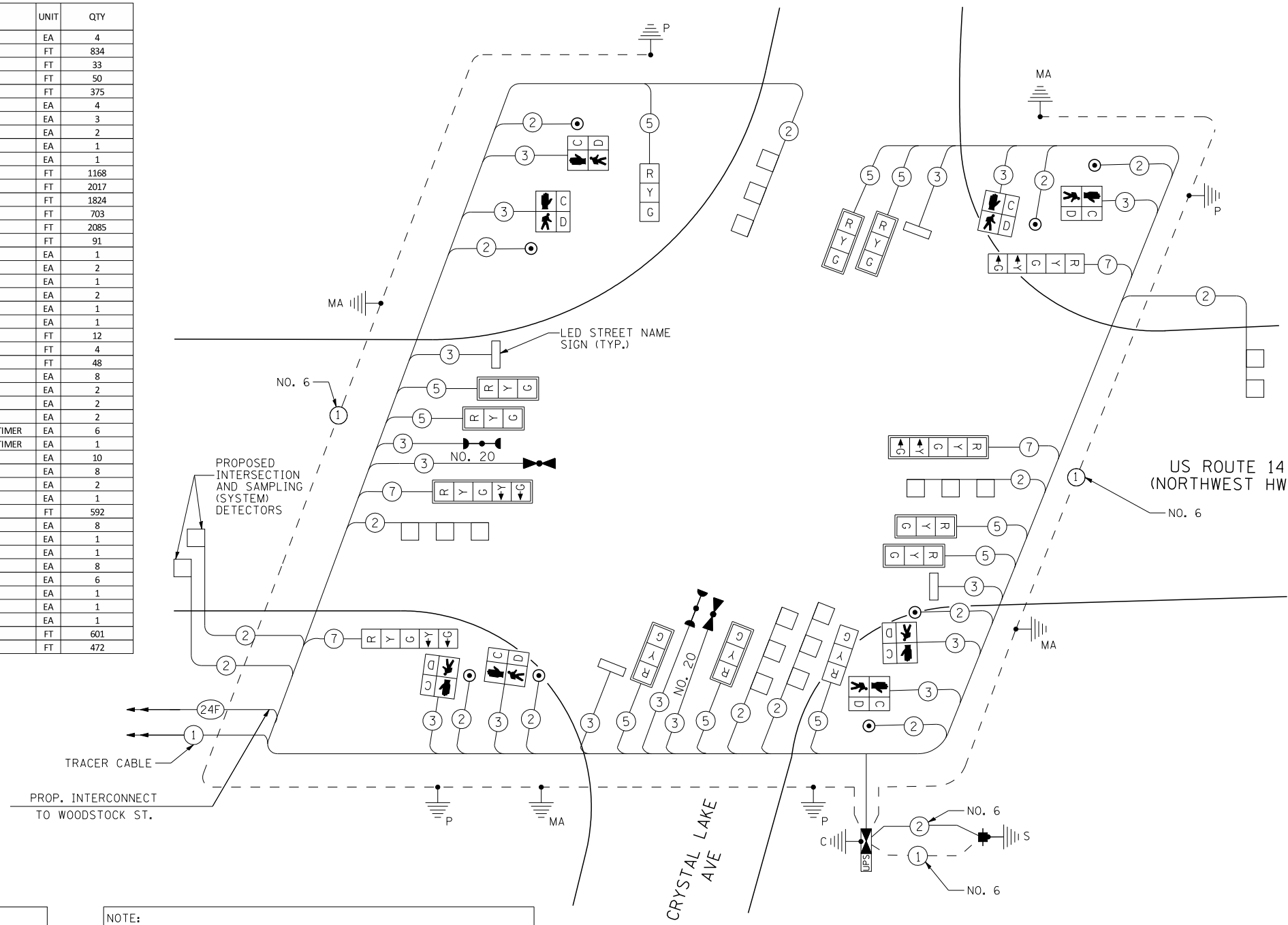
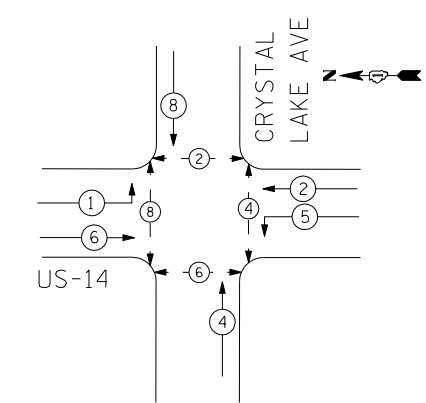


SCHEDULE OF QUANTITIES

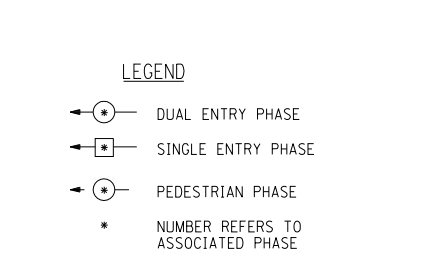
ITEM	UNIT	QTY
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EA	4
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FT	834
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FT	33
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FT	50
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FT	375
HANDHOLE	EA	4
HEAVY-DUTY HANDHOLE	EA	3
DOUBLE HANDHOLE	EA	2
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EA	1
TRANSCEIVER - FIBER OPTIC	EA	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FT	1168
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FT	2017
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FT	1824
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FT	703
ELECTRIC CABLE IN CONDUIT, LEAD-IN NO. 14 1 PAIR	FT	2085
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2/C	FT	91
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EA	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EA	2
PEDESTRIAN PUSH-BUTTON POST, GALVANIZED STEEL, TYPE I	EA	1
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EA	2
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EA	1
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EA	1
CONCRETE FOUNDATION, TYPE A	FT	12
CONCRETE FOUNDATION, TYPE C	FT	4
CONCRETE FOUNDATION, TYPE E 36 INCH DIAMETER	FT	48
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EA	8
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EA	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EA	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EA	2
PEDESTRIAN SIGNAL HEAD, 1-FACE, LED, BRACKET MOUNTED WITH COUNTDOWN TIMER	EA	6
PEDESTRIAN SIGNAL HEAD, 2-FACE, LED, BRACKET MOUNTED WITH COUNTDOWN TIMER	EA	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINIUM	EA	10
INDUCTIVE LOOP DETECTOR	EA	8
LIGHT DETECTOR	EA	2
LIGHT DETECTOR AMPLIFIER	EA	1
DETECTOR LOOP, TYPE 1	EA	592
PEDESTRIAN PUSH-BUTTON	EA	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EA	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EA	1
REMOVE EXISTING HANDHOLE	EA	8
REMOVE EXISTING CONCRETE FOUNDATION	EA	6
TEMPORARY TRAFFIC SIGNAL TIMING	EA	1
SERVICE INSTALLATION - POLE MOUNTED	EA	1
UNINTERRUPTIBLE POWER SUPPLY SPECIAL	EA	1
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FT	601
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 20 3/C, TWISTED, SHIELDED	FT	472
100% LOCAL AGENCY COST		



CONTROLLER SEQUENCE

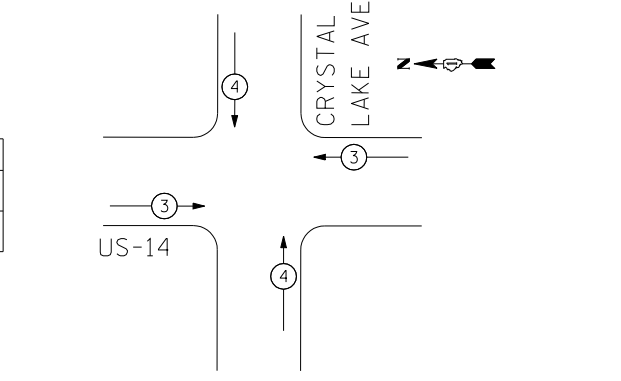


PHASE DESIGNATION DIAGRAM



LEGEND
 - (1) - DUAL ENTRY PHASE
 - (2) - SINGLE ENTRY PHASE
 - (3) - PEDESTRIAN PHASE
 * - NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN

PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	↔ ↔

NOTE:
THE EMERGENCY PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "OPTICOM" BRAND TO MATCH THE EXISTING CITY SYSTEM.

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

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

RESTORATION OF WORK AREA: RESTORATION OF THE TRAFFIC WORK AREA SHALL BE INCLUDED IN THE COST OF THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH, AND BACKFILL ETC. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, 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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

EJM ENGINEERING, INC.
 411 South Wells Street Suite 1000
 Chicago, Illinois 60607

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

TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
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	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
LED SIGN	2		90	0.50	90
LED SIGN (6'+)	2		120	0.50	120

ENERGY COSTS TO: TOTAL = 778.6

CITY OF CRYSTAL LAKE
 100 WEST WOODSTOCK ST
 CRYSTAL LAKE, IL 60014

ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (815) 263-5624
 COMPANY: COMED

FILE NAME = ...\\D162517-SHT-TS05A.dgn	USER NAME = rswanson	DESIGNED - MH	REVISED -
		DRAWN - MH	REVISED -
		CHECKED - RS	REVISED -
		DATE - 10/15/2013	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM,
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
 US RTE. 14 AND CRYSTAL LAKE AVE.

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	27R-3	MCHENRY	431	312
CONTRACT NO. 62517				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				