD AT POST (P), OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
B	B	UNINTERRUPTIBLE POWER SUPPLY
		VIDEO VEHICLE DETECTOR

SCHEDULE OF QUANTITIES

SIGN PANEL, TYPE 1	SQ FT	15
CONDUIT IN TRENCH, 2 " DIA., GALVANIZED STEEL	FOOT	575
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	5
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	48
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	62
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	266
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	633
TRANSCEIVER - FIBER OPTIC	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
• ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	722
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1811
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	886
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	76
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2147
HANDHOLE	EACH	6
HEAVY DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH	1
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	EACH	15
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	EACH	45
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	7
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10
INDUCTIVE LOOP DETECTOR	EACH	9
• DETECTOR LOOP, TYPE 1	FOOT	624
• LIGHT DETECTOR	EACH	4
LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	7647
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	9
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
REMOVE EXISTING SERVICE INSTALLATION	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	2
SERVICE INSTALLATION, POLE MOUNT	EACH	1
• ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	453
ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED & SHIELDED	FOOT	722
UNINTERRUPTIBLE POWER SUPPLY	EACH	1

• 100% COST TO THE VILLAGE OF NORTH AURORA.



CABLE PLAN

NOTE:
(XXX) DENOTES CABLE LENGTH

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	12	135	12	0.10	14.4
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 W. CENTER COURT SCHAUMBURG, IL 60196				TOTAL =	410.4

ENERGY SUPPLY CONTACT: _____
PHONE: _____
COMPANY: COMED

FOUNDATION (DEPTH)	FT.	(m)	CABLE SLACK	FT.	(m)	VERTICAL	FT.	(m)
TYPE A - POST	4	(1.2)	HANDHOLE	6.5	(2.0)	ALL FOUNDATIONS	3.0	(1.0)
D - CONTROLLER	4	(1.2)	DOUBLE HANDHOLE	13	(4.0)	MAST ARM (L) POLE	20.0	(6.0)
E - M. ARM POLE			SIGNAL POST	0	(0.0)	BRACKET MOUNTED	13	(4.0)
24" (600mm)	10	(3.0)	CONTROLLER CAB.	0	(0.0)	PED. PUSH-BUTTON	6	(2.0)
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	13	(4.0)

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

PREPARED BY:
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Consulting Engineers, Land Surveyors & Planners
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FILE NAME = \MICROST\352084\	USER NAME = RDS	DESIGNED - KK	REVISED -
		DRAWN - RDS	REVISED -
	PLOT SCALE = 1'=20'	CHECKED - BPT	REVISED -
	PLOT DATE = 10-15-09	DATE - 10-15-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION
IL ROUTE 31 AT I-88 TOLLWAY

SCALE: N.T.S. | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
365	97-N-2	KANE	21	11
		CONTRACT NO. 60148		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		