PAY ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FIBER OPTIC PATCH PANEL	EACH	1
TERMINATE FIBER IN CABINET	EACH	8
VIDEO ENCODER	EACH	1
MANAGED ETHERNET SWITCH, TYPE 2	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
MODIFY EXISTING UPS FOR SYSTEM COMMUNICATIONS	EACH	1
VIDEO VEHICLE DETECTION IP INTERFACE PANEL UPGRADE	EACH	1

CABLE PLAN LEGEND

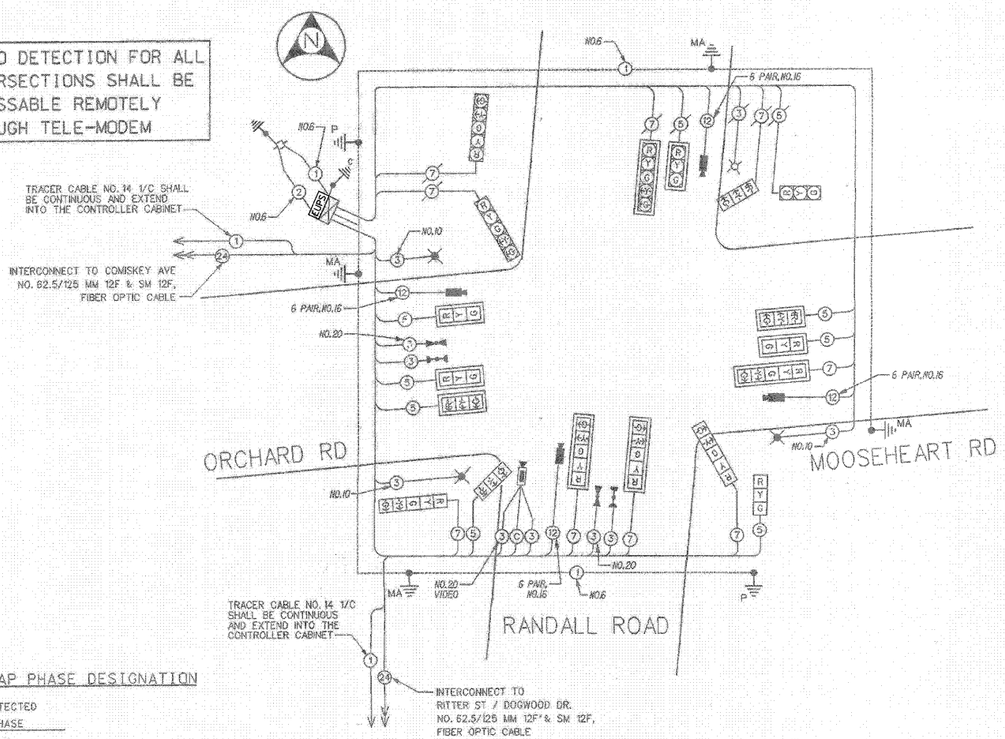
EXISTING	PROPOSED	
		8" (200mm) TRAFFIC SIGNAL SECTION
		12"(300mm) TRAFFIC SIGNAL SECTION
		12"(300mm) PEDESTRIAN SIGNAL SECTION
		12"(300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO.14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
		ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH) OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)
		NO. 62.5/125 MM 12F & SM 12F, FIBER OPTIC CABLE
		NO. 8281 COAXIAL CABLE
		VIDEO DETECTION CAMERA
		DOME P.T.Z. CAMERA
		LUMINAIRE, SODIUM VAPOR, HORIZ. MOUNT PHOTO CELL CONT., 310 W, 120 V BALLAST

NOTE: ALL NEW GROUND RODS SHALL BE ¾" X 10'-0" LONG COPPER CLAD. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

FOR INFORMATION ONLY

VIDEO DETECTION FOR ALL INTERSECTIONS SHALL BE ACCESSABLE REMOTELY THROUGH TELE-MODEM

PROPOSED CABLE PLAN



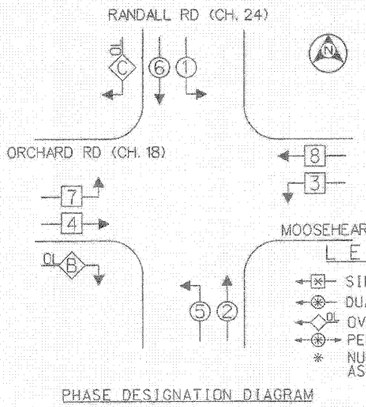
RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER		PROTECTED PHASE
C	=	7
B	=	5

THE LIGHT DETECTORS AND LIGHT DETECTOR AMPLIFIER FOR THIS PROJECT SHALL BE "TOMAR OR OPTICOM" TO MEET LOCAL FIRE DEPARTMENT REQUIREMENTS .

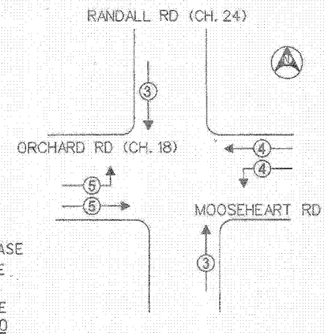
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

PROPOSED CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↓↑	←→	←→

ALL INDICATIONS SHALL BE LED

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH, AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAYS SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

I.D.O.T.
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE X INCAND	WATTAGE LED X	XX OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	28	135	12	0.10	33.6
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	392.6

VILLAGE OF NORTH AURORA

, ILLINOIS 60133

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	3.5 (1.1)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2 = (6.1+L-1.0)=
E - M ARM POLE		SIGNAL POST	2 (1.0)		
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)

METRO TRANSPORTATION GROUP, INC.
TRAFFIC ENGINEERING, TRANSPORTATION PLANNING AND SIGNAL SYSTEMS/DESIGN
3100 W. HIGGINS ROAD, HOFFMAN ESTATES, IL 60195 PH# 630 213-1000

REVISIONS		
NO.	DATE	DESCRIPTION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES

RANDALL ROAD @ ORCHARD ROAD (CH.18) AND MOOSEHEART ROAD
NORTH AURORA, ILLINOIS

FILE NAME: 14_cp.dgn
DATE: SEPTEMBER 22,2006
PROJECT NO.: H0510-03
SHEET NO.: 14 OF 22

KANE COUNTY
DIVISION OF TRANSPORTATION

USER NAME = JM	DESIGNED - DG	REVISED -	
	DRAWN - JM/SM	REVISED -	
PLOT SCALE = 1" = 20'	CHECKED - DG	REVISED -	
PLOT DATE = 12-21-2010	DATE - 12-21-2010	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM
ORCHARD RD. & RANDALL RD.
SCALE: NONE | SHEET NO. OF SHEETS | STA. | TO STA.

F.A.P	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00272-01-TL	KANE	68	39
		CONTRACT NO. 63540		
INT-17-C	ILLINOIS FED. AID PROJECT			

FILE NAME = $FILE$