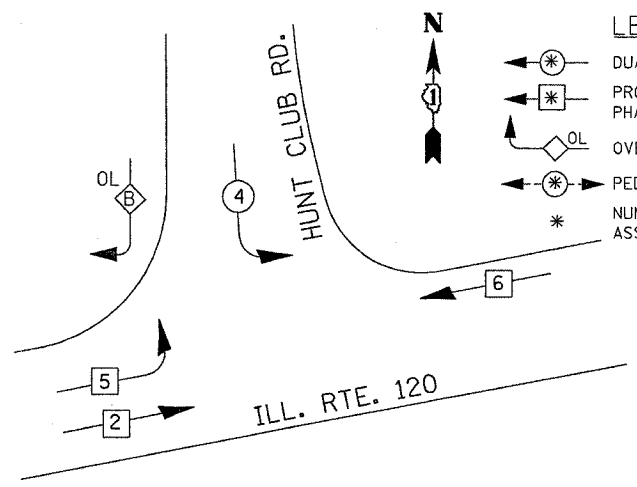


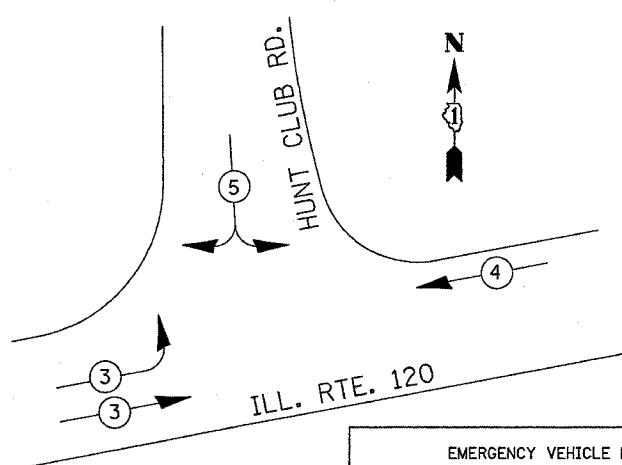
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
342	(G&J2) 1-N-1	LAKE COUNTY	70	38
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
CONTRACT NO. 62883				



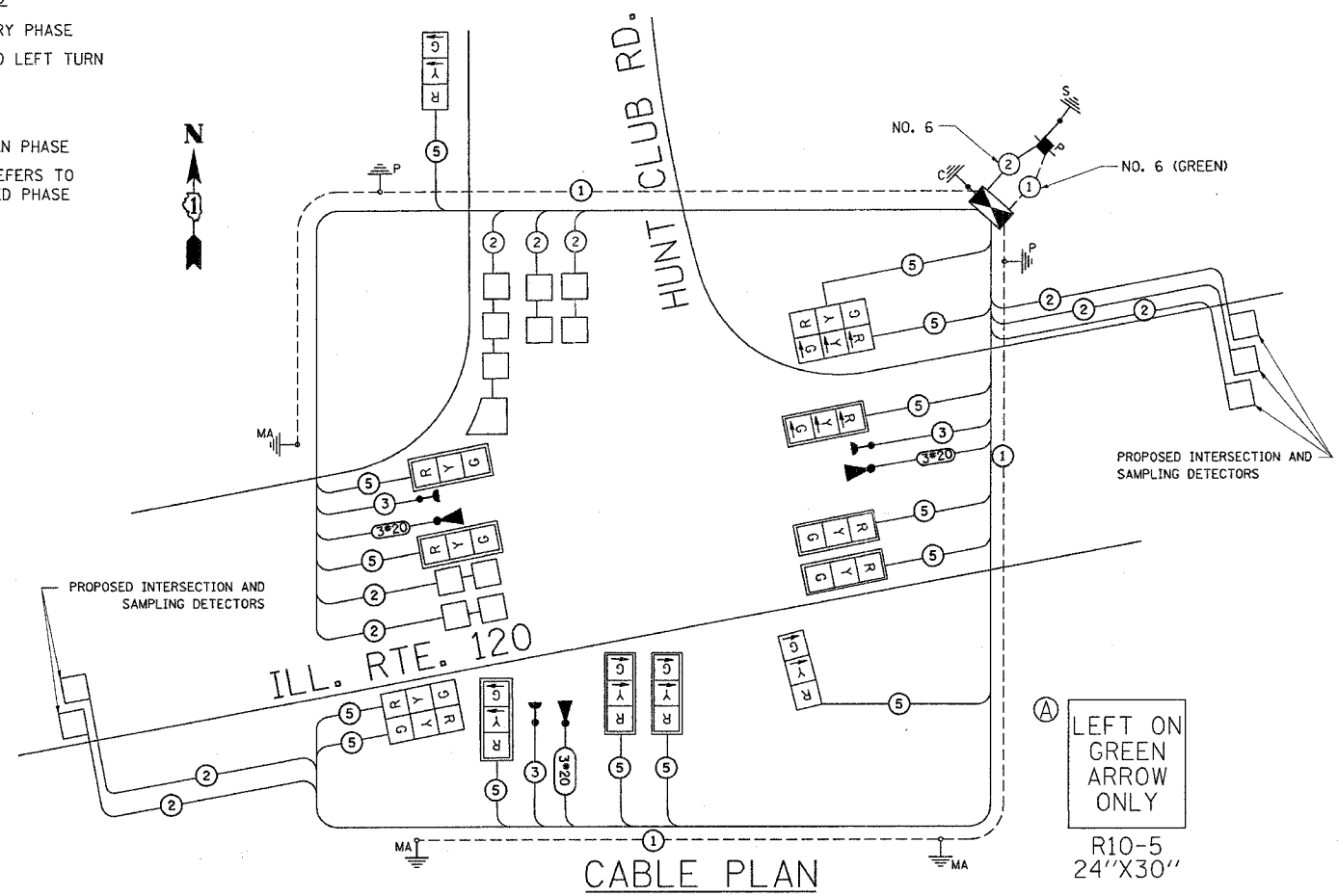
PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT			



CABLE PLAN

CABLE PLAN LEGEND

DESCRIPTION	PROPOSED	EXISTING
CONTROLLER CABINET		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE		
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED		
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)		
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD		
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE		
12" (300mm) TRAFFIC SIGNAL SECTION		
12" (300mm) PEDESTRIAN SIGNAL SECTION		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
PUSHBUTTON DETECTOR		
DETECTOR LOOP		
PREFORMED DETECTOR LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		

ITEM	UNIT	QUANTITY
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1
SIGN PANEL - TYPE 2	SQ. FT.	31.75
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	624
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	165
CONDUIT IN PUSH, 4" DIA., GALVANIZED STEEL	FOOT	280
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	65
HANDHOLE	EACH	3
HEAVY-DUTY HANDHOLE	EACH	3
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	934
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	FOOT	934
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3231
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	1275
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	10
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14FT.	FOOT	751.5
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	EACH	2
CONCRETE FOUNDATION, TYPE D	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIA.	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIA.	FOOT	30
SIGNAL HEAD, L.E.D. 2-FACE, 3 SECTION, BRACKET MNTD.	FOOT	15
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, BRACKET MNTD.	EACH	8
INDUCTIVE LOOP DETECTOR	EACH	2
DETECTOR LOOP, TYPE I	EACH	10
SERVICE INSTALLATION, POLE MOUNT	FOOT	610
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
* LIGHT DETECTOR	EACH	3
* LIGHT DETECTOR AMPLIFIER	EACH	1
* ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 3C	FOOT	800
* ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED	FOOT	800

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE (LED)	% OPERATION	
SIGNAL (RED)	14	135	17	0.50	119.00
(YELLOW)	14	135	25	0.25	87.50
(GREEN)	14	135	15	0.25	52.50
ARROW	16	135	12	0.10	19.20
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:	TOTAL =				378.20

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'± (6m±L-0.6m)±
E - M. ARM POLE		SIGNAL POST	2 (1.0)		
	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
	30" (750mm)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
	36" (900mm)	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

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES
 IL. 120 @ HUNT CLUB RD.
 SCALE: VERT. 1"=20"
 HORIZ. DATE 9/7/2006
 DRAWN BY: BCK
 DESIGNED BY: BCK
 CHECKED BY: DAD