

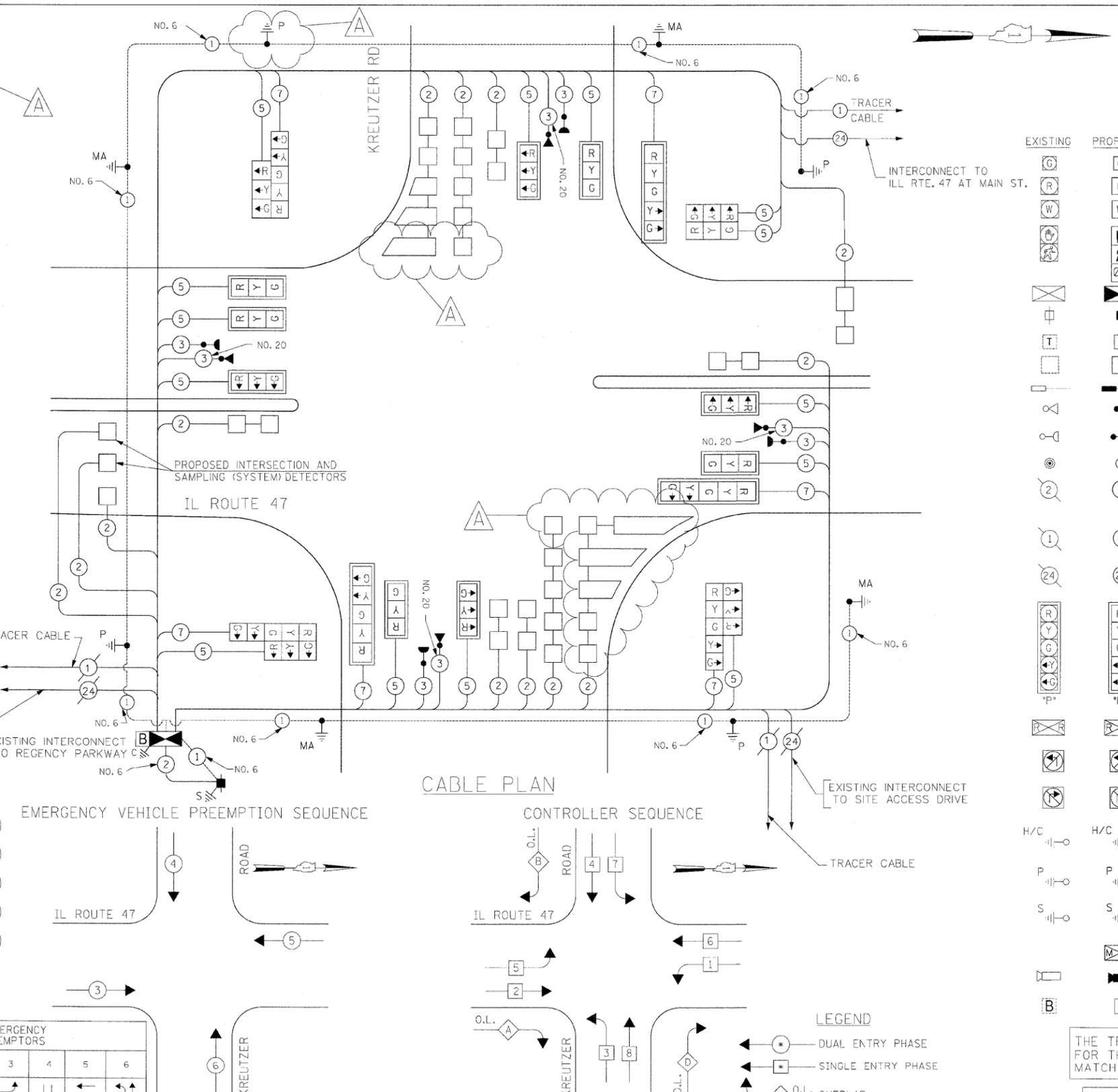
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326		McHENRY	502	281
STA.	TO STA.			
	ILLINOIS		FED. AID PROJECT	

• (105X & 106) WRS-2

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
73	SQ FT	SIGN PANEL - TYPE 1
546	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
116	FOOT	CONDUIT IN TRENCH, 2½" DIA., GALVANIZED STEEL
44	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
75	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
325	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
482	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
6	EACH	HANDHOLE
4	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DOUBLE HANDHOLE
761	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCEIVER - FIBER OPTIC
1044	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
3549	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1163	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
3385	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
30	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 54 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 56 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 62 FT.
16	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
30	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
42	FOOT	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER
9	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
3	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
12	EACH	TRAFFIC SIGNAL BACKPLATE
13	EACH	INDUCTIVE LOOP DETECTOR
4	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
1	EACH	REMOVE TEMPORARY TRAFFIC SIGNAL INSTALLATION
1453	FOOT	PERFORMED DETECTOR LOOP
4	EACH	PAINT NEW TRAFFIC SIGNAL POST
1	EACH	PAINT NEW MAST ARM POLE, UNDER 40 FEET
3	EACH	PAINT NEW MAST ARM POLE, 40 FEET AND OVER
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
1	EACH	SERVICE INSTALLATION - POLE MOUNTED
1	EACH	UNINTERRUPTIBLE POWER SUPPLY
1017	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
1044	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
1	EACH	MODIFY TEMPORARY TRAFFIC SIGNAL INSTALLATION

• 100% COST TO VILLAGE OF HUNTLEY



**CABLE PLAN LEGEND**

EXISTING	PROPOSED	DESCRIPTION
G	G	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSH-BUTTON DETECTOR
		2 DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM2F & SM2F
		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"
H/C	H/C	GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER
P	P	GROUND ROD AT POST OR MAST ARM POLE
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		LOCAL AND MASTER CONTROLLER
		MICROWAVE VEHICLE SENSOR
		UPS-BATTERY BACK-UP

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

TYPE	NO LAMPS	INCAND.	LED	OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	135	17	0.50	170
(YELLOW)	20	135	25	0.25	125
(GREEN)	20	135	15	0.25	75
ARROW	12	135	12	0.10	14.4
PED. SIGNAL	90	90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN				0.05	
FLASHER				0.50	
TOTAL =					484.4

**PROPOSED EMERGENCY VEHICLE PREEMPTORS**

EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	←	↑

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 (1.0)
C-CONTROLLER W/UPS	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
D-CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)	(6m+L-0.6m)±	4 (1.2)
E-M.ARM POLE		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)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
42" (1050mm)	25 (7.6)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

ENERGY COSTS TO: TOTAL = 484.4

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
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**GO** GANDHI AND ASSOCIATES, INC.  
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**REVISIONS**

NAME	DATE
ADDENDUM A	12/21/2009

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

ILLINOIS DEPARTMENT OF TRANSPORTATION  
CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES  
ILLINOIS ROUTE 47 AT KREUTZER ROAD

SCALE: N.T.S. DRAWN BY: ME,MA,YB  
DATE: APRIL 17, 2009 DESIGNED BY: PKG/RRM  
CHECKED BY: PKG/RRM