CABLE PLAN LEGEND

PROPOSED	EXISTING	
⊠	⊠	8" (200mm) TRAFFIC SIGNAL SECTION
R	R	12" (300mm) TRAFFIC SIGNAL SECTION
W	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
DW	DW	12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
T	T	TELEPHONE SERVICE CONNECTION
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSH BUTTON DETECTOR
		VEHICLE DETECTOR, INDUCTION LOOP
⑤	⑤	DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
R Y G A W	R Y G A W	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. "F" INDICATES FLASHING SECTION.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
		ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
H/C	H/C	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
P	P	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
S	S	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
①	①	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
㉔	㉔	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F

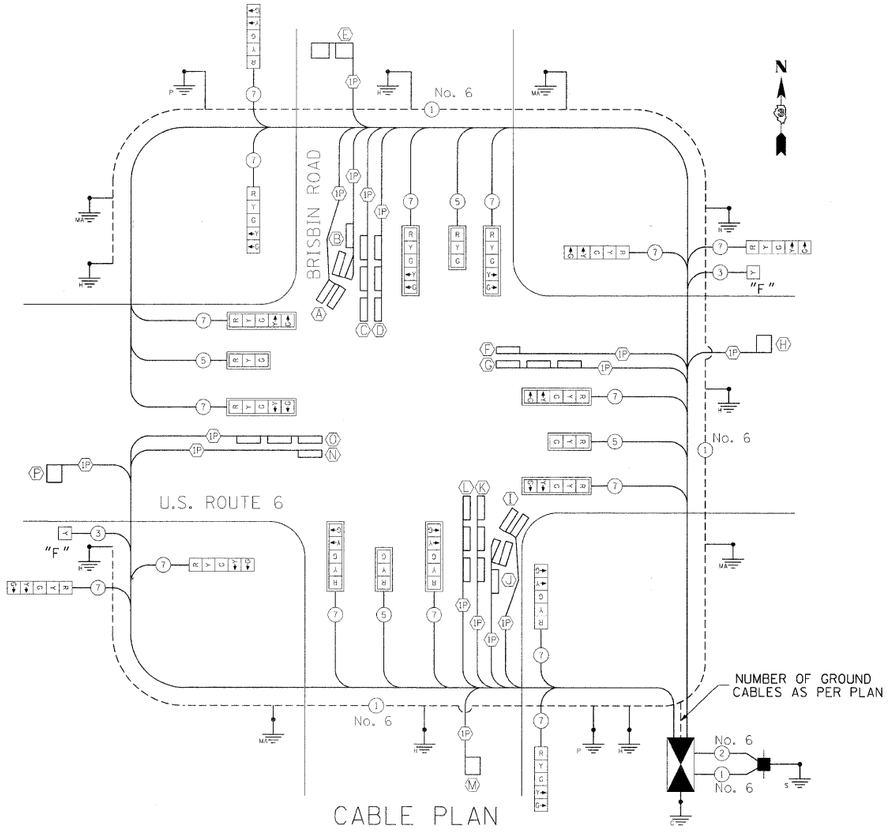
NOTE: ALL NEW GROUND RODS SHALL BE 3/4" X 10'-0" LONG COPPER CLAD. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

DETECTOR LOOP INDUCTANCE CHART

LOOP SYSTEM	LABEL	NUMBER OF TURNS	INDUCTANCE (μH)	FREQUENCY (Hz)	J PIN STATUS
A	OL B SB RT	4	520	26,765	ON
B	OL B SB RT	4	544	26,159	ON
C	Φ4 SB STBR	4	863	20,777	ON
D	Φ7 SB LT	4	868	20,713	ON
E	Φ4 SB FAR	6	686	23,303	ON
F	Φ6 WB STBR	4	286	36,078	OFF
G	Φ1 WB LT	4	804	21,522	ON
H	Φ6 WB FAR	6	400	30,506	ON
I	OL D NB RT	4	520	26,765	ON
J	OL D NB RT	4	726	22,651	ON
K	Φ8 NB STBR	4	780	21,853	ON
L	Φ3 NB LT	4	780	21,853	ON
M	Φ8 NB FAR	6	381	31,262	ON
N	Φ2 EB STBR	4	323	33,941	OFF
O	Φ5 EB LT	4	847	20,973	ON
P	Φ2 EB FAR	6	400	30,522	ON

(1) LOOPS WITH AN ENCLOSED AREA LESS THAN 60 FT² SHALL HAVE 5 TURNS.

J PIN STATUS:
"ON" MEANS STANDARD DETECTOR SETUP.
"OFF" MEANS THE J WIRE HAS BEEN DISCONNECTED, BUT INTACT AT THE HARNESS PANEL WITH THE NECESSARY SPADE CONNECTION ATTACHED, MARKED AND INSULATED.



CABLE PLAN

ELECTRICAL LOAD CHART

SIGNAL SECTION	NUMBER	WATTAGE EACH	BURN TIME %
US ROUTE 6			
RED	10	17	59
YELLOW	12	25	13
GREEN	10	15	36
YELLOW ARROW	8	12	6
GREEN ARROW	8	12	10
BRISBIN ROAD			
RED	10	17	78
YELLOW	10	25	5
GREEN	10	15	17
YELLOW ARROW	8	12	6
GREEN ARROW	8	12	10
TRAFFIC SIGNAL CABINET			
CONTROLLER	1	100	100
LOOP DETECTORS	4	40	100

THE INDUCTIVE LOOP DETECTOR SHALL BE RACK MOUNTED AND THE REVISION NUMBER SHOULD BE 34 OR HIGHER.

ALL INDICATIONS SHALL BE LED.

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE ECONOLITE.

THE GROUNDING SYSTEM SHALL INCLUDE GROUND RODS AND CONNECTION IN HANDHOLES. ALL GROUND ROD CONNECTIONS SHALL BE AN IRREVERSIBLE COMPRESSION GROUND TAP INSTALLED WITH A HYDRAULIC 12 TON PRESS TOOL OR EQUAL.

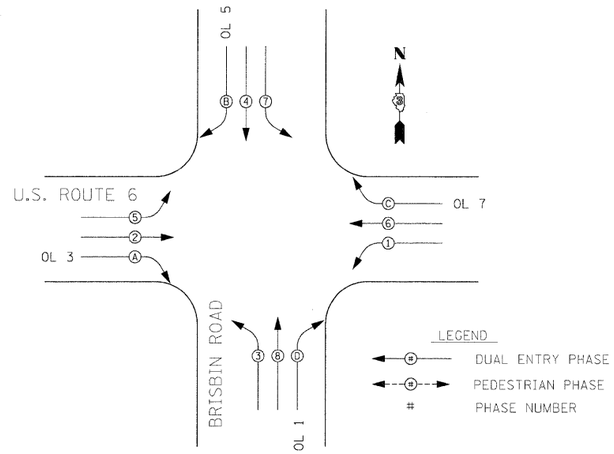
A SELF ADHERING PHASE DESIGNATION DIAGRAM SHALL BE PLACED INSIDE THE CABINET DOOR.

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATION 252 AND 250 RESPECTIVELY.

FOUNDATION (DEPTH)	FT.	(m.)	CABLE SLACK	FT.	(m.)	VERTICAL	FT.	(m.)
TYPE A - POST	4	(1.2)	HANDHOLE	10	(2.0)	ALL FOUNDATIONS	3.5	(2.0)
D - CONTROLLER	4	(1.2)	DOUBLE HANDHOLE	20	(4.0)	MAST ARM (L) POLE	20' + L-2 =	
C - CONTROLLER W/UPS	4	(1.2)	SIGNAL POST	2	(1.0)		(6m+L-0.6m) =	
			CONTROLLER CAB.	5	(0.5)	BRACKET MOUNTED	13	(4.0)
POST 24" (600mm)	10	(3.0)	FIBER OPTIC	13	(4.0)	PED. PUSHBUTTON	4	(1.2)
MAST-ARM 30" (750mm)	15	(4.6)	ELECTRIC SERVICE	2	(0.5)	ELECTRIC SERVICE	13.5	(4.1)
			GROUND CABLE	2	(0.5)	SERVICE TO GROUND	13.5	(4.1)

CONTROLLER SEQUENCE

N.T.S



PHASE DESIGNATION DIAGRAM

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
CHANGEABLE MESSAGE SIGN	CAL MO	3
SIGN PANEL - TYPE 1	SQ FT	56
SERVICE INSTALLATION, TYPE B	EACH	1
CONDUIT IN TRENCH, 2" DIA., PVC	FOOT	2395
CONDUIT IN TRENCH, 2 1/2" DIA., PVC	FOOT	30
CONDUIT IN TRENCH, 3" DIA., PVC	FOOT	154
CONDUIT IN TRENCH, 4" DIA., PVC	FOOT	52
CONDUIT PUSHED, 2" DIA., PVC	FOOT	45
CONDUIT PUSHED, 4" DIA., PVC	FOOT	437
CONDUIT ATTACHED TO STRUCTURE, 1 1/2" DIA., GALVANIZED STEEL	FOOT	28
HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	7
DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	2586
LIGHT POLE, WOOD, 35 FOOT, CLASS 3	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1308
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1322
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	4402
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	5150
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	59
TRAFFIC SIGNAL POST, 16 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 70 FT.	EACH	3
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 75 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION (SPECIAL)	FOOT	60
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 1-SECTION, POST MOUNTED	EACH	2
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	8
SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	22
INDUCTIVE LOOP DETECTOR	EACH	16
DETECTOR LOOP, TYPE I	FOOT	2639
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	860

▪ FAI 80 & FAS 297 / FAU 392

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		DRAWN - LG	REVISED -
	PLOT SCALE = $SCALE$	CHECKED - JFW	REVISED -
	PLOT DATE = 5/19/2010	DATE - 5/19/2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRISBIN RD & US-6 TRAFFIC SIGNAL PLAN

SCALE: 1"=20' | SHEET NO. 145 OF 351 SHEETS | STA. | TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
▪	(32,47-4) HBK-4 & GIN)	GRUNDY	351	145
		CONTRACT NO. 66408		
	ILLINOIS FED. AID PROJECT			