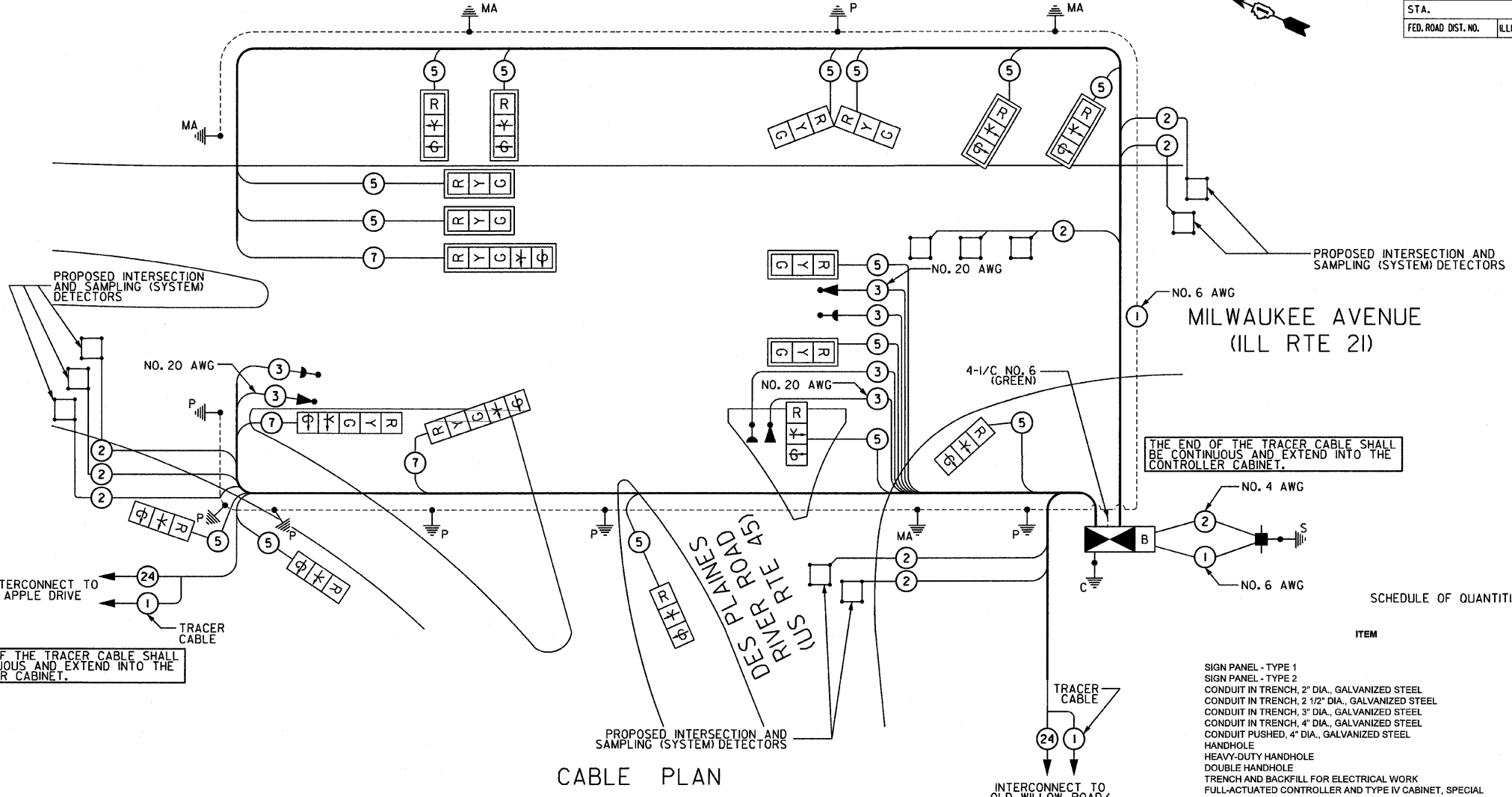


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
374	326BF-R-1	COOK	279	182
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62387				

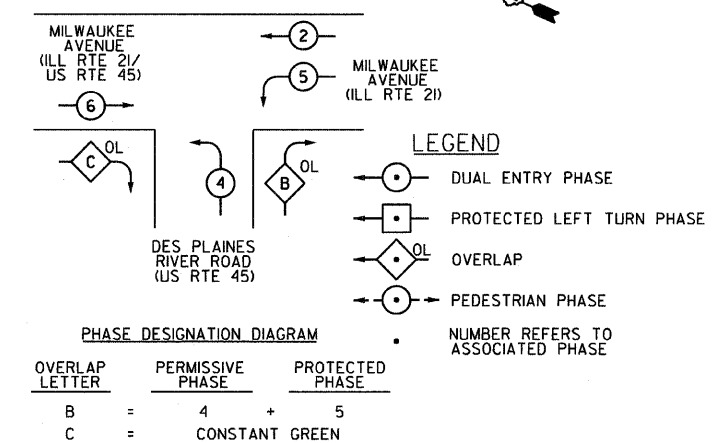
**CABLE PLAN LEGEND**

EXISTING	PROPOSED	DESCRIPTION
		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
		PUSH-BUTTON DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP (PERFORMED UNLESS NOTED OTHERWISE)
		2 DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED ALL LOOP DETECTOR CABLE TO BE SHIELDED
		MICROWAVE VEHICLE SENSOR
		SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), 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)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SMI2F
		UNINTERRUPTIBLE POWER SUPPLY

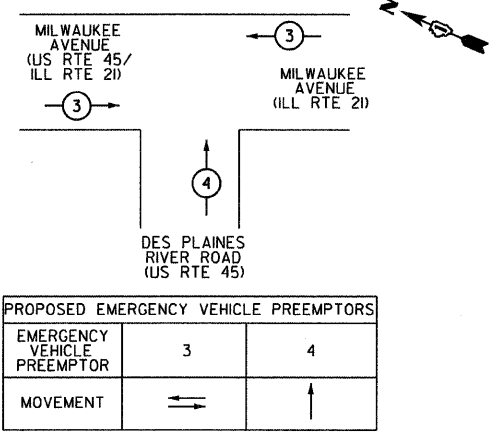


**CABLE PLAN**

**PROPOSED CONTROLLER SEQUENCE**



**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**SCHEDULE OF QUANTITIES**

ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE 1	SQ FT	24
SIGN PANEL - TYPE 2	SQ FT	27.5
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	1252
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	400
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	5
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	128
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	311
HANDHOLE	EACH	8
HEAVY-DUTY HANDHOLE	EACH	1
DOUBLE HANDHOLE	EACH	2
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1585
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	455
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3150
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	800
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2770
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	5
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE 34 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	28
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	47
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	9
INDUCTIVE LOOP DETECTOR	EACH	8
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	12
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
PERFORMED DETECTOR LOOP	FOOT	383
SERVICE INSTALLATION, POLE MOUNT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C	FOOT	2050
ELECTRIC CABLE IN CONDUIT NO. 20 3C, TWISTED, SHIELDED	FOOT	455
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 4, 2/C	FOOT	598

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE	INCAND. LED % OPERATION		
SIGNAL (RED)	18	135	17	0.50	153
(YELLOW)	18	135	25	0.25	112.5
(GREEN)	18	135	15	0.25	67.5
ARROW	6	135	12	0.10	7.2
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252		0.05	
FLASHER				0.50	
ENERGY COSTS TO:	TOTAL =				440.2

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)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600 mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750 mm)	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)

NOTE: THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS INTERSECTION SHALL BE 'ECONOLITE' BRAND TO MATCH THE EXISTING SYSTEM.

**SPAAN Tech, Inc.**  
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 Chicago, Illinois 60606  
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 fax: 312.277.8808  
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NOTE: 100% OF THE COST OF ITEMS DENOTED WITH A \* IS PAYABLE BY THE PROSPECT HEIGHTS FIRE PROTECTION DISTRICT. TS-22 OF 39

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF QUANTITIES, CABLE PLAN, AND PHASE DESIGNATION DIAGRAM  
 MILWAUKEE AVENUE (US RTE 45/ILL RTE 21) AT DES PLAINES RIVER ROAD (US RTE 45)

SCALE: NONE  
 DATE: 02/05/08  
 DRAWN BY: RAS  
 DESIGN BY: RAS  
 CHECKED BY: ADD

def:shd  
 07/67/000 - ILL RTE 21 - DOT Dist 1  
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ENERGY SUPPLY CONTACT: MS. JUDY SCHOMER  
 PHONE: (847) 870-2056  
 COMPANY: COMED