LOCATION		ADT	%	TRUCKS
US 51 N OF OLD US ILL AVE E OF UUS 51 S OF OLD U	S 51 · · · · · · · · · · · · · · · · · ·	8900 1850 6200 3300		3% 0% 4% 0%

TRAFFIC SIGNAL AND LIGHTING.

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

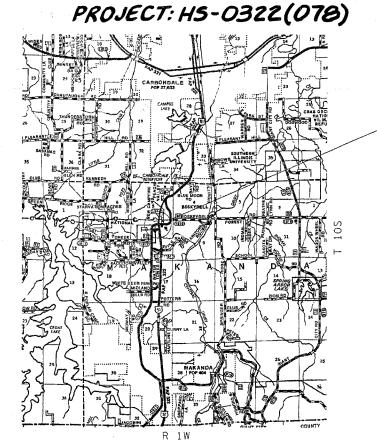
MAKANDA TOWNSHIPS

CONTRACT NO. 98968

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS**

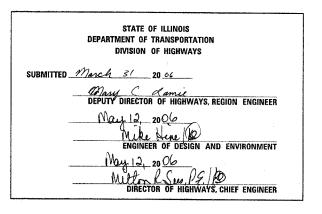
PROPOSED HIGHWAY PLANS

TRAFFIC SIGNALS FAP 322 (US 51) & FAS 1911 (SOUTH ILLINOIS AVENUE/OLD US 51) SECTION 10 TS JACKSON CO. C-99-032-06



FAS 322 (US 51) & FAS 1911 (SOUTH ILLINOIS AVE/OLD US 51)





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ROUTE: FAP (US 51) & FAS 1911 (SOUTH ILLINOIS AVE/OLD US 51) SECTION: 10 TS COUNTY: JACKSON

F.A.P.	SECTION	1 0	OUNTY	TOTAL SHEETS	SHEET NO.
322	10 TS		JACKSON	8	2
STA.		TO	STA.		
FED. ROA	D DIST. NO.	ILLINOIS	FED. AID	PROJECT	

GENERAL NOTES

THE FURNISHING AND INSTALLATION OF THE 1 1/2" CONDUIT WITH ITS TRENCHING AND BACKFILL FROM THE LOOP SAWCUT TO THE SPLICE POINT SHALL BE INCLUDED IN THE LOOP INSTALLATION UNLESS SHOWN OTHERWISE ON THE PLANS.

THE INDUCTION LOOP WIRE AND LEAD-IN WIRE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

SHIELDED CABLE TO LOOP LEADS SHALL BE GROUNDED AT THE CONTROLLER TERMINAL ONLY.

ALL DETECTOR LOOP CORNERS SHALL BE CORE DRILLED 2 IN. MINIMUM DIAMETER, EXCEPT THOSE PLACED UNDER RESURFACING. THE DETECTOR LOOP CORNERS PLACED UNDER RESURFACING SHALL BE DIAGONALLY SAW CUT.

WHILE SIGNAL HEADS ARE MOUNTED IN PLACE, BUT NOT YET IN OPERATION, THEY SHALL BE SECURELY COVERED IN WHITE PLASTIC.

SAWED SLOTS FOR TWISTED PAIR ELECTRIC CABLES SHALL BE LARGER THAN SINGLE CONDUCTOR LOOP SLOTS.

THE TRAFFIC OPERATIONS ENGINEER SHALL BE NOTIFIED PRIOR TO CONSTRUCTION OF MAST ARM AND CONTROLLER FOUNDATIONS, HANDHOLES, AND GULFBOX JUNCTIONS AND SHALL APPROVE THE LOCATIONS OF EACH AND MAY ADJUST TO FIT FIELD CONDITIONS IF NECESSARY.

ALL PROPOSED MAST ARMS SHALL BE LOCATED NO CLOSER THAN 6 FT. FROM FACE OF CURB TO CENTER OF POLE.

THE LOCATION OF THE DETECTOR LOOPS MAY BE ADJUSTED TO FIT FIELD CALCULATIONS AS DIRECTED BY THE ENGINEER OF OPERATIONS.

THE EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION WILL BE REMOVED OR RELOCATED AS DIRECTED BY THE ENGINEER ACCORDING TO ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS. AFTER THE CONSTRUCTION IS COMPLETED, THE CONTRACTOR WILL RE-ERECT THE SIGNS AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO COMPENSATION WILL BE ALLOWED.

UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION AND THEIR ACTUAL LOCATIONS ARE NOT GUARANTEED TO BE AS SHOWN IN THE PLANS.

EXISTING SURFACE DISTURBED DURING EXCAVATION FOR TRENCHING SHALL RESTORED TO ITS ORIGINAL CONDITION. NO ADDITIONAL COMPENSATION WILL BE MADE FOR THIS WORK. ALL MATERIALS, EQUIPMENT AND LABOR NECESSARY FOR CLASS 1B SEEDING SHALL BE CONSIDERED INCIDENTAL TOTHE TRENCHING REQUIRED TO PLACE THE SIGNAL CABLE.

PRIOR TO PLACMENT OF THE FINAL PAVEMENT MARKINGS THE RESIDENT ENGINEER SHOULD CONTACT THE BUREAU OF OPERATIONS AND ARRANGE FOR INSPECTION AND APPROVAL OF THE PAVEMENT MARKING LAYOUT.

THE CONTRACTOR WILL BE REQUIRED TO LOCATE THE FIBER OPTIC CABLE LOCATED ACROSS THE NORTH LEG OF US 51, PRIOR TO PLACEMENT OF CONDUIT IN TRENCH AT THIS LOCATION. THIS WORK SHALL BE DONE IN ACCORDANCE WITH APPLICABLE J.U.L.I.E. LAWS,

HARDWARE FOR A PREEMPT PHASE, FOR USE BY THE MAKANDA FIRE DEPARTMENT, WILL BE INSTALLED IN THE PROPOSED CONTROLLER. THE COST OF THE HARDWARE AND 1 1/2" PVC CONDUIT EXTENDING FROM THE CONTROLLER FOUNDATION WILL BE THE RESPONSIBILITY OF IDOT. ALL OTHER COSTS ASSOCIATED WITH INSTALLATION OF THE PREEMPT SWITCH SHALL BE THE RESPONSIBILITY OF THE FIRE DEPARTMENT. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE FIRE DEPARTMENT, JOHN HERTER (618) 528-3433.

COMMITMENTS: NONE.

INDEX OF SHEETS

BA.	CONTROL INSTALLATION - SERVICE POLE MOUNTED
8	DETAILS: PHASE DIAGRAM
	CONTROL INSTALLATION, SIGN PANELS
7	DETAILS: LOOP LAYOUT, SERVICE INSTALLATION,
6	TRAFFIC SIGNAL CABLE & WIRING DIAGRAM
5	PROPOSED TRAFFIC SIGNAL AND LIGHTING PLAN
4	PAVEMENT MARKING
3	SUMMARY OF QUANTITIES
2	GENERAL NOTES, INDEX OF SHEETS, STANDARDS
1	COVER SHEET
SHT NO	DESCRIPTION

STANDARDS

Prepared By:

DISTRICT SOCIES & PLANS ENGINEE

Examined By:

DISTRICT SOCIES & PLANS ENGINEE

Examined By:

DISTRICT LAND ACQUISITION ENGINEE

Examined By:

DISTRICT PROCED BY:

DISTRICT PROCED BY:

Examined By:

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GENERAL NOTES, INDEX OF SHEETS AND STANDARDS

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SUMMARY OF QUANTITIES

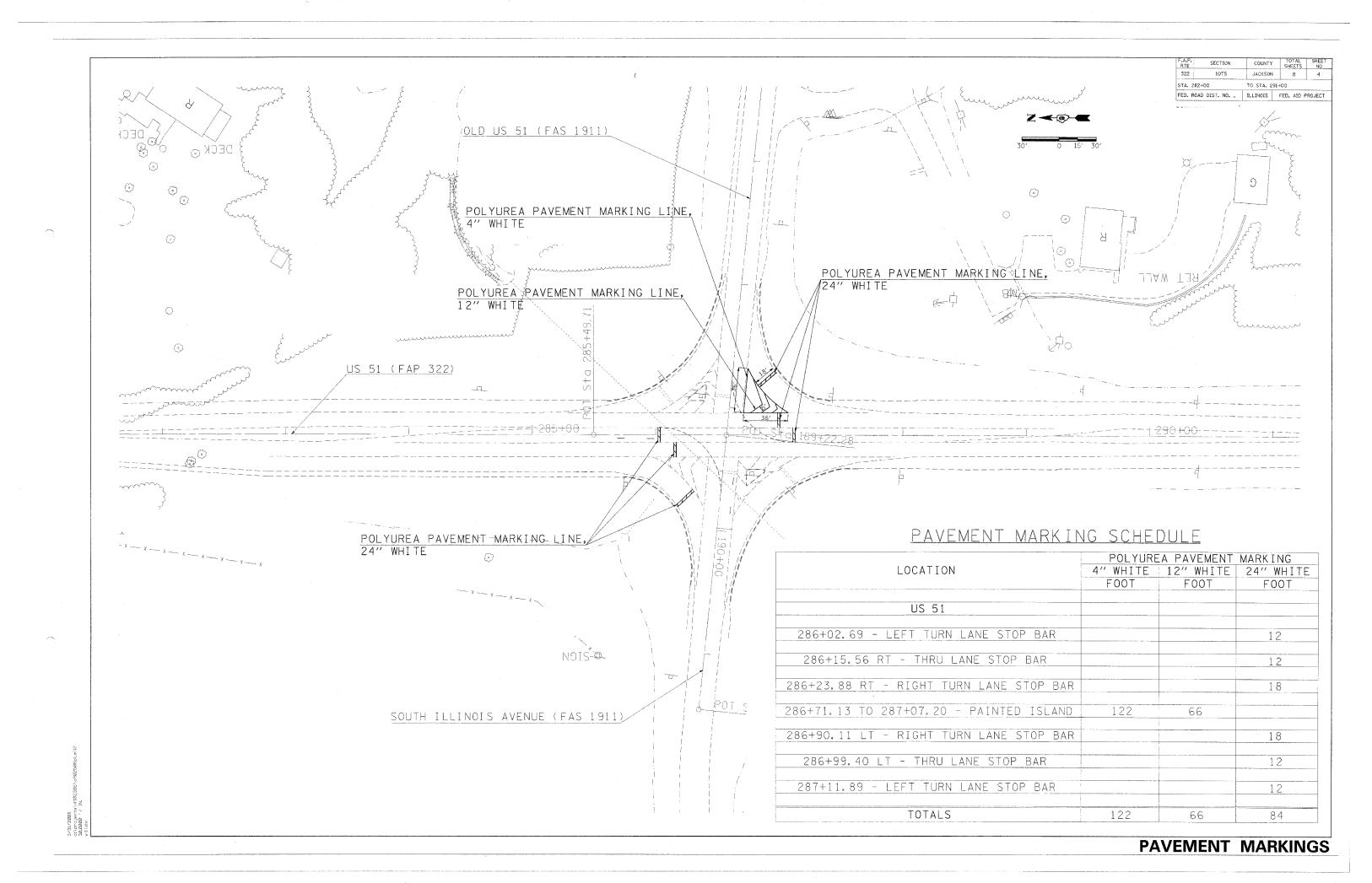
 F.A.P. RTE.	SECTION	C	OUNT	Y	TOTAL	SHEET NO.
322	10 TS		JACKS	ON	8	3
STA.		TO	STA.	;		
FED. ROAD	DIST. NO.	ILLINOIS	FED.	AID	PROJECT	

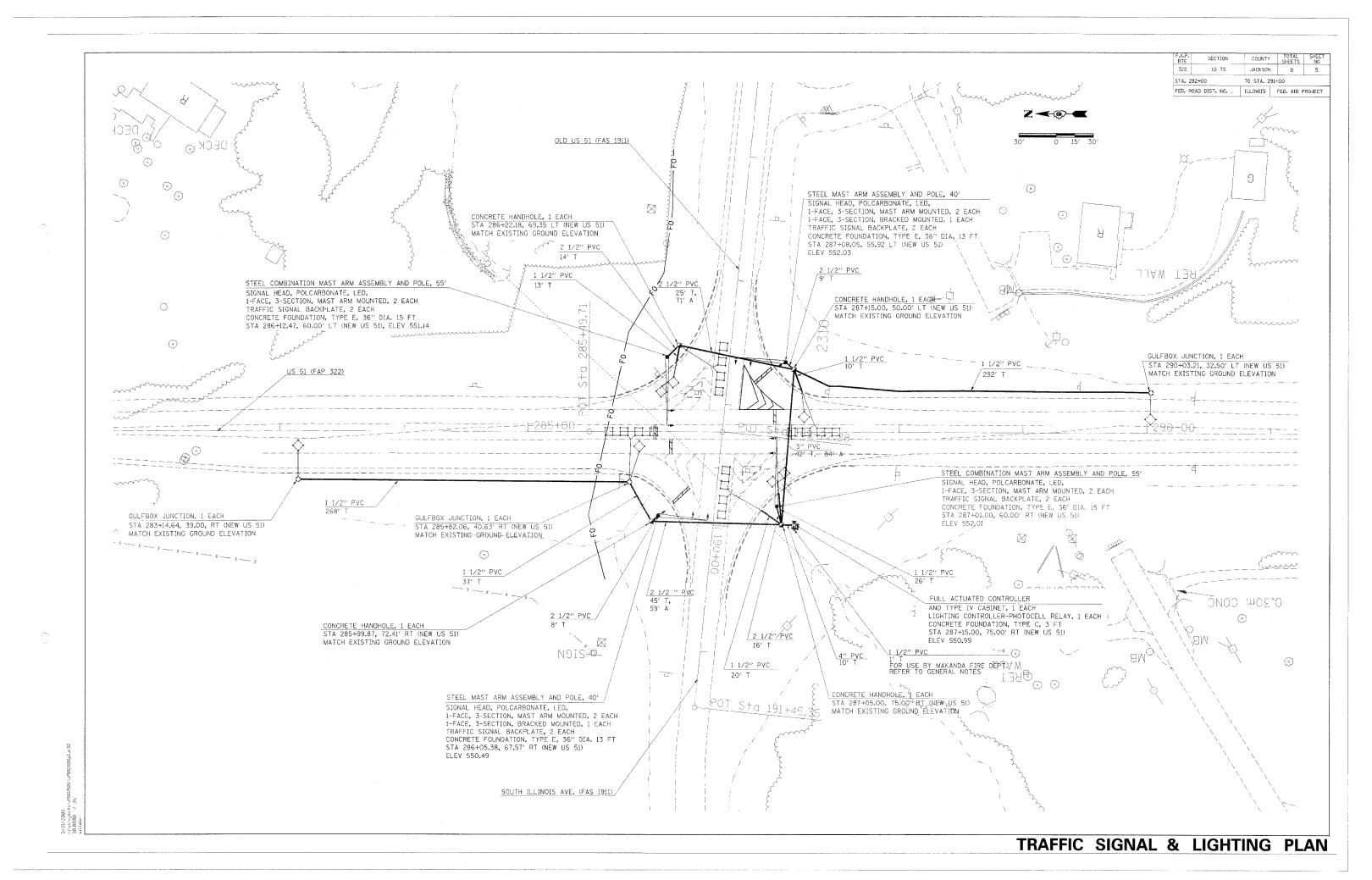
	CONSTRUCTION TYPE COE		TION TYPE CODE	Y031-1F ROADWAY	Y031-1F TRAFFIC SIGNALS	Y030-1F LIGHTING
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	90% FED 10% STATE	90% FED 10% STATE	90% FED 10% STATE
X0300737	RADIO TRANSCEIVER	EACH	1		1	
X8801300	SIGNAL HEAD, POLYCARBONATE, LED, 1 - FACE, 3-SECTION, BRACKET MOUNTED	EACH .	2		2	
X8801310	SIGNAL HEAD, POLYCARBONATE, LED, 1 - FACE, 3-SECTION, MAST ARM MOUNTED	EACH	8		8	
81702450	ELECTRIC CABLE IN CONDUIT, GOOV (XLP-TYNEUSE) 3 1/C #10	FOOT	451			451
67100100	MOBILIZATION	L SUM	1	1		101
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1		
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1		
72000100	SIGN PANEL - TYPE 1	SQ FT	15.0			
72000200	SIGN PANEL - TYPE 2	SQ FT	30.0			
7800 83 10	POLYUREA PAVEMENT MARKING - LINE 4"	FOOT	122	122		
78008 3 50	POLYUREA PAVEMENT MARKING - LINE 12"	FOOT	66	66		
78008 37 0	POLYUREA PAVEMENT MARKNG - LINE 24"	FOOT	84	84		
80500105	SERVICE INSTALLATION, TYPE A (MODIFIED)	EACH	1		1	
81012500	CONDUIT IN TRENCH, 1 1/2" DIA., PVC	FOOT	667		667	
81012700	CONDUIT IN TRENCH, 2 1/2" DIA., PVC	FOOT	117		117	
81012800	CONDUIT IN TRENCH, 3" DIA., PVC	FOOT	42		42	
81013000	CONDUIT IN TRENCH, 4" DIA., PVC	FOOT	10		10	
81021560	CONDUIT, AUGERED 2 1/2" DIA., PVC	FOOT	130		130	
81021570	CONDUIT, AUGERED 3" DIA., PVC	FOOT	84		84	
81400100	HANDHOLE	EACH	4		4	
81500200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	836		836	
82103900	LUMINAIRE, SODIUM VAPOR, MULTI-MOUNT, 250 WATT	EACH	4		0.00	
82500605	LIGHTING CONTROLLER - PHOTOCELL RELAY	EACH	1			4
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH				1
86200200	UNINTERUPTIBLE POWER SUPPLY, STANDARD		1		1	
86600010	GULFBOX JUNCTION	EACH	1		1	
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	EACH	3		3	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1392		1392	
87700240	STEEL MAST ARM ASSEMBLY AND POLE 40 FT.	FOOT	2502		2502	
87703000	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 55 FT.	EACH	2		2	
		EACH	2		2	
878001 50	CONCRETE FOUNDATION, TYPE C	FOOT	3		3	
87800415	CONCRETE FOUNDATION, TYPE E, 36-INCH DIAMETER	FOOT	56		56	
88200100	TRAFFIC SIGNAL BACKPLATE	EACH	8	V96/A-A-	8	
88500100	INDUCTIVE LOOP DETECTOR	EACH	8		8	
88500200	INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT ,	EACH	2		2	- Valdo salat.
88600100	DETECTOR LOOP, TYPE I	FOOT	950		950	

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* SPECIALTY ITEMS

2ev

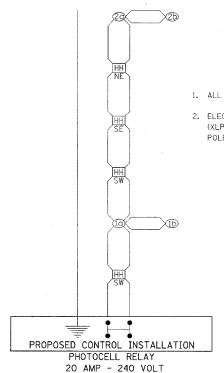




NOTE: ALL CABLES SHALL BE A.W.G. #14 UNLESS OTHERWISE NOTED.

F.A.S. RTE	SECTION	COUNTY	TOTAL	SHEET
1911	10TS	JACKSON	8	6
STA.		TO STA.		
CED DE 1	D DIOT NO			

WIRING DIAGRAM FOR ROADWAY LIGHTING



NOTES

- 1. ALL LUMINAIRES ARE 250 WATTS.
- 2. ELECTRIC CABLE IN CONDUIT, 600 V (XLP-TYPE USE) 3/C NO 10 IS USED IN POLES OR LUMINAIRES.

LEGEND

HH INDICATES PROPOSED TRAFFIC SIGNAL HANDHOLE

NOTE: THE SIGNAL CONDUIT SYSTEM SHALL BE UTILIZED TO INSTALL WIRING FOR ALL THE PROPOSED LIGHTING SYSTEM, EXCEPT AS DENOTED ON THE PLANS.

HANDHOLE DESIGNTIONS:

NORTHEAST CORNER SOUTHWEST CORNER SE SOUTHEAST CORNER

- NUMBER INDICATES POSITION OF POLE IN (WIRING DIAGRAM. LETTER INDICATES LUMINAIRE ON POLE.
- INDICATES PROPOSED GROUND AT LIGHT STANDARD.
- INDICATES CONTINUOUS GROUND FOR CONTROL INSTALLATION.

2. ELECTRIC CABLE DENOTED AS #10, 3/C BEING INSTALLED TO THE COMBINATION MAST ARM POLES SHALL NOT GO THROUGH THE TERMINAL BLOCK BUT SHOULD BE SPLICED IN POLE. SEE LIGHT POLE FOUNDATION DETAIL.

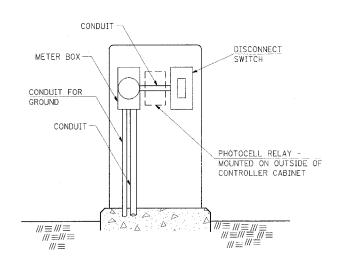
3. ELECTRIC SERVICE IS SUPPLIED BY AMEREN CIPS.

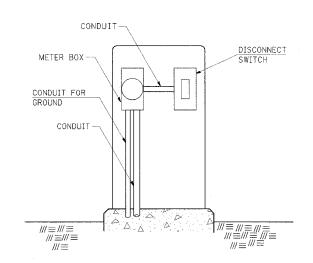
LIGHTING CONTROLLER WITH PHOTOCELL RELAY

S INDICATES 5' x 5' ADVANCE LOOP WITH 2" CORE DRILLLED CORNERS: NUMBER INDICATES PHASE, LOWER CASE LETTER INDICATES AMPLIFIER, "S" INDICATES SYSTEM LOOP.

TRAFFIC SIGNAL CABLE DIAGRAM & WIRING DIAGRAM FOR ROADWAY LIGHTING

SERVICE INSTALLATION DETAILS





SERVICE INSTALLATION (SPECIAL)
WITH PHOTOCELL RELAY

SERVICE INSTALLATION (SPECIAL)

IOTE:

MATERIAL AND SIZE OF CONDUIT AND CABLE AS REQUIRED BY UTILITY COMPANY

REVISIONS DRAWN 1-31REVISED 2-24REVISED REVISED

DETAIL OF DETECTOR LOOPS

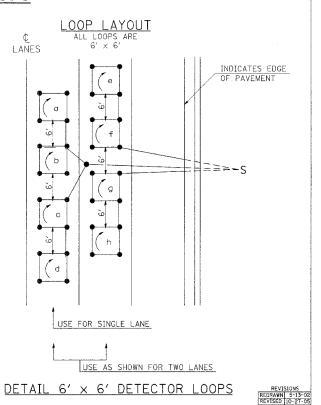
NOTES

(APPLIES TO 6' x 6' LOOPS ONLY)

- 1. THE DETECTOR LOOPS SHALL BE TYPE I. EACH DETECTOR LOOP SHALL HAVE 3 TURNS OF LOOP WIRE AND BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 886 OF THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS.
- 2. BEGINNING LEAD WIRES SHALL BE CONNECTED TO THE BLACK LEAD AND THE ENDING LEAD WIRES SHALL BE CONNECTED TO THE WHITE LEAD OF THE TWIN TWISTED FEED CABLES AT THE SPLICE POINT.
- 3. WHERE THE LOOPS ARE INSTALLED PRIOR TO RESURFACING, THE LOOP CORNERS SHALL BE DIAGONALLY CUT.

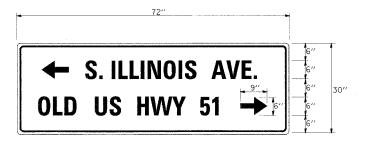
LOOP LEGEND

- CLOCKWISE ROTATION FOR LOOP WIRES
- S INDICATES SPLICE POINT FOR DETECTOR LOOP LEAD
- INDICATES 2" CORE-DRILL



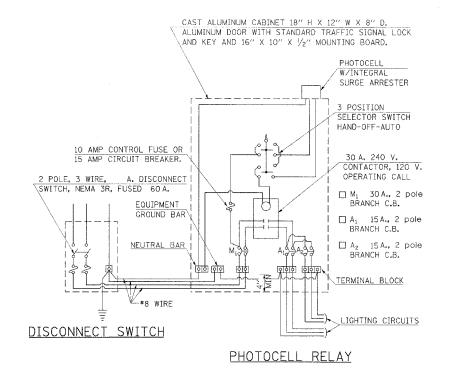
SIGN PANELS

TYPE 1 & 2

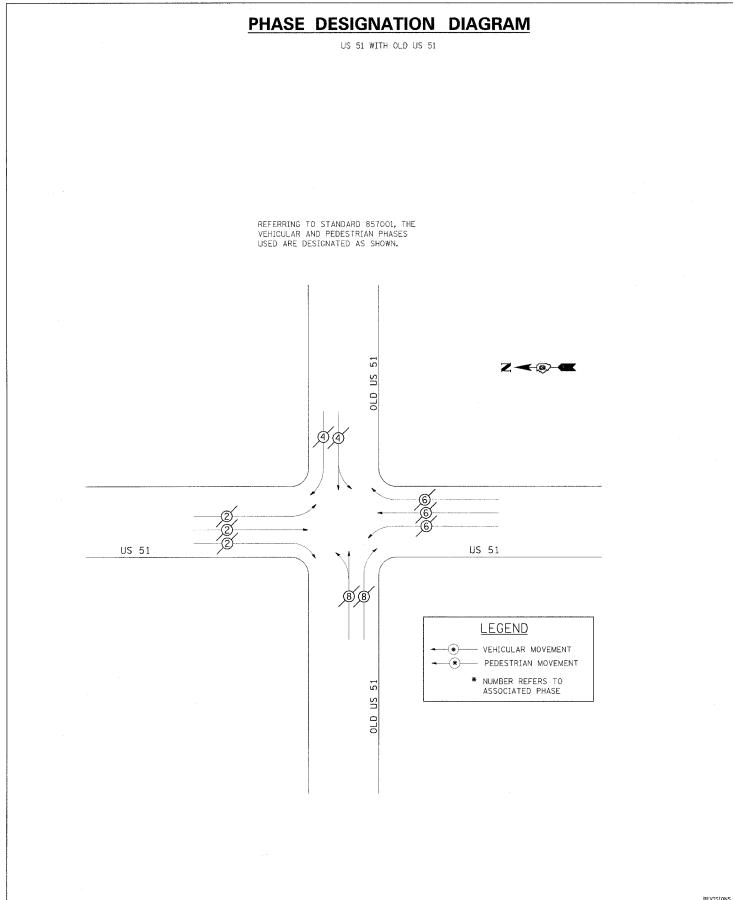


 US ROUTE 51

CONTROL INSTALLATION SIGNAL CABINET MOUNTED



DETAILS: SERVICE INSTALLATION, DETECTOR LOOPS,
CONTROL INSTALLATION SIGNAL CABINET MOUNTED, SIGN PANELS



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