

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

FAP ROUTE 623 (US 6)  
SECTION 32 (NRM) TS-2

**TRAFFIC SIGNAL IMPROVEMENTS  
LASALLE COUNTY**

C-93-077-15

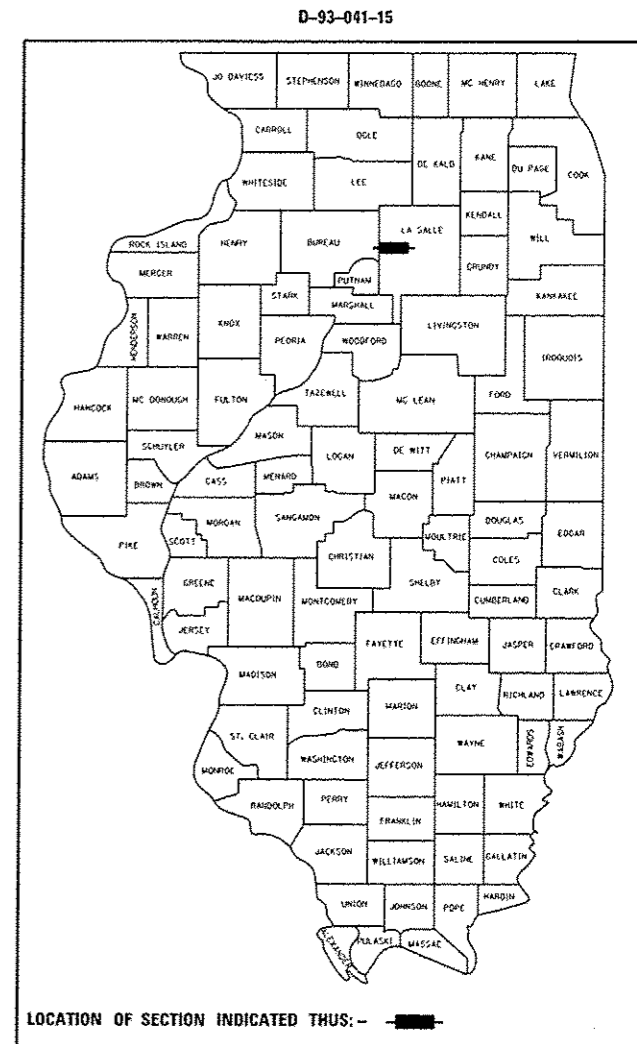
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	32 (NRM) TS-2	LASALLE	7	1
		ILLINOIS	CONTRACT NO. 66E63	

INDEX OF SHEETS

- 1 COVER SHEET
- 2 GENERAL NOTES
- 3-4 SUMMARY OF QUANTITIES
- 5 TRAFFIC SIGNAL PLAN
- 6 TRAFFIC SIGNAL CABLE PLAN
- 7 TRAFFIC SIGNAL DETAILS

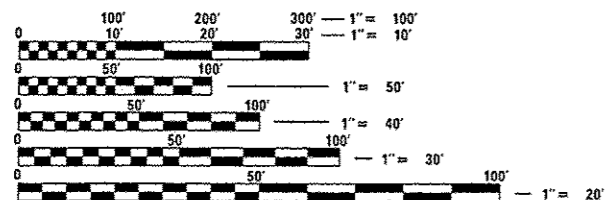
STANDARDS

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001006 DECIMAL OF AN INCH AND OF A FOOT
- 701001-02 OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' (4.5 m) AWAY
- 701006-05 OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701701-09 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701801-05 SIDEWALK, CORNER OR CROSSWALK CLOSURE
- 701901-04 TRAFFIC CONTROL DEVICES
- 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 873001-02 TRAFFIC SIGNAL GROUNDING & BONDING
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS
- 886001-01 DETECTOR LOOP INSTALLATIONS
- 886006-01 TYPICAL LAYOUT FOR DETECTION LOOPS



**US 6 - URBAN PRINCIPAL ARTERIAL**  
2013 ADT=7,900, P.V.=93.0% S.U.=2.9% M.U.=4.1%

**BUCKLIN ST - URBAN MAJOR COLLECTOR**  
2011 ADT=3,000, P.V.=88.3% S.U.=2.1% M.U.=9.6%



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.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811



GROSS LENGTH = POINT LOCATION

PROJECT ENGINEER: SCOTT FERGUSON, P.E.  
UNIT CHIEF: MARC BUDZYNSKI  
DISTRICT 3 NO. (815) 434-6131  
CONTRACT NO. 66E63

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED *March 27 2015*  
*Paul Coste P.E.*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

*May 8 2015*  
*John D. Baranzelli P.E.*  
ENGINEER OF DESIGN AND ENVIRONMENT

*May 8 2015*  
*Omair Osman P.E.*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

GENERAL NOTES

COMMITMENTS:

THE TRAFFIC SIGNAL SECTION AT THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DISTRICT 3, SHALL BE NOTIFIED AT 815-434-8506 AT LEAST 72 HOURS PRIOR TO TURNING ON ANY FLASHER OR CONTROLLER UNITS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123.

ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 701 OF THE STANDARD SPECIFICATIONS.

ALL TRAFFIC SIGNAL HEADS SHALL BE 12-INCH POLYCARBONATE.

A 1/4" DIAMETER CONTINUOUS RODENT RESISTANT NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES AND FOUNDATIONS OR CONTROLLER. THIS COST SHALL BE INCLUDED WITH THE COST OF CONDUIT PAY ITEM.

THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE TO BE PRESENT AT THE INTERSECTION WHEN THE SIGNAL IS TURNED ON. COST TO BE INCLUDED WITH THE TRAFFIC SIGNAL CONTROLLER PAY ITEM.

ALL CONDUIT IN TRENCH SHALL BE P.V.C. ALL PUSHED CONDUIT MAY BE P.V.C. OR GALVANIZED STEEL. CONDUIT ATTACHED TO STRUCTURES SHALL BE GALVANIZED STEEL.

NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT A GREATER THAN 2' MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.

THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE SOLID, SOFT COPPER.

ALL THREADS OF BOLTS USED IN THE ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH A NON-LEAD BASED ANTI-SEIZE COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY.

ALL HARDWARE SHALL BE TIGHTENED AND WELL SECURED, CABLES SHALL BE NEATLY WOUND IN HANDHOLES. CABLES SHALL BE NEATLY TRAINED IN THE CONTROLLER CABINET.

ALL TRAFFIC SIGNAL WIRING SHALL EXTEND FROM CONTROLLER TO SIGNAL. SPLICES IN JUNCTION BOXES WILL NOT BE ALLOWED.

THE CONTRACTOR SHALL PROVIDE A SELF-ADHERED PHASE DIAGRAM ON THE INSIDE OF THE CONTROLLER CABINET DOOR.

BACKPLATES SHALL BE POLYCARBONATE, LOUVERED FORMED BACKPLATES.

ALL VEHICLE AND PEDESTRIAN SIGNAL HEADS SHALL HAVE POLYCARBONATE BLACK HOUSING AND BLACK BRACKETS.

ALL GROUNDING MATERIALS FOR CONCRETE FOUNDATIONS SHALL REFER TO SECTION 807 OF THE STANDARD SPECIFICATIONS.

ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED WITH SEED OR SOD TO THE SATISFACTION OF THE ENGINEER. SEEDING OR SODDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION.

THE SURGE PROTECTOR IN THE CONTROLLER CABINET SHALL HAVE AN INDICATOR LIGHT.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DISTRICT THREE

PREPARED BY: Don Braniff  
DISTRICT STUDIES & PLANS ENGINEER

DATE: March 27, 2015

EXAMINED BY: Herb Jung P.E.  
DISTRICT CONSTRUCTION ENGINEER

Wayne Phillips P.E.  
DISTRICT MATERIALS ENGINEER

James A. Weeber  
DISTRICT OPERATIONS ENGINEER

FILE NAME =	USER NAME = budzynskim	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL NOTES</b>					F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT SCALE = 1/8"=1'-0"	CHECKED -	REVISED -							CONTRACT NO. 66E63				
	PLOT DATE = 3/27/2015	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			

CONSTR. CODE

100% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS
				0021 URBAN
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SO FT	115	115
44000600	SIDEWALK REMOVAL	SO FT	115	115
67100100	MOBILIZATION	L SUM	1	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5	5
* 72000100	SIGN PANEL - TYPE 1	SQ FT	22	22
* 72000200	SIGN PANEL - TYPE 2	SQ FT	20	20
81028340	UNDERGROUND CONDUIT, PVC, 1 1/2" DIA.	FOOT	72	72
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	680	680
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	230	230
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	340	340
87900200	DRILL EXISTING HANDHOLE	EACH	8	8

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\*Specialty Items

FILE NAME *	USER NAME * budzynski	DESIGNED -	REVISD -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT SCALE * 1/8" = 1'	CHECKED -	REVISD -				CONTRACT NO. 66E63					
PLOT DATE * 3/27/2015	DATE -	REVISD -				ILLINOIS FED. AID PROJECT					

SCALE: SHEET OF SHEETS STA. TO STA.

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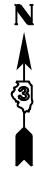
CONSTR. CODE

100% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS
				0021 URBAN
88040150	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2	2
88040160	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2	2
88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	4	4
88500100	INDUCTIVE LOOP DETECTOR	EACH	5	5
88600100	DETECTOR LOOP, TYPE I	FOOT	1910	1910
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	680	680
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1
X8950114	MODIFY EXISTING CONTROLLER AND CABINET	EACH	1	1

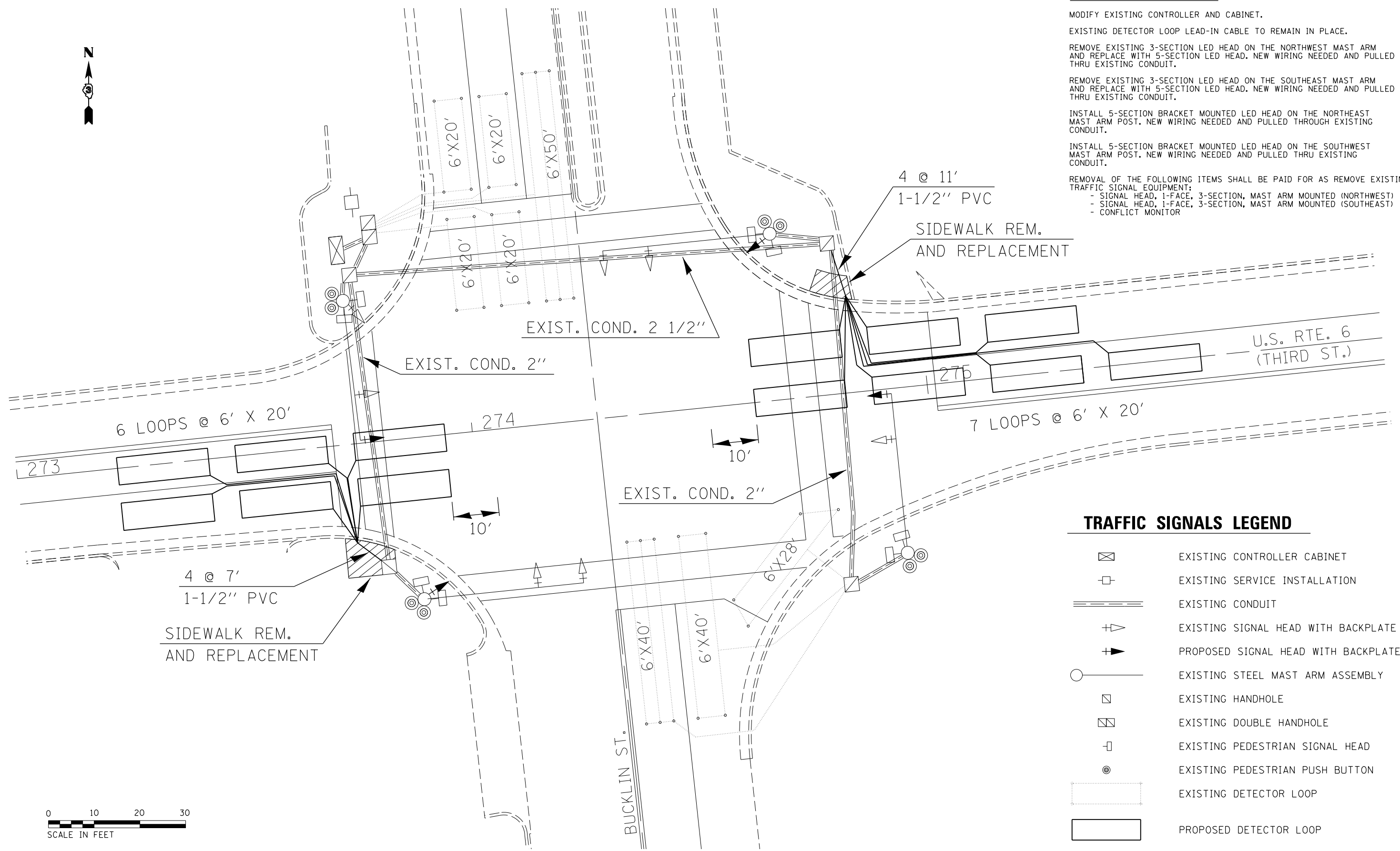
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FILE NAME *	USER NAME * budzynskim	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>	F.A.P. RITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT DATE * 3/27/2015	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					



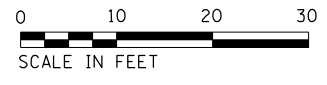
**CONSTRUCTION NOTES:**

- MODIFY EXISTING CONTROLLER AND CABINET.
- EXISTING DETECTOR LOOP LEAD-IN CABLE TO REMAIN IN PLACE.
- REMOVE EXISTING 3-SECTION LED HEAD ON THE NORTHWEST MAST ARM AND REPLACE WITH 5-SECTION LED HEAD. NEW WIRING NEEDED AND PULLED THRU EXISTING CONDUIT.
- REMOVE EXISTING 3-SECTION LED HEAD ON THE SOUTHEAST MAST ARM AND REPLACE WITH 5-SECTION LED HEAD. NEW WIRING NEEDED AND PULLED THRU EXISTING CONDUIT.
- INSTALL 5-SECTION BRACKET MOUNTED LED HEAD ON THE NORTHEAST MAST ARM POST. NEW WIRING NEEDED AND PULLED THROUGH EXISTING CONDUIT.
- INSTALL 5-SECTION BRACKET MOUNTED LED HEAD ON THE SOUTHWEST MAST ARM POST. NEW WIRING NEEDED AND PULLED THRU EXISTING CONDUIT.
- REMOVAL OF THE FOLLOWING ITEMS SHALL BE PAID FOR AS REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT:
  - SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED (NORTHWEST)
  - SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED (SOUTHEAST)
  - CONFLICT MONITOR



**TRAFFIC SIGNALS LEGEND**

- EXISTING CONTROLLER CABINET
- EXISTING SERVICE INSTALLATION
- EXISTING CONDUIT
- EXISTING SIGNAL HEAD WITH BACKPLATE
- PROPOSED SIGNAL HEAD WITH BACKPLATE
- EXISTING STEEL MAST ARM ASSEMBLY
- EXISTING HANDHOLE
- EXISTING DOUBLE HANDHOLE
- EXISTING PEDESTRIAN SIGNAL HEAD
- EXISTING PEDESTRIAN PUSH BUTTON
- EXISTING DETECTOR LOOP
- PROPOSED DETECTOR LOOP



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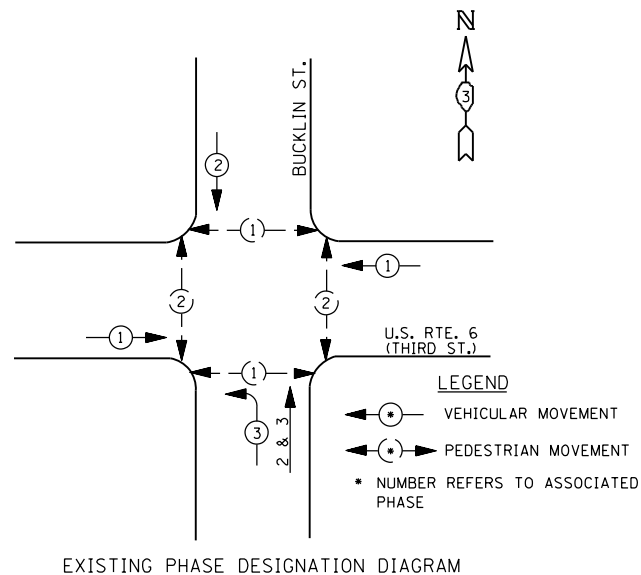
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL PLAN**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	32 (NRM) TS-2	LASALLE	7	5
CONTRACT NO. 66E63				
ILLINOIS FED. AID PROJECT				

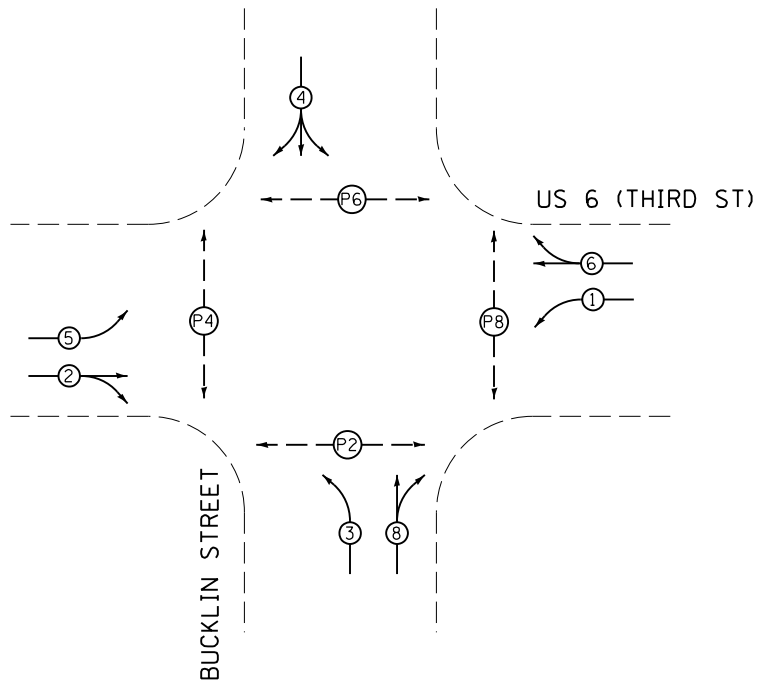
NAME OF INTERSECTION: U.S. ROUTE 6 (THIRD ST.) & BUCKLIN ST.  
 CONTROLLER SPECIFIED: FULL-ACTUATED CONTROLLER, SPECIAL  
 SEQUENCE, 8 PHASE, IN TYPE IV CABINET



EXISTING PHASE DESIGNATION DIAGRAM

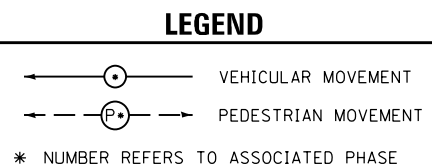
**PROPOSED CONTROLLER SEQUENCE**

NAME OF INTERSECTION: US 6 AND BUCKLIN STREET  
 CONTROLLER SPECIFIED: FULL-ACTUATED CONTROLLER, STANDARD  
 SEQUENCE II, 8 PHASE, IN TYPE IV CABINET  
 REFERRING TO STANDARD 857001, THE VEHICULAR AND PEDESTRIAN  
 PHASES USED ARE DESIGNATED.



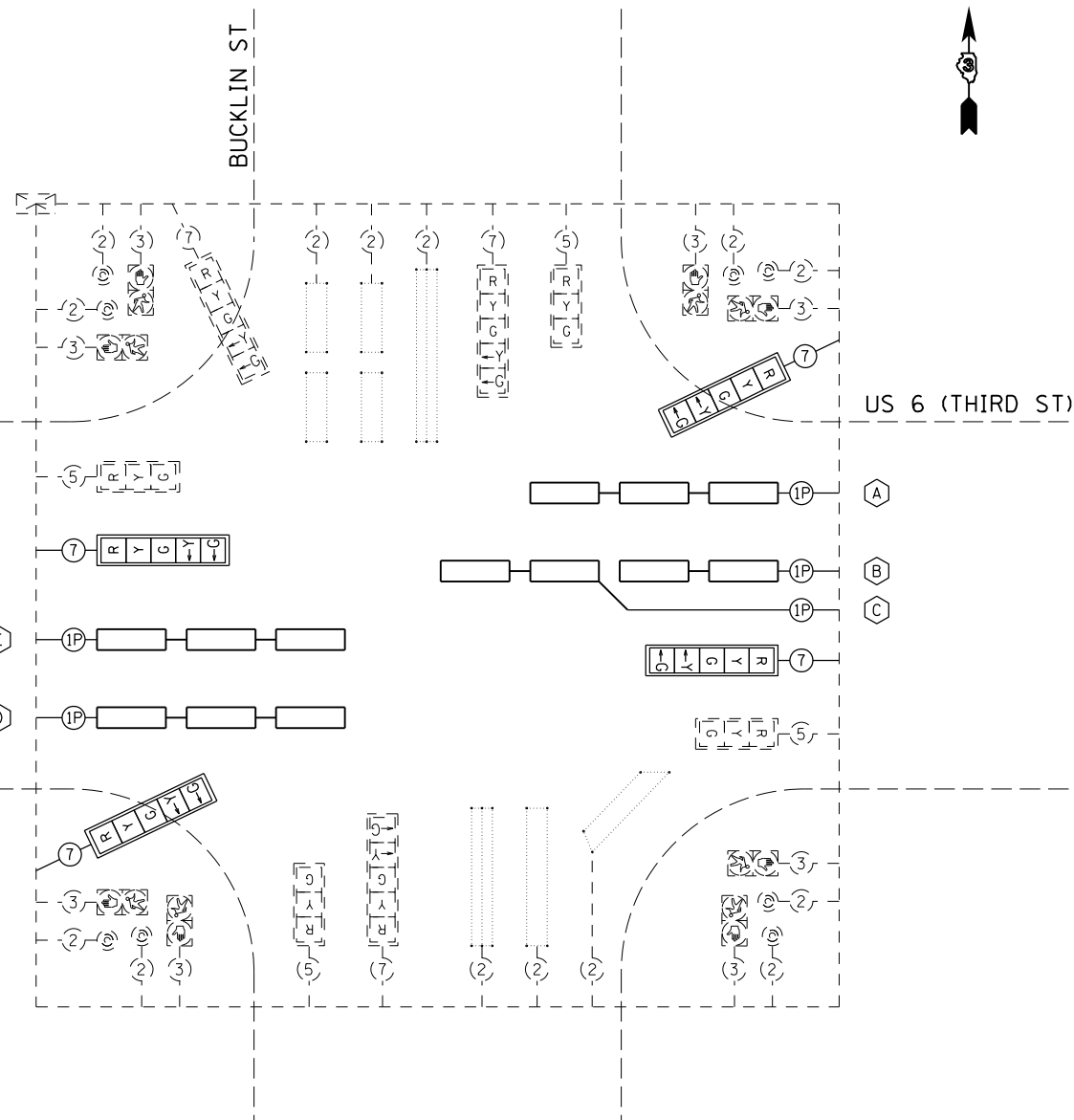
**PROPOSED PLAN**

NOT TO SCALE



**TRAFFIC SIGNALS LEGEND**

⊙ (with number)	DENOTES NUMBER OF EXISTING CONDUCTORS
⊙ (with number)	DENOTES NUMBER OF PROPOSED CONDUCTORS
⊠	EXISTING CONTROLLER AND CABINET
□	EXISTING SIGNAL SECTION 12"
□	SIGNAL SECTION 12"
⊠	LEFT TURN GREEN
⊠	LEFT TURN YELLOW
⊙	EXISTING PEDESTRIAN PUSH BUTTON
⊠	EXISTING WALK/DON'T WALK SIGNAL
⊠	EXISTING TRAFFIC SIGNAL BACKPLATE
⊠	PROPOSED TRAFFIC SIGNAL BACKPLATE



**PROPOSED CABLE PLAN**  
 NOT TO SCALE

**INDUCTANCE CHART FOR LOOPS**

LOOP SYSTEM	LABEL	NUMBER OF TURNS	INDUCTANCE (MH)	FREQUENCY (HERTZ)	J PIN STATUS
A	WB THRU	4	810	21,430	ON
B	WB LEFT	4	550	26,007	ON
C	WB LEFT	4	550	26,007	ON
D	EB THRU	4	801	21,550	ON
E	EB LEFT	4	801	21,550	ON

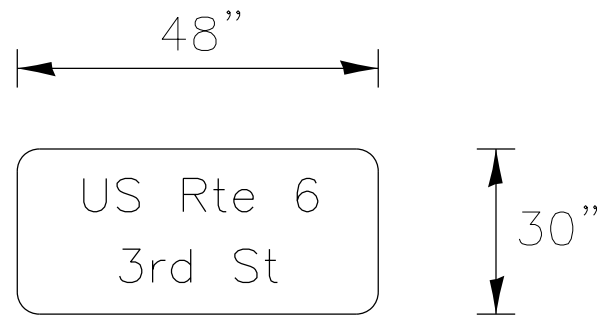
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

**TRAFFIC SIGNAL CABLE PLAN**

SCALE: SHEET OF SHEETS STA. TO STA.

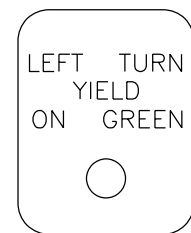
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623	32 (NRM) TS-2	LASALLE	7	6
CONTRACT NO. 66E63				
ILLINOIS FED. AID PROJECT				



2 SIGNS REQUIRED = 10.0 SQ.FT. EACH  
NORTHEAST AND SOUTHWEST MAST ARMS  
8" UC LETTERS



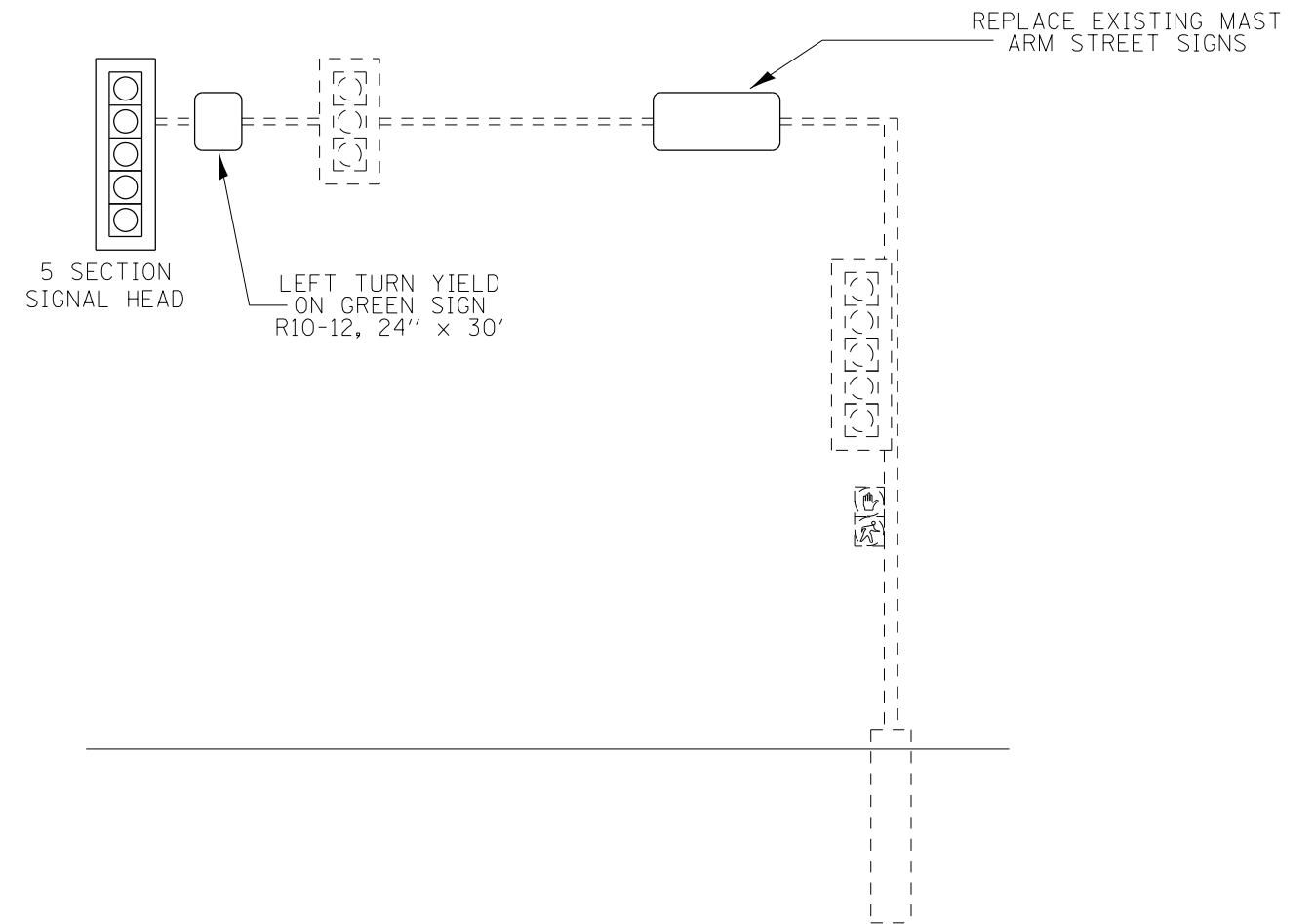
2 SIGNS REQUIRED = 6.0 SQ.FT. EACH  
NORTHWEST AND SOUTHEAST MAST ARMS  
8" UC LETTERS



R10-12, 24" X 30"

2 SIGNS REQUIRED = 5.0 SQ.FT. EACH  
NORTHWEST AND SOUTHEAST MAST ARMS

THIS SIGN SHALL BE LOCATED 6 TO 12  
INCHES TO THE RIGHT OF EACH 5 SECTION  
MAST ARM MOUNTED LEFT TURN SIGNAL



**TYPICAL MAST ARM ASSEMBLY**  
NOT TO SCALE

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	PLOT DATE = 3/27/2015	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

TRAFFIC SIGNAL DETAILS			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
623	32 (NRM) TS-2	LASALLE	7	7
CONTRACT NO. 66E63				
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