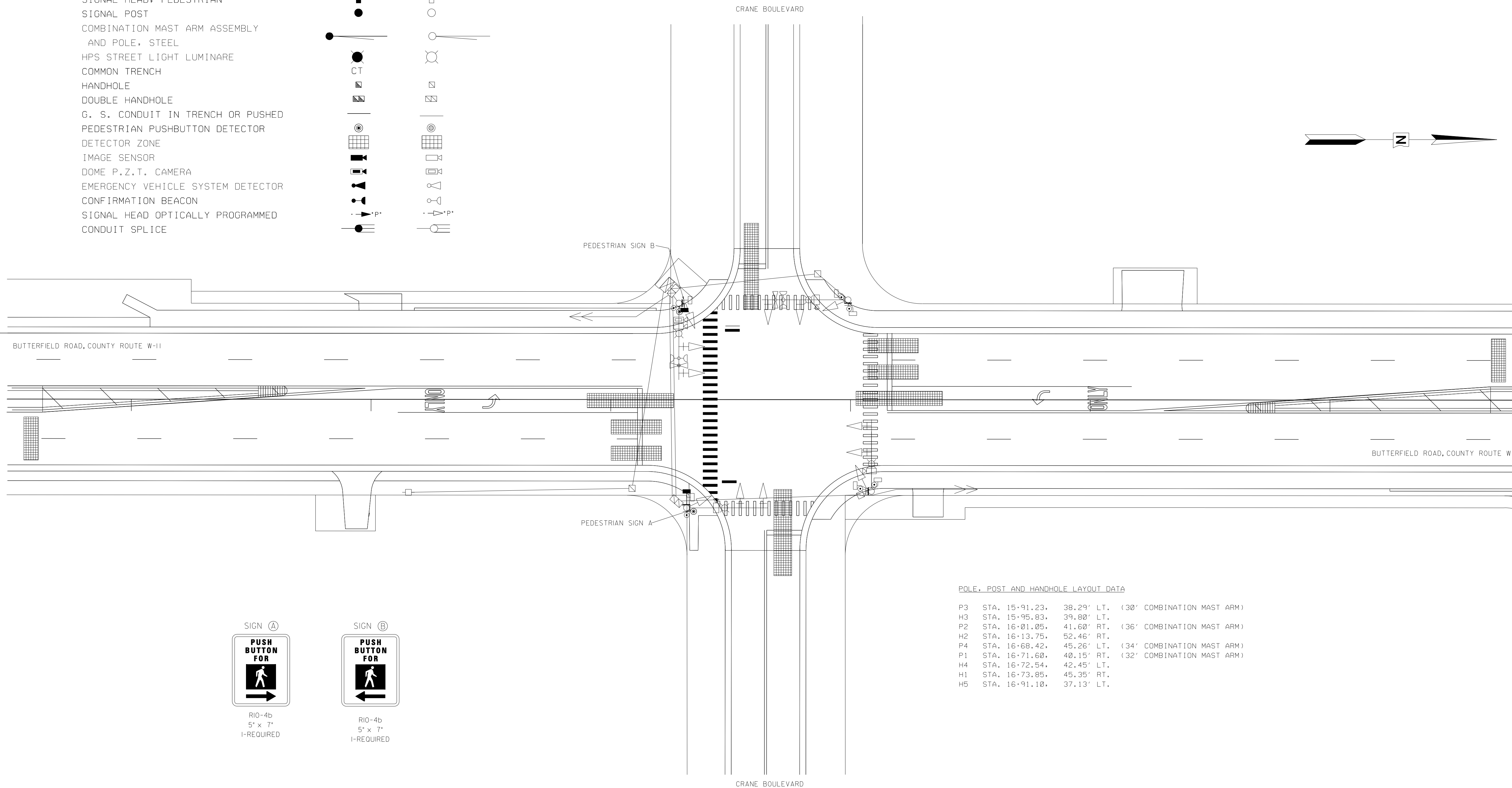


ROUTE	SECTION	COUNTY	SHEET	SHEETS
CH57	137	LAKE	1	2
TRAFFIC SIGNAL MODIFICATION-PED. T.S. HEADS				
04-00000-00-GM ILLINOIS BUTTERFIELD ROAD				

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL		
HPS STREET LIGHT LUMINARE		
COMMON TRENCH		
HANDHOLE		
DOUBLE HANDHOLE		
G. S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR ZONE		
IMAGE SENSOR		
DOME P.Z.T. CAMERA		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		



POLE, POST AND HANDHOLE LAYOUT DATA

P3	STA. 15+91.23,	38.29' LT.	(30' COMBINATION MAST ARM)
H3	STA. 15+95.83,	39.80' LT.	
P2	STA. 16+01.05,	41.60' RT.	(36' COMBINATION MAST ARM)
H2	STA. 16+13.75,	52.46' RT.	
P4	STA. 16+68.42,	45.26' LT.	(34' COMBINATION MAST ARM)
P1	STA. 16+71.60,	40.15' RT.	(32' COMBINATION MAST ARM)
H4	STA. 16+72.54,	42.45' LT.	
H1	STA. 16+73.85,	45.35' RT.	
H5	STA. 16+91.10,	37.13' LT.	



REVISIONS	
NAME	DATE
ADD PED. SIG.-JPS	4/28/05



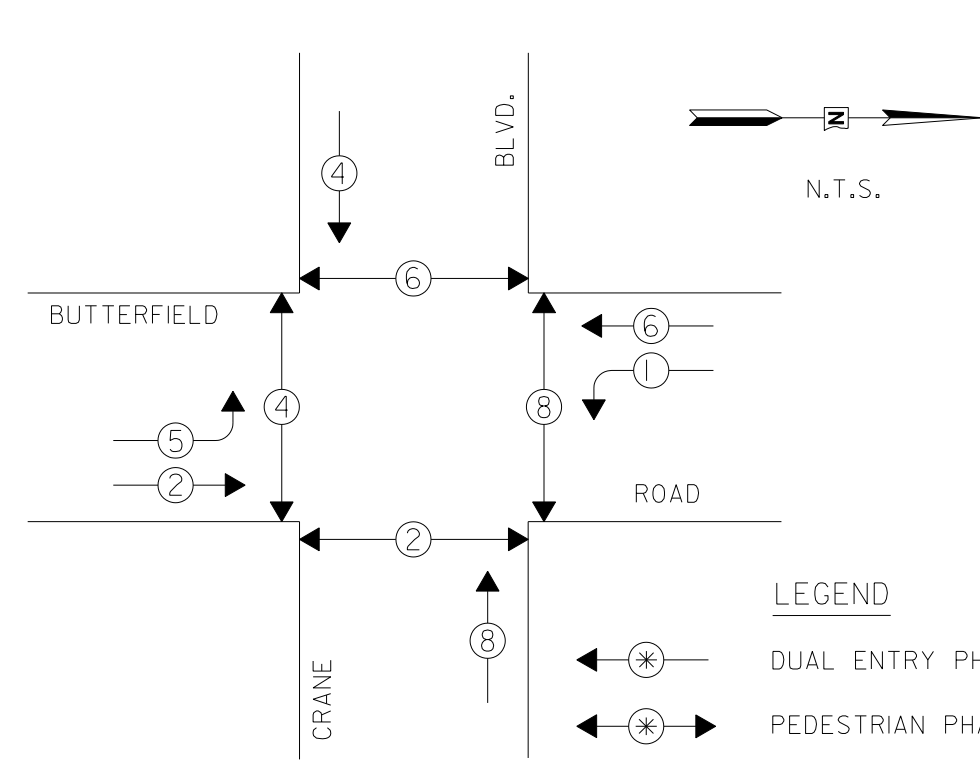
TRAFFIC SIGNAL MODIFICATION  
PED. T.S. HEADS/DETECTORS  
BUTTERFIELD RD. AT CRANE BLVD.

SCALE: 1" = 20' SHEET 1 OF 2 DESIGNED BY: JPS  
DATE: 04/28/2005 CHECKED BY: ANK

**CABLE PLAN LEGEND**

EXISTING	PROPOSED	
		8" TRAFFIC SIGNAL SECTION
		12" TRAFFIC SIGNAL SECTION
		12" PEDESTRIAN SIGNAL SECTION
		12" PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON 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-MM12F & SM12F
		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
		LUMINAIRE
		MACHINE VISION PROCESSOR
		LED INTERNALLY ILLUMINATED STREET NAME SIGN

**CONTROLLER SEQUENCE**



**LEGEND**

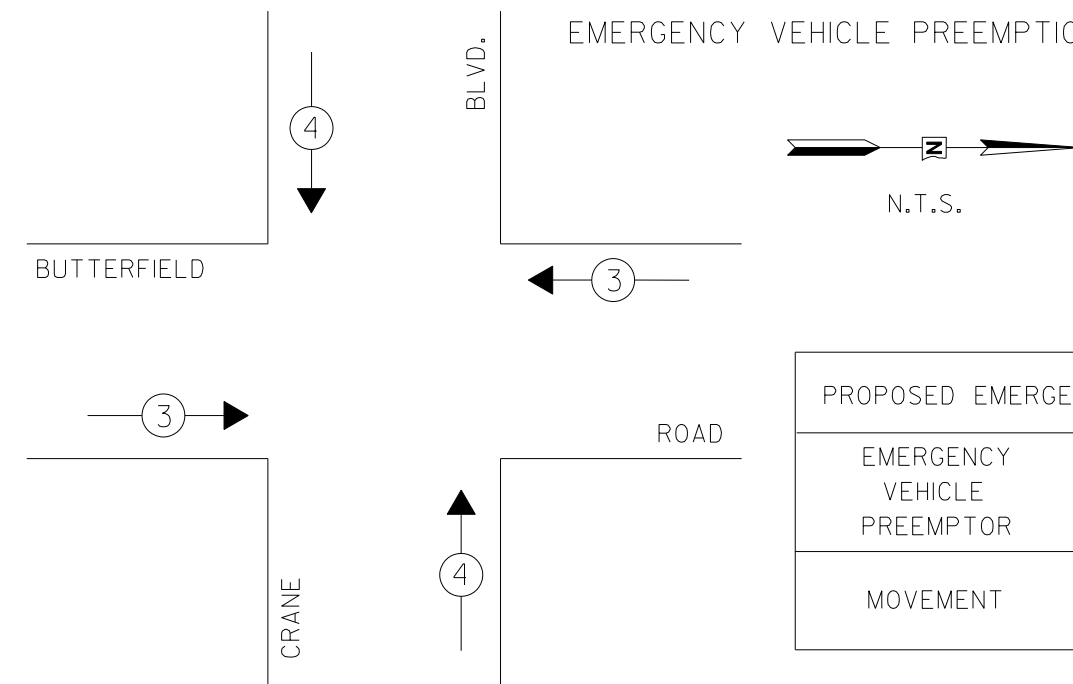
- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**

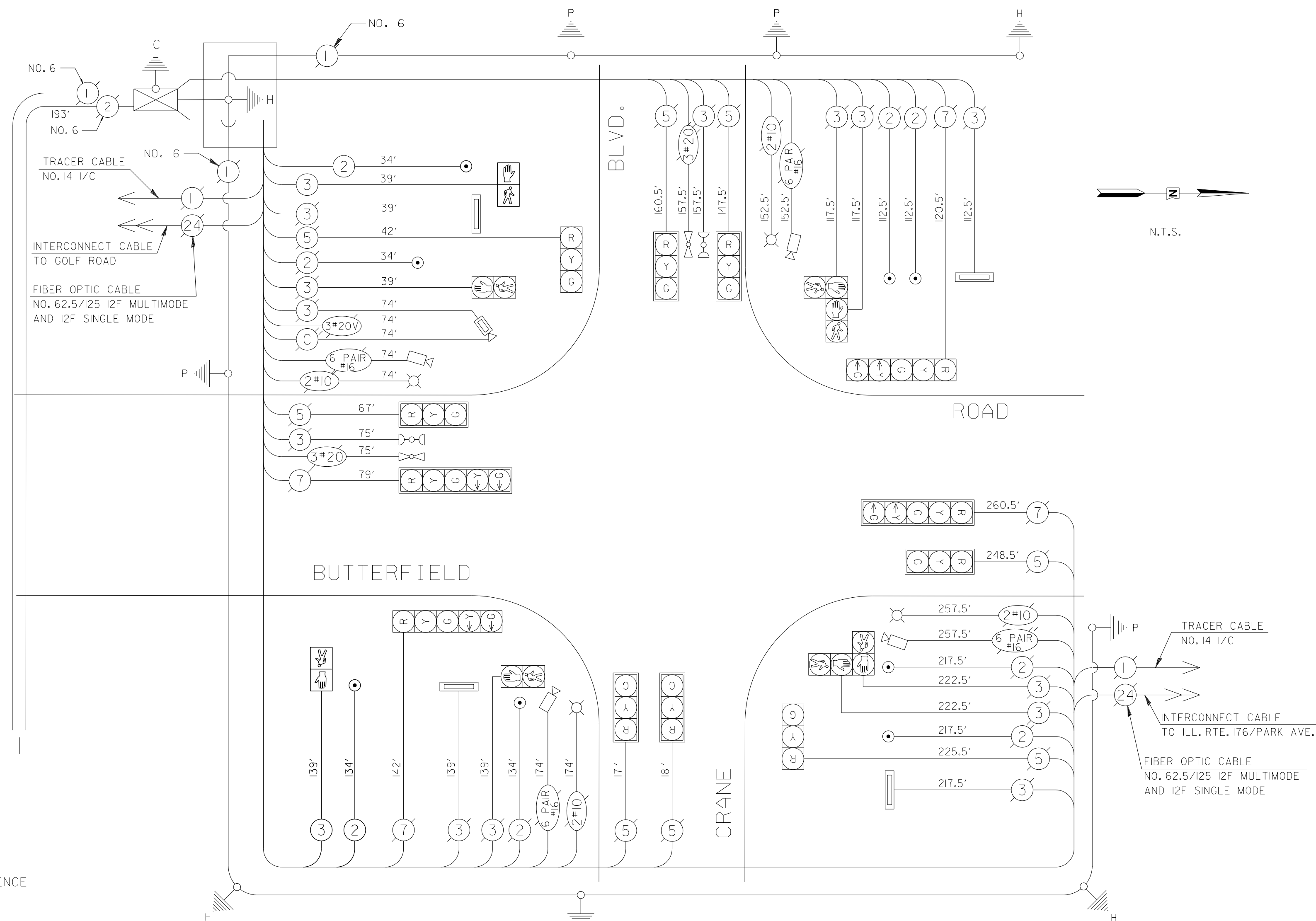
DESCRIPTION	FOOT	QUANTITY
ELECTRIC CABLE IN CONDUIT, SIGNAL NO.14 2C	168	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO.14 3C	178	1
PEDESTRIAN SIGNAL HEAD, L.E.D., I-FACE, BRACKET MOUNTED	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2

**SCHEDULE OF QUANTITIES**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



PROPOSED EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	12	17	0.50		102
(YELLOW)	12	25	0.25		75
(GREEN)	12	15	0.25		45
ARROW	8	12	0.10		9.6
PED. SIGNAL	6+2	25	1.00		200
CONTROLLER	1	300	1.00		300

ENERGY COSTS TO: TOTAL = 731.6  
 LAKE COUNTY DIVISION OF TRANSPORTATION  
 600 WEST WINCHESTER ROAD, LIBERTYVILLE, ILLINOIS 60048  
 ENERGY SUPPLY: CONTACT: PAUL CRUZ  
 PHONE: (847) 816-5331  
 COMPANY: COMMONWEALTH EDISON

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'
C - M. ARM POLE		SIGNAL POST	2 (1.0)		(6m+L-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)

REVISIONS	
NAME	DATE
ADD PED. SIG.-JPS	5/2/05

**Lake County**  
 Division of Transportation  
 SCHEDULE OF QUANTITIES,  
 REVISED CABLE PLAN AND  
 REV. PHASE DESIGNATION DIAGRAM  
 BUTTERFIELD ROAD AT CRANE BOULEVARD  
 SCALE: NOT TO SCALE DESIGNED BY: JPS  
 DATE: 05/1/05 SHEET 2 OF 2 CHECKED BY: ANK