

1-18-13 LETTING ITEM 072

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED  
FEDERAL AID HIGHWAY

VARIOUS LOCATIONS IN WILL COUNTY  
LIGHT EMITTING DIODE (LED) INSTALLATION

SECTION 2012-067 I

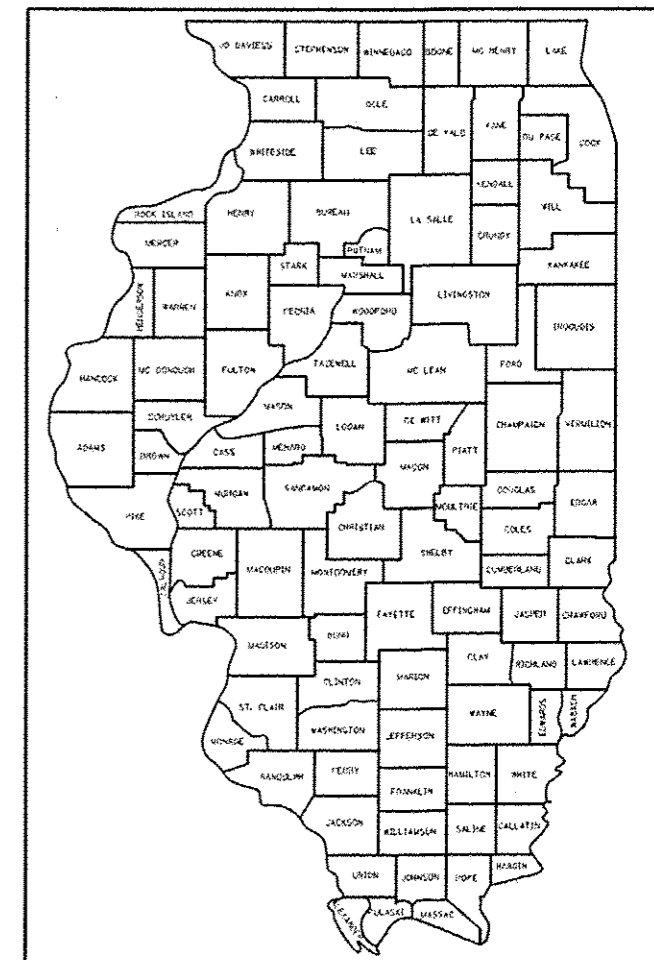
WILL COUNTY

C-91-064-13

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-067 I	WILL	39	1
		ILLINOIS		CONTRACT NO. 60V74

\* 39 + 1 = 40

D-91-064-13

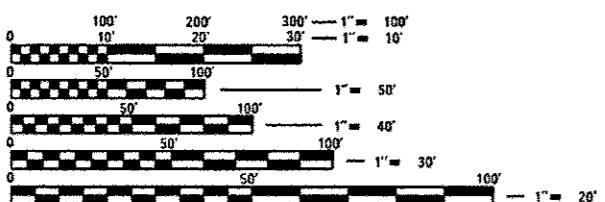
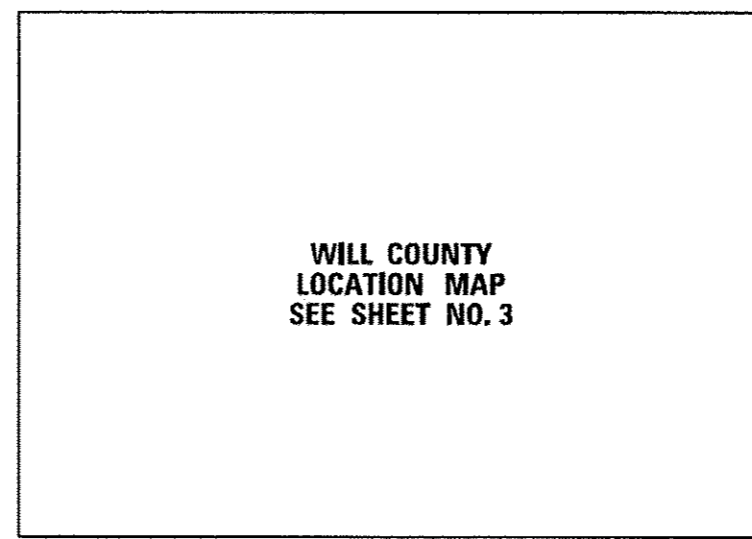


LOCATION OF SECTION INDICATED THUS: ———

FOR INDEX OF SHEETS, SEE SHEET NO. 2

HIGHWAY STANDARDS

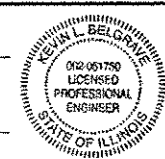
- 701006-04 OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701101-03 OFF-ROAD OPERATIONS MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701701-00 URBAN LNE CLOSURE MULTILANE INTERSECTION
- 701901-03 TRAFFIC CONTROL DEVICES
- 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 862001-01 UNINTERRUPTABLE POWER SUPPLY (UPS)
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS



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

SIGNED: Kevin L. Belgrave  
KEVIN L. BELGRAVE, EXP. 11/30/2013  
DATE: OCTOBER 15, 2012



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED Oct 19 2012  
John D. Baranzelli  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Dec 7 2012  
John D. Baranzelli, PE  
ENGINEER OF DESIGN AND ENVIRONMENT

Dec 7 2012  
William R. Frey  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**GHA** GEWALT HAMILTON  
ASSOCIATES, INC.  
850 Forest Edge Drive • Vernon Hills, IL. 60061  
Consulting Engineers & Surveyors  
847-478-9700  
FAX: 847-478-9701

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

CONTRACT NO. 60V74

DISTRICT 1 - TRAFFIC SIGNAL DESIGN - SUDAD MAHQMOLD (847) 705-4420

**INDEX OF SHEETS**

- 1. TITLE SHEET
- 2. INDEX OF SHEETS AND GENERAL NOTES
- 3. LOCATION MAP
- 4.-6. SUMMARY OF QUANTITIES
- 7.-12. DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS

**TRAFFIC SIGNAL PLANS**

PAGE	TS	INTERSECTION NAME
13.	12260	U.S. 6 AT I-55 EAST RAMPS
14.	12265	U.S. 6 AT I-55 WEST RAMPS
15.	12267	U.S. 6 (EAMES ST) AT BLUFF / NAVAJO ROAD
16.	2268	U.S. 6 (EAMES ST) AT ROBERTS AVENUE / STEVE RITTOF DRIVE
17.	12266	U.S. 6 (EAMES ST) AT TRYON STREET
18.	7414	U.S. 45 (LAGRANGE RD) AT OLD FRANKFORT WAY
19.	7413	U.S. 45 (LAGRANGE RD) AT NEBRASKA STREET
20.	21820	IL 53 (S. CHICAGO ST) AT I-80 WEST RAMP
21.	22191	U.S. 52 (JEFFERSON ST) AT I-55 EAST FRONTAGE ROAD
22.	22180	U.S. 52 (JEFFERSON ST) AT I-55 EAST RAMPS
23.	22185	U.S. 52 (JEFFERSON ST) AT I-55 WEST RAMPS
24.	7450	U.S. 30 AT WASHINGTON STREET
25.	7385	RICHARDS STREET AT I-80 NORTH RAMPS
26.	7390	RICHARDS STREET AT I-80 SOUTH RAMPS
27.	7460	U.S. 30 (CASS ST) AT BRIGGS STREET
28.	7510	IL 7 / IL 53 AT IL 7 / RENWICK ROAD
29.	7511	IL 7 (159TH ST) AT COUGAR ROAD
30.	11630	U.S. 45 (LAGRANGE RD) AT ST. FRANCIS ROAD
31.	7440	U.S. 30 (LINCOLN HWY) AT NELSON ROAD
32.	7585	IL 59 / U.S. 30 AT IL 126
33.	7560	IL 53 (INDEPENDENCE BLVD) AT AIRPORT ROAD
34.	7859	IL 53 (JOLIET RD) AT HONEYTREE DRIVE
35.	7866	IL 53 (JOLIET RD) AT ENTERPRISE DRIVE
36.	7575	IL 53 (JOLIET RD) AT NORMANTOWN / DEVONWOOD ROAD
37.	9105	IL 53 (INDEPENDENCE BLVD) AT ROMEO ROAD (135TH ST)
38.	7495	U.S. 52 (JEFFERSON ST) AT IL 59
39.	7496	U.S. 52 (JEFFERSON ST) AT BROOKSHORE DR
39A.	7497	U.S. 52 (JEFFERSON ST) AT RIVER RD

**GENERAL NOTES**

THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", JANUARY 1, 2012; MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LATEST EDITION; PROJECT SPECIFICATIONS; ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION; THE CITIES OF JOLIET AND LOCKPORT; THE VILLAGE OF CHANNAHON, FRANKFORT, PLAINFIELD, AND ROMEOVILLE; THE WILL COUNTY DEPARTMENT OF HIGHWAYS; ALL APPLICABLE REQUIREMENTS OF THE ORDINANCES OF AUTHORITIES HAVING JURISDICTION; AND ALL ADDENDA THERETO SHALL GOVERN THIS WORK.

THE STANDARD SPECIFICATIONS, PROJECT SPECIFICATIONS, CONSTRUCTION PLANS, AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED A PART OF THE CONTRACT.

WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OF UNSTABLE MATERIALS CREATED AS A RESULT THEREOF.

THE CONTRACTOR SHALL SOLELY BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES, AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION.

THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL AREAS AFFECTED BY EQUIPMENT OR LABORERS TO EXISTING CONDITIONS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL NEW WORK UNTIL COMPLETION OF THIS CONTRACT.

EXISTING UTILITIES: WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION IS BASED ON RECORD INFORMATION PROVIDED BY THE INDIVIDUAL UTILITY OWNERS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. THE CONTRACTOR SHALL ALSO CONTACT JULIE, I.E. TO OBTAIN LOCATES OF THE RESPECTIVE UTILITY COMPANIES UNDERGROUND FACILITIES.

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, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD IN ACCORDANCE TO STANDARD SPECIFICATIONS ARTICLE 252 WHICH SHALL INCLUDE THE REQUIRED WATERING PER ARTICLE 252.08. ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS ARTICLE 250 AND 251, RESPECTIVELY.

THE GENERAL CONTRACTOR IS REQUIRED TO HIRE AN ENVIRONMENTAL FIRM WITH AT LEAST FIVE (5) DOCUMENTED LEAKING UNDERGROUND STORAGE TANK CLEANUPS OR THAT IS PRE-QUALIFIED IN HAZARDOUS WASTE BY THE DEPARTMENT TO REMEDIATE THE SOIL CONTAMINATION AND MONITOR FOR WORKER PROTECTION.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARM LENGTH.

THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES, AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES, AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).

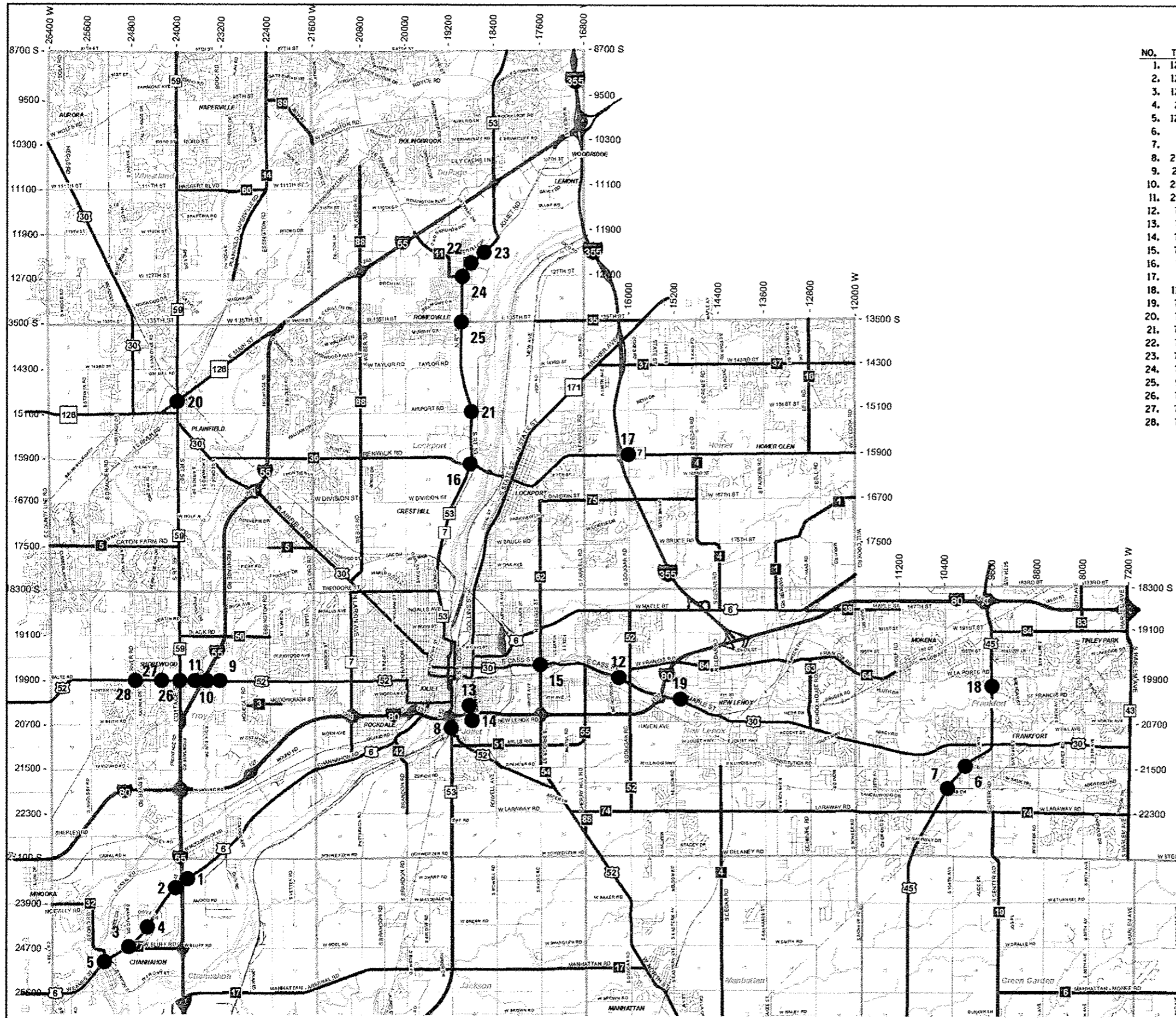
THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES, AND IDOT.

THE CONTRACTOR SHALL RELOCATE ANY EXISTING SIGN PANELS FROM PAINTED POSTS THAT ARE INDICATED FOR REPLACEMENT TO A NEW POST AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE COST OF REMOVAL, RELOCATION, AND ANY NEW MOUNTING HARDWARE NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE PAY ITEM OF THE LENGTH AS SPECIFIED IN THE PLANS.

GHA #4085.886

FILE NAME * S:\WP\Design\PB\60V74 Will County LED	USER NAME * blumbergo Installation\Final revisions GADD 11/3-12\60V74	DESIGNED - JRD DRAWN - ZCW	REVISED - PB 10/25/2012 REVISED - PB 11/08/2012	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS &amp; GENERAL NOTES</b>				F.A. RTE. VARIES	SECTION 2012-067 I	COUNTY WILL	TOTAL SHEETS 39	SHEET NO. 2
Default	PLOT SCALE * 48.300000 1 / in.	CHECKED - KLB	REVISED -		SCALE: NONE	SHEET	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 60V74		
	PLOT DATE * 11/07/2012	DATE - 10-12-12	REVISED -		ILLINOIS FED. AID PROJECT								
ILLINOIS FED. AID PROJECT													



**TRAFFIC SIGNAL PLANS**

NO.	TS #	MUNICIPALITY	INTERSECTION NAME
1.	12260	CHannah	U.S. 6 AT I-55 EAST RAMP
2.	12265	CHannah	U.S. 6 AT I-55 WEST RAMP
3.	12267	CHannah	U.S. 6 (EAMES ST) AT BLUFF / NAVAJO ROAD
4.	2268	CHannah	U.S. 6 (EAMES ST) AT ROBERTS AVENUE / STEVE RITTOF DRIVE
5.	12266	CHannah	U.S. 6 (EAMES ST) AT TRYON STREET
6.	7414	FRANKFORT	U.S. 45 (LAGRANGE RD) AT OLD FRANKFORT WAY
7.	7413	FRANKFORT	U.S. 45 (LAGRANGE RD) AT NEBRASKA STREET
8.	21820	JOLIET	IL 53 (S. CHICAGO ST) AT I-80 WEST RAMP
9.	22191	SHOREWOOD	U.S. 52 (JEFFERSON ST) AT I-55 EAST FRONTAGE ROAD
10.	22180	SHOREWOOD	U.S. 52 (JEFFERSON ST) AT I-55 EAST RAMP
11.	22185	SHOREWOOD	U.S. 52 (JEFFERSON ST) AT I-55 WEST RAMP
12.	7450	NEW LENOX	U.S. 30 AT WASHINGTON STREET
13.	7385	JOLIET	RICHARDS STREET AT I-80 NORTH RAMP
14.	7390	JOLIET	RICHARDS STREET AT I-80 SOUTH RAMP
15.	7460	JOLIET	U.S. 30 (CASS ST) AT BRIGGS STREET
16.	7510	LOCKPORT	IL 7 / IL 53 AT IL 7 / RENWICK ROAD
17.	7511	HOMER TWP.	IL 7 (159TH ST) AT GOUGAR ROAD
18.	11630	FRANKFORT	U.S. 45 (LAGRANGE RD) AT ST. FRANCIS ROAD
19.	7440	NEW LENOX	U.S. 30 (LINCOLN HWY) AT NELSON ROAD
20.	7585	PLAINFIELD	IL 59 / U.S. 30 AT IL 126
21.	7560	ROMEVILLE	IL 53 (INDEPENDENCE BLVD) AT AIRPORT ROAD
22.	7859	ROMEVILLE	IL 53 (JOLIET RD) AT HONEYTREE DRIVE
23.	7866	ROMEVILLE	IL 53 (JOLIET RD) AT ENTERPRISE DRIVE
24.	7575	ROMEVILLE	IL 53 (JOLIET RD) AT NORMANTOWN / DEVONWOOD ROAD
25.	9105	ROMEVILLE	IL 53 (INDEPENDENCE BLVD) AT ROMEO ROAD (135TH ST)
26.	7495	SHOREWOOD	U.S. 52 (JEFFERSON ST) AT IL 59
27.	7496	SHOREWOOD	U.S. 52 (JEFFERSON ST) AT BROOKSHORE DR
28.	7497	SHOREWOOD	U.S. 52 (JEFFERSON ST) AT RIVER RD

FILE NAME	USER NAME	DESIGNED	REVISED
S:\WP\Design\PB\6074 Will County LED	blumbergo	JRD	PB 10/25/2012
Installation/Final revisions CARD 11-5-12\6074		ZCW	PB 11/08/2012
Default	PLOT SCALE	CHECKED	REVISED
	= 40,000/3000 ft. in.	KLB	
	PLOT DATE	DATE	REVISED
	11/8/2012	10-12-12	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>LOCATION MAP</b>	
SCALE: NONE	SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIABLES	2012-0671	WILL	39	3
CONTRACT NO. 60V74				
ILLINOIS FED. AID PROJECT				

GHA #4085.886

SUMMARY OF QUANTITIES		LOCATION OF WORK	1, 2, 8, 9, 10, 11, 12, 13, 14, 16, 20, 26	3	4	5	6, 7, 18	19	27, 28	15	17	21, 22, 23	24	25	
		FUNDING BREAKDOWNS	100% STATE	95% STATE 2.5% WILL CO. 2.5% CHANNAHON	95% STATE 5% CHANNAHON	97.5% STATE 2.5% CHANNAHON	95% STATE 5% FRANKFORT	96.7% STATE 3.3% NEW LENOX	95% STATE 5% SHOREWOOD	95% STATE 5% WILL CO.	95% STATE 5% HOMER TOWNSHIP	96.7% STATE 3.3% ROMEOVILLE	97.5% STATE 2.5% ROMEOVILLE	95% STATE 5% ROMEOVILLE	
		TYPE	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS
		UNIT TOTAL	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CALMS	6												
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	28	12	1	1	1	3	1	2	1	1	3	1	
67100100	MOBILIZATION	LSUM	1	1											
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	2	1						1					
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1	1											
X8570231	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1	1											
86400100	TRANSCEIVER - FIBER OPTIC	EACH	3	3											
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	8	8											
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	5	1						4					
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	17	17											
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	13	13											
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3	3											
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3	3											
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3	3											
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	22	12			6		4						
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	31	6	4	4	4	7	6						
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	39	29			10								

- 1. U.S. 6 AT I-55 EAST RAMP
- 2. U.S. 6 AT I-55 WEST RAMP
- 3. U.S. 6 (EAMES ST) AT BLUFF / NAVAJO ROAD
- 4. U.S. 6 (EAMES ST) AT ROBERTS AVENUE / STEVE RITTOF DRIVE
- 5. U.S. 6 (EAMES ST) AT TRYON STREET
- 6. U.S. 45 (LAGRANGE RD) AT OLD FRANKFORT WAY
- 7. U.S. 45 (LAGRANGE RD) AT NEBRASKA STREET
- 8. IL 53 (S. CHICAGO ST) AT I-80 WEST RAMP
- 9. U.S. 52 (JEFFERSON ST) AT I-55 EAST FRONTAGE ROAD

- 10. U.S. 52 (JEFFERSON ST) AT I-55 EAST RAMP
- 11. U.S. 52 (JEFFERSON ST) AT I-55 WEST RAMP
- 12. U.S. 30 AT WASHINGTON STREET
- 13. RICHARDS STREET AT I-80 NORTH RAMP
- 14. RICHARDS STREET AT I-80 SOUTH RAMP
- 15. U.S. 30 (CASS ST) AT BRIGGS STREET
- 16. IL 7 / IL 53 AT IL 7 / RENWICK ROAD
- 17. IL 7 (159TH ST) AT GOUGAR ROAD
- 18. U.S. 45 (LAGRANGE RD) AT ST. FRANCIS ROAD

- 19. U.S. 30 (LINCOLN HWY) AT NELSON ROAD
- 20. IL 59 / U.S. 30 AT IL 126
- 21. IL 53 (INDEPENDENCE BLVD) AT AIRPORT ROAD
- 22. IL 53 (JOLIET RD) AT HONEYTREE DRIVE
- 23. IL 53 (JOLIET RD) AT ENTERPRISE DRIVE
- 24. IL 53 (JOLIET RD) AT NORMANTOWN / DEVONWOOD ROAD
- 25. IL 53 (INDEPENDENCE BLVD) AT ROMEO ROAD (135TH ST)
- 26. U.S. 52 (JEFFERSON ST) AT IL 59
- 27. U.S. 52 (JEFFERSON ST) AT BROOKSHORE DR.
- 28. U.S. 52 (JEFFERSON ST) AT RIVER RD.

SUMMARY OF QUANTITIES		LOCATION OF WORK		1, 2, 8, 9, 10, 11, 12, 13, 14, 16, 20, 26	3	4	5	6, 7, 18	19	27, 28	15	17	21, 22, 23	24	25
		FUNDING BREAKDOWNS		100% STATE	95% STATE 2.5% WILL CO. 2.5% CHANNAHON	95% STATE 5% CHANNAHON	97.5% STATE 2.5% CHANNAHON	95% STATE 5% FRANKFORT	96.7% STATE 3.3% NEW LENOX	95% STATE 5% SHOREWOOD	95% STATE 5% WILL CO.	95% STATE 5% HOMER TOWNSHIP	96.7% STATE 3.3% ROMEOVILLE	97.5% STATE 2.5% ROMEOVILLE	95% STATE 5% ROMEOVILLE
		TYPE		TRAFFIC SIGNALS 0021	TRAFFIC SIGNALS 0021	TRAFFIC SIGNALS 0021	TRAFFIC SIGNALS 0021	TRAFFIC SIGNALS 0021	TRAFFIC SIGNALS 0021	TRAFFIC SIGNALS 0021	TRAFFIC SIGNALS 0021	TRAFFIC SIGNALS 0021	TRAFFIC SIGNALS 0021	TRAFFIC SIGNALS 0021	TRAFFIC SIGNALS 0021
CODE NO.	ITEM	UNIT	TOTAL	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN
88500100	INDUCTIVE LOOP DETECTOR	EACH	44	34							10				
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	4								4				
<del>89501410</del>	<del>RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT</del>	<del>EACH</del>	<del>6</del>	<del>4</del>						<del>1</del>	<del>1</del>				
89502200	MODIFY EXISTING CONTROLLER	EACH	2	2											
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	23	8	1	1	1	3	1	2		1	3	1	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	20	11	1	1	1	3		2	1				
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	2	2											
X8600105	MASTER CONTROLLER (SPECIAL)	EACH	1	1											
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	28	12	1	1	1	3	1	2	1	1	3	1	1
X8803040	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	8	8											
X8803050	SIGNAL HEAD, LED, 3-FACE, 1-3 SECTION, 2-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1	1											
X8803082	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	13	10					3						
X8803084	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	41	25				6	2	4					4
X8803088	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	28	14				4	2	4					4

1. U.S. 6 AT I-55 EAST RAMPS  
 2. U.S. 6 AT I-55 WEST RAMPS  
 3. U.S. 6 (EAMES ST) AT BLUFF / NAVAJO ROAD  
 4. U.S. 6 (EAMES ST) AT ROBERTS AVENUE / STEVE RITTOF DRIVE  
 5. U.S. 6 (EAMES ST) AT TRYON STREET  
 6. U.S. 45 (LAGRANGE RD) AT OLD FRANKFORT WAY  
 7. U.S. 45 (LAGRANGE RD) AT NEBRASKA STREET  
 8. IL 53 (S. CHICAGO ST) AT I-80 WEST RAMP  
 9. U.S. 52 (JEFFERSON ST) AT I-55 EAST FRONTAGE ROAD

10. U.S. 52 (JEFFERSON ST) AT I-55 EAST RAMPS  
 11. U.S. 52 (JEFFERSON ST) AT I-55 WEST RAMPS  
 12. U.S. 30 AT WASHINGTON STREET  
 13. RICHARDS STREET AT I-80 NORTH RAMPS  
 14. RICHARDS STREET AT I-80 SOUTH RAMPS  
 15. U.S. 30 (CASS ST) AT BRIGGS STREET  
 16. IL 7 / IL 53 AT IL 7 / RENWICK ROAD  
 17. IL 7 (159TH ST) AT COLGAR ROAD  
 18. U.S. 45 (LAGRANGE RD) AT ST. FRANCIS ROAD

19. U.S. 30 (LINCOLN HWY) AT NELSON ROAD

20. IL 59 / U.S. 30 AT IL 126  
 21. IL 53 (INDEPENDENCE BLVD) AT AIRPORT ROAD  
 22. IL 53 (JOLIET RD) AT HONEYTREE DRIVE  
 23. IL 53 (JOLIET RD) AT ENTERPRISE DRIVE  
 24. IL 53 (JOLIET RD) AT NORMANTOWN / DEVONWOOD ROAD  
 25. IL 53 (INDEPENDENCE BLVD) AT ROMEO ROAD (135TH ST)  
 26. U.S. 52 (JEFFERSON ST) AT IL 59  
 27. U.S. 52 (JEFFERSON ST.) AT BROOKSHORE DR.  
 28. U.S. 52 (JEFFERSON ST.) AT RIVER RD.

Rev.

		LOCATION OF WORK	1, 2, 8, 9, 10, 11, 12, 13, 14, 16, 20, 21	3	4	5	6, 7, 18	19	27, 28	15	17	21, 22, 23	24	25
SUMMARY OF QUANTITIES		FUNDING BREAKDOWNS	100% STATE	95% STATE 2.5% WILL CO. 2.5% CHANNAHON	95% STATE 5% CHANNAHON	97.5% STATE 2.5% CHANNAHON	95% STATE 5% FRANKFORT	96.7% STATE 3.3% NEW LENOX	95% STATE <i>51, Shorewood</i>	95% STATE 5% WILL CO.	95% STATE 5% HOMER TOWNSHIP	96.7% STATE 3.3% ROMEOVILLE	97.5% STATE 2.5% ROMEOVILLE	95% STATE 5% ROMEOVILLE
			TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS
		TYPE	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021	0021
CODE NO.	ITEM	UNIT	TOTAL	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN	URBAN
X8803090	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4	3					1					
X8803210	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	18	6			4		4					4
X8803910	SIGNAL HEAD, LED, 2 FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1					1						
X8880015	PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	52	18	4	4	4	13	9					

- 1. U.S. 6 AT I-55 EAST RAMPS
- 2. U.S. 6 AT I-55 WEST RAMPS
- 3. U.S. 6 (EAMES ST) AT BLUFF / NAVAJO ROAD
- 4. U.S. 6 (EAMES ST) AT ROBERTS AVENUE / STEVE RITTOF DRIVE
- 5. U.S. 6 (EAMES ST) AT TRYON STREET
- 6. U.S. 45 (LAGRANGE RD) AT OLD FRANKFORT WAY
- 7. U.S. 45 (LAGRANGE RD) AT NEBRASKA STREET
- 8. IL 53 (S, CHICAGO ST) AT I-80 WEST RAMP
- 9. U.S. 52 (JEFFERSON ST) AT I-55 EAST FRONTAGE ROAD

- 10. U.S. 52 (JEFFERSON ST) AT I-55 EAST RAMPS
- 11. U.S. 52 (JEFFERSON ST) AT I-55 WEST RAMPS
- 12. U.S. 30 AT WASHINGTON STREET
- 13. RICHARDS STREET AT I-80 NORTH RAMPS
- 14. RICHARDS STREET AT I-80 SOUTH RAMPS
- 15. U.S. 30 (CASS ST) AT BRIGGS STREET
- 16. IL 7 / IL 53 AT IL 7 / RENWICK ROAD
- 17. IL 7 (159TH ST) AT COUGAR ROAD
- 18. U.S. 45 (LAGRANGE RD) AT ST. FRANCIS ROAD

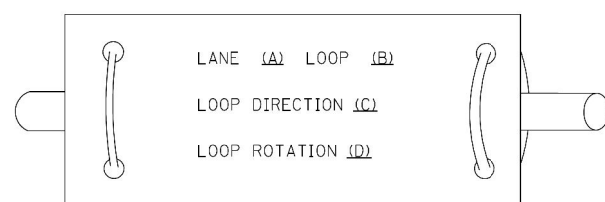
- 19. U.S. 30 (LINCOLN HWY) AT NELSON ROAD
- 20. IL 59 / U.S. 30 AT IL 126
- 21. IL 53 (INDEPENDENCE BLVD) AT AIRPORT ROAD
- 22. IL 53 (JOLIET RD) AT HONEYTREE DRIVE
- 23. IL 53 (JOLIET RD) AT ENTERPRISE DRIVE
- 24. IL 53 (JOLIET RD) AT NORMANTOWN / DEVONWOOD ROAD
- 25. IL 53 (INDEPENDENCE BLVD) AT ROMEO ROAD (135TH ST)
- 26. U.S. 52 (JEFFERSON ST) AT IL 59
- 27. U.S. 52 (JEFFERSON ST) AT BROOKSHORE RD.
- 28. U.S. 52 (JEFFERSON ST) AT RIVER RD.

*Rev.*

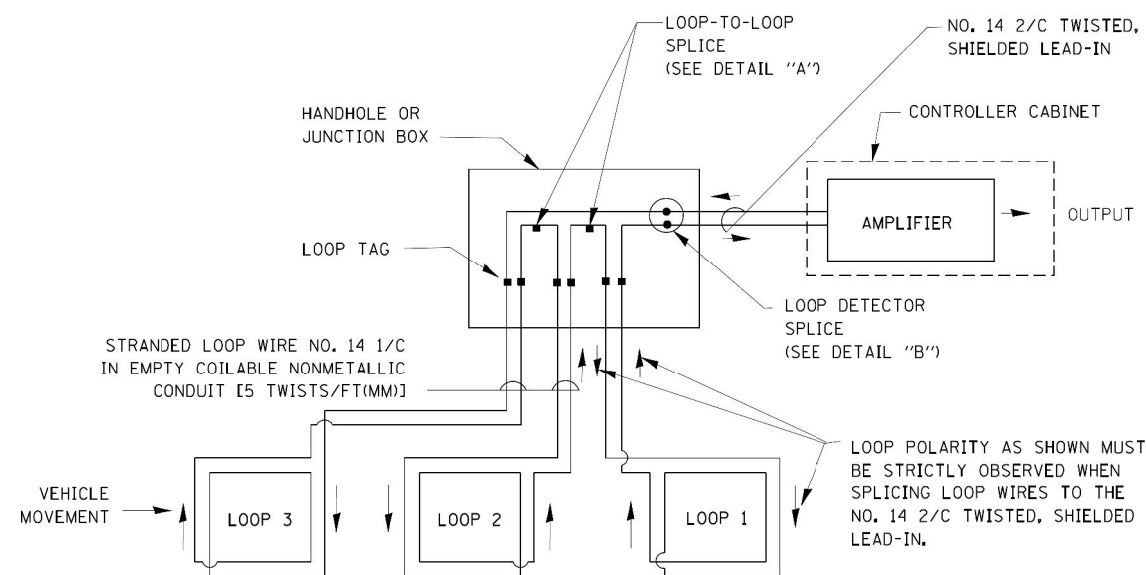
## LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

### LOOP LEAD-IN CABLE TAG

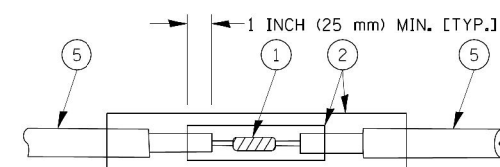


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP \*1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

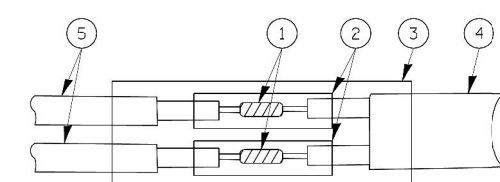


### DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

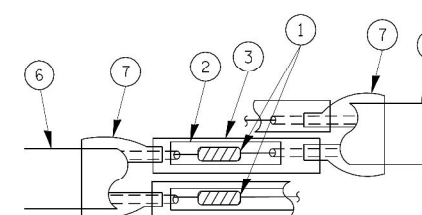


DETAIL "A"  
LOOP-TO-LOOP SPLICE



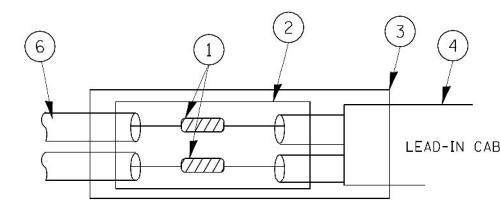
DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

### TYPE I LOOP



DETAIL "A"  
LOOP-TO-LOOP SPLICE

### PREFORMED LOOP



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

### LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PREFORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS, TYCO CBR-2 OR APPROVED EQUAL

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DAD	REVISED -
\$FILE\$		DRAWN - BCK	REVISED -
Default		CHECKED - DAD	REVISED -
	PLOT DATE = \$DATE\$	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

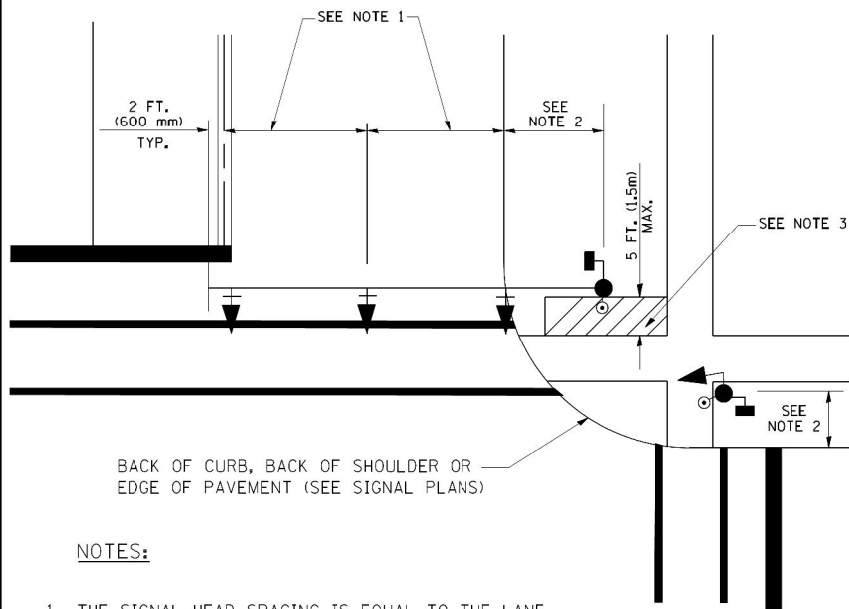
SCALE: NONE SHEET 1 OF 6 SHEETS STA. TO STA.

F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	7
	TS-05		CONTRACT NO. 60V74	
ILLINOIS FED. AID PROJECT				

GHA #4085,886

**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**

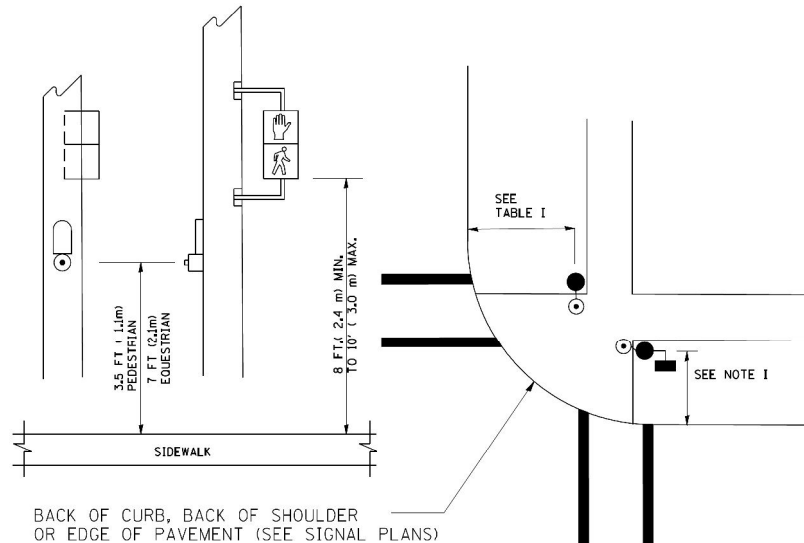
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



**NOTES:**

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

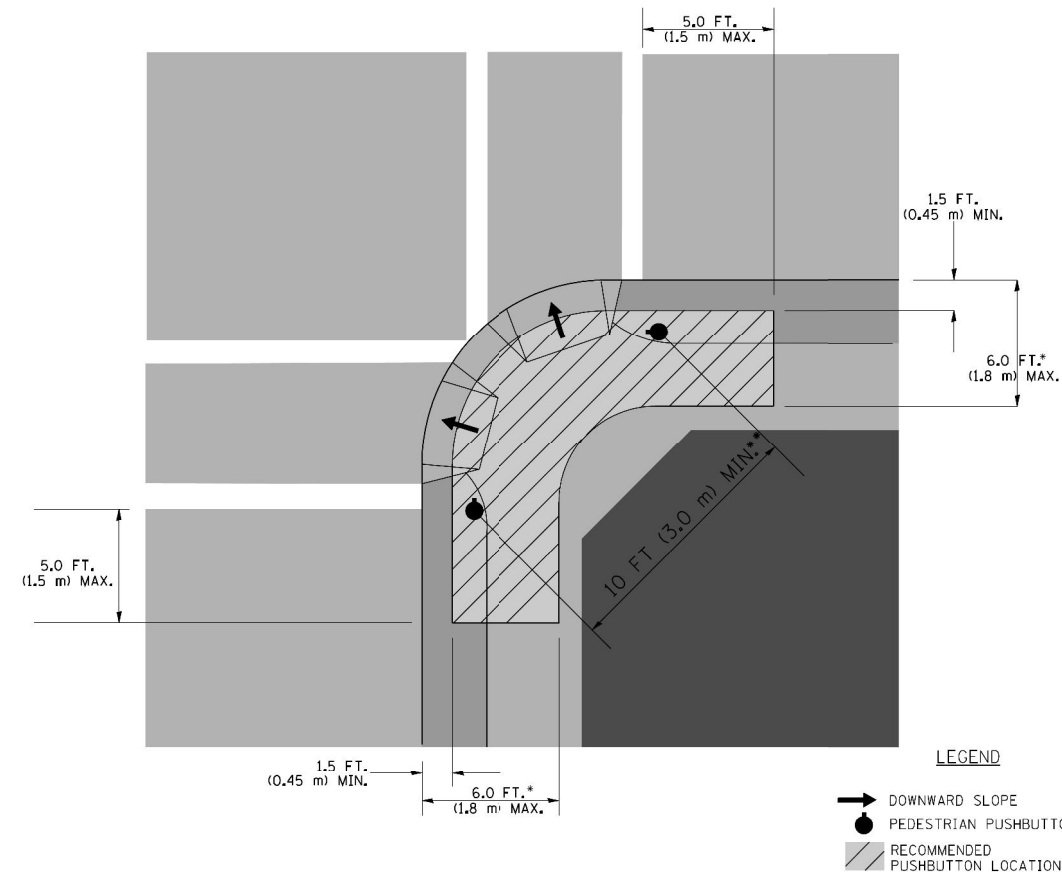
**PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

**RECOMMENDED PUSHBUTTON LOCATIONS**



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT ( 1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

**NOTES:**

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

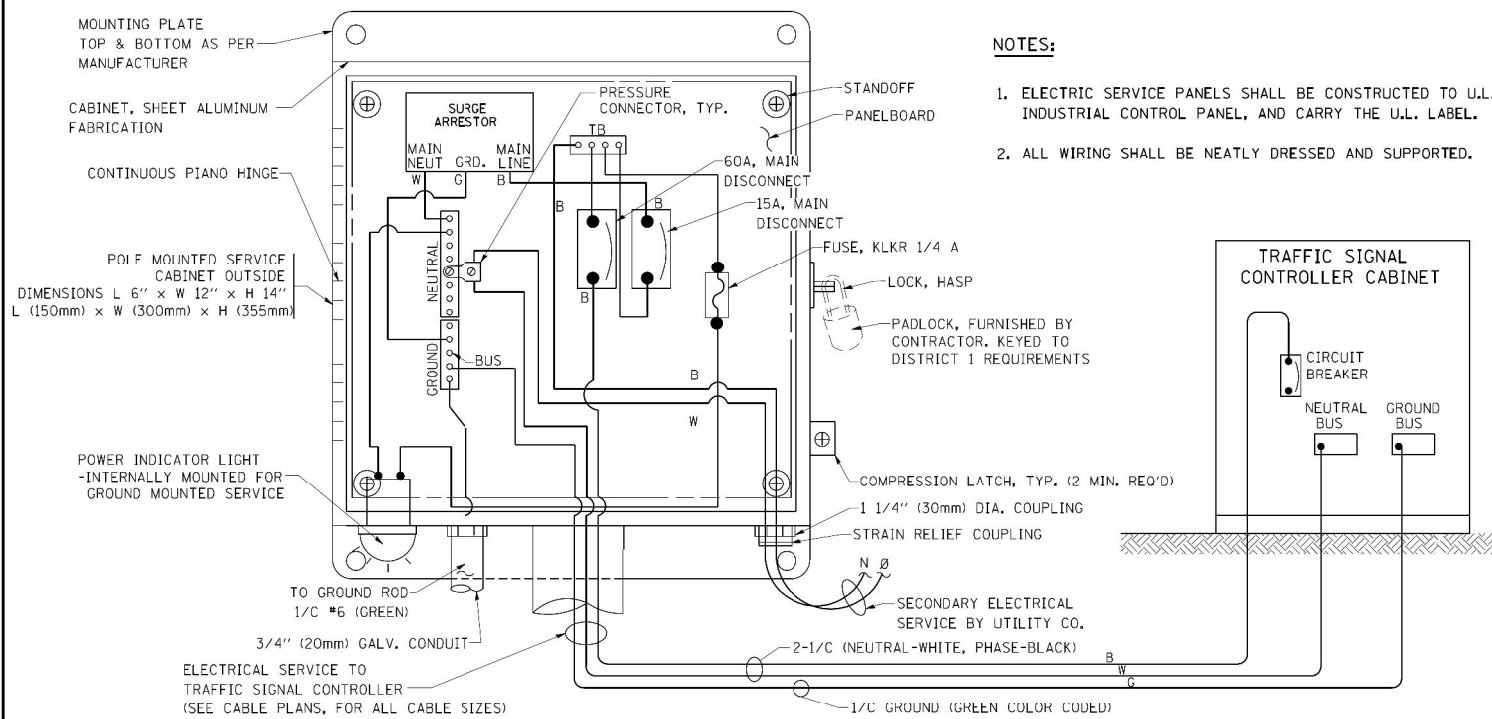
**TRAFFIC SIGNAL EQUIPMENT OFFSET**

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

**NOTES:**

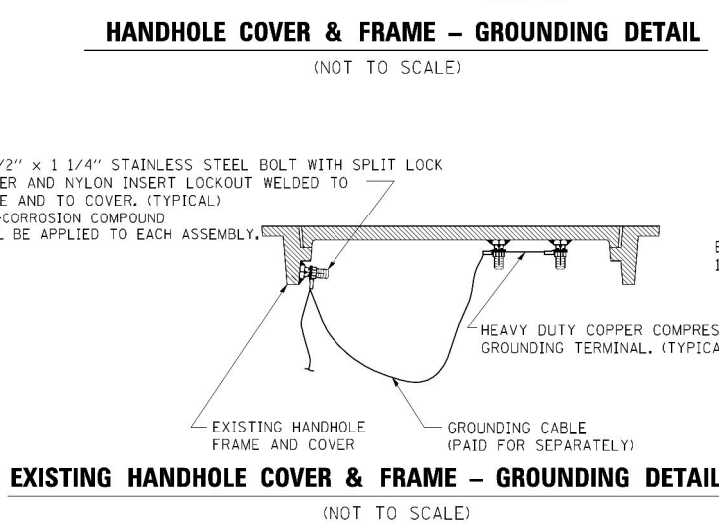
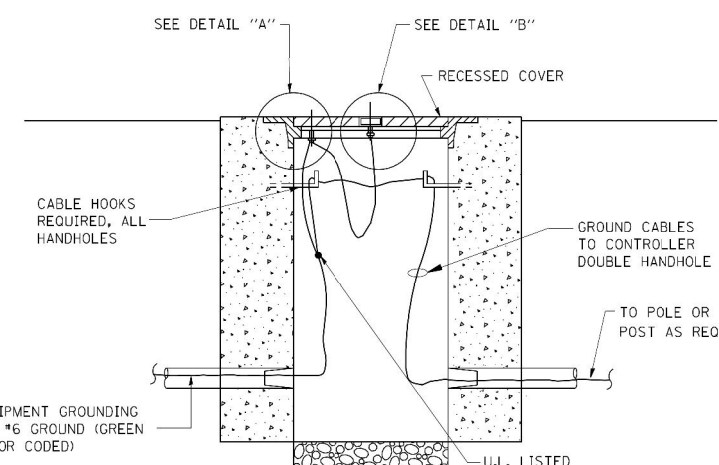
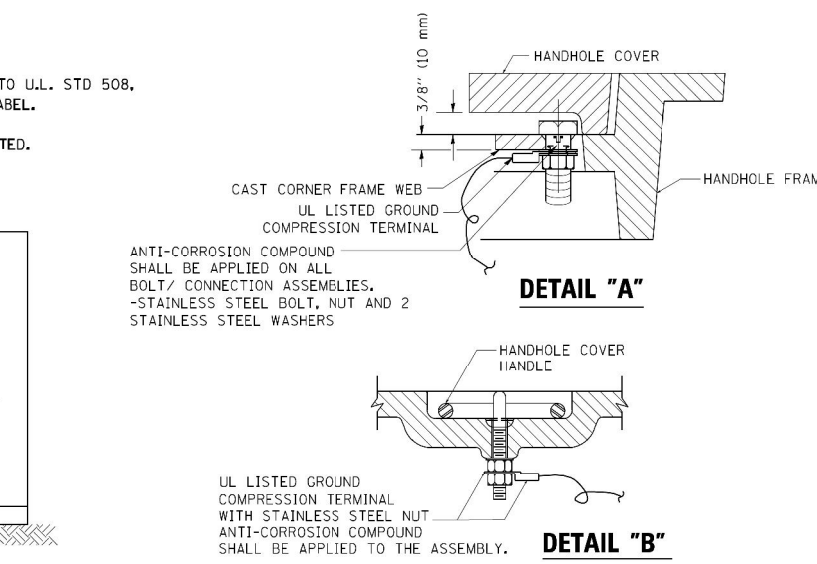
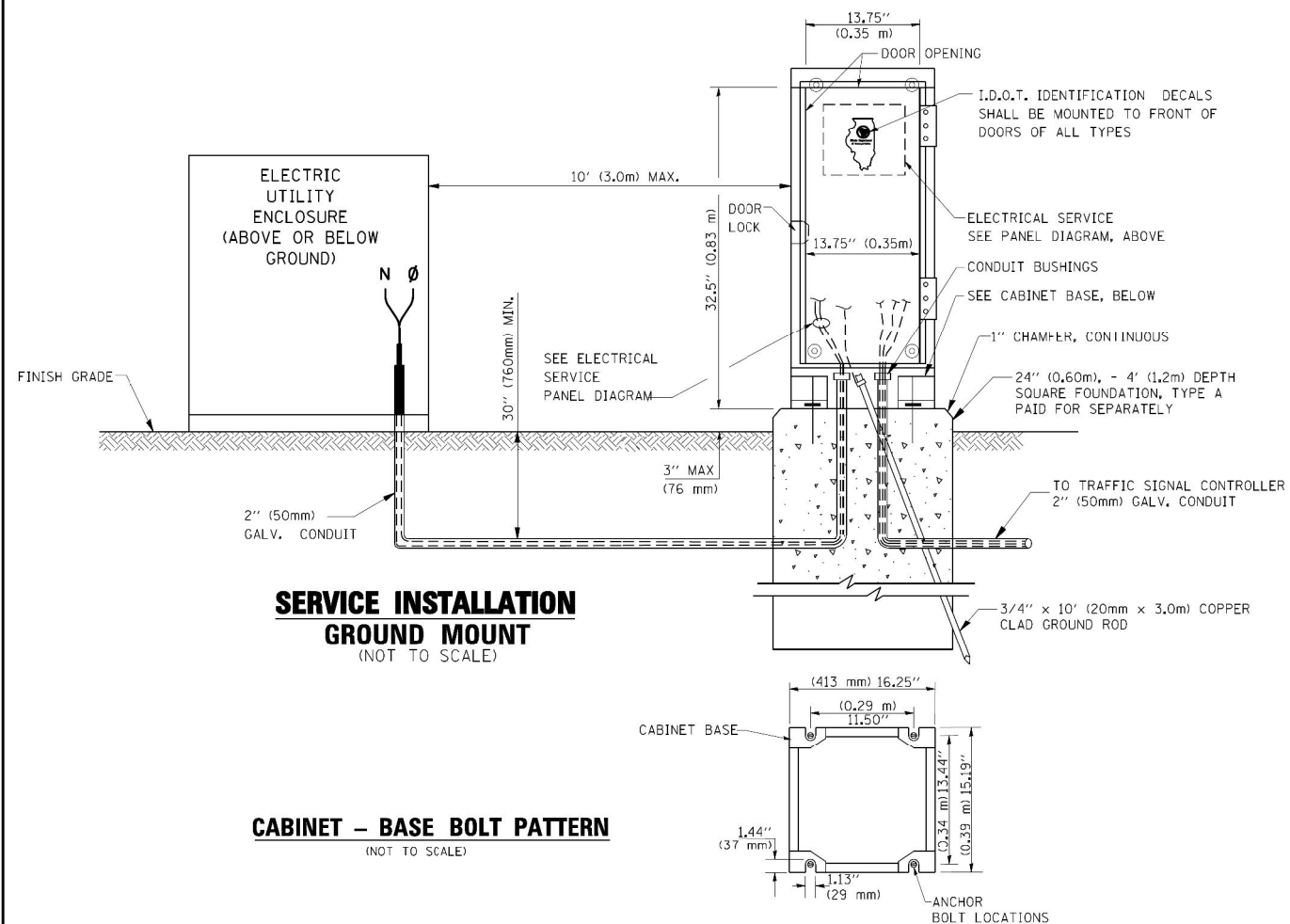
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.





**ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**

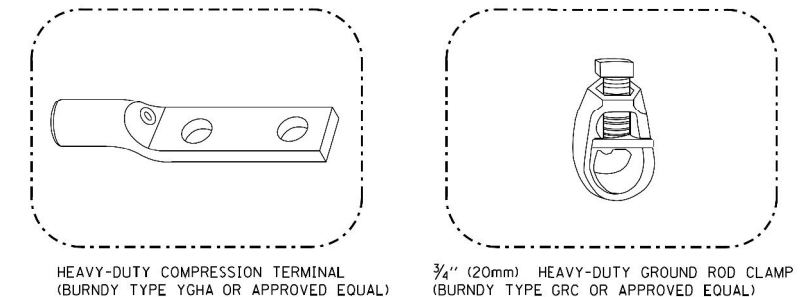
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
(NOT TO SCALE)



**NOTES:**

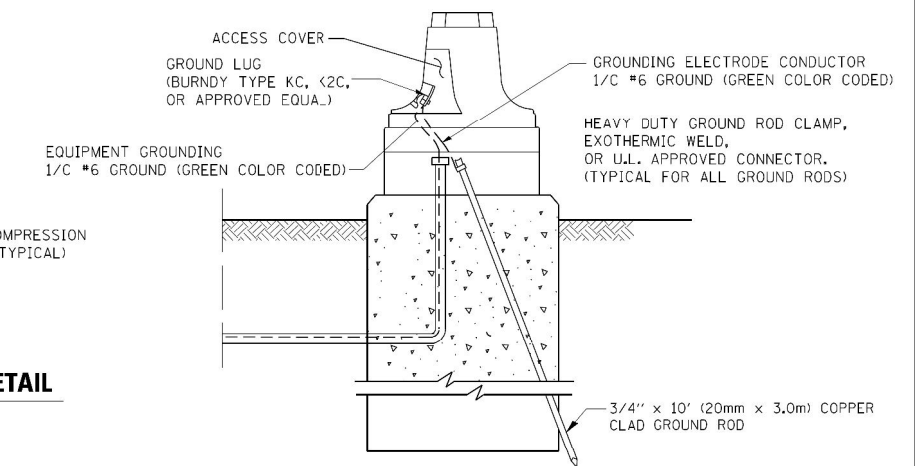
**GROUNDING SYSTEM**

- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
- THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



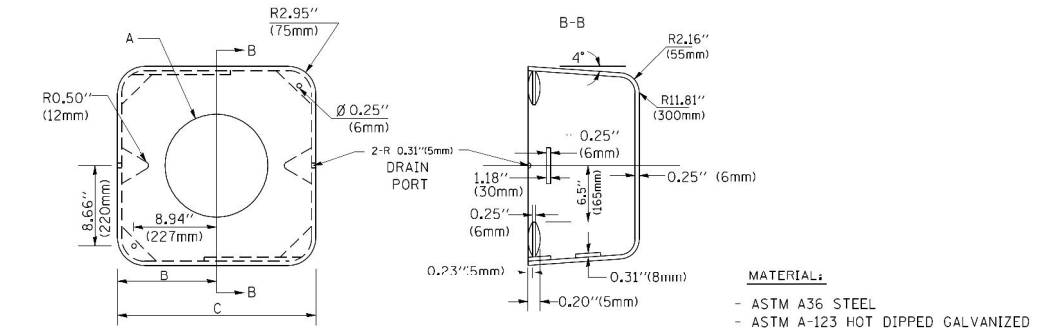
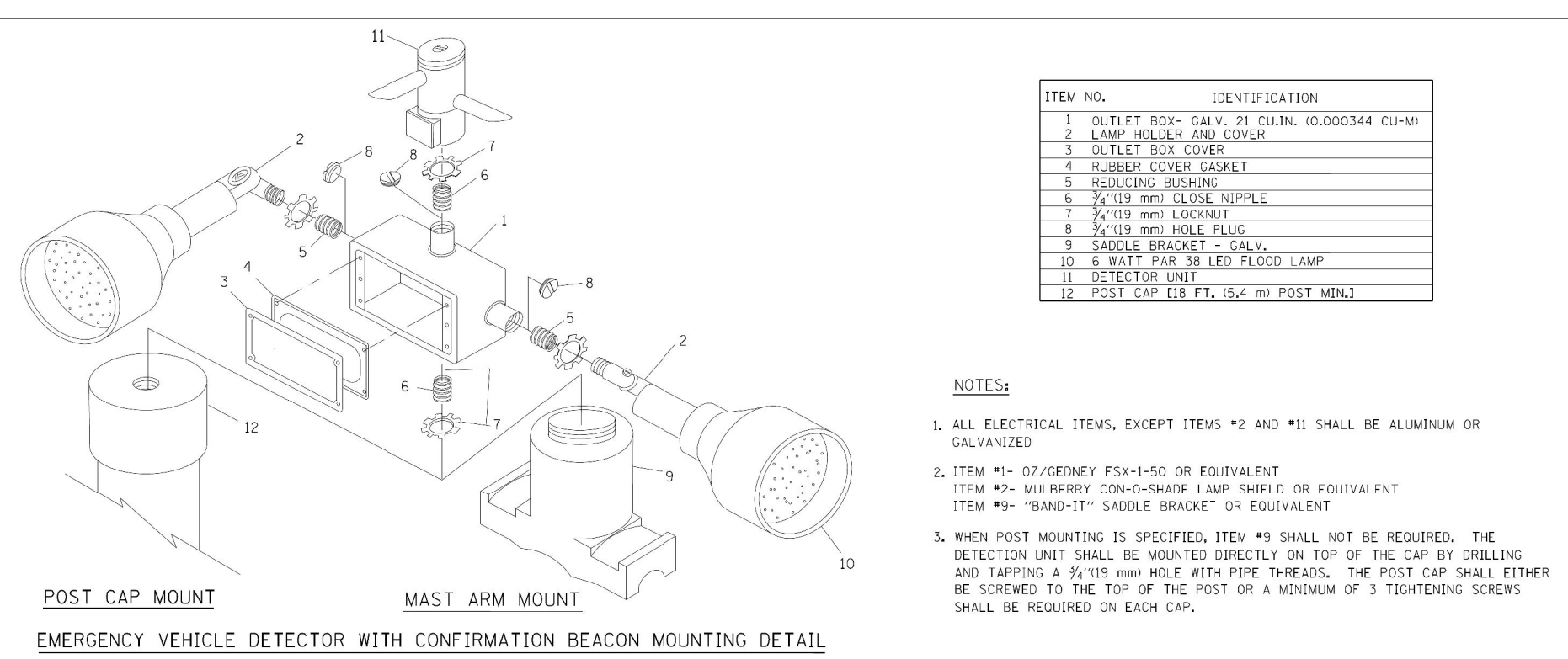
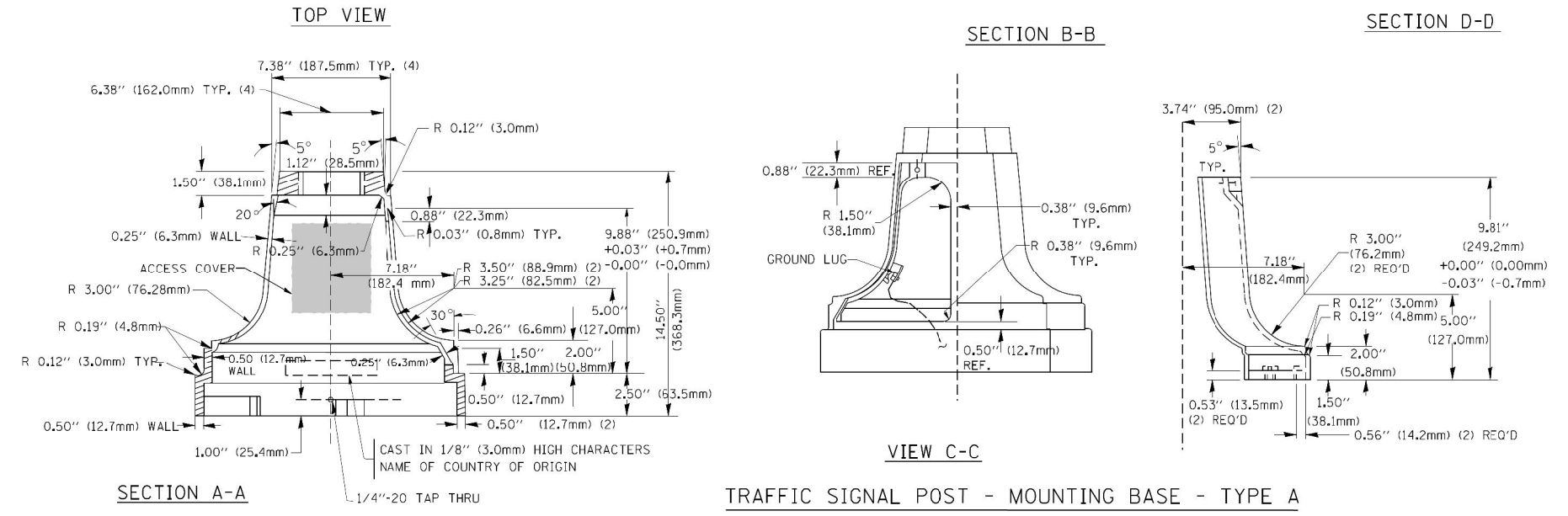
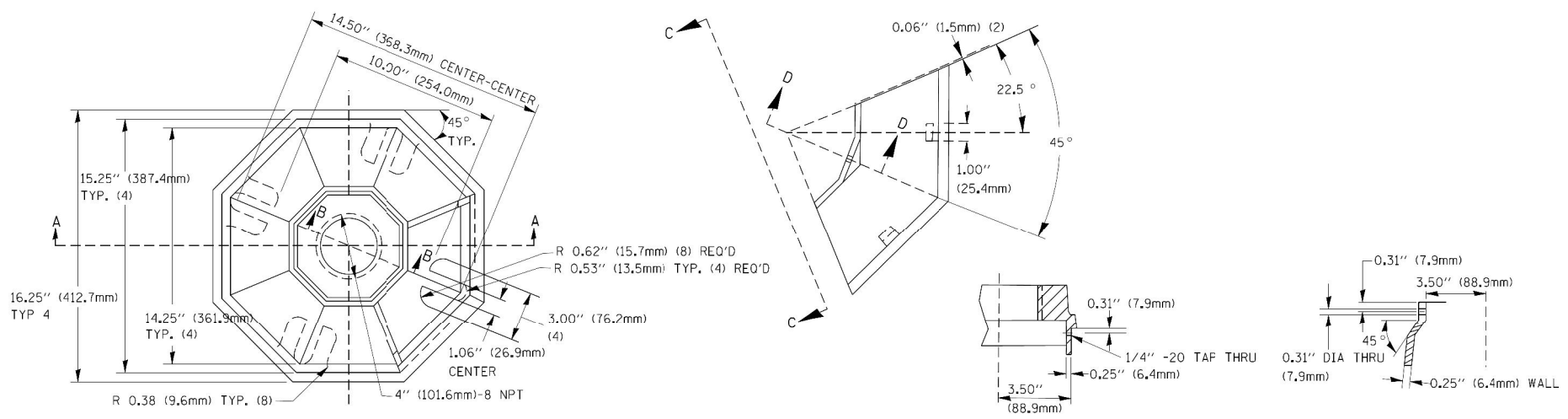
**NOTES:**

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



FILE NAME =	USER NAME = *USER*	DESIGNED - DAD	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>				F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
*FILEL\$		DRAWN - BCK	REVISED -		SCALE: NONE	SHEET 3	OF 6 SHEETS	STA.	TO STA.	VARIES	2012-067 I	WILL	39	9
Default		CHECKED - DAD	REVISED -								TS-05	ILLINOIS FED. AID PROJECT		
		DATE - 10-28-09	REVISED -											CONTRACT NO. 60V74

GHA #4085,886

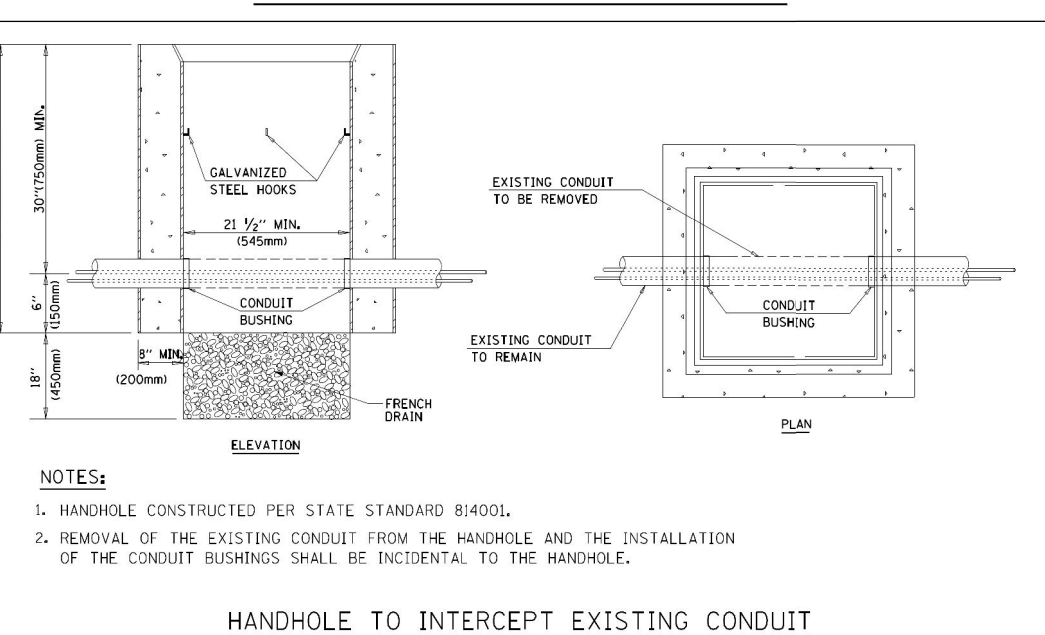
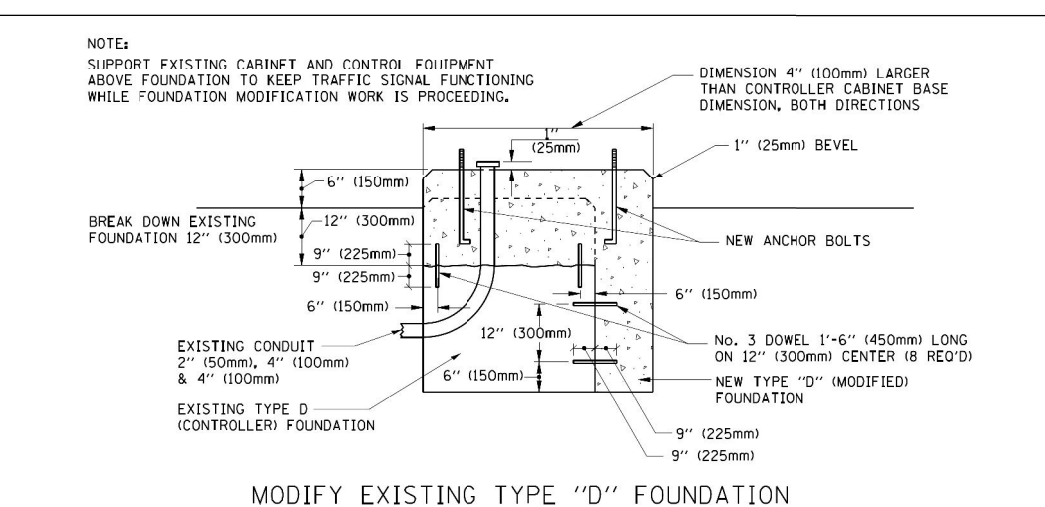


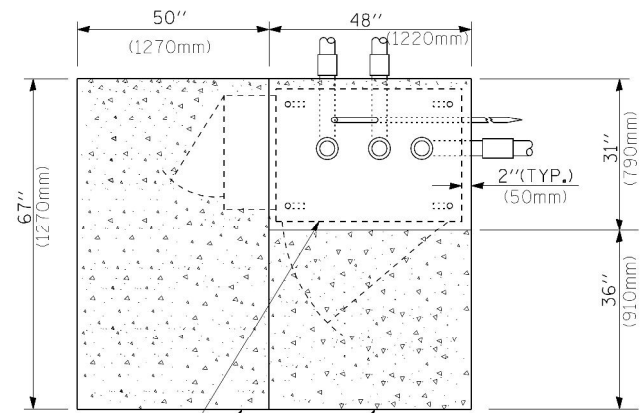
A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5\"(241mm)	19\"(483mm)	7\"(178mm) - 12\"(300mm)	53 lbs (24kg)
VARIABLES	10.75\"(273mm)	21.5\"(546mm)	7\"(178mm) - 12\"(300mm)	68 lbs (31 kg)
VARIABLES	13.0\"(330mm)	26\"(660mm)	7\"(178mm) - 12\"(300mm)	81 lbs (37 kg)
VARIABLES	18.5\"(470mm)	37\"(940mm)	7\"(178mm) - 12\"(300mm)	126 lbs (57 kg)

**SHROUD**

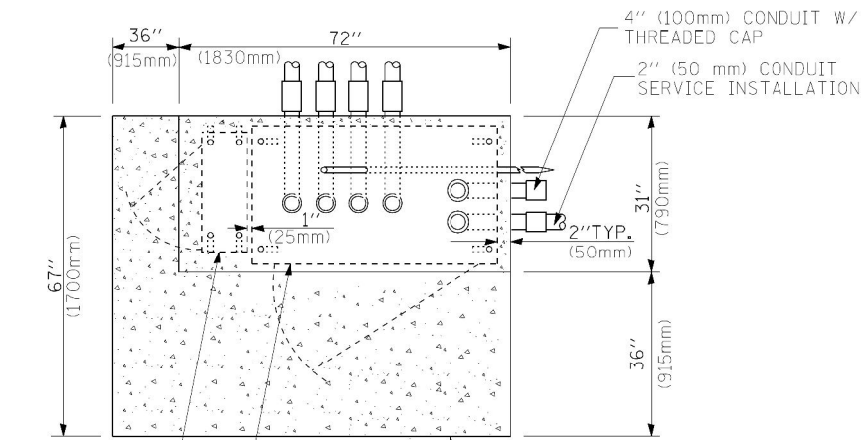
**NOTES:**

- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

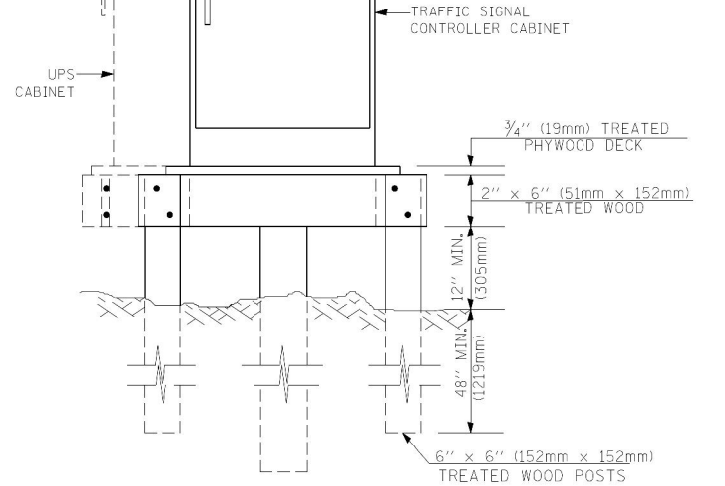
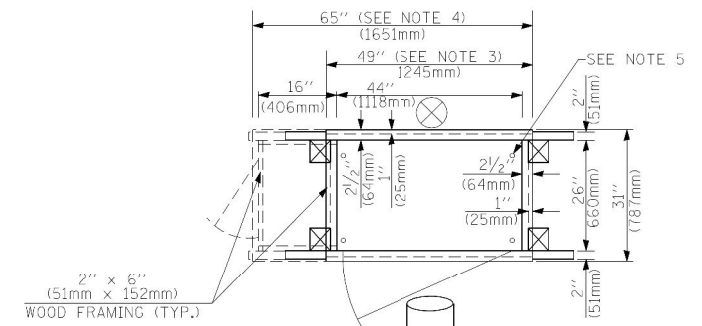




TOP VIEW



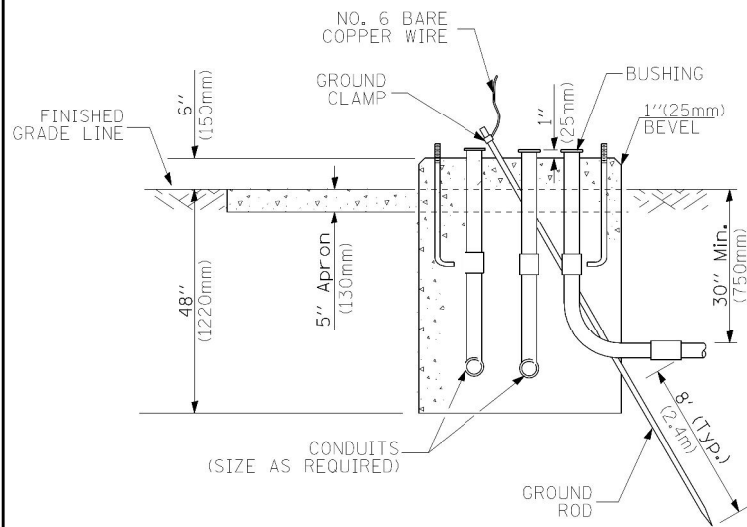
TOP VIEW



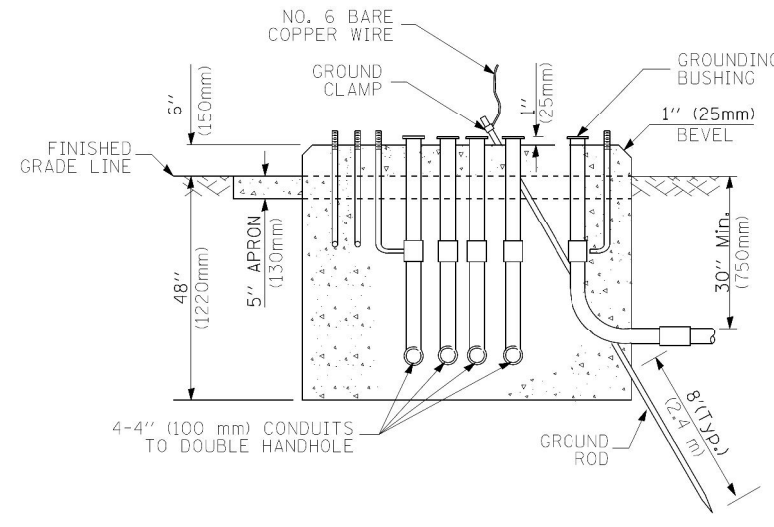
NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM



TYPE D FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET



TYPE C FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	36" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average unconfined Compressive Strength (qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DAD	REVISED -
\$FILE\$		DRAWN - BCK	REVISED -
Default		CHECKED - DAD	REVISED -
	PLOT DATE = \$DATE\$	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE			
STANDARD TRAFFIC SIGNAL DESIGN DETAILS			
SCALE: NONE	SHEET 5	OF 6 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	11
TS-05		CONTRACT NO. 60V74		
ILLINOIS FED. AID PROJECT				

GHA #4085,886

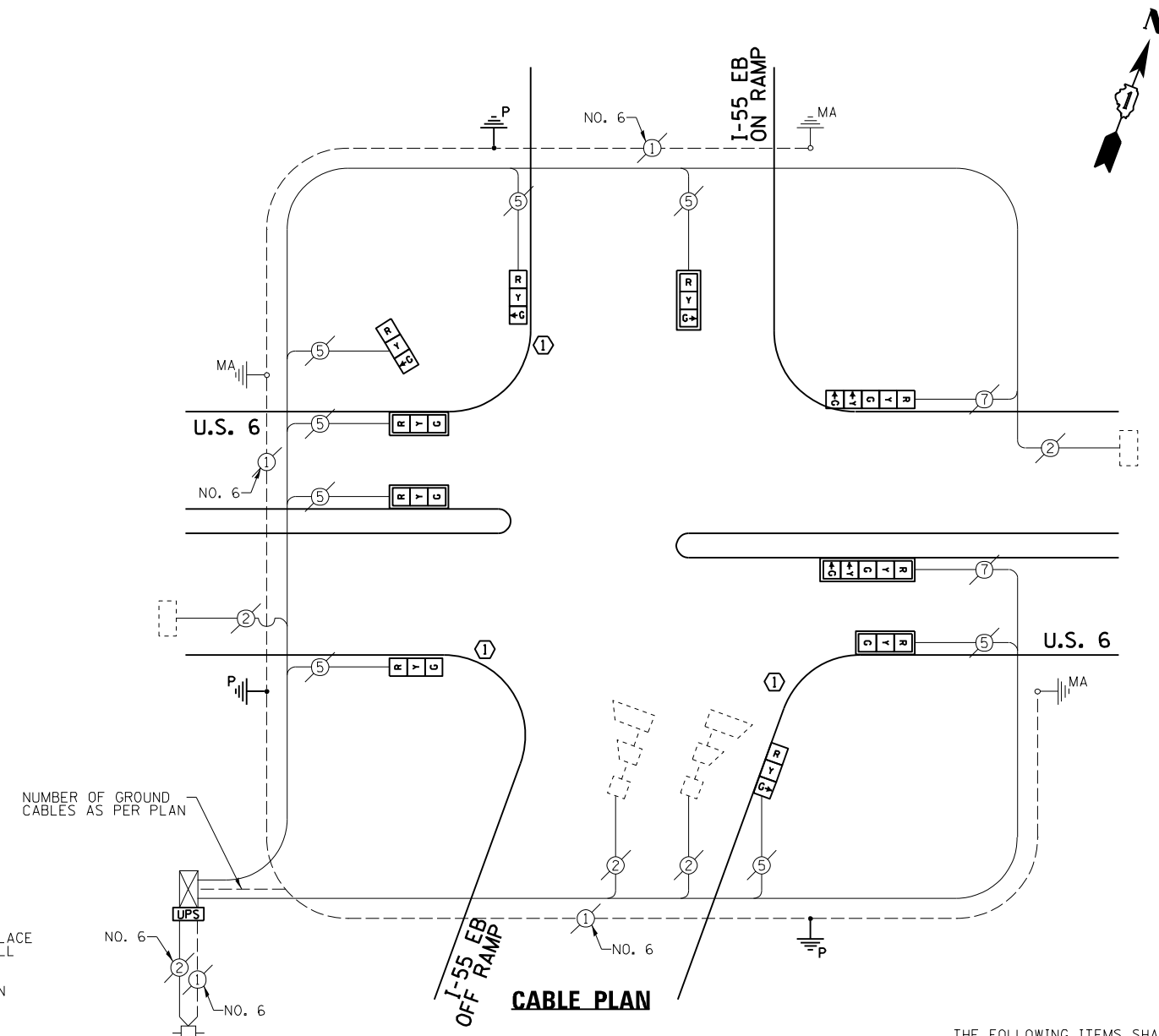
# TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED						
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE									
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE									
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA									
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED									
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F									
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F									
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F									
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)									
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE									
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED									
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED									
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM				ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED									
SIGNAL POST				REMOVE ITEM				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED									
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM				SIGNAL POST AND FOUNDATION TO BE REMOVED									
GUY WIRE				ABANDON ITEM				INTERSECTION & SAMPLING (SYSTEM) DETECTOR									
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR									
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR									
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR									
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR									
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PREFORMED SAMPLING (SYSTEM) DETECTOR									
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				<b>RAILROAD SYMBOLS</b>									
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				RAILROAD CONTROL CABINET									
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				RAILROAD CANTILEVER MAST ARM									
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT				FLASHING SIGNAL									
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER				CROSSING GATE									
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED				CROSSBUCK									
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)													
MICROWAVE VEHICLE SENSOR												<b>RAILROAD SYMBOLS</b>					
VIDEO DETECTION CAMERA												EXISTING	PROPOSED				
VIDEO DETECTION ZONE																	
PAN, TILT, ZOOM CAMERA																	
WIRELESS DETECTOR SENSOR																	
WIRELESS ACCESS POINT																	

GHA #4085,886

SCHEDULE OF QUANTITIES  
U.S. 6 AT I-55 EAST RAMPS

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
5.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
6.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
7.	5	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
8.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
9.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
10.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL



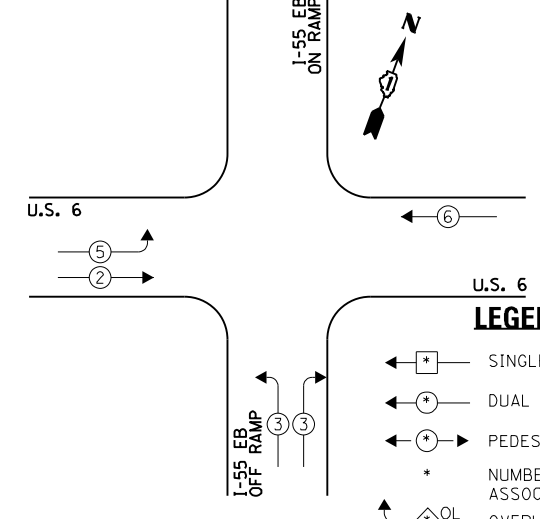
**CONSTRUCTION NOTE:**  
① REMOVE EXISTING SIGNAL HEADS AND REPLACE EXISTING 14 FOOT PAINTED POST. INSTALL NEW 3-SECTION SIGNAL HEADS ON NEW 14 FOOT GALVANIZED STEEL POST. REUSE EXISTING TYPE "A" CONCRETE FOUNDATION AND EXISTING CABLES.

**NOTE:**  
THE EXISTING CONTROLLER IS AN ECONOLITE ASC-8000 IN A TYPE IV CABINET.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 8 EACH TRAFFIC SIGNAL HEAD, 3-SECTION
- 2 EACH TRAFFIC SIGNAL HEAD, 5-SECTION
- 5 EACH TRAFFIC SIGNAL BACKPLATE
- 3 EACH TRAFFIC SIGNAL POST

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

- LEGEND:**
- ← \* → SINGLE ENTRY PHASE
  - ← \* DUAL ENTRY PHASE
  - ← \* → PEDESTRIAN PHASE
  - \* NUMBER REFERS TO ASSOCIATED PHASE
  - \* OL OVERLAP

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		OPERATION	
		INCAND.	L.E.D.		
SIGNAL (RED)	10	135	17	0.50	85.0
SIGNAL (YELLOW)	10	135	25	0.25	62.5
SIGNAL (GREEN)	10	135	15	0.25	37.5
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					314.8

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHAUMBURG IL, 60196-1096  
ENERGY SUPPLY - CONTACT: -  
PHONE: -  
COMPANY: -

FILE NAME =	USER NAME = *USER*	DESIGNED - JRD	REVISED -
*FILE#		DRAWN - ZCW	REVISED -
Default		CHECKED - KLB	REVISED -
	PLOT DATE = *DATE*	DATE - 10-12-12	REVISED -

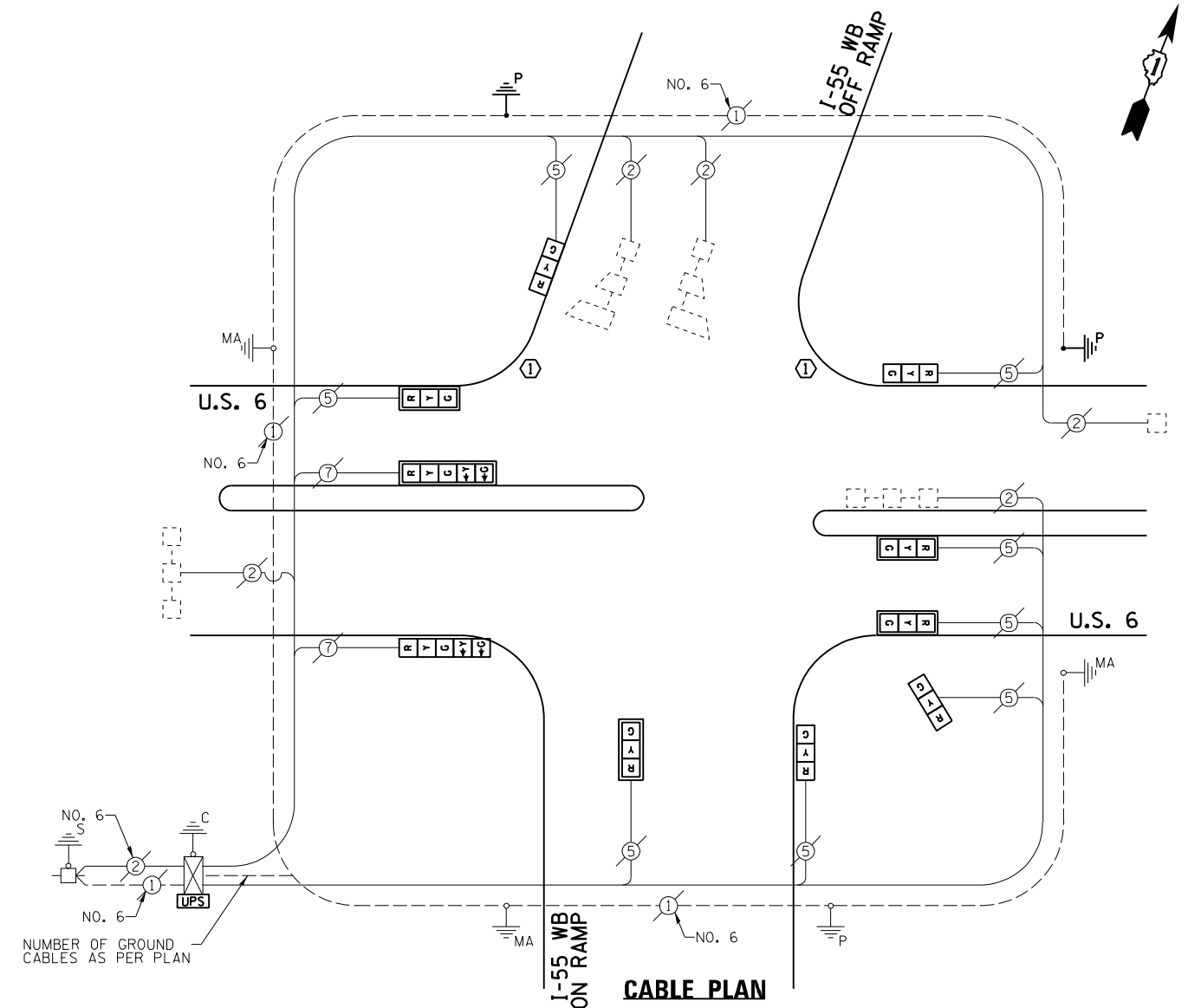
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION  
DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 6 AT I-55 EAST RAMPS  
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	13
			CONTRACT NO. 60V74	
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES  
U.S. 6 AT I-55 WEST RAMPS

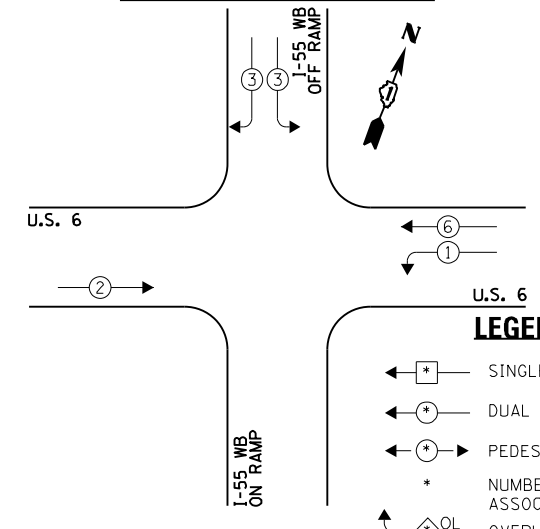
NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
5.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
6.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
7.	5	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
8.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
9.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
10.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL



**CONSTRUCTION NOTE:**  
① REMOVE EXISTING SIGNAL HEADS AND REPLACE EXISTING 16 FOOT PAINTED POST. INSTALL NEW 3-SECTION SIGNAL HEADS ON NEW 14 FOOT GALVANIZED STEEL POST. REUSE EXISTING TYPE 'A' CONCRETE FOUNDATION AND EXISTING CABLES.

**NOTE:**  
THE EXISTING CONTROLLER IS AN ECONOLITE ASC-8000 IN A TYPE IV CABINET PAINTED YELLOW.

**CONTROLLER SEQUENCE**



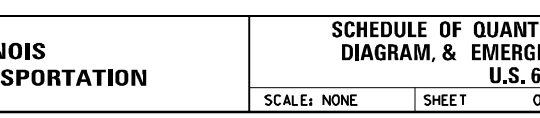
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 8 EACH TRAFFIC SIGNAL HEAD, 3-SECTION
- 5 EACH TRAFFIC SIGNAL HEAD, 5-SECTION
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 2 EACH TRAFFIC SIGNAL POST

**LEGEND:**

- ← \* → SINGLE ENTRY PHASE
- ← \* DUAL ENTRY PHASE
- ← \* → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE
- ← \* → OL OVERLAP

**PHASE DESIGNATION DIAGRAM**



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		OPERATION	
		INCAND.	L.E.D.		
SIGNAL (RED)	10	135	17	0.50	85.0
SIGNAL (YELLOW)	10	135	25	0.25	62.5
SIGNAL (GREEN)	10	135	15	0.25	37.5
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					314.8

ENERGY COSTS - BILLED TO: ILL. DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHAMBURG ILL. 60196-1096

ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

FILE NAME =	USER NAME = \$USER\$	DESIGNED - JRD	REVISED -
\$FILEL\$		DRAWN - ZCW	REVISED -
Default		CHECKED - KLB	REVISED -
	PLOT DATE = \$DATE\$	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

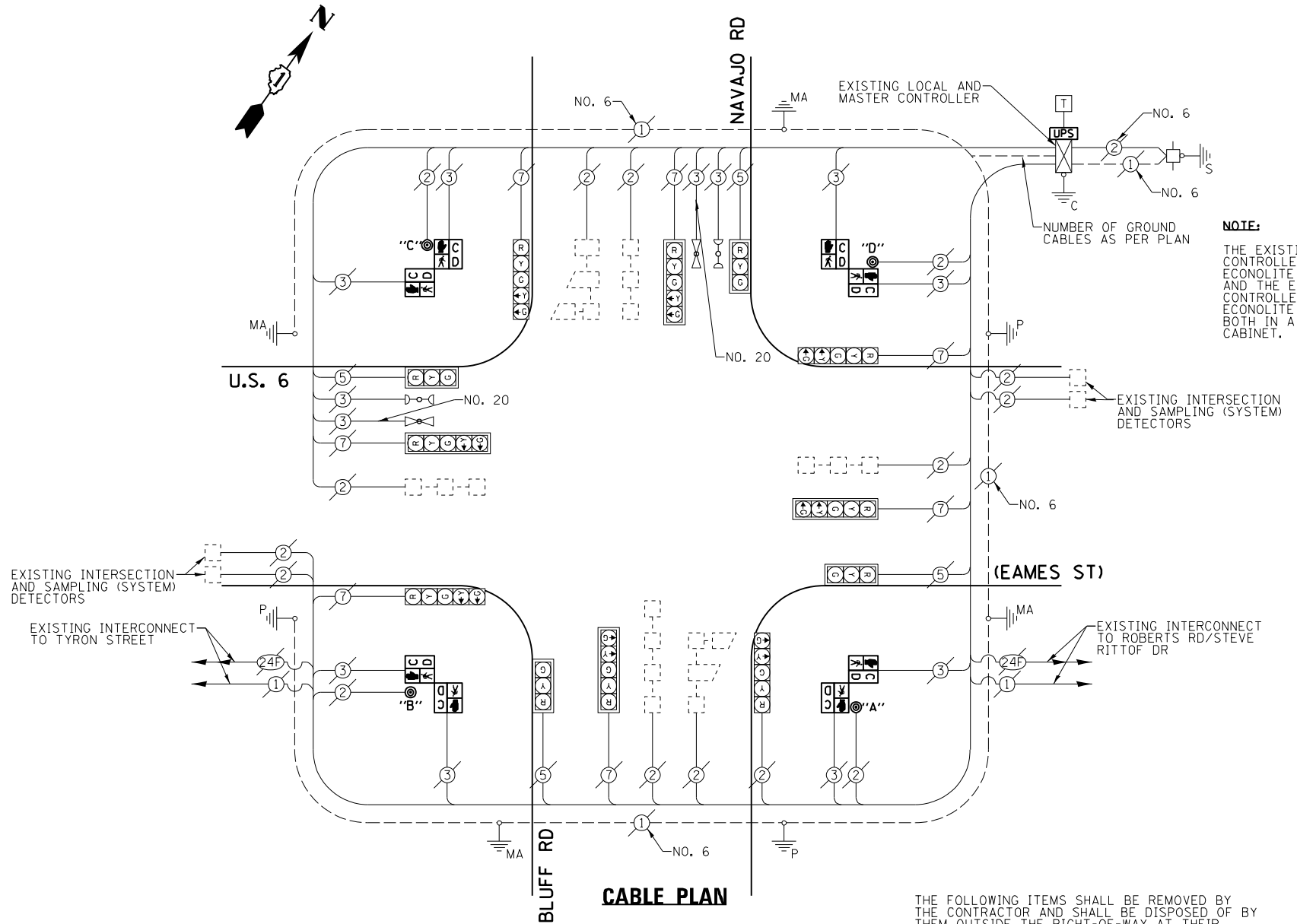
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION  
DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 6 AT I-55 WEST RAMPS

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	14
			CONTRACT NO. 60V74	
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES  
U.S. 6 (EAMES ST) AT BLUFF / NAVAJO ROAD

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
4.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
6.	4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



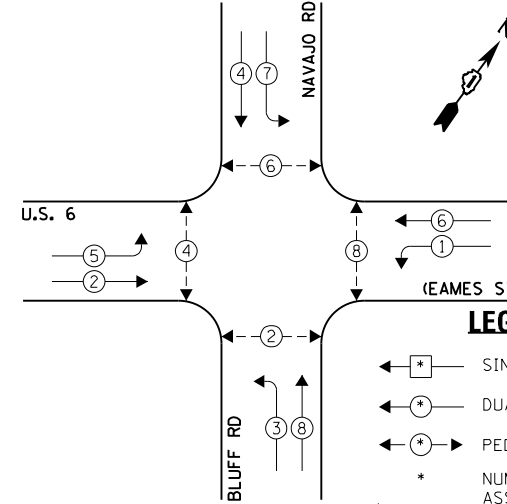
**NOTE:**  
THE EXISTING LOCAL CONTROLLER IS AN ECONOLITE ASC/2S-1000 AND THE EXISTING MASTER CONTROLLER IS AN ECONOLITE ASC/2M-1000, BOTH IN A TYPE IV CABINET.

**NOTE:**  
PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 8 AND 2.  
PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 2 AND 4.  
PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 4 AND 6.  
PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 6 AND 8.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

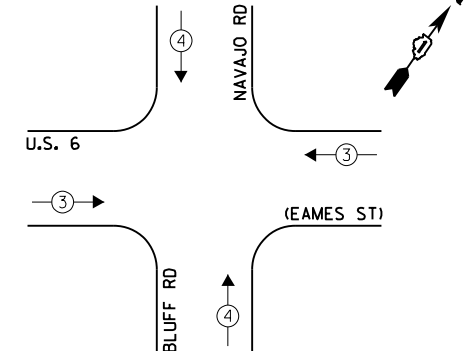
- 4 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 4 EACH PEDESTRIAN PUSH-BUTTON

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. LAMPS	WATTAGE INCAND.	OPERATION L.E.D.		
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					541.2

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER CT  
(ADDRESS) SCHAMBURG IL, 60196-1096  
ENERGY SUPPLY - CONTACT: -  
PHONE: -  
COMPANY: -

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = *USER*	DESIGNED - JRD	REVISED -
*FILEL\$		DRAWN - ZCW	REVISED -
Default		CHECKED - KLB	REVISED -
	PLOT DATE = *DATE*	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 6 (EAMES ST) AT BLUFF / NAVAJO ROAD

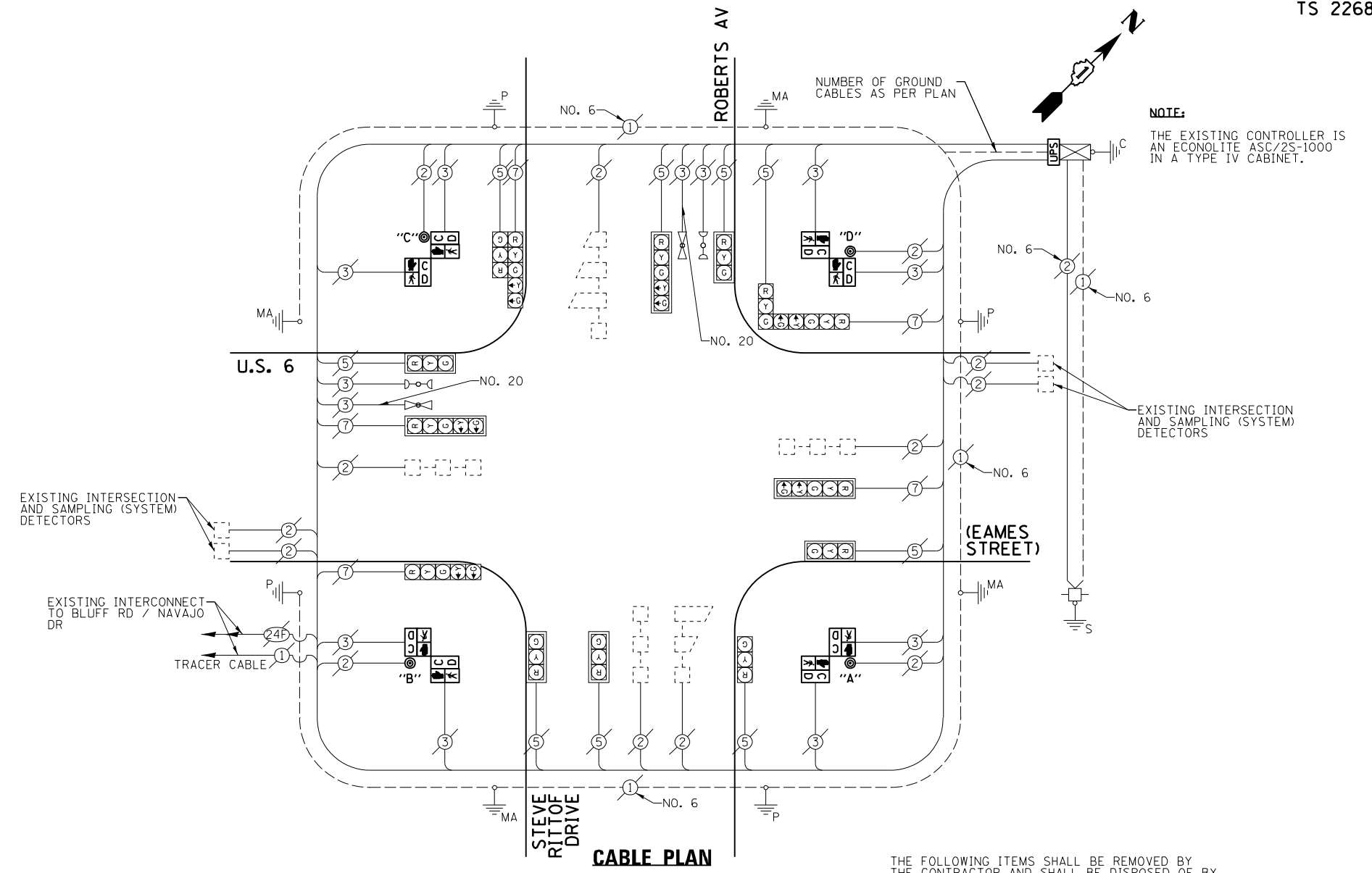
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	15
			CONTRACT NO. 60V74	
ILLINOIS FED. AID PROJECT				

GHA #4085.886

SCHEDULE OF QUANTITIES  
U.S. 6 (EAMES ST) AT ROBERTS AVENUE / STEVE RITTOF DRIVE

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
4.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
6.	4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



**NOTE:**  
THE EXISTING CONTROLLER IS AN ECONOLITE ASC/2S-1000 IN A TYPE IV CABINET.

EXISTING INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

EXISTING INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

EXISTING INTERCONNECT TO BLUFF RD / NAVAJO DR

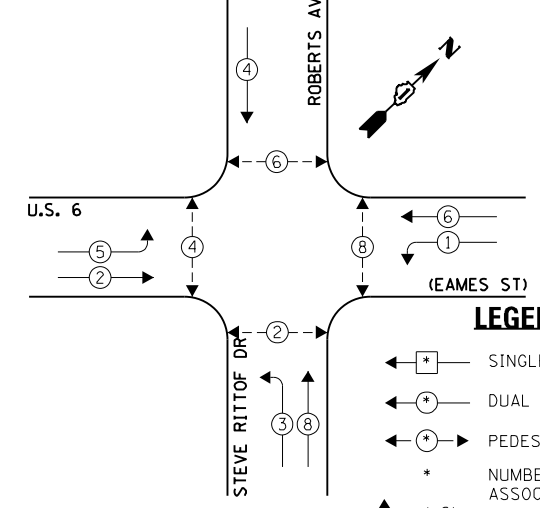
TRACER CABLE

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 4 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 4 EACH PEDESTRIAN PUSH-BUTTON

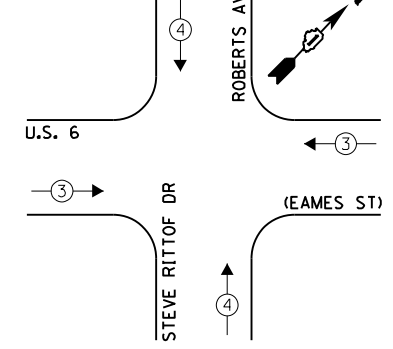
**NOTE:**  
PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 8.  
PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 2 AND 4.  
PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 4 AND 6.  
PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 6 AND 8.

**CONTROLLER SEQUENCE**



**LEGEND:**  
 ◀ \* → SINGLE ENTRY PHASE  
 ◀ \* → DUAL ENTRY PHASE  
 ◀ \* → PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE  
 \* → OVERLAP

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. LAMPS	WATTAGE INCAND.	OPERATION L.E.D.		
SIGNAL (RED)	14	135	17	0.50	119.0
SIGNAL (YELLOW)	14	135	25	0.25	87.5
SIGNAL (GREEN)	14	135	15	0.25	52.5
ARROW	12	135	12	0.10	14.4
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					598.4

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
 (ADDRESS) 201 W. CENTER CT  
 (ADDRESS) SCHAMBURG, IL 60196-1096  
 ENERGY SUPPLY - CONTACT: -  
 PHONE: -  
 COMPANY: -

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = #USER*	DESIGNED - JRD	REVISED -
#FILE#		DRAWN - ZCW	REVISED -
Default		CHECKED - KLB	REVISED -
	PLOT DATE = #DATE*	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 6 (EAMES ST) AT ROBERTS AV / STEVE RITTOF DRIVE

SCALE: NONE SHEET OF SHEETS STA. TO STA.

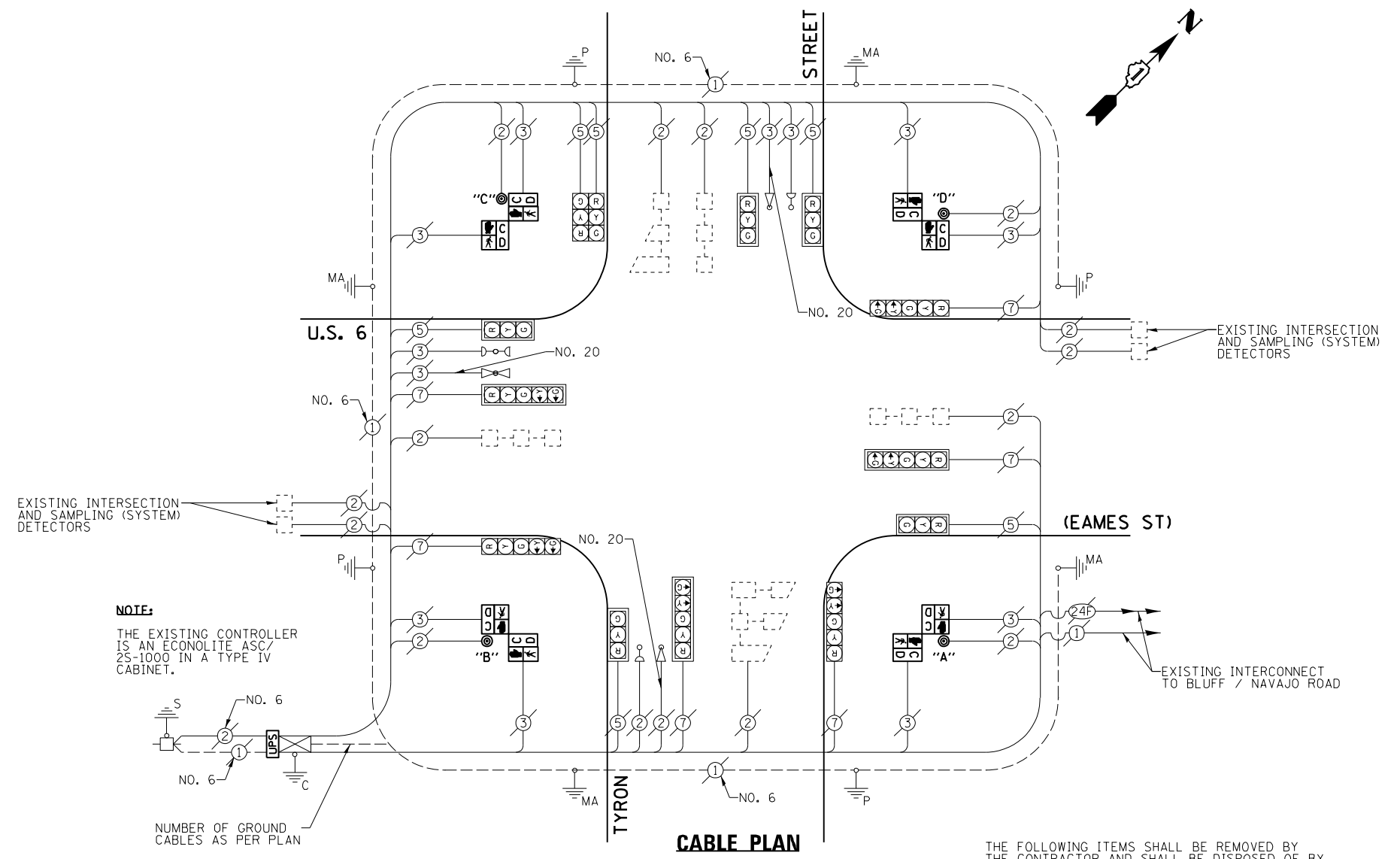
F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	16
			CONTRACT NO. 60V74	
ILLINOIS FED. AID PROJECT				

GHA #4085.886



SCHEDULE OF QUANTITIES  
U.S. 6 (EAMES ST) AT TRYON STREET

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
4.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
6.	4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



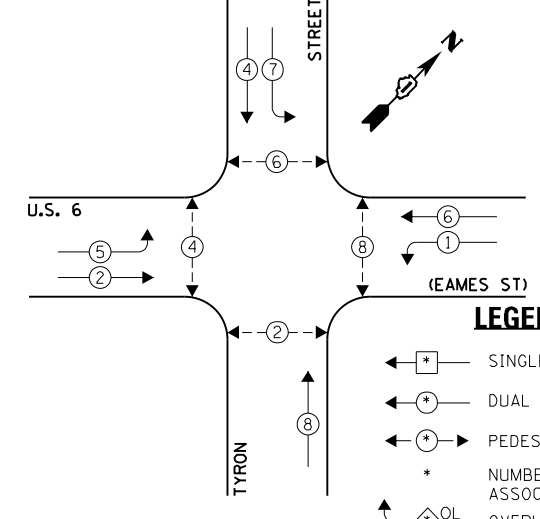
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 4 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 4 EACH PEDESTRIAN PUSH-BUTTON

**NOTE:**

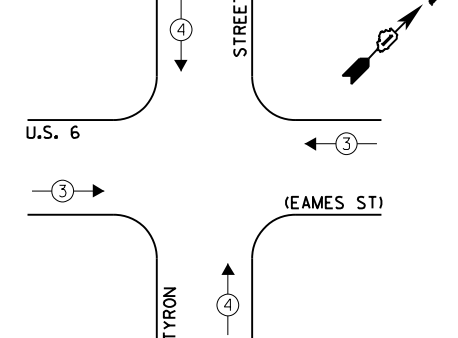
- PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 8.
- PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 2 AND 4.
- PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 4 AND 6.
- PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 6 AND 8.

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.5
SIGNAL (YELLOW)	13	135	25	0.25	81.25
SIGNAL (GREEN)	13	135	15	0.25	48.75
ARROW	12	135	12	0.10	14.4
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					579.9

ENERGY COSTS - BILLED TO: ILL. DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHALMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = \$USER\$	DESIGNED - JRD	REVISED -
\$FILEL\$		DRAWN - ZCW	REVISED -
Default		CHECKED - KLB	REVISED -
	PLOT DATE = \$DATE\$	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 6 (EAMES ST) AT TYRON STREET

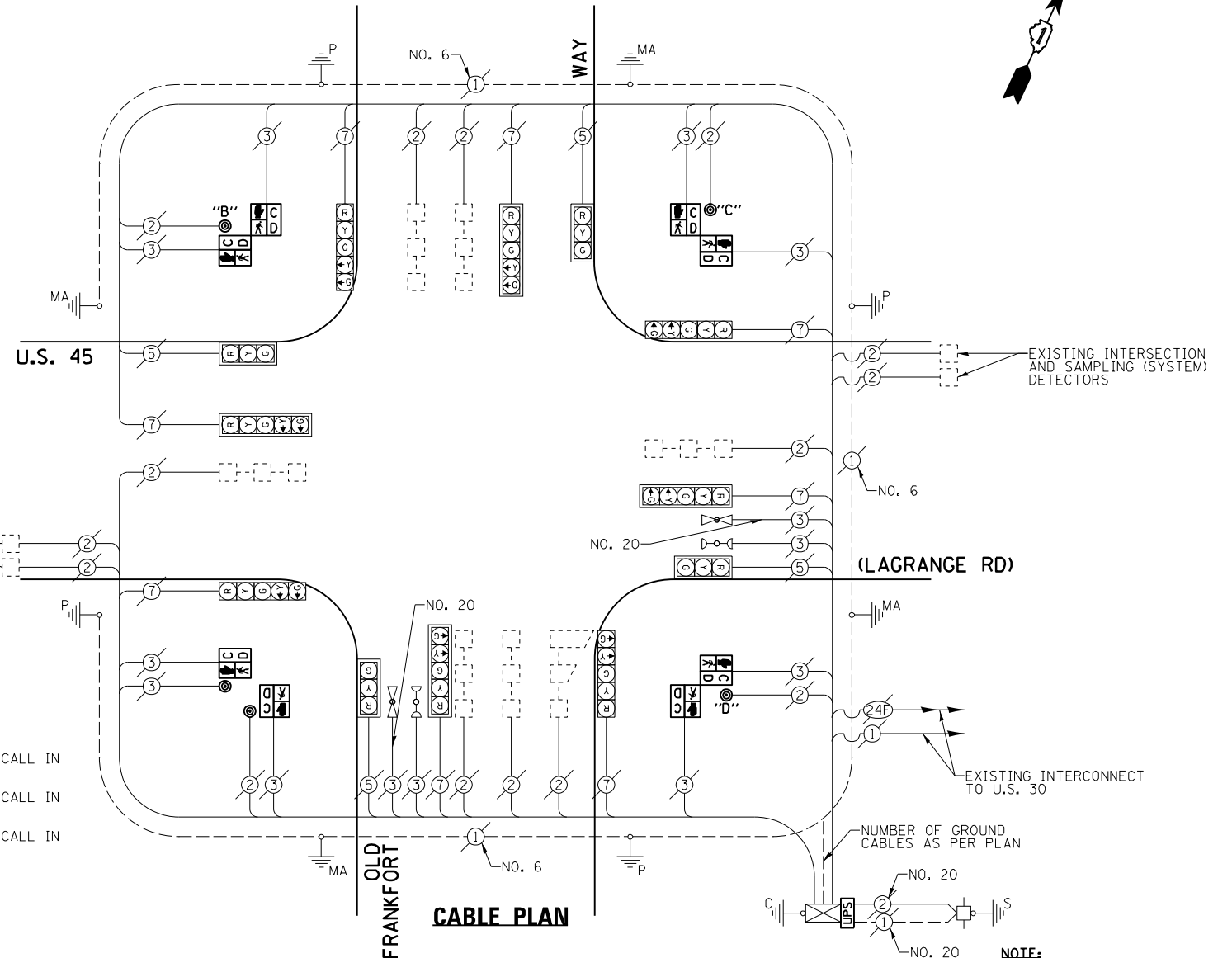
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	17
			CONTRACT NO. 60V74	
ILLINOIS FED. AID PROJECT				

GHA #4085.886

SCHEDULE OF QUANTITIES  
U.S. 45 (LAGRANGE RD) AT OLD FRANKFORT WAY

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	3	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
7.	5	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



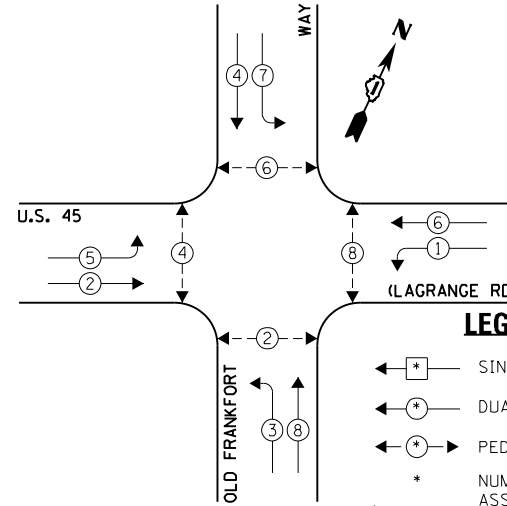
**NOTE:**  
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.  
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

**NOTE:**  
 THE EXISTING CONTROLLER IS AN EGONOLITE ASC/3-1000 IN A TYPE IV CABINET.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

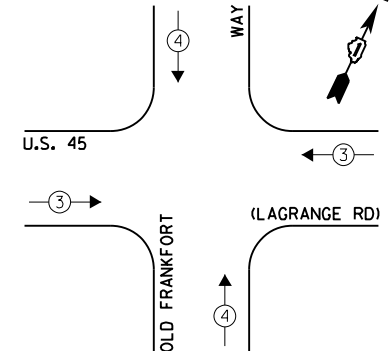
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 1 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 5 EACH PEDESTRIAN PUSH-BUTTON

**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					566.2

ENERGY COSTS - BILLED TO: VILLAGE OF FRANKFORT  
 (ADDRESS) 432 W. NEBRASKA STREET  
 (ADDRESS) FRANKFORT, IL 60423  
 ENERGY SUPPLY - CONTACT: -  
 PHONE: -  
 COMPANY: -

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = #USER*	DESIGNED - JRD	REVISED -
#FILE#		DRAWN - ZCW	REVISED -
Default		CHECKED - KLB	REVISED -
	PLOT DATE = #DATE*	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

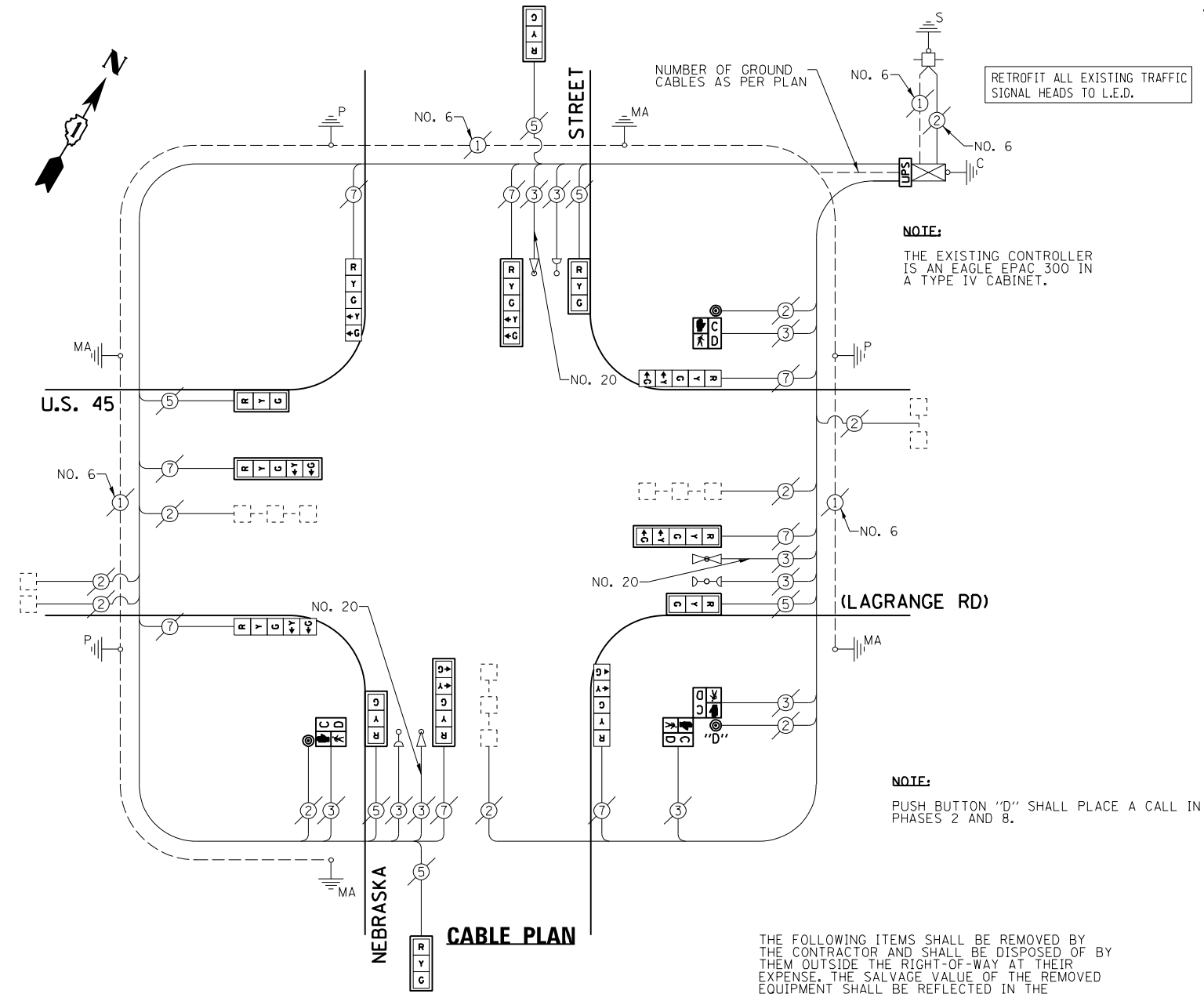
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 45 (LAGRANGE RD) AT OLD FRANKFORT WAY

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	18
			CONTRACT NO. 60V74	
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES  
U.S. 45 (LAGRANGE RD) AT NEBRASKA STREET

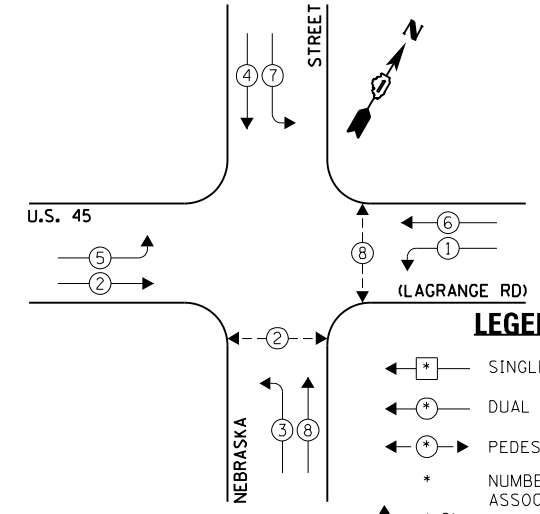
NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4.	10	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
5.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
6.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
7.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
8.	6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
9.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
10.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT
11.	3	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 10 EACH TRAFFIC SIGNAL BACKPLATE
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 1 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 3 EACH PEDESTRIAN PUSH-BUTTON

**CONTROLLER SEQUENCE**

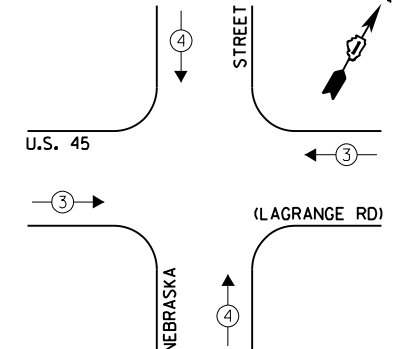


**LEGEND:**

- ← \* → SINGLE ENTRY PHASE
- ← \* DUAL ENTRY PHASE
- ← \* → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE
- ← \* → OVERLAP

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	14	135	17	0.50	119.0
SIGNAL (YELLOW)	14	135	25	0.25	87.5
SIGNAL (GREEN)	14	135	15	0.25	52.5
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	4	90	25	1.00	100.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					503.2

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHALMBURG, IL 60196-1096  
ENERGY SUPPLY - CONTACT: -  
PHONE: -  
COMPANY: -

FILE NAME =	USER NAME = #USER#	DESIGNED - JRD	REVISED -
#FILE#		DRAWN - ZCW	REVISED -
Default		CHECKED - KLB	REVISED -
	PLOT DATE = #DATE#	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 45 (LAGRANGE RD) AT NEBRASKA STREET

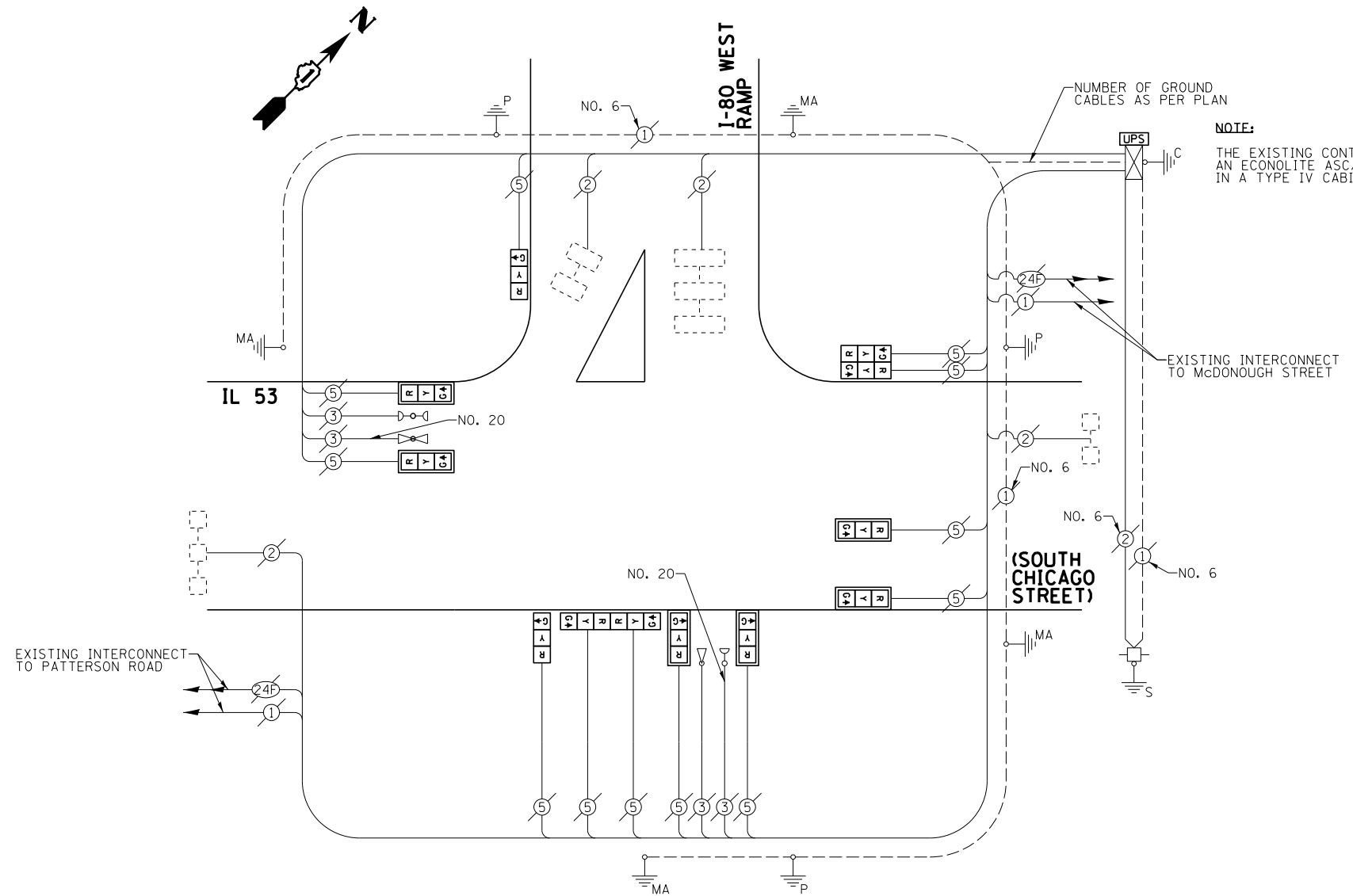
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	19
			CONTRACT NO. 60V74	
ILLINOIS FED. AID PROJECT				

GHA #4085.886

SCHEDULE OF QUANTITIES  
IL 53 (S. CHICAGO ST) AT I-80 WEST RAMP

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4.	2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
5.	6	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
6.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
7.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
8.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



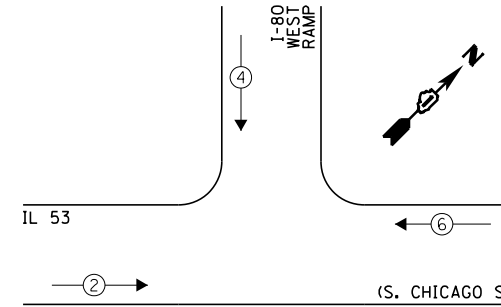
**NOTE:**  
THE EXISTING CONTROLLER IS AN ECONOLITE ASC/2S-2100 IN A TYPE IV CABINET.

**CABLE PLAN**

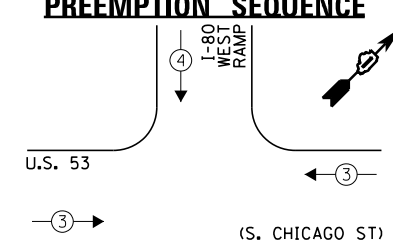
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 12 EACH TRAFFIC SIGNAL HEAD, 3-SECTION
- 6 EACH TRAFFIC SIGNAL BACKPLATE

**CONTROLLER SEQUENCE**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND:**

- ← \* → SINGLE ENTRY PHASE
- ← \* DUAL ENTRY PHASE
- ← \* → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE
- ← \* → OL OVERLAP

**PHASE DESIGNATION DIAGRAM**

EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE L.E.D.	OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	-	135	12	0.10	-
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					347.0

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED - PB 11/08/12
S:\WP\Design\PB\60V74 Mill County LED Installation\Final revisions CADD 11-5-12\60V74-2012.dwg	DRAWN - ZCW	REVISIONS	REVISIONS
Default	PLOT SCALE = 40.000000' / in.	CHECKED - KLB	REVISIONS
	PLOT DATE = 11/9/2012	DATE - 10-12-12	REVISIONS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION  
DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL 53 (S. CHICAGO ST) AT I-80 WEST RAMP

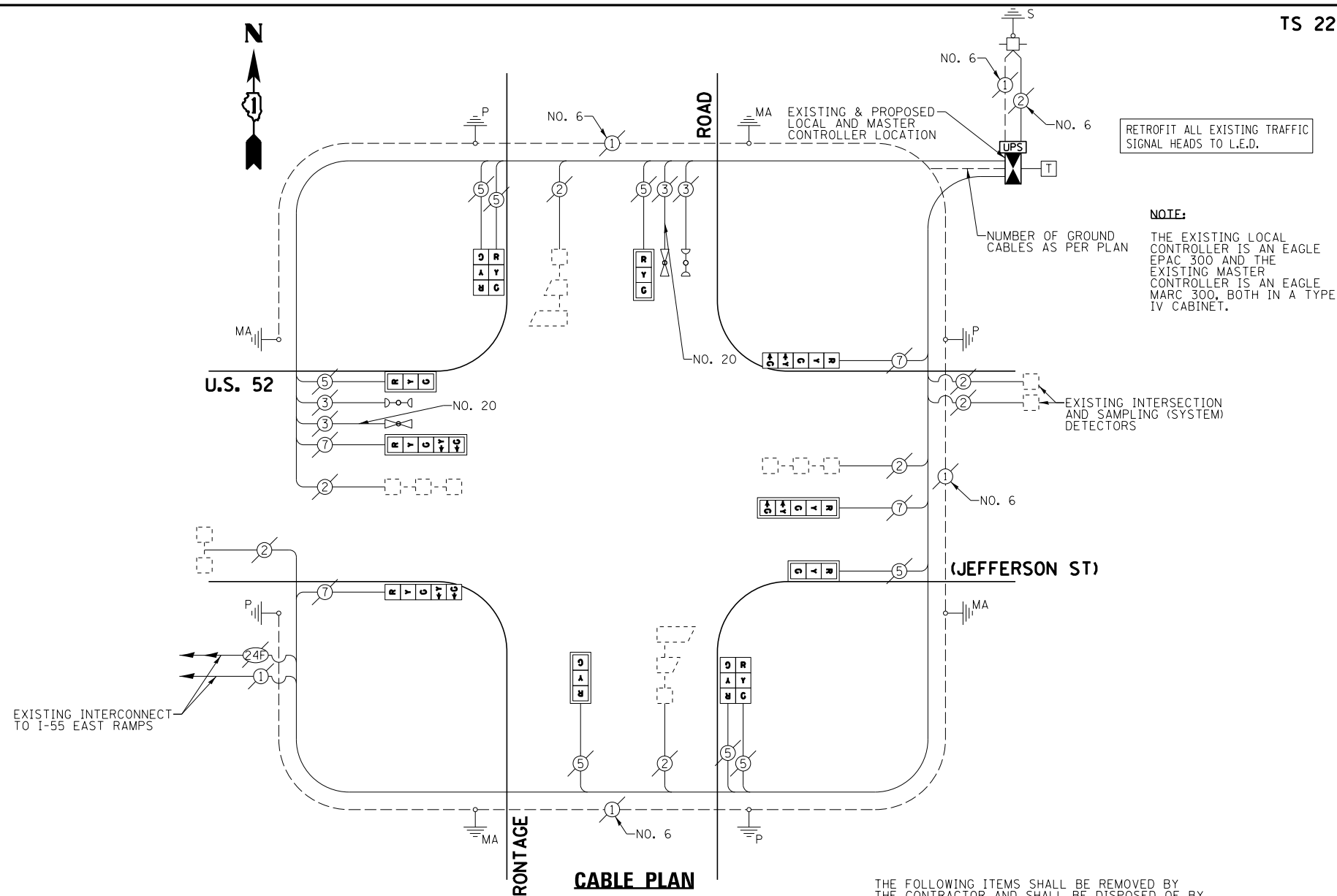
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	20
CONTRACT NO. 60V74				

GHA #4085.886  
ILLINOIS FED. AID PROJECT

SCHEDULE OF QUANTITIES  
U.S. 52 (JEFFERSON ST) AT I-55 EAST FRONTAGE ROAD

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL
3.	1	EACH	TRANSCEIVER - FIBER OPTIC
4.	7	EACH	INDUCTIVE LOOP DETECTOR
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	MASTER CONTROLLER (SPECIAL)
7.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
8.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
9.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
10.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
11.	2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT



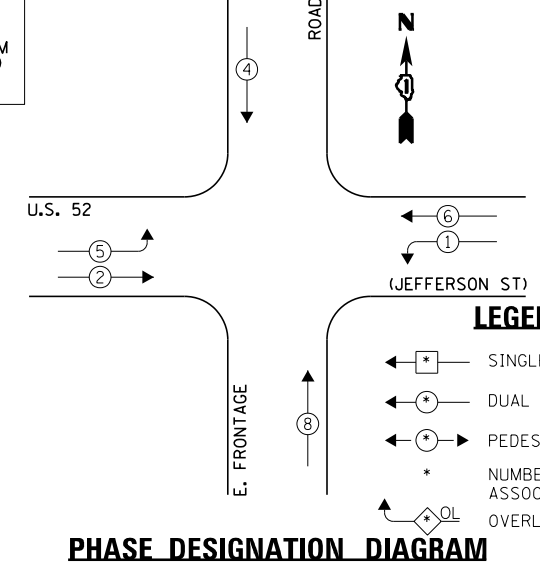
**NOTE:**  
THE EXISTING LOCAL CONTROLLER IS AN EAGLE EPAC 300 AND THE EXISTING MASTER CONTROLLER IS AN EAGLE MARC 300, BOTH IN A TYPE IV CABINET.

**CONSTRUCTION NOTE**  
RELOCATION OF THE EXISTING PHASING UNIT FOR THE EMERGENCY VEHICLE PRE-EMPTION SYSTEM IS INCLUDED IN THE COST OF THE FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL

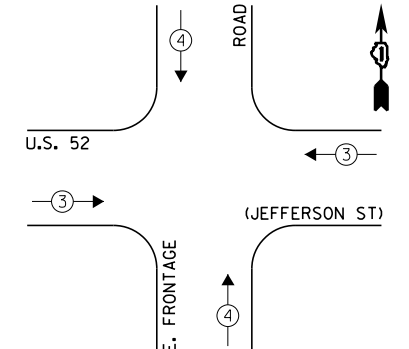
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 1 EACH MASTER CONTROLLER

**EXISTING AND PROPOSED CONTROLLER SEQUENCE**



**EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					356.6

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER ST  
(ADDRESS) SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED - PB 11/08/2012
S:\WP\Design\PB\60V74 Mill County LED Installation\Final revisions CADD 11-5-12\60V74-2	DRAWN - ZCW	REVISIONS	
Default	PLOT SCALE = 40.000000' / in.	CHECKED - KLB	REVISIONS
	PLOT DATE = 11/8/2012	DATE - 10-12-12	REVISIONS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 52 (JEFFERSON ST) AT I-55 EAST FRONTAGE ROAD

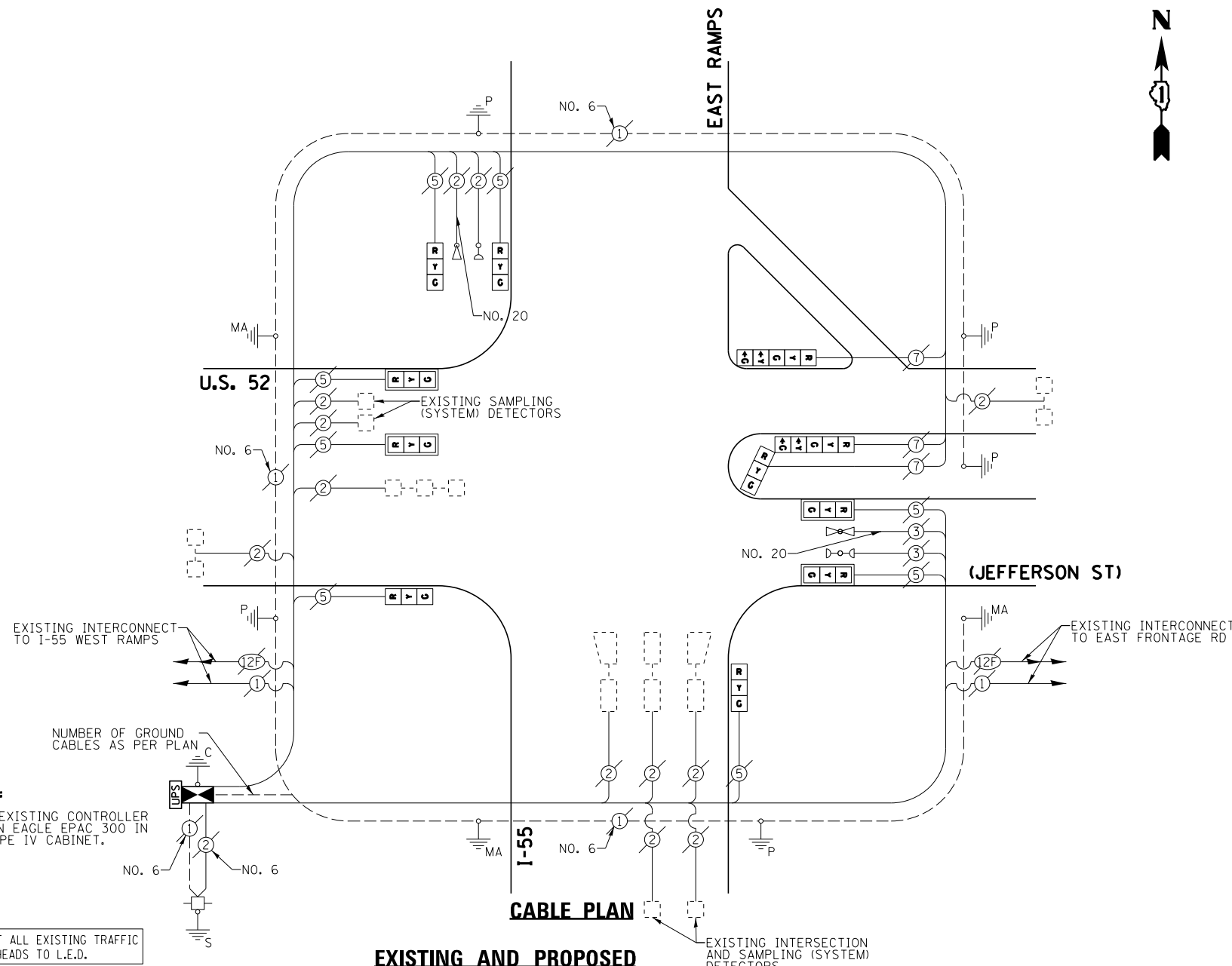
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIABLES	2012-067 I	WILL	39	21
CONTRACT NO. 60V74				

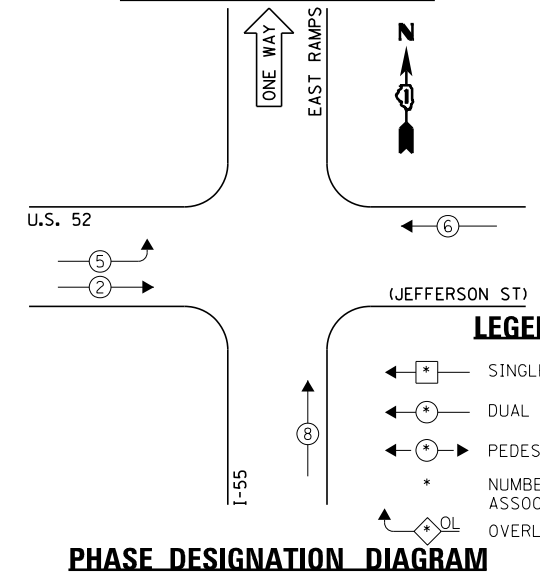
SCHEDULE OF QUANTITIES  
U.S. 52 (JEFFERSON ST) AT I-55 EAST RAMP

TS 22180

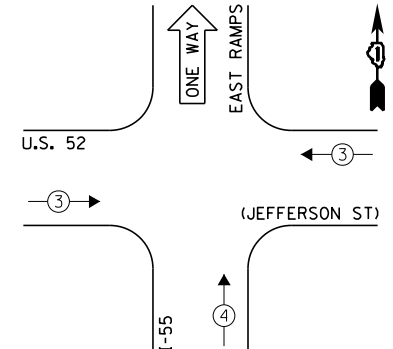
NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	TRANSCIVER - FIBER OPTIC
3.	10	EACH	INDUCTIVE LOOP DETECTOR
4.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
6.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
7.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
8.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
9.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
10.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT



**EXISTING AND PROPOSED CONTROLLER SEQUENCE**



**EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

**CONSTRUCTION NOTE**  
RELOCATION OF THE EXISTING PHASING UNIT FOR THE EMERGENCY VEHICLE PRE-EMPTION SYSTEM IS INCLUDED IN THE COST OF THE FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	11	135	17	0.50	93.5
SIGNAL (YELLOW)	11	135	25	0.25	68.75
SIGNAL (GREEN)	11	135	15	0.25	41.25
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					333.3

ENERGY COSTS - BILLED TO: ILL. DEPT. OF TRANSPORTATION  
 (ADDRESS) 201 W. CENTER COURT  
 (ADDRESS) SCHAUMBURG, IL 60196-1096  
 ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
 PHONE: \_\_\_\_\_  
 COMPANY: \_\_\_\_\_

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED - PB 11/08/2012
S:\WP\Design\PB\60V74 Will County LED Installation\Final revisions CADD 11-5-12\60V74-2	DRAWN - ZCW	REVISIONS	REVISIONS
Default	PLOT SCALE = 40.000000' / in.	CHECKED - KLB	REVISIONS
	PLOT DATE = 11/8/2012	DATE - 10-12-12	REVISIONS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 52 (JEFFERSON ST) AT I-55 EAST RAMP

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	22
CONTRACT NO. 60V74				

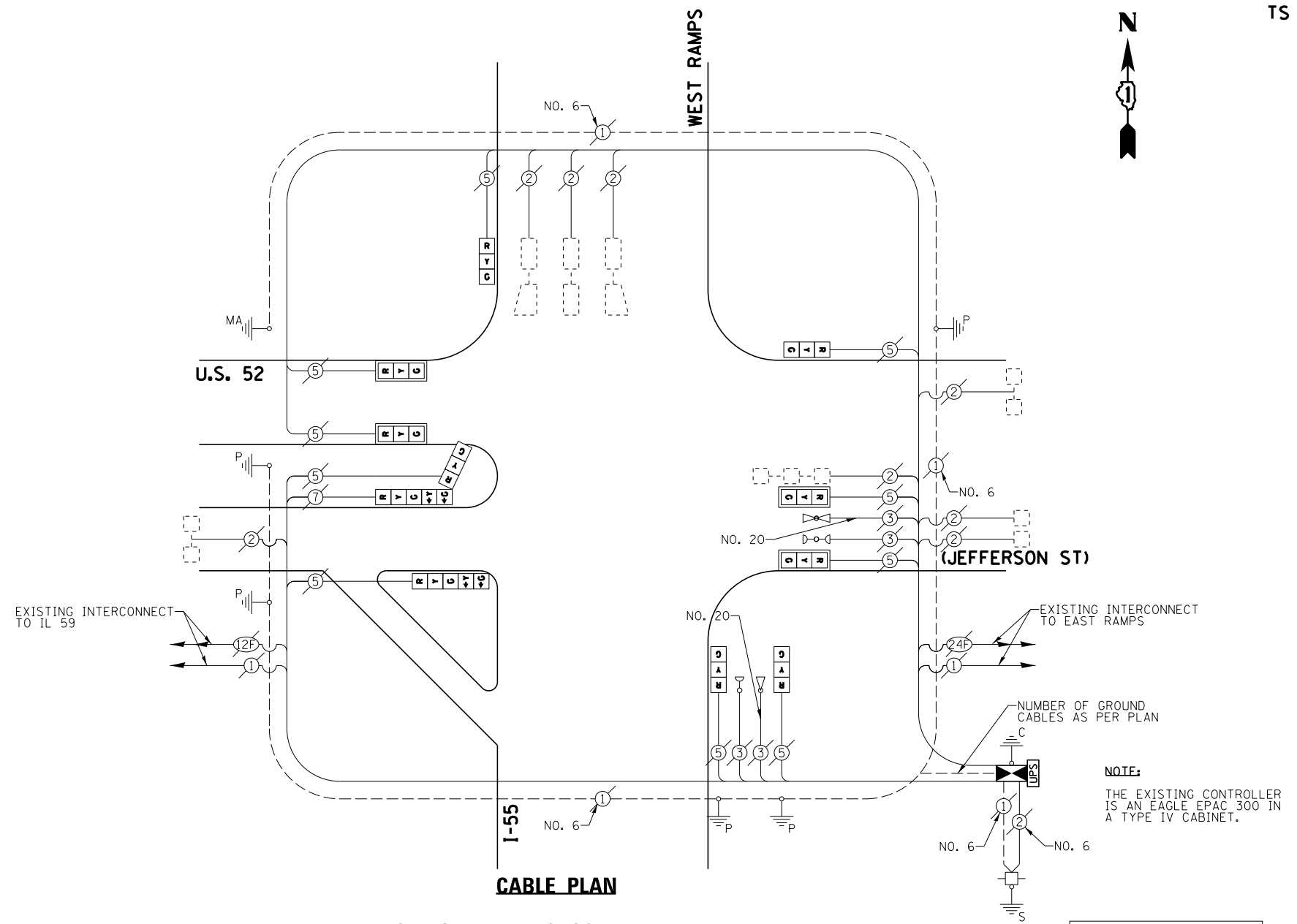
ILLINOIS FED. AID PROJECT

GHA #4085.886

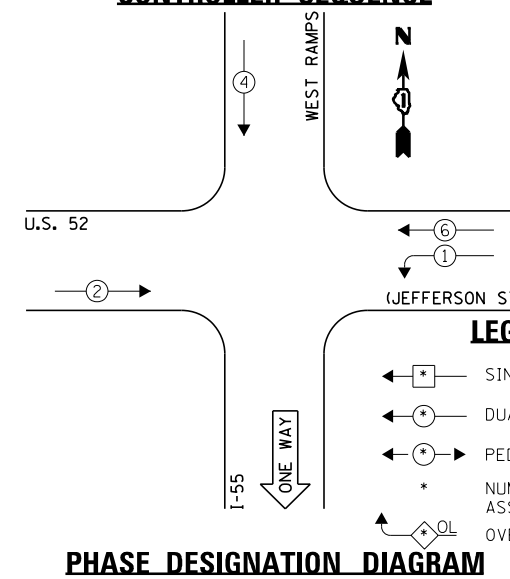
SCHEDULE OF QUANTITIES  
U.S. 52 (JEFFERSON ST) AT I-55 WEST RAMPS

TS 22185

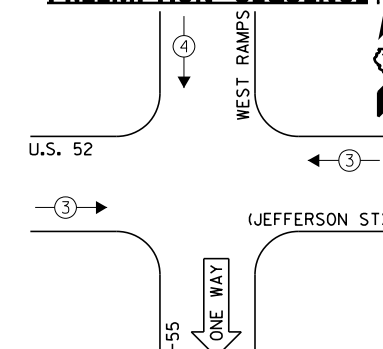
NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	TRANSCIEVER - FIBER OPTIC
3.	8	EACH	INDUCTIVE LOOP DETECTOR
4.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
6.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
7.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
8.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
9.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
10.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT



**EXISTING AND PROPOSED CONTROLLER SEQUENCE**



**EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

**CONSTRUCTION NOTE**

RELOCATION OF THE EXISTING PHASING UNIT FOR THE EMERGENCY VEHICLE PRE-EMPTION SYSTEM IS INCLUDED IN THE COST OF THE FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	OPERATION		
		INCAND.	L.E.D.		
SIGNAL (RED)	11	135	17	0.50	93.5
SIGNAL (YELLOW)	11	135	25	0.25	68.75
SIGNAL (GREEN)	11	135	15	0.25	41.25
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					333.3

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED - 11/08/2012
S:\WP\Design\PB\60V74 Will County LED Installation\Final revisions CADD 11-5-12\60V74-2	DRAWN - ZCW	REVISIONS	REVISIONS
Default	PLOT SCALE = 40.000000' / in.	CHECKED - KLB	REVISIONS
	PLOT DATE = 11/8/2012	DATE - 10-12-12	REVISIONS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 52 (JEFFERSON ST) AT I-55 WEST RAMPS

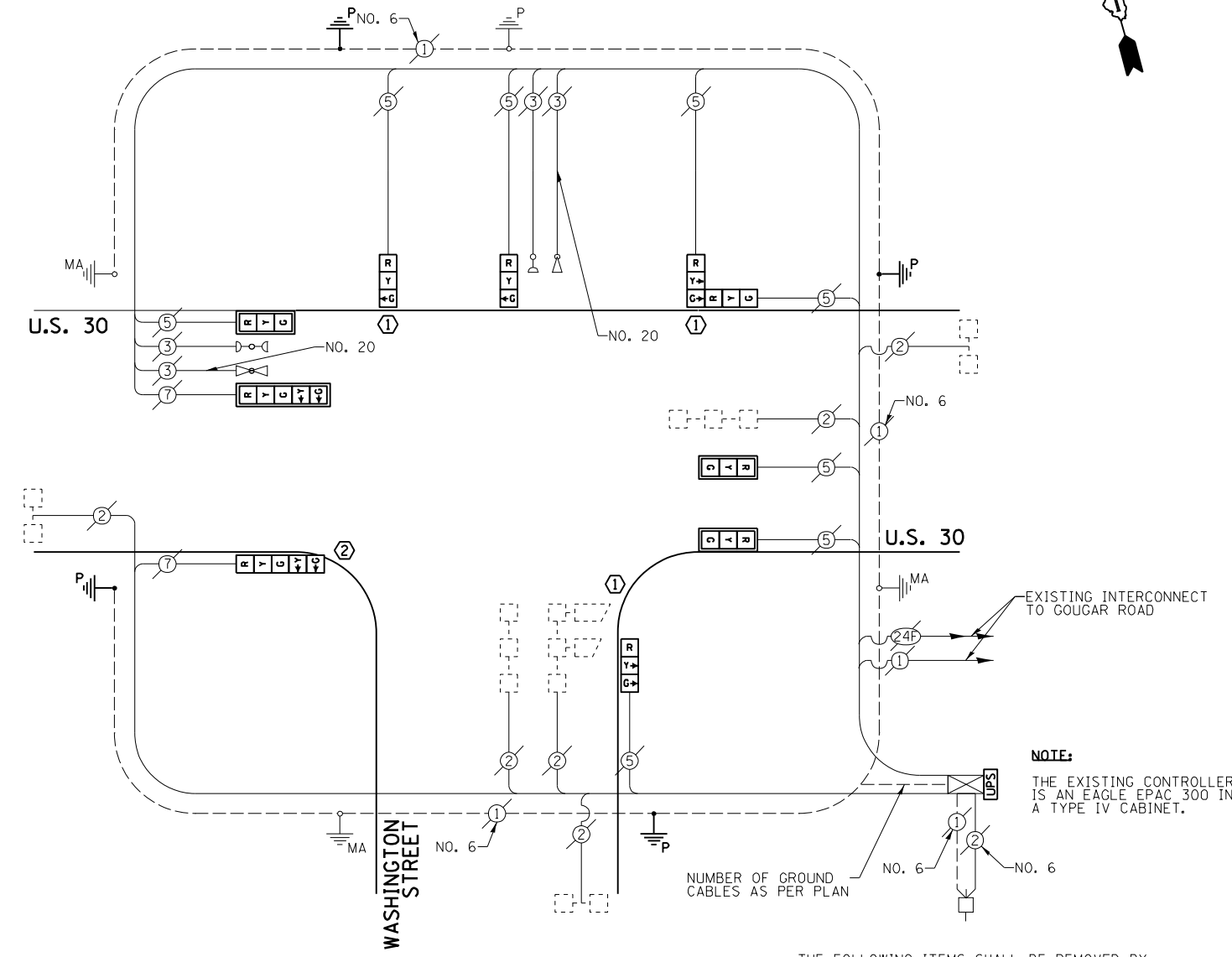
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	23
CONTRACT NO. 60V74				
ILLINOIS FED. AID PROJECT				

GHA #4085.886

SCHEDULE OF QUANTITIES  
U.S. 30 AT WASHINGTON STREET

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3.	1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
4.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
5.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
6.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
7.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
8.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
9.	4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
10.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
11.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
12.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



**CONTROLLER SEQUENCE**

- CONSTRUCTION NOTE:**
- ① REMOVE EXISTING SIGNAL HEADS AND REPLACE EXISTING 14 FOOT PAINTED POST. INSTALL NEW SIGNAL HEADS ON NEW 14 FOOT GALVANIZED STEEL POST. REUSE EXISTING TYPE "A" CONCRETE FOUNDATION AND EXISTING CABLES.
  - ② REMOVE EXISTING SIGNAL HEADS AND REPLACE EXISTING 16 FOOT PAINTED POST. INSTALL NEW SIGNAL HEADS ON NEW 16 GALVANIZED STEEL POST. REUSE EXISTING TYPE "A" CONCRETE FOUNDATION AND EXISTING CABLES.

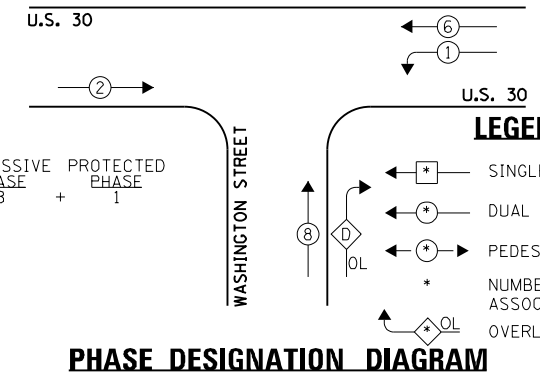
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 8 EACH SIGNAL HEAD, 3-SECTION
- 2 EACH SIGNAL HEAD, 5-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH TRAFFIC SIGNAL POST

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	10	135	17	0.50	85.0
SIGNAL (YELLOW)	10	135	25	0.25	62.5
SIGNAL (GREEN)	10	135	15	0.25	37.5
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					314.8

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHALMBURG, IL 60196-1096  
ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

FILE NAME =	USER NAME = \$USER\$	DESIGNED - JRD	REVISED -
\$FILEL\$		DRAWN - ZCW	REVISED -
Default		CHECKED - KLB	REVISED -
	PLOT DATE = \$DATE\$	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION  
DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 30 AT WASHINGTON STREET

SCALE: NONE SHEET OF SHEETS STA. TO STA.

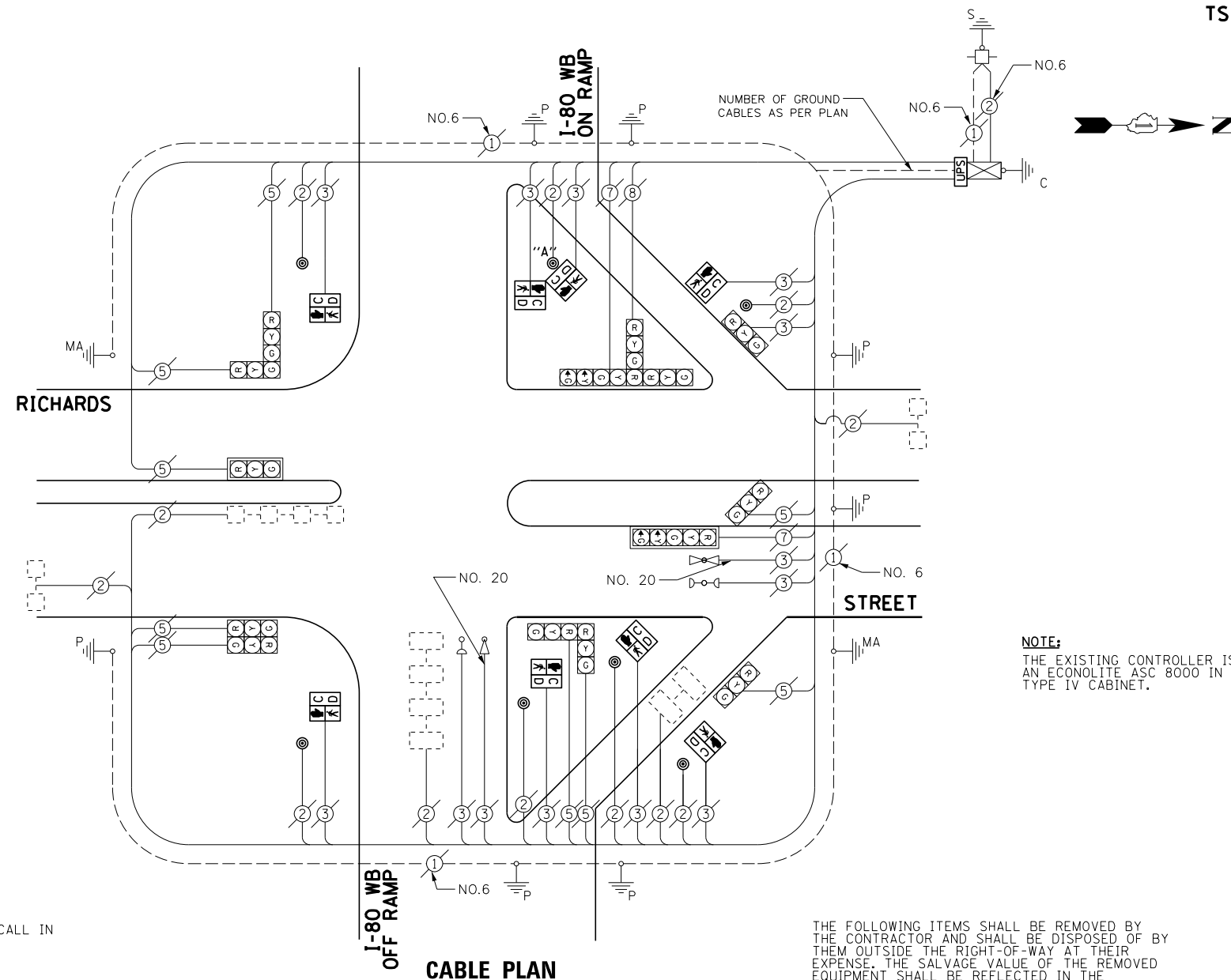
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	24
CONTRACT NO. 60V74				
ILLINOIS FED. AID PROJECT				

GHA #4085.886



SCHEDULE OF QUANTITIES  
RICHARDS STREET AT I-80 NORTH RAMPS

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4.	1	EACH	MODIFY EXISTING CONTROLLER
5.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
6.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
7.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
8.	7	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



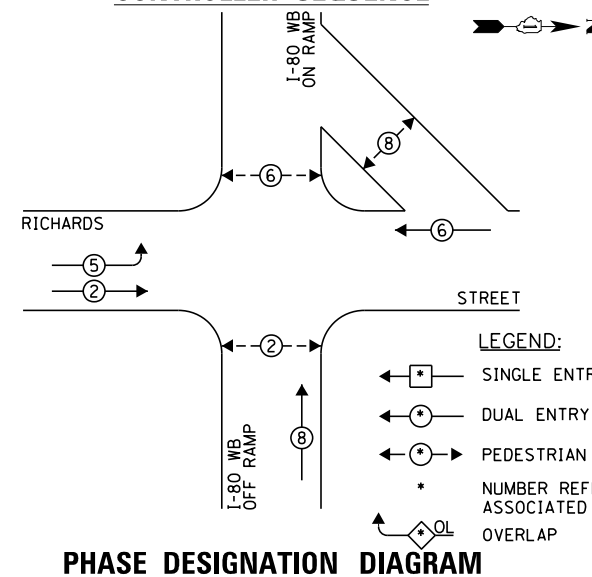
**NOTE:**  
THE EXISTING CONTROLLER IS AN ECONOLITE ASC 8000 IN A TYPE IV CABINET.

**NOTE:**  
PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 6 AND 8.

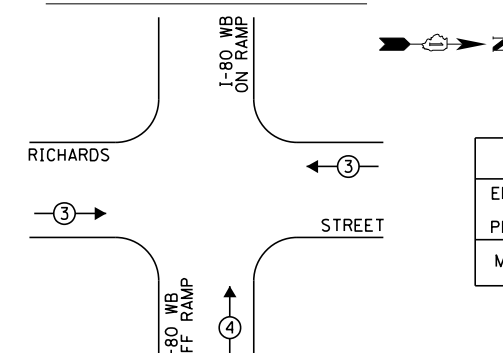
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 6 EACH PEDESTRIAN TRAFFIC SIGNAL, 1-FACE
- 1 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 7 EACH PEDESTRIAN PUSH-BUTTON

**CONTROLLER SEQUENCE**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	14	135	17	0.50	119.0
SIGNAL (YELLOW)	14	135	25	0.25	87.5
SIGNAL (GREEN)	14	135	15	0.25	52.5
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					588.8

ENERGY COSTS - BILLED TO: CITY OF JOLIET  
(ADDRESS) 921 E. WASHINGTON ST  
(ADDRESS) JOLIET, IL 60433  
ENERGY SUPPLY - CONTACT: -  
PHONE: -  
COMPANY: -

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED - PB 11/02/2012
S:\WP\Design\PB\60V74 Will County LED Installation\Final revisions CADD 10-25-12\60V74-DRW	DRAWN - ZCW	CHECKED - KLB	REVISED -
Default	PLOT SCALE = 40.000000 ' / in.	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
RICHARDS STREET AT I-80 NORTH RAMPS

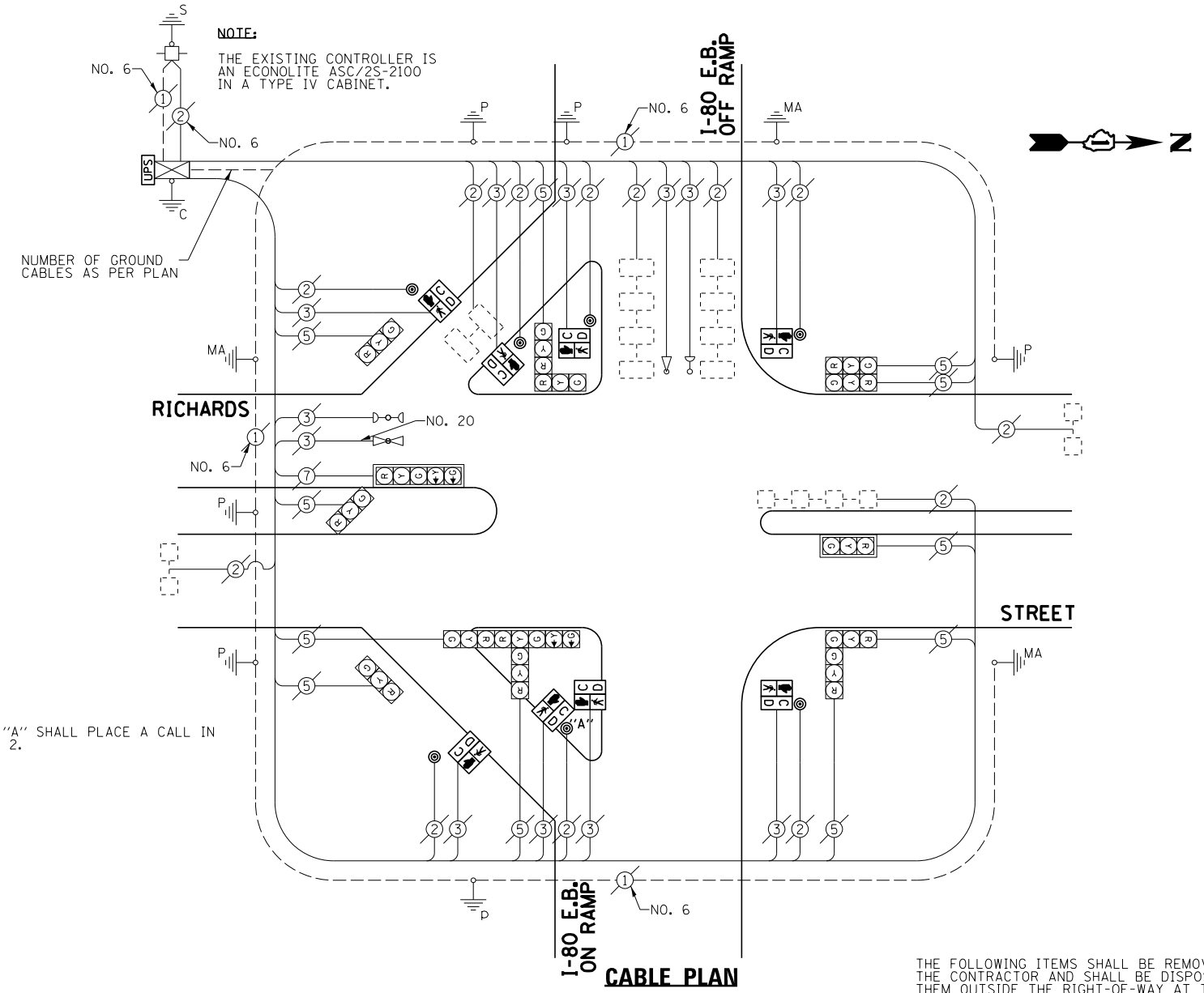
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	25
CONTRACT NO. 60V74				

GHA #4085.886  
ILLINOIS FED. AID PROJECT

SCHEDULE OF QUANTITIES  
RICHARDS STREET AT I-80 SOUTH RAMPS

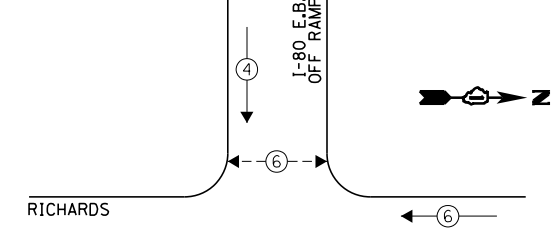
NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4.	1	EACH	MODIFY EXISTING CONTROLLER
5.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
6.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
7.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
8.	7	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



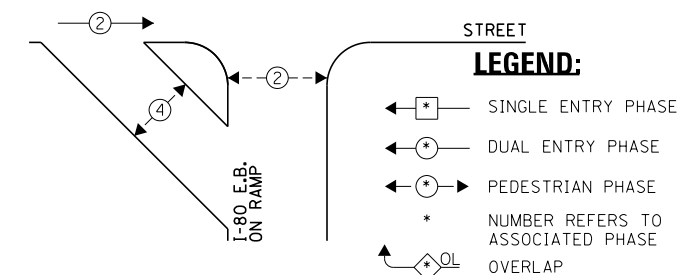
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 6 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 1 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 7 EACH PEDESTRIAN PUSH-BUTTON

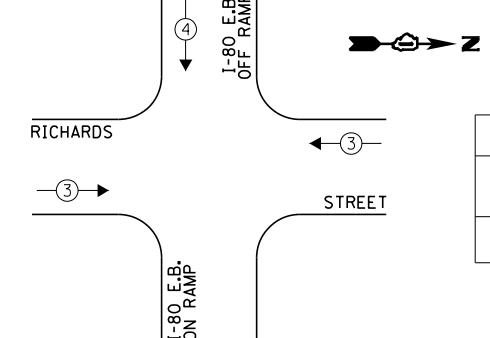
**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	14	135	17	0.50	119.0
SIGNAL (YELLOW)	14	135	25	0.25	87.5
SIGNAL (GREEN)	14	135	15	0.25	52.5
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					588.8

ENERGY COSTS - BILLED TO: CITY OF JOLIET  
(ADDRESS) 921 E. WASHINGTON ST  
(ADDRESS) JOLIET, IL 60433

ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED - PB 11/02/12
S:\WP\Design\PB\60V74 Will County LED Installation\Final revisions CADD 10-25-12\60V74-	DRAWN - ZCW	CHECKED - KLB	REVISED -
Default	PLOT SCALE = 40.000000 ' / in.	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

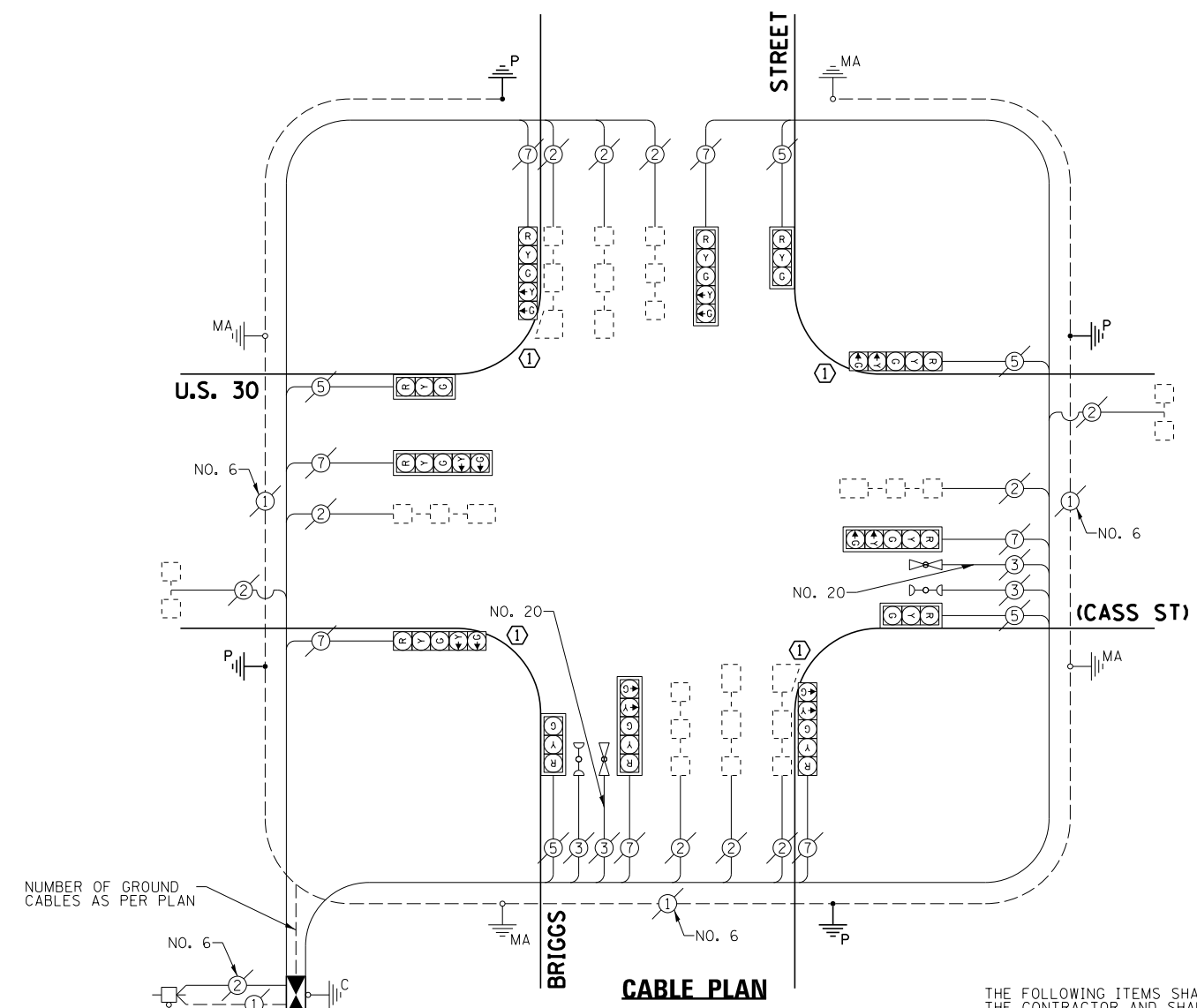
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
RICHARDS STREET AT I-80 SOUTH RAMPS

F.A. RTE. VARIES	SECTION 2012-067 I	COUNTY WILL	TOTAL SHEETS 39	SHEET NO. 26
CONTRACT NO. 60V74				ILLINOIS FED. AID PROJECT

GHA #4085.886

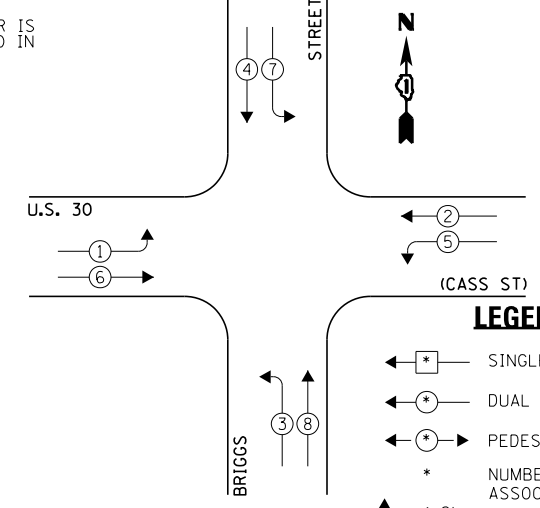
SCHEDULE OF QUANTITIES  
U. S. 30 (CASS ST) AT BRIGGS STREET

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
3.	4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
4.	10	EACH	INDUCTIVE LOOP DETECTOR
5.	4	EACH	RELOCATE EXISTING SIGNAL HEAD
6.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
7.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL



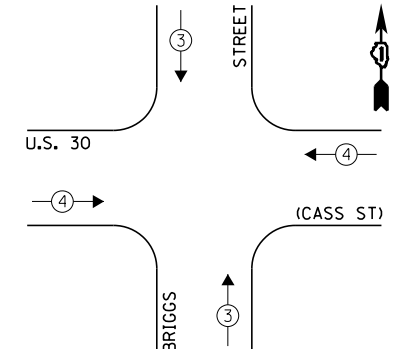
**NOTE:**  
THE EXISTING CONTROLLER IS AN ECONOLITE ASC/3-2100 IN A TYPE IV CABINET.

**EXISTING AND PROPOSED CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 4 EACH TRAFFIC SIGNAL POST

**CONSTRUCTION NOTE:**

① REMOVE EXISTING SIGNAL HEADS AND REPLACE EXISTING 16 FOOT PAINTED POST. REINSTALL EXISTING SIGNAL HEADS ON NEW 16 FOOT GALVANIZED STEEL POST. REUSE EXISTING TYPE "A" CONCRETE FOUNDATION AND EXISTING CABLES.

**CONSTRUCTION NOTE**

RELOCATION OF THE EXISTING PHASING UNIT FOR THE EMERGENCY VEHICLE PRE-EMPTION SYSTEM IS INCLUDED IN THE COST OF THE FULL-ACTUATED CONTROLLER AND TYPE IV CABINET

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					366.2

ENERGY COSTS - BILLED TO: CITY OF JOLIET  
(ADDRESS) 921 E. WASHINGTON ST  
(ADDRESS) JOLIET, IL 60433

ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED - PB 11/08/2012
S:\WP\Design\PB\60V74 Will County LED Installation\Final revisions CADD 11-5-12\60V74-2	DRAWN - ZCW	CHECKED - KLB	REVISED -
Default	PLOT SCALE = 40.000000' / in.	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U. S. 30 (CASS ST) AT BRIGGS STREET

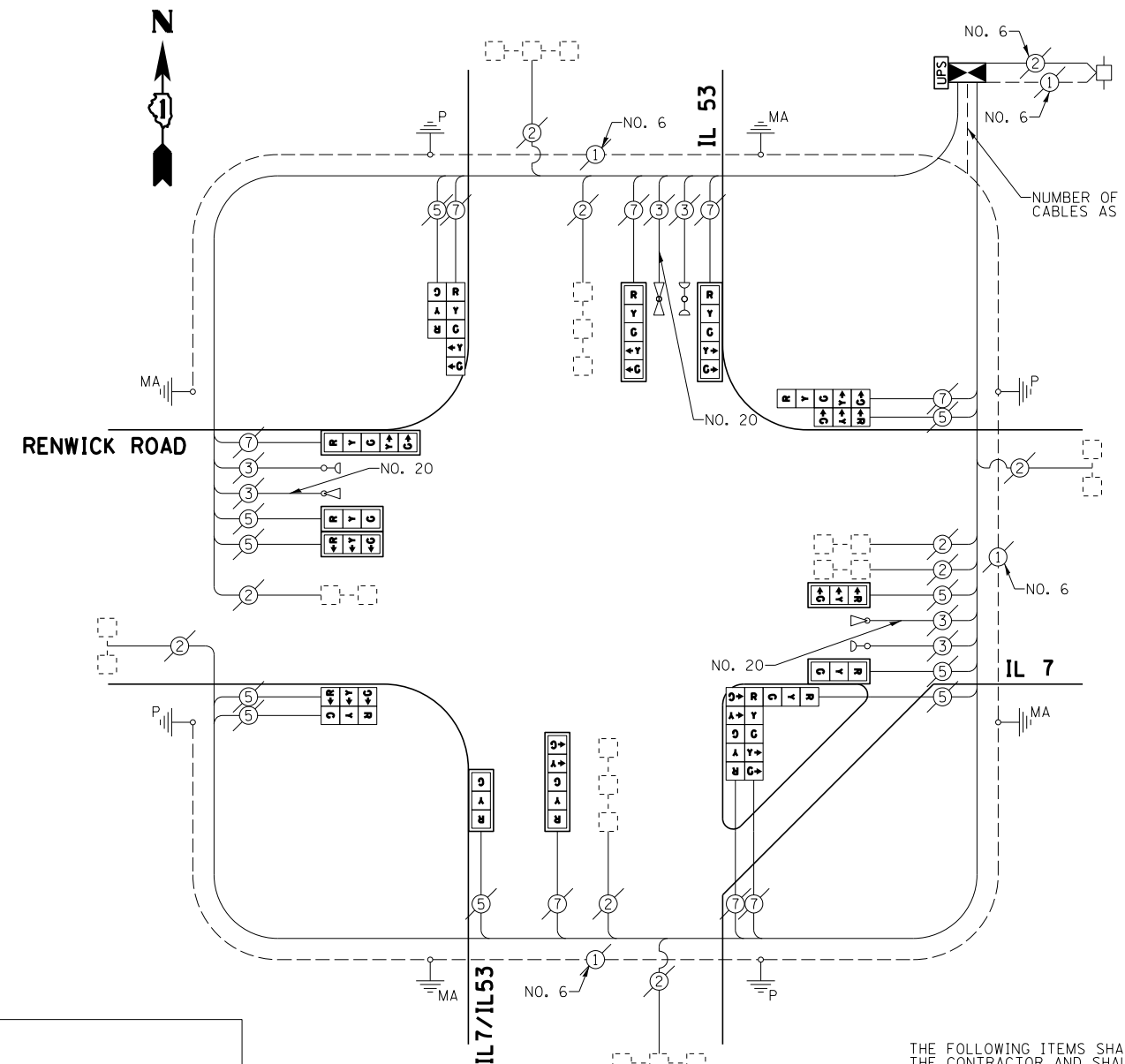
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	27
CONTRACT NO. 60V74				

GHA #4085,886  
ILLINOIS FED. AID PROJECT

SCHEDULE OF QUANTITIES  
IL 7 / IL 53 AT IL 7 / RENWICK ROAD

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET
3.	9	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
4.	9	EACH	INDUCTIVE LOOP DETECTOR
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
7.	2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
8.	1	EACH	SIGNAL HEAD, LED, 3-FACE, 1-3 SECTION, 2-5 SECTION, BRACKET MOUNTED, RETROFIT
9.	5	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
10.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
11.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT



RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS TO L.E.D.

NOTE:  
THE EXISTING CONTROLLER IS AN ECONOLITE ASC/2S-2100 IN A TYPE IV CABINET.

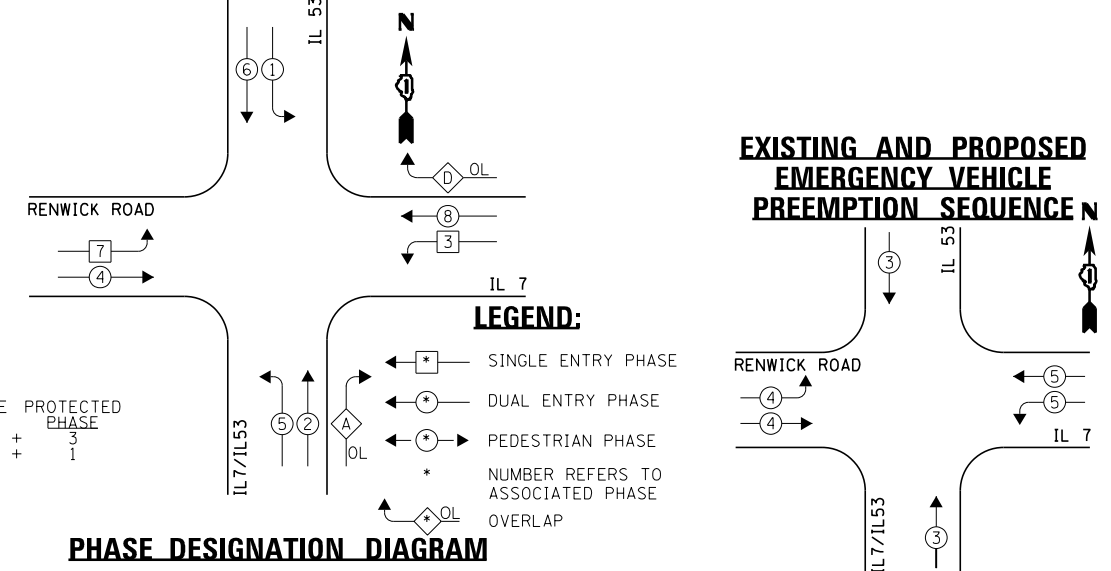
**CONSTRUCTION NOTE**  
RELOCATION OF THE EXISTING PHASING UNIT FOR THE EMERGENCY VEHICLE PRE-EMPTION SYSTEM IS INCLUDED IN THE COST OF THE FULL-ACTUATED CONTROLLER AND TYPE IV CABINET

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 9 EACH TRAFFIC SIGNAL BACKPLATE

**CABLE PLAN  
EXISTING AND PROPOSED  
CONTROLLER SEQUENCE**

**EXISTING AND PROPOSED  
EMERGENCY VEHICLE  
PREEMPTION SEQUENCE**



EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↑	↔	↔

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	18	135	17	0.50	153.0
SIGNAL (YELLOW)	18	135	25	0.25	112.5
SIGNAL (GREEN)	18	135	15	0.25	67.5
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					477.2

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) 60196-1096

ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED - PB 11/08/2012
S:\WP\Design\PB\60V74 Mill County LED Installation\Final revisions CADD 11-5-12\60V74-2	DRAWN - ZCW	CHECKED - KLB	REVISED -
Default	PLOT SCALE = 40.000000' / in.	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION  
DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL 7 / IL 53 AT IL 7 / RENWICK ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

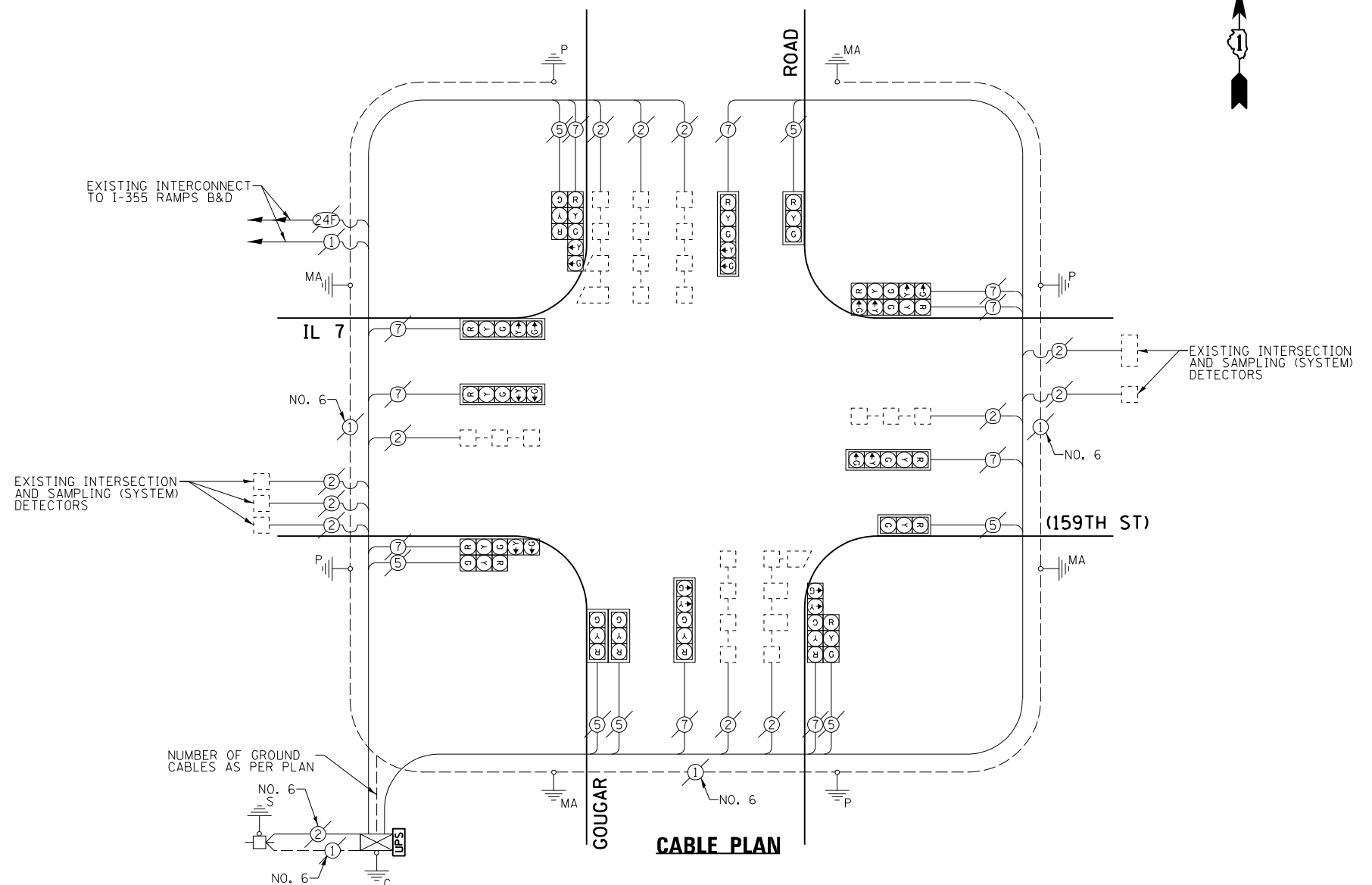
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIABLES	2012-067 I	WILL	39	28
CONTRACT NO. 60V74				

GHA #4085.886  
ILLINOIS FED. AID PROJECT

SCHEDULE OF QUANTITIES  
IL 7 (159TH ST) AT COUGAR ROAD

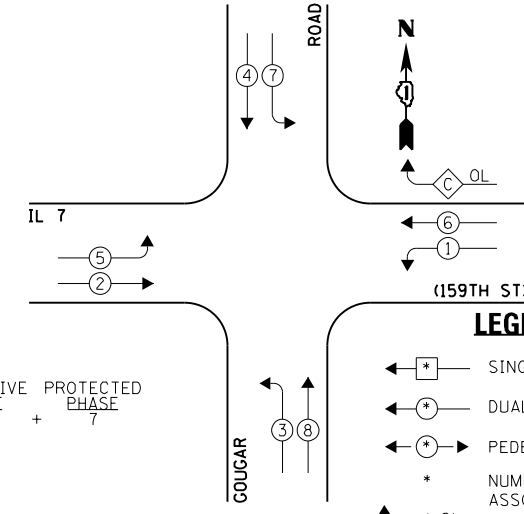


NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



**NOTE:**  
THE EXISTING CONTROLLER IS AN ECONOLITE ASC/25-2100 IN A TYPE IV CABINET.

**CONTROLLER SEQUENCE**

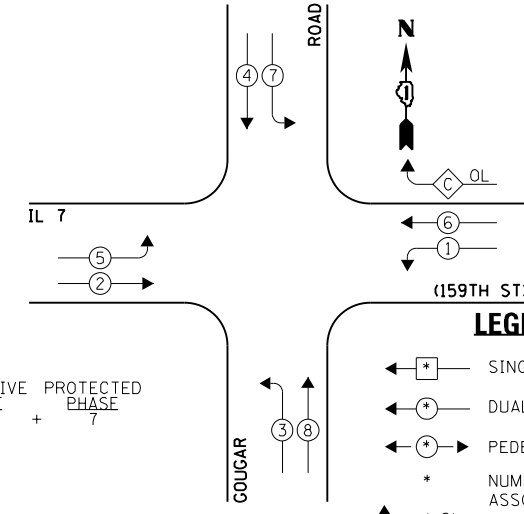


**LEGEND:**

- ← \* → SINGLE ENTRY PHASE
- ← \* → DUAL ENTRY PHASE
- ← \* → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE
- ← \* → OL OVERLAP

OVERLAP LETTER C = PERMISSIVE PHASE 6 + PROTECTED PHASE 7

**PHASE DESIGNATION DIAGRAM**



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	OPERATION		
SIGNAL (RED)	17	135	17	0.50	144.5
SIGNAL (YELLOW)	17	135	25	0.25	106.25
SIGNAL (GREEN)	17	135	15	0.25	63.75
ARROW	24	135	12	0.10	28.8
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					468.3

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHAMBURG IL, 60196-1096  
ENERGY SUPPLY - CONTACT: -  
PHONE: -  
COMPANY: -

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = #USER*	DESIGNED - JRD	REVISED -
#FILE#		DRAWN - ZCW	REVISED -
Default	PLOT SCALE = #SCALE*	CHECKED - KLB	REVISED -
	PLOT DATE = #DATE*	DATE - 10-12-12	REVISED -

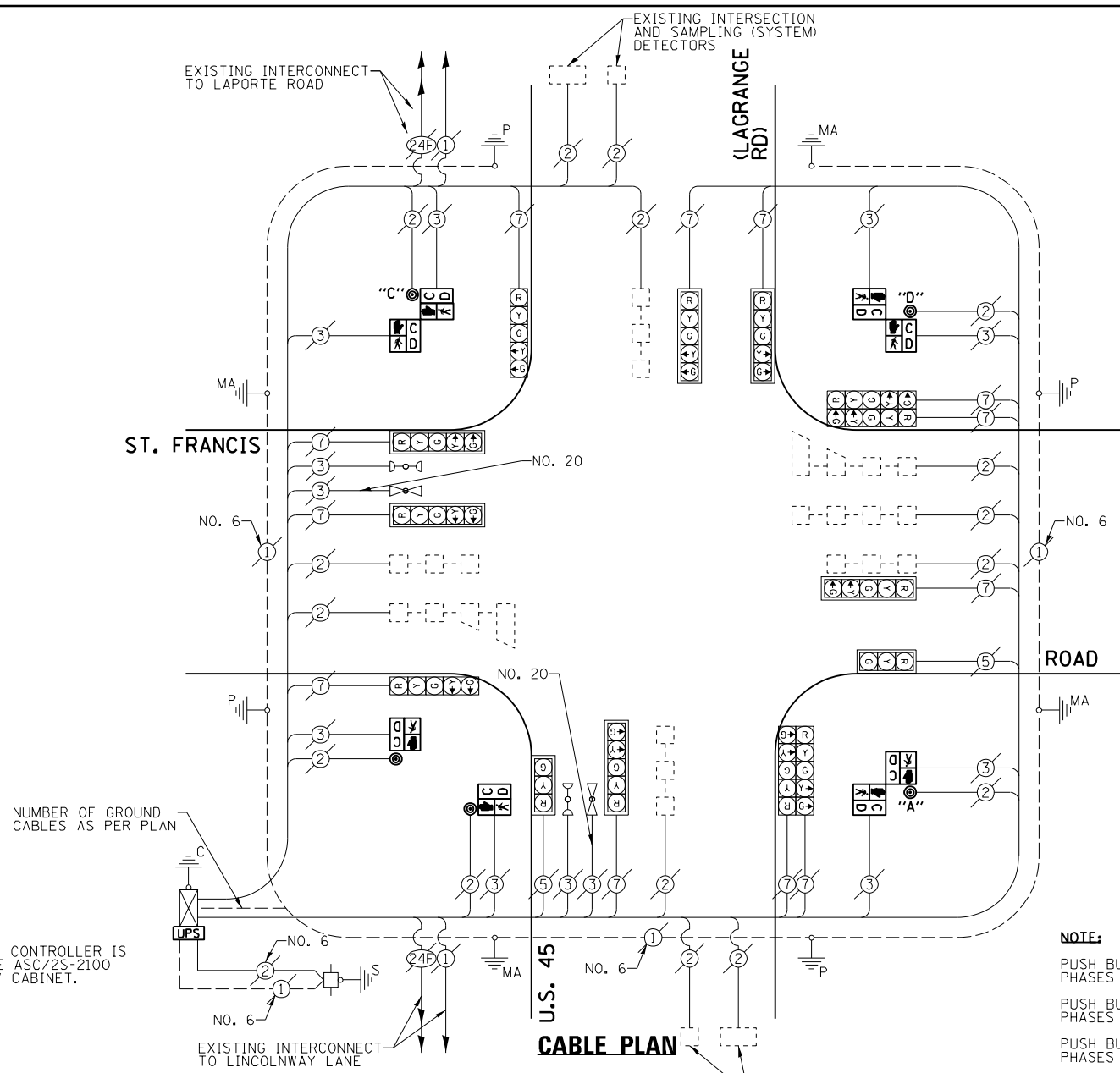
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL 7 (159TH ST) AT COUGAR ROAD  
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	29
			CONTRACT NO. 60V74	
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES  
U.S. 45 (LAGRANGE RD) AT ST. FRANCIS ROAD

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	3	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
7.	5	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



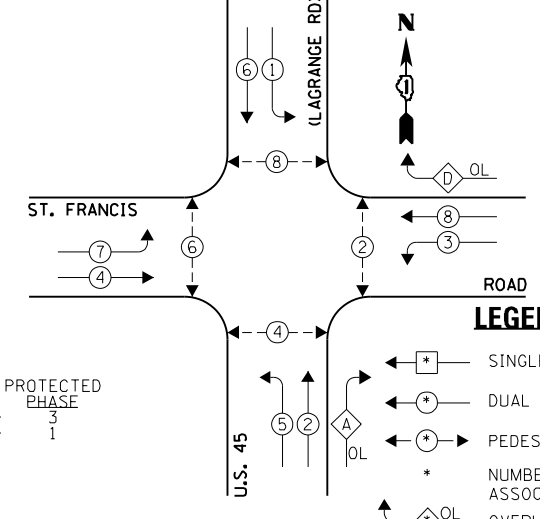
**NOTE:**  
THE EXISTING CONTROLLER IS AN ECONOLITE ASC/2S-2100 IN A TYPE IV CABINET.

**NOTE:**  
PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.  
PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 8 AND 2.

THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 3 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 5 EACH PEDESTRIAN PUSH-BUTTON

**CONTROLLER SEQUENCE**

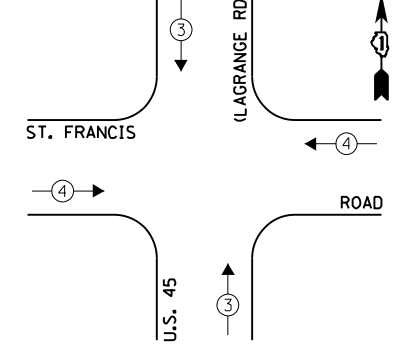


**PHASE DESIGNATION DIAGRAM**

OVERLAP LETTER = PERMISSIVE PHASE + PROTECTED PHASE  
A = 2 + 3  
D = 8 + 1

**LEGEND:**  
 ← + → SINGLE ENTRY PHASE  
 ← + → DUAL ENTRY PHASE  
 ← + → PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE  
 OL OVERLAP

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	↑ ↓ → ←

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND. L.E.D.	OPERATION	
SIGNAL (RED)	14	135 17	0.50	119.0
SIGNAL (YELLOW)	14	135 25	0.25	87.5
SIGNAL (GREEN)	14	135 15	0.25	52.5
ARROW	24	135 12	0.10	28.8
PED. SIGNAL	8	90 25	1.00	200.0
CONTROLLER	1	- 100	1.00	100.0
LUMINAIRE	-	- 250	0.50	-
L.E.D. ST. NAME SIGN	-	- 64	0.50	-
VIDEO SYSTEM	-	- 150	1.00	-
BATTERY BACKUP	1	- 25	1.00	25.0
ILLUMINATED SIGN	-	- 25	0.05	-
TOTAL =				612.8

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

ENERGY COSTS - BILLED TO: ILL. DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHALMBURG, IL 60196-1096  
ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

FILE NAME =	USER NAME = *USER*	DESIGNED - JRD	REVISED -
*FILEL\$		DRAWN - ZCW	REVISED -
Default		CHECKED - KLB	REVISED -
	PLOT DATE = *DATE*	DATE - 10-12-12	REVISED -

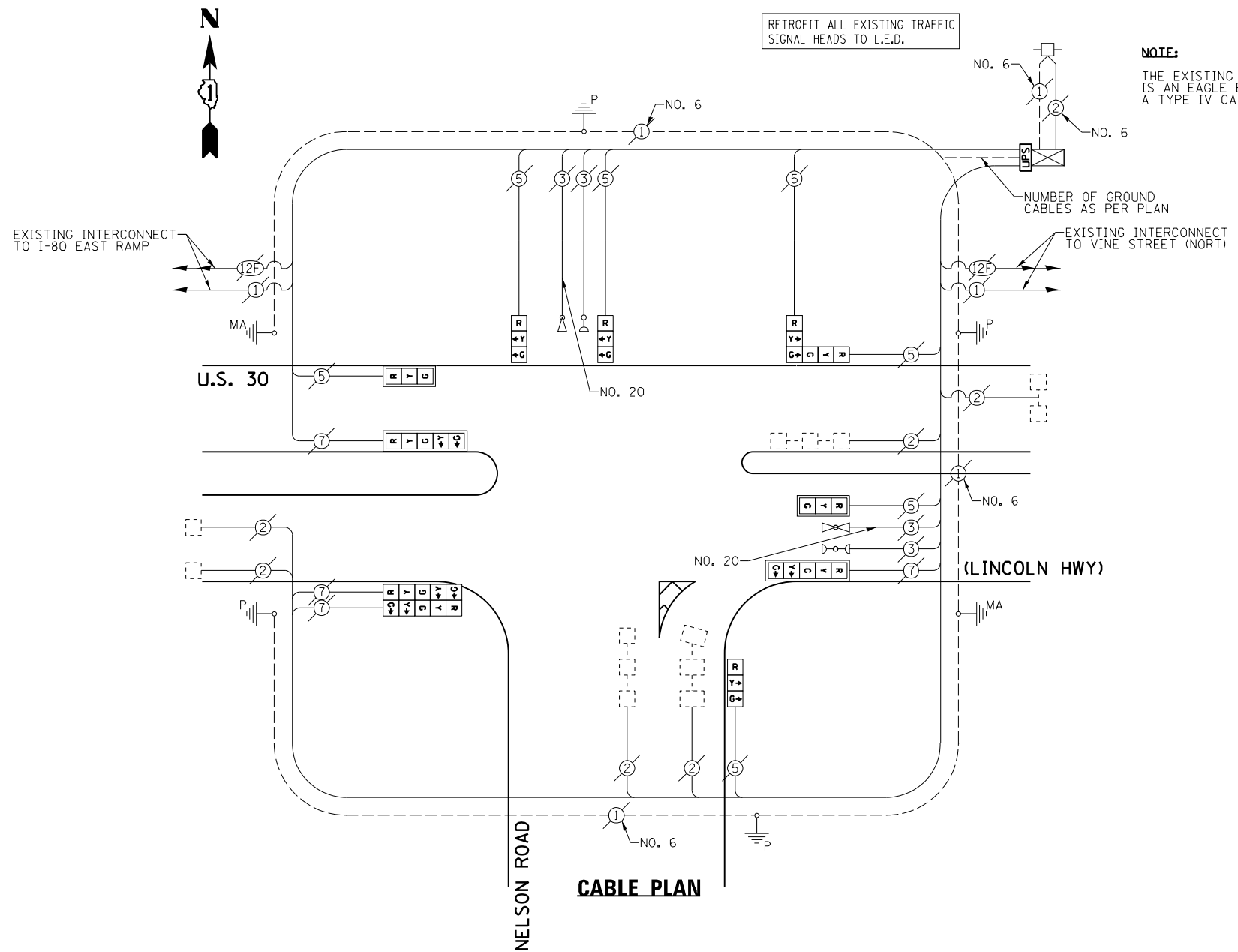
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 45 (LAGRANGE RD) AT ST. FRANCIS ROAD  
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	30
CONTRACT NO. 60V74				
ILLINOIS FED. AID PROJECT				

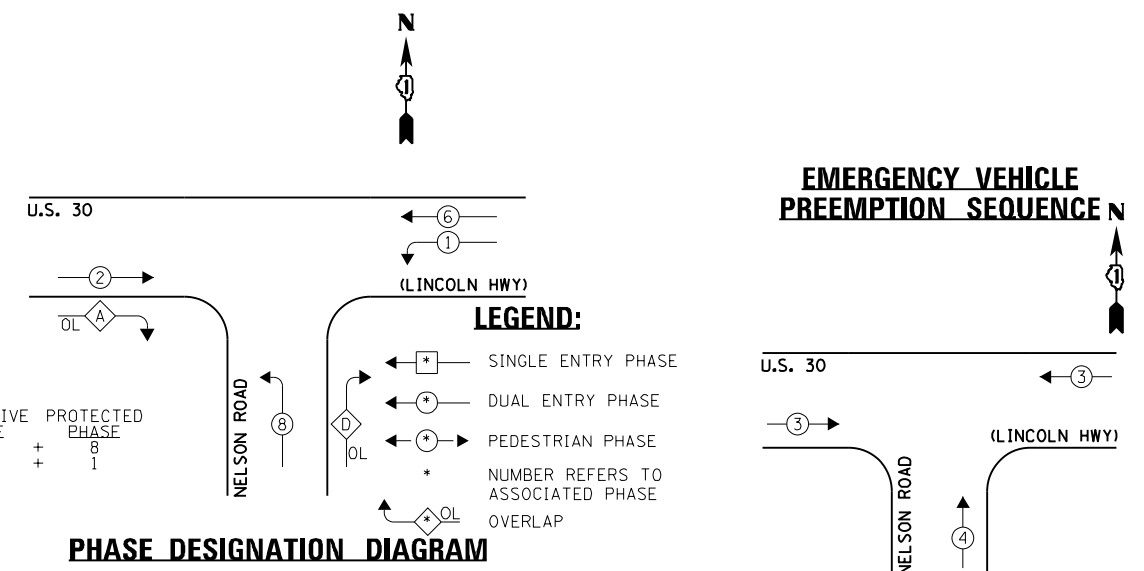
SCHEDULE OF QUANTITIES  
U. S. 30 (LINCOLN HWY) AT NELSON ROAD

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
5.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
6.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
7.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT
8.	1	EACH	SIGNAL HEAD, LED, 2 FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT



**NOTE:**  
THE EXISTING CONTROLLER IS AN EAGLE EPAC 300 IN A TYPE IV CABINET.

**CONTROLLER SEQUENCE**



I.D.O.T.  
TRAFFIC SIGNAL INSTALLATION  
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE		OPERATION	TOTAL WATTAGE
		INCAND.	L.E.D.		
SIGNAL (RED)	11	135	17	0.50	93.5
SIGNAL (YELLOW)	11	135	25	0.25	68.75
SIGNAL (GREEN)	11	135	15	0.25	41.25
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					338.1

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

ENERGY COSTS - BILLED TO: ILL. DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) 60196-1096  
ENERGY SUPPLY - CONTACT: -  
PHONE: -  
COMPANY: -

FILE NAME =	USER NAME = #USER*	DESIGNED - JRD	REVISED -
#FILE#		DRAWN - ZCW	REVISED -
Default		CHECKED - KLB	REVISED -
	PLOT DATE = \$DATE*	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

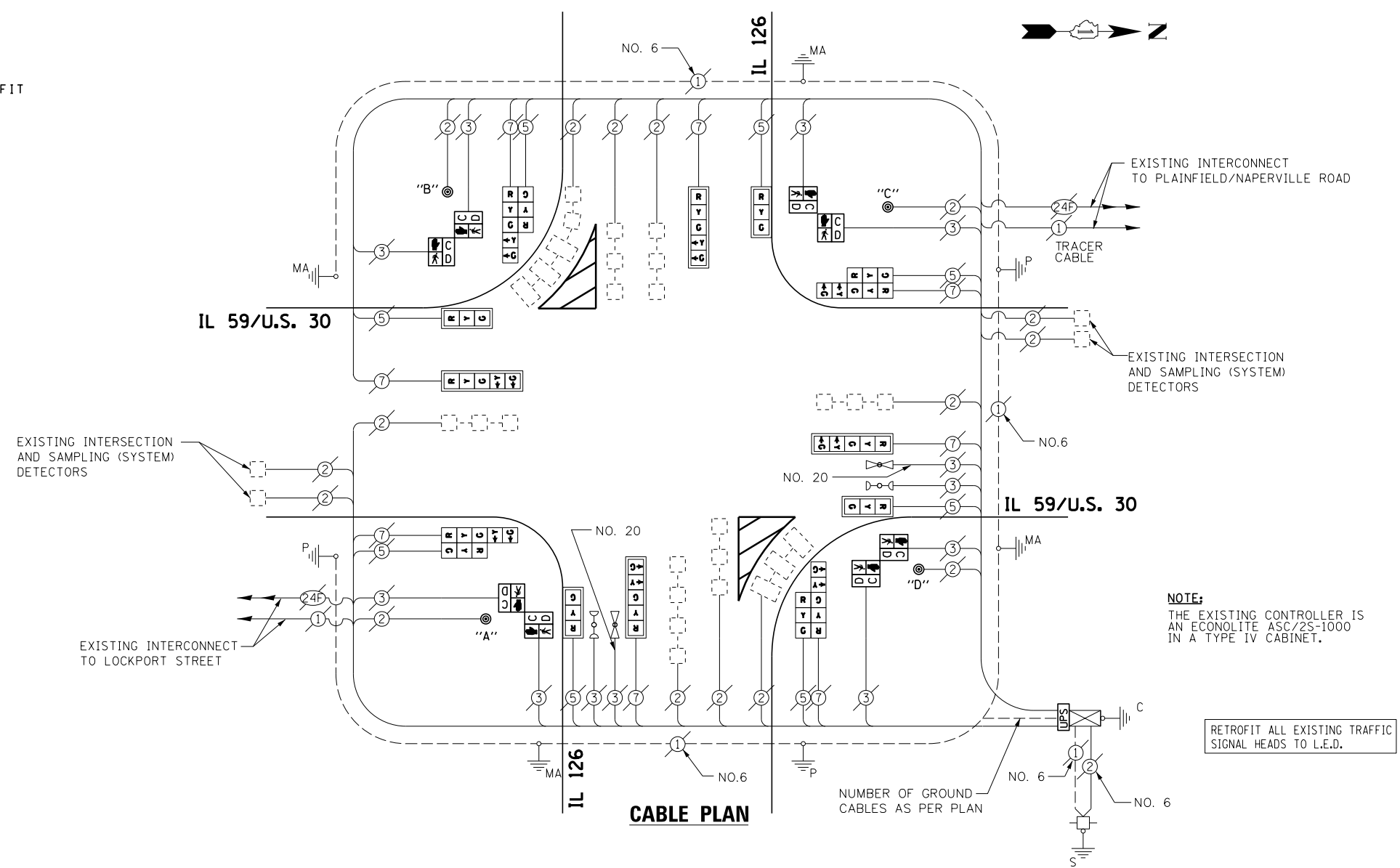
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION  
DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 30 (LINCOLN HWY) AT NELSON ROAD  
SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	31
			CONTRACT NO. 60V74	
ILLINOIS FED. AID PROJECT				

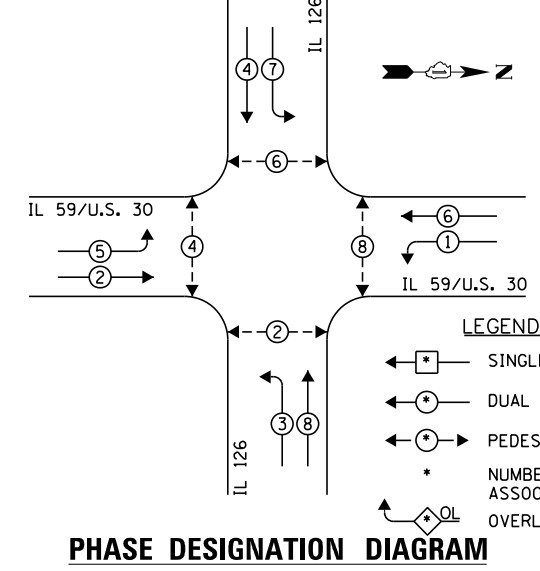
GHA #4085.886

SCHEDULE OF QUANTITIES  
IL 59 / U.S. 30 AT IL 126

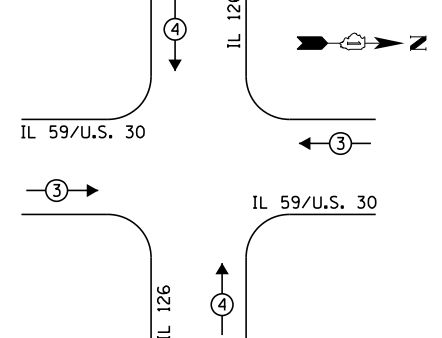
NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
4.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
6.	4	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT
7.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
8.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
9.	4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



**CONTROLLER SEQUENCE**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

**NOTE:**

PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.

PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.

PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.

PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 8 AND 2.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND. L.E.D.	OPERATION		
SIGNAL (RED)	16	135	17	0.50	136.0
SIGNAL (YELLOW)	16	135	25	0.25	100.0
SIGNAL (GREEN)	16	135	15	0.25	60.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					640.2

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED -
S:\WP\Design\PB\60V74 Will County LED Installation\Final revisions CADD 10-25-12\60V74-	DRAWN - ZCW	REVISIONS	REVISED -
Default	PLOT SCALE = 40.0000' / in.	CHECKED - KLB	REVISED -
	PLOT DATE = 11/5/2012	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION  
DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL 59 / U.S. 30 AT IL 126

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIABLES	2012-067 I	WILL	39	32
CONTRACT NO. 60V74				
ILLINOIS FED. AID PROJECT				

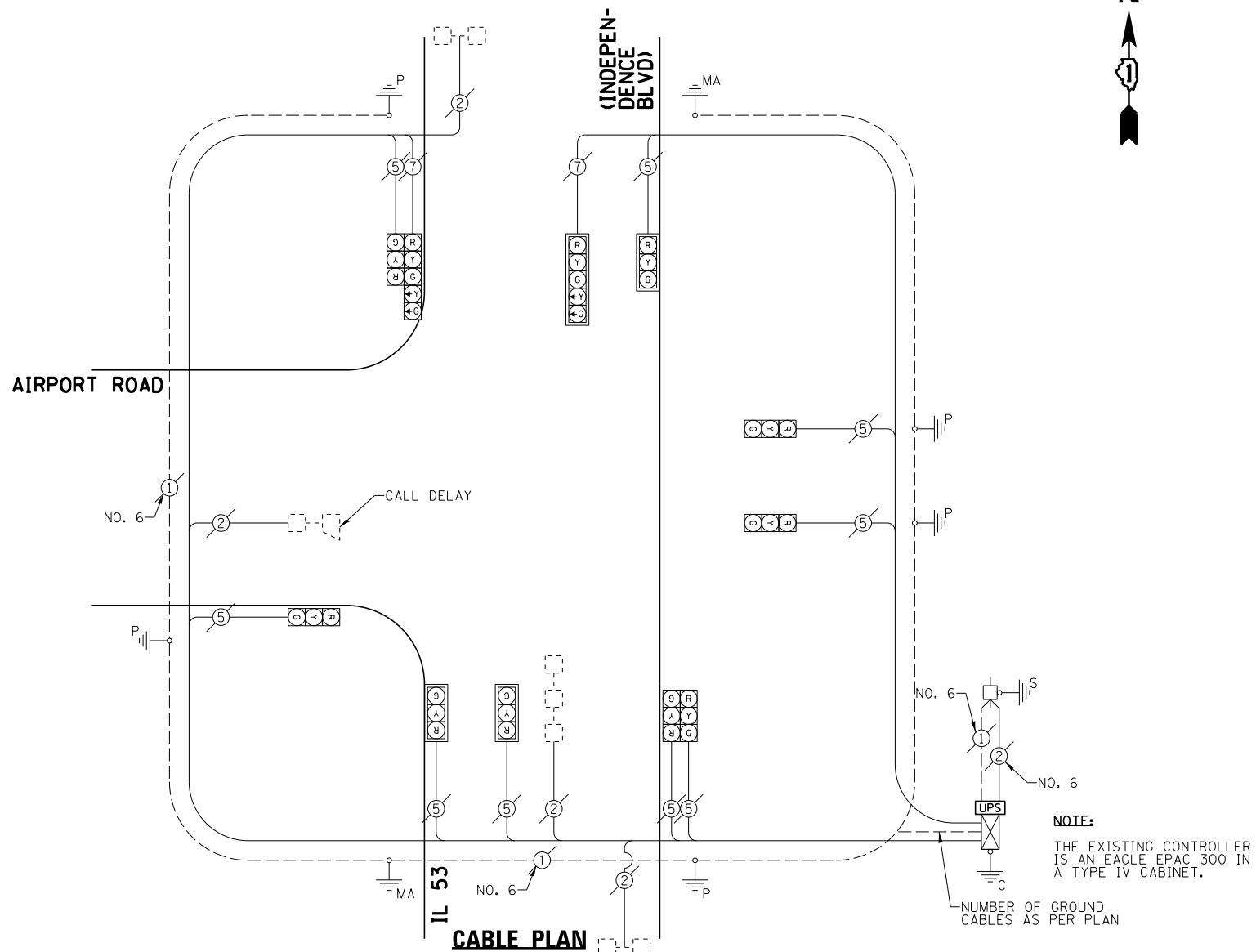
GHA #4085,886



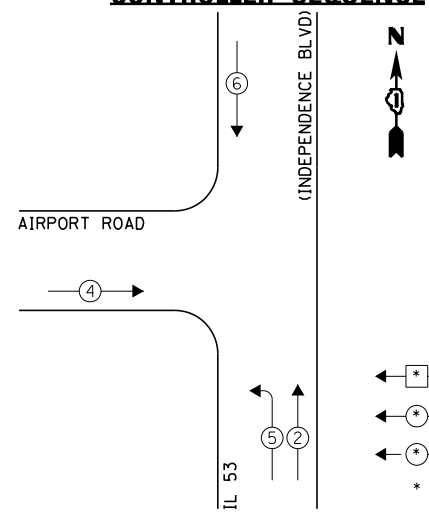
SCHEDULE OF QUANTITIES  
IL 53 (INDEPENDENCE BLVD) AT AIRPORT ROAD

TS 7560

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL



**CONTROLLER SEQUENCE**



**LEGEND:**

- ← \* → SINGLE ENTRY PHASE
- ← \* → DUAL ENTRY PHASE
- ← \* → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE
- ← \* → OL OVERLAP

**PHASE DESIGNATION DIAGRAM**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		OPERATION	
		INCAND.	L.E.D.		
SIGNAL (RED)	11	135	17	0.50	93.5
SIGNAL (YELLOW)	11	135	25	0.25	68.75
SIGNAL (GREEN)	11	135	15	0.25	41.25
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					333.3

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED -
S:\WP\Design\PB\60V74 Will County LED Installation\Final revisions CADD 10-25-12\60V74-DRW\dwg	DRAWN - ZCW	CHECKED - KLB	REVISED -
Default	PLOT SCALE = 40.000000' / in.	DATE - 10-12-12	REVISED -
	PLOT DATE = 11/5/2012		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION  
DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL 53 (INDEPENDENCE BLVD) AT AIRPORT ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

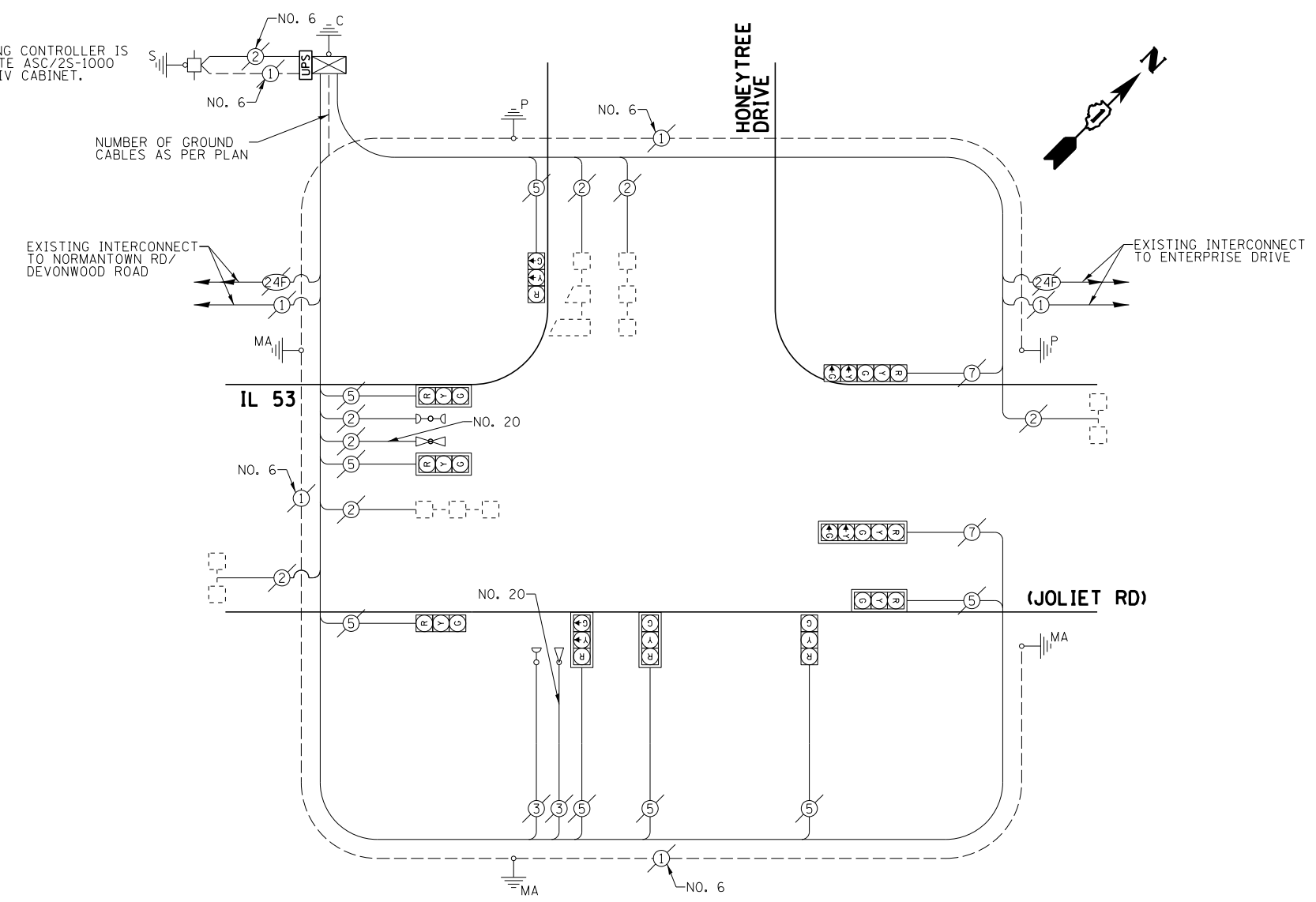
F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	33
CONTRACT NO. 60V74				

GHA #4085.886  
ILLINOIS FED. AID PROJECT

SCHEDULE OF QUANTITIES  
IL 53 (JOLIET RD) AT HONEYTREE DRIVE

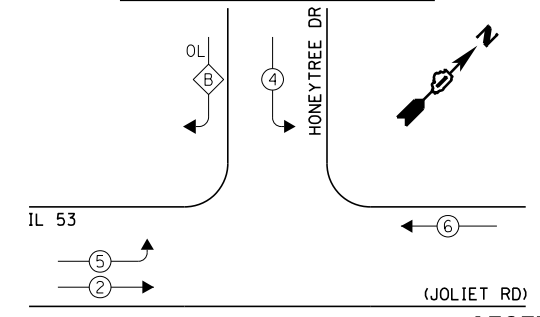
NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

**NOTE:**  
THE EXISTING CONTROLLER IS AN ECONOLITE ASC/2S-1000 IN A TYPE IV CABINET.



**CABLE PLAN**

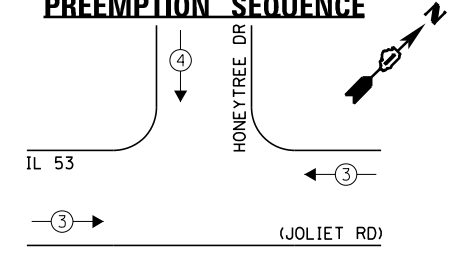
**CONTROLLER SEQUENCE**



**LEGEND:**  
 ← \* → SINGLE ENTRY PHASE  
 ← \* → DUAL ENTRY PHASE  
 ← \* → PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE  
 ← \* → OL OVERLAP

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	→ ↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	OPERATION		
		INCAND.	L.E.D.		
SIGNAL (RED)	10	135	17	0.50	85.0
SIGNAL (YELLOW)	10	135	25	0.25	62.5
SIGNAL (GREEN)	10	135	15	0.25	37.5
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					314.8

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED -
S:\WP\Design\PB\60V74 Will County LED Installation\Final revisions CADD 10-25-12\60V74-DRWING	DRAWN - ZCW	REVISIONS	REVISED -
Default	PLOT SCALE = 40.000000' / in.	CHECKED - KLB	REVISED -
	PLOT DATE = 11/5/2012	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL 53/JOLIET RD AT HONEYTREE DRIVE

SCALE: NONE SHEET OF SHEETS STA. TO STA.

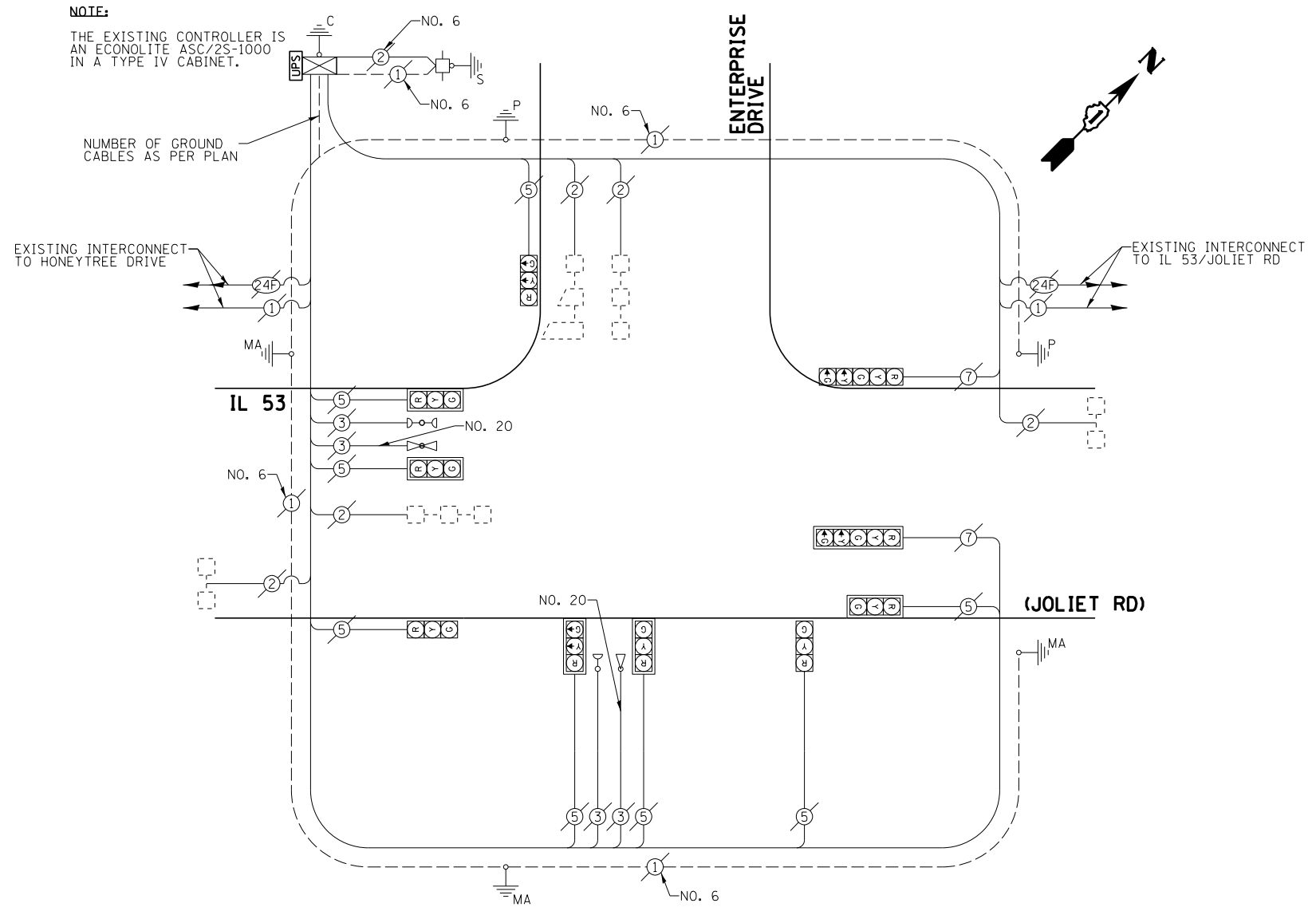
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	34
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60V74	

SCHEDULE OF QUANTITIES  
IL 53 (JOLIET RD) AT ENTERPRISE DRIVE

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL

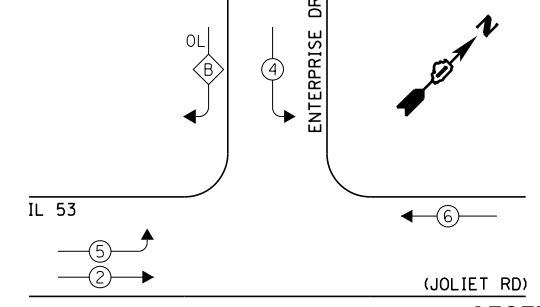
NOTE:

THE EXISTING CONTROLLER IS AN ECONOLITE ASC/25-1000 IN A TYPE IV CABINET.

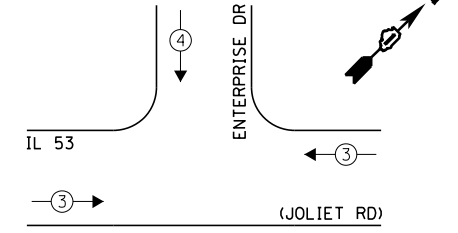


CABLE PLAN

CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND:

- ← \* → SINGLE ENTRY PHASE
  - ← \* → DUAL ENTRY PHASE
  - ← \* → PEDESTRIAN PHASE
  - \* NUMBER REFERS TO ASSOCIATED PHASE
  - ← \* → OL OVERLAP
- OVERLAP LETTER B = PERMISSIVE PHASE 4 + PROTECTED PHASE 5

PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	→ ↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	OPERATION		
		INCAND.	L.E.D.		
SIGNAL (RED)	10	135	17	0.50	85.0
SIGNAL (YELLOW)	10	135	25	0.25	62.5
SIGNAL (GREEN)	10	135	15	0.25	37.5
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					314.8

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED -
S:\WP\Design\PB\6074 Will County LED Installation\Final revisions CADD 10-25-12\6074-DRW	DRAWN - ZCW	REVISIONS	REVISED -
Default	PLOT SCALE = 40.000000' / in.	CHECKED - KLB	REVISED -
	PLOT DATE = 11/5/2012	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

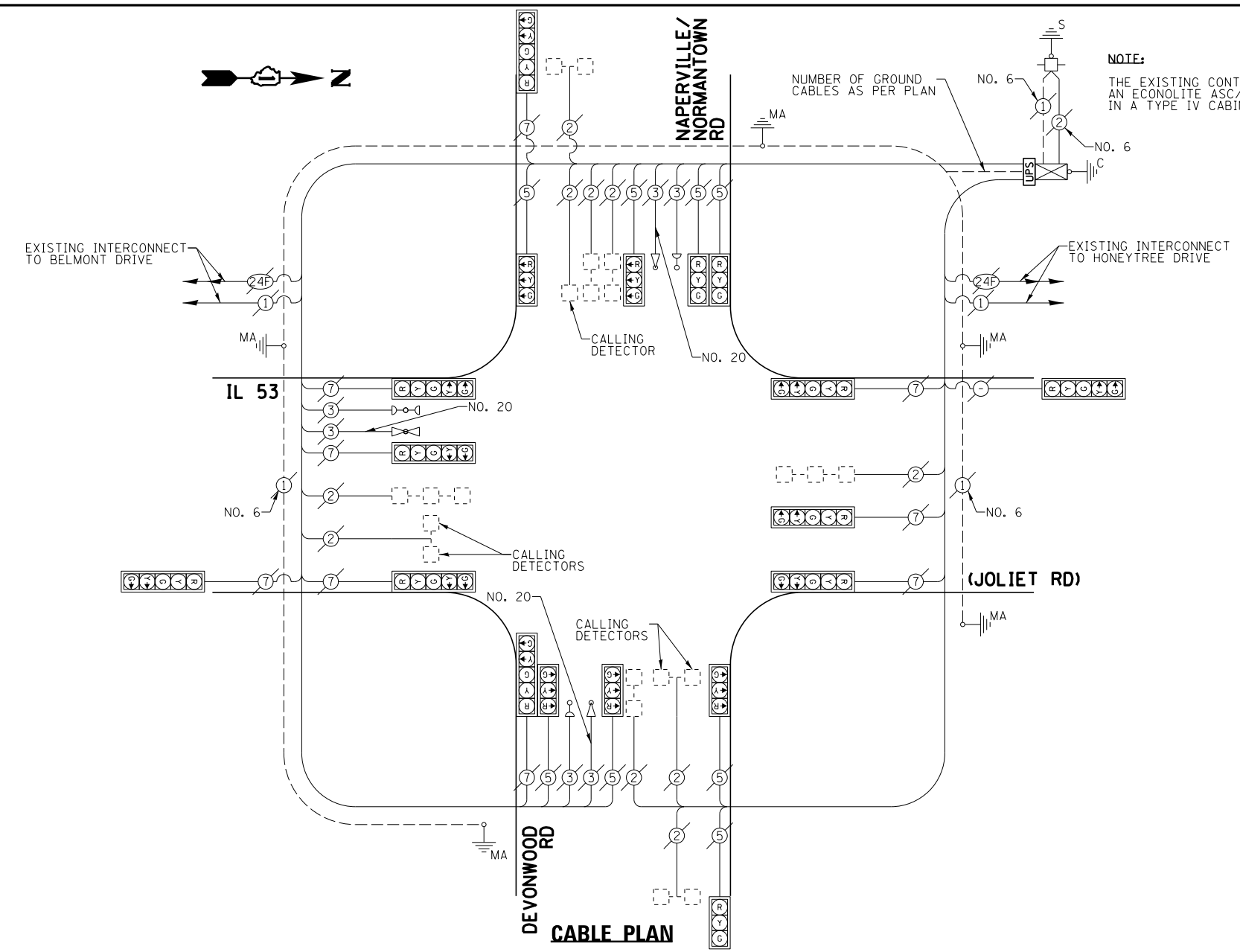
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL 53 (JOLIET RD) AT ENTERPRISE DRIVE

SCALE: NONE SHEET OF SHEETS STA. TO STA.

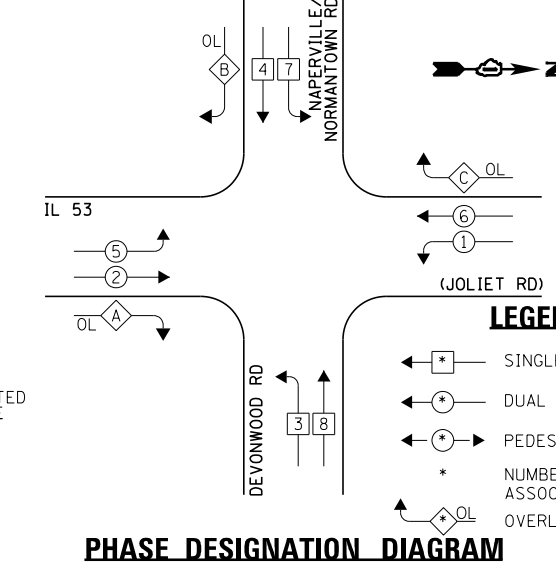
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	35
CONTRACT NO. 60V74				

SCHEDULE OF QUANTITIES  
IL 53 (JOLIET RD) AT NORMANTOWN / DEVONWOOD ROAD

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL



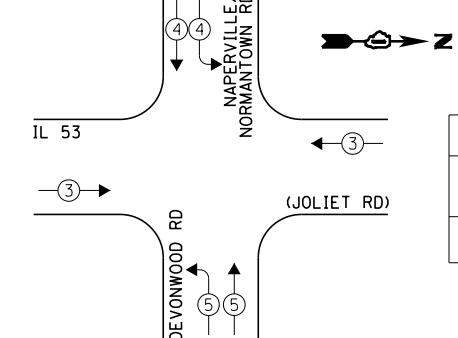
**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	2	3
B	4	5
C	6	7

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	18	135	17	0.50	153.0
SIGNAL (YELLOW)	18	135	25	0.25	112.5
SIGNAL (GREEN)	18	135	15	0.25	67.5
ARROW	20	135	12	0.10	24.0
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =				482.0	

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED -
S:\WP\Design\PB\60V74 Will County LED Installation\Final revisions CADD 10-25-12\60V74-DRWING	DRAWN - ZCW	REVISIONS	REVISED -
Default	PLOT SCALE = 40.000000 ' / in.	CHECKED - KLB	REVISED -
	PLOT DATE = 11/5/2012	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

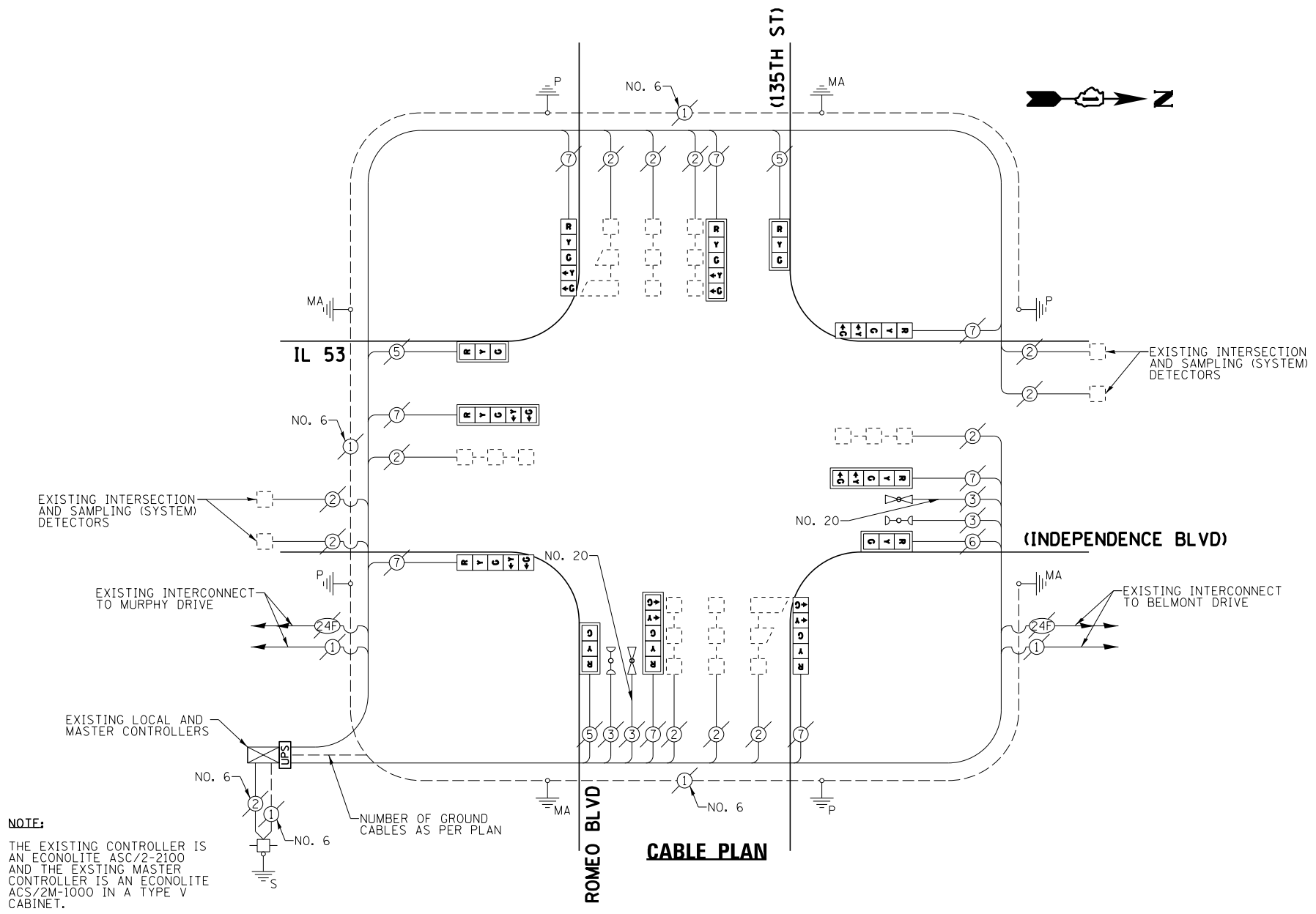
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL 53 (JOLIET RD) AT NAPERVILLE/NORMANTOWN/DEVONWOOD ROAD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	36
CONTRACT NO. 60V74				
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES  
IL 53 (INDEPENDENCE BLVD) AT ROMEO BOULEVARD (135TH ST)

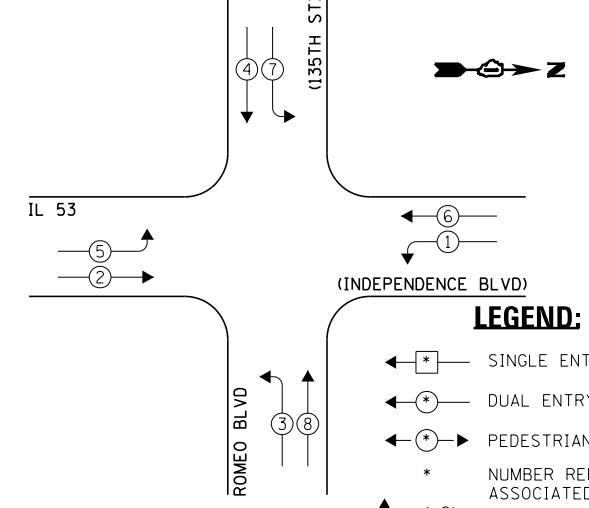
NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
4.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
5.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
6.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT



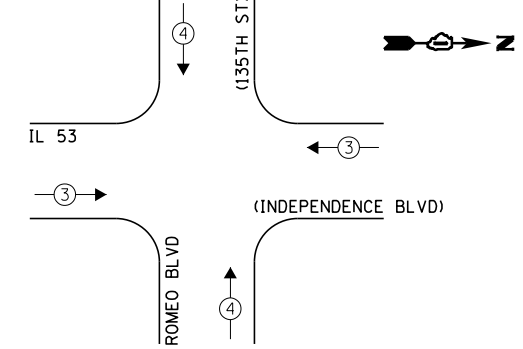
**NOTE:**  
THE EXISTING CONTROLLER IS AN ECONOLITE ASC/2-2100 AND THE EXISTING MASTER CONTROLLER IS AN ECONOLITE ACS/2M-1000 IN A TYPE V CABINET.

RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS TO L.E.D.

**CONTROLLER SEQUENCE**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND:**

- ← \* → SINGLE ENTRY PHASE
- ← \* → DUAL ENTRY PHASE
- ← \* → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE
- ← \* → OL OVERLAP

**PHASE DESIGNATION DIAGRAM**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					366.2

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED - PB 11/02/2012
S:\WP\Design\PB\60V74 Will County LED Installation\Final revisions CADD 10-25-12\60V74-	DRAWN - ZCW	REVISIONS	
Default	PLOT SCALE = 40.000000 ' / in.	CHECKED - KLB	REVISIONS
	PLOT DATE = 11/5/2012	DATE - 10-12-12	REVISIONS

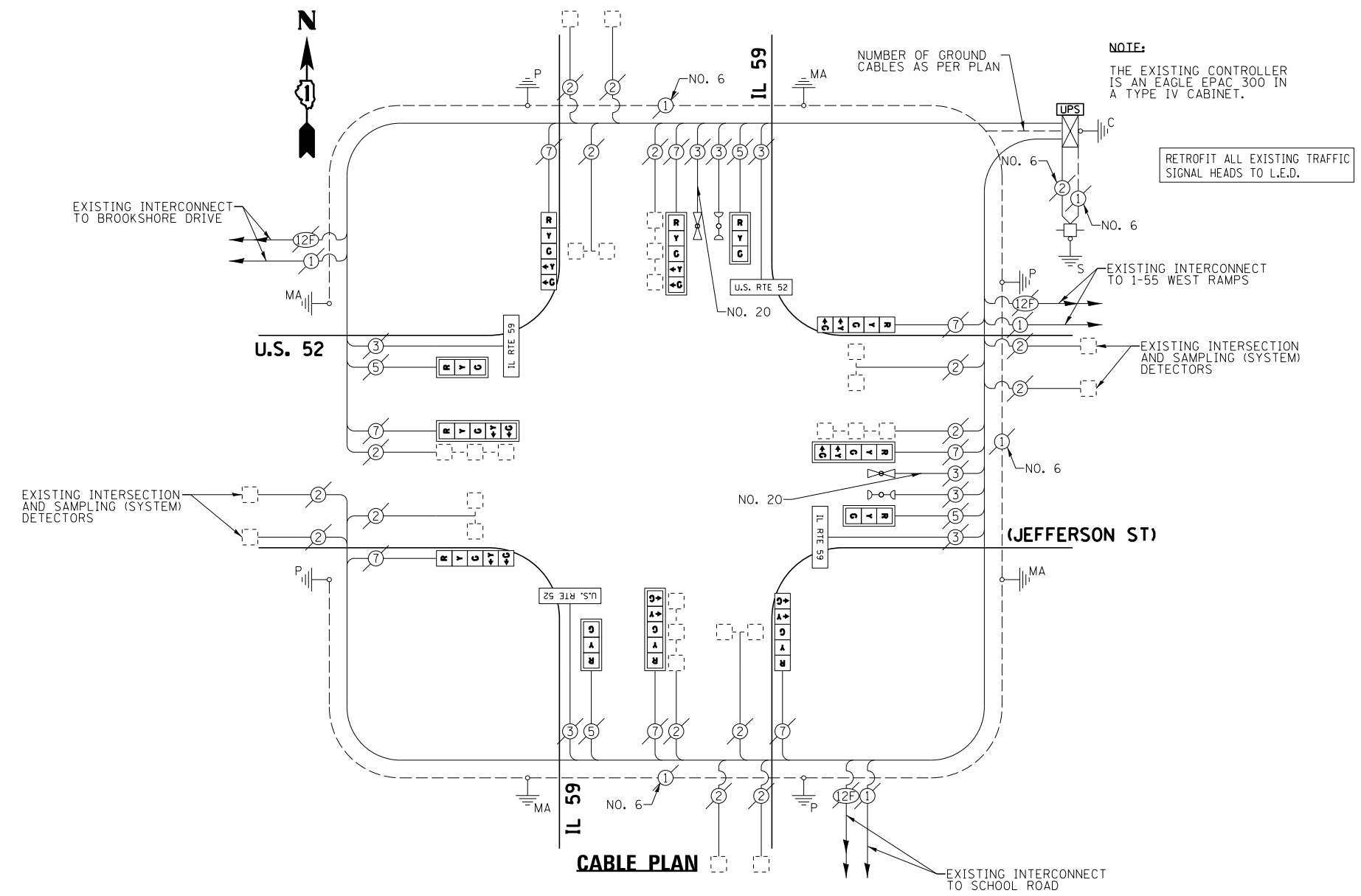
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL 53 (INDEPENDENCE BLVD) AT ROMEO BOULEVARD (135TH ST)  
SCALE: NONE SHEET OF SHEETS STA. TO STA.

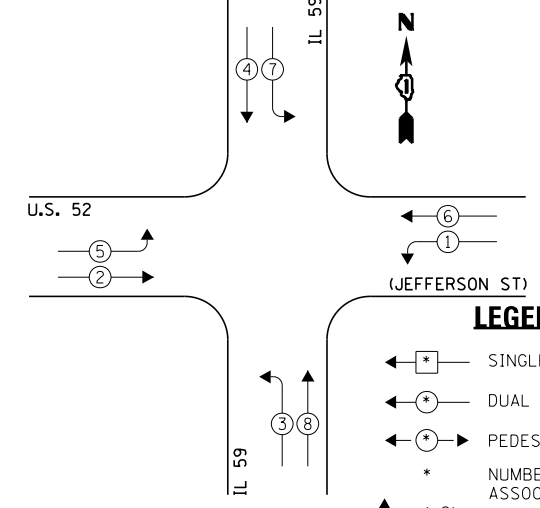
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	37
CONTRACT NO. 60V74				
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES  
U.S. 52 (JEFFERSON ST) AT IL 59

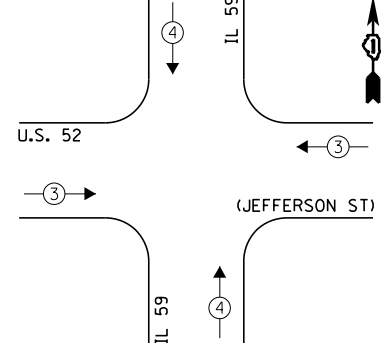
NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
3.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
4.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
5.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
6.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT



CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND:

- ← \* → SINGLE ENTRY PHASE
- ← \* → DUAL ENTRY PHASE
- ← \* → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE
- ← \* → OVERLAP

PHASE DESIGNATION DIAGRAM

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	OPERATION		
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	4	-	64	0.50	128.0
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					494.2

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY - CONTACT: \_\_\_\_\_  
PHONE: \_\_\_\_\_  
COMPANY: \_\_\_\_\_

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = blumbergpa	DESIGNED - JRD	REVISED - PB 11/02/2012
S:\WP\Design\PB\60V74 Will County LED Installation\Final revisions CADD 10-25-12\60V74-	DRAWN - ZCW	CHECKED - KLB	REVISED -
Default	PLOT SCALE = 40.000000' / in.	DATE - 10-12-12	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION  
DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 52 (JEFFERSON ST) AT IL 59

SCALE: NONE SHEET OF SHEETS STA. TO STA.

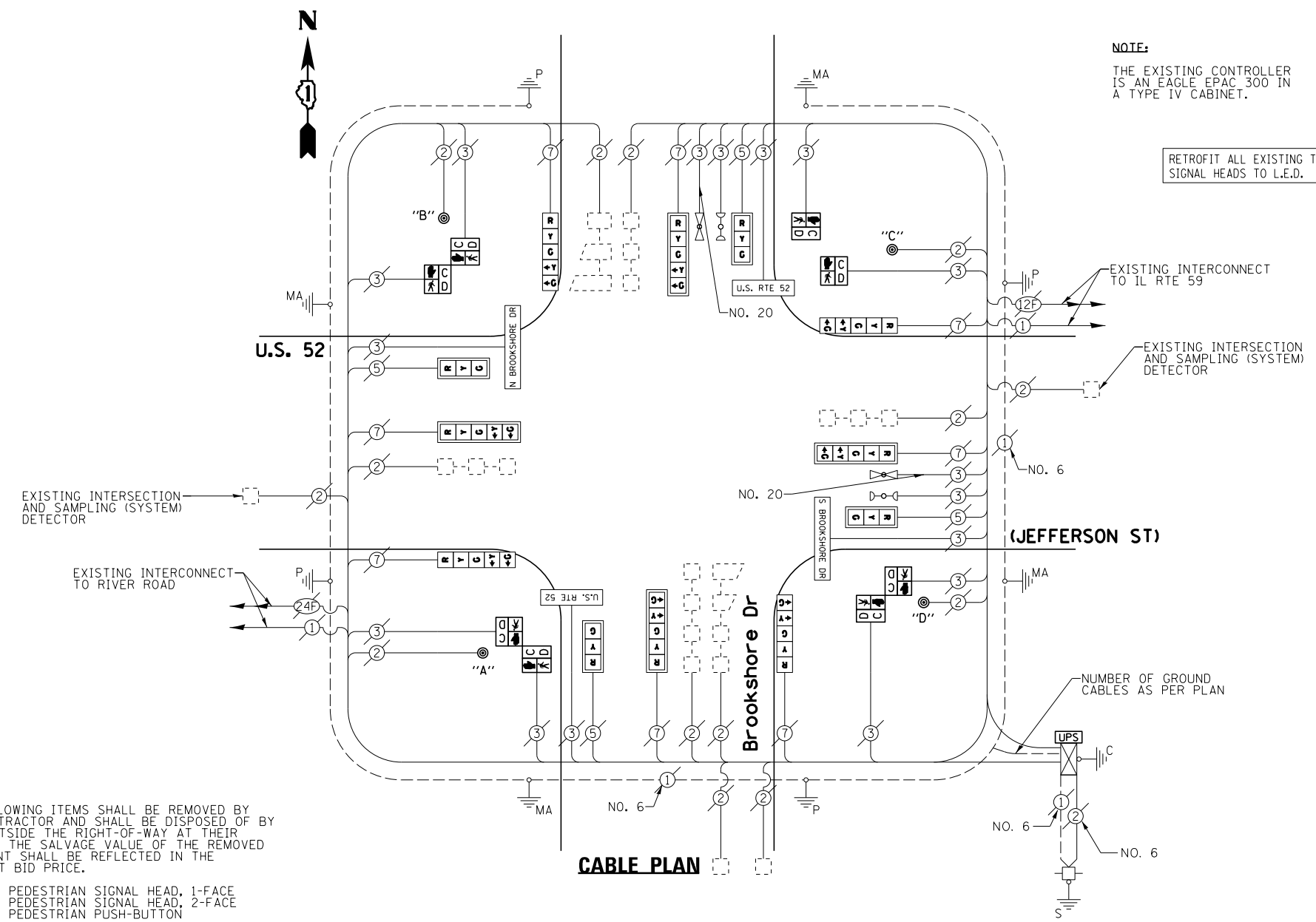
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39	38
CONTRACT NO. 60V74				

SCHEDULE OF QUANTITIES  
U.S. 52 (JEFFERSON ST) AT BROOKSHORE DR

NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	3	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
7.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT
8.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT
9.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT
10.	4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

**NOTE:**  
THE EXISTING CONTROLLER IS AN EAGLE EPAC 300 IN A TYPE IV CABINET.

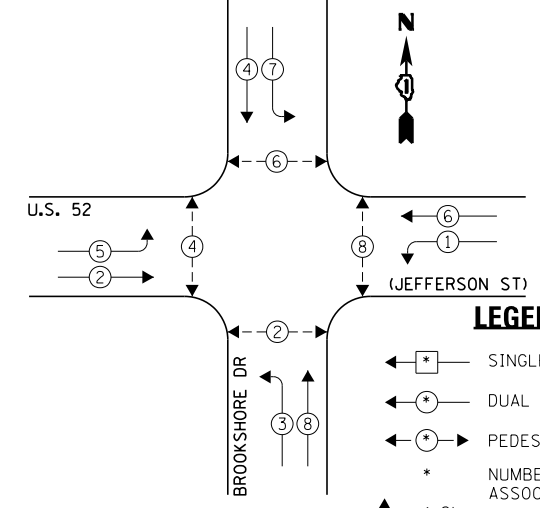
RETROFIT ALL EXISTING TRAFFIC SIGNAL HEADS TO L.E.D.



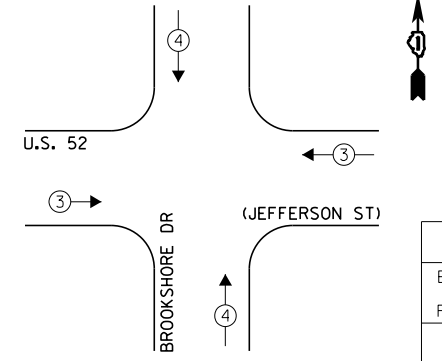
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 3 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 4 EACH PEDESTRIAN PUSH-BUTTON

**CONTROLLER SEQUENCE**



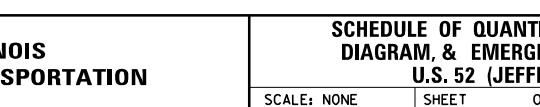
**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND:**

- ← \* → SINGLE ENTRY PHASE
- ← \* DUAL ENTRY PHASE
- ← \* → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE
- ← \* → OL OVERLAP

**PHASE DESIGNATION DIAGRAM**



EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	→ ← ↑ ↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	4	-	64	0.50	128.0
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					594.2

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY - CONTACT: -  
PHONE: -  
COMPANY: -

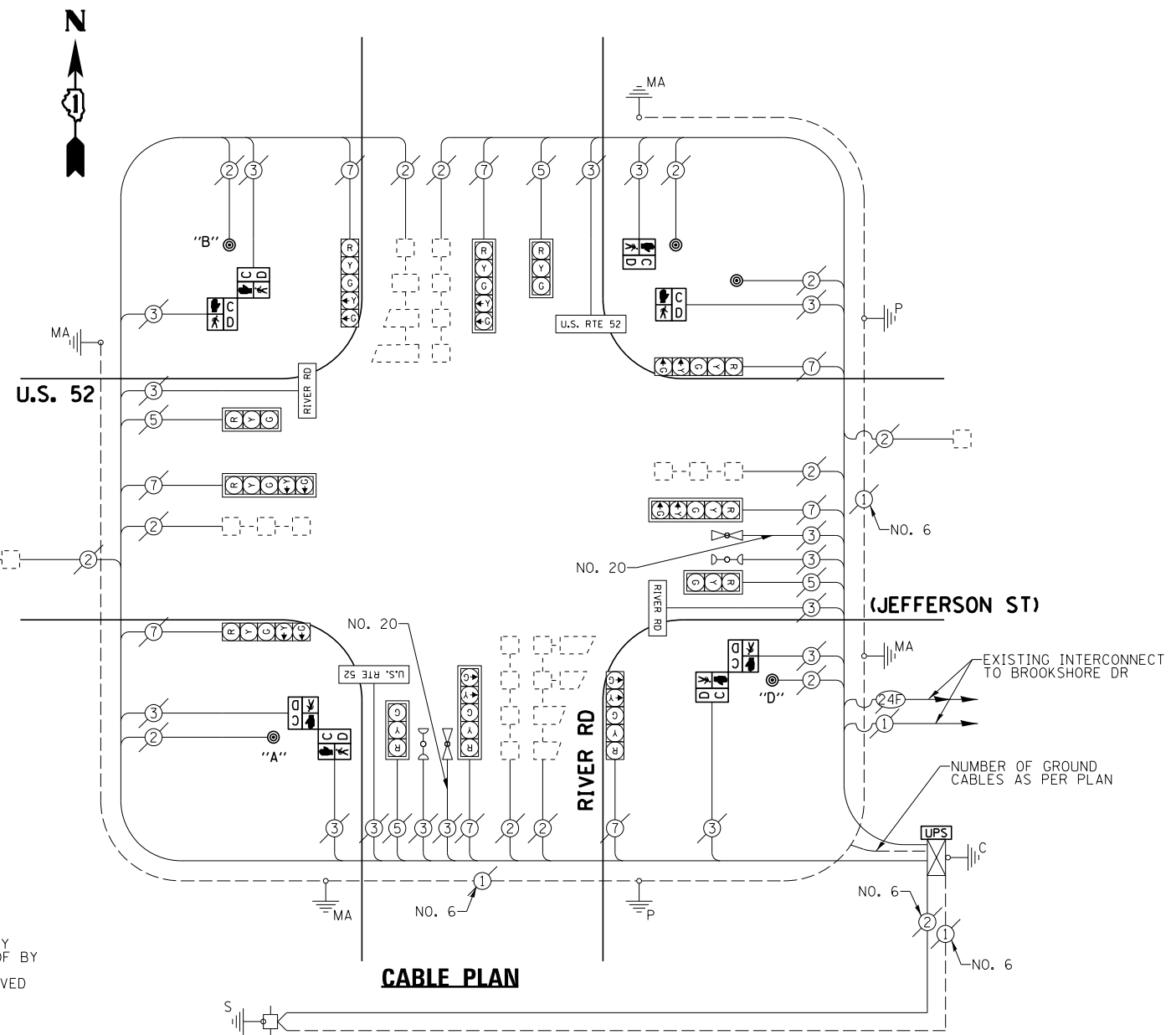
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

**NOTE:**

- PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
- PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
- PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
- PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 8 AND 2.

SCHEDULE OF QUANTITIES  
U.S. 52 (JEFFERSON ST) AT RIVER RD

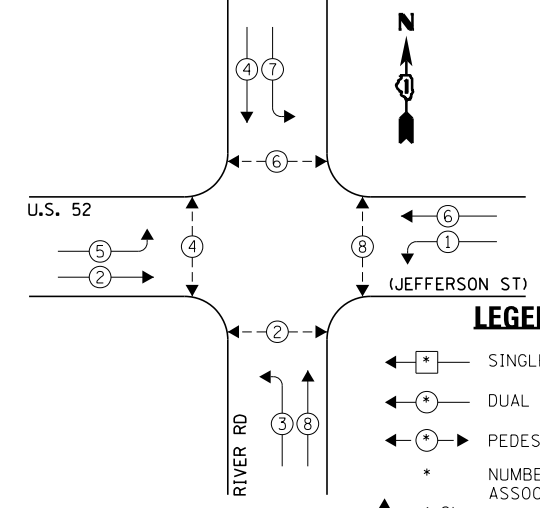
NO.	QUANT.	UNIT	DESCRIPTION
1.	1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
2.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3.	3	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
4.	1	EACH	MODIFY EXISTING CONTROLLER CABINET
5.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
7.	5	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



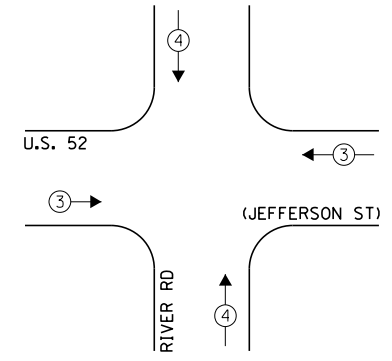
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 3 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 5 EACH PEDESTRIAN PUSH-BUTTON

CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND:

- ← \* → SINGLE ENTRY PHASE
- ← \* DUAL ENTRY PHASE
- ← \* → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE
- ← \* → OVERLAP

PHASE DESIGNATION DIAGRAM

NOTE:

- PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
- PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
- PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 8 AND 2.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	4	-	64	0.50	128.0
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					694.2

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
(ADDRESS) 201 W. CENTER COURT  
(ADDRESS) SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY - CONTACT: -  
PHONE: -  
COMPANY: -

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FILE NAME =	USER NAME = blumbergpa	DESIGNED - PB	REVISED -
S:\WP\Design\PB\60V74 Will County LED Installation\Final revisions CADD 11-5-12\60V74-2	DRAWN - PB	REVISIONS -	
Default	PLOT SCALE = 40.000000 ' / in.	CHECKED - SM	REVISIONS -
	PLOT DATE = 11/8/2012	DATE - 11-08-12	REVISIONS -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE  
U.S. 52 (JEFFERSON ST) AT RIVER RD

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2012-067 I	WILL	39A	39A
CONTRACT NO. 60V74				

GHA #4085.886

EXISTING EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	← → ↑ ↓