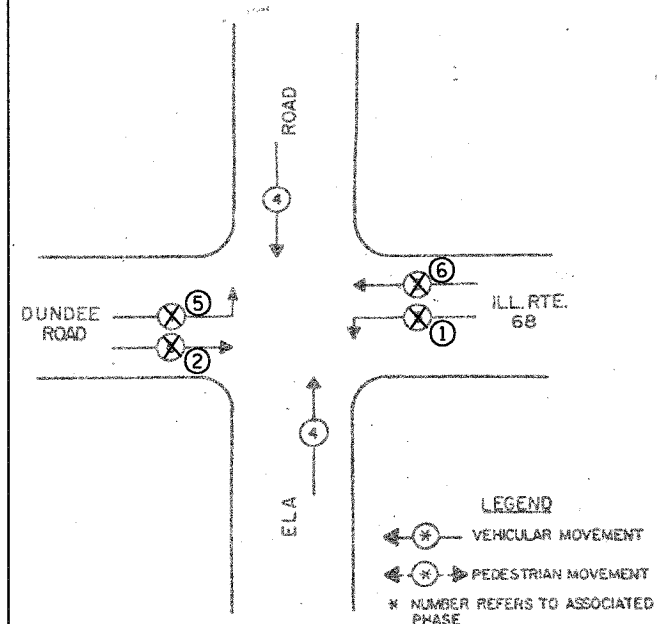


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	#	COOK	283	121B
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
		* 70D-Y-R & 70MB-R-1		62897

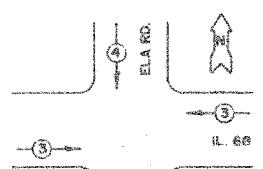
**CONTROLLER SEQUENCE**

REFERRING TO STANDARD 85700, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



**PHASE DESIGNATION DIAGRAM**

\* EMERGENCY VEHICLE PREEMPTION SEQUENCE NOTES FOR DUAL ENTRY OPERATION - ALL LEGS



EMERGENCY VEHICLE PREEMPTIONS		
EMERGENCY VEHICLE PREEMPTION	3	4
MOVEMENT	←	→

**NOTES:**

1. ONCE PREEMPTION HAS BEEN CALLED, TERMINATION OF A PHASE(S) SHALL BE IDENTICAL TO THE NORMAL SEQUENCE OF OPERATION'S TERMINATION OF A PHASE(S) AS DESCRIBED IN STANDARD 857001.
2. CONTINUATION OR TERMINATION OF ALL RIGHT TURN OVERLAPS SHALL BE IDENTICAL TO THE NORMAL SEQUENCE OF OPERATION'S CONTINUATION OR TERMINATION OF RIGHT TURN OVERLAPS AS DESCRIBED IN THE CLEARANCE NOTES FOR RIGHT TURN OVERLAPS.
3. TERMINATION OF ALL PEDESTRIAN PHASE(S) SHALL INCLUDE A FULL FLASHING "DON'T WALK" INTERVAL.
4. IF ALL RED CLEARANCE IS USED IN THE NORMAL SEQUENCE OF OPERATION, IT MUST BE DISPLAYED AFTER THE YELLOW CLEARANCE INTERVAL WHEN ENTERING OR LEAVING THE PREEMPTION SEQUENCE.

SCHEDULE OF QUANTITIES		
1	EACH	TRAFFIC CONTROL AND PROTECTION
250	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3/C
250	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER

\* EXISTING CONTROL EQUIPMENT AT THIS LOCATION IS TRACONEX TSP290

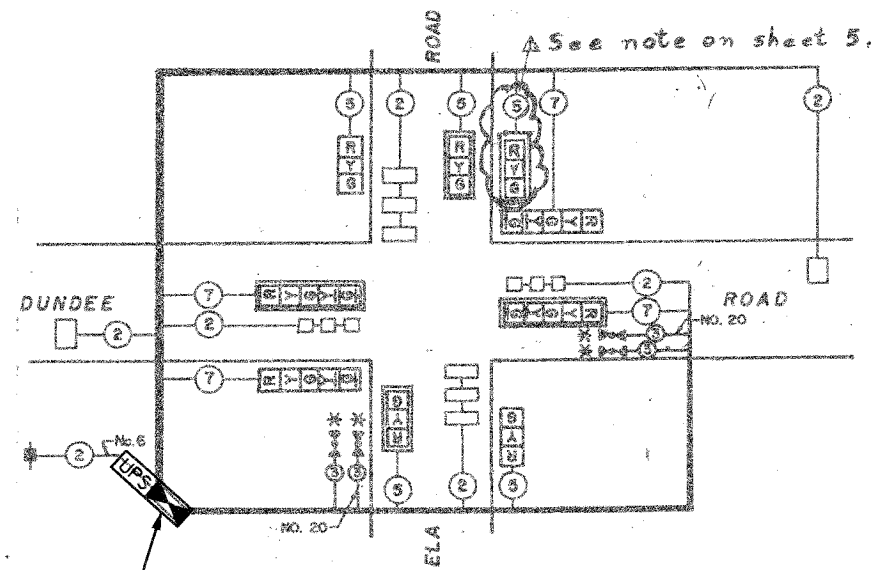
\* NOTE: THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION" APPEARS IN THE SCHEDULE OF QUANTITIES FOR EACH INTERSECTION INCLUDED IN THIS PROJECT. IT SHALL BE PAID FOR AS A LUMP SUM ONCE, FOR THE ENTIRE PROJECT.

TRAFFIC SIGNALS QUANTITIES		
ITEM	UNIT	ELA RD & IL 68
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.  
**1 EACH CONTROLLER AND CABINET (COMPLETE)**

\* THESE ITEMS INCLUDED IN CONTRACT FOR INSTALLATION OF EMERGENCY VEHICLE PRE-EMPTION EQUIPMENT

**CABLE PLAN**



REMOVE EXISTING CONTROLLER & INSTALL NEW CONTROLLER WITH TRANSCIVER & UPS UNIT. RECONNECT ALL EXISTING CONNECTIONS COMPLETE AND OPERATIONAL. REUSE EXISTING FOUNDATION.

**CABLE PLAN LEGEND**

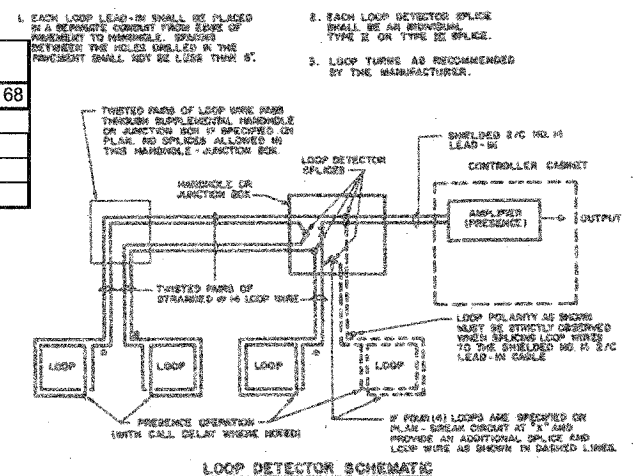
- 8" TRAFFIC SIGNAL SECTION
- 12" TRAFFIC SIGNAL SECTION
- CONTROLLER CABINET
- SERVICE INSTALLATION
- VEHICLE DETECTOR, INDUCTION LOOP
- DENOTES NUMBER OF CONDUCTORS (NEW) ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 14 EXCEPT AS INDICATED.
- INDICATES EXISTING CABLE
- MAGNETIC DETECTOR
- EMERGENCY VEHICLE SYSTEM DETECTOR
- SIGNAL FACE WITH BACKPLATE 'P' INDICATES PROGRAMMED
- CONFIRMATION BEACON

**SCHEDULE OF SIGNAL HEADS**

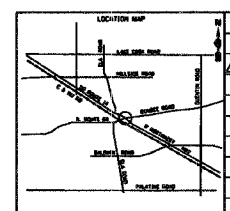
2	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 5-SECTION WITH 12" LENSES, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 5-SECTION WITH 12" LENSES, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 3-SECTION WITH 12" LENSES, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, ALUMINUM, 1-FACE, 3-SECTION WITH 12" LENSES, BRACKET MOUNTED

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	9	135	17	0.50	76.5
(YELLOW)	9	135	25	0.25	56.25
(GREEN)	9	135	15	0.25	33.75
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	-	252		0.05	-
FLASHER	-			0.50	-
<b>TOTAL</b>					<b>276.1</b>

GENERAL NOTES:  
**1. NEW WORK IS SHOWN AS BOLD.**



**LOOP DETECTOR SCHEMATIC**



REVISIONS	
NAME	DATE
ADDENDUM 2	02/15/07

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL RTE 68 & ELA ROAD  
 SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM

SCALE NONE  
 DATE NOVEMBER 2006  
 DRAWN BY R.P.-J.  
 DESIGNED BY I.B.  
 CHECKED BY A.D.O.

**NEW DRAWING**  
 TS-09B OF 13

Rick Johns - District 01  
 I.D.O.T. - District 01  
 2/15/2007 1:59:43 PM  
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 File: Drawing Files\Bentley-TS-09-B - IL Rte 68 & ELA Road.dwg