

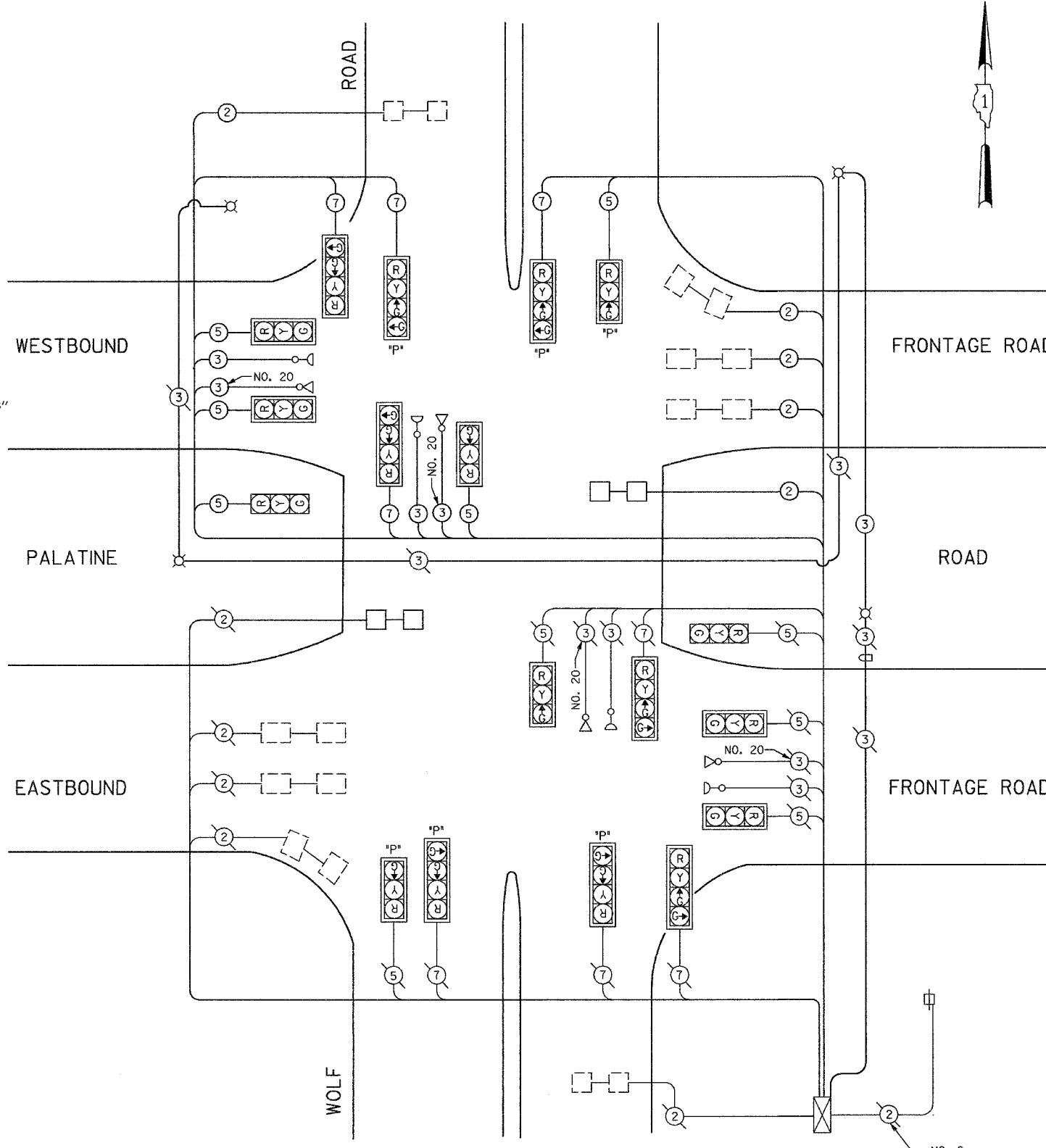
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2004-108 BR	COOK	72	39
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT:	
CONTRACT NO. 62853				

**CABLE PLAN LEGEND**

- |                 |   |
|-----------------|---|
| <b>EXISTING</b> | <b>PROPOSED</b>   |
|                 | 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 INSTALLATION  |
|                 | VEHICLE DETECTOR, INDUCTION LOOP  |
|                 | MAGNETIC DETECTOR   |
|                 | EMERGENCY VEHICLE LIGHT DETECTOR  |
|                 | CONFIRMATION BEACON   |
|                 | PUSH-BUTTON DETECTOR  |
|                 | DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
|                 | GROUND CABLE IN CONDUIT NO.6 SOLID COPPER (GREEN)   |
|                 | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MMI2F & SMI2F   |
|                 | 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, DOUBLE HANDHOLE, OR CONTROLLER  |
|                 | GROUND ROD AT POST OR MAST ARM POLE   |
|                 | GROUND ROD AT ELECTRIC SERVICE INSTALLATION   |
|                 | LOCAL AND MASTER CONTROLLER   |
|                 | MICROWAVE VEHICLE SENSOR  |
|                 | AVIATION RED OBSTRUCTION LIGHT  |
|                 | AVIATION PHOTOELECTRIC CONTROL  |

**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
14	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
73	FOOT	CONDUIT EMBEDDED IN STRUCTURE, 4" DIA., GALVANIZED STEEL
2	EACH	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 12" X 18" X 8"
14	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1105	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
2032	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1667	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
1634	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
2	EACH	DRILL EXISTING HANDHOLE
132	FOOT	DETECTOR LOOP, TYPE 1
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	MODIFY EXISTING CONTROLLER
5281	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
856	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
1	EACH	REBUILD EXISTING HANDHOLE



**CABLE PLAN**  
NOT TO SCALE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO LAMPS	WATTAGE	OPERATION		
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	675.0
(YELLOW)	12	135	25	0.25	337.5
(GREEN)	16	135	15	0.25	472.5
ARROW		135	12	0.10	
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100		100.0
ILLUM. SIGN				0.05	
OPT. SIGNAL (RED)	6	150		0.50	450.0
(YELLOW)	6	150		0.25	225.0
(GREEN)	10	150		0.25	375.0
AVIATION LIGHTRED	4	54		1.00	216.0
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	3121.0

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'-H-2"
E-MAST ARM POLE		SIGNAL POST	2 (1.0)		(6m-H-0.6m)=
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)

**GO** GANDHI AND ASSOCIATES, INC.  
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
PALATINE ROAD; WISCONSIN CENTRAL RR TO  
US 45/ILL 21 (Milwaukee Ave.)  
**EXISTING CABLE PLAN MODIFICATION**  
WOLF ROAD AT EAST AND WESTBOUND  
FRONTAGE ROADS TO AND FROM PALATINE ROAD

SCALE: NONE  
DATE: 01/14/2005

DRAWN BY: JF  
DESIGNED BY: PKG/RRM  
CHECKED BY: PKG/RRM

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