

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	D4 FLASHING ARROWS 2014	MCDONOUGH	24	1
315		ILLINOIS	CONTRACT NO. 68B61	

1. COVER SHEET
2. CONSTRUCTION NOTES
- 3-4. SUMMARY OF QUANTITIES
- 5-6. SCHEDULE OF QUANTITIES
7. PROPOSED TRAFFIC SIGNALS (US 67/US 136 & WHEELER)
8. PROPOSED TRAFFIC SIGNALS (US 67/US 136 & PRAIRIE)
9. PROPOSED TRAFFIC SIGNALS (US 67/US 136 & DUDLEY)
10. PROPOSED TRAFFIC SIGNALS (US 67/US 136 & CAMPBELL)
11. PROPOSED TRAFFIC SIGNALS (US 67/US 136 & CALHOUN)
- 12-13. PROPOSED TRAFFIC SIGNALS (US 67 & US 136)
14. PROPOSED TRAFFIC SIGNALS (US 136 & JOHNSON)
- 15-16. PROPOSED TRAFFIC SIGNALS (US 136 & WARD)
17. PROPOSED TRAFFIC SIGNALS (US 136 & WIGWAM HOLLOW)
18. PROPOSED TRAFFIC SIGNALS (US 67 & PIERCE)
19. PROPOSED TRAFFIC SIGNALS (US 67 & UNIVERSITY)
- 20-21. FIBER OPTIC INTERCONNECT PLANS
- 22-24. BATTERY BACKUP DETAILS

PROPOSED HIGHWAY PLANS

FAP 310 (US 67)
FAP 315 (US 136)
SECTION D4 FLASHING YELLOW ARROWS 2014
MCDONOUGH COUNTY
PROJECT NO: ACHSIP-0005(982)

C-94-002-14

HIGHWAY STANDARDS

701001-02	821101
701006-05	857001-01
701101-04	857006-01
701106-02	873001-02
701602-07	877001-05
701701-09	877011-05
701901-03	880006-01

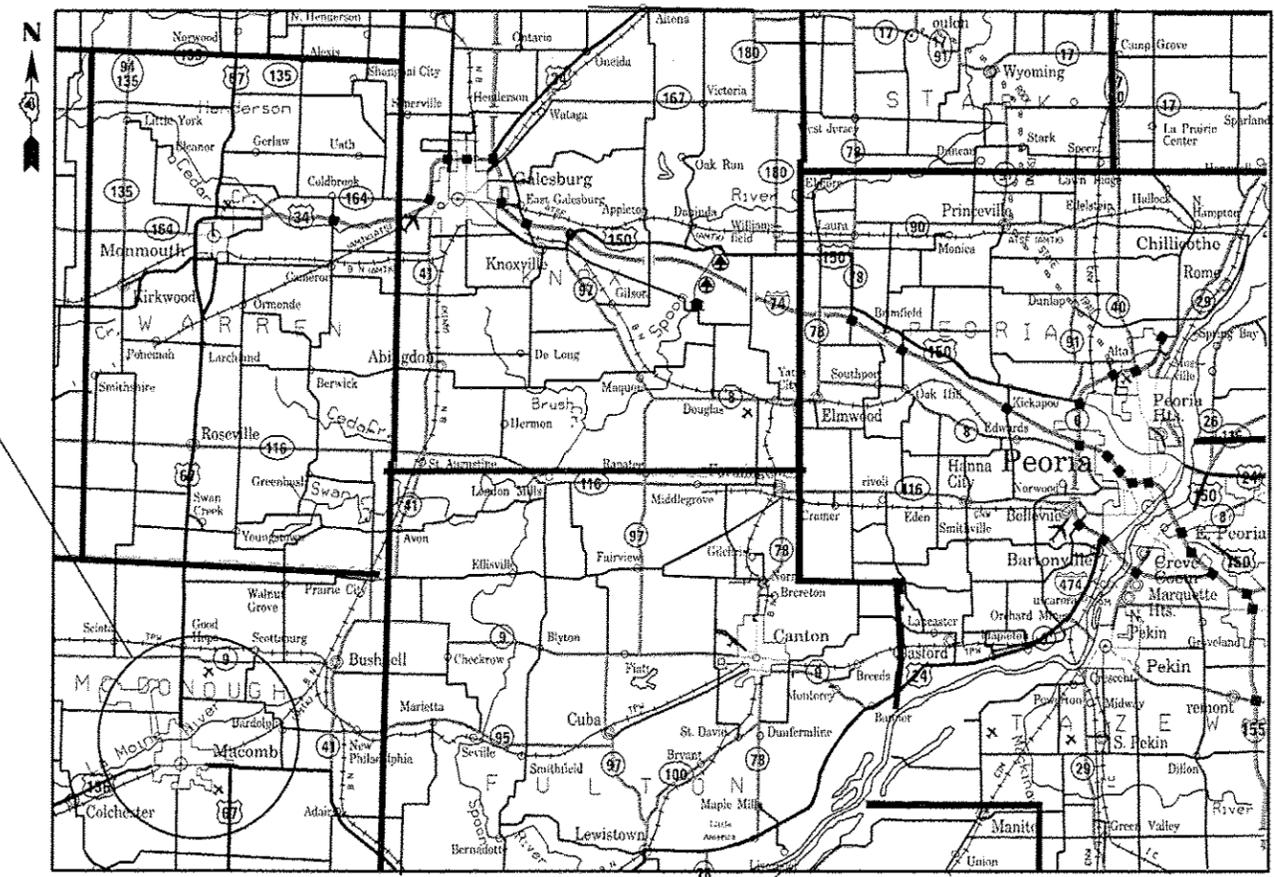
11 INTERSECTIONS LOCATED ALONG US 67 AND US 136 IN THE CITY OF MACOMB

PROJECT DESCRIPTION

INSTALLATION OF FLASHING YELLOW ARROW LEFT TURN SEQUENCING, SIGNAL HEADS, CONTROLLER CABINETS, LED MODULES, AND FIBER OPTIC INTERCONNECT AT ELEVEN INTERSECTIONS IN THE CITY OF MACOMB IN MCDONOUGH COUNTY

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

PROJECT ENGINEER: ERIC HOWALD (309) 671-4481
PROJECT MANAGER: RANDY LANINGA (309) 671-4477
CATALOG NO. 34971-00D
CONTRACT NO. 68B61



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Jan 31, 20 14

Joseph E. Laning
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 21, 20 14
John D. Baramzelli, PE, LE
acting ENGINEER OF DESIGN AND ENVIRONMENT

March 21, 20 14
Omer Osman, PE, LE
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

CONTROLLER CABINET MODIFICATION - CONSTRUCTION NOTES

1. THE CONTRACTOR WILL BE ALLOWED TO PLACE THE INTERSECTION INTO ALL-RED FLASH MODE AND ALL-WAY STOP CONTROL ONLY DURING THE HOURS SPECIFIED ABOVE TO PERFORM MODIFICATIONS TO THE EXISTING CONTROLLER CABINETS.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL A MINIMUM OF TWO STOP SIGNS PER APPROACH WHEN THE INTERSECTION IS OPERATING IN ALL-RED FLASH MODE OR ALL-WAY STOP CONTROL. THE STOP SIGNS SHALL BE DISPLAYED IN ACCORDANCE WITH ALL APPLICABLE MUTCD REQUIREMENTS.
3. ALL COSTS (LABOR, MATERIALS, AND EQUIPMENT) ASSOCIATED WITH THESE REQUIREMENTS SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE MODIFY EXISTING CONTROLLER CABINET PAY ITEM. THERE WILL BE NO ADDITIONAL COMPENSATION FOR THIS WORK.

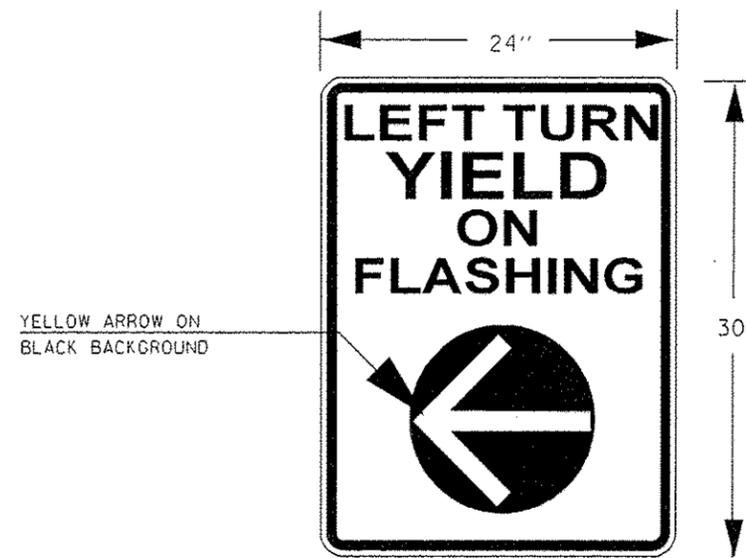
CONSTRUCTION NOTES

1. ANY MAINTENANCE OF EXISTING TRAFFIC SIGNALS WILL BE CONSIDERED EXTRA WORK IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.
2. THE LOCATION OF ALL UTILITIES AND PRIVATELY OWNED FACILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF ANY COMPONENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES AT HIS/HER OWN EXPENSE IF REQUIRED. THE CONTRACTOR SHALL ALSO BE LIABLE FOR ANY DAMAGE TO IDOT FACILITIES RESULTING FROM INACCURATE LOCATING.
4. ELECTRICAL WORK SHALL CONFORM WITH NATIONAL, STATE, AND LOCAL CODES.
5. ALL TRAFFIC SIGNAL SECTIONS SHALL HAVE 12" SINGLE LED LENSES.
6. SIGNAL HEADS SHALL BE INSTALLED OVER THE CENTER OF THE LANES. THE RED SECTIONS OF THE SIGNAL HEADS SHARING THE SAME MAST ARM SHALL BE LEVEL WITH ONE ANOTHER AND MAINTAIN A 16 FT. MINIMUM CLEARANCE FROM THE HIGHEST POINT OF THE ROADWAY.
7. ALL TRAFFIC SIGNAL HEAD BRACKETS ARE TO BE ALUMINUM WITH A NATURAL FINISH.
8. THE EXISTING TRAFFIC SIGNALS SHALL REMAIN IN OPERATION DURING THE CONSTRUCTION OF THE PROPOSED TRAFFIC SIGNALS.
9. THE CONTRACTOR SHALL PROVIDE ELECTRICAL CABLE SLACK IN ACCORDANCE WITH ARTICLE 873.03.
10. ELECTRICAL CABLE WILL BE MEASURED FOR PAYMENT IN ACCORDANCE WITH ARTICLE 873.04.
11. ALL SURPLUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS.
12. REMOVAL OF EXISTING TRAFFIC SIGNAL COMPONENTS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE UNIT BID PRICES FOR THE PROPOSED ITEMS.
13. THE CONTRACTOR SHALL REMOVE THE EXISTING TRAFFIC SIGNAL CONTROLLERS AND CONFLICT MONITORS AND DELIVER THEM TO THE IDOT TRAFFIC BUILDING LOCATED AT 1025 W. DETWEILLER DR, PEORIA. THE CONTRACTOR SHALL NOTIFY PAUL GRANT AT (309) 671-4474 FORTY-EIGHT HOURS IN ADVANCE OF EQUIPMENT DELIVERY. THE CONTRACTOR SHALL DISPOSE OF ALL OTHER ITEMS OFF OF THE RIGHT OF WAY AND REFLECT THE SALVAGE VALUE OF THESE ITEMS IN CONTRACT UNIT BID PRICES.
14. ALL LED MODULES SHALL BE RECYCLED AT A CERTIFIED RECYCLING FACILITY. ALL COSTS, INCLUDING RECYLING AND SHIPPING CHARGES, SHALL BE INCLUDED IN THE PAY ITEM FOR SIGNAL HEAD, LED RETROFIT. THE CONTRACTOR SHALL SUBMIT SUPPORTING DOCUMENTATION FOR ALL RECYCLING ACTIVITIES.
15. ALL COSTS ASSOCIATED WITH FURNISHING NEW TRAFFIC SIGNAL HEAD BRACKETING AND MODIFYING THE EXISTING TRAFFIC SIGNAL HEADS AND BRACKETING TO ACCOMMODATE THE INSTALLATION OF THE PROPOSED BRACKET MOUNTED TRAFFIC SIGNALS SHALL BE INCLUDED IN THE PAY ITEM FOR THE PROPOSED TRAFFIC SIGNAL HEADS.
16. THE CONTRACTOR MAY ELECT TO CHANGE LED MODULES DURING NON-PEAK HOURS AND WEEKENDS, HOWEVER, ALL COSTS ASSOCIATED WITH WORKING DURING THESE TIME PERIODS SHALL BE INCLUDED IN THE BID PRICE FOR THE LED MODULE PAY ITEMS. THERE WILL BE NO ADDITIONAL COMPENSATION FOR SHIFT DIFFERENTIALS AND PREMIUM TIME HOURS.
17. ALL EXISTING SIGNS AND PEDESTRIAN PUSHBUTTONS LOCATED ON EXISTING MAST ARMS SHALL BE REMOVED AND REINSTALLED ON PROPOSED MAST ARMS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED MAST ARMS.

18. EXISTING ELECTRICAL CABLE THAT HAS WIRE INSULATION THAT IS CRACKED OR DAMAGED SHALL NOT BE UTILIZED IN THE INSTALLATION OF PROPOSED TRAFFIC SIGNAL AND PEDESTRIAN HEADS. WHEN THE EXISTING CABLE INSULATION IS DAMAGED, THE CONTRACTOR SHALL REMOVE SLACK CABLE FROM HANDHOLES AND MAST ARMS AS REQUIRED TO INSTALL THE PROPOSED TRAFFIC SIGNAL HEADS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED ELECTRICAL CABLE.
19. THE CONTRACTOR SHALL REMOVE ALL SONALERTS FROM EXISTING PEDESTRIAN HEADS AND INSTALL THEM IN THE PROPOSED PEDESTRIAN HEADS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED PEDESTRIAN SIGNAL HEADS.
20. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW ALUMINUM BRACKETING WITH ALL PROPOSED TRAFFIC SIGNAL AND PEDESTRIAN HEADS. THE CONTRACTOR SHALL PERFORM ALL WORK REQUIRED TO INSTALL THE PROPOSED TRAFFIC SIGNAL HEADS ON THE EXISTING TRAFFIC SIGNAL STRUCTURES, INCLUDING BUT NOT LIMITED TO, FURNISHING ALUMINUM BRACKETS, DRILLING HOLES IN STRUCTURES, PULLING ADDITIONAL CABLE, BANDING, ETC. THE COST OF THIS WORK SHALL BE INCLUDED IN THE COST OF THE PROPOSED TRAFFIC SIGNAL HEADS.
21. THE CONTRACTOR SHALL COVER ALL UNUSED HOLES IN MAST ARMS AND POSTS BY INSTALLING AN ALUMINUM PLUG OR COVER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEMS FOR THE PROPOSED TRAFFIC SIGNAL HEADS.
22. THE CONTRACTOR SHALL INSTALL TWO TENON MOUNTED DEPARTMENT FURNISHED LUMINAIRES AT THE INTERSECTION OF US 136 (W. JACKSON) & WARD AS SHOWN ON THE PLAN SHEETS. THE CONTRACTOR SHALL FURNISH AND INSTALL #10 1/C CABLES, FUSEHOLDERS, AND SURGE ARRESTORS TO EACH LUMINAIRE AND CONNECT THE LUMINAIRES TO THE EXISTING LIGHTING CIRCUIT BY SPLICING AND MAKING CIRCUIT EXTENSIONS AS NEEDED. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM FOR THE PROPOSED MAST ARM.
23. THE CONTRACTOR SHALL RELOCATE ALL EXISTING PHOTOCCELL RELAYS AND RADIO INTERCONNECT EQUIPMENT FROM EXISTING CONTROLLER CABINETS TO THE PROPOSED CONTROLLER CABINETS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEMS FOR THE PROPOSED TRAFFIC SIGNAL CONTROLLER CABINETS.

COMMITMENTS

THERE ARE NO COMMITMENTS MADE IN CONJUNCTION WITH THIS PROJECT.



SIGN PANEL-TYPE 1)
SIGN BACKGROUND: WHITE
SIGN LETTERING: BLACK

FILE NAME : C:\Users\subragg\Desktop\68861\68861	USER NAME : subragg	DESIGNED : _____	REVISED : _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONSTRUCTION NOTES AND PROJECT COMMITMENTS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	Jacob FVA Project Final 1-31-14.dgn	DRAWN : _____	REVISED : _____			310	04 FLASHING	MCCONOUGH	24	2
	PLOT SCALE : 3/8"=1'-0"	CHECKED : _____	REVISED : _____			315	YELLOW ARROWS			
	PLOT DATE : 1/31/2014	DATE : _____	REVISED : _____			CONTRACT NO. 68861		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES (CONTINUED)

MCDONOUGH COUNTY

CODE	ITEM DESCRIPTION	UNIT	TOTAL QTY.	MCDONOUGH COUNTY					
				CONST. TYPE CODE 0021 (SAFETY FUNDS) 90% FED 10% STATE URBAN 1 LOCATION	CONST. TYPE CODE 0021 (SAFETY FUNDS) 90% FED 5% STATE 5% CITY (MACOMB) URBAN 8 LOCATIONS	CONST. TYPE CODE 0021 (SAFETY FUNDS) 90% FED 10% CITY (MACOMB) URBAN 1 LOCATION	CONST. TYPE CODE 0021 (STATE FUNDS) 100% STATE URBAN INTERCONNECT	CONST. TYPE CODE 0021 (STATE FUNDS) 90% STATE 10% CITY (MACOMB) URBAN 8 LOCATIONS	CONST. TYPE CODE 0021 (STATE FUNDS) 80% STATE 20% CITY (MACOMB) URBAN 1 LOCATION
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	39.0				2.0	33.0	4.0
88200510	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	79.0	6.0	73.0				
88500100	INDUCTIVE LOOP DETECTOR	EACH	62.0	20.0	42.0				
89502105	REBUILD EXISTING SIGNAL HEAD, LED	EACH	12.0		4.0	8.0			
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	3.0		2.0	1.0			
X0325469	MODIFY EXISTING TRAFFIC SIGNAL BACKPLATE	EACH	25.0	4.0	11.0	10.0			
X0326812	CAT 5 ETHERNET CABLE	FOOT	318.0					318.0	
X0327965	CLOSED CIRCUIT TELEVISION DOME CAMERA, IP BASED (INSTALL ONLY)	EACH	2.0					2.0	
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	4.0		4.0				
X8630104	CONTROLLER CABINET TYPE IV, SPECIAL	EACH	3.0					3.0	
X8770137	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT. (SPECIAL)	EACH	1.0		1.0				
X8771230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT. (SPECIAL)	EACH	1.0		1.0				
X8807670	SIGNAL HEAD, LED, RETROFIT	EACH	22.0				5.0	10.0	7.0
Z0033068	TRAFFIC SIGNAL BATTERY BACKUP SYSTEM	EACH	1.0				1.0		
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1.0	1.0					

SCHEDULE OF QUANTITIES

MCDONOUGH COUNTY

ITEM DESCRIPTION	UNIT	TOTAL QTY.	MCDONOUGH COUNTY											
			US 67/US 136 (E. JACKSON) & WHEELER 0% IDOT 100% CITY	US 67/US 136 (E. JACKSON) & PRAIRIE 50% IDOT 50% CITY	US 67/US 136 (E. JACKSON) & DUDLEY 50% IDOT 50% CITY	US 67/US 136 (E. JACKSON) & CAMPBELL 50% IDOT 50% CITY	US 67/US 136 (CALHOUN) & CAMPBELL 50% IDOT 50% CITY	US 67 (LAFAYETTE) & US 67 (CALHOUN) 100% IDOT 0% CITY	US 136 (W. JACKSON) & JOHNSON 50% IDOT 50% CITY	US 136 (W. JACKSON) & WARD 50% IDOT 50% CITY	US 136 (W. JACKSON) & WIGWAM HOLLOW 50% IDOT 50% CITY	US 67 (LAFAYETTE) & PIERCE 50% IDOT 50% CITY	US 67 (LAFAYETTE) & UNIVERSITY 50% IDOT 50% CITY	
MOBILIZATION	L SUM	1.0	0.08	0.08	0.08	0.08	0.08	0.20	0.08	0.08	0.08	0.08	0.08	0.08
TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1.0	0.08	0.08	0.08	0.08	0.08	0.20	0.08	0.08	0.08	0.08	0.08	0.08
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1.0	0.08	0.08	0.08	0.08	0.08	0.20	0.08	0.08	0.08	0.08	0.08	0.08
SIGN PANEL - TYPE 1	SQ FT	105.0	20.0	10.0	5.0			10.0		10.0	10.0	20.0	20.0	
RAILROAD, FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	1.0						1.0						
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	3994.0						3994.0						
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	213.0								213.0				
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	4032.0	1157.0	289.0						500.0	405.0	857.0	824.0	
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	544.0								544.0				
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	51.0		6.0	8.0	4.0	5.0	4.0	8.0	4.0		6.0	6.0	
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	26.0	2.0	2.0		4.0	5.0	3.0	4.0	2.0		2.0	2.0	
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	17.0		2.0	1.0			2.0		4.0		4.0	4.0	
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	24.0		2.0	1.0	3.0	3.0	2.0	3.0	2.0		4.0	4.0	
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	5.0				1.0		1.0	3.0					
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	13.0				2.0	2.0	5.0	2.0		2.0			

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C:\Users\aubreys\Desktop\68B61\68B61 -	Macomb FYA Project (Final 1-31-14).dgn	DRAWN - _____	REVISED - _____
	PLOT SCALE = 38.0588' / in.	CHECKED - _____	REVISED - _____
	PLOT DATE = 1/31/2014	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCHEDULE OF QUANTITIES

SCALE: _____ STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310 315	D4 FLASHING YELLOW ARROWS 2013	MCDONOUGH	24	5
CONTRACT NO. 68B61			ILLINOIS FED. AID PROJECT	

SCHEDULE OF QUANTITIES (CONTINUED)

MCDONOUGH COUNTY

ITEM DESCRIPTION	UNIT	TOTAL QTY.	US 67/US 136 (E. JACKSON) & WHEELER 0% IDOT 100% CITY	US 67/US 136 (E. JACKSON) & PRAIRIE 50% IDOT 50% CITY	US 67/US 136 (E. JACKSON) & DUDLEY 50% IDOT 50% CITY	US 67/US 136 (E. JACKSON) & CAMPBELL 50% IDOT 50% CITY	US 67/US 136 (CALHOUN) & CAMPBELL 50% IDOT 50% CITY	US 67 (LAFAYETTE) & US 67 (CALHOUN) 100% IDOT 0% CITY	US 136 (W. JACKSON) & JOHNSON 50% IDOT 50% CITY	US 136 (W. JACKSON) & WARD 50% IDOT 50% CITY	US 136 (W. JACKSON) & WIGWAM HOLLOW 50% IDOT 50% CITY	US 67 (LAFAYETTE) & PIERCE 50% IDOT 50% CITY	US 67 (LAFAYETTE) & UNIVERSITY 50% IDOT 50% CITY
			PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	39.0	4.0	4.0	4.0	4.0	4.0	2.0	4.0	4.0
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	79.0		8.0	9.0	7.0	8.0	6.0	11.0	10.0		10.0	10.0
INDUCTIVE LOOP DETECTOR	EACH	62.0			12.0			20.0		10.0		10.0	10.0
REBUILD EXISTING SIGNAL HEAD, LED	EACH	12.0	8.0								4.0		
MODIFY EXISTING CONTROLLER CABINET	EACH	3.0	1.0	1.0							1.0		
MODIFY EXISTING TRAFFIC SIGNAL BACKPLATE	EACH	25.0	10.0			2.0		4.0			9.0		
CAT 5 ETHERNET CABLE	FOOT	318.0				231.0			87.0				
CLOSED CIRCUIT TELEVISION DOME CAMERA, IP BASED (INSTALL ONLY)	EACH	2.0				1.0			1.0				
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	4.0			1.0					1.0		1.0	1.0
CONTROLLER CABINET TYPE IV, SPECIAL	EACH	3.0				1.0	1.0		1.0				
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT. (SPECIAL)	EACH	1.0								1.0			
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT. (SPECIAL)	EACH	1.0								1.0			
SIGNAL HEAD, LED, RETROFIT	EACH	22.0	7.0			2.0		5.0			8.0		
TRAFFIC SIGNAL BATTERY BACKUP SYSTEM	EACH	1.0						1.0					
RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1.0						1.0					

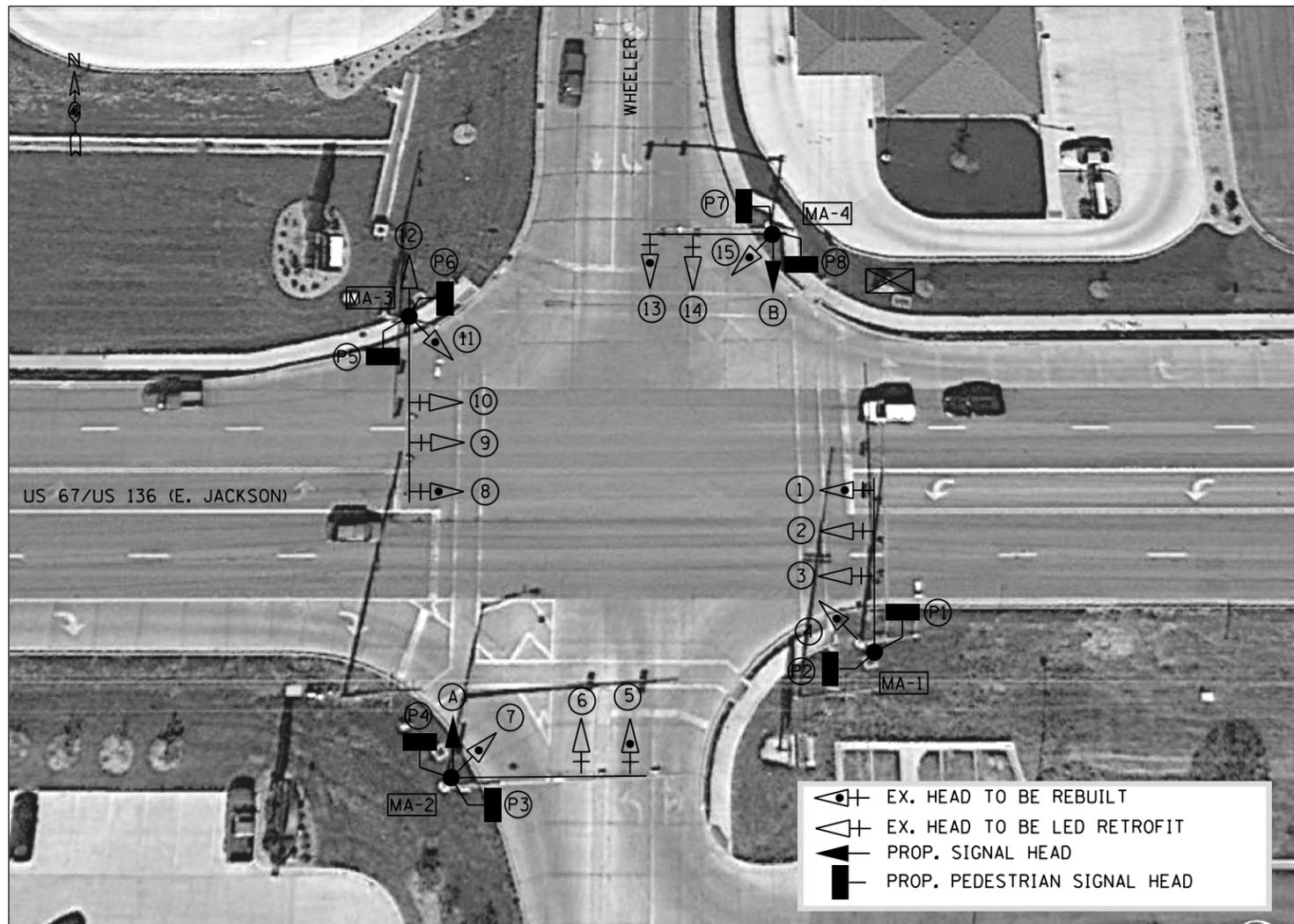
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	PLOT SCALE = 38.0588' / in.	CHECKED - _____	REVISED - _____
	PLOT DATE = 1/31/2014	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

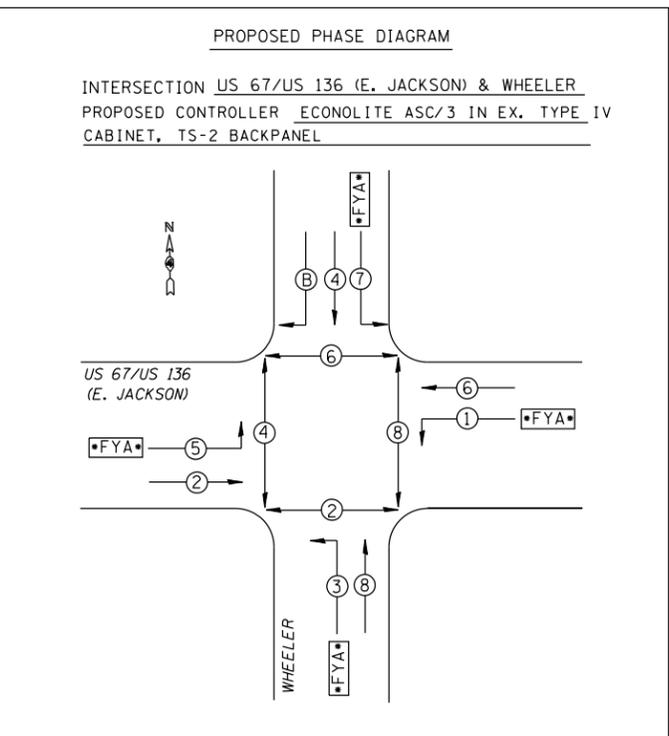
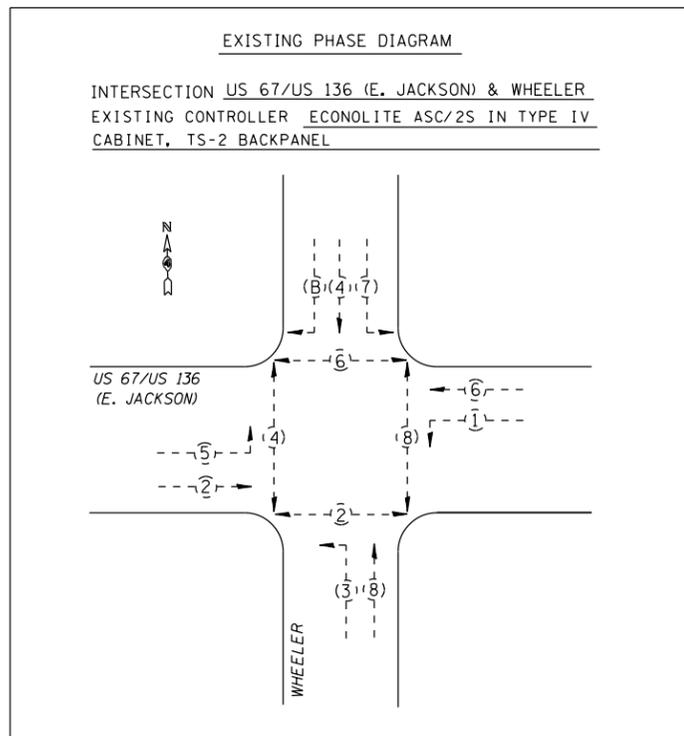
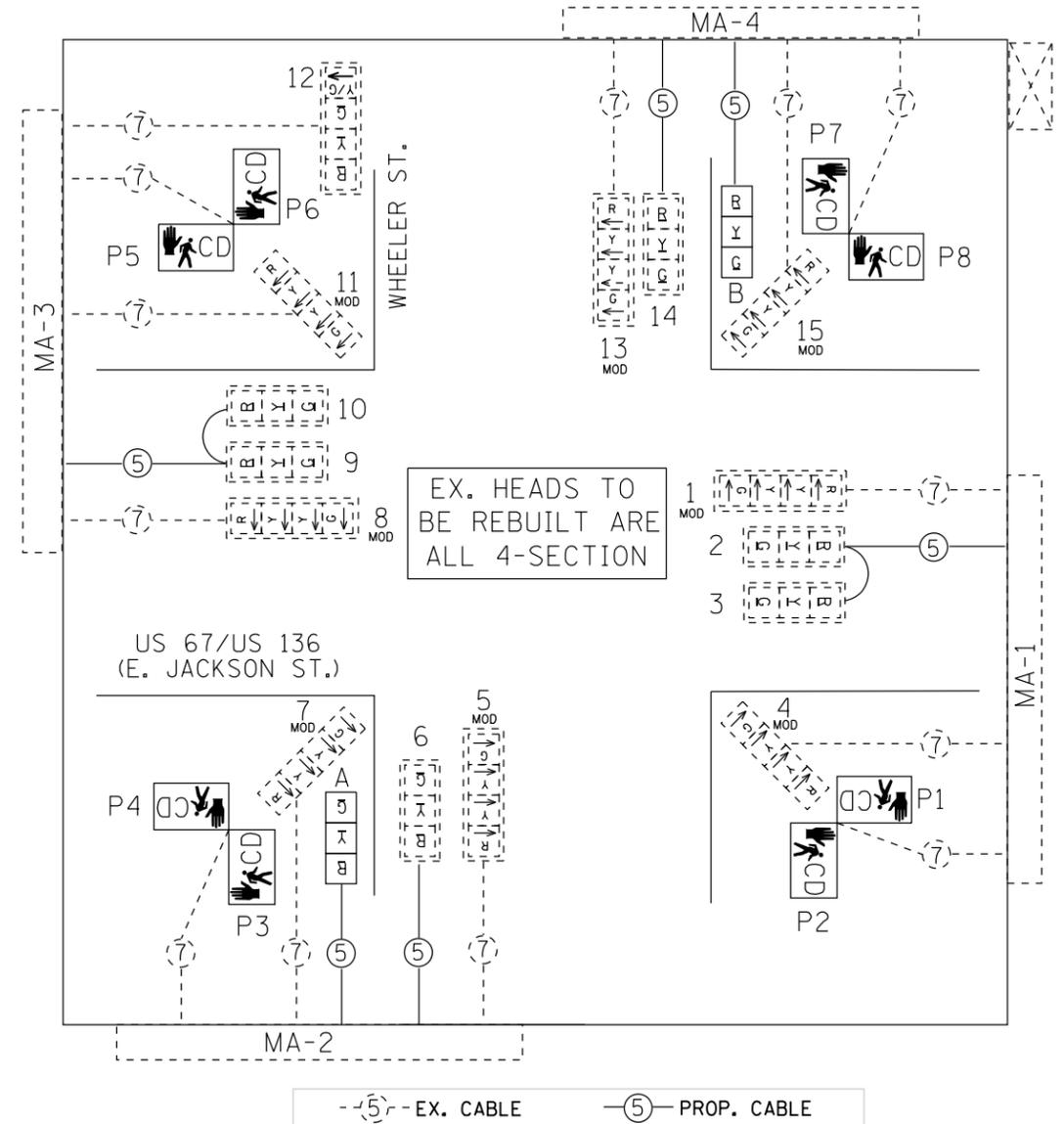
SCHEDULE OF QUANTITIES (CONTINUED)

SCALE: _____ STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310 315	D4 FLASHING YELLOW ARROWS 2013	MCDONOUGH	24	6
CONTRACT NO. 68B61				
ILLINOIS FED. AID PROJECT				



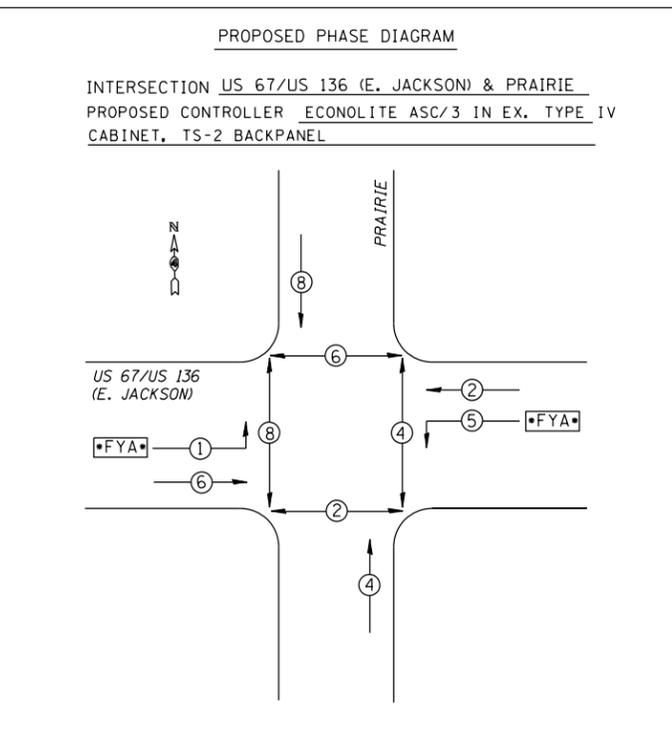
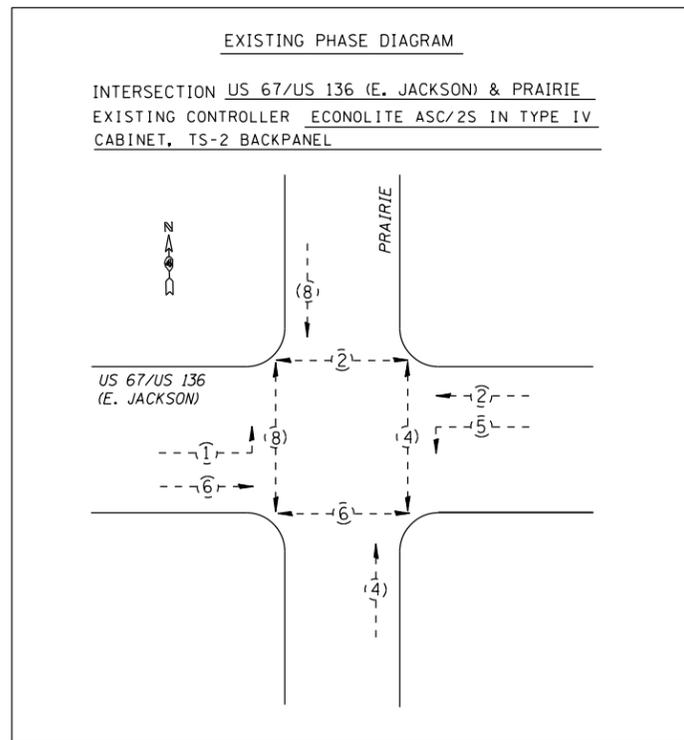
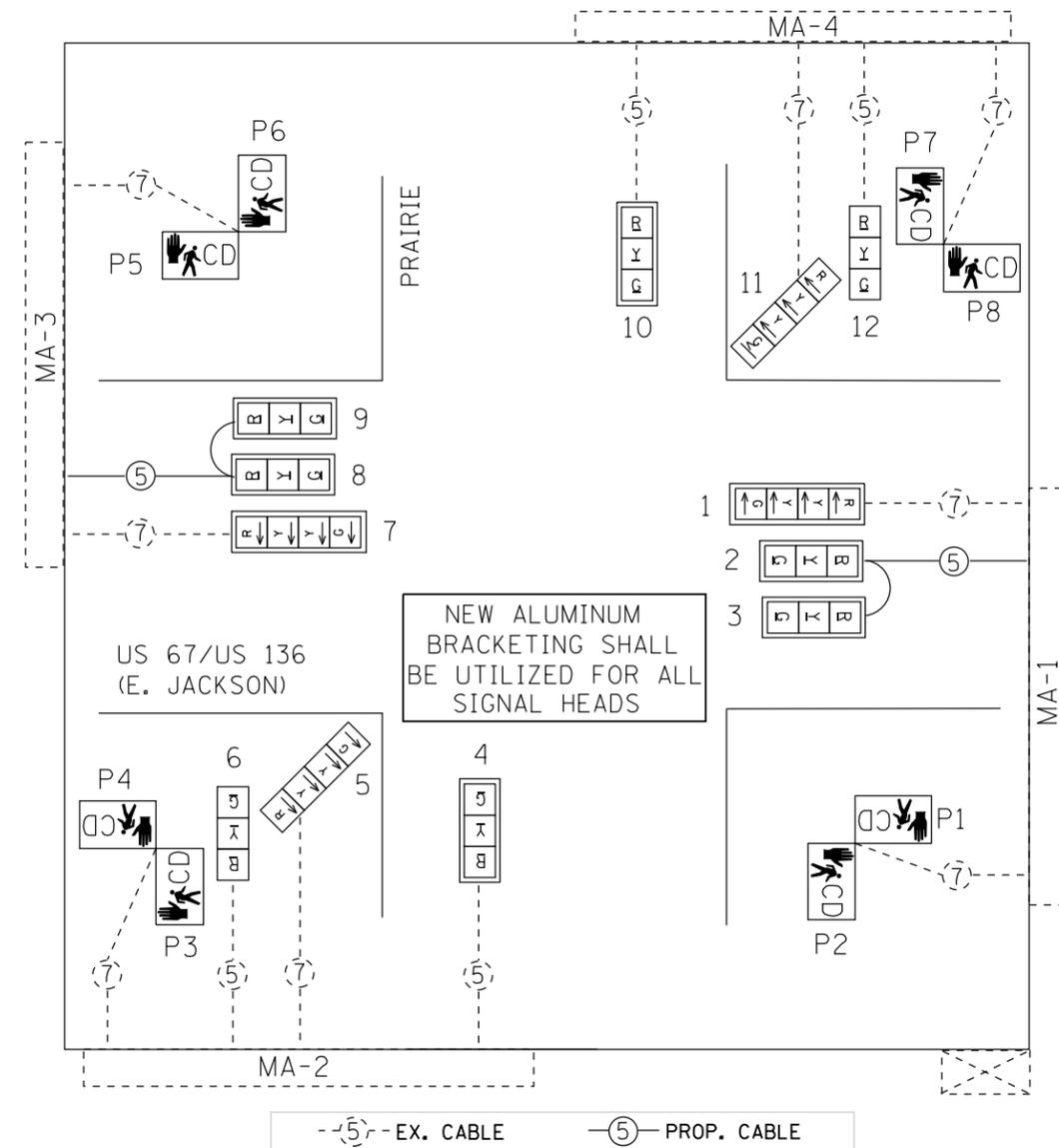
TRAFFIC SIGNAL HEAD SCHEDULE - US 67/US 136 (E. JACKSON) & WHEELER		
QTY.	TYPE	LOCATION
2.0 EACH	SH LED 1F 3S BM	A,B
7.0 EACH	SH LED RETROFIT	2,3,6,9,10,12,14
10.0 EACH	MOD EX TS BACKPLATE	1,2,3,5,6,8,9,10,13,14
8.0 EACH	REBUILD EX SIG HD LED	1,4,5,7,8,11,13,15 (ALL EX. HEADS ARE 4-SECTION)
4.0 EACH	PED SH LED 2F BM CDT	(P1,P2),(P3,P4),(P5,P6),(P7,P8)



BILL OF MATERIALS - US 67/US 136 (E. JACKSON) & WHEELER		
ITEM DESCRIPTION	UNIT	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	20.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1157.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2.0
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4.0
MODIFY EXISTING TRAFFIC SIGNAL BACKPLATE	EACH	10.0
REBUILD EXISTING SIGNAL HEAD, LED	EACH	8.0
MODIFY EXISTING CONTROLLER CABINET	EACH	1.0
SIGNAL HEAD, LED, RETROFIT	EACH	7.0



TRAFFIC SIGNAL HEAD SCHEDULE - US 67/US 136 (E. JACKSON) & PRAIRIE		
QTY.	TYPE	LOCATION
2.0 EACH	SH LED 1F 3S BM	6,12
6.0 EACH	SH LED 1F 3S MAM	2,3,4,8,9,10
2.0 EACH	SH LED 1F 4S BM	5,11
2.0 EACH	SH LED 1F 4S MAM	1,7
8.0 EACH	TS BACKPLATE RET-REFL	1,2,3,4,7,8,9,10
4.0 EACH	PED SH LED 2F BM CDT	(P1,P2),(P3,P4),(P5,P6),(P7,P8)

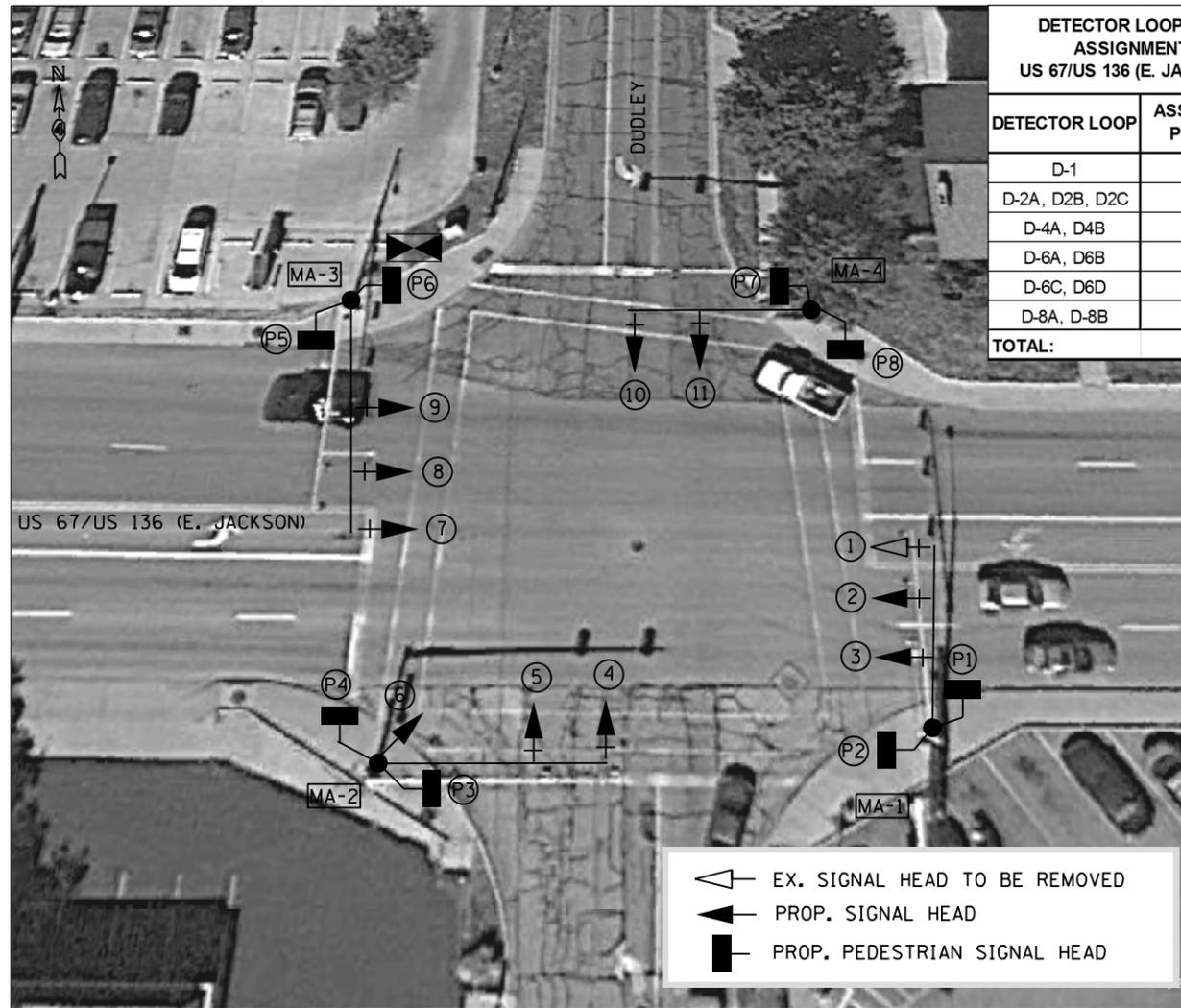


BILL OF MATERIALS - US 67/US 136 (E. JACKSON) & PRAIRIE		
ITEM DESCRIPTION	UNIT	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	10.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	289.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2.0
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2.0
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2.0
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4.0
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	8.0
MODIFY EXISTING CONTROLLER CABINET	EACH	1.0

FILE NAME =	USER NAME = aubreys	DESIGNED -	REVISD -
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	PLOT SCALE = 38.0588 ' / in.	CHECKED -	REVISD -
	PLOT DATE = 1/31/2014	DATE -	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED TRAFFIC SIGNALS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 67/136 (E. JACKSON) & PRAIRIE - MACOMB		310 315	D4 FLASHING YELLOW ARROWS 2013	MCDONOUGH	24	8
SCALE: _____		STA. _____ TO STA. _____		CONTRACT NO. 68B61		
ILLINOIS FED. AID PROJECT						

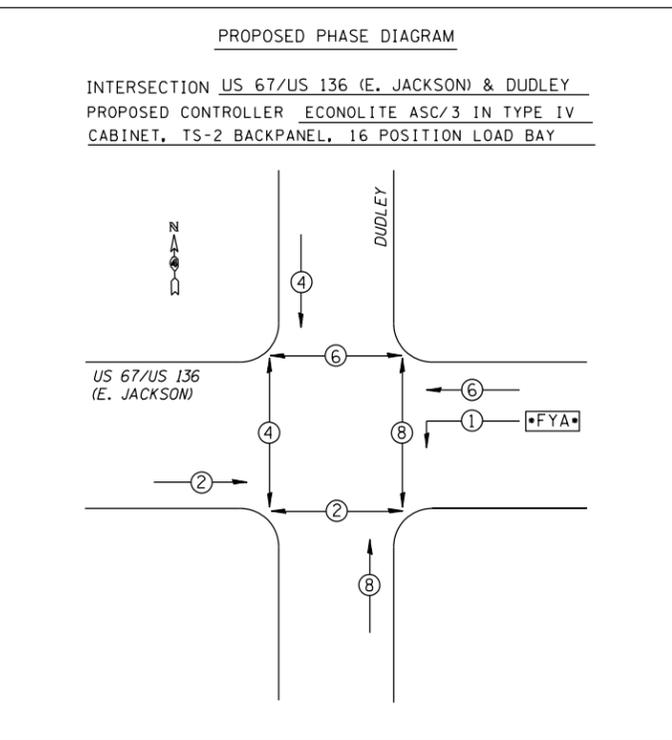
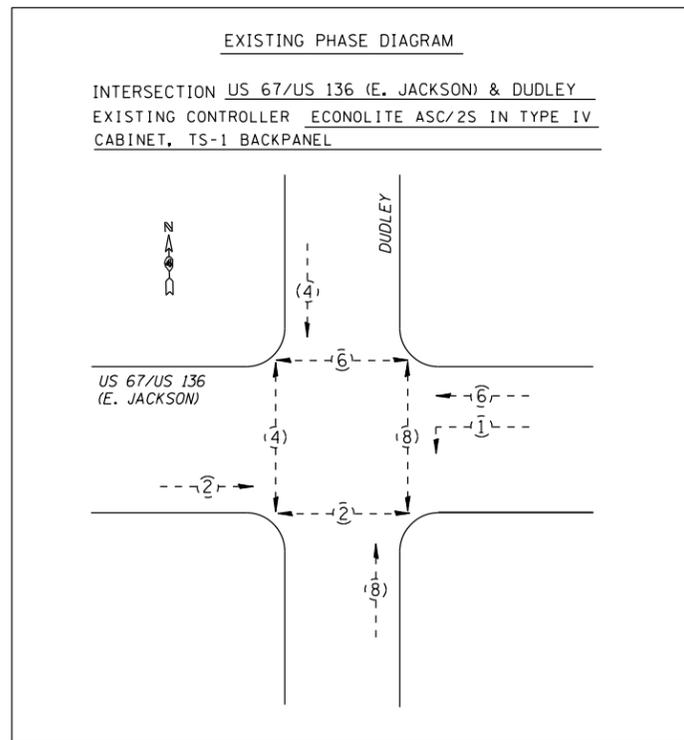
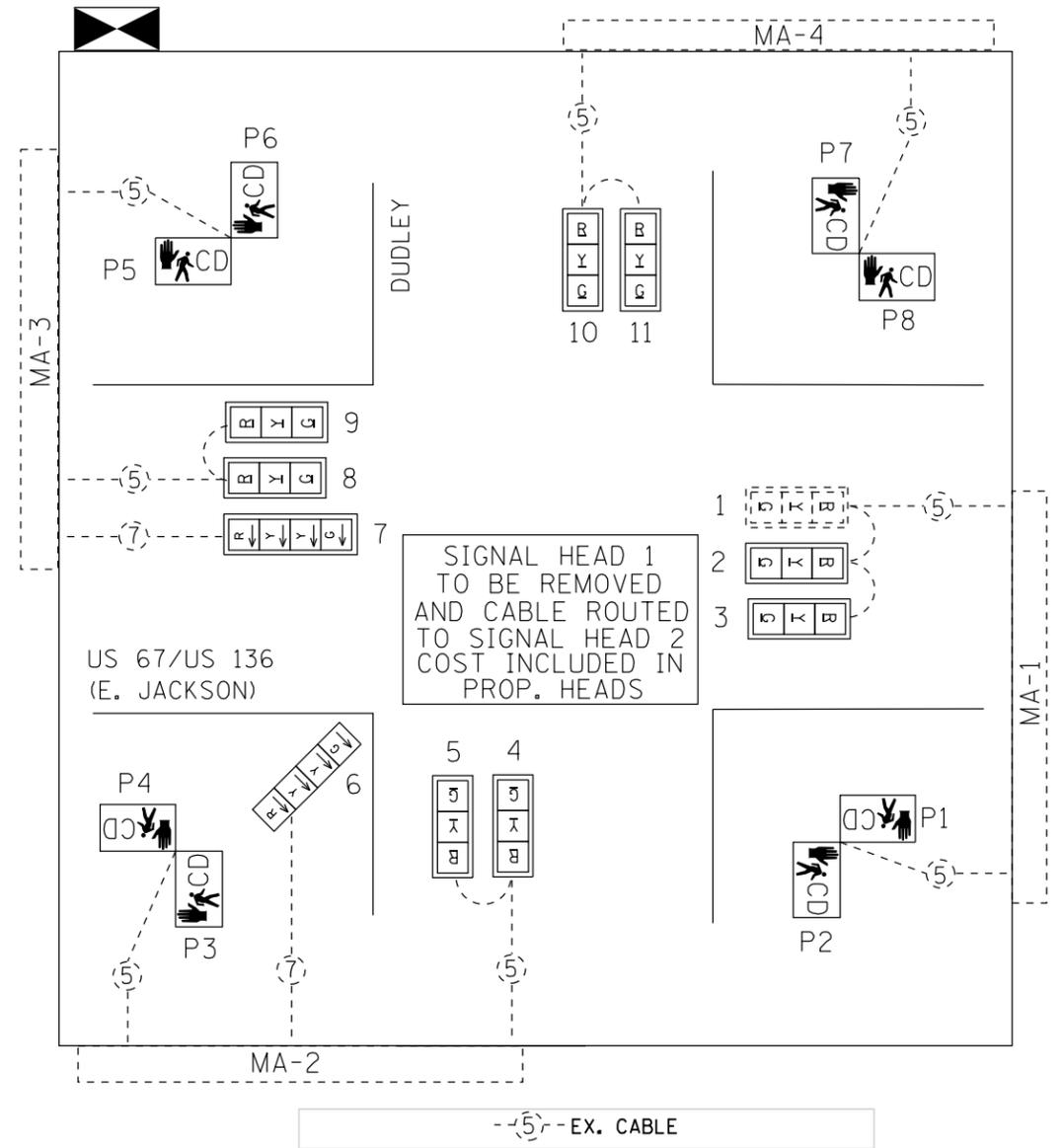


**DETECTOR LOOP AND DETECTOR ASSIGNMENT SCHEDULE
US 67/US 136 (E. JACKSON) & DUDLEY**

DETECTOR LOOP	ASSIGNED PHASE	CHANNELS REQUIRED
D-1	1	1
D-2A, D2B, D2C	2	3
D-4A, D4B	4	2
D-6A, D6B	6	2
D-6C, D6D	6	2
D-8A, D-8B	8	2
TOTAL:		12

TRAFFIC SIGNAL HEAD SCHEDULE - US 67/US 136 (E. JACKSON) & DUDLEY

QTY.	TYPE	LOCATION
8.0 EACH	SH LED 1F 3S MAM	2,3,4,5,8,9,10,11
1.0 EACH	SH LED 1F 4S BM	6.0
1.0 EACH	SH LED 1F 4S MAM	7.0
9.0 EACH	TS BACKPLATE RET-REFL	2,3,4,5,7,8,9,10,11
4.0 EACH	PED SH LED 2F BM CDT	(P1,P2),(P3,P4),(P5,P6),(P7,P8)



BILL OF MATERIALS - US 67/US 136 (E. JACKSON) & DUDLEY

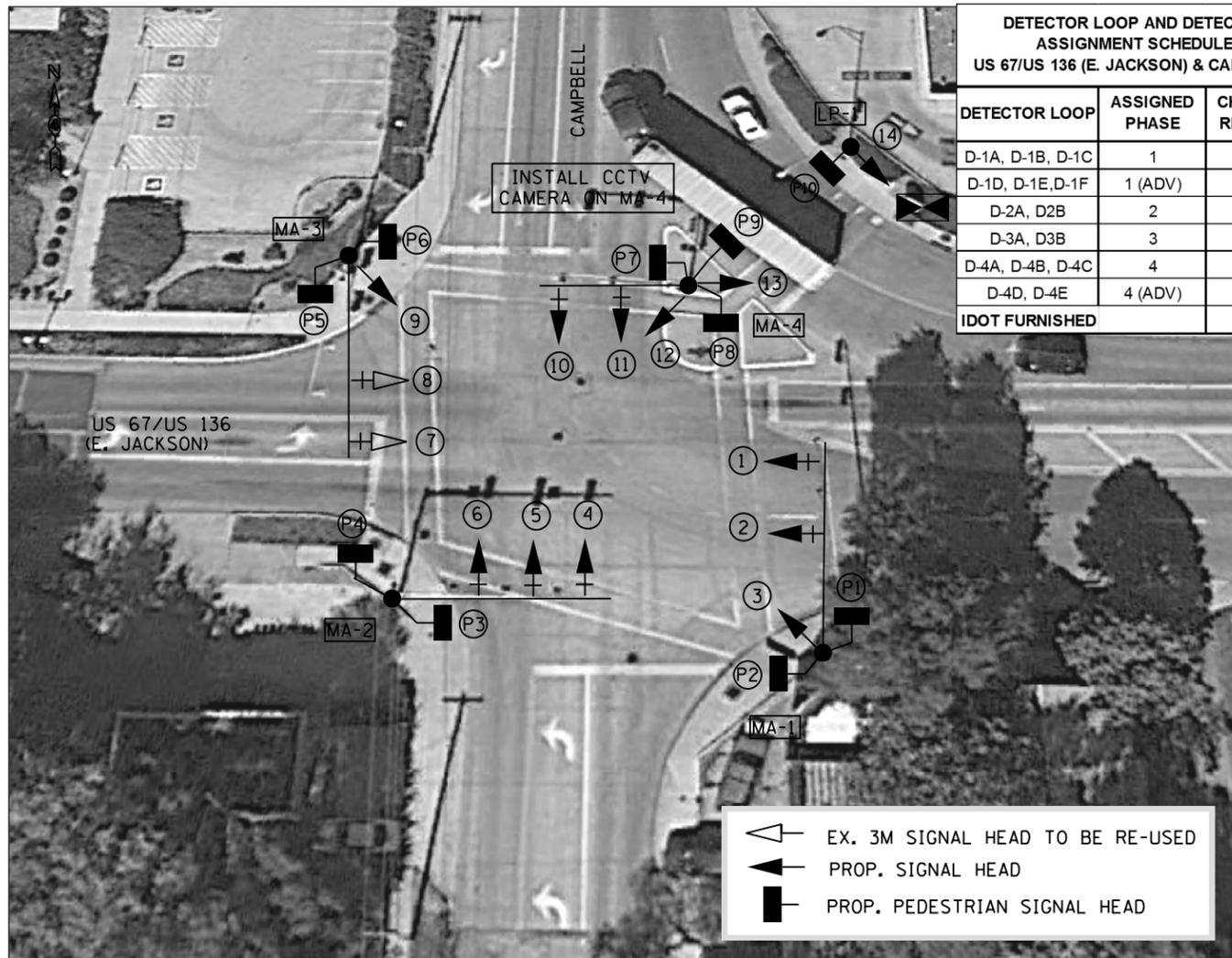
ITEM DESCRIPTION	UNIT	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	5.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	8.0
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	1.0
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	1.0
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4.0
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	9.0
INDUCTIVE LOOP DETECTOR	EACH	12.0
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1.0

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PLOT SCALE = 38.0588' / in.	CHECKED -	REVISD -	REVISD -
PLOT DATE = 1/31/2014	DATE -	REVISD -	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED TRAFFIC SIGNALS
US 67/US 136 (E. JACKSON) & DUDLEY - MACOMB**

SCALE: _____	STA. _____ TO STA. _____	F.A.P. RTE. 310 315	SECTION D4 FLASHING YELLOW ARROWS 2013	COUNTY MCDONOUGH	TOTAL SHEETS 24	SHEET NO. 9
				CONTRACT NO. 68861		
ILLINOIS FED. AID PROJECT						

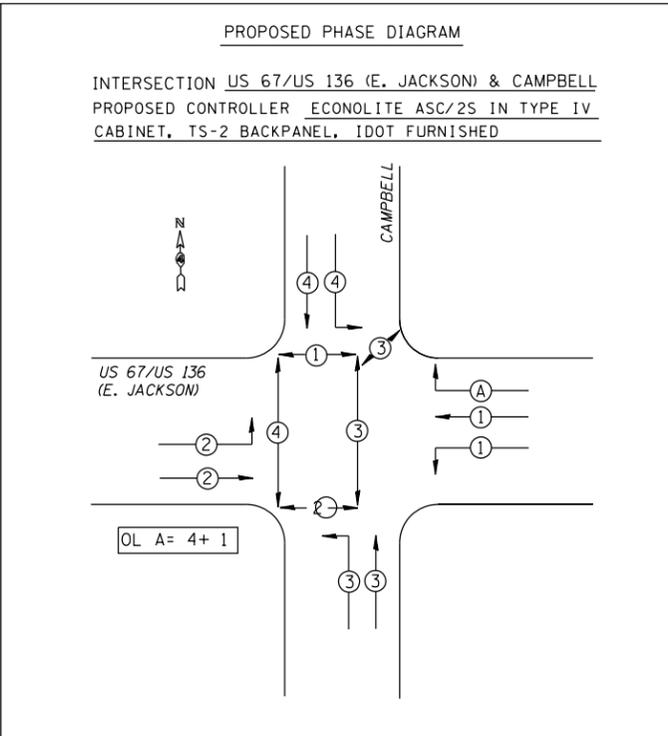
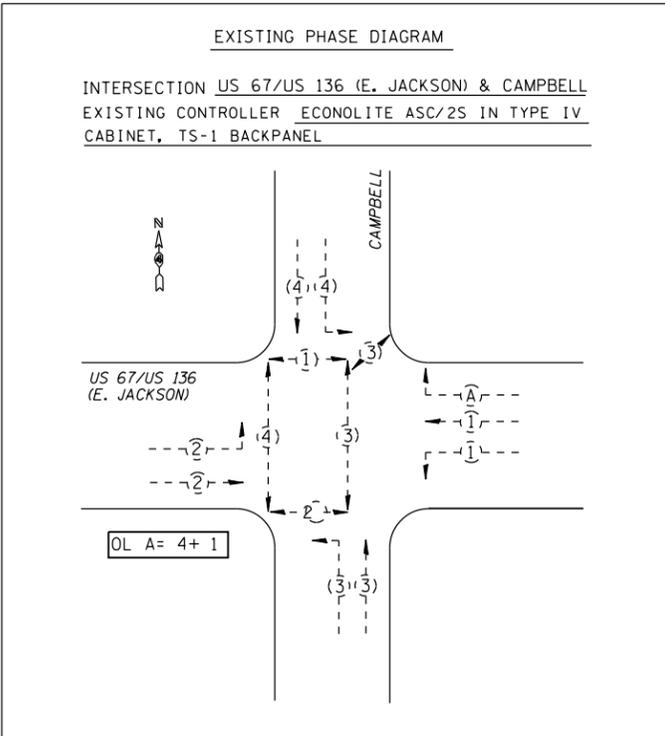
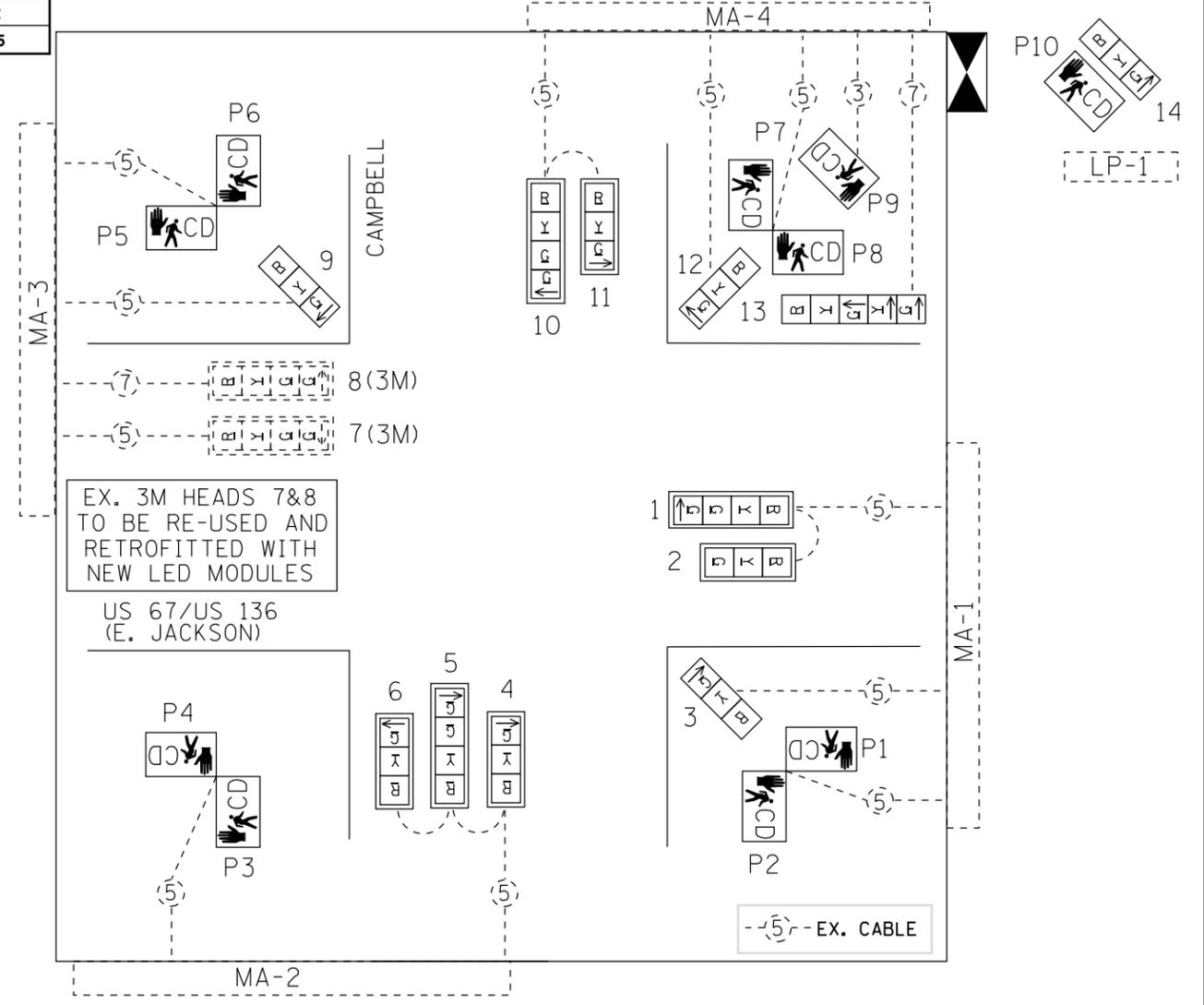


DETECTOR LOOP AND DETECTOR ASSIGNMENT SCHEDULE
US 67/US 136 (E. JACKSON) & CAMPBELL

DETECTOR LOOP	ASSIGNED PHASE	CHANNELS REQUIRED
D-1A, D-1B, D-1C	1	3
D-1D, D-1E, D-1F	1 (ADV)	3
D-2A, D2B	2	2
D-3A, D3B	3	2
D-4A, D-4B, D-4C	4	3
D-4D, D-4E	4 (ADV)	2
IDOT FURNISHED		15

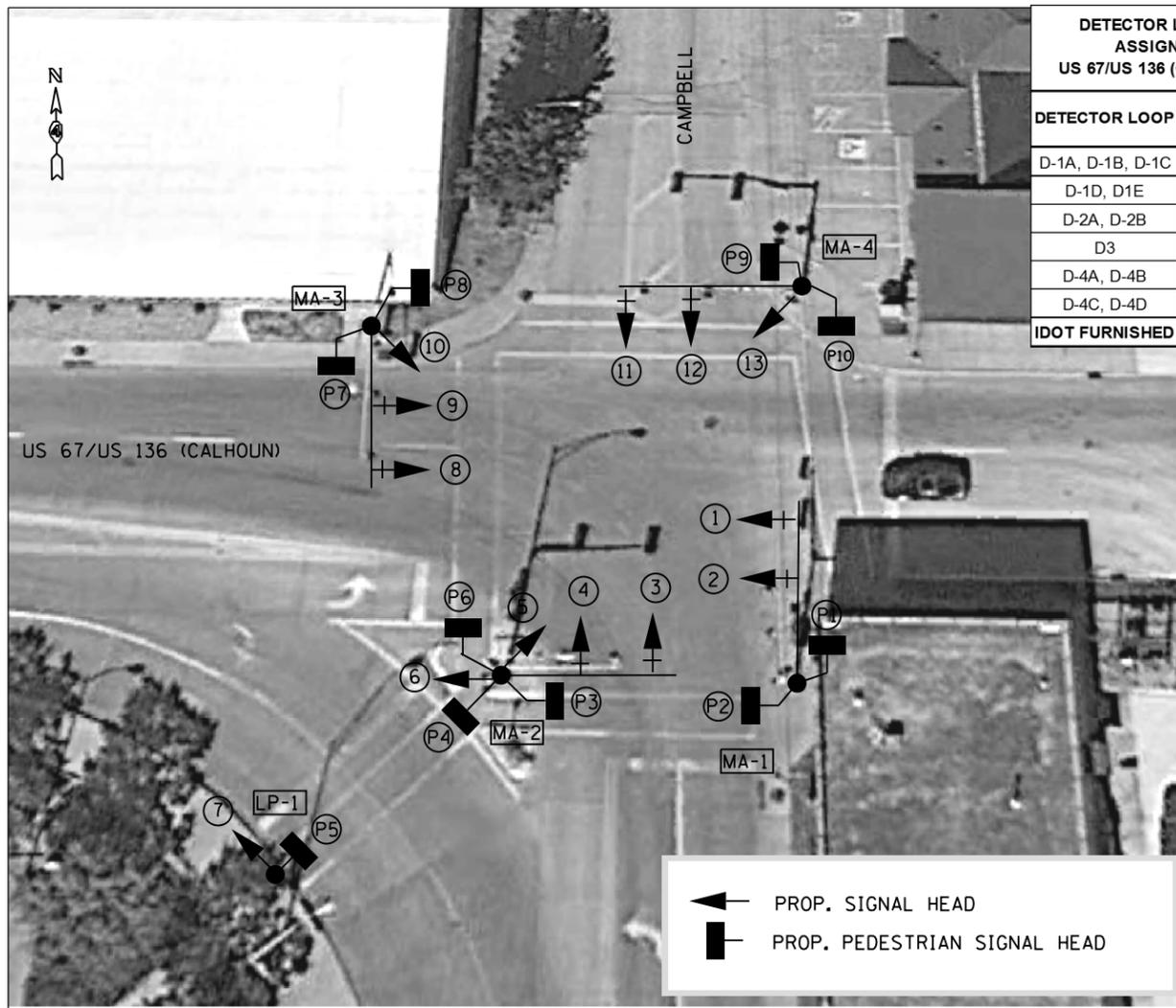
TRAFFIC SIGNAL HEAD SCHEDULE - US 67/US 136 (E. JACKSON) & CAMPBELL

QTY.	TYPE	LOCATION
4.0 EACH	SH LED 1F 3S MAM	2,4,6,11
4.0 EACH	SH LED 1F 3S BM	3,9,12,14
3.0 EACH	SH LED 1F 4S MAM	1,5,10
1.0 EACH	SH LED 1F 5S BM	13.0
7.0 EACH	TS BACKPLATE RET-REFL	1,2,4,5,6,10,11
2.0 EACH	MOD EX TS BACKPLATE	7,8
2.0 EACH	SH LED RETROFIT	7,8 (3M OPT PROG HEADS)
2.0 EACH	PED SH LED 1F BM CDT	P9,P10
4.0 EACH	PED SH LED 2F BM CDT	(P1,P2),(P3,P4),(P5,P6),(P7,P8)



BILL OF MATERIALS - US 67/US 136 (E. JACKSON) & CAMPBELL

ITEM DESCRIPTION	UNIT	TOTAL QTY.
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4.0
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	3.0
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1.0
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2.0
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4.0
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	7.0
SIGNAL HEAD, LED, RETROFIT	EACH	2.0
MODIFY EXISTING TRAFFIC SIGNAL BACKPLATE	EACH	2.0
CONTROLLER CABINET TYPE IV, SPECIAL	EACH	1.0
CLOSED CIRCUIT TELEVISION DOME CAMERA, IP BASED (INSTALL ONLY)	EACH	1.0
CAT 5 ETHERNET CABLE	FOOT	231.0

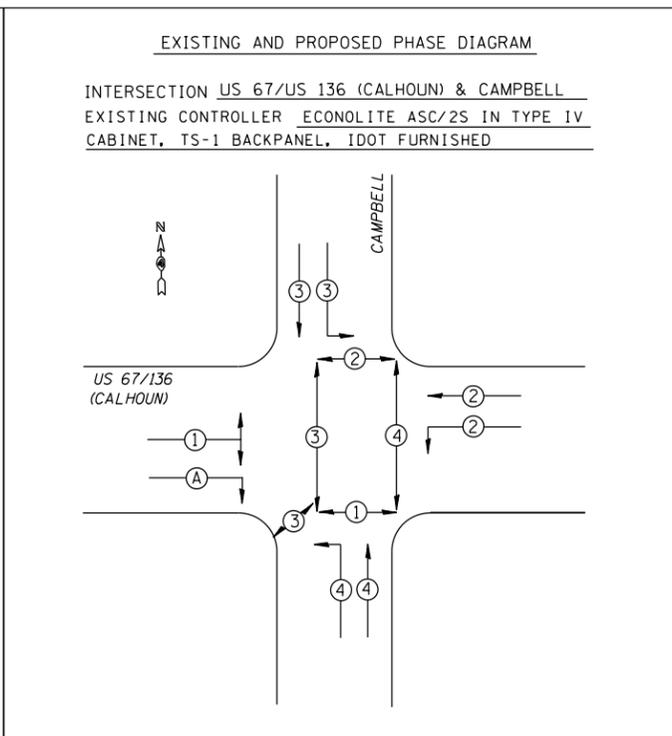
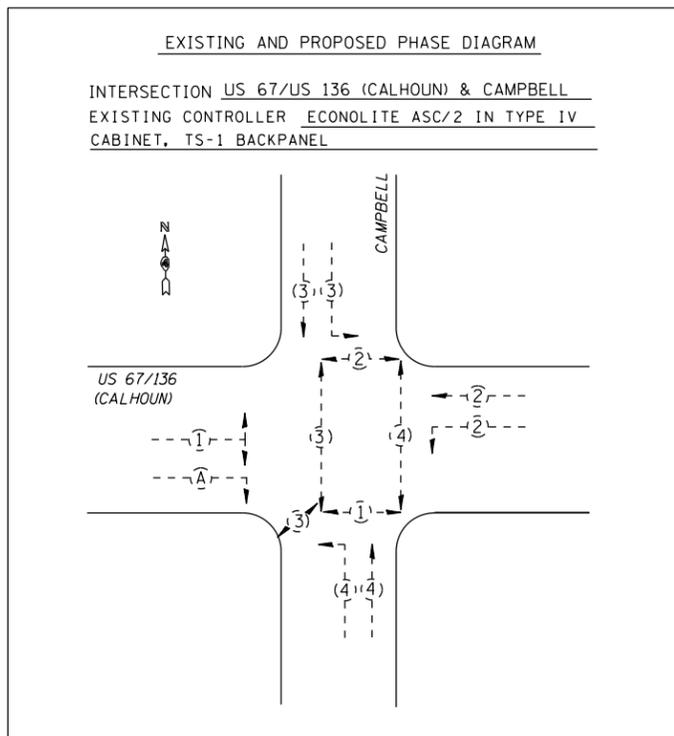
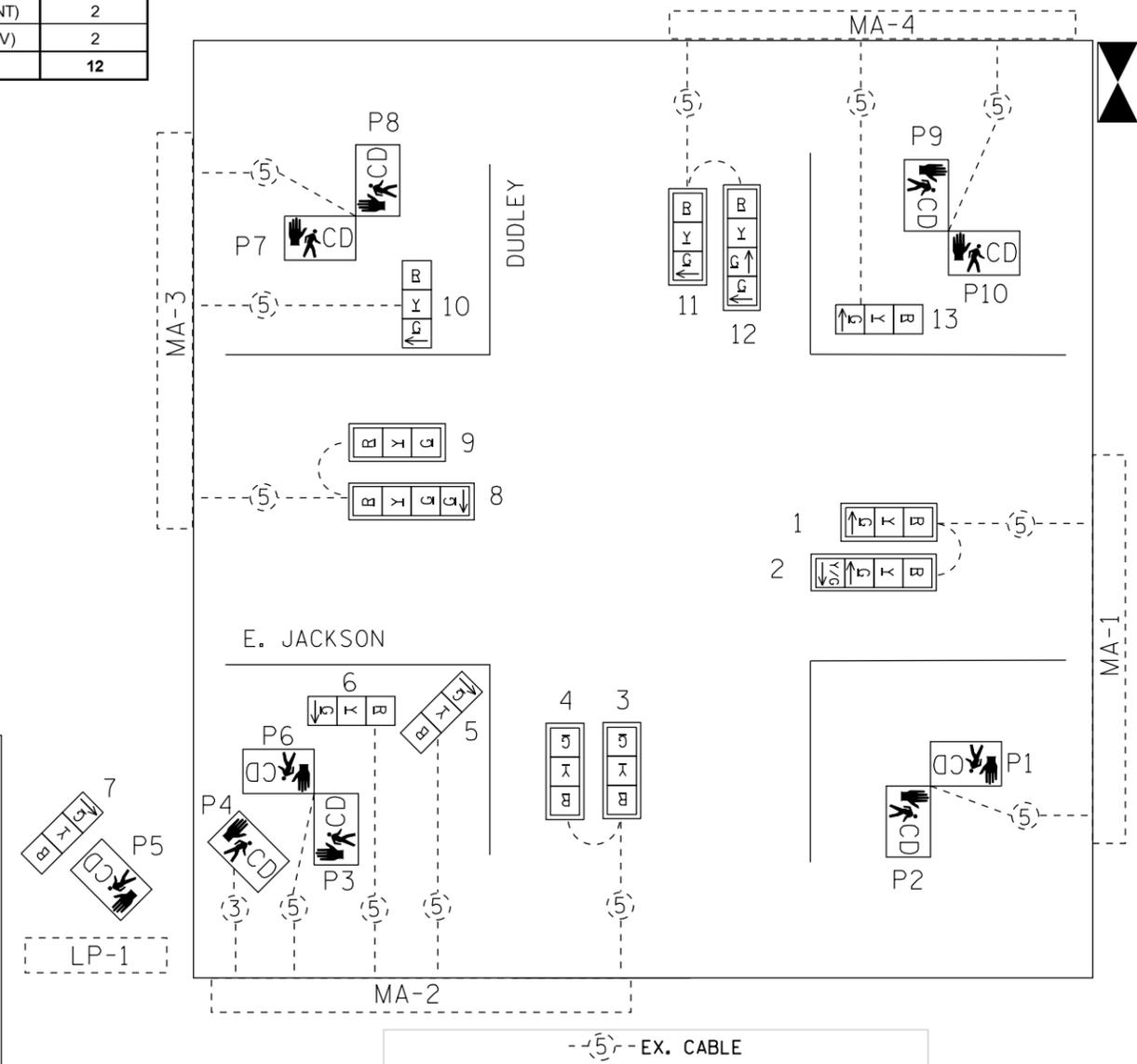


**DETECTOR LOOP AND DETECTOR ASSIGNMENT SCHEDULE
US 67/US 136 (CALHOUN) & CAMPBELL**

DETECTOR LOOP	ASSIGNED PHASE	CHANNELS REQUIRED
D-1A, D-1B, D-1C	1 (FRNT)	3
D-1D, D1E	1 (ADV)	2
D-2A, D-2B	2 (FRT)	2
D3	3	1
D-4A, D-4B	4 (FRNT)	2
D-4C, D-4D	4 (ADV)	2
IDOT FURNISHED		12

TRAFFIC SIGNAL HEAD SCHEDULE - US 67/US 136 (CALHOUN) & CAMPBELL

QTY.	TYPE	LOCATION
5.0 EACH	SH LED 1F 3S MAM	1,3,4,9,11
5.0 EACH	SH LED 1F 3S BM	5,6,7,10,13
3.0 EACH	SH LED 1F 4S MAM	2,8,12
8.0 EACH	TS BACKPLATE RET-REFL	1,2,3,4,8,9,11,12
2.0 EACH	PED SH LED 1F BM CDT	P4, P5
4.0 EACH	PED SH LED 2F BM CDT	(P1,P2),(P3,P6),(P7,P8),(P9,P10)



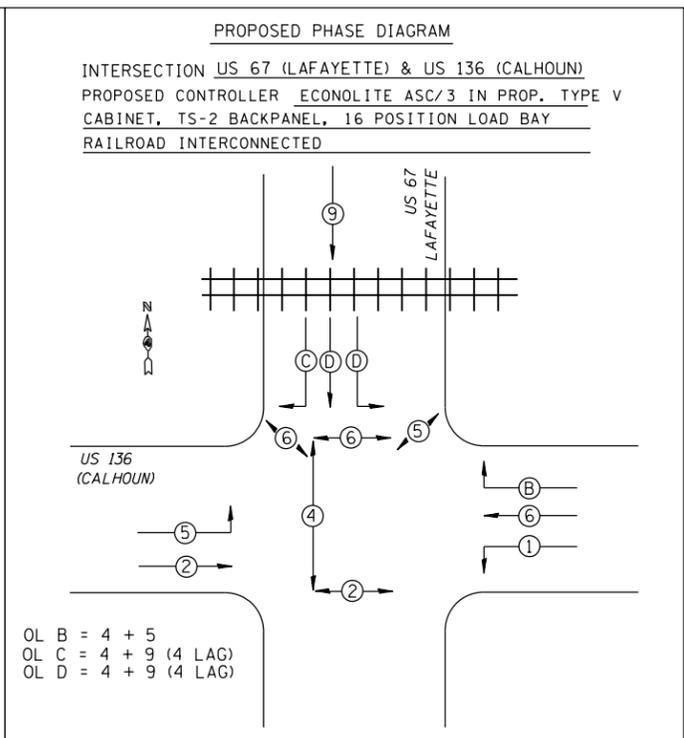
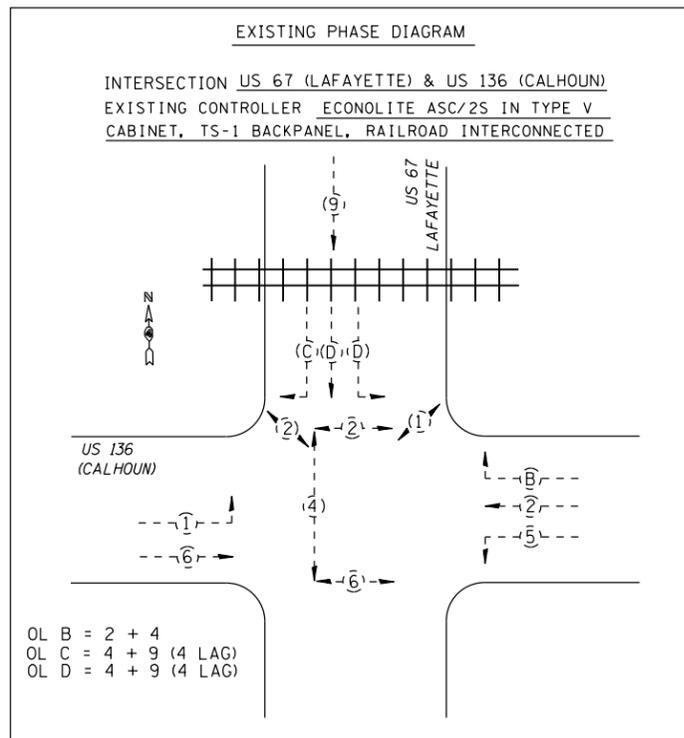
BILL OF MATERIALS - US 67/US 136 (CALHOUN) & CAMPBELL

ITEM DESCRIPTION	UNIT	TOTAL QTY.
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	5.0
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	3.0
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2.0
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4.0
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	8.0
CONTROLLER CABINET TYPE IV, SPECIAL	EACH	1.0

FILE NAME =	USER NAME = aubreys	DESIGNED -	REVISD -
C:\Users\aubreys\Desk top\68B61\68B61 -	Macomb FYA Project (Final 1-31-14).dgn	DRAWN -	REVISD -
	PLOT SCALE = 38.0588 ' / in.	CHECKED -	REVISD -
	PLOT DATE = 1/31/2014	DATE -	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED TRAFFIC SIGNALS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 67/US 136 (CALHOUN) & CAMPBELL - MACOMB		310 315	D4 FLASHING YELLOW ARROWS 2013	MCDONOUGH	24	11
SCALE: _____		STA. _____ TO STA. _____		CONTRACT NO. 68B61		
ILLINOIS FED. AID PROJECT						



EXISTING AND PROPOSED RAILROAD PREEMPTION PARAMETERS							
PREEMPT 1 (SUPERVISORY CIRCUIT)				PREEMPT 2 (RAILROAD)			
PED CLEAR THRU YELLOW: YES				PED CLEAR THRU YELLOW: YES			
PRIORITY PREEMPTION: YES				PRIORITY PREEMPTION: YES			
HOLD FLASH: YES				HOLD FLASH: NO			
TRACK CLEAR PHASE: 9				TRACK CLEAR PHASE: 9			
TERMINATE OVERLAP: B				HOLD PHASES: 2,6			
DURATION TIME: 0				EXIT PHASES: 4			
DELAY TIME: 1				EXIT CALLS: 4			
INHIBIT TIME: 0				TERMINATE OVERLAP: B			
EXIT MAX:0				DURATION TIME: 0			
MINIMUM PED CLEAR: 3				DELAY TIME: 1			
MAX TIME: 0				INHIBIT TIME: 0			
MINIMUM HOLD TIME: 15				EXIT MAX:0			
HOLD DELAY TIME:0				MINIMUM PED CLEAR: 3			
				MAX TIME: 0			
				MINIMUM HOLD TIME: 15			
				HOLD DELAY TIME:0			
MINIMUM	GREEN 1.0	YELLOW 3.5	RED 2.0	MINIMUM	GREEN 1.0	YELLOW 3.5	RED 2.0
TRACK CLR	17.0	4.0	2.0	TRACK CLR	17.0	4.0	2.0
HOLD				HOLD			

**DETECTOR LOOP AND DETECTOR
ASSIGNMENT SCHEDULE
US 67 (LAFAYETTE) & US 136 (CALHOUN)**

DETECTOR LOOP	ASSIGNED PHASE	CHANNELS REQUIRED
D1	1	1
D-2A, D-2B	2	2
D-2C, D-2D	2 (ADV)	2
D-4A, D-4B, D-4C	4 (FRNT)	3
D-4D, D-4E, D-4F	4 (BACK)	3
D-4G, D-4H	4 (ADV)	2
D5	5	1
D-6A, D-6B	6	2
D-6C, D-6D	6 (RT TRN)	2
D-6E, D-6F	6 (ADV)	2
TOTAL:		20

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	PLOT DATE = 1/31/2014	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED TRAFFIC SIGNALS (CONTINUED)
US 67 (N. LAFAYETTE) & US 136 (CALHOUN) - MACOMB**

SCALE: _____ STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310 315	D4 FLASHING YELLOW ARROWS 2013	MCDONOUGH	24	13
CONTRACT NO. 68B61				
ILLINOIS FED. AID PROJECT				

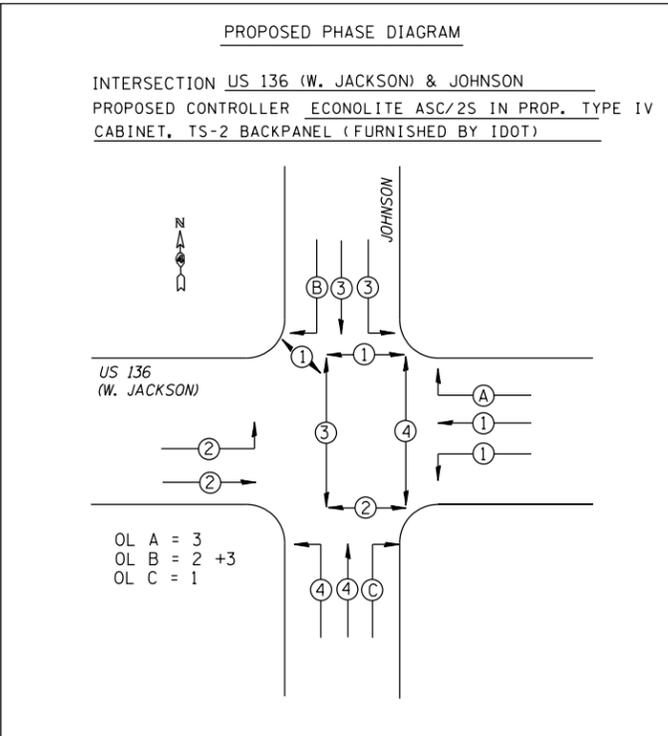
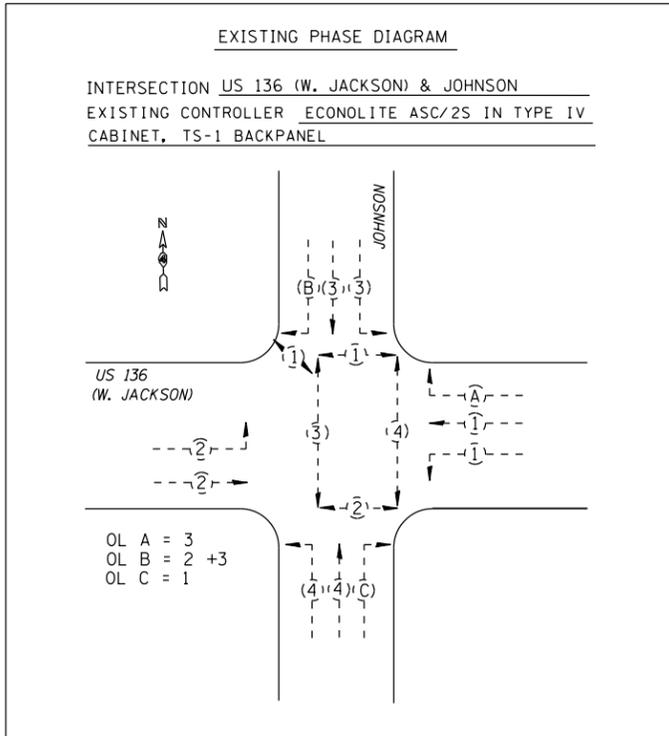
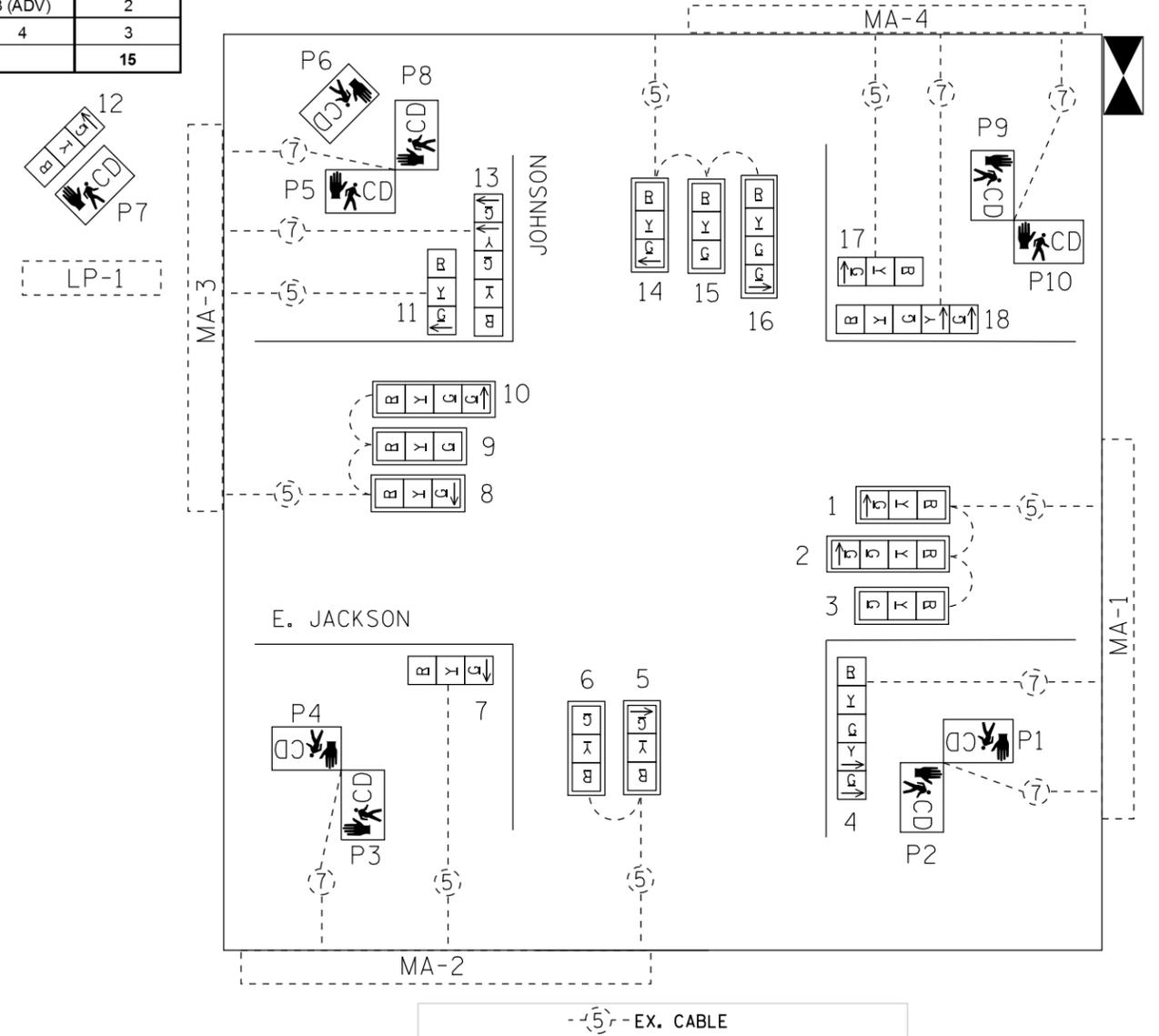


DETECTOR LOOP AND DETECTOR ASSIGNMENT SCHEDULE
US 67/US 136 (E. JACKSON) & JOHNSON

DETECTOR LOOP	ASSIGNED PHASE	CHANNELS REQUIRED
D-1A, D-1B	1	2
D-2A, D-2B, D-2C	2	3
D-2D, D2E	2 (ADV)	2
D-3A, D-3B, D-3C	3	3
D-3D, D-3E	3 (ADV)	2
D-4A, D-4B, D-4C	4	3
IDOT FURNISHED		15

TRAFFIC SIGNAL HEAD SCHEDULE - US 136 (W. JACKSON) & JOHNSON

QTY.	TYPE	LOCATION
8.0 EACH	SH LED 1F 3S MAM	1,3,5,6,8,9,14,15
4.0 EACH	SH LED 1F 3S BM	7,11,12,17
3.0 EACH	SH LED 1F 4S MAM	2,10,16
3.0 EACH	SH LED 1F 5S BM	4,13,18
11.0 EACH	TS BACKPLATE RET-REFL	1,2,3,5,6,8,9,10,14,15,16
2.0 EACH	PED SH LED 1F BM CDT	P6,P7
4.0 EACH	PED SH LED 2F BM CDT	(P1,P2),(P3,P4),(P5,P8),(P9,P10)



BILL OF MATERIALS - US 136 (W. JACKSON) & JOHNSON

ITEM DESCRIPTION	UNIT	TOTAL QTY.
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	8.0
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	3.0
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3.0
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2.0
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4.0
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	11.0
CONTROLLER CABINET TYPE IV, SPECIAL	EACH	1.0
CLOSED CIRCUIT TELEVISION DOME CAMERA, IP BASED (INSTALL ONLY)	EACH	1.0
CAT 5 ETHERNET CABLE	FOOT	87.0



**DETECTOR LOOP AND DETECTOR ASSIGNMENT SCHEDULE
US 136 (W. JACKSON) & WARD**

DETECTOR LOOP	ASSIGNED PHASE	CHANNELS REQUIRED
D1	1	1
D-2A, D-2B	2 (ADV)	2
D5	5	1
D-6A, D-6B	6 (ADV)	2
D-7A, D-7B	7	2
D-8A, D-8B	8	2
TOTAL:		10

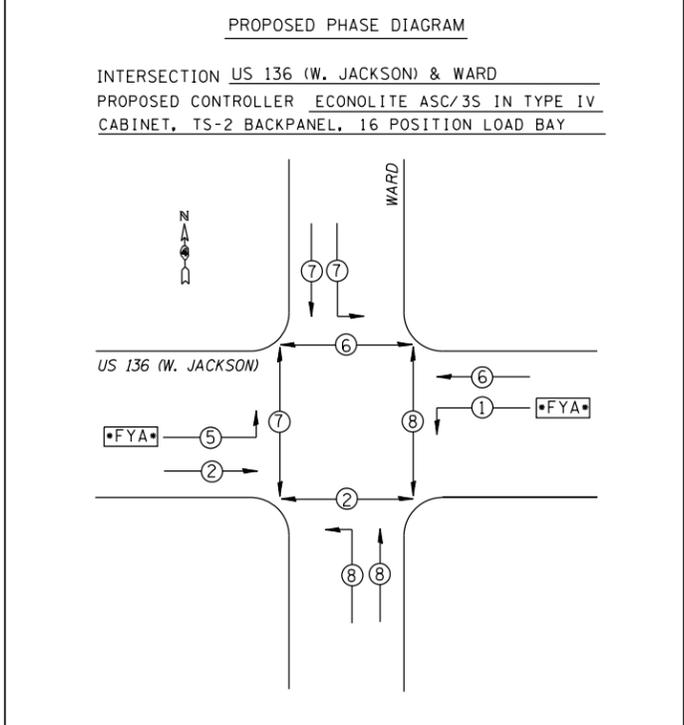
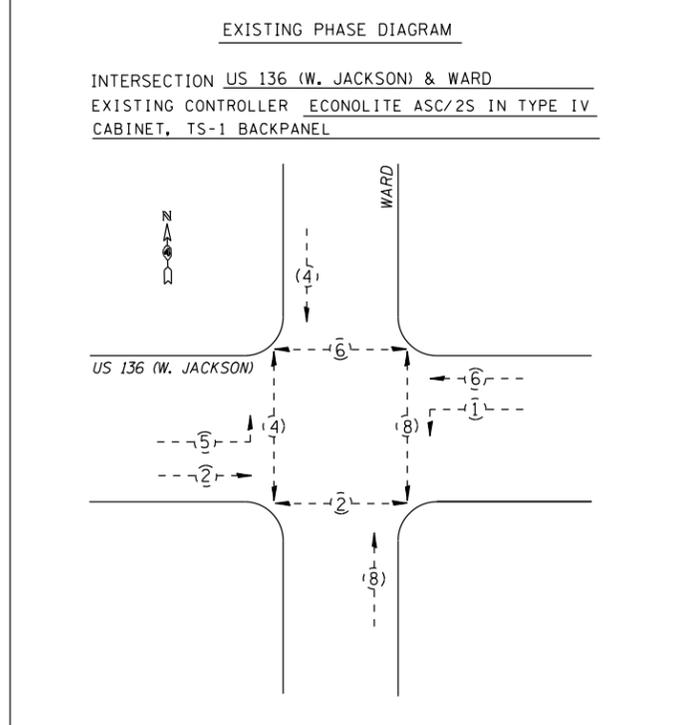
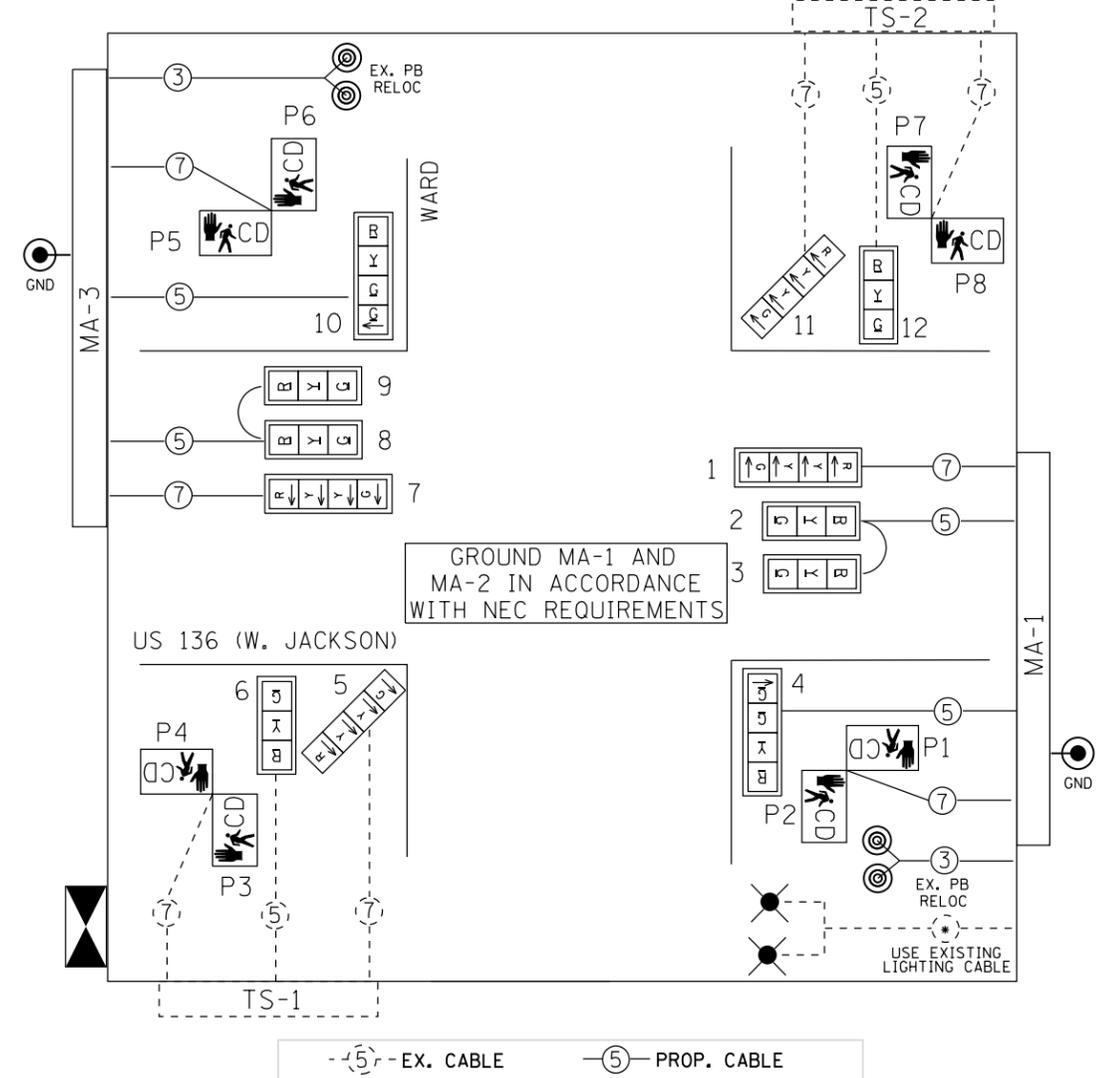
MAST ARM SCHEDULE

DESIG.	LOCATION	TYPE
MA-1	SOUTHEAST QUADRANT	S C MAA&P 38 SPL (INSTALL ON EX. FDN)
MA-3	NORTHWEST QUADRANT	S MAA&P 38 SPL (INSTALL ON EX. FDN)

- ⊙ EX. PED PUSHBUTTON RELOCATED
- ←+ PROP. SIGNAL HEAD W/ BACKPLATE
- ← PROP. SIGNAL HEAD
- ⊣ PROP. PEDESTRIAN SIGNAL HEAD

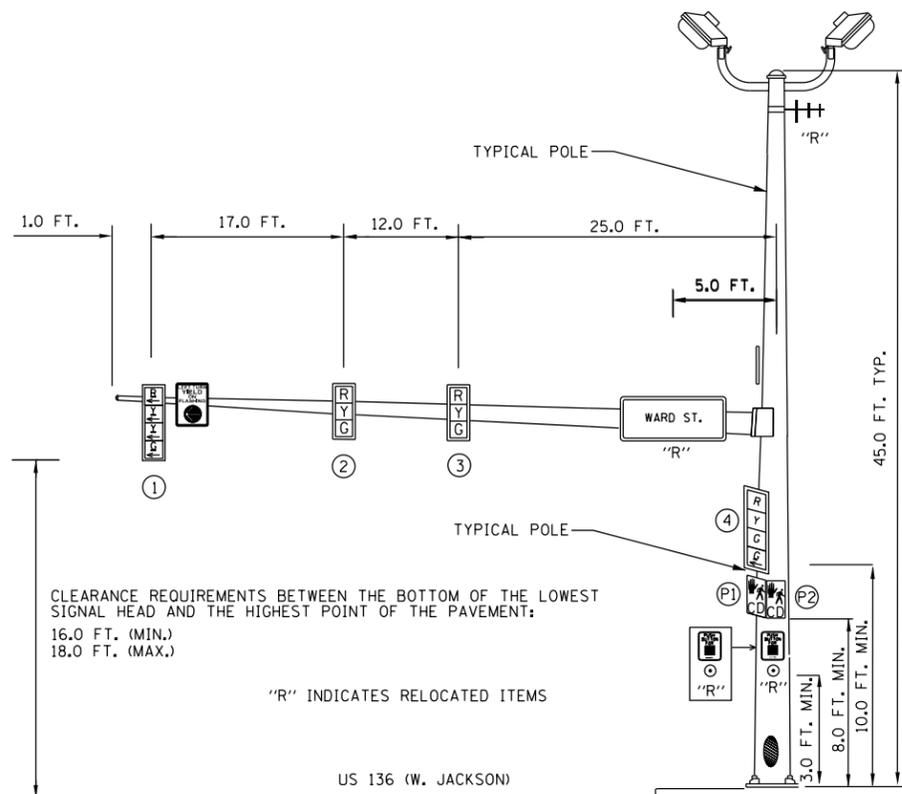
TRAFFIC SIGNAL HEAD SCHEDULE - US 136 (W. JACKSON) & WARD

QTY.	TYPE	LOCATION
4.0 EACH	SH LED 1F 3S MAM	2,3,8,9
2.0 EACH	SH LED 1F 3S BM	6,12
2.0 EACH	SH LED 1F 4S MAM	1,7
4.0 EACH	SH LED 1F 4S BM	4,5,10,11
10.0 EACH	TS BACKPLATE RET-REFL	1,2,3,4,6,7,8,9,10,12
4.0 EACH	PED SH LED 2F BM CDT	(P1,P2),(P3,P4),(P5,P6),(P7,P8)

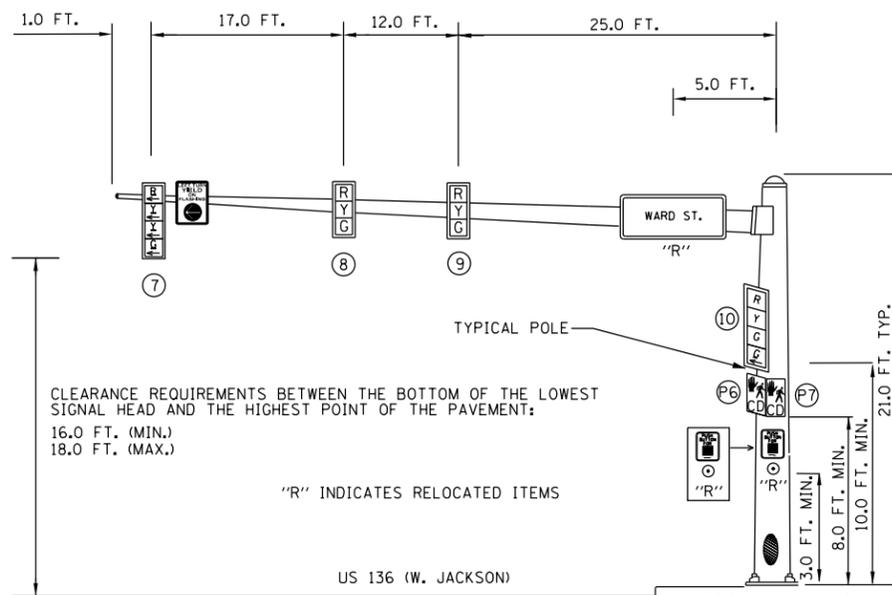


BILL OF MATERIALS - US 136 (W. JACKSON) & WARD

ITEM DESCRIPTION	UNIT	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	10.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	213.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	500.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	544.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4.0
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2.0
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4.0
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4.0
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	10.0
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1.0
INDUCTIVE LOOP DETECTOR	EACH	10.0
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT. (SPECIAL)	EACH	1.0
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT. (SPECIAL)	EACH	1.0



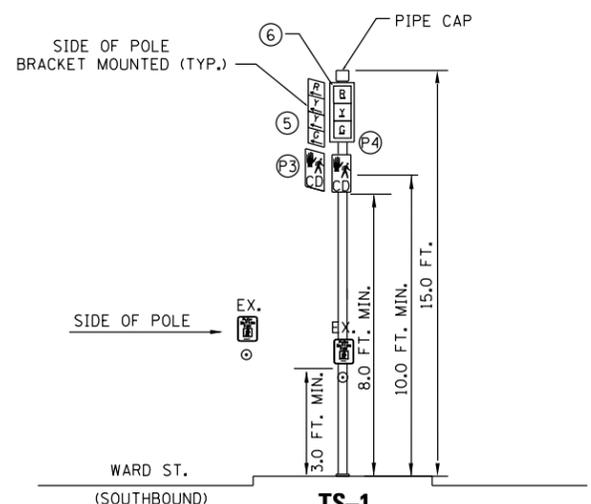
EASTBOUND TRAFFIC SIGNAL
SOUTHEAST CORNER OF US 136 (W. JACKSON) & WARD



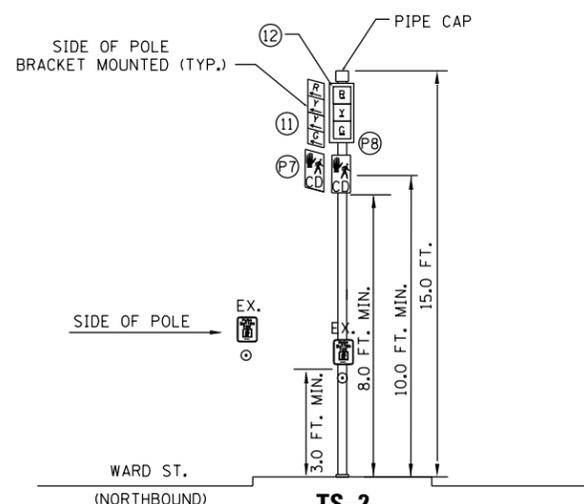
WESTBOUND TRAFFIC SIGNAL
NORTHWEST CORNER OF US 136 (W. JACKSON) & WARD

THE PROPOSED MAST ARMS SHALL BE INSTALLED ON THE EXISTING CONCRETE FOUNDATIONS. THE CONTRACTOR SHALL VERIFY EXISTING MAST ARM BOLT CIRCLES PRIOR TO SUBMITTING MAST ARM DRAWINGS TO THE DEPARTMENT FOR REVIEW. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEMS FOR THE PROPOSED MAST ARMS.

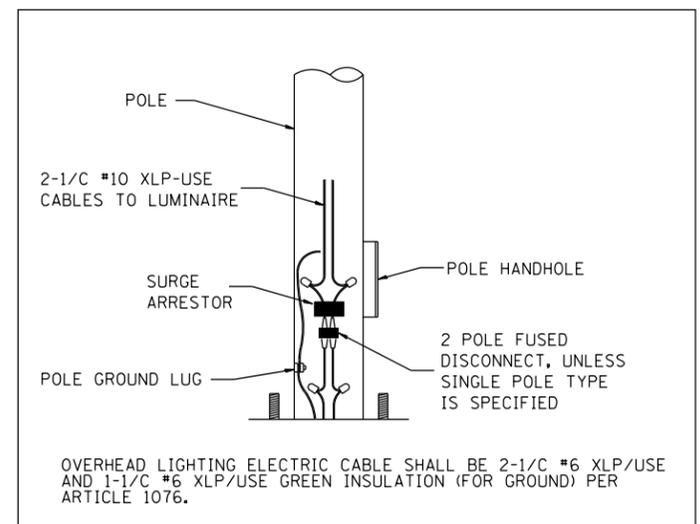
ALL EXISTING SIGNS AND PEDESTRIAN PUSHBUTTONS SHALL BE REMOVED AND RELOCATED TO THE PROPOSED MAST ARMS. THE CONTRACTOR SHALL INSTALL TWO IDOT FURNISHED TENON MOUNT LUMINAIRE ON THE COMBINATION MAST ARM. THE PROPOSED MAST ARMS SHALL BE CONNECTED TO THE EXISTING GROUNDING CONDUCTOR. THE CONTRACTOR SHALL RELOCATE THE EXISTING YAGI ANTENNA AND ANTENNA CABLE TO THE PROPOSED MAST ARM. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEMS FOR THE PROPOSED MAST ARMS.



SOUTHBOUND TRAFFIC SIGNAL
SOUTHWEST CORNER OF US 136 (W. JACKSON) & WARD



NORTHBOUND TRAFFIC SIGNAL
NORTHEAST CORNER OF US 136 (W. JACKSON) & WARD



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C:\Users\aubreys\Desktop\68B61\68B61 -	Macomb FYA Project (Final 1-31-14).dgn	DRAWN -	REVISED -
	PLOT SCALE = 38.0588' / in.	CHECKED -	REVISED -
	PLOT DATE = 1/31/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

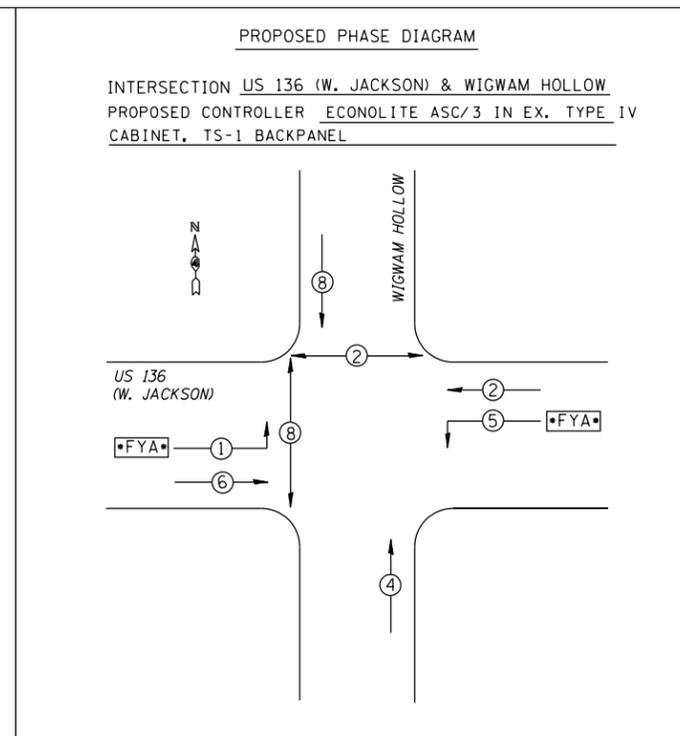
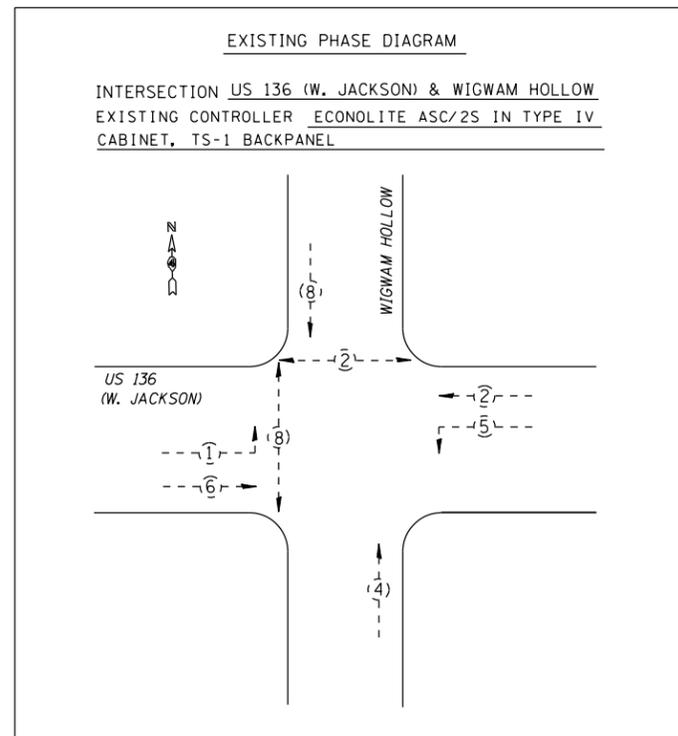
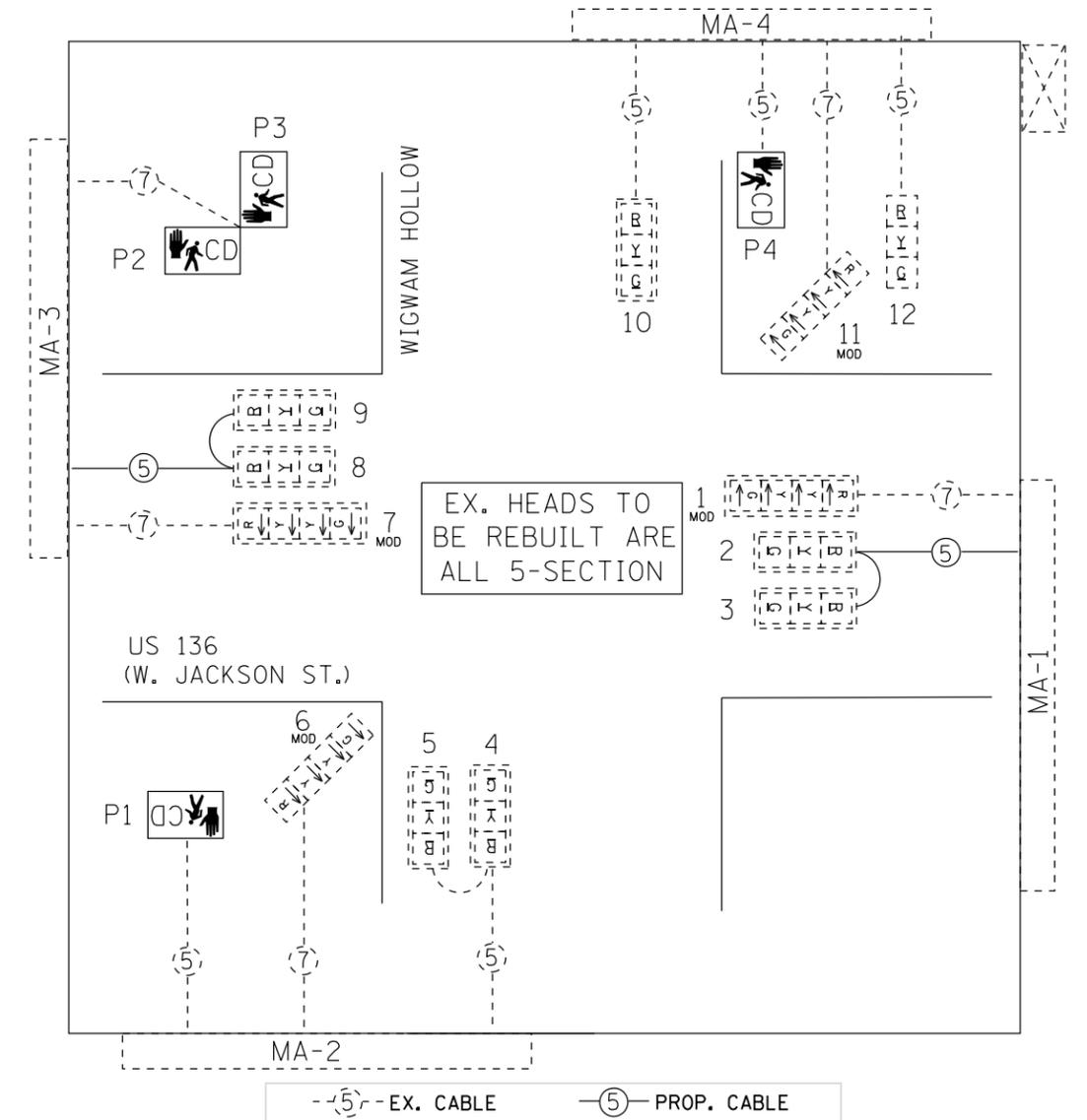
PROPOSED TRAFFIC SIGNAL MAST ARM DETAIL
US 136 (W. JACKSON) & WARD - MACOMB

SCALE: _____ STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310	D4 FLASHING YELLOW ARROWS 2013	MCDONOUGH	24	16
315			CONTRACT NO. 68B61	
ILLINOIS FED. AID PROJECT				



TRAFFIC SIGNAL HEAD SCHEDULE - US 136 (W. JACKSON) & WIGWAM HOLLOW		
QTY.	TYPE	LOCATION
8.0 EACH	SH LED RETROFIT	2,3,4,5,8,9,10,12
9.0 EACH	MOD EX TS BACKPLATE	1,2,3,4,5,7,8,9,10
4.0 EACH	REBUILD EX SIG HD LED	1,6,7,11 (ALL EX. HEADS ARE 5-SECTION)
2.0 EACH	PED SH LED 1F BM CDT	P1,P4
1.0 EACH	PED SH LED 2F BM CDT	(P2,P3)



BILL OF MATERIALS - US 136 (W. JACKSON) & WIGWAM HOLLOW		
ITEM DESCRIPTION	UNIT	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	10.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	405.0
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2.0
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1.0
MODIFY EXISTING TRAFFIC SIGNAL BACKPLATE	EACH	9.0
REBUILD EXISTING SIGNAL HEAD, LED	EACH	4.0
MODIFY EXISTING CONTROLLER CABINET	EACH	1.0
SIGNAL HEAD, LED, RETROFIT	EACH	8.0

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PLOT SCALE = 38.0588' / in.		CHECKED -	REVISED -
PLOT DATE = 1/31/2014		DATE -	REVISED -

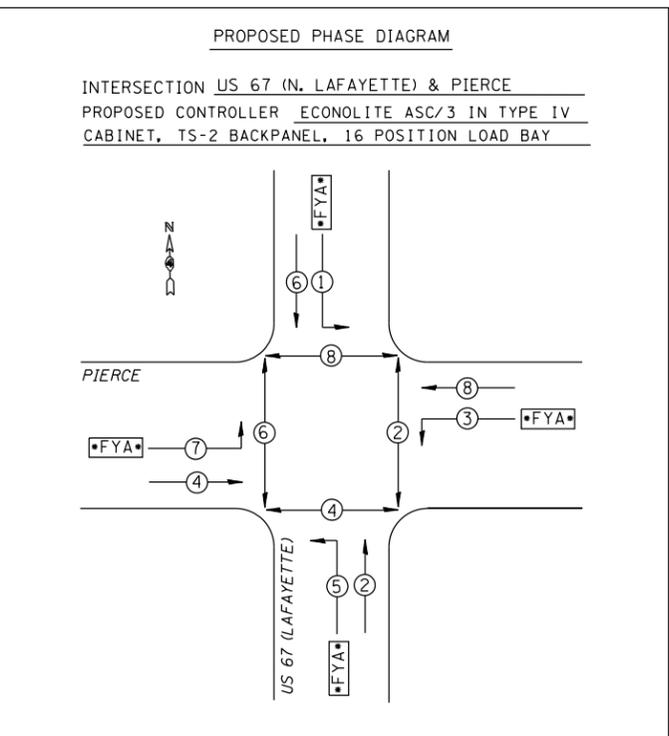
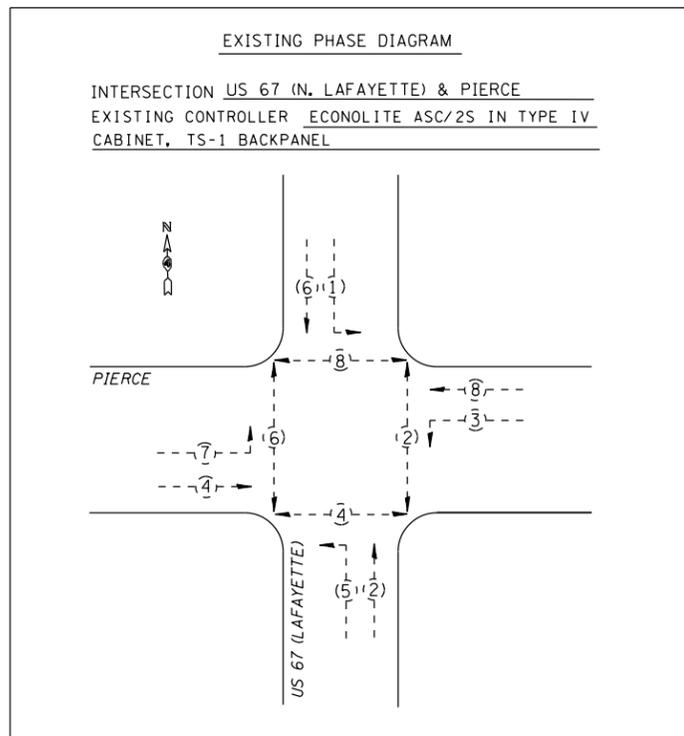
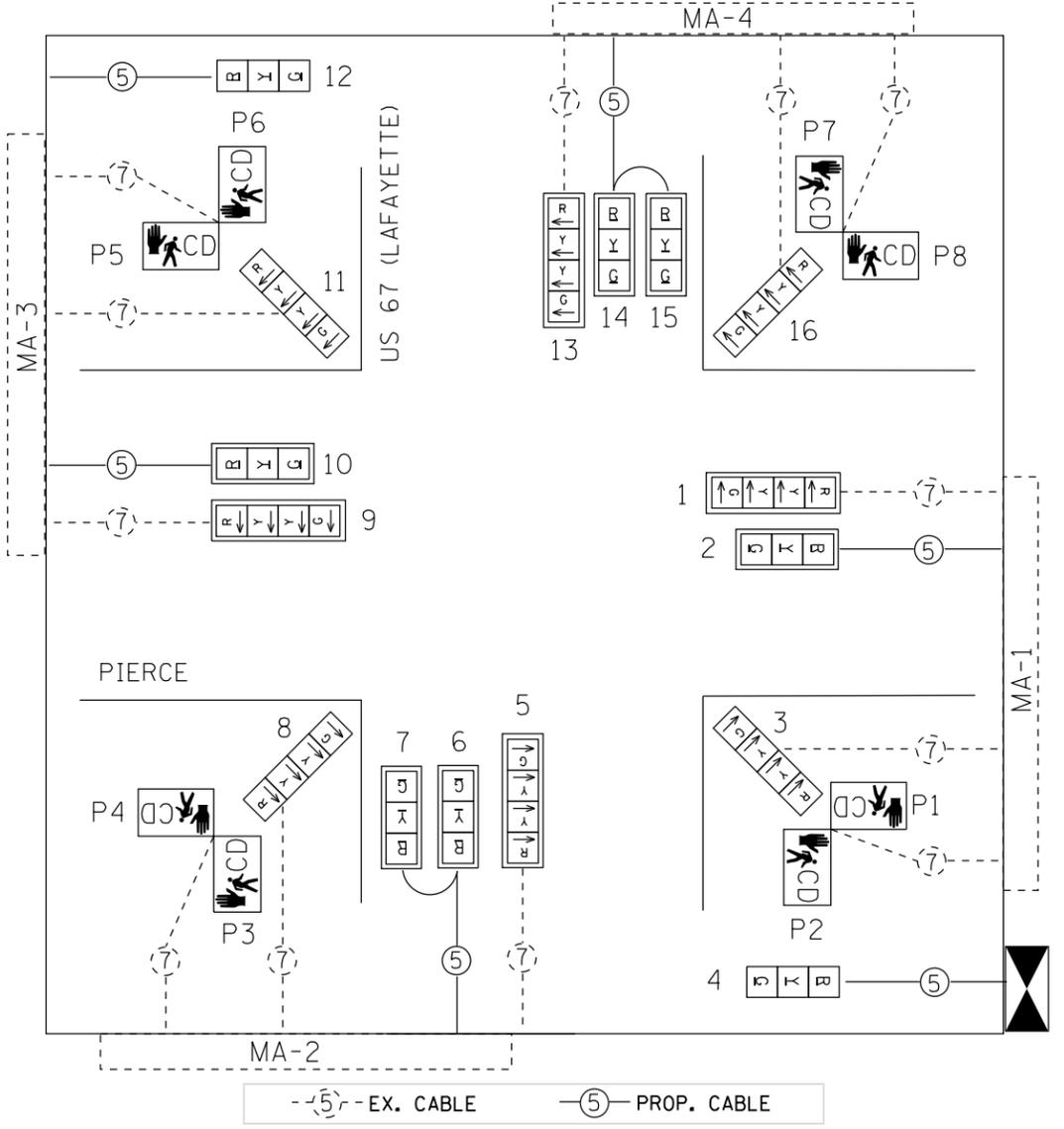
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED TRAFFIC SIGNALS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 136 (W. JACKSON) & WIGWAM HOLLOW - MACOMB		310	D4 FLASHING YELLOW ARROWS 2013	MCDONOUGH	24	17
SCALE: _____		STA. _____ TO STA. _____		CONTRACT NO. 68B61		
ILLINOIS FED. AID PROJECT						



DETECTOR LOOP AND DETECTOR ASSIGNMENT SCHEDULE US 67 (LAFAYETTE) & PIERCE		
DETECTOR LOOP	ASSIGNED PHASE	CHANNELS REQUIRED
D1	1	1
D-2A, D-2B	2 (ADV)	2
D3	3	1
D4	4	1
D5	5	1
D-6A, D-6B	6 (ADV)	2
D7	7	1
D8	8	1
TOTAL:		10

TRAFFIC SIGNAL HEAD SCHEDULE - US 67 (N. LAFAYETTE) & PIERCE		
QTY.	TYPE	LOCATION
2.0 EACH	SH LED 1F 3S BM	4,12
6.0 EACH	SH LED 1F 3S MAM	2,6,7,10,14,15
4.0 EACH	SH LED 1F 4S BM	3,8,11,16
4.0 EACH	SH LED 1F 4S MAM	1,5,9,13
10.0 EACH	TS BACKPLATE RET-REFL	1,2,5,6,7,9,10,13,14,15
4.0 EACH	PED SH LED 2F BM CDT	(P1,P2),(P3,P4),(P5,P6),(P7,P8)

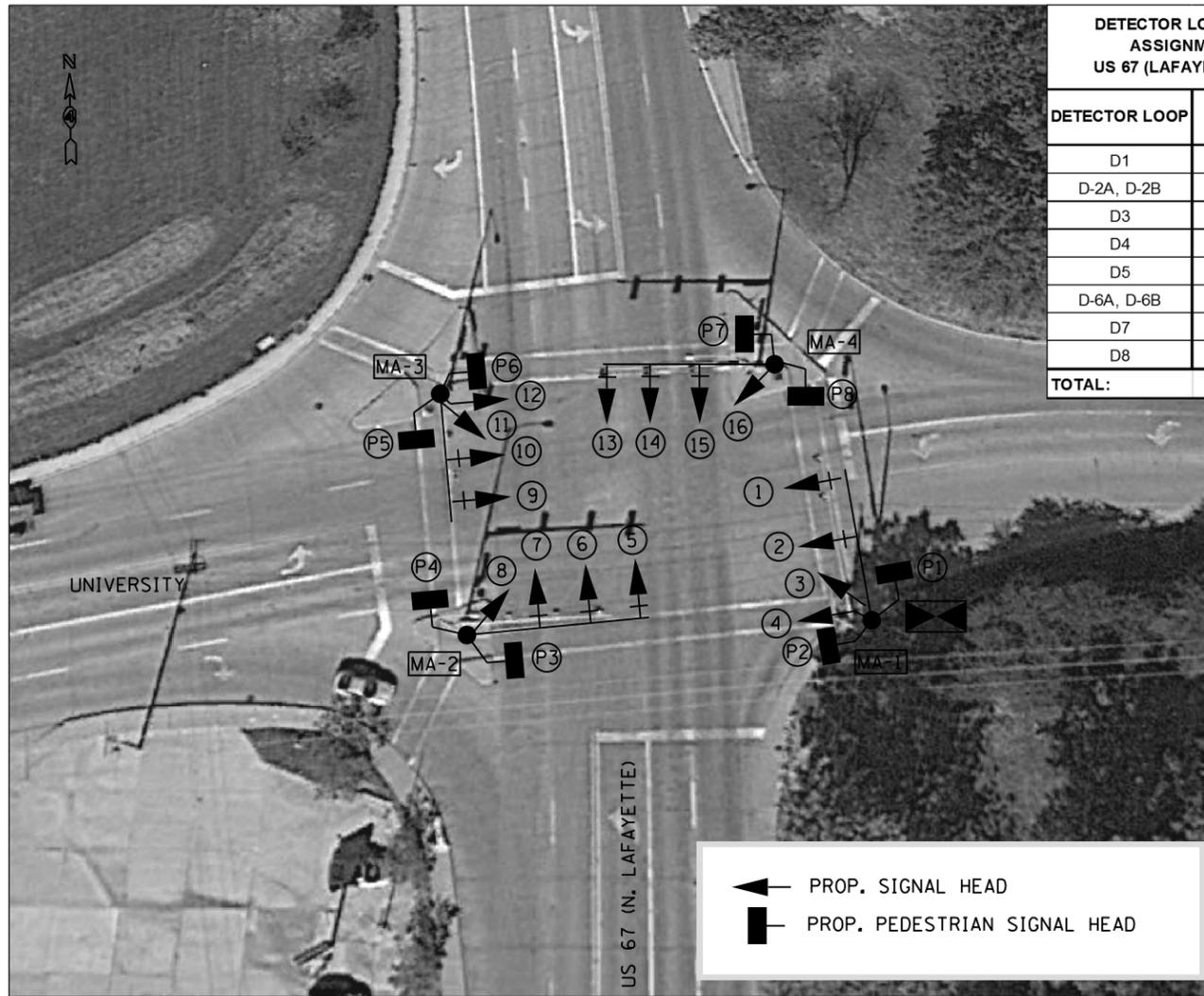


BILL OF MATERIALS - US 67 (N. LAFAYETTE) & PIERCE		
ITEM DESCRIPTION	UNIT	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	20.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	857.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2.0
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4.0
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	4.0
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4.0
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	10.0
INDUCTIVE LOOP DETECTOR	EACH	10.0
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1.0

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	PLOT SCALE = 38.0588' / in.	CHECKED -	REVISED -
	PLOT DATE = 1/31/2014	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED TRAFFIC SIGNALS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
US 67 (N. LAFAYETTE) & PIERCE - MACOMB		310	D4 FLASHING YELLOW ARROWS 2013	MCDONOUGH	24	18
SCALE: _____		STA. _____ TO STA. _____		CONTRACT NO. 68B61		
ILLINOIS FED. AID PROJECT						

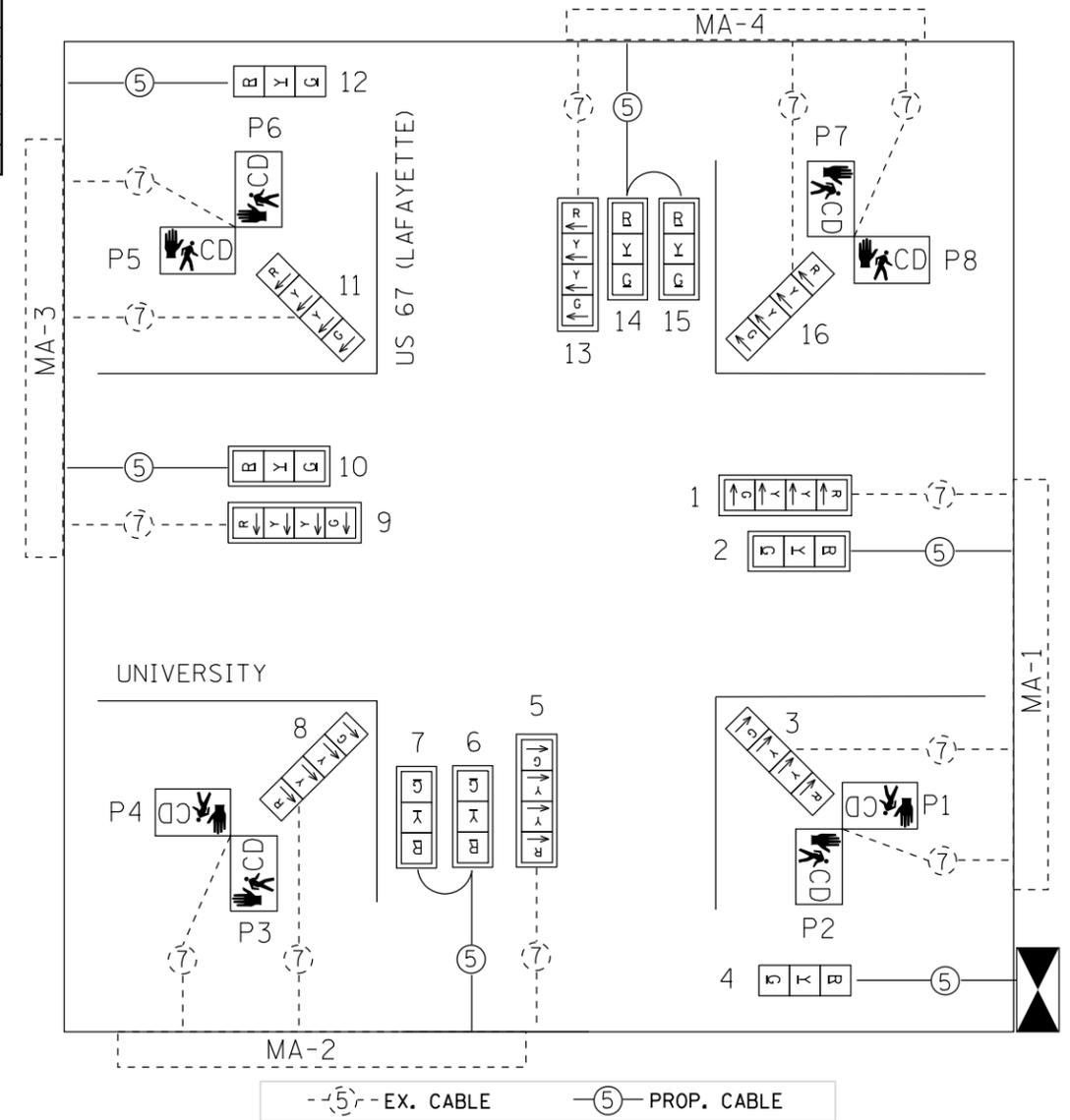


**DETECTOR LOOP AND DETECTOR ASSIGNMENT SCHEDULE
US 67 (LAFAYETTE) & UNIVERSITY**

DETECTOR LOOP	ASSIGNED PHASE	CHANNELS REQUIRED
D1	1	1
D-2A, D-2B	2 (ADV)	2
D3	3	1
D4	4	1
D5	5	1
D-6A, D-6B	6 (ADV)	2
D7	7	1
D8	8	1
TOTAL:		10

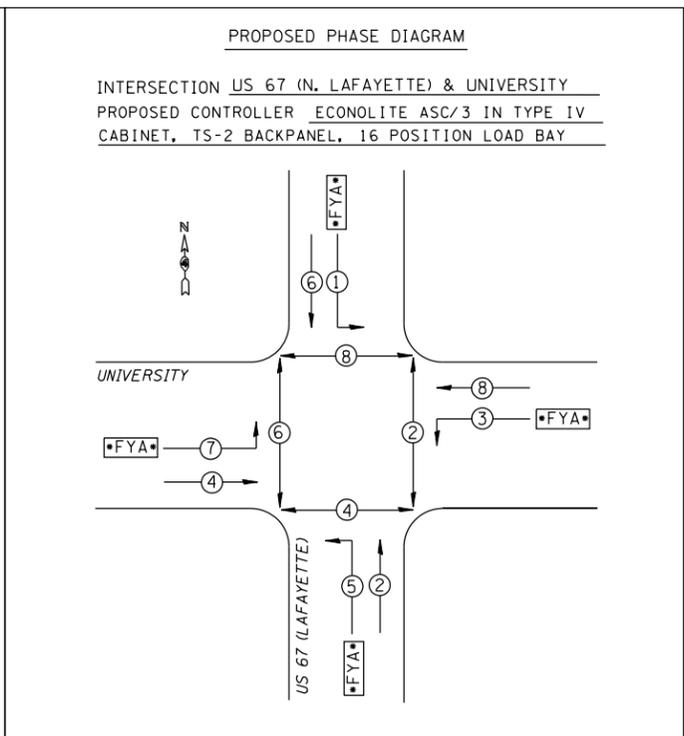
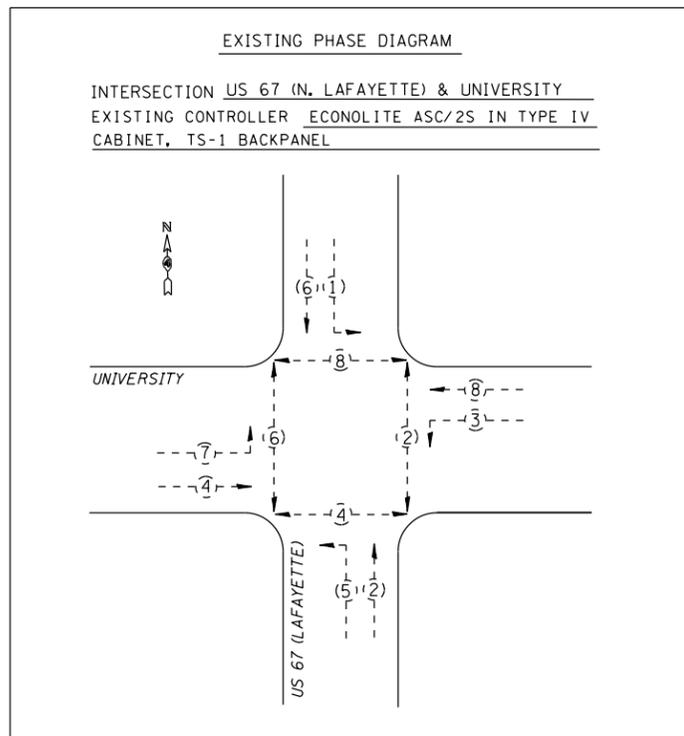
TRAFFIC SIGNAL HEAD SCHEDULE - US 67 (N. LAFAYETTE) & UNIVERSITY

QTY.	TYPE	LOCATION
2.0 EACH	SH LED 1F 3S BM	4,12
6.0 EACH	SH LED 1F 3S MAM	2,6,7,10,14,15
4.0 EACH	SH LED 1F 4S BM	3,8,11,16
4.0 EACH	SH LED 1F 4S MAM	1,5,9,13
10.0 EACH	TS BACKPLATE RET-REFL	1,2,5,6,7,9,10,13,14,15
4.0 EACH	PED SH LED 2F BM CDT	(P1,P2),(P3,P4),(P5,P6),(P7,P8)



BILL OF MATERIALS - US 67 (N. LAFAYETTE) & UNIVERSITY

ITEM DESCRIPTION	UNIT	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	20.0
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	824.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6.0
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2.0
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4.0
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	4.0
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4.0
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	10.0
INDUCTIVE LOOP DETECTOR	EACH	10.0
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1.0



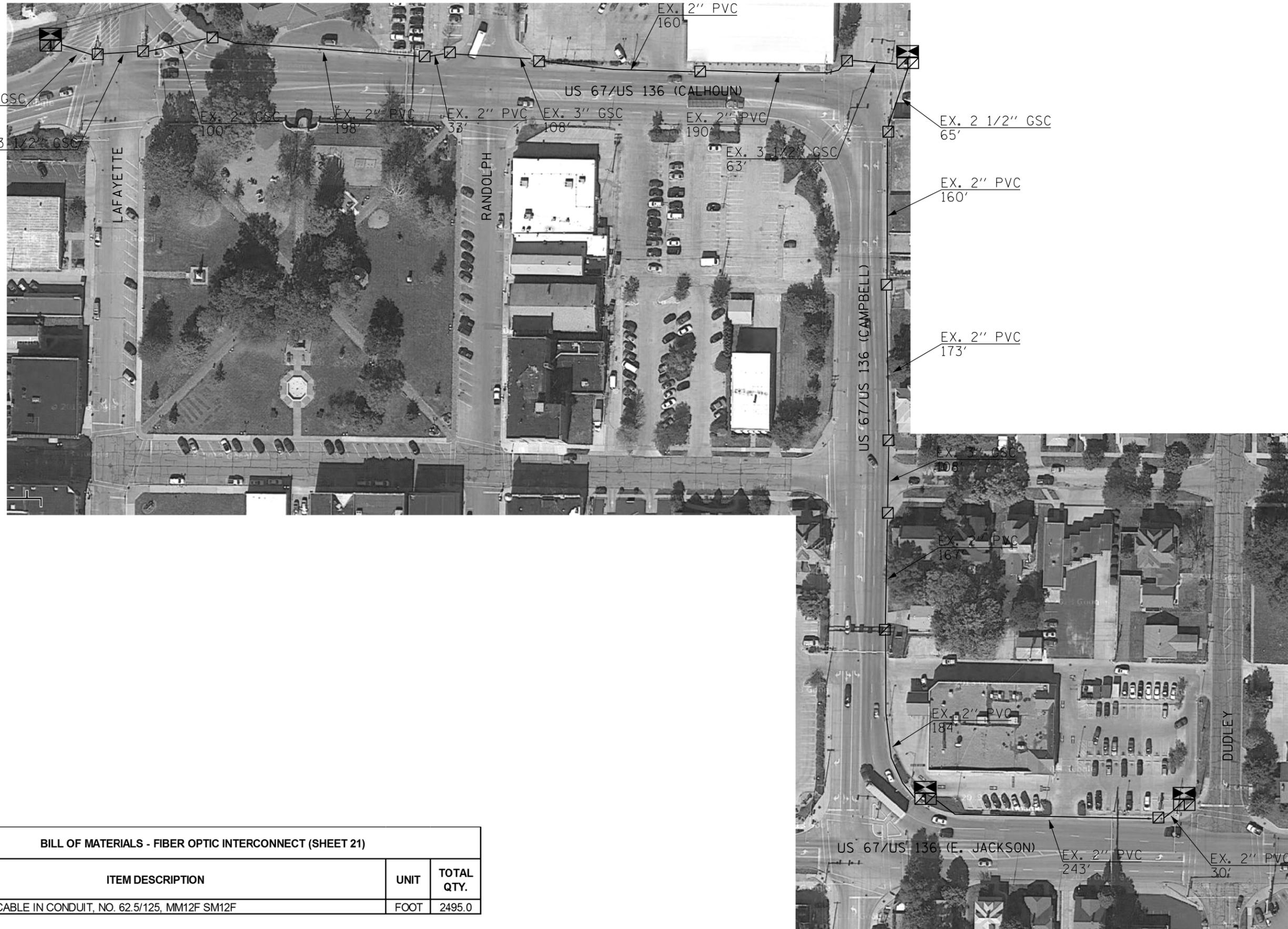
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PLOT DATE = 1/31/2014	DATE -	REVISIED -	REVISIED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED TRAFFIC SIGNALS
US 67 (N. LAFAYETTE) & UNIVERSITY - MACOMB**

SCALE: _____ STA. _____ TO STA. _____

F.A.P. RTE. 310 315	SECTION D4 FLASHING YELLOW ARROWS 2013	COUNTY MCDONOUGH	TOTAL SHEETS 24	SHEET NO. 19
CONTRACT NO. 68861			ILLINOIS FED. AID PROJECT	



BILL OF MATERIALS - FIBER OPTIC INTERCONNECT (SHEET 21)

ITEM DESCRIPTION	UNIT	TOTAL QTY.
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	2495.0

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	PLOT DATE = 1/31/2014	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

PROPOSED FIBER OPTIC INTERCONNECT PLAN (CONTINUED)

SCALE: NONE

STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310 315	D4 FLASHING YELLOW ARROWS 2013	MCDONOUGH	24	20
CONTRACT NO. 68B61				
ILLINOIS FED. AID PROJECT				

THE CONTRACTOR SHALL TERMINATE SIX MULTIMODE AND SIX SINGLE MODE FIBERS WITH ST CONNECTORS FROM EACH CABLE END.

THE CONTRACTOR SHALL PLACE ALL SINGLE MODE BUFFER TUBES OUTSIDE OF THE FIBER OPTIC ENCLOSURES WITH ENOUGH FIBER COILED UP TO FACILITATE TERMINATION IN THE FUTURE WITHOUT DISTURBING THE MULTIMODE FIBERS

THE CONTRACTOR MAY ELECT TO EITHER REMOVE THE EXISTING 6 PR INTERCONNECT CABLE DURING THE INSTALLATION OF THE PROPOSED FIBER OPTIC CABLE AND TRACER WIRE OR LEAVE THE EXISTING INTERCONNECT CABLE IN PLACE TO BE UTILIZED AS A TRACER WIRE.

SLACK CABLE REQUIREMENTS FOR FIBER OPTIC CABLE: DOUBLE HANDHOLES - 30 FT., HANDHOLES - 10 FT., CONTROLLER CABINETS - 10 FT.



US 67 (LAFAYETTE)

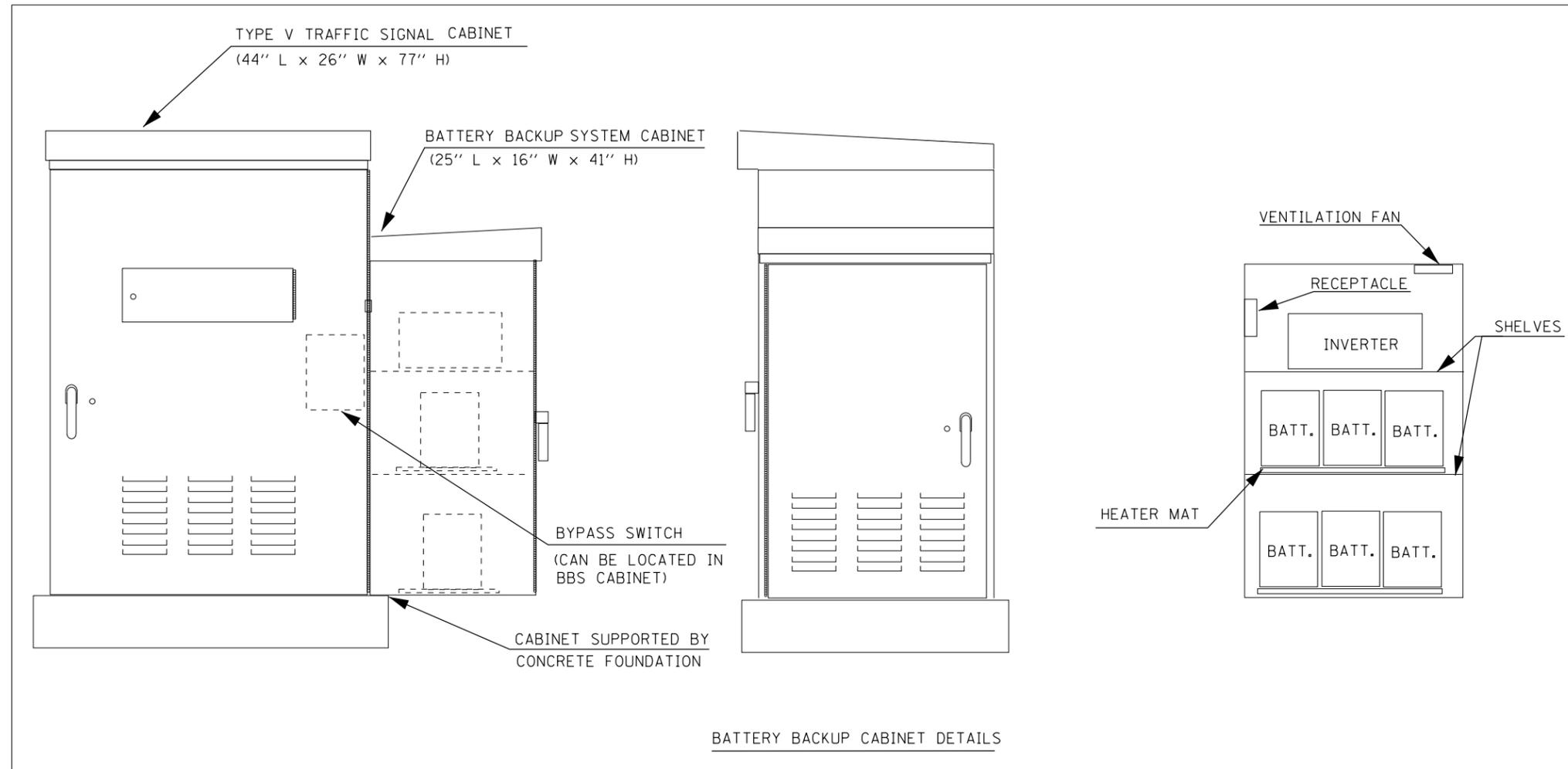
BILL OF MATERIALS - FIBER OPTIC INTERCONNECT (SHEET 20)		
ITEM DESCRIPTION	UNIT	TOTAL QTY.
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	1499.0

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PLOT DATE = 1/31/2014	DATE - _____	REVISOR - _____	REVISOR - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED FIBER OPTIC INTERCONNECT PLAN	
SCALE: NONE	STA. _____ TO STA. _____

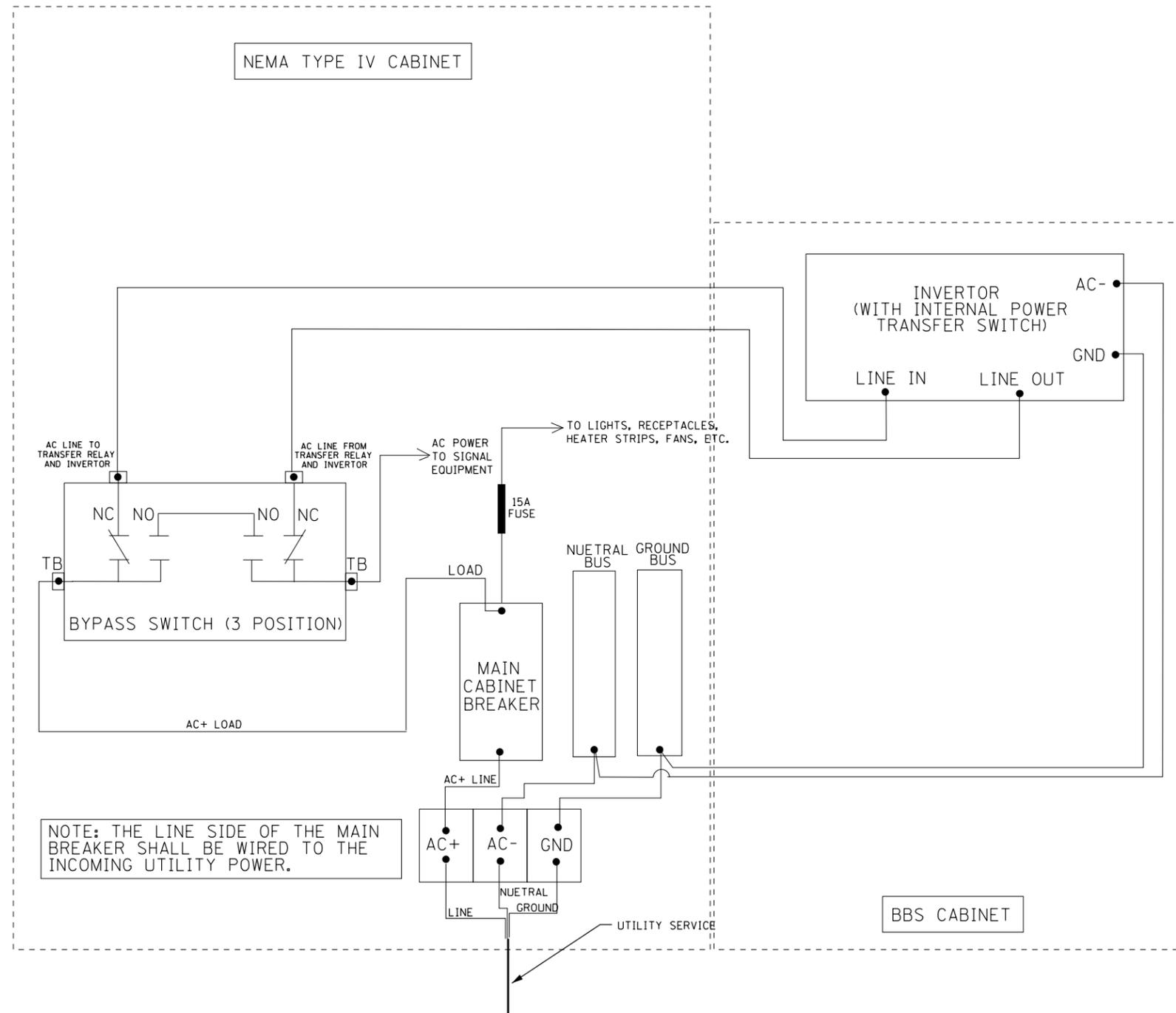
F.A.P. RTE. 310 315	SECTION D4 FLASHING YELLOW ARROWS 2013	COUNTY MCDONOUGH	TOTAL SHEETS 24	SHEET NO. 21
CONTRACT NO. 68B61			ILLINOIS FED. AID PROJECT	



NOTES

1. THE BATTERY BACKUP SYSTEM CABINET SHALL BE A NEMA TYPE 3R CABINET WITH MINIMUM OUTSIDE DIMENSIONS OF 41" (H) X 25" (W) X 16" (D). THE CABINET SHALL BE EQUIPPED WITH A THREE POINT LATCHING MECHANISM, TWO SHELVES, THERMOSTATICALLY CONTROLLED VENTILATION FAN, AND A POWER RECEPTACLE. THE CABINET SHALL BE MOUNTED TO THE SIDE OF THE PROPOSED TYPE IV CABINET WITH THE BOTTOM OF THE CABINET SUPPORTED BY THE CONCRETE FOUNDATION.
2. ALL CABINET LIGHTS, HEATER STRIPS, VENTILATION FANS, AND SERVICE RECEPTACLES SHALL BE BYPASSED WHEN THE BATTERY BACKUP UNIT IS OPERATING IN BATTERY MODE.
3. THE BATTERY BACKUP UNITS CONTACTS SHALL BE WIRED TO PROVIDE LOCAL CONTROLLER ALARMS (AS AVAILABLE IN THE SIGNAL CABINETS).

FILE NAME =	USER NAME = aubreys	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BATTERY BACKUP SYSTEM CABINET DETAIL	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT SCALE = 38.0588' / in.	CHECKED -	REVISED -			315					CONTRACT NO. 68B61
	PLOT DATE = 1/31/2014	DATE -	REVISED -			SCALE: _____		STA. _____ TO STA. _____		ILLINOIS FED. AID PROJECT	



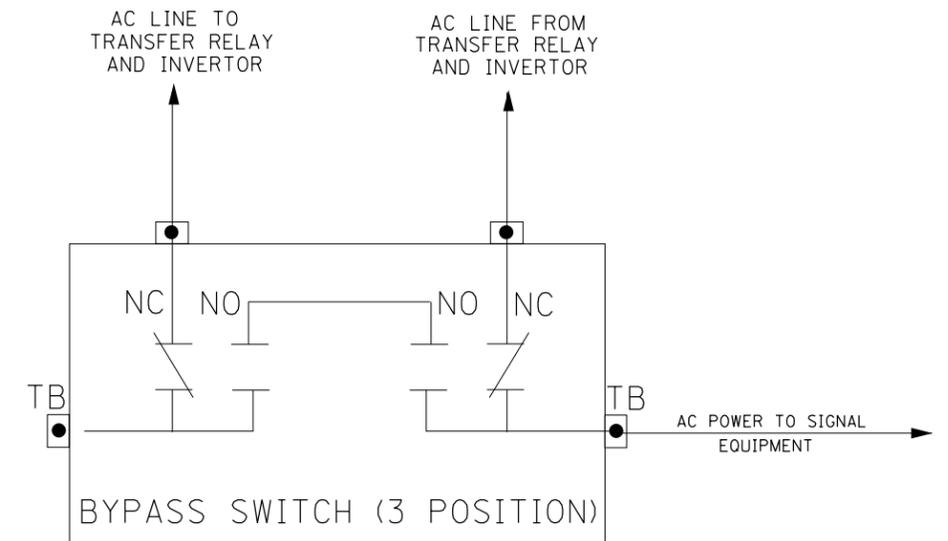
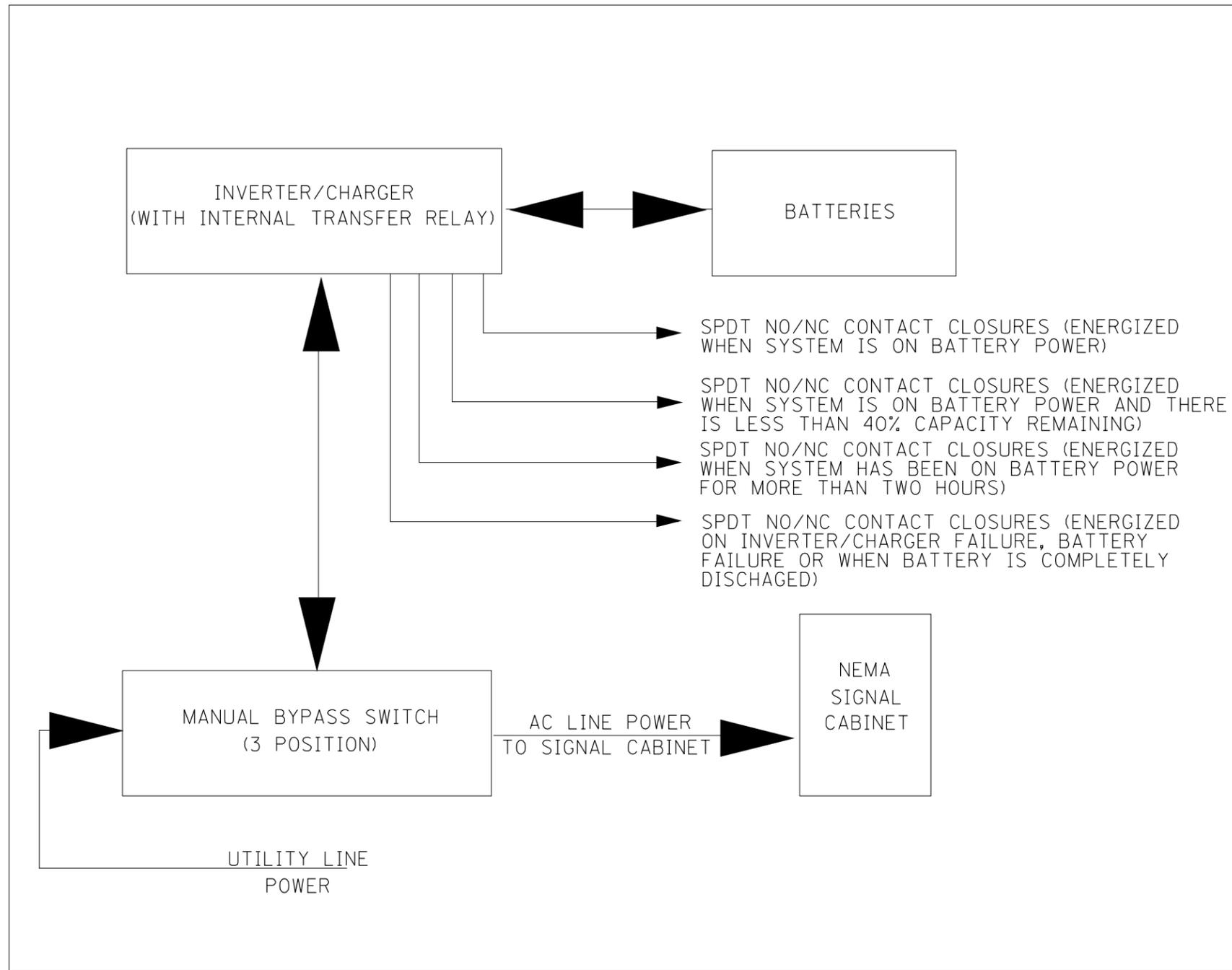
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	PLOT DATE = 1/31/2014	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BATTERY BACKUP SYSTEM CABINET WIRING DIAGRAM

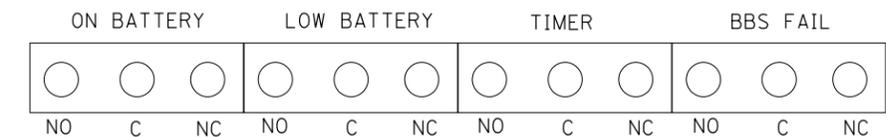
SCALE: _____ STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310 315	D4 FLASHING YELLOW ARROWS 2013	MCDONOUGH	24	23
CONTRACT NO. 68B61				
ILLINOIS FED. AID PROJECT				



NOTES:

1. TB - #8 TERMINAL BLOCKS
2. NO - NORMALLY OPEN
3. NC - NORMALLY CLOSED
4. NO/NC CONTACTS SHALL ALL TOGGLE SIMULTANEOUSLY WITH A SINGLE MANUALLY OPERATED SWITCH.
5. THE MANUAL BYPASS SWITCH SHALL ONLY SWITCH LINE POWER. THE NEUTRAL AND EQUIPMENT GROUND SHALL NOT BE SWITCHED AND SHALL BE CONNECTED TO THE NEMA CABINET BUSES.



NO/NC CONTACTS MAY SHARE OR USE SEPARATE COMMONS.

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	PLOT DATE = 1/31/2014	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BATTERY BACKUP SYSTEM BLOCK AND BYPASS SWITCH DIAGRAMS

SCALE: _____ STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
310 315	D4 FLASHING YELLOW ARROWS 2013	MCDONOUGH	24	24
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68B61	