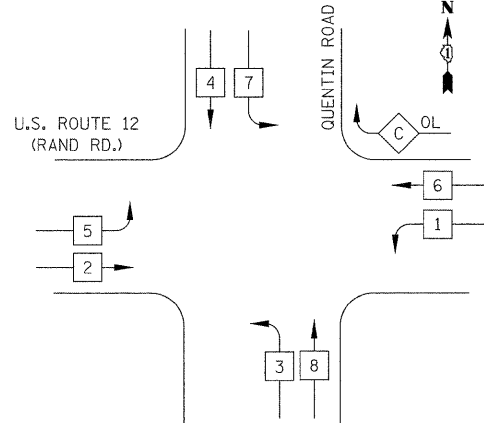


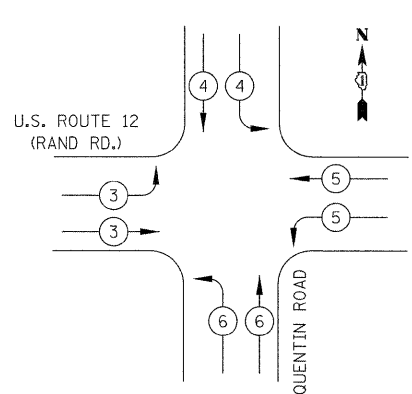
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**PROPOSED CONTROLLER SEQUENCE**

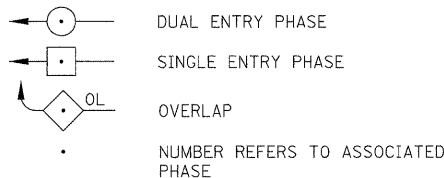


**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

**LEGEND**



**PHASE DESIGNATION DIAGRAM**

RIGHT TURN OVERLAP PHASE DESIGNATION		
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
C	= 6	+ 7

**SCHEDULE OF QUANTITIES**

PAY ITEM	UNIT	QNTY.
SIGN PANEL, TYPE 1	SQ FT	15
SIGN PANEL, TYPE 2	SQ FT	23
SERVICE INSTALLATION, POLE MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1051
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2.5" DIA.	FOOT	10
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3.5" DIA.	FOOT	163
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	689
HANDHOLE	EACH	2
HEAVY DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1340
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	5657
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	596
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3825
ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2C	FOOT	29
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1343
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	15
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	30
DRILL EXISTING HANDHOLE	EACH	6
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	12
SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	13
INDUCTIVE LOOP DETECTOR	EACH	12
DETECTOR LOOP, TYPE I	FOOT	552
LIGHT DETECTOR	EACH	5
LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	513
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	10
REMOVE EXISTING CONCRETE FOUNDATION	EACH	6
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	1897
RELOCATE EXISTING SWITCH (SPECIAL)	EACH	2
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, VIDEO, NO. 20 4 C	FOOT	95
RELOCATE EXISTING REMOTE CONTROLLED VIDEO SYSTEM	EACH	2
COAXIAL CABLE IN CONDUIT	FOOT	95
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
RELOCATE EXISTING ENCODER	EACH	2

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	22	17		0.50	187
(YELLOW)	22	25		0.25	138
(GREEN)	22	15		0.25	83
ARROW	4	12		0.10	5
PED. SIGNAL		25		1.00	
CONTROLLER	1	100		1.00	100
BATTERY BACK UP UNIT	1			1.00	
FLASHER				0.50	
TOTAL =					513

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
CONTACT: DONALD PESCE  
PHONE: (847) 870-2057  
COMPANY: COM ED

**CIVILTECH**  
450 E Devon Ave, Suite 300  
Itasca, Illinois 60143  
Tel: 630.773.3900 Fax: 630.773.3975  
www.civiltechinc.com

DESIGNED - BRD	REVISED - 11/14/2011
DRAWN - BRD	REVISED - 5/16/2012
CHECKED - JUE	REVISED -
DATE - 10/24/2011	REVISED -

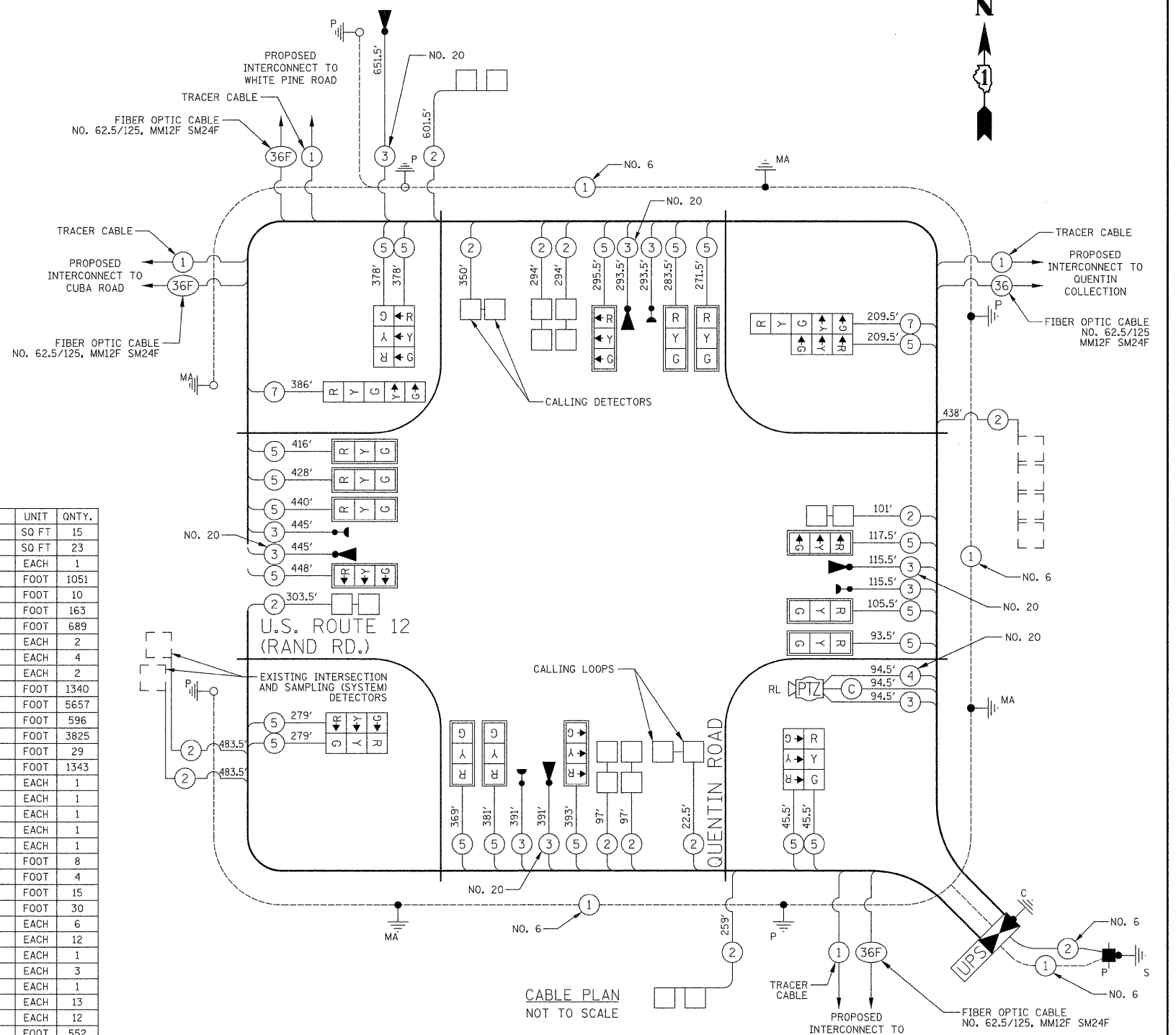
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

NO SCALE

**CABLE PLAN, SEQUENCE OF OPERATION, EMERGENCY VEHICLE PREEMPTION SEQUENCE & SCHEDULE OF QUANTITIES**  
**U.S. ROUTE 12 (RAND RD.) AT QUENTIN ROAD**

SHEET NO. 1 OF 1 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
364	02-00051-08-WR	LAKE	188	101
CONTRACT NO. 63649				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

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