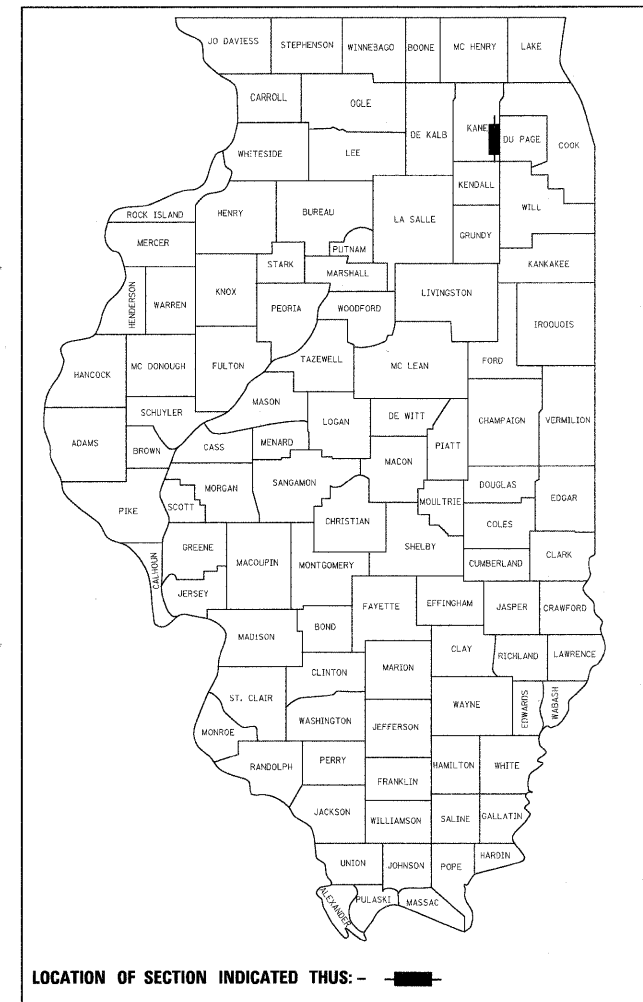


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	KANE	100	1
ILLINOIS		CONTRACT NO. 63525		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

**FAP 336 (RANDALL ROAD)
DEAN STREET TO MAIN STREET
TRAFFIC SIGNAL INTERCONNECT
SECTION 09-00237-02-TL
PROJECT NO.: CMM-9003 (209)
KANE COUNTY
JOB NO.: C-91-264-09**

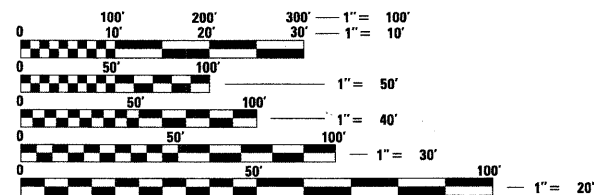


FOR INDEX OF SHEETS, SEE SHEET NO. 2

IDOT STANDARDS

STD No.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATION AND PATTERNS
001006	DECIMAL OF AN INCH AND A FOOT
424001-05	CURB RAMPS FOR SIDEWALKS
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701006-03	OFF-RD OPERATIONS, 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701011-02	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701101-02	OFF-RD OPERATIONS, MULTILANE, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701421-03	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701601-07	URBAN LANE CLOSURE MULTILANE 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701701-07	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-04	LANE CLOSURE, MULTILANE, 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-01	TRAFFIC CONTROL DEVICES
814001-02	HANDHOLES
857001-01	STANDARDS PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
878001-08	CONCRETE FOUNDATION DETAILS
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS

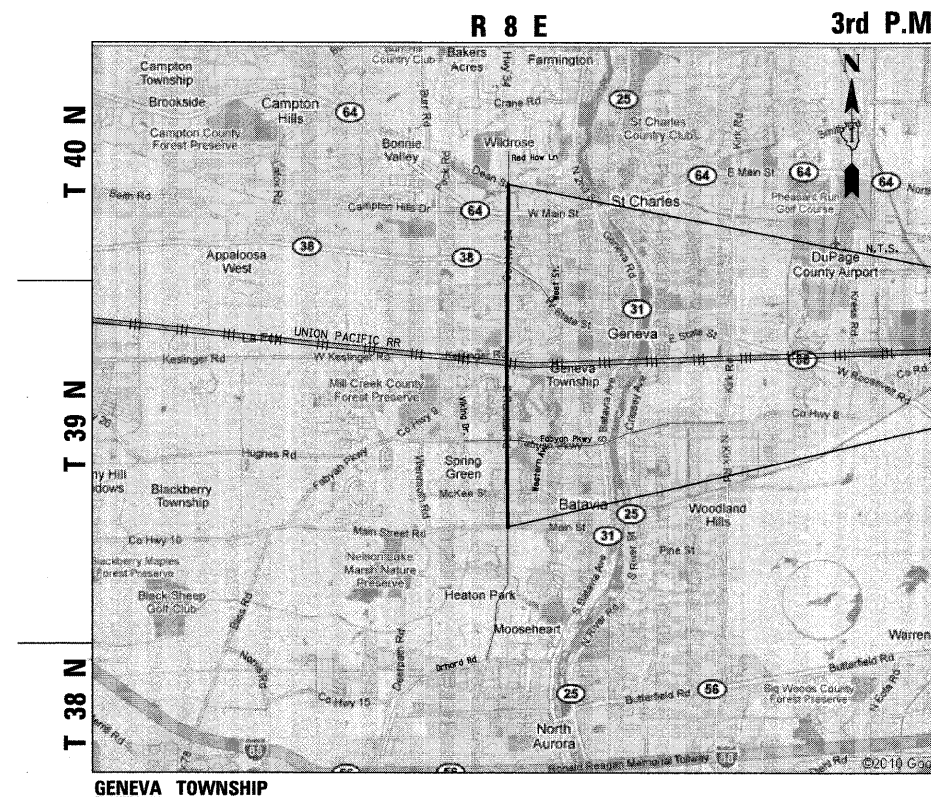
ROUTE	SPEED (MPH)	ADT	CLASSIFICATION
RANDALL ROAD	45	45,700	OTHER PRINCIPAL ARTERIAL



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

CONTRACT NO. 63525



**END PROJECT
STA. 327 + 36**

**BEGIN PROJECT
STA. 0 + 00**

GROSS LENGTH = 32,736 FT. = 6.2 MILES
NET LENGTH = 32,736 FT. = 6.2 MILES

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED *[Signature]*
NOVEMBER 10, 2010
KANE COUNTY ENGINEER

PASSED *[Signature]*
NOVEMBER 15, 2010
DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW *[Signature]*
NOVEMBER 15, 2010
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

11-4-2010
DATE

GEORGE M. ZIEGLER
ILLINOIS REGISTRATION No. 062-045853
EXPIRATION DATE: 11-30-2011
PROFESSIONAL DESIGN FIRM No.: 184-001742
EXPIRATION DATE: 04-30-2011

CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018 (847) 823-0500

PROGRAM AND OFFICE ENGINEER: CHARLES F. RIDDLE, P.E. 847-705-4406, SCHAUMBURG, IL.

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE 021

Δ=0042 * SPECIALTY ITEMS

CODE NO.	ITEM	UNIT	TOTAL	RANDALL ROAD @ RED HAW/ OAK CREST	RANDALL ROAD @ DEAN STREET	RANDALL ROAD @ IL 64	RANDALL ROAD @ OAK STREET	RANDALL ROAD @ PRAIRIE STREET	RANDALL ROAD @ IL 38	RANDALL ROAD @ BRICHER ROAD	RANDALL ROAD @ WILLIAMSBURG AVENUE	RANDALL ROAD @ KESLINGER/ KANEVILLE	RANDALL ROAD @ FARGO BLVD	RANDALL ROAD @ CHRISTINA LANE	RANDALL ROAD @ GLEN EAGLE DRIVE	RANDALL ROAD @ FABIAN PARKWAY
* 42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	529	24	24	24	24	24	24	24	24	24	24	24	49	
* 44000600	SIDEWALK REMOVAL	SQ FT	25												25	
67100100	MOBILIZATION	L SUM	1													
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1													
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	48										13		35	
81400100	HANDHOLE	EACH	2										1		1	
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	48										13		35	
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	26	1	1	1	1	1	1	1	1	1	1	1	1	1
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	7				1					1	1		1	
85700505	FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	15		1	1	1		1		1			1		
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 62 C	FOOT	290										230		60	
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	8										4		4	
88500100	INDUCTIVE LOOP DETECTOR	EACH	63					11				13	8		8	
88700200	LIGHT DETECTOR	EACH	2													
88700300	LIGHT DETECTOR AMPLIFIER	EACH	1													
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	6					1				1	1		1	
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	10	1	1	1	1		1	1	1			1		
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	220										210		10	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	25		1	1	1	1	1	1	1	1	1	1	1	1
X0325462	MEDIA CONVERTER	EACH	2													
X8050010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	2									1			1	
X8140074	GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	74	7						8				7	8	8
X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	17						1	1	1	1	1	1	1	1
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C	FOOT	6842	599						660				236	657	633
XX007017	TERMINATE FIBER IN CABINET	EACH	162	6	6	12	6	6	12	6	6	6	6	6	6	12
XX007285	MODIFY VIDEO PROCESSING UNIT	EACH	8		1	1	1			1	1					
XX007948	FIBER OPTIC INTERCONNECT CENTER	EACH	15		1	1	1		1	1	1			1		
X 8710029	FIBER OPTIC CABLE IN CONDUIT, 24 SINGLE MODE	FOOT	10100													
XX008251	SPLICE FIBER IN CABINET	EACH	144	6	6	12	6	6	12	6	6	6	6	6	6	12
XX008392	OUTDOOR RATED NETWORK CABLE	FOOT	1107		124				245				144		156	
Δ 20076600	TRAINEES	HOUR	500													
XX007953	NETWORK CONFIGURATION	L SUM	1													
XX008450	UPGRADE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	5		1	1	1									
Z0033048	BATTERY BACK-UP SYSTEM WITH CABINET	EACH	22		1	1	1	1	1	1	1	1	1	1	1	1
XX007251	INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	7		1				1			1		1		
XX008451	VIDEO ENCODER, PTZ VIDEO TRAFFIC MONITORING SYSTEM	EACH	1			1										
XX008253	VIDEO ENCODER	EACH	8		1	1	1			1	1					
XX008452	MAJFUNCTION MANAGEMENT UNIT	EACH	15		1	1	1		1	1	1			1		
XX008453	ETHERNET SWITCH, TYPE 1	EACH	20		1		1	1		1	1	1	1	1	1	1
XX008454	ETHERNET SWITCH, TYPE 2	EACH	3			1			1							1

PROFILE SURVEYED PLOTTED RECHECKED BY: DATE: 11/3/2010
 NOTE BOOK NO. 11/3/2010
 STRUCTURE NOTATIONS CHECKED BY: DATE: 11/3/2010
 PLAN SURVEYED PLOTTED RECHECKED BY: DATE: 11/3/2010
 NOTE BOOK NO. 11/3/2010
 CAD FILE NAME:

CHRISTOPHER B. BURKE
 ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE 021

Δ=0042 * SPECIALTY ITEMS

CODE NO.	ITEM	UNIT	RANDALL ROAD @ MILL STREET	RANDALL ROAD @ MCKEE STREET	RANDALL ROAD @ WILSON STREET	RANDALL ROAD @ MAIN STREET	FABYAN PARKWAY @ VIKING/ BRANSON	FABYAN PARKWAY @ WAL-MART ENTRANCE	FABYAN PARKWAY @ BENT TREE DRIVE	IL 38 @ MEIJER ENTRANCE	IL 38 @ ST. CHARLES MALL	IL 38 @ BRICHER/ 14TH STREET	IL 38 @ WILLMSBURG AVENUE	BRICHER ROAD @ GENEVA COMMONS	FABYAN PARKWAY @ WESTERN AVENUE	INTERCONNECT
* 42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24	24	24	24	24	24	24	24	24					
* 44000600	SIDEWALK REMOVAL	SQ FT														
67100100	MOBILIZATION	L SUM														1
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM														1
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT														
81400100	HANDHOLE	EACH														
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT														
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1	1	1	1	1	1	1	1	1	1	1	1	
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH									1	1	1			
85700505	FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1	1	1	1	1	1	1	1						
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 62 C	FOOT														
87800100	CONCRETE FOUNDATION, TYPE A	FOOT														
88500100	INDUCTIVE LOOP DETECTOR	EACH														
88700200	LIGHT DETECTOR	EACH									8	8	7			
88700300	LIGHT DETECTOR AMPLIFIER	EACH									2					
88700300	LIGHT DETECTOR AMPLIFIER	EACH									1					
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH										1	1			
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH												1	1	
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT														
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1	1	1	1	1	1	1	1	1	1		1	1
X0325462	MEDIA CONVERTER	EACH						1	1							
X8050010	SERVICE INSTALLATION - GROUND MOUNTED	EACH														
X8140074	GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	8	8	8	6									6	
X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	1	1	1	1	1	1	1	1	1					
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C	FOOT	668	606	714	696									745	
XX007017	TERMINATE FIBER IN CABINET	EACH	6	6	6	6	6	6	6	6	6			6	6	
XX007285	MODIFY VIDEO PROCESSING UNIT	EACH						1	1						1	
XX007948	FIBER OPTIC INTERCONNECT CENTER	EACH	1	1	1		1	1	1	1					1	
X8710029	FIBER OPTIC CABLE IN CONDUIT, 24 SINGLE MODE	FOOT														10100
XX008251	SPLICE FIBER IN CABINET	EACH	6	6	6	6		6	6		6				6	
XX008392	OUTDOOR RATED NETWORK CABLE	FOOT	189				171		78							
Δ Z0076600	TRAINEES	hour														
XX007953	NETWORK CONFIGURATION	L SUM														1
XX008450	UPGRADE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH										1			1	
Z0033048	BATTERY BACK-UP SYSTEM WITH CABINET	EACH	1	1	1	1	1	1	1	1	1	1			1	
XX007251	INTERSECTION VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1				1		1							
XX008451	VIDEO ENCODER, PTZ VIDEO TRAFFIC MONITORING SYSTEM	EACH														
XX008253	VIDEO ENCODER	EACH						1	1						1	
XX008452	MALFUNCTION MANAGEMENT UNIT	EACH	1	1	1	1	1	1	1	1	1	1	1	1		
XX008453	ETHERNET SWITCH, TYPE 1	EACH	1	1	1	1	1	1	1	1	1	1	1	1		
XX008454	ETHERNET SWITCH, TYPE 2	EACH														

PROFILE SURVEYED PLOTTED CHECKED BY DATE
 NOTE BOOK NO. STRUCTURE NO. DATE
 PLAN SURVEYED PLOTTED CHECKED BY DATE
 NOTE BOOK NO. DATE
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

DATE	BY	DATE	BY
DATE	BY	DATE	BY

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (647) 823-0500

DATE	BY

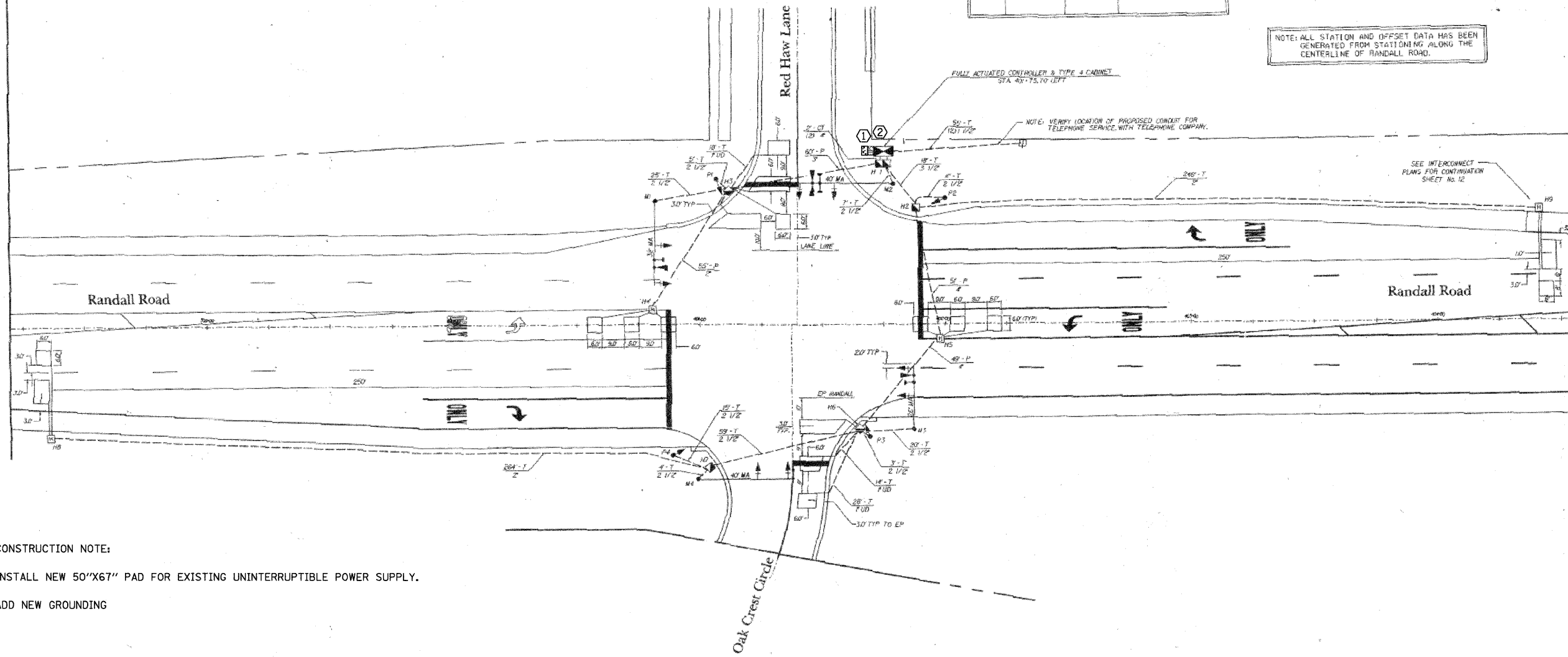
MAST ARM & POLE SCHEDULE			
NO.	STATION	OFFSET	MAST ARM LENGTH
M1	400+82	58' LT	32'
M2	401+79	57' LT	40'
M3	401+87	43' RT	26'
M4	400+99	63' RT	40'

POST SCHEDULE			
NO.	STATION	OFFSET	POST HEIGHT
P1	401+87	59' LT	14'
P2	402+00	51' LT	16'
P3	401+89	46' RT	14'
P4	400+89	53' RT	18'

HANDHOLE SCHEDULE			
NO.	STATION	OFFSET	DESCRIPTION
H1	401+75	65' LT	DOUBLE HANDHOLE
H2	401+88	47' LT	HANDHOLE
H3	401+12	54' LT	HANDHOLE
H4	400+81	6' LT	HEAVY DUTY HANDHOLE
H5	401+98	6' RT	HEAVY DUTY HANDHOLE
H6	401+85	44' RT	HANDHOLE
H7	401+04	58' RT	HANDHOLE
H8	399+36	45' RT	HEAVY DUTY HANDHOLE
H9	404+41	45' LT	HEAVY DUTY HANDHOLE



NOTE: ALL STATION AND OFFSET DATA HAS BEEN GENERATED FROM STATIONING ALONG THE CENTERLINE OF RANDALL ROAD.



CONSTRUCTION NOTE:

- ① INSTALL NEW 50"X67" PAD FOR EXISTING UNINTERRUPTIBLE POWER SUPPLY.
- ② ADD NEW GROUNDING

PROJECT NUMBER: 09-00237-02-TL
 DRAWN BY: C. S. L. L.
 CHECKED BY: C. S. L. L.
 DATE: FEBRUARY 2, 2010

IRHIA
 ROBERT H. ANDERSON & ASSOCIATES, INC.
 CONSULTING ENGINEERS
 200 WEST WYOMING STREET, SUITE 100
 ROSEMONT, ILLINOIS 60018
 PHONE: (630) 584-3500 FAX: (630) 584-3504

Randall Road & Red Haw Lane
 Intersection Improvements
 Traffic Signal Installation Plan Randall Road
 and Red Haw Lane/Oak Crest Circle

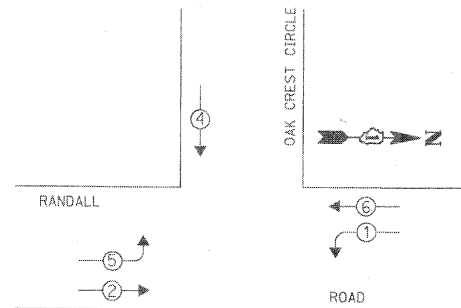
SHEET NO. 10 OF 23

FILE NAME = N:\kanecounty\080673\Traffic\005.TSD.Randall	USER NAME = FPACIONE	DESIGNED = ABR	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN RANDALL ROAD AND RED HAW LANE	F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 5			
		DRAWN = FCP	REVISED =			SCALE:	SHEET NO. OF SHEETS	STA. --	TO STA. --	CONTRACT NO. 63525			
		CHECKED = MJT	REVISED =			ILLINOIS FED. AID PROJECT							
		DATE = AUGUST 31, 2010	REVISED =										

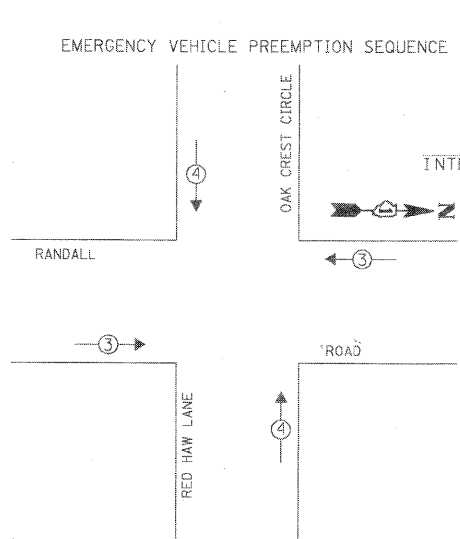
DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 PROFILE: _____ NOTE BOOK: _____
 NO. _____ DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 PROFILE: _____ NOTE BOOK: _____
 NO. _____

CHRISTOPHER B. BURKE
 ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



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, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

LEGEND

- ◀ * ▶ DUAL ENTRY PHASE
- ▶ * ◀ SINGLE ENTRY PHASE
- ▶ * ◀ PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

TRACER CABLE

EXISTING INTERCONNECT TO DEAN STREET

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

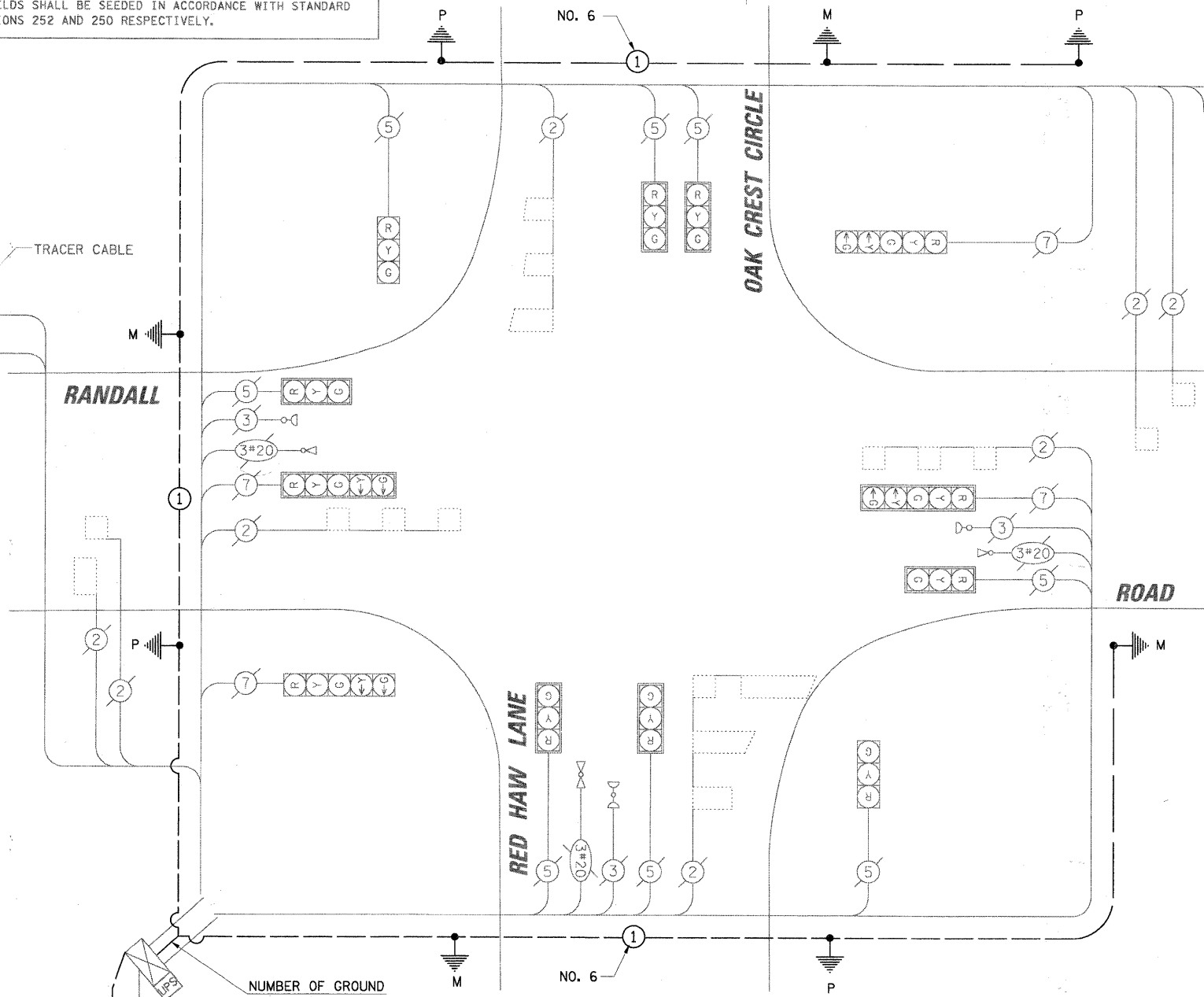
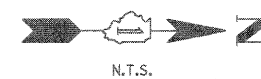
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	X % OPERATION	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	8		12	0.10	9.60
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	-		150	1.00	-
FLASHER	-			0.50	-

ENERGY COSTS TO: TOTAL = 331.60
KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2=
E - M. ARM POLE	10 (3.0)	SIGNAL POST	2 (1.0)	(6m±L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

FILE NAME =	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -
\\kanecounty\0826731\eff\086.DWG_Randall	edHaw.dgn	DRAWN - FCP	REVISED -
		CHECKED - MJT	REVISED -
		DATE - AUGUST 31, 2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



- CABLE PLAN LEGEND**
- | | | |
|----------|----------|---|
| EXISTING | PROPOSED | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE INSTALLATION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | DENOTES NUMBER OF CONDUCTORS. |
| | | ALL CABLE NO. 14 EXCEPT AS INDICATED. |
| | | ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | GROUND CABLE IN CONDUIT |
| | | NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT |
| | | NO. 62.5/125 2-MM12F SM12F |
| | | FIBER OPTIC CABLE IN CONDUIT |
| | | NO. 62.5/125 2-MM12F SM24F |
| | | SIGNAL FACE WITH BACKPLATE. |
| | | "P" INDICATES PROGRAMMED HEAD. |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN |
| | | "NO LEFT TURN" |
| | | ILLUMINATED SIGN |
| | | "NO RIGHT TURN" |
| H/C | | GROUND ROD AT HANDHOLE (H), |
| | | DOUBLE HANDHOLE (H), OR CONTROLLER (C) |
| P | | GROUND ROD AT POST (P) |
| | | OR MAST ARM POLE (MA) |
| S | | GROUND ROD AT ELECTRIC |
| | | SERVICE INSTALLATION |
| UPS | | UNINTERRUPTIBLE POWER SUPPLY |
| V | | VENDOR SPECIFIC CABLE |
| DCV | | DOME CAMERA (PAN/TILT/ZOOM) |
| VCV | | VIDEO DETECTION CAMERA |

- CONSTRUCTION NOTE:**
- INSTALL NEW 50"x67" PAD FOR EXISTING UNINTERRUPTIBLE POWER SUPPLY.
 - ADD NEW GROUNDING

SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	7
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C	FOOT	599
TERMINATE FIBER IN CABINET	EACH	6
SPlice FIBER IN CABINET	EACH	6

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE		F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 6
SCALE: SHEET NO. OF SHEETS STA. -- TO STA. --		ILLINOIS FED. AID PROJECT		CONTRACT NO. 63525		

F.A.P. ROUTE	COUNTY SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
99-00243-00-PV	336	KANE	268	133
PROPOSED TRAFFIC SIGNAL PLAN				
F.H.W.A. REG.5 ILLINOIS PROJECT F--0356(008)				

CONSTRUCTION NOTES:

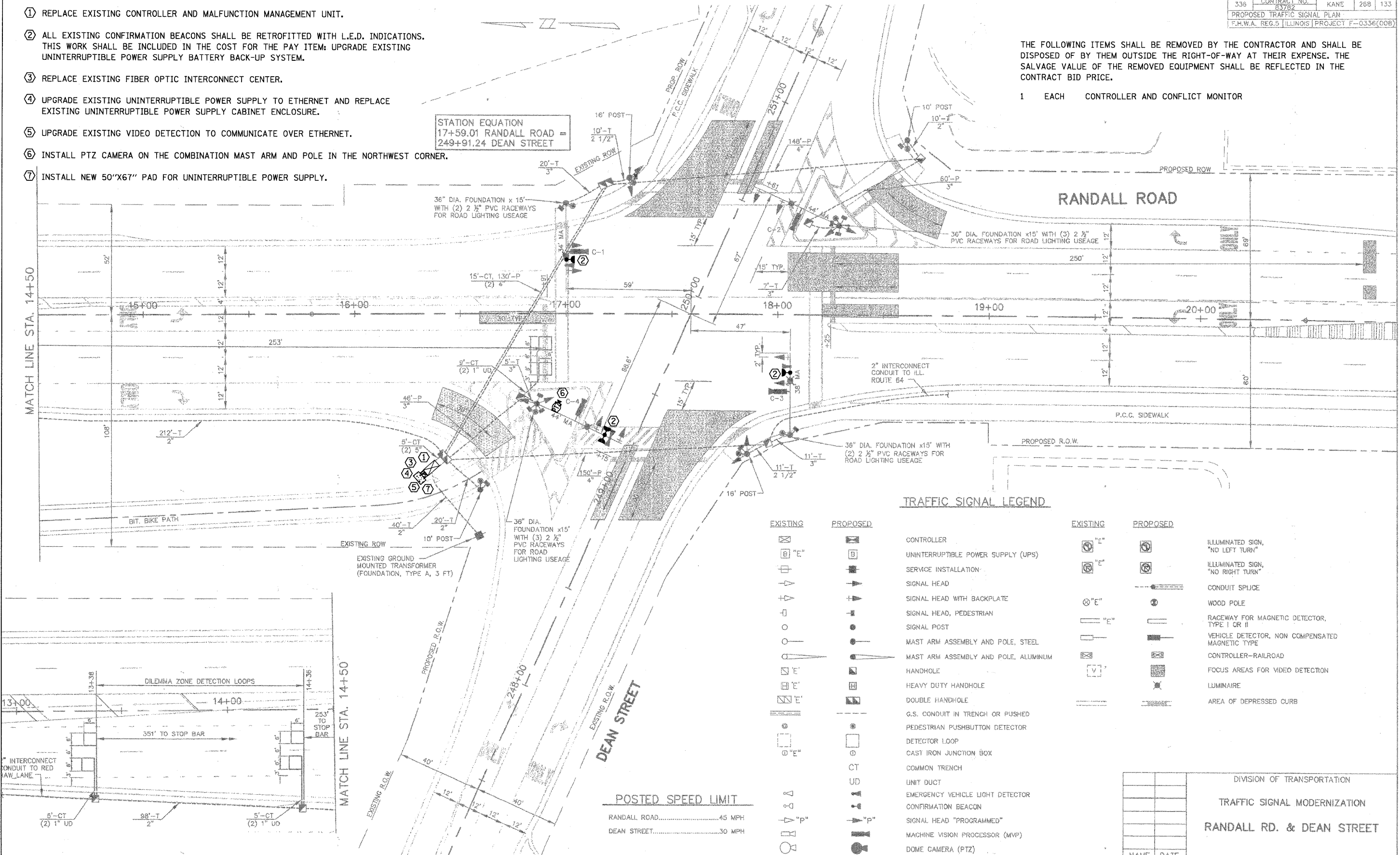
- ① REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UPGRADE EXISTING UNINTERRUPTIBLE POWER SUPPLY BATTERY BACK-UP SYSTEM.
- ③ REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- ④ UPGRADE EXISTING UNINTERRUPTIBLE POWER SUPPLY TO ETHERNET AND REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY CABINET ENCLOSURE.
- ⑤ UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.
- ⑥ INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM AND POLE IN THE NORTHWEST CORNER.
- ⑦ INSTALL NEW 50"X67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.

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 CONFLICT MONITOR

DATE	BY	DATE	BY

CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500



TRAFFIC SIGNAL LEGEND

EXISTING	PROPOSED	EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	[Symbol]	[Symbol]	CONTROLLER
[Symbol]	[Symbol]	[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY (UPS)
[Symbol]	[Symbol]	[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	[Symbol]	[Symbol]	SIGNAL HEAD
[Symbol]	[Symbol]	[Symbol]	[Symbol]	SIGNAL HEAD WITH BACKPLATE
[Symbol]	[Symbol]	[Symbol]	[Symbol]	SIGNAL HEAD, PEDESTRIAN
[Symbol]	[Symbol]	[Symbol]	[Symbol]	SIGNAL POST
[Symbol]	[Symbol]	[Symbol]	[Symbol]	MAST ARM ASSEMBLY AND POLE, STEEL
[Symbol]	[Symbol]	[Symbol]	[Symbol]	MAST ARM ASSEMBLY AND POLE, ALUMINUM
[Symbol]	[Symbol]	[Symbol]	[Symbol]	HANDHOLE
[Symbol]	[Symbol]	[Symbol]	[Symbol]	HEAVY DUTY HANDHOLE
[Symbol]	[Symbol]	[Symbol]	[Symbol]	DOUBLE HANDHOLE
[Symbol]	[Symbol]	[Symbol]	[Symbol]	G.S. CONDUIT IN TRENCH OR PUSHED
[Symbol]	[Symbol]	[Symbol]	[Symbol]	PEDESTRIAN PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	[Symbol]	[Symbol]	DETECTOR LOOP
[Symbol]	[Symbol]	[Symbol]	[Symbol]	CAST IRON JUNCTION BOX
[Symbol]	[Symbol]	[Symbol]	[Symbol]	COMMON TRENCH
[Symbol]	[Symbol]	[Symbol]	[Symbol]	UNIT DUCT
[Symbol]	[Symbol]	[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	[Symbol]	[Symbol]	SIGNAL HEAD "PROGRAMMED"
[Symbol]	[Symbol]	[Symbol]	[Symbol]	MACHINE VISION PROCESSOR (MVP)
[Symbol]	[Symbol]	[Symbol]	[Symbol]	DOMED CAMERA (PTZ)
[Symbol]	[Symbol]	[Symbol]	[Symbol]	ILLUMINATED SIGN, "NO LEFT TURN"
[Symbol]	[Symbol]	[Symbol]	[Symbol]	ILLUMINATED SIGN, "NO RIGHT TURN"
[Symbol]	[Symbol]	[Symbol]	[Symbol]	CONDUIT SPLICE
[Symbol]	[Symbol]	[Symbol]	[Symbol]	WOOD POLE
[Symbol]	[Symbol]	[Symbol]	[Symbol]	RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II
[Symbol]	[Symbol]	[Symbol]	[Symbol]	VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
[Symbol]	[Symbol]	[Symbol]	[Symbol]	CONTROLLER-RAILROAD
[Symbol]	[Symbol]	[Symbol]	[Symbol]	FOCUS AREAS FOR VIDEO DETECTION
[Symbol]	[Symbol]	[Symbol]	[Symbol]	LUMINAIRE
[Symbol]	[Symbol]	[Symbol]	[Symbol]	AREA OF DEPRESSED CURB

POSTED SPEED LIMIT
 RANDALL ROAD.....45 MPH
 DEAN STREET.....30 MPH

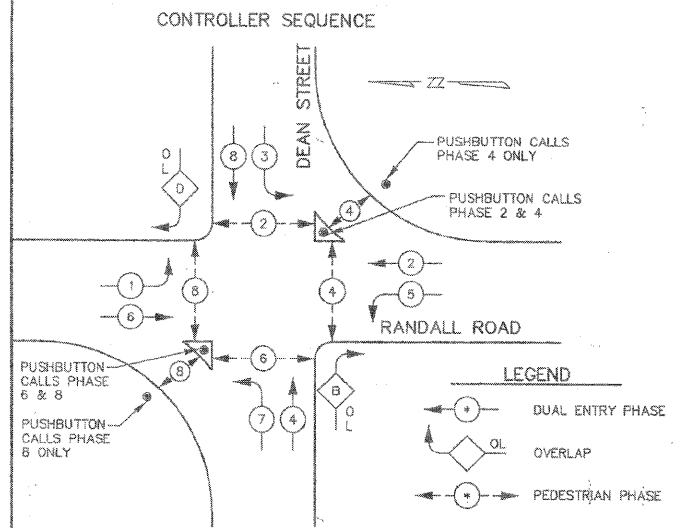
DIVISION OF TRANSPORTATION	
TRAFFIC SIGNAL MODERNIZATION	
RANDALL RD. & DEAN STREET	
NAME	DATE

FILE NAME =	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN RANDALL ROAD AND DEAN STREET	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
N:\kane\county\080673\Traffic\0807_TSD_Randall	den.dgn	DRAWN - FCP	REVISED -			336	09-00237-02-TL	KANE	100	7	
		PLOT SCALE = NOT TO SCALE	REVISED -			CONTRACT NO. 63525					
		CHECKED - MJT	REVISED -			ILLINOIS FED. AID PROJECT					
		DATE - AUGUST 31, 2010	REVISED -	SCALE:	SHEET NO. OF SHEETS	STA. --	TO STA. --				

F.A.P. ROUTE	COUNTY SECTION	COUNTY	TOTAL SHEET
336	09-00237-02-TL	KANE	100
CABLE PLAN		PROJECT F-0336(008)	SHEET NO. 8

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
(C)	(C)	8" (200mm) TRAFFIC SIGNAL SECTION
(R)	(R)	12" (300mm) TRAFFIC SIGNAL SECTION
(W)	(W)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(V)	(V)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(CAB)	(CAB)	CONTROLLER CABINET
(BATT)	(BATT)	UNINTERRUPTIBLE POWER SUPPLY
(S)	(S)	SERVICE INSTALLATION
(T)	(T)	TELEPHONE CONNECTION
(M)	(M)	MAGNETIC DETECTOR
(EVL)	(EVL)	EMERGENCY VEHICLE LIGHT DETECTOR
(CB)	(CB)	CONFIRMATION BEACON
(PD)	(PD)	PUSHBUTTON DETECTOR
(VIL)	(VIL)	VEHICLE DETECTOR, INDUCTION LOOP
(2)	(2)	DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(1)	(1)	GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)
(24)	(24)	FIBER OPTIC CABLE IN CONDUIT, NO. E2.5/125 2-MM12F & SM12F
(IP)	(IP)	SINGLE PAIR IN COAXIAL CABLE
(MVP)	(MVP)	MACHINE VISION PROCESSOR (MVP)
(PTZ)	(PTZ)	PTZ CAMERA
(SFP)	(SFP)	SIGNAL FACE WITH BACK PLATE, "P" INDICATES PROGRAMMED HEAD.
(RCC)	(RCC)	RAILROAD CONTROL CABINET
(LTS)	(LTS)	ILLUMINATED SIGN, "NO LEFT TURN"
(RTS)	(RTS)	ILLUMINATED SIGN, "NO RIGHT TURN"
(H/C)	(H/C)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
(P)	(P)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(S)	(S)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE	DISPLAY
B	= 4	+ 5	- 4
D	= 8	+ 1	- 8

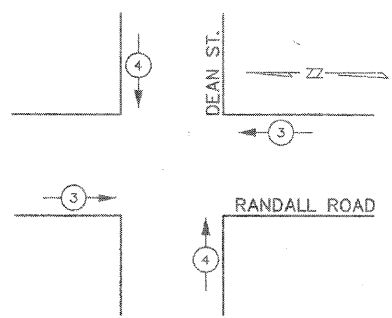
* NUMBER REFERS TO ASSOCIATED PHASE

DILEMMA ZONE LOOPS
 SPEED: 50MPH-40MPH
 GAP: 2.2 UNIT/3.5 SEC-3.9SEC

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET

EMERGENCY VEHICLE PREEMPTION SEQUENCE

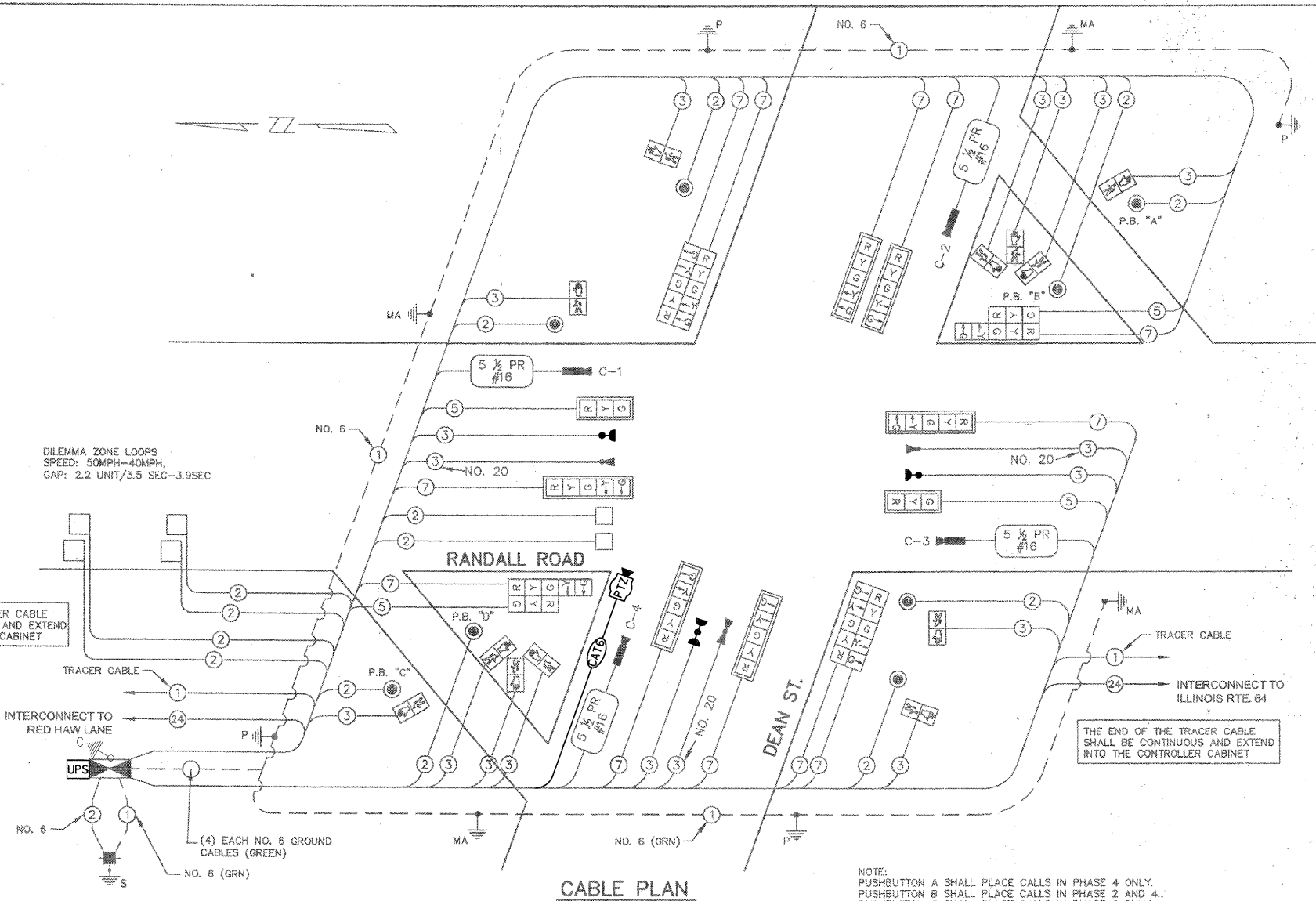


EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑

CONSTRUCTION NOTES:

- REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UPGRADE EXISTING UNINTERRUPTIBLE POWER SUPPLY BATTERY BACK-UP SYSTEM.
- REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- UPGRADE EXISTING UNINTERRUPTIBLE POWER SUPPLY TO ETHERNET AND REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY CABINET ENCLOSURE.
- UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.
- INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM AND POLE IN THE NORTHWEST CORNER.
- INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.

CABLE PLAN



NOTE:
 PUSHBUTTON A SHALL PLACE CALLS IN PHASE 4 ONLY.
 PUSHBUTTON B SHALL PLACE CALLS IN PHASE 2 AND 4.
 PUSHBUTTON C SHALL PLACE CALLS IN PHASE 8 ONLY.
 PUSHBUTTON D SHALL PLACE CALLS IN PHASE 6 AND 8.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
TERMINATE FIBER IN CABINET	EACH	6
MODIFY VIDEO PROCESSING UNIT	EACH	1
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPLICE FIBER IN CABINET	EACH	6
OUTDOOR RATED NETWORK CABLE	FOOT	124
UPGRADE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
VIDEO ENCODER, VIDEO DETECTION SYSTEM	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

PROPOSED TRAFFIC SIGNAL EQUIPMENT SHALL BE ONLY EAGLE BRAND OF CONTROLLERS & AUTO-SCOPE BRAND OF VIDEO VEHICLE DETECTION EQUIPMENT SO AS TO MATCH EXISTING SYSTEMS OR LOCAL STANDARDS.

L.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
SIGNAL (RED)	10	125	17	0.50	135.0
(YELLOW)	16	125	25	0.25	160.0
(GREEN)	16	125	15	0.25	90.0
ARROW	12	125	12	0.10	44.4
FLUO. SIGNAL	12	400	25	1.00	360.0
CONTROLLER	1	500	100	1.00	100.0
ILLUM. SIGN				0.05	0.0
VIDEO DETECT	1	25	25	1.00	25.0
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	\$22.4

FOUNDATION	DEPTH FT. (m)	CABLE SLACK	FT. (m)	VERTICAL CABLE	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	5.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - D-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (1.0)		(9m)+L-0.6m
<30" MA 30" (750mm) DIA.	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<40" MA 30" (750mm) DIA.	13.5 (4.1)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40" MA 36" (900mm) DIA.	11 (3.4)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<50" MA 36" (900mm) DIA.	13 (4.0)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
>50" MA 36" (900mm) DIA.	15 (4.6)			POST MOUNTED	6 (1.8)

CITY OF ST. CHARLES
 2 EAST MAIN STREET
 ST. CHARLES, IL 60174

CONTACT: Tom Leschinski
 PHONE: (630) 377-4488
 COMPANY: St. Charles Electric Department

DESIGNED - ABR
 DRAWN - FCP
 CHECKED - MJT
 DATE - AUGUST 31, 2010

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
 RANDALL ROAD AND DEAN STREET**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	KANE	100	8
CONTRACT NO. 63525			ILLINOIS FED. AID PROJECT	

DATE: _____ BY: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 B.M. NOTED: _____
 P.L. NOTED: _____
 NO. _____

DATE: _____ BY: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 B.M. NOTED: _____
 P.L. NOTED: _____
 NO. _____

DATE: _____ BY: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 B.M. NOTED: _____
 P.L. NOTED: _____
 NO. _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (817) 925-0500

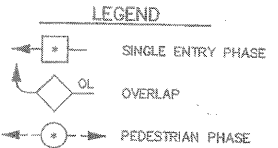
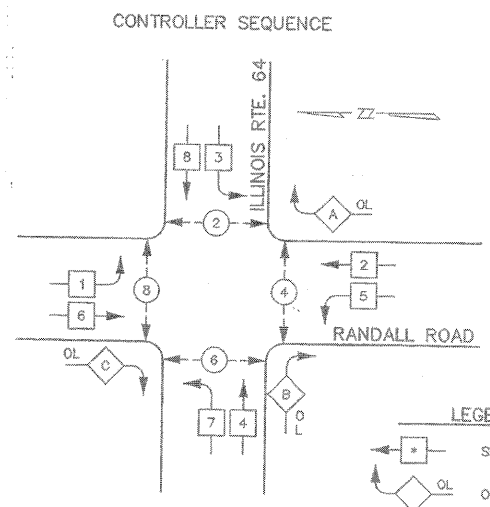
DATE: _____ BY: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 B.M. NOTED: _____
 P.L. NOTED: _____
 NO. _____

DATE: _____ BY: _____
 DATE: _____ BY: _____
 DATE: _____ BY: _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (815) 953-0500

DATE: _____ BY: _____
 DATE: _____ BY: _____
 DATE: _____ BY: _____

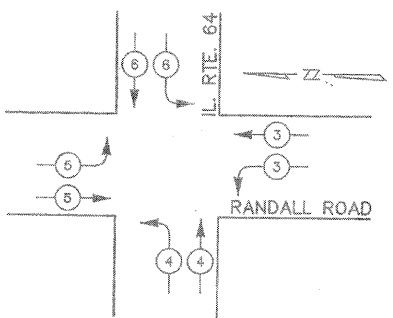
F.A.P. ROUTE	COUNTY SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	KANE	268	136
CONTRACT NO. 63525				
CABLE PLAN				
F.H.W.A. REG. 5 ILLINOIS PROJECT F-0336(00B)				



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE	NUMBER REFERS TO ASSOCIATED PHASE	
A	=	2	+	3
B	=	4	+	5
C	=	6	+	7

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTOR MOVEMENT	3	4	5	6
MOVEMENT	[Symbol]	[Symbol]	[Symbol]	[Symbol]

THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

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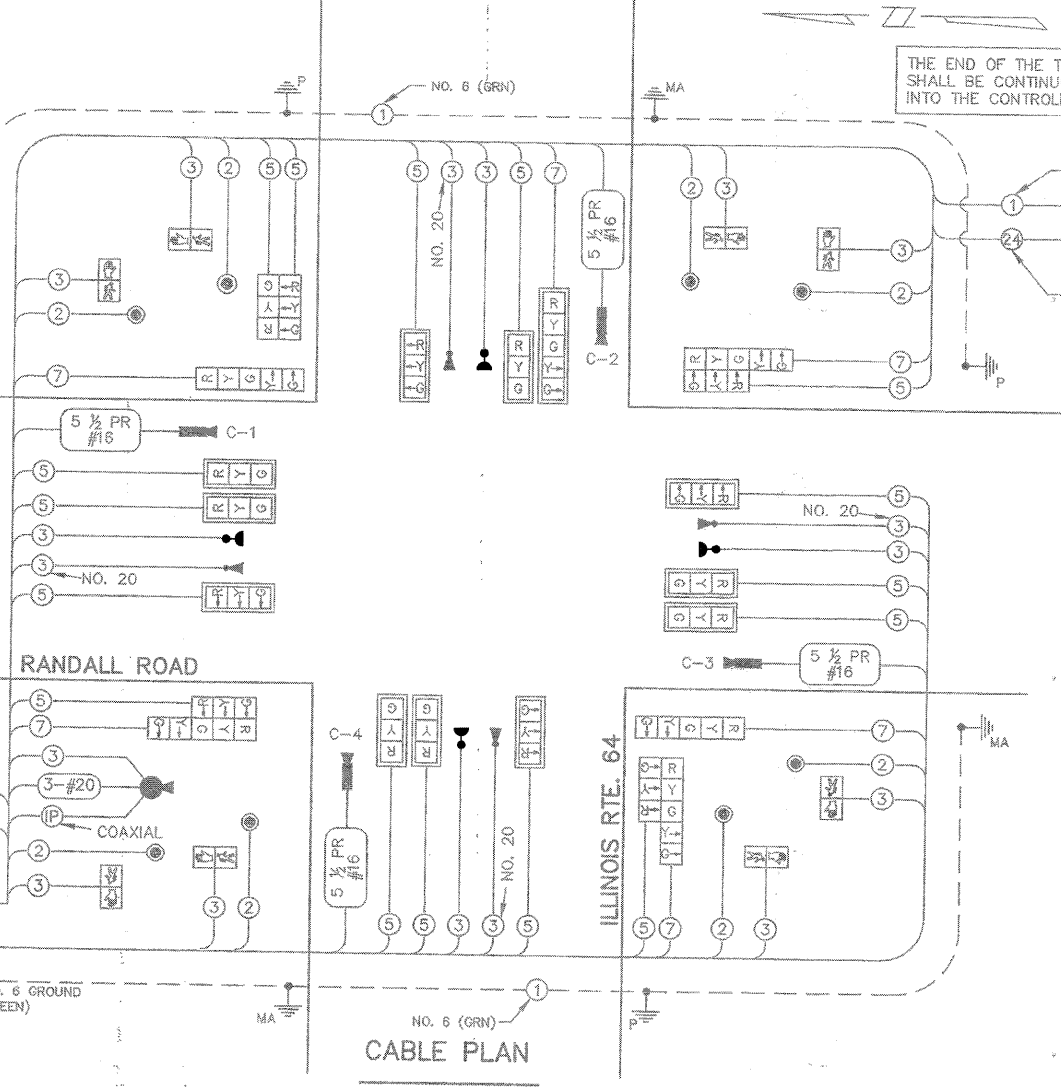
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CONSTRUCTION NOTES:

- 1 REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- 2 ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UPGRADE EXISTING UNINTERRUPTIBLE POWER SUPPLY BATTERY BACK-UP SYSTEM.
- 3 REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- 4 UPGRADE EXISTING UNINTERRUPTIBLE POWER SUPPLY TO ETHERNET AND REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY CABINET ENCLOSURE.
- 5 UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.
- 6 INSTALL NEW 50"X67" PAD FOR EXISTING UNINTERRUPTIBLE POWER SUPPLY.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
MODIFY VIDEO PROCESSING UNIT	EACH	1
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPLICE FIBER IN CABINET	EACH	12
UPGRADE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO ENCODER, PTZ VIDEO TRAFFIC MONITORING SYSTEM	EACH	1
VIDEO ENCODER, VIDEO DETECTION SYSTEM	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 2	EACH	1

TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	22	125	17	0.50	187.0
(YELLOW)	22	125	25	0.25	137.5
(GREEN)	22	125	15	0.25	82.5
ARROW	12	125	12	0.10	14.4
PED. SIGNAL	8	80	25	1.00	200.0
CONTROLLER	1	120	100	1.00	100.0
ILLUM. SIGN		84		0.05	
VIDEO DETECT	5	25	23	1.00	115.0
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 698.4

FOUNDATION	DEPTH FT. (m)	CABLE SLACK	FT. (m)	VERTICAL CABLE	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	5.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - D-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-4.2"
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6mH-0.8m)	
<30" MA 30" (750mm) DIA.	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<40" MA 35" (900mm) DIA.	13.5 (4.1)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40" MA 35" (900mm) DIA.	11 (3.4)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<50" MA 35" (900mm) DIA.	13 (4.0)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
<50" MA 35" (900mm) DIA.	15 (4.6)			POST MOUNTED	6(1.8)

PROPOSED TRAFFIC SIGNAL EQUIPMENT SHALL BE ONLY EAGLE BRAND OF CONTROLLERS & AUTO-SCOPE BRAND OF VIDEO VEHICLE DETECTION EQUIPMENT SO AS TO MATCH EXISTING SYSTEMS OR LOCAL STANDARDS.

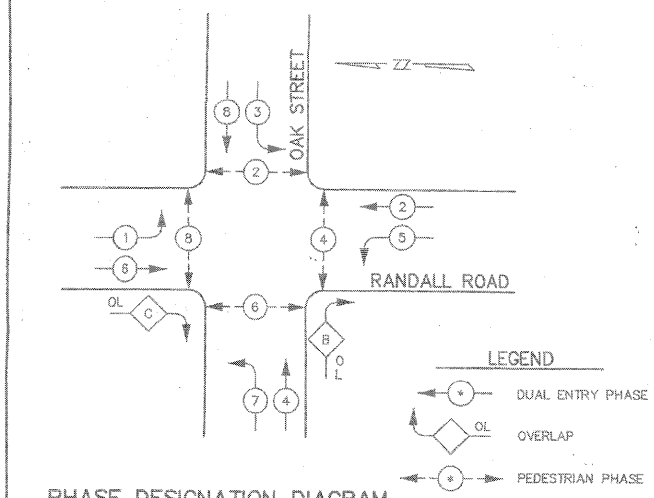
DIVISION OF TRANSPORTATION		CABLE PLAN	
PHASE DESIGNATION DIAGRAM			
SCHEDULE OF QUANTITIES			
RANDALL RD. & ILLINOIS RTE. 64			
NAME	DATE	SCALE: NONE	DRAWN BY: JMH
REVISIONS		DATE: SEPTEMBER 23, 2004	DESIGNED BY: DMH
			CHECKED BY: JRL

F.A.P. ROUTE	COUNTY SECTION	COUNTY	TOTAL SHEETS
336	09-00237-02-TL	KANE	136B
CABLE PLAN		PROJECT F-0336(00B)	
F.H.W.A. REG. 5		ILLINOIS	

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
(Symbol)	(Symbol)	8" (200mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	CONTROLLER CABINET
(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY
(Symbol)	(Symbol)	SERVICE INSTALLATION
(Symbol)	(Symbol)	TELEPHONE CONNECTION
(Symbol)	(Symbol)	MAGNETIC DETECTOR
(Symbol)	(Symbol)	EMERGENCY VEHICLE LIGHT DETECTOR
(Symbol)	(Symbol)	CONFIRMATION BEACON
(Symbol)	(Symbol)	PUSHBUTTON DETECTOR
(Symbol)	(Symbol)	VEHICLE DETECTOR, INDUCTION LOOP
(Symbol)	(Symbol)	2 DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED ALL LOOP DETECTOR CABLE TO BE SHIELDED
(Symbol)	(Symbol)	1 GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F & SM12F
(Symbol)	(Symbol)	IP SINGLE PAIR IN COAXIAL CABLE
(Symbol)	(Symbol)	MACHINE VISION PROCESSOR (MVP)
(Symbol)	(Symbol)	DOME CAMERA (PTZ)
(Symbol)	(Symbol)	SIGNAL FACE WITH BACK PLATE, "P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
(Symbol)	(Symbol)	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
(Symbol)	(Symbol)	H/C GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
(Symbol)	(Symbol)	P GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	S GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	LUMINAIRE, S.V., 400W

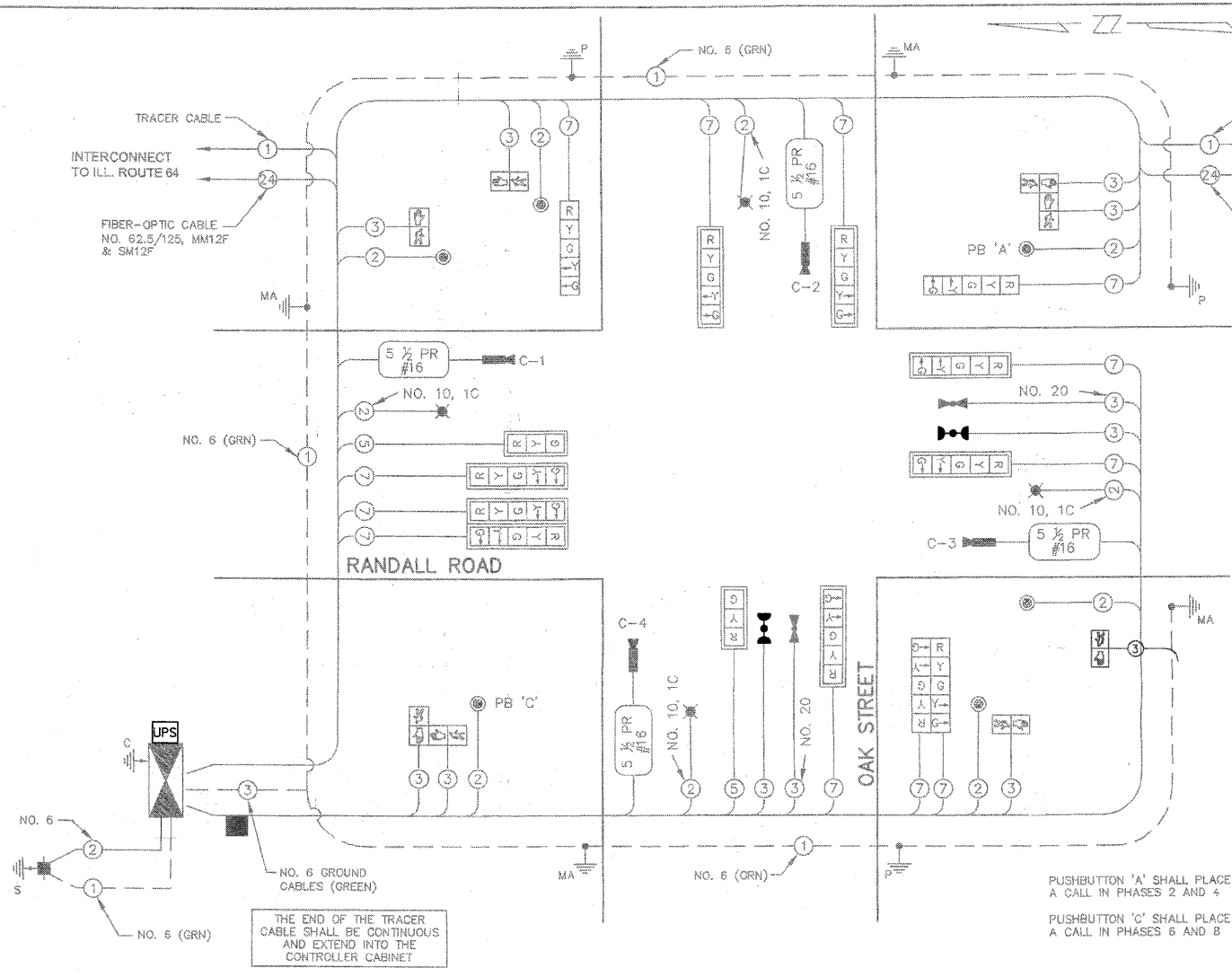
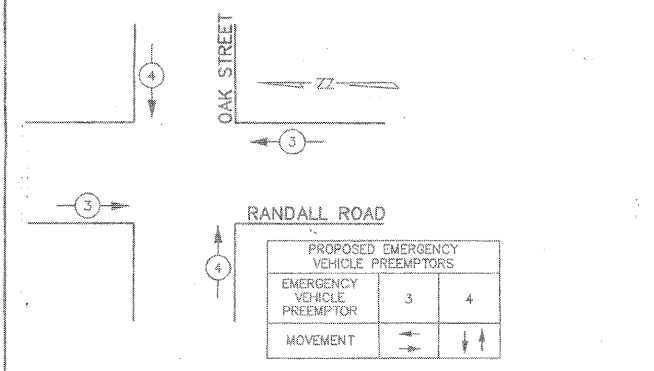
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	4	5
C	6	7

EMERGENCY VEHICLE PREEMPTION SEQUENCE



ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
TERMINATE FIBER IN CABINET	EACH	6
MODIFY VIDEO PROCESSING UNIT	EACH	1
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPLICE FIBER IN CABINET	EACH	6
UPGRADE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO ENCODER, VIDEO DETECTION SYSTEM	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

- CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
 - ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
 - REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
 - REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY CABINET ENCLOSURE. RELOCATE EXISTING UNINTERRUPTIBLE POWER SUPPLY TO NEW CABINET ENCLOSURE.
 - UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.
 - INSTALL NEW 50"X67" PAD FOR EXISTING UNINTERRUPTIBLE POWER SUPPLY.

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	x WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	14	125	17	0.50	119.0
(YELLOW)	14	125	25	0.25	87.5
(GREEN)	14	125	15	0.25	82.5
ARROW	24	125	12	0.10	28.8
PED. SIGNAL	8	25	25	1.00	200.0
CONTROLLER	1	100	100	1.00	100.0
VIDEO DETECTOR	4	23	23	1.00	92.0
LUMINAIRE	4	400	400	0.50	800.0
FLASHER				0.50	
ENERGY COSTS TO: (NEW SERVICE) TOTAL =					1479.8

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL CABLE	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - D-CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'H-2" (6m+1-0.6m)≠
E - M. ARM POLE		SIGNAL POST	2 (1.0)		
< 30' MA 30" DIA	10' (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
< 40' MA 30" DIA	13.5' (4.1)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
< 40' MA 36" DIA	11' (3.4)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
< 50' MA 36" DIA	13' (4.0)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
≥ 50' MA 36" DIA	15' (4.6)			POST MOUNTED	6 (1.8)

ENERGY COSTS TO: (NEW SERVICE) TOTAL = 1479.8

CITY OF ST. CHARLES
2 EAST MAIN STREET
ST. CHARLES, IL 60174

ENERGY SUPPLY CONTACT: Tom Leslawicz
PHONE: (630) 377-4486
COMPANY: St. Charles Electric Department

DESIGNED - ABR
DRAWN - FCP
CHECKED - MJT
DATE - AUGUST 31, 2010

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
RANDALL ROAD AND OAK STREET**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	KANE	100	12
CONTRACT NO. 63525			ILLINOIS FED. AID PROJECT	

DATE: _____ BY: _____
DATE: _____ BY: _____
DATE: _____ BY: _____

PROFILE SURVEYED: _____
NOTE BOOK: _____
NO. _____

PLAN SURVEYED: _____
NOTE BOOK: _____
NO. _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
3575 West Higgins Road, Suite 600
Rosemont, Illinois 60018
(877) 823-0500

DIVISION OF TRANSPORTATION
CABLE PLAN
PHASE DESIGNATION DIAGRAM
SCHEDULE OF QUANTITIES

RANDALL RD. & OAK STREET

NAME: _____ DATE: _____
REVISIONS: _____

SCALE: NONE
DATE: OCTOBER 25, 2005

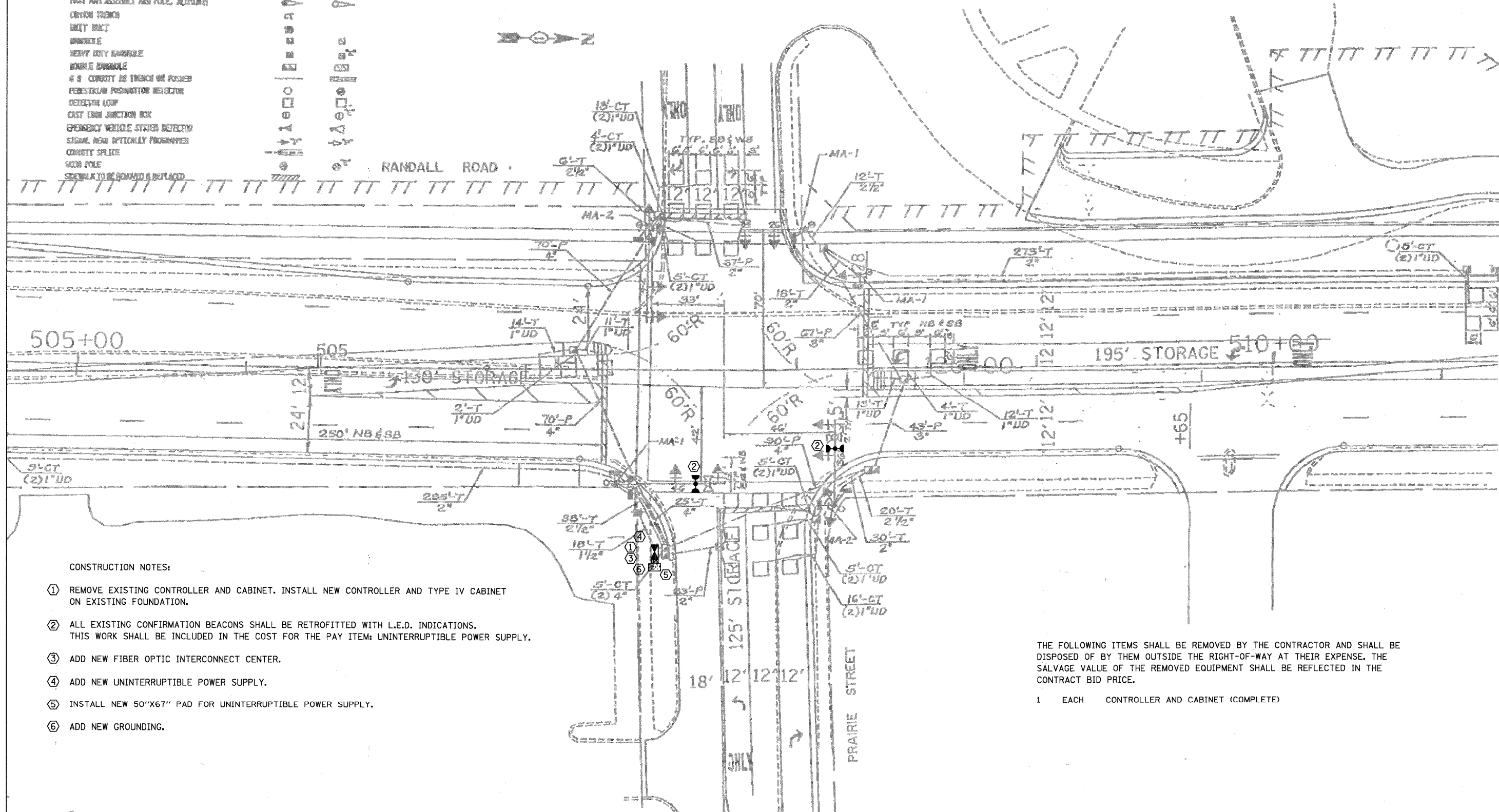
DRAWN BY: JMH
DESIGNED BY: DMH
CHECKED BY: JRL

ZYLSTRA ADDENDUM

DATE: _____ BY: _____
 SURVEYED: _____ ALIGNED: _____ CHECKED: _____
 PLAN: _____ NOTE BOOK: _____
 NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (815) 823-9500
 DATE: _____ BY: _____
 PROFILE: _____ SURVEYED: _____
 NO. _____ NOTE BOOK: _____
 NO. _____

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE DISTRICTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PERISTEMAL		
SIGNAL POST		
POST ARM ASSEMBLY AND POLE, STEEL		
POST ARM ASSEMBLY AND POLE, ALUMINUM		
CROWN TRENCH		
WET TRENCH		
APPROACH		
HEAVY DRY APPROACH		
ROADWAY APPROACH		
6" S CONCRETE OR TRENCH OR POURED		
PEDESTRIAN POSITIONING DETECTOR		
DETECTOR LOOP		
CURTAIN JUNCTION BOX		
EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL HEAD OPTIONALLY PROGRAMMED		
CORNER SPUR		
WIRE POLE		
STRUCTURE TO BE REMOVED & REPLACED		



CONSTRUCTION NOTES:

- ① REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ ADD NEW FIBER OPTIC INTERCONNECT CENTER.
- ④ ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
- ⑤ INSTALL NEW 50"X67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.
- ⑥ ADD NEW GROUNDING.

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)

FILE NAME =	USER NAME = FPACONE	DESIGNED - ABR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN RANDALL ROAD AND PRAIRIE STREET	F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 13	
W:\kane\county\080673\Traffic\013_150_Randall-	name.dgn	DRAWN - FCP	REVISED -			SCALE:	SHEET NO. OF SHEETS STA. -- TO STA. --	CONTRACT NO. 63525			
	PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISED -			ILLINOIS FED. AID PROJECT					
	PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISED -								

DATE: _____ BY: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 B.M. NOTED: _____
 PROFILE: _____
 NO. _____

DATE: _____ BY: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 B.M. NOTED: _____
 PROFILE: _____
 NO. _____

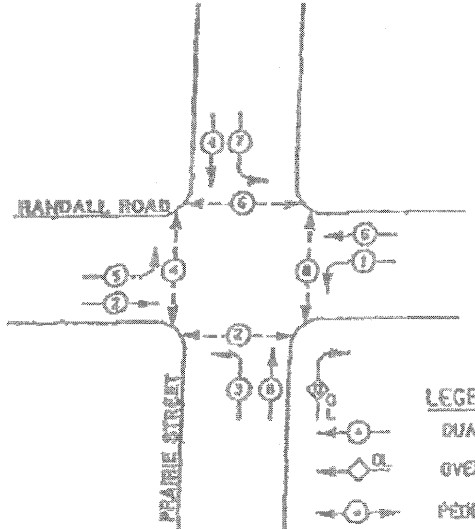
PLAN
 NOTE BOOK
 NO. _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60608
 (847) 823-0500

EXISTING CONTROLLER SEQUENCE

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	6	1



PHASE DESIGNATION DIAGRAM

CABLE PLAN LEGEND

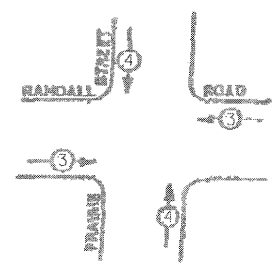
EXISTING	PROPOSED
[Symbol]	[Symbol] 8" (200MM) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol] 12" (300MM) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol] 12" (300MM) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol] 12" (300MM) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol] CONTROLLER CABINET
[Symbol]	[Symbol] SERVICE INSTALLATION
[Symbol]	[Symbol] VEHICLE DETECTOR, INDUCTION LOOP
[Symbol]	[Symbol] MAGNETIC DETECTOR
[Symbol]	[Symbol] EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol] CONFIRMATION BEACON
[Symbol]	[Symbol] PUSHBUTTON DETECTOR
[Symbol]	[Symbol] DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol] SIGNAL FACE WITH BACKPLATE
[Symbol]	[Symbol] * INDICATES PROGRAMMED HEAD

LEGEND

- [Symbol] DUAL ENTRY PHASE
- [Symbol] OVERLAP
- [Symbol] PEDESTRIAN PHASE

* NUMBER REFERS TO ASSOCIATED PHASE

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE

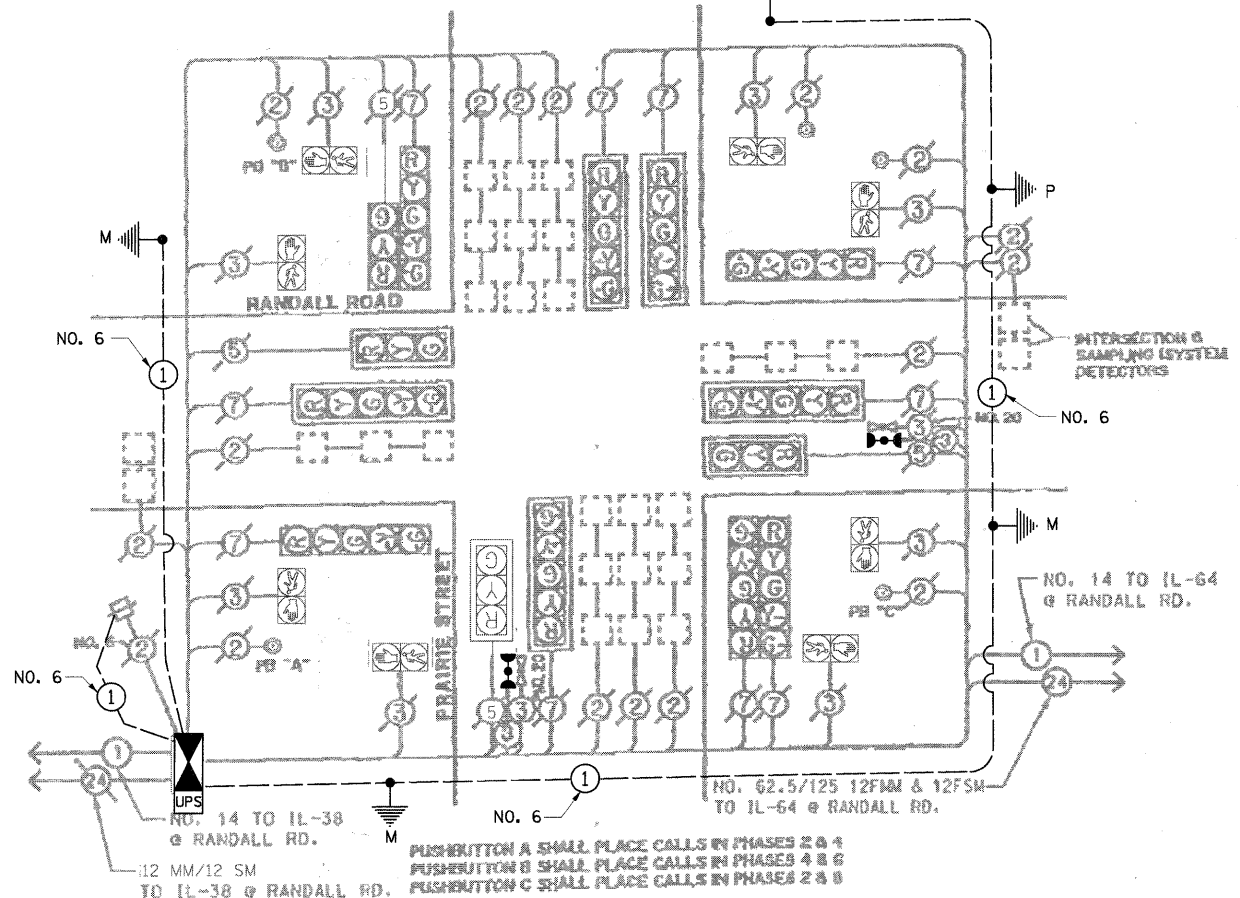


PROPOSED PRIORITY LANE

PRIORITY LANE INTERVAL	3	4
MOVEMENT	[Symbol]	[Symbol]



CABLE PLAN



SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	11
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	8
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C	FOOT	660
TERMINATE FIBER IN CABINET	EACH	6
SPLICE FIBER IN CABINET	EACH	6
UPS BATTERY BACK-UP CABINET	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

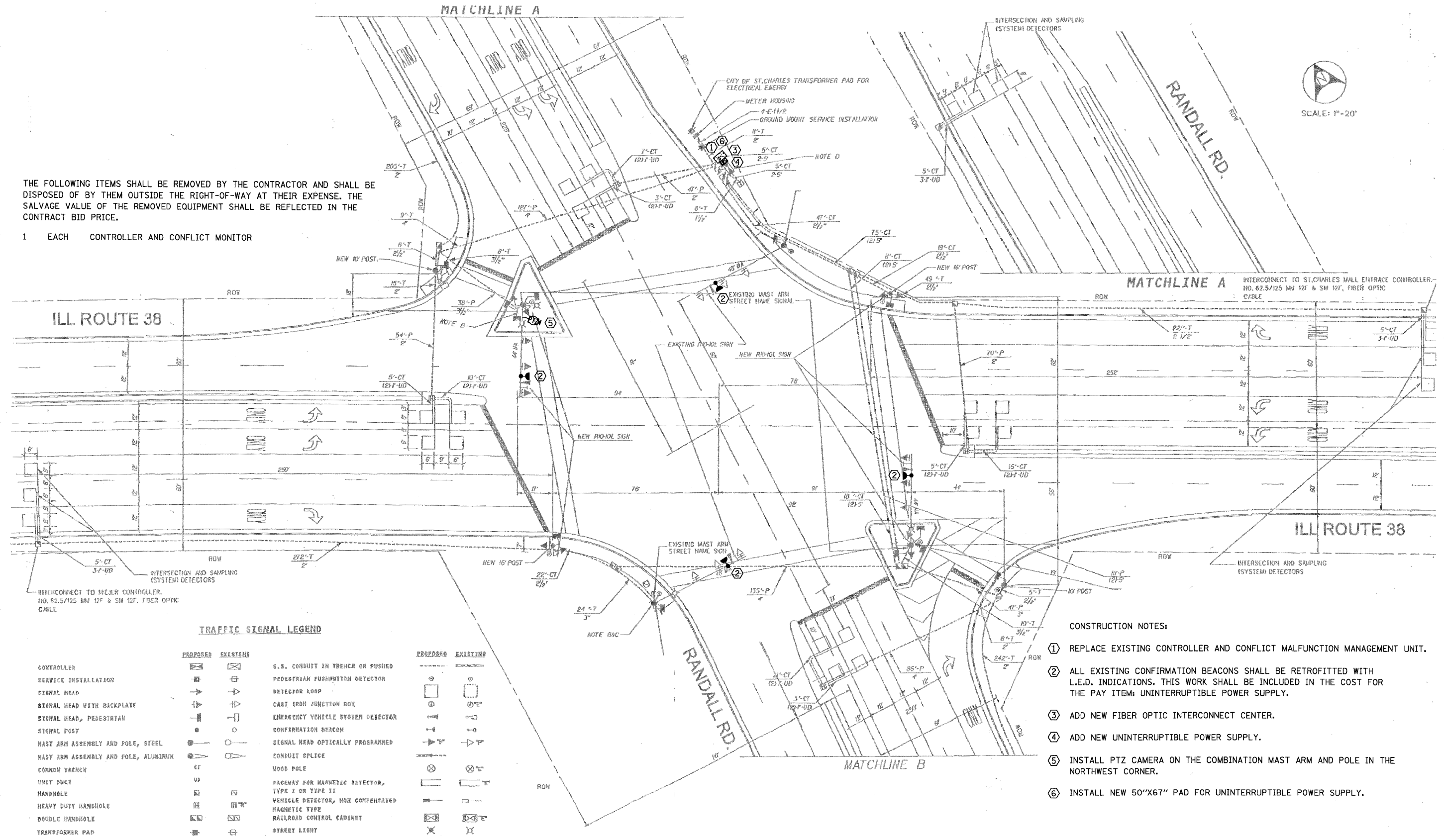
- CONSTRUCTION NOTES:
- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
 - ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
 - ADD NEW FIBER OPTIC INTERCONNECT CENTER.
 - ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
 - INSTALL NEW 50"X67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.
 - ADD NEW GROUNDING

DATE: _____ BY: _____
 SURVEYED: _____ GRADES CHECKED: _____
 ALIGNED: _____ P.T. OF WAY CHECKED: _____
 NOTE BOOK NO. _____
 PROJECT NO. _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 825-0500

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 CONFLICT MONITOR



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]	G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]	PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]	DETECTOR LOOP	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]	CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]	CONFIRMATION BEACON	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]	SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]	CONDUIT SPLICE	[Symbol]	[Symbol]
CORNER TRENCH	[Symbol]	[Symbol]	WOOD POLE	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]	RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]	VEHICLE DETECTOR, NON COMPENSATED	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]	MAGNETIC TYPE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]	RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
TRANSFORMER PAD	[Symbol]	[Symbol]	STREET LIGHT	[Symbol]	[Symbol]
METER HOUSE	[Symbol]	[Symbol]			

- CONSTRUCTION NOTES:**
- ① REPLACE EXISTING CONTROLLER AND CONFLICT MALFUNCTION MANAGEMENT UNIT.
 - ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
 - ③ ADD NEW FIBER OPTIC INTERCONNECT CENTER.
 - ④ ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
 - ⑤ INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM AND POLE IN THE NORTHWEST CORNER.
 - ⑥ INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.



METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN

REVISIONS		
NO.	DATE	DESCRIPTION

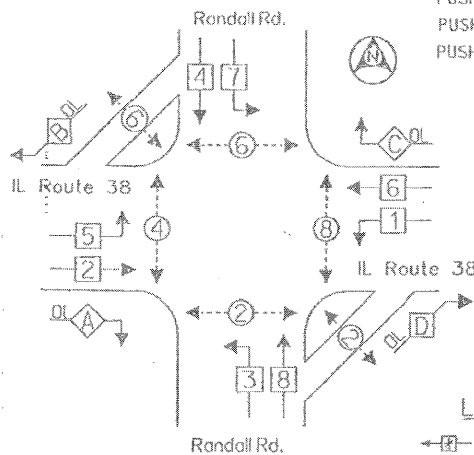
GEOMETRIC PLAN AND SIGNAL INSTALLATION PLAN
 Illinois Route 38 @ Randall Road

FILE NAME: ra.sp.dgn	SHEET NO.: 12
DATE: MARCH 6, 2000	
PROJECT NO.: 09-00237-02-TL	

FILE NAME: N:\ncanecounty\080673\Traffic\015_TSD1_Randall\l38.dgn	USER NAME: FPACONE	DESIGNED: ABR	REVISED: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN RANDALL ROAD AND IL ROUTE 38	F.A.P. RTE.: 336	SECTION: 09-00237-02-TL	COUNTY: KANE	TOTAL SHEETS: 100	SHEET NO.: 15	
PLOT SCALE: NOT TO SCALE		DRAWN: FCP	REVISED: -			SCALE:	SHEET NO. OF SHEETS	STA. -- TO STA. --	CONTRACT NO. 63525		
PLOT DATE: 11/3/2010		CHECKED: MJT	REVISED: -			ILLINOIS FED. AID PROJECT					
		DATE: AUGUST 31, 2010	REVISED: -								

DATE: _____ BY: _____
 SURVEYED: _____ GRADES CHECKED: _____
 PLAN: _____ NOTE BOOK: _____
 NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500
 PROFILE: _____
 SURVEYED: _____ GRADES CHECKED: _____
 DATE: _____ BY: _____
 NO. _____

CONTROLLER SEQUENCE



PUSHBUTTON NOTE: "A" & "B" SHALL PLACE CALLS IN PHASES 4 & 6
 PUSHBUTTON NOTE: "C" & "D" SHALL PLACE CALLS IN PHASES 2 & 8
 PUSHBUTTON NOTE: "A" SHALL PLACE CALLS IN PHASES 6
 PUSHBUTTON NOTE: "C" SHALL PLACE CALLS IN PHASES 2

LEGEND

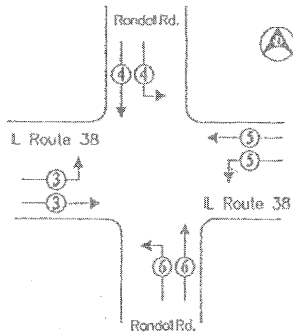
- ☐ SIGNAL ENTRY PHASE
- ◊ OVERLAP
- ◊ PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE.

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	2 + 3	4 + 5
B	4 + 5	6 + 7
C	6 + 7	8 + 1
D	8 + 1	

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↕	←	↕

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT MUST BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM. NO SUBSTITUTIONS WILL BE ALLOWED

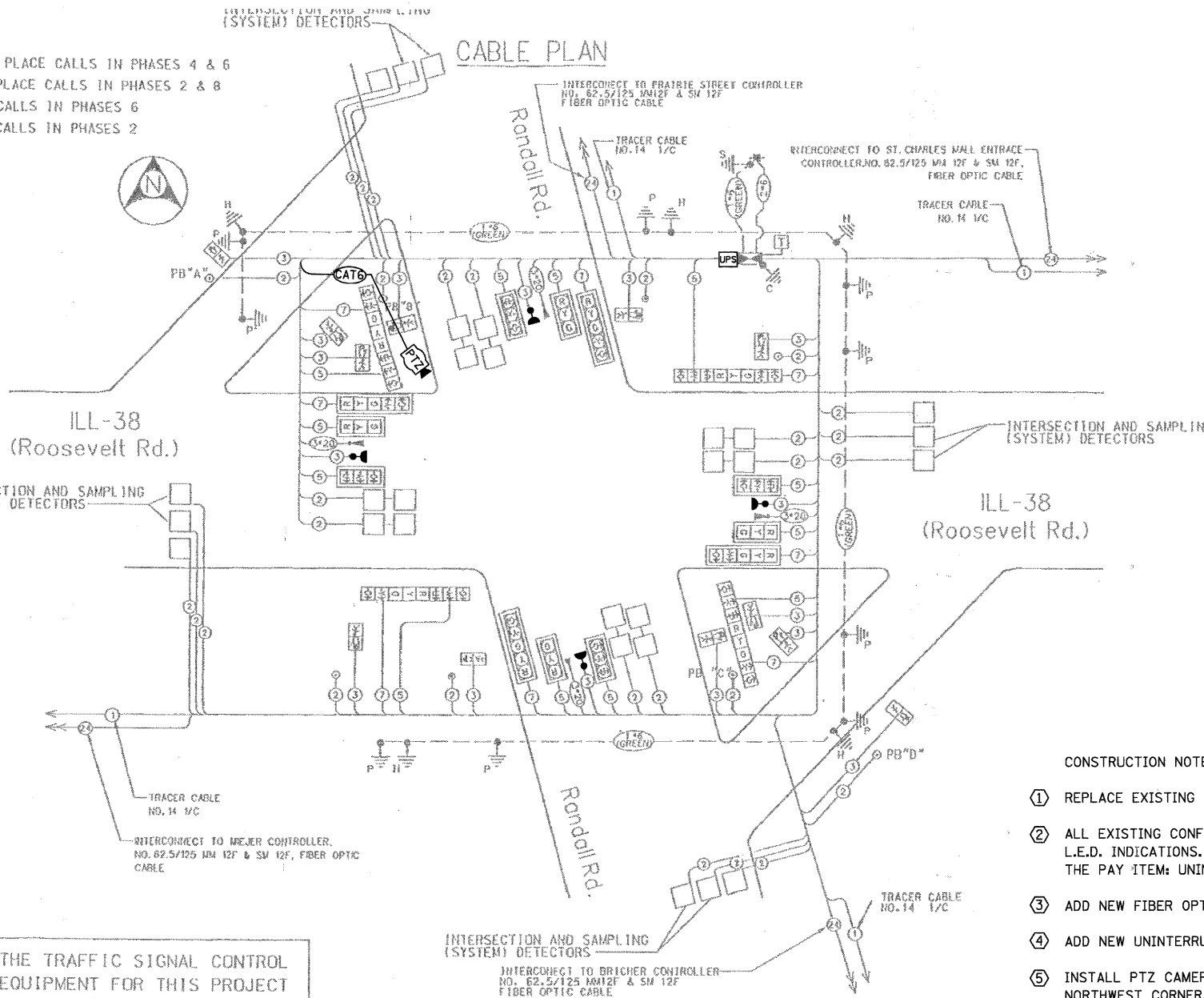
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH, AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL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

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (1) POLE	20'±1.2"
E - M ARM POLE	24	SIGNAL POST	2	BRACKET MOUNTED	13
	30"	CONTROLLER CAB.	1	PEDESTRIAN PUSHBUTTON	4
		FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

I.O.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	% OPERATIONS	
SIGNAL (RED)	20	17	0.50	170
(YELLOW)	20	25	0.25	125
(GREEN)	20	12	0.25	75
BROW	16	12	0.10	19
LED SIGNAL	12	25	1.00	300
CONTROLLER	1	100		100
LUH, SIGN			0.05	
FLASHER LED			0.50	
TOTAL				789

ENERGY COSTS - BILLED TO: _____ (ADDRESS)
 ENERGY SUPPLY - CONTACT: **Tom Lesiewicz**
 PHONE: (630) 377-4407
 COMPANY: **City of St. Charles**

CABLE PLAN



CABLE PLAN LEGEND

- ☐ EXISTING PROPOSED
- ☐ 8" (203MM) TRAFFIC SIGNAL SECTION
- ☐ 12" (305MM) TRAFFIC SIGNAL SECTION
- ☐ 12" (305MM) PEDESTRIAN SIGNAL SECTION
- ☐ 12" (305MM) PEDESTRIAN SIGNAL SECTION
- ☐ CONTROLLER CABINET
- ☐ SERVICE INSTALLATION
- ☐ VEHICLE DETECTOR, INDUCTION LOOP
- ☐ MAGNETIC DETECTOR
- ☐ EMERGENCY VEHICLE LIGHT DETECTOR
- ☐ CONFIRMATION BEACON
- ☐ PUSHBUTTON DETECTOR
- ☐ DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED, ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- ☐ SIGNAL FACE WITH BACKPLATE
- ☐ "P" INDICATES PROGRAMMED HEAD
- ☐ "E" INDICATES EXISTING SIGNAL HEAD OR EXISTING PEDESTRIAN SIGNAL HEAD
- ☐ H/C: GROUND ROD AT HANDHOLE OR CONTROLLER
- ☐ P: GROUND ROD AT POST OR MAST ARM POLE
- ☐ S: GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- ☐ GROUND ROD EXISTING TO BE REUSED
- ☐ GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)
- ☐ NO. 62.5/125 MM 12F & SM 12F, FIBER OPTIC CABLE
- ☐ NO. 14 1/C TRACER CABLE

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

CONSTRUCTION NOTES:

- ① REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ ADD NEW FIBER OPTIC INTERCONNECT CENTER.
- ④ ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
- ⑤ INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM AND POLE IN THE NORTHWEST CORNER.
- ⑥ INSTALL NEW 50"X67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPlice FIBER IN CABINET	EACH	12
OUTDOOR RATED NETWORK CABLE	FOOT	245
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 2	EACH	1

METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN
 1700 GREENBROOK HAVEN DRIVE, SUITE 100, CHICAGO, ILLINOIS 60622

REVISIONS		
NO.	DATE	DESCRIPTION

CABLE PLAN, PHASE DESIGNATION DIAGRAM and SCHEDULE OF QUANTITIES

Illinois Route 38 @ Randall Road

FILE NAME: r'an_cp.dgn
 DATE: MARCH 6, 2000
 PROJECT NO.: _____
 SHEET NO.: **14**

FILE NAME	USER NAME	DESIGNED	REVISIONS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\kane\county\080673\Traffic\017_CAB_Randall	38.dgn	ABR	REVISIONS	336	09-00237-02-TL	KANE	100	17
		DRAWN - FCP	REVISIONS					
		CHECKED - MJT	REVISIONS					
		DATE - AUGUST 31, 2010	REVISIONS					

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE RANDALL ROAD AND IL ROUTE 38

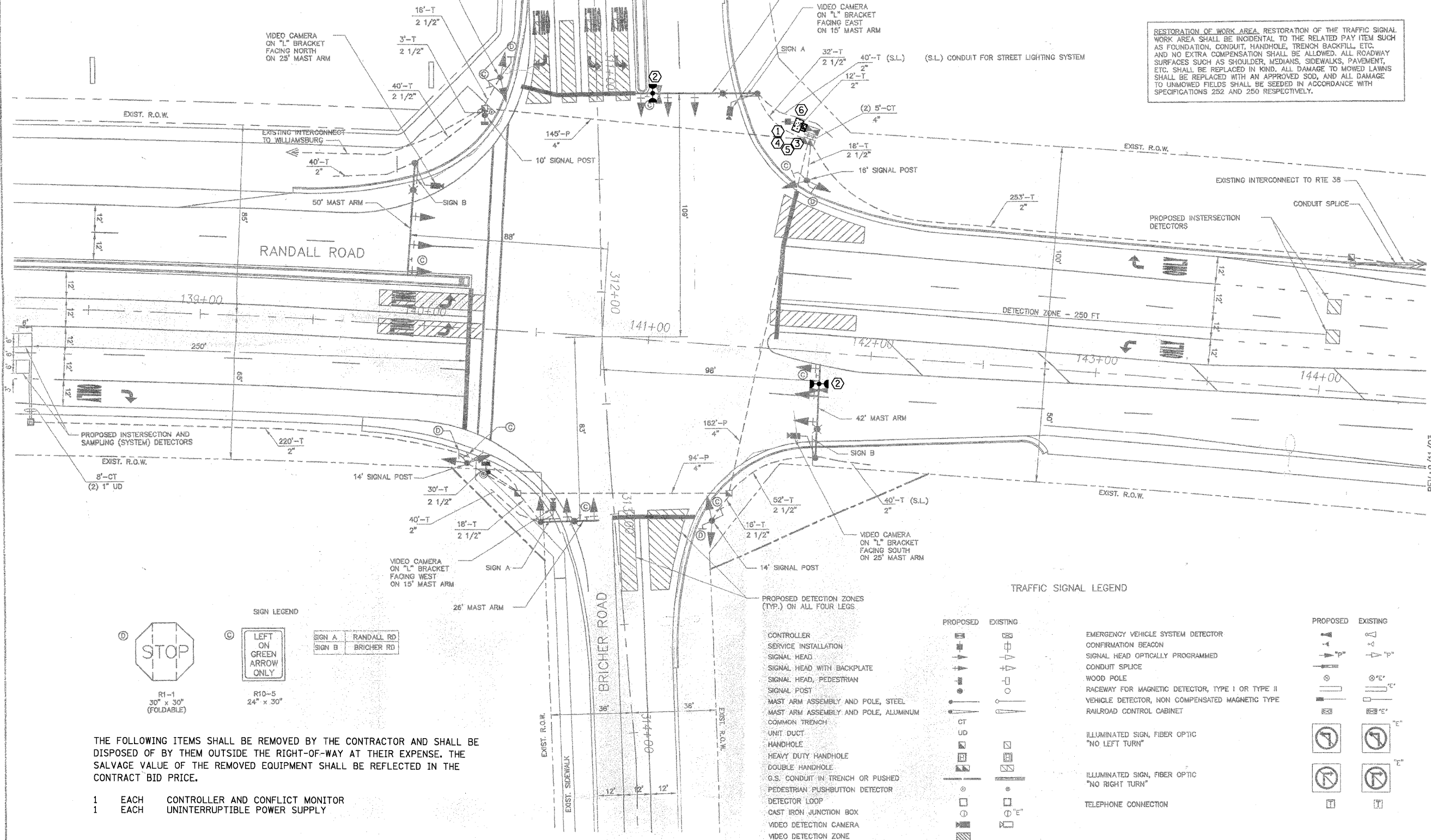
SCALE:	SHEET NO.	OF SHEETS	STA. --	TO STA. --	ILLINOIS FED. AID PROJECT

DATE: _____ BY: _____
 SURVEYED: _____ GRADES CHECKED: _____
 PLAN: _____ NOTE BOOK: _____
 NO. _____ NO. _____
 DATE: _____ BY: _____
 SURVEYED: _____ GRADES CHECKED: _____
 PROFILE: _____ NOTE BOOK: _____
 NO. _____ NO. _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60634
 (817) 823-0500

CONSTRUCTION NOTES:

- ① REPLACE EXISTING CONTROLLER AND CONFLICT MALFUNCTION MANAGEMENT UNIT.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- ④ REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY AND CABINET ENCLOSURE.
- ⑤ UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.
- ⑥ INSTALL NEW 50"X67" PAD FOR EXISTING UNINTERRUPTIBLE POWER SUPPLY.



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 BACKFILL, ETC. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDER, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH SPECIFICATIONS 252 AND 250 RESPECTIVELY.



SIGN A RANDALL RD
 SIGN B BRICHER RD

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 CONFLICT MONITOR
- 1 EACH UNINTERRUPTIBLE POWER SUPPLY

TRAFFIC SIGNAL LEGEND

PROPOSED	EXISTING	DESCRIPTION
[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	SIGNAL HEAD OPTICALLY PROGRAMMED
[Symbol]	[Symbol]	CONDUIT SPLICE
[Symbol]	[Symbol]	WOOD POLE
[Symbol]	[Symbol]	RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
[Symbol]	[Symbol]	VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
[Symbol]	[Symbol]	TELEPHONE CONNECTION

TRAFFIC SIGNAL INSTALLATION PLAN
 RANDALL ROAD AND BRICHER ROAD
 GENEVA, ILLINOIS

MJD ENGINEERING
 TRAFFIC SIGNAL PLAN
 REV: 5/28/03 REV: 1/20/03
 DATE: 7/29/02 REV: 10/07/02
 DRAWN: MJD DESIGN: MJD

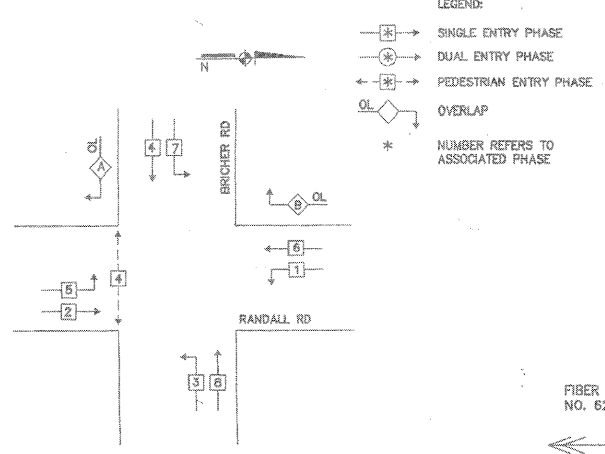
MJD ENGINEERING
 3709 NORTH OKETO
 CHICAGO, ILLINOIS 60634 (773) 625-6565

PROFILE SURVEYED BY DATE
 GRADES CHECKED BY DATE
 B.M. NOTED BY DATE
 STRUCTURE NOTED BY DATE
 NO.

PLAN SURVEYED BY DATE
 NOTE BOOK NO. DATE
 ALIGNMENT CHECKED BY DATE
 RT. OF WAY CHECKED BY DATE
 PAID FILE NAME NO.

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 Rosemont, Illinois 60018
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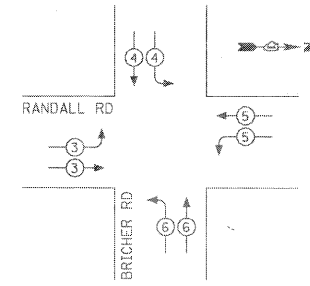
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 4 + 5	
B	= 6 + 7	

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	→	↓	←

NOTE:

EQUIPMENT GROUND CONDUCTOR (GREEN COLOR CODED) SPLICE TO FRAME AND COVER IS REQUIRED FOR ALL HANDHOLES OR DOUBLE HANDHOLES THAT CARRY SIGNAL CABLES AND SERVICE CABLES.

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. LAMPS	WATTAGE (INCANDESCENT)	OPERATION		
SIGNAL (RED)	12	135	19	0.50	202.00
YELLOW	12	135	25	0.25	27.00
GREEN	12	135	15	0.25	45.00
ARROW	12	135	12	0.10	38.40
P.F.D. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	700	100	1.00	100.00
ILLUM. SIGN	-	84	-	0.05	0
FLASHER	-	0.50	-	-	-
ENERGY COSTS TO CITY OF ST. CHARLES				TOTAL =	410.40

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	INCL FOUNDATIONS	3.5 (1.0)
B - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±-25'
F - M. ARM POLE	2 (0.6)	SIGNAL POST	2 (0.6)	BRACKET MOUNTED	26'±-35'±3"
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.3)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.3)	ELECTRIC SERVICE	13.5 (4.1)
		GROUNDING CABLE	1 (0.3)	RESERVE TO GROUND	10.5 (3.2)
				POST MOUNTED	6 (1.8)

CONSTRUCTION NOTES:

- REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY AND CABINET ENCLOSURE.
- UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.
- INSTALL NEW 50"X67" PAD FOR EXISTING UNINTERRUPTIBLE POWER SUPPLY.

SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
TERMINATE FIBER IN CABINET	EACH	6
MODIFY VIDEO PROCESSING UNIT	EACH	1
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPLICE FIBER IN CABINET	EACH	6
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO ENCODER, VIDEO DETECTION SYSTEM	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
⊖	⊖	8" (200mm) TRAFFIC SIGNAL SECTION
⊖	⊖	12" (300mm) TRAFFIC SIGNAL SECTION
⊖	⊖	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊖	⊖	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊖	⊖	CONTROLLER CABINET
⊖	⊖	SERVICE INSTALLATION
⊖	⊖	TELEPHONE CONNECTION
⊖	⊖	VEHICLE DETECTOR, INDUCTION LOOP
⊖	⊖	MAGNETIC DETECTOR
⊖	⊖	EMERGENCY VEHICLE LIGHT DETECTOR
⊖	⊖	CONFIRMATION BEACON
⊖	⊖	PUSHBUTTON DETECTOR
⊖	⊖	INDICATES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
⊖	⊖	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
⊖	⊖	RAILROAD CONTROL CABINET
⊖	⊖	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
⊖	⊖	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
⊖	⊖	GROUND ROD AT HANDHOLE SO, DOUBLE HANDHOLE SO, OR CONTROLLER SO
⊖	⊖	GROUND ROD AT POST (P) OR MAST ARM POLE END
⊖	⊖	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
⊖	⊖	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER GROUND
⊖	⊖	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 E-HALF" & SHIELD
⊖	⊖	VIDEO DETECTOR V/CONDUIT & POWER CABLES

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE
 RANDALL ROAD AND BRICHER ROAD
 GENEVA, ILLINOIS

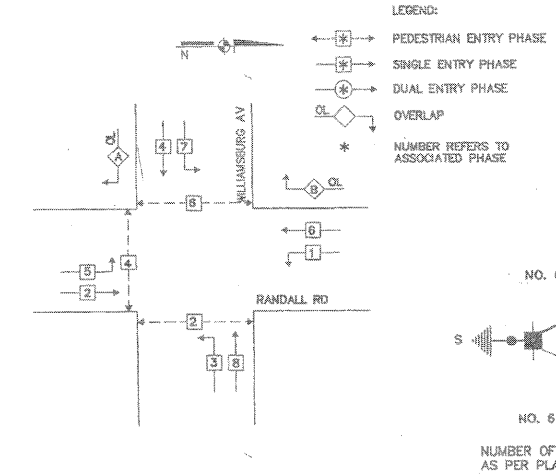
SCHEDULE OF QUANTITIES
 PHASE DESIGNATION DIAGRAM
 CABLE PLAN

MJD ENGINEERING
 3709 NORTH OKETO
 CHICAGO, ILLINOIS 60634 (773) 625-6565

REV. 5/28/03
 DATE: 7/29/02
 DRAWN: MJD
 DESIGN: MJD

DATE: _____ BY: _____
 SURVEYED: _____ GRADES CHECKED: _____
 ALIGNED: _____ P.T. OF WAY CHECKED: _____
 NOTE BOOK NO. _____ ADD FILE NAME: _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 822-0500

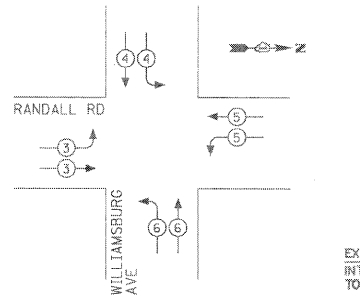
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 4 + 5	
B	= 6 + 7	

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	←	↔	↔

NOTE:
 EQUIPMENT GROUND CONDUCTOR (GREEN COLOR CODED) SPLICE TO FRAME AND COVER IS REQUIRED FOR ALL HANDLES OR DOUBLE HANDLES THAT CARRY SIGNAL CABLES AND SERVICE CABLES.

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	VOLTAGE	OPERATION		
SIGNAL GREEN	12	135	0.25		324.00
YELLOW	12	135	0.25		324.00
RED	12	135	0.25		324.00
ARROW	32	135	0.10		396.00
PED. SIGNAL	6	90	1.00		540.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	1	84	0.05		8.40
FLASHER					0.50
ENERGY COSTS TO CITY OF GENEVA					TOTAL = 310.40

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
B - CONTROLLER	4 (1.2)	DOUBLE HANDLE	13 (4.0)	PAST ARM (D) POLE	20 (6.1)
E - H. 48" PIP	2 (0.6)	SIGNAL POST	2 (0.6)		
24" (600mm) 10 (3.0)		CONTROL CAB.	1 (0.3)	BRACKET MOUNTED	13 (4.0)
30" (750mm) 13 (4.0)		FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.3)	RELAY TO SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.3)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
⊠	⊠	8" (200mm) TRAFFIC SIGNAL SECTION
⊠	⊠	12" (300mm) TRAFFIC SIGNAL SECTION
⊠	⊠	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊠	⊠	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊠	⊠	CONTROLLER CABINET
⊠	⊠	SERVICE INSTALLATION
⊠	⊠	TELEPHONE CONNECTION
⊠	⊠	VEHICLE DETECTOR, INDUCTIVE LOOP
⊠	⊠	MAGNETIC DETECTOR
⊠	⊠	EMERGENCY VEHICLE LIGHT DETECTOR
⊠	⊠	CONFIRMATION BEACON
⊠	⊠	PUSHBUTTON DETECTOR
⊠	⊠	INDICATES NUMBER OF CONDUCTORS
⊠	⊠	ALL CABLE NO. 14 EXCEPT AS INDICATED
⊠	⊠	ALL LOOP DETECTOR CABLE TO BE SHIELDED
⊠	⊠	SIGNAL FACE WITH BACKPLATE
⊠	⊠	⊠ INDICATES PROGRAMMED HEAD
⊠	⊠	RAILROAD CONTROL CABINET
⊠	⊠	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
⊠	⊠	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
⊠	⊠	GROUND ROD AT HANDLE GO, DOUBLE HANDLE GO, OR CONTROLLER (C)
⊠	⊠	GROUND ROD AT FIRST (P) OR LAST ARM POLE (GO)
⊠	⊠	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
⊠	⊠	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (6000)
⊠	⊠	FIBER OPTIC CABLE IN CONDUIT NO. 60.5/125 R-WH/EP & SHIELD
⊠	⊠	VIDEO DETECTOR W/COAXIAL & POWER CABLES

- NO. 6 CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
 - ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
 - REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
 - REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY AND CABINET ENCLOSURE.
 - UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.
 - INSTALL NEW 50"x67" PAD FOR EXISTING UNINTERRUPTIBLE POWER SUPPLY.
 - AUTOMATIC ENFORCEMENT CAMERAS ARE INSTALLED AT THIS INTERSECTION. THE CONTRACTOR MUST CONTACT THE CITY OF GENEVA'S ENGINEER TO COORDINATE ANY POTENTIAL IMPACTS THE MODIFICATIONS SHOWN ON THESE PLANS WILL HAVE TO THESE CAMERAS. CONTACT INFORMATION IS THE CITY OF GENEVA (630) 232-1503. THE RLR CAMERAS WILL BE DEACTIVATED WHILE THE TRAFFIC SIGNAL IS UNDER CONTRACTOR'S MAINTENANCE. THEY WILL BE RE-ACTIVATED AFTER THE TRANSFER FROM THE CONTRACTOR.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
TERMINATE FIBER IN CABINET	EACH	6
MODIFY VIDEO PROCESSING UNIT	EACH	1
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPLICE FIBER IN CABINET	EACH	6
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO ENCODER, VIDEO DETECTION SYSTEM	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

SCHEDULE OF QUANTITIES PHASE DESIGNATION DIAGRAM

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
TERMINATE FIBER IN CABINET	EACH	6
MODIFY VIDEO PROCESSING UNIT	EACH	1
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPLICE FIBER IN CABINET	EACH	6
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO ENCODER, VIDEO DETECTION SYSTEM	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

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 CHICAGO, ILLINOIS 60634 (773) 625-6565

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE
 RANDALL ROAD AND WILLIAMSBURG AV
 GENEVA, ILLINOIS

CONSTRUCTION NOTES:

- ① REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ ADD NEW UNINTERRUPTIBLE POWER SUPPLY..
- ④ REMOVE EXISTING SERVICE. INSTALL A NEW GROUND MOUNT SERVICE WITH METER.
- ⑤ INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM AND POLE IN THE NORTHEAST CORNER.

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.

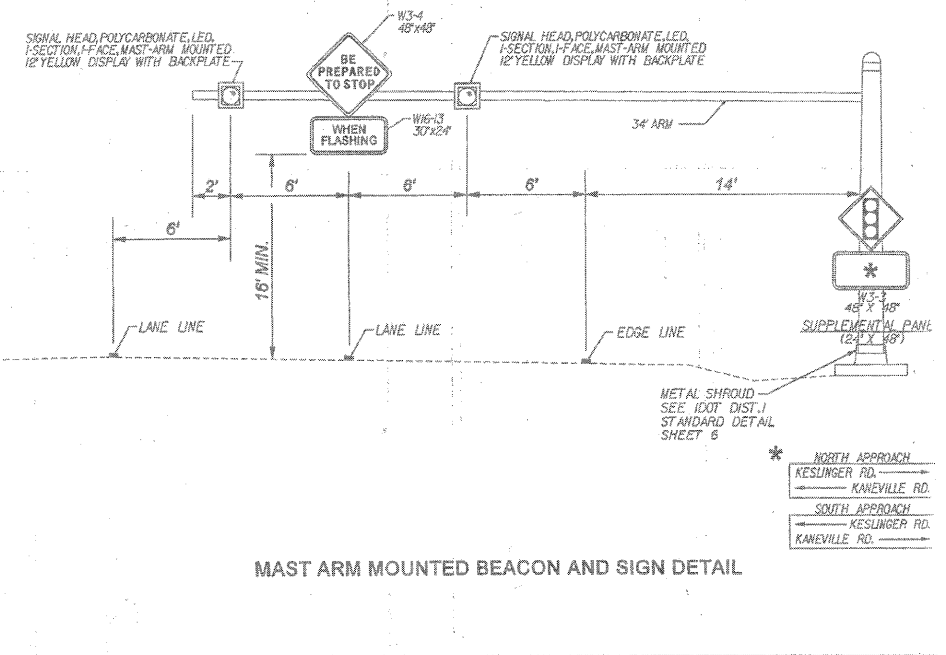
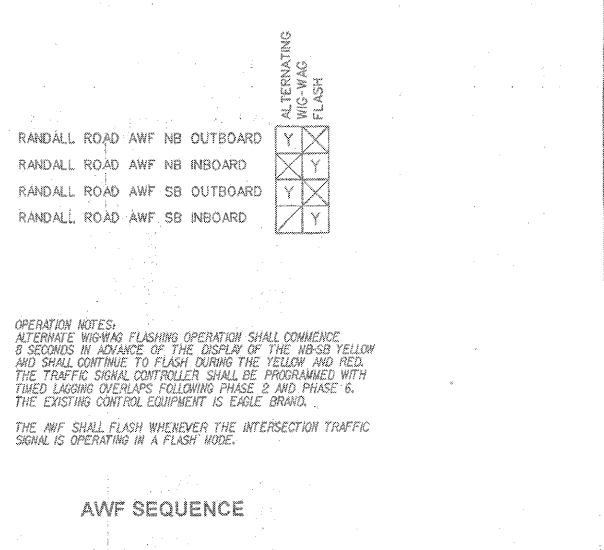
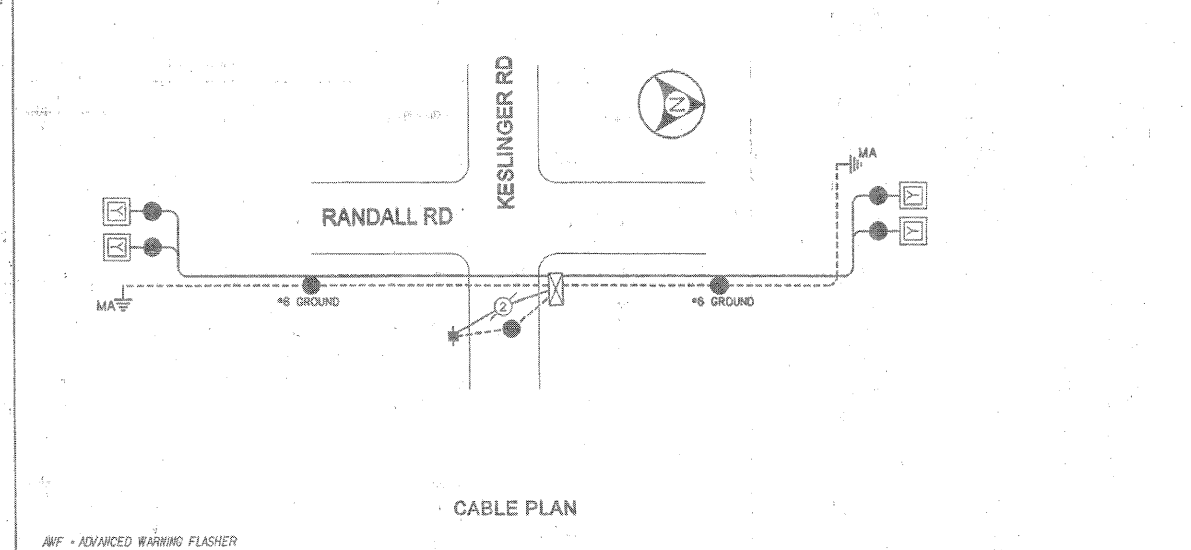
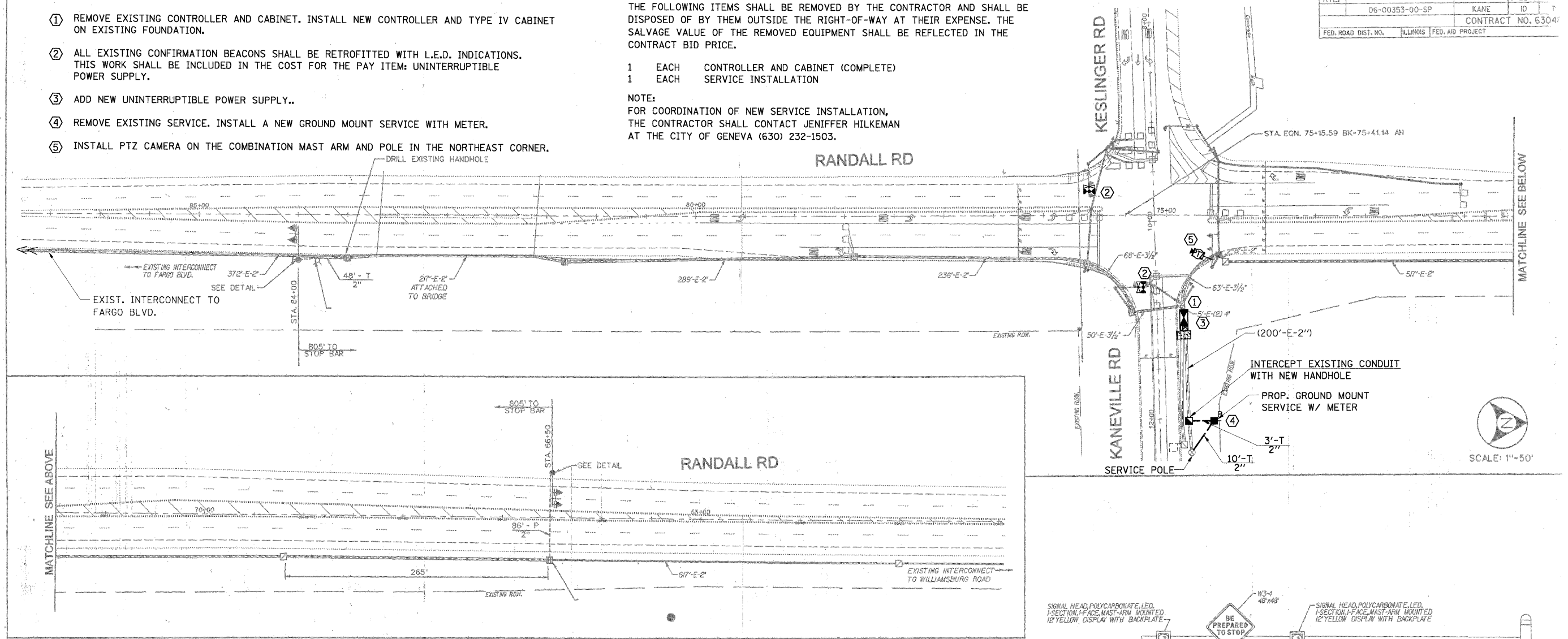
- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 1 EACH SERVICE INSTALLATION

NOTE:
FOR COORDINATION OF NEW SERVICE INSTALLATION, THE CONTRACTOR SHALL CONTACT JENIFFER HILKEMAN AT THE CITY OF GENEVA (630) 232-1503.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00353-00-SP	KANE	10	7
FED. ROAD DIST. NO.			CONTRACT NO. 6304	
ILLINOIS			FED. AID PROJECT	

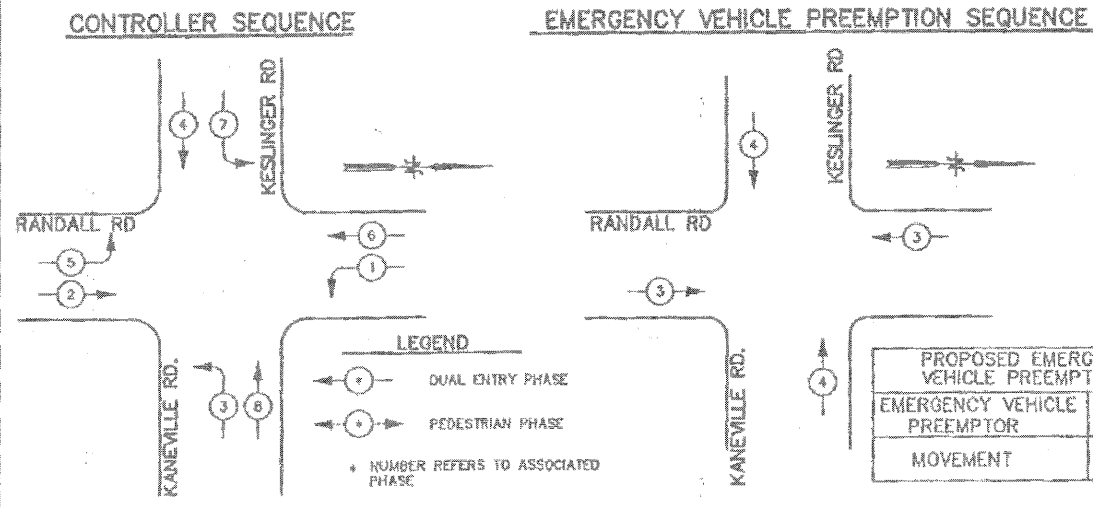
PROFILE SURVEYED BY DATE
 GRADES CHECKED BY DATE
 B.M. NOTED BY DATE
 STRUCTURE NOTATIONS CHECKED BY DATE
 PLAN SURVEYED BY DATE
 NOTE BOOK NO.
 PT. OF WAY CHECKED BY DATE
 ROAD FILE NAME

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (817) 825-0500



OPERATION NOTES:
ALTERNATE WIGWAG FLASHING OPERATION SHALL COMMENCE 8 SECONDS IN ADVANCE OF THE DISPLAY OF THE NB-SB YELLOW AND SHALL CONTINUE TO FLASH DURING THE YELLOW AND RED. THE TRAFFIC SIGNAL CONTROLLER SHALL BE PROGRAMMED WITH THE LAGGING OVERLAP FOLLOWING PHASE 3 AND PHASE 6. THE EXISTING CONTROL EQUIPMENT IS EAGLE BRAND.
THE AWF SHALL FLASH WHENEVER THE INTERSECTION TRAFFIC SIGNAL IS OPERATING IN A FLASH MODE.

	METRO TRANSPORTATION GROUP, INC. TRAFFIC ENGINEERING TRANSPORTATION PLANNING/ENGINEERING SIGNAL SYSTEMS/DESIGN	3100 W. HIGGINS ROAD, STE. 100 HOFFMAN ESTATES, IL 60169-2093 PH: 630.213.1000, FAX: 630.213.3227 www.metrotransportation.com	<table border="1"> <thead> <tr> <th colspan="2">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS		NO.	DESCRIPTION					MAST ARMS WITH BEACONS AND SIGNS PLAN KANE COUNTY, ILLINOIS	FILE NAME: 02_plan.dgn DATE: June 26, 2008 PROJECT NO.: H0702.06-100	SHEET NO.: 7 OF 7
	REVISIONS													
NO.	DESCRIPTION													

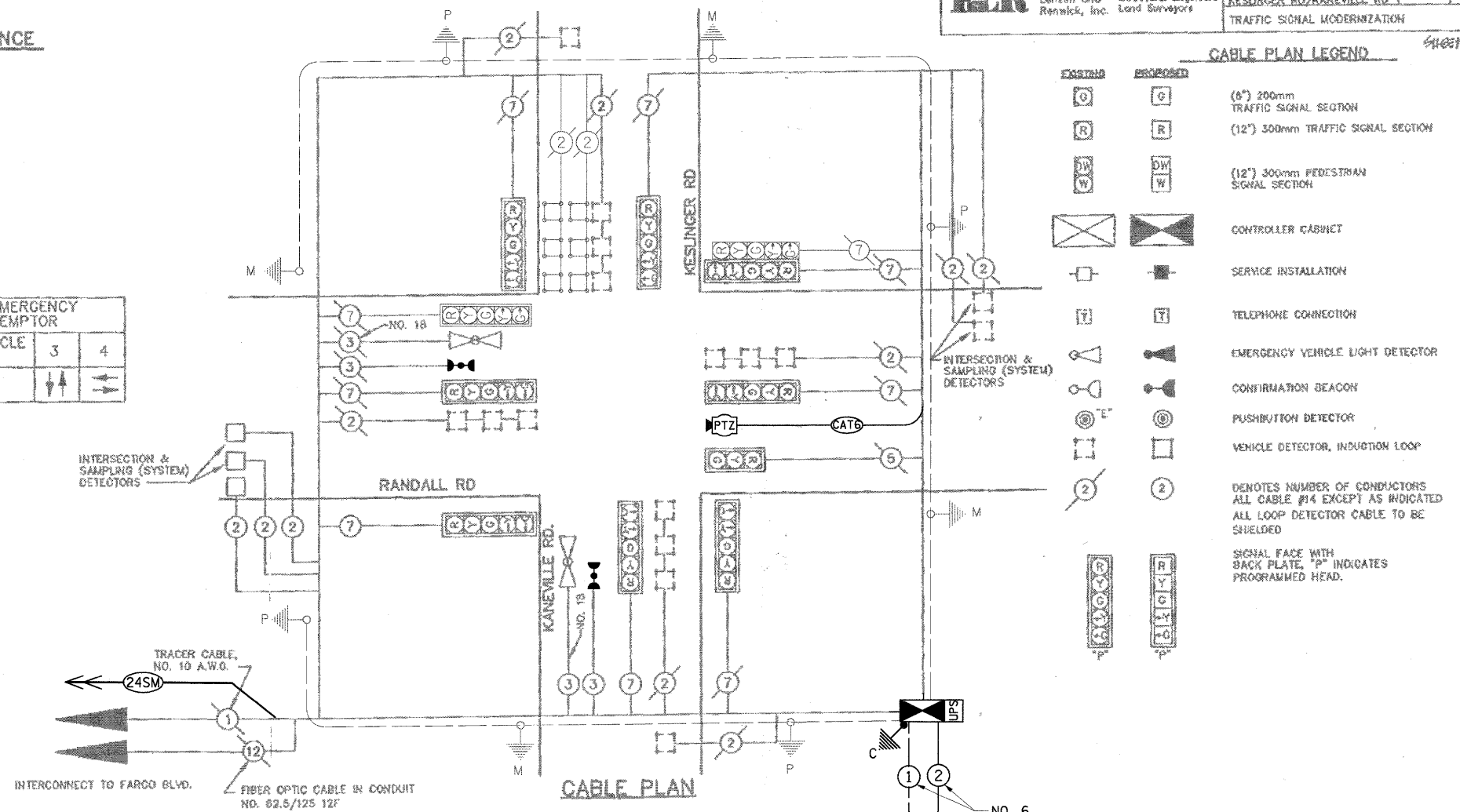
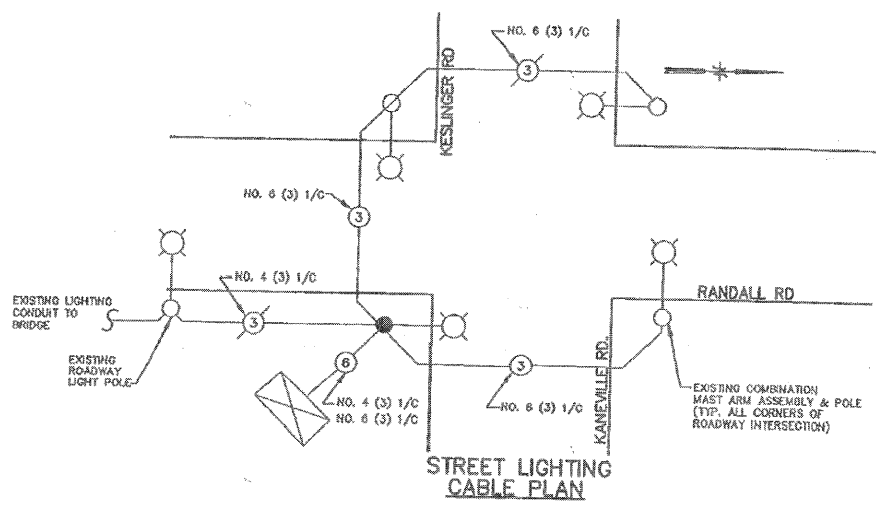


PHASE DESIGNATION DIAGRAM

CONSTRUCTION NOTES:

- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
- ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM; UNINTERRUPTIBLE POWER SUPPLY.
- ADD NEW UNINTERRUPTIBLE POWER SUPPLY..
- REMOVE EXISTING SERVICE. INSTALL A NEW GROUND MOUNT SERVICE WITH METER.
- INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM AND POLE IN THE NORTHEAST CORNER.

NOTE:
FOR COORDINATION OF NEW SERVICE INSTALLATION, THE CONTRACTOR SHALL CONTACT JENIFFER HILKEMAN AT THE CITY OF GENEVA (630) 232-1503.



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
○	○	(6") 200mm TRAFFIC SIGNAL SECTION
○	○	(12") 300mm TRAFFIC SIGNAL SECTION
○	○	(12") 300mm PEDESTRIAN SIGNAL SECTION
⊠	⊠	CONTROLLER CABINET
□	□	SERVICE INSTALLATION
⊞	⊞	TELEPHONE CONNECTION
⊞	⊞	EMERGENCY VEHICLE LIGHT DETECTOR
⊞	⊞	CONFIRMATION BEACON
⊞	⊞	PUSHBUTTON DETECTOR
⊞	⊞	VEHICLE DETECTOR, INDUCTION LOOP
②	②	DENOTES NUMBER OF CONDUCTORS ALL CABLE #14 EXCEPT AS INDICATED ALL LOOP DETECTOR CABLE TO BE SHIELDED
⊞	⊞	SIGNAL FACE WITH BACK PLATE, "P" INDICATES PROGRAMMED HEAD.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	13
HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	13
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	230
CONCRETE FOUNDATION, TYPE A	FOOT	4
INDUCTIVE LOOP DETECTOR	EACH	13
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	210
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1 C	FOOT	236
TERMINATE FIBER IN CABINET	EACH	6
SPLICE FIBER IN CABINET	EACH	6
OUTDOOR RATED NETWORK CABLE	FOOT	144
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

DIVISION OF TRANSPORTATION
CABLE PLAN
CONTROLLER SEQUENCE
SCHEDULE OF QUANTITIES

RANDALL RD & KESLINGER RD/KANEVILLE RD

SCALE: NONE
DATE: 3-31-00

DRAWN BY: RLS
CHECKED BY: DMH

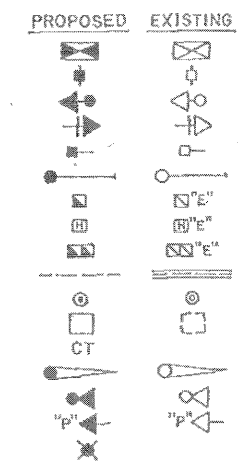
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 BY: _____
 SURVEYED: _____
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 P.L.M. DATE: _____
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 PLAN
 DATE: _____
 BY: _____
 SURVEYED: _____
 ALIGNMENT CHECKED: _____
 P.L.M. NOTED: _____
 P.L.M. DATE: _____
 NOTATION: CHFD
 NO. _____
 NOTE BOOK NO. _____
 DATE: _____
 BY: _____
 SURVEYED: _____
 ALIGNMENT CHECKED: _____
 P.L.M. NOTED: _____
 P.L.M. DATE: _____
 NOTATION: CHFD
 NO. _____
 NOTE BOOK NO. _____
 DATE: _____
 BY: _____
 SURVEYED: _____
 ALIGNMENT CHECKED: _____
 P.L.M. NOTED: _____
 P.L.M. DATE: _____
 NOTATION: CHFD
 NO. _____
 NOTE BOOK NO. _____
 DATE: _____
 BY: _____
 SURVEYED: _____
 ALIGNMENT CHECKED: _____
 P.L.M. NOTED: _____
 P.L.M. DATE: _____
 NOTATION: CHFD
 NO. _____

SURVEYED BY: DATE:
 ALIGNED BY: DATE:
 RT. OF WAY CHECKED BY: DATE:
 GOOD FILE NAME:
 PLAN NO.
 SURVEYED BY: DATE:
 GRADES CHECKED BY: DATE:
 B.M. NOTED BY: DATE:
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 PROFILE NO.

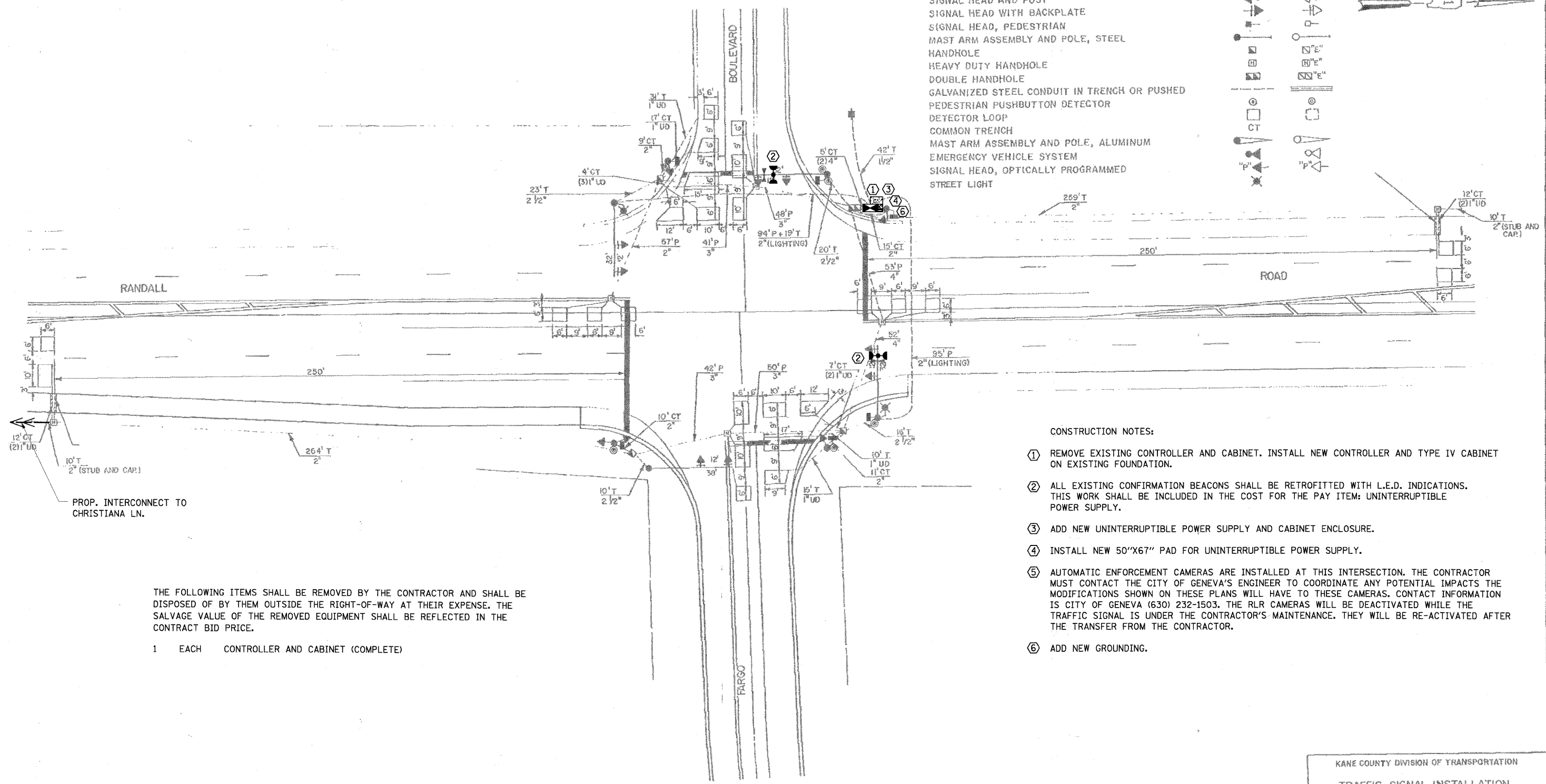
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (815) 823-0500

TRAFFIC SIGNAL LEGEND

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD AND POST
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- MAST ARM ASSEMBLY AND POLE, STEEL
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- COMMON TRENCH
- MAST ARM ASSEMBLY AND POLE, ALUMINUM
- EMERGENCY VEHICLE SYSTEM
- SIGNAL HEAD, OPTICALLY PROGRAMMED
- STREET LIGHT



SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
* KANE	KANE	9	3
STA. TO STA.		FED. AID DIST. NO. 1	
* 91-00203-03-TL		FED. AID PROJECT	



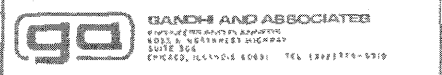
PROP. INTERCONNECT TO CHRISTIANA LN.

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 NOTES:

- ① REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ ADD NEW UNINTERRUPTIBLE POWER SUPPLY AND CABINET ENCLOSURE.
- ④ INSTALL NEW 50"X67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.
- ⑤ AUTOMATIC ENFORCEMENT CAMERAS ARE INSTALLED AT THIS INTERSECTION. THE CONTRACTOR MUST CONTACT THE CITY OF GENEVA'S ENGINEER TO COORDINATE ANY POTENTIAL IMPACTS THE MODIFICATIONS SHOWN ON THESE PLANS WILL HAVE TO THESE CAMERAS. CONTACT INFORMATION IS CITY OF GENEVA (630) 232-1503. THE RLR CAMERAS WILL BE DEACTIVATED WHILE THE TRAFFIC SIGNAL IS UNDER THE CONTRACTOR'S MAINTENANCE. THEY WILL BE RE-ACTIVATED AFTER THE TRANSFER FROM THE CONTRACTOR.
- ⑥ ADD NEW GROUNDING.



REVISIONS	
NAME	DATE

KANE COUNTY DIVISION OF TRANSPORTATION
TRAFFIC SIGNAL INSTALLATION
 RANDALL ROAD AT
 FARGO BOULEVARD
 SCALE: 1"=20'
 DATE: JANUARY 2, 1992
 DRAWN BY: STH
 CHECKED BY: PKG/AGP

FILE NAME = N:\kane\county\080673\1\Traffic\024-TSD-Randall	USER NAME = FPACIONE or-gov.dgn	DESIGNED - ABR	REVISOR -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN RANDALL ROAD AND FARGO BOULEVARD	F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 24
PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISOR -	SCALE: SHEET NO. OF SHEETS STA. -- TO STA. --			CONTRACT NO. 63525				
PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISOR -	ILLINOIS FED. AID PROJECT							

BY DATE
 SURVEYED ALIGNED CHECKED
 PLAN NOTE BOOK BY, OF WAY CHECKED
 NO. NO. NO. FILE NAME
 PROFILE SURVEYED GRADES CHECKED
 NO. NOTE BOOK BY, NOTED
 NO. NO. BY, STRUCTURE NOTATIONS CHFD

CHRISTOPHER B. BURKE ENGINEERING LTD.
 5075 West Higgins Road, Suite 600
 Bensenville, Illinois 60018
 (815) 823-9500

CONSTRUCTION NOTES:

- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
- ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ADD NEW UNINTERRUPTIBLE POWER SUPPLY AND CABINET ENCLOSURE.
- INSTALL NEW 50"X67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.
- AUTOMATIC ENFORCEMENT CAMERAS ARE INSTALLED AT THIS INTERSECTION. THE CONTRACTOR MUST CONTACT THE CITY OF GENEVA'S ENGINEER TO COORDINATE ANY POTENTIAL IMPACTS THE MODIFICATIONS SHOWN ON THESE PLANS WILL HAVE TO THESE CAMERAS. CONTACT INFORMATION IS CITY OF GENEVA (630) 232-1503. THE RLR CAMERAS WILL BE DEACTIVATED WHILE THE TRAFFIC SIGNAL IS UNDER THE CONTRACTOR'S MAINTENANCE. THEY WILL BE RE-ACTIVATED AFTER THE TRANSFER FROM THE CONTRACTOR.
- ADD NEW GROUNDING.

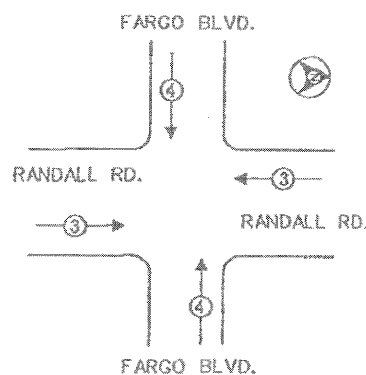
SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	8
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	7
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C	FOOT	657
TERMINATE FIBER IN CABINET	EACH	6
SPLICE FIBER IN CABINET	EACH	6
UPS BATTERY BACK-UP CABINET	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

CABLE PLAN LEGEND

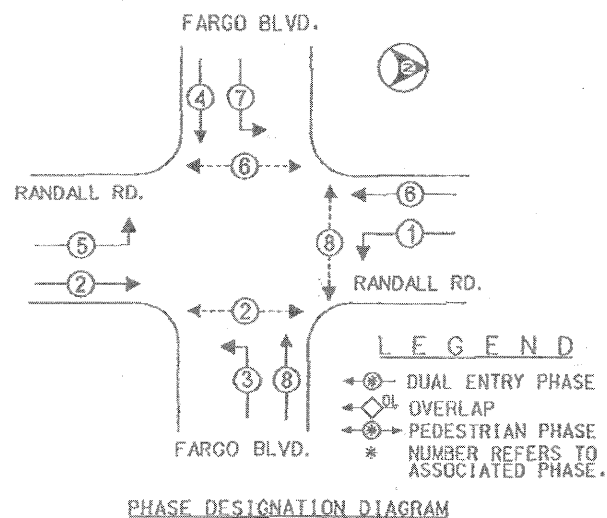
EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	8" (200MM) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300MM) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300MM) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	12" (300MM) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	VEHICLE DETECTOR, INDUCTIVE LOOP
[Symbol]	[Symbol]	MAGNETIC DETECTOR
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED HEAD
[Symbol]	[Symbol]	LUMINAIRE

EMERGENCY VEHICLE PREEMPTION SEQUENCE

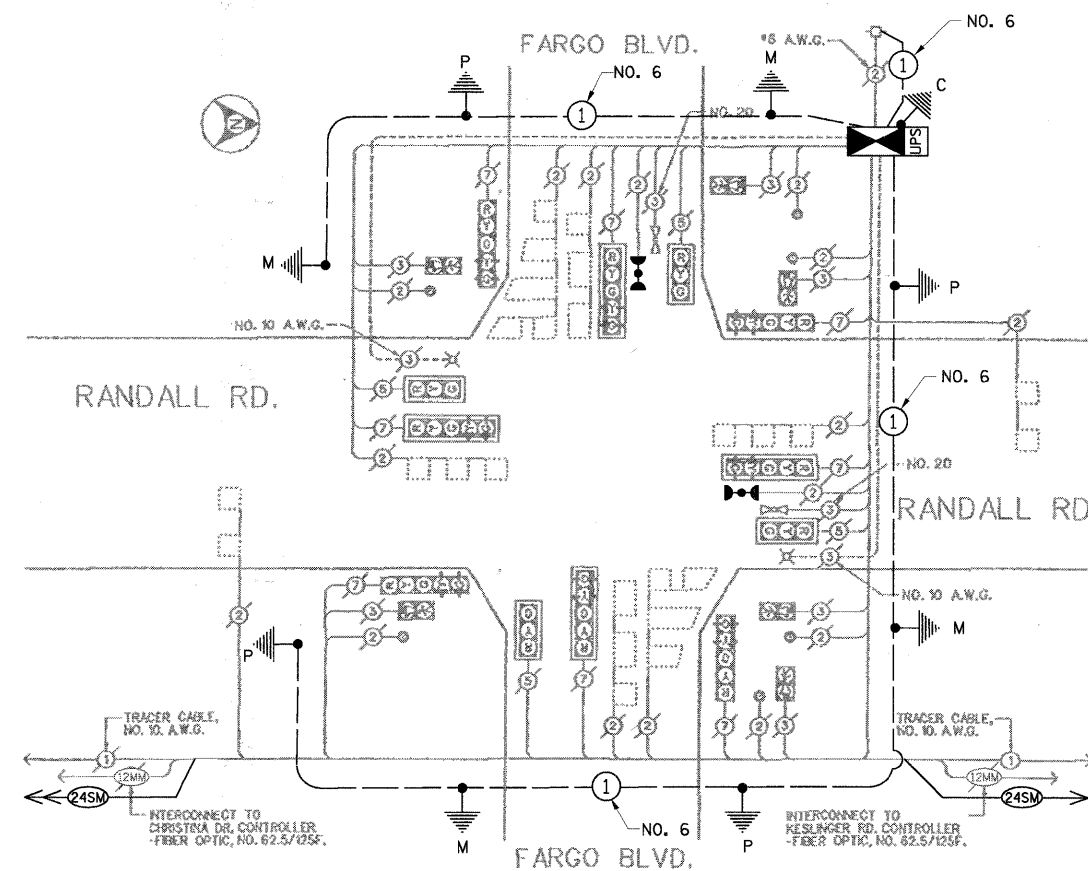


PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←→	↑↓

CONTROLLER SEQUENCE



CABLE PLAN



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT IS "EAGLE".



METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60103 PH# 630 213-1000

REVISIONS		
NO.	DATE	DESCRIPTION

CABLE PLAN, PHASE DESIGNATION DIAGRAM
 and SCHEDULE OF QUANTITIES
 RANDALL ROAD @ FARGO BLVD.
 GENEVA, ILLINOIS

FILE NAME: fargo_op.dgn	SHEET NO. 1
DATE: Apr 11 15, 1999	11
PROJECT NO. 1: 3857-00	OF 24

FILE NAME = N:\kane\county\080673\Traf\fo\025_CAB_Randall-	USER NAME = FPACTIONE	DESIGNED - ABR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE RANDALL ROAD AND FARGO BOULEVARD	F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 25		
		DRAWN - FCP	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA. -- TO STA. --	ILLINOIS FED. AID PROJECT			
		CHECKED - MJT	REVISED -			CONTRACT NO. 63525						
		DATE - AUGUST 31, 2010	REVISED -									

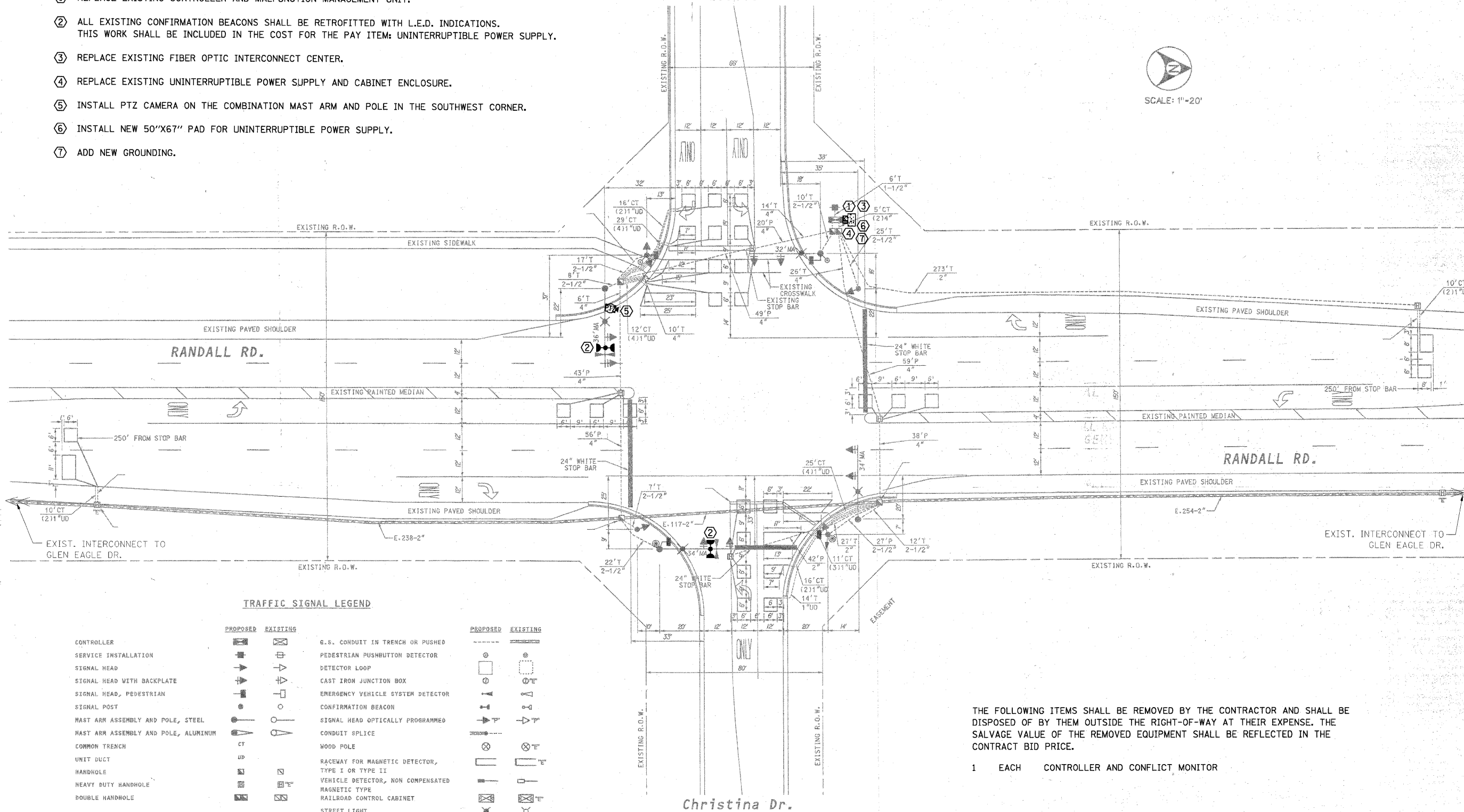
CONSTRUCTION NOTES:

- ① REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- ④ REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY AND CABINET ENCLOSURE.
- ⑤ INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM AND POLE IN THE SOUTHWEST CORNER.
- ⑥ INSTALL NEW 50"X67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.
- ⑦ ADD NEW GROUNDING.

Randall Square Shopping Center access



SCALE: 1"=20'



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]	G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]	PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]	DETECTOR LOOP	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]	CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]	CONFIRMATION BEACON	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]	SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]	CONDUIT SPLICE	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]	WOOD POLE	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]	RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]	VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]	RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]	STREET LIGHT	[Symbol]	[Symbol]

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 CONFLICT MONITOR



METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60103 PH# 630 213-1000

REVISIONS		
NO.	DATE	DESCRIPTION

SIGNAL INSTALLATION PLAN and GEOMETRIC PLAN
 RANDALL ROAD @ CHRISTINA DRIVE
 GENEVA, ILLINOIS

FILE NAME: 3517_ep.dgn	SHEET NO.: 4
DATE: MAY 22, 1998	01 08
PROJECT NO.: 3517-00	

FILE NAME = N:\kane\county\880673\Traffic\026_TSD_Randall\christina.dgn	USER NAME = FPAICONE	DESIGNED - ABR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN RANDALL ROAD AND CHRISTINA LANE	F.A.P. R.T.E. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 26	
PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISOR -				SCALE:	SHEET NO. OF SHEETS	STA. --	TO STA. --	CONTRACT NO. 63525	
PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010					ILLINOIS FED. AID PROJECT					

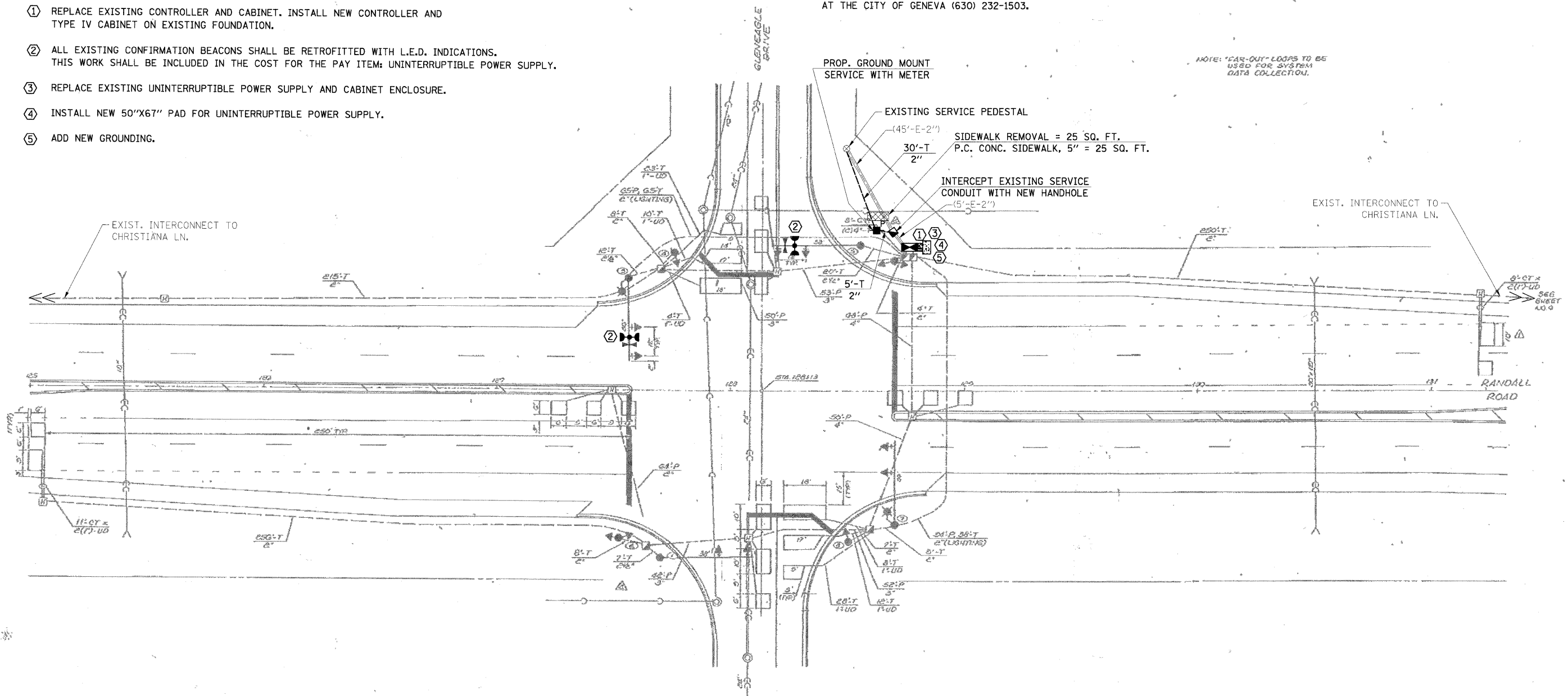
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 NOTE BOOK: [] FIT. OF WAY CHECKED: []
 NO. [] ADD FILE NAME: []
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Rosemead, Illinois 60018
 (815) 823-0500
CB
 DATE: [] BY: []
 SURVEYED: [] GRADES CHECKED: [] DATE: []
 NOTE BOOK: [] B.M. NOTED: []
 PLAN SURVEYED: [] ALIGNMENT CHECKED: [] DATE: []
 NOTE BOOK: [] FIT. OF WAY CHECKED: []
 NO. [] ADD FILE NAME: []

CONSTRUCTION NOTES:

- ① REPLACE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY AND CABINET ENCLOSURE.
- ④ INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.
- ⑤ ADD NEW GROUNDING.

NOTE:
FOR COORDINATION OF NEW SERVICE INSTALLATION,
THE CONTRACTOR SHALL CONTACT JENIFFER HILKEMAN
AT THE CITY OF GENEVA (630) 232-1503.

NOTE: "CAR-OUT" LOOPS TO BE
USED FOR SYSTEM
DATA COLLECTION.



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 CONFLICT MONITOR
- 1 EACH SERVICE INSTALLATION

PROFILE SURVEYED GRADES CHECKED ELEV. NOTED STRUCTURE NOTATIONS CHECKED
NOTE BOOK NO. _____
DATE _____ BY _____

PLAN SURVEYED ALIGNMENT CHECKED RT. OF WAY CHECKED ADD FILE NAME
NOTE BOOK NO. _____
DATE _____ BY _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Chicago, Illinois 60618
(847) 825-0580

PREPARED FOR:
GENEVAFIELD VENTURE AND
JOE KEIM LAND CORPORATION
301 EAST LONGFELLOW DRIVE
WHEATON, IL 60187

PREPARED BY:
CEMCON, Ltd.
Consulting Engineers, Land Surveyors & Planners
11131 COUNTY FARM ROAD
MINFIELD, ILLINOIS 60190
(708) 653-1030

REVISIONS		REVISIONS			
NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	2-9-08	REVISE PER CITY REVIEW			
2	3-7-08	REVISE PER KANE CO. P.O.T. REVIEW - LUMBER			
3	5-18-08	REV. PER IDOT REVIEW			

TRAFFIC SIGNAL PLAN

RANDALL ROAD @ GLENEAGLE DRIVE

FILE NAME: ---	DSGN. BY: BAC	JOB NO: 484.170	FLD. BK/PG: ---	SHEET NO. 3 of 8
DISC. NUMBER: ---	DRN. BY: JGC	DATE: 1-10-08	SCALE: 1"=20'	

FILE NAME = H:\kanecounty\080673\Traffic\028_TSD_Randall

USER NAME = FFCADINE
Ian Eagle.dgn
PLOT SCALE = NOT TO SCALE
PLOT DATE = 11/3/2010

DESIGNED - ABR
DRAWN - FCP
CHECKED - MJT
DATE - AUGUST 31, 2010

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

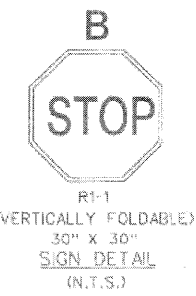
TRAFFIC SIGNAL MODERNIZATION PLAN
RANDALL ROAD AND GLEN EAGLE DRIVE

SCALE: SHEET NO. OF SHEETS STA. -- TO STA. --

F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 28
				CONTRACT NO. 63525
ILLINOIS FED. AID PROJECT				

RANDALL RD (C.H. 34)

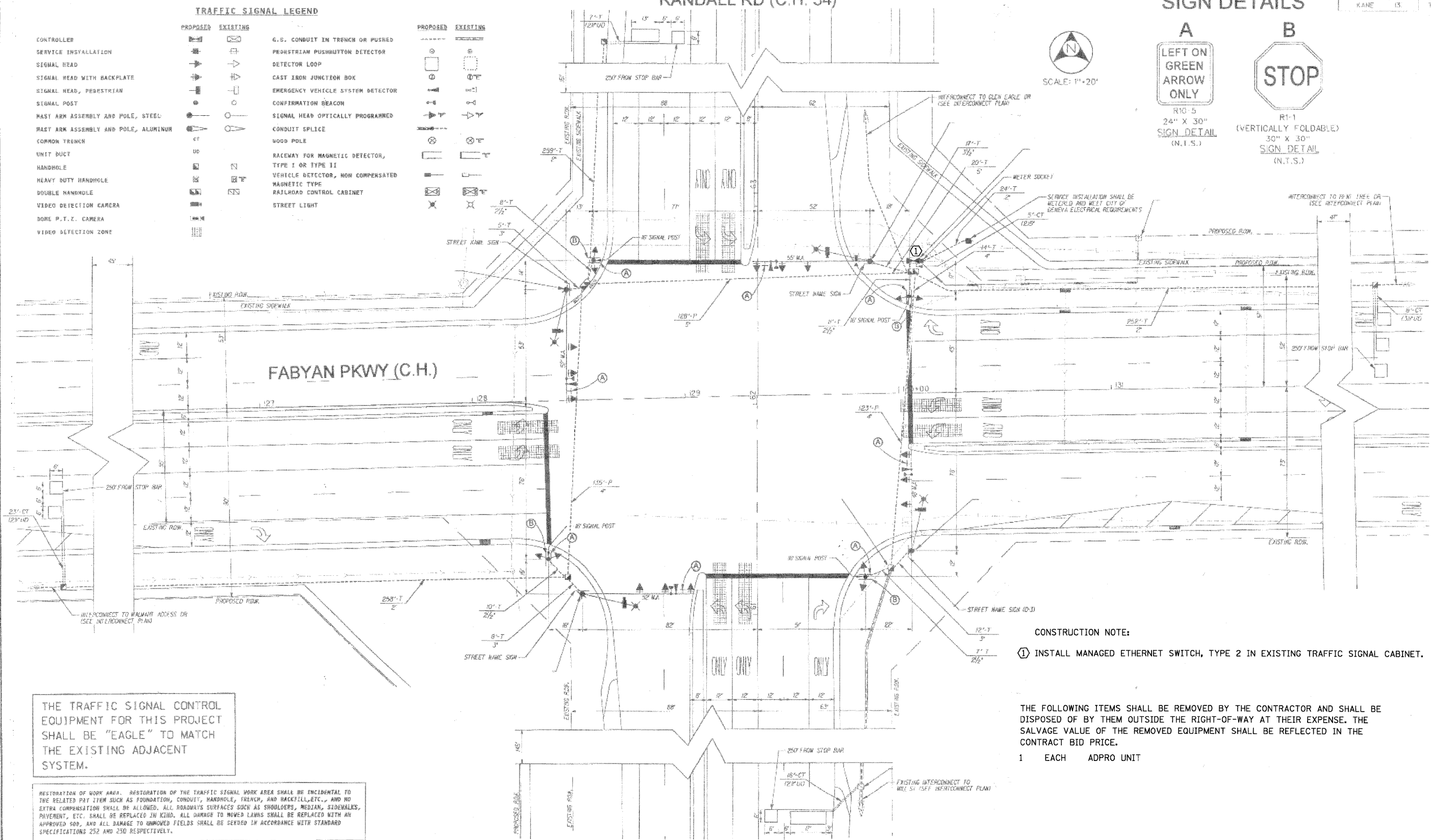
SIGN DETAILS



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER			G.S. CONDUIT IN TRENCH OR PUSHED		
SERVICE INSTALLATION			PEDESTRIAN PUSHBUTTON DETECTOR		
SIGNAL HEAD			DETECTOR LOOP		
SIGNAL HEAD WITH BACKPLATE			CAST IRON JUNCTION BOX		
SIGNAL HEAD, PEDESTRIAN			EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL POST			CONFIRMATION BEACON		
MAST ARM ASSEMBLY AND POLE, STEEL			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			CONDUIT SPLICE		
COMMON TRENCH			WOOD POLE		
UNIT DUCT			RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
HANDHOLE			VEHICLE DETECTOR, NON COMPENSATED		
HEAVY DUTY HANDHOLE			MAGNETIC TYPE		
DOUBLE HANDHOLE			RAILROAD CONTROL CABINET		
VIDEO DETECTION CAMERA			STREET LIGHT		
BONE P.T.Z. CAMERA					
VIDEO DETECTION ZONE					

FABYAN PKWY (C.H.)



CONSTRUCTION NOTE:

- ① INSTALL MANAGED ETHERNET SWITCH, TYPE 2 IN EXISTING TRAFFIC SIGNAL CABINET.

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

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH, AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALES, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOVED LAWS SHALL BE REPLACED WITH AN APPROVED SOP, AND ALL DAMAGE TO UNMOVED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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 ADPRO UNIT



METRO TRANSPORTATION GROUP, INC.
 TRAFFIC ENGINEERING, TRANSPORTATION PLANNING
 AND SIGNAL SYSTEMS/DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60133 PH# 630 213-1000

REVISIONS		
NO.	DATE	DESCRIPTION

TRAFFIC SIGNAL INSTALLATION PLAN

RANDALL RD (C.H. 34) @ FABYAN PKWY (C.H. 8)
 BATAVIA/GENEVA, ILLINOIS

FILE NAME:	10_00_1000.dgn
DATE:	JAN. 30, 2004
PROJECT NO.:	1-0302-26

PROFILE SURVEYED BY DATE
 NOTE BOOK NO. GRADES CHECKED BY DATE
 STRUCTURE NOTATIONS CHYD
 PLAN SURVEYED BY DATE
 NOTE BOOK NO. ALIGNMENT CHECKED BY DATE
 ROADWAY FILE NAME
 CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (630) 952-6500

CONSTRUCTION NOTE:

- ① INSTALL MANAGED ETHERNET SWITCH, TYPE 2 IN EXISTING TRAFFIC SIGNAL CONTROLLER.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	12
ETHERNET MANAGED SWITCH, TYPE 2	EACH	1

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

NOTE: ALL TRAFFIC SIGNAL POSTS, POLES, MAST ARM ASSEMBLY, CONTROLLER CABINET, SHROUDS, LIGHTING MAST ARMS AND LUMINAIRES SHALL BE POWDER COATED "DARK BRONZE."

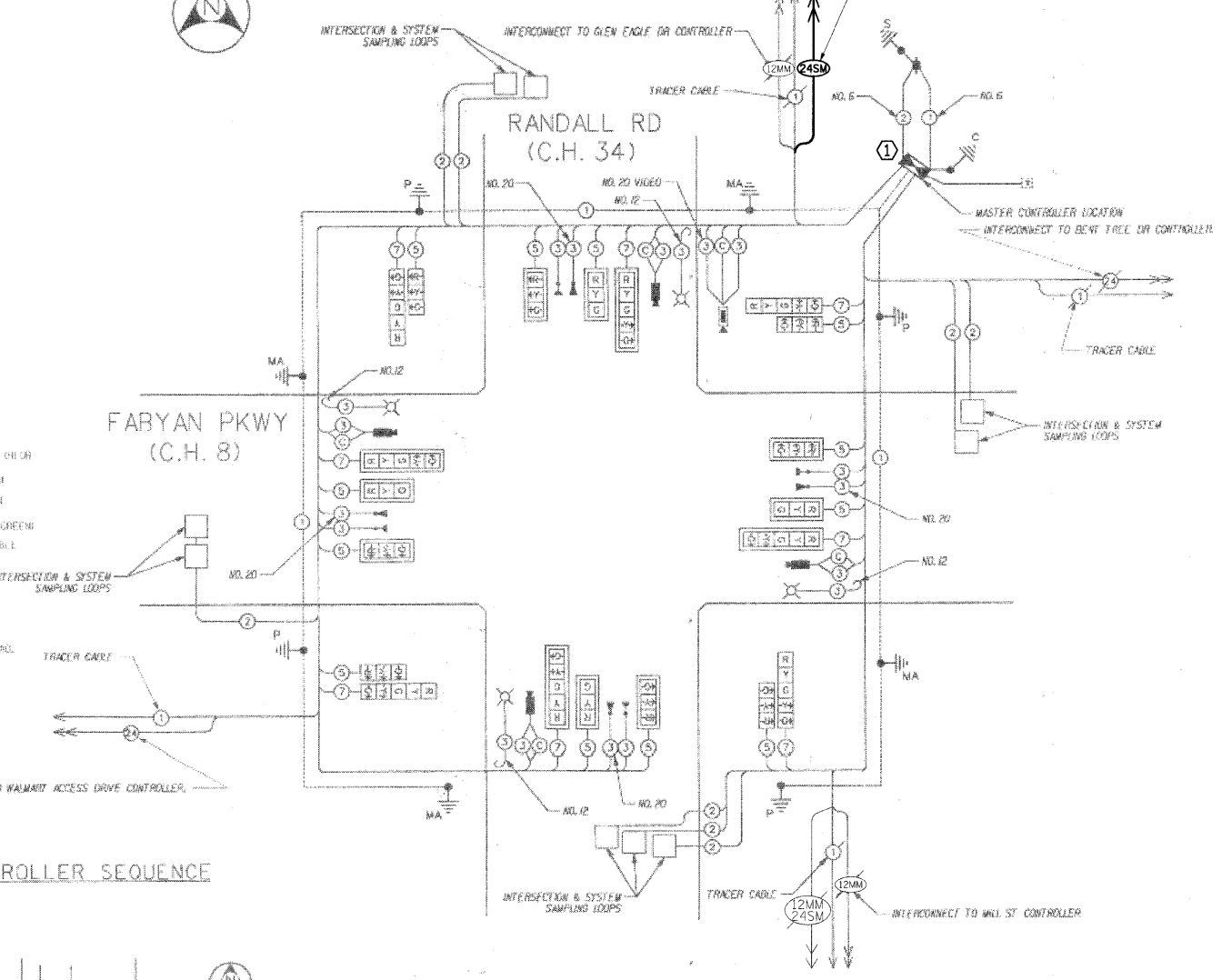
CABLE PLAN LEGEND

- 8" (200mm) TRAFFIC SIGNAL SECTION
- 12" (300mm) TRAFFIC SIGNAL SECTION
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- CONTROLLER CABINET
- SERVICE INSTALLATION
- TELEPHONE CONNECTION
- MAGNETIC DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- PUSHBUTTON DETECTOR
- VEHICLE DETECTOR, INDUCTION LOOP
- INDICATES NUMBER OF CONDUITS, BUT CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOPS OR PULLS SHOULD BE SHELDED.
- SIGNAL LAMP WITH BACKPLATE
- INDICATES PROGRAMMED HEAD
- RAILROAD CONTROL CABINET
- ILLUMINATED SIGNAL, FIBER OPTIC AND RIGHT TURN
- ILLUMINATED SIGNAL, FIBER OPTIC AND RIGHT TURN
- GROUND ROD AT HANDHOLE AND SERVICE HOLES ON OR UNDER PAVEMENT
- GROUND ROD AT EXISTING OR MAST ARM POLE ARM
- GROUND ROD AT ELECTRICAL SERVICE INSTALLATION
- GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER GREEN
- NO. 625/125 MM 287 & 281 (2) FIBER OPTIC CABLE
- AC 0282 COAXIAL CABLE
- VIDEO DETECTOR CAMERA
- COMP. P.U.T. CAMERA
- LUMINAIRE, SIGNAL SHROUD, MOUNT, PHOTO CELL, LIGHT, SUB W/ 120 V BALLAST

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



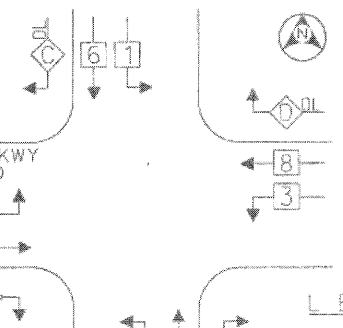
CABLE PLAN



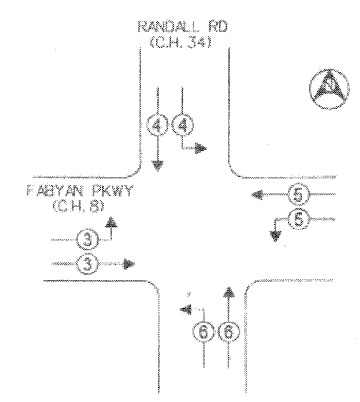
RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PROTECTED PHASE
A	3
B	5
C	7
D	1

CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



ALL INDICATIONS SHALL BE LED

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

LEGEND

- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE.

PHASE DESIGNATION DIAGRAM



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

TYPE	NO. OF LAMPS	WATTAGE	LED %	OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	20	135	17	0.50	170
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	32	135	12	0.10	39
PED. SIGNAL	90	25		1.00	100
CONTROLLER	1	100			100
ILLUM. SIGN	84			0.05	
LUMINAIRE	4	310		0.50	620
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 1049

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.1)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20' ± L-2 =
E - M ARM POLE		SIGNAL POST	2 (0.6)		(6.1 ± L-1.0) =
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.3)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.3)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.3)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

CITY OF GENEVA
1800 SOUTH ST
GENEVA, ILLINOIS 60134

ENERGY SUPPLY - CONTACT: MS. JENNIFER HILKEMAN
PHONE: (630) 232-1503
COMPANY: CITY OF GENEVA



METRO TRANSPORTATION GROUP, Inc.
TRAFFIC ENGINEERING, TRANSPORTATION PLANNING
AND SIGNAL SYSTEMS/DESIGN
1300 GREENBROOK, HANOVER PARK, IL 60133 PH# 630 213-1000

REVISIONS

NO.	DATE	DESCRIPTION

CABLE PLAN, PHASE DESIGNATION DIAGRAM
AND SCHEDULE OF QUANTITIES

RANDALL RD (C.H. 34) @ FABYAN PKWY (C.H. 8)
BATAVIA/GENEVA, ILLINOIS

FILE NAME: 11_gp_ran_dgn
DATE: JAN. 30, 2004
PROJECT NO.: H0502-26

DATE BY DATE BY DATE BY
PLAN SURVEYED BY: CHRISTOPHER B. BURKE
NOTE BOOK NO.: 9575 West Higgins Road, Suite 600
ROSEMONT, ILLINOIS 60018
(847) 823-0500
PROFILE SURVEYED BY: CHRISTOPHER B. BURKE
NOTE BOOK NO.: 9575 West Higgins Road, Suite 600
ROSEMONT, ILLINOIS 60018
(847) 823-0500

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____ CHECKED: _____
 PLAN: _____ NO. OF WAY CHECKED: _____
 NOTE BOOK: _____ NO. _____
 FILE: _____ NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500
 DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____ CHECKED: _____
 PROFILE: _____ NO. OF WAY CHECKED: _____
 NOTE BOOK: _____ NO. _____
 FILE: _____ NO. _____

CONSTRUCTION NOTES:

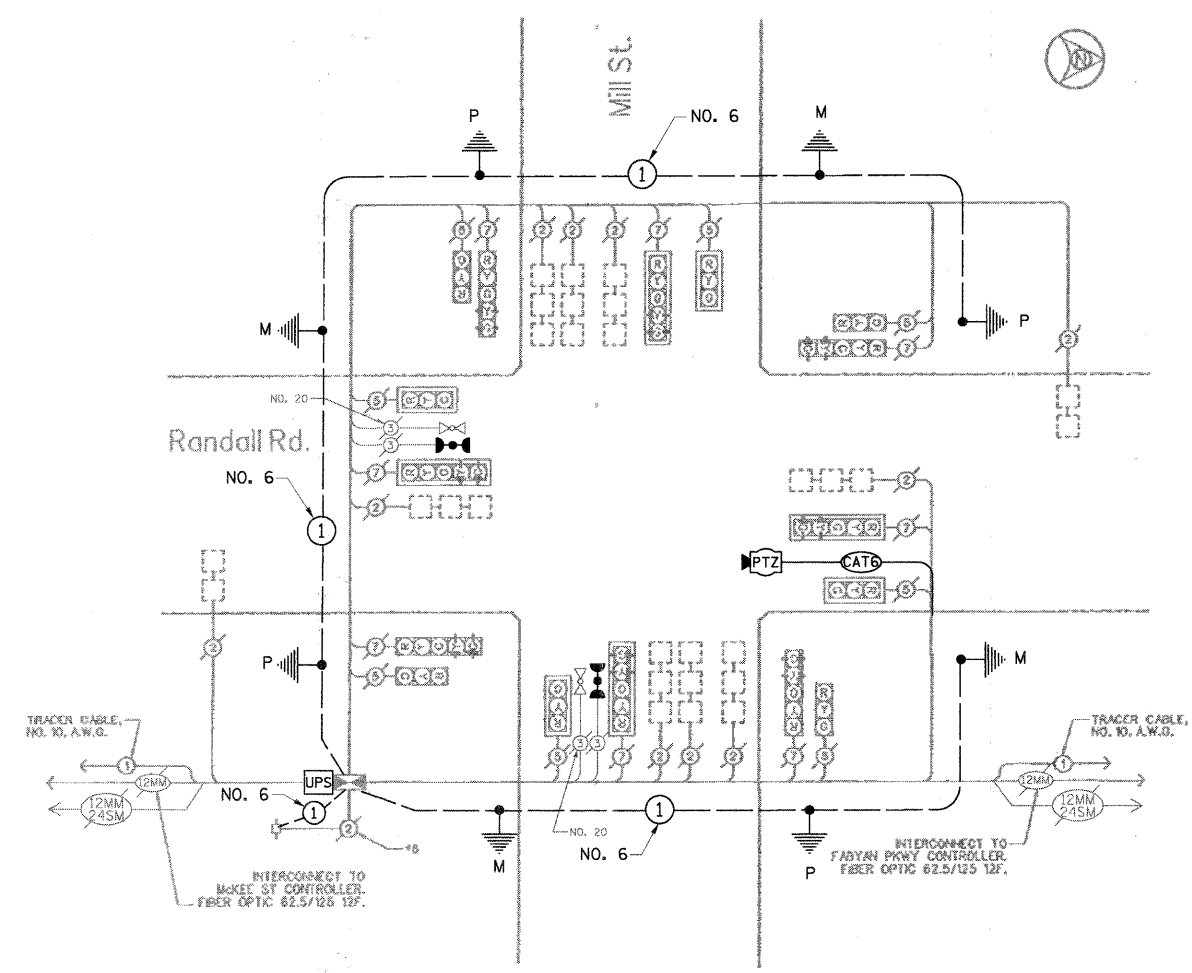
- ① REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- ④ ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
- ⑤ INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM AND POLE IN THE NORTHEAST CORNER.
- ⑥ INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.
- ⑦ ADD NEW GROUNDING.

SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	8
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C	FOOT	668
TERMINATE FIBER IN CABINET	EACH	6
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPLICE FIBER IN CABINET	EACH	6
OUTDOOR RATED NETWORK CABLE	FOOT	189
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

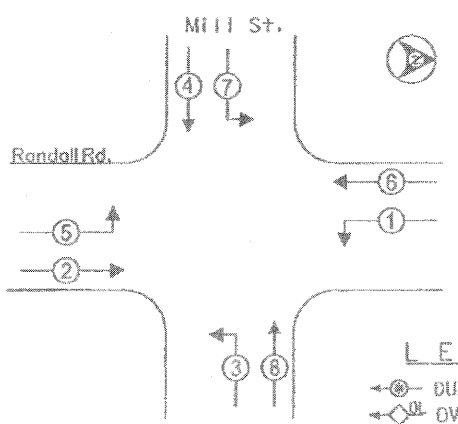
CABLE PLAN LEGEND

- | | |
|--|---|
| | 6' (200MM) TRAFFIC SIGNAL SECTION |
| | 12' (300MM) TRAFFIC SIGNAL SECTION |
| | 12' (300MM) PEDESTRIAN SIGNAL SECTION |
| | 12' (300MM) PEDESTRIAN SIGNAL SECTION |
| | CONTROLLER CABINET |
| | SERVICE INSTALLATION |
| | VEHICLE DETECTOR, INDUCTION LOOP |
| | MAGNETIC DETECTOR |
| | EMERGENCY VEHICLE LIGHT DETECTOR |
| | CONFIRMATION BEACON |
| | PUSH/BUTTON DETECTOR |
| | DETECTORS NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | LUMINAIRE |

CABLE PLAN



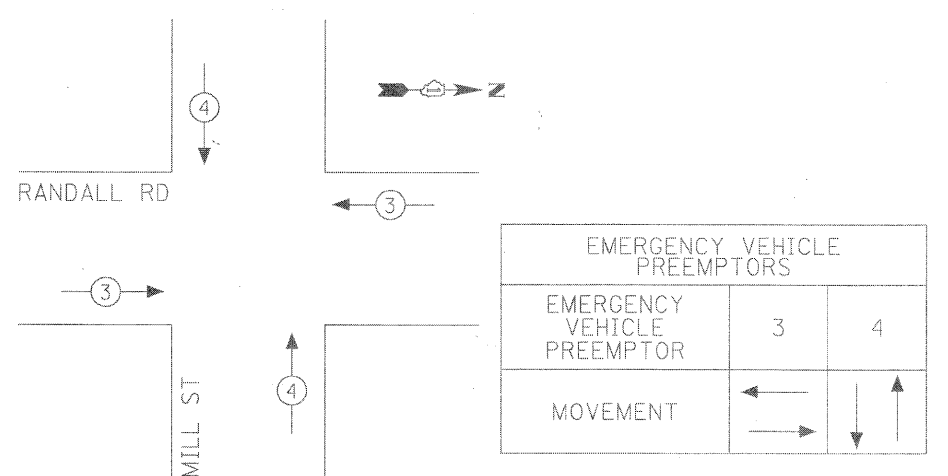
CONTROLLER SEQUENCE



LEGEND

- ⊕ DUAL ENTRY PHASE
- ⊕ OVERLAP
- ⊕ PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE.

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

NOTE: EQUIPMENT SUBSTITUTION WILL NOT BE ALLOWED



METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60103 PH# 630 213-1000

REVISIONS		
NO.	DATE	DESCRIPTION
1	04/15/99	ADD INTERCONNECT

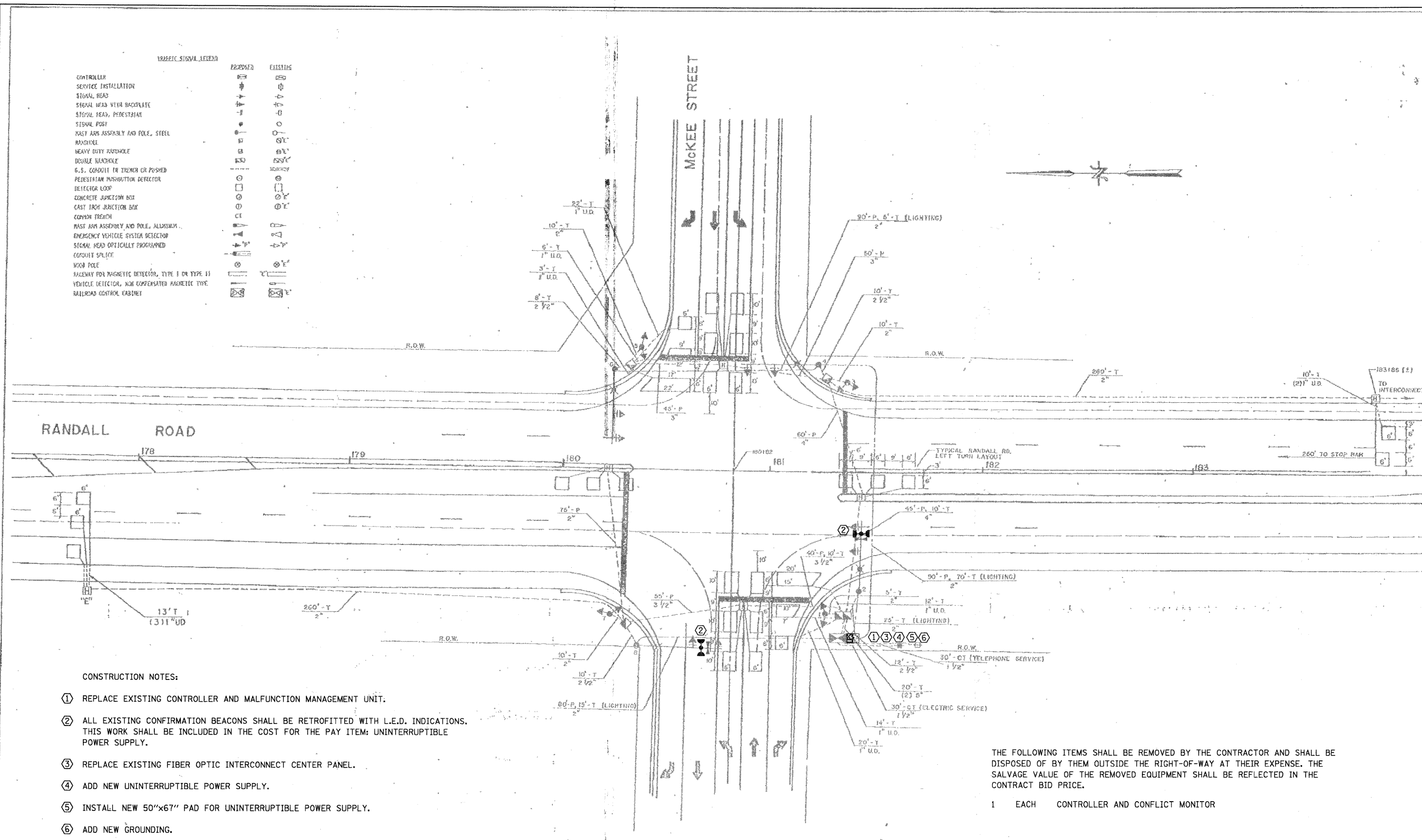
CABLE PLAN, PHASE DESIGNATION DIAGRAM and SCHEDULE OF QUANTITIES
 RANDALL RD. @ MILL ST
 BATAVIA, ILLINOIS

FILE NAME: mill_op.dgn	SHEET NO.: 7
DATE: Apr 11 15 1999	OF 24
PROJECT NO.: 3857-00	

SURVEYED BY DATE
 PLOTTED BY DATE
 CHECKED BY DATE
 NOTE BOOK NO.
 STRUCTURAL NOTATIONS OK'D
 PROFILE
 SURVEYED BY DATE
 PLOTTED BY DATE
 CHECKED BY DATE
 NOTE BOOK NO.
 STRUCTURAL NOTATIONS OK'D

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

TRAFFIC SIGNAL LEGEND	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
PAST ARM ASSEMBLY AND POLE, STEEL		
MANHOLE		
HEAVY DUTY MANHOLE		
DOUBLE MANHOLE		
G.S. CONDUIT OR TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CONCRETE JUNCTION BOX		
CAST IRON JUNCTION BOX		
CONCRETE TRENCH		
PAST ARM ASSEMBLY AND POLE, ALUMINUM		
EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
RAILWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		



CONSTRUCTION NOTES:

- ① REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER PANEL.
- ④ ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
- ⑤ INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.
- ⑥ ADD NEW GROUNDING.

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 CONFLICT MONITOR



METRO TRANSPORTATION GROUP, INC.

TRANSPORTATION PLANNING, ENGINEERING AND DESIGN

1300 GREENBROOK MANAGER PARK, SUITE 430, CHICAGO, ILLINOIS 60606

REVISIONS

NO.	DATE	DESCRIPTION
1	04/15/99	ADD INTERCONNECT

SIGNAL MODIFICATION PLAN

RANDALL RD. @ MCKEE ST

FILE NAME: mckee.sd.dgn	SHEET NO. 5
DATE: April 15, 1999	

FILE NAME = McKeeCounty\898673\Traffic\834.TSD.Randall-Mckee.dgn	USER NAME = FPACONE
PLOT SCALE = NOT TO SCALE	PLOT DATE = 11/3/2010

DESIGNED - ABR	REVISIONS -
DRAWN - FCP / FPB	REVISIONS -
CHECKED - MJT	REVISIONS -
DATE - AUGUST 31, 2010	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN
RANDALL ROAD AND MCKEE STREET

SCALE: SHEET NO. OF SHEETS STA. -- TO STA. --

F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 34
CONTRACT NO. 63525				
ILLINOIS FED. AID PROJECT				

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 PROFILE: _____ NOTE BOOK: _____
 STRUCTURE: _____ NOTATIONS: CHKD _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600,
 Rosemont, Illinois 60018
 (847) 823-0500

CONSTRUCTION NOTES:

- ① REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER PANEL.
- ④ ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
- ⑤ INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.
- ⑥ ADD NEW GROUNDING.

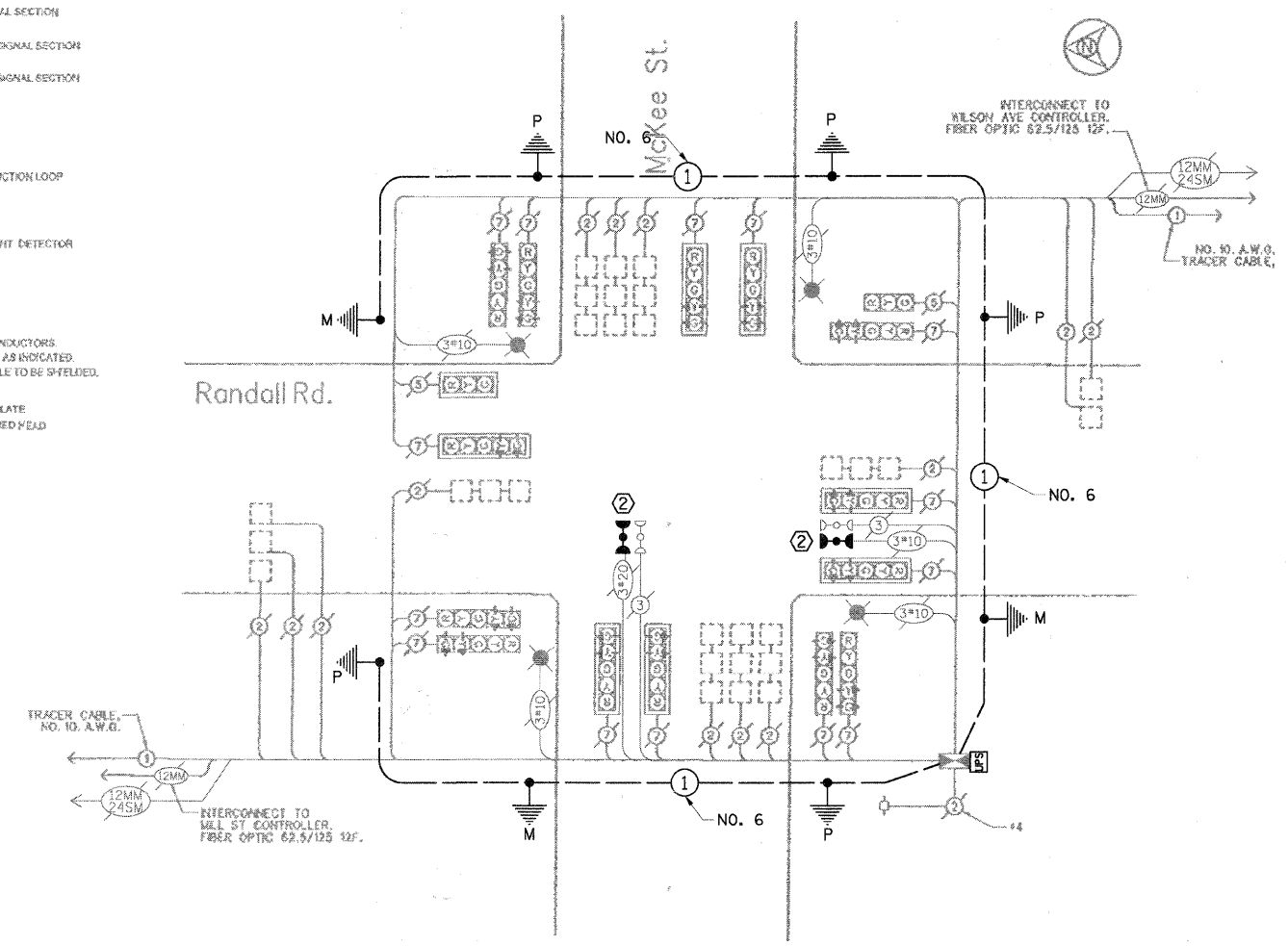
SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	8
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C	FOOT	606
TERMINATE FIBER IN CABINET	EACH	6
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPLICE FIBER IN CABINET	EACH	6
UPS BATTERY BACK-UP CABINET	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

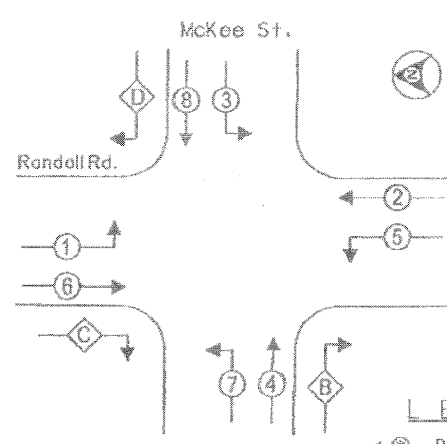
CABLE PLAN LEGEND

- | | | |
|--|--|--|
| | | 8' (200MM) TRAFFIC SIGNAL SECTION |
| | | 12' (300MM) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | DENOTES NUMBER OF CONDUCTORS
ALL CABLE NO. 14 EXCEPT AS INDICATED.
ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | SIGNAL FACE WITH BAGPLATE
"P" INDICATES PROGRAMMED FIELD |
| | | LUMINAIRE |

CABLE PLAN



CONTROLLER SEQUENCE



LEGEND

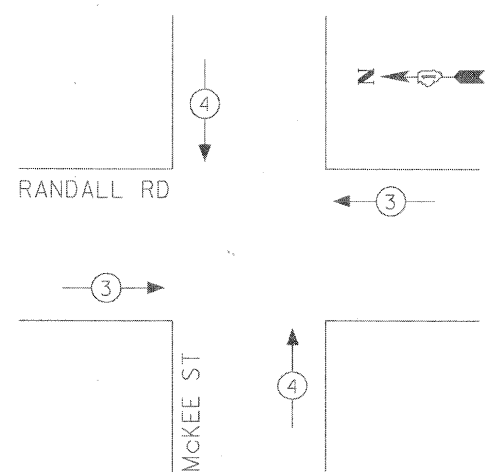
- DUAL ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE.

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	4	5
C	6	7
D	8	1

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↓

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



METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60103 PH# 630 213-1000

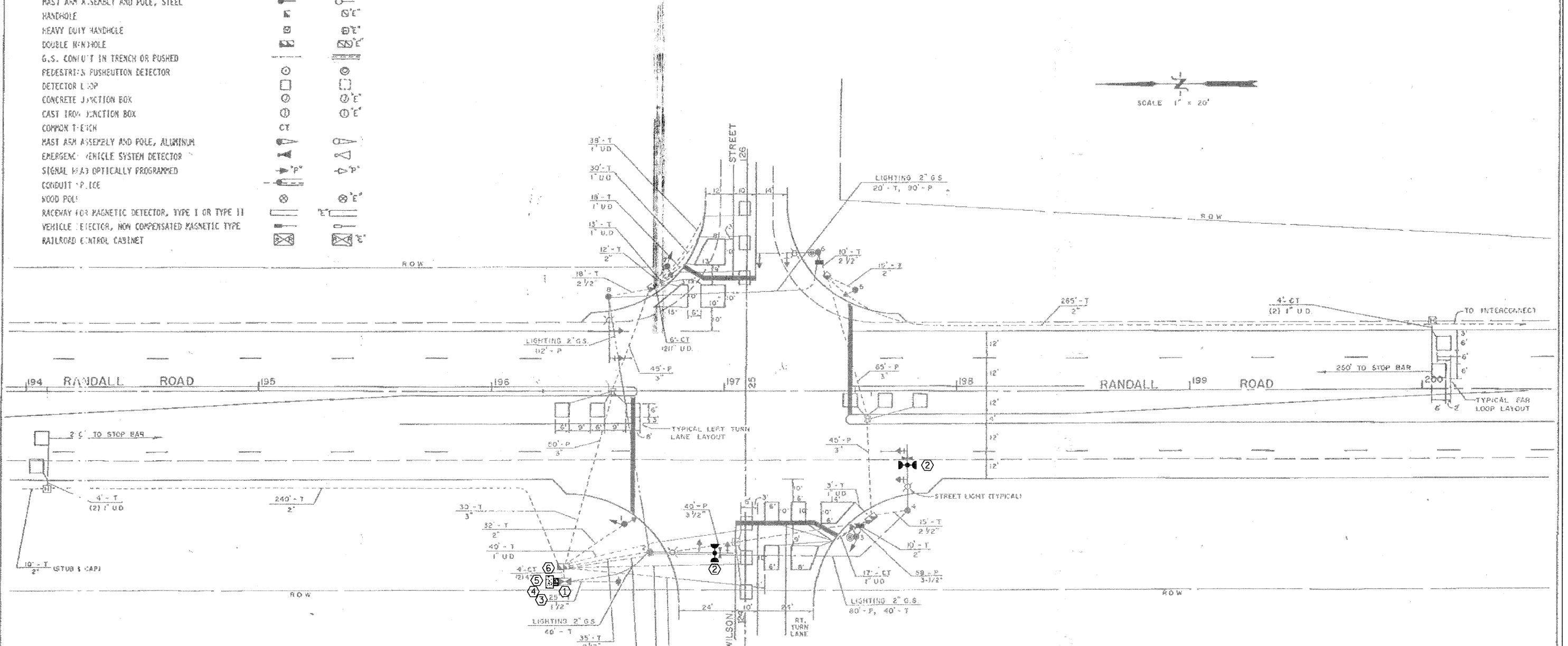
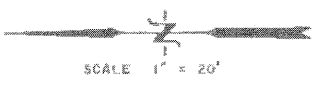
REVISIONS		
NO.	DATE	DESCRIPTION
X	04/15/99	ADD INTERCONNECT

CABLE PLAN, PHASE DESIGNATION DIAGRAM and SCHEDULE OF QUANTITIES
 RANDALL RD. @ MCKEE ST
 BATAVIA, ILLINOIS

FILE NAME: mckee.op.dgn	SHEET NO.: 6
DATE: Apr 15, 1999	DE 24
PROJECT NO.: 3857-00	

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL H.A.I.		
SIGNAL H.A.I. WITH BACKPLATE		
SIGNAL H.A.I., PEDESTRIAN		
SIGNAL P.S.		
MAST ARM ASSEMBLY AND POLE, STEEL		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CONCRETE JUNCTION BOX		
CAST IRON JUNCTION BOX		
COMMON TRENCH		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL H.A.I. OPTICALLY PROGRAMMED		
CONDUIT P.O.L.C.E.		
WOOD POLE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RAILROAD CONTROL CABINET		



CONSTRUCTION NOTES:

- ① REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- ④ ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
- ⑤ INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.
- ⑥ ADD NEW GROUNDING.

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 CONFLICT MONITOR

REVISIONS		TRAFFIC SIGNAL PLAN	
DATE	BY		
12-8-89	HON	RANDALL ROAD AT WILSON STREET	

SCALE: 1" = 20'
DATE: 9-15-89

DRAWN BY: KAG
CHECKED BY: HDN

DATE	BY
DATE	BY

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

DATE	BY

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____ CHECKED: _____
 PLAN NO. _____ FILE NAME: _____
 PROFILE: _____ DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____ CHECKED: _____
 NOTE BOOK NO. _____ STRUCTURE NOTATION: _____

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 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

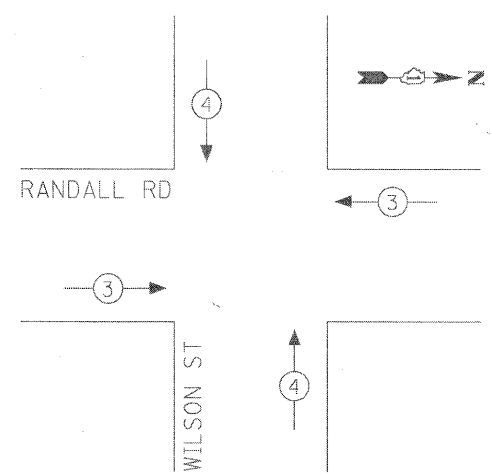
CONSTRUCTION NOTES:

- ① REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- ④ ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
- ⑤ INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.
- ⑥ ADD NEW GROUNDING.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	8
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C	FOOT	714
TERMINATE FIBER IN CABINET	EACH	6
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPLICE FIBER IN CABINET	EACH	6
UPS BATTERY BACK-UP CABINET	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

EMERGENCY VEHICLE PREEMPTION SEQUENCE

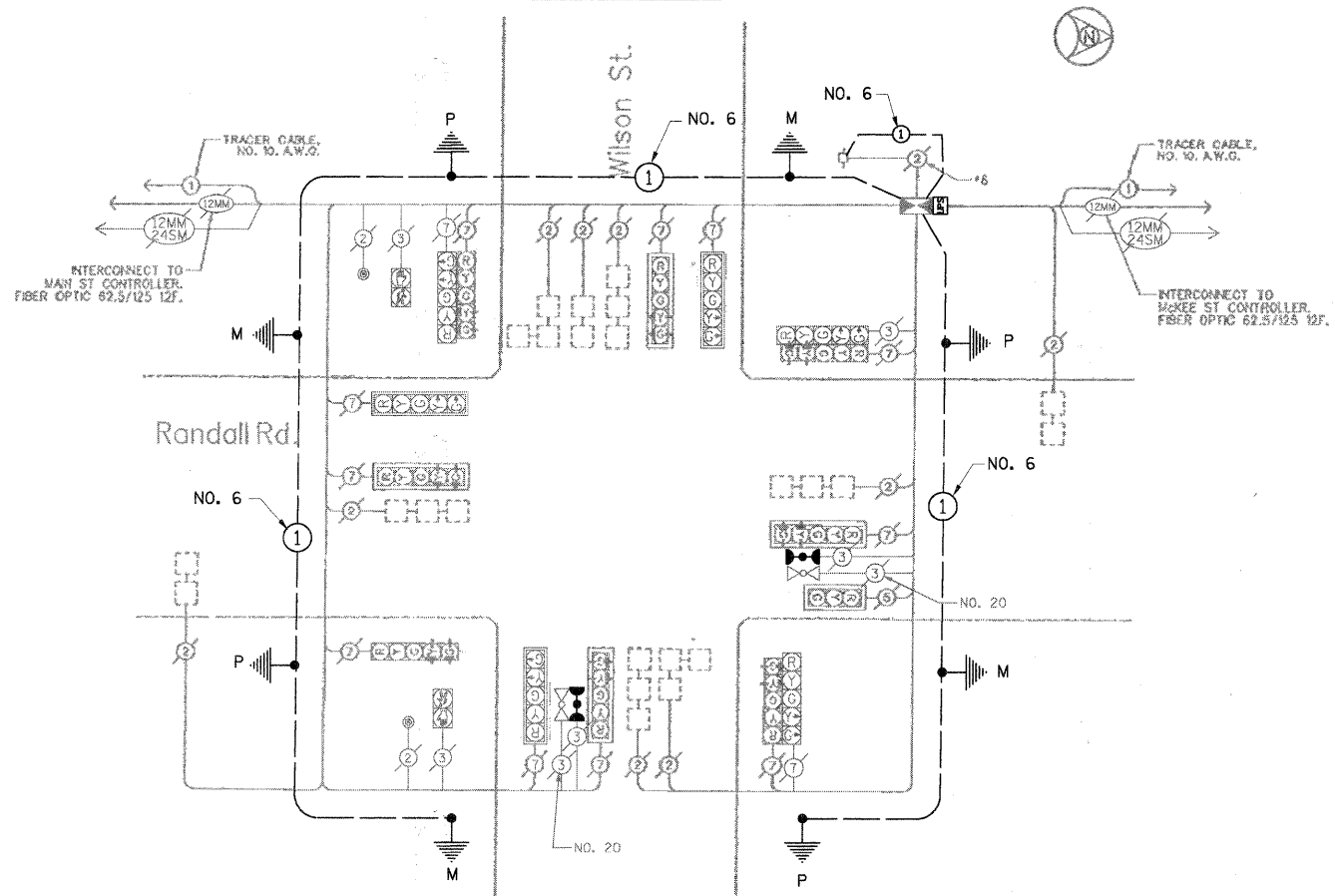


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↓

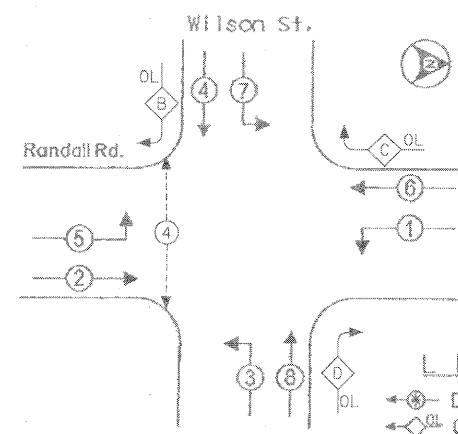
CABLE PLAN LEGEND

- | | | |
|--|--|---------------------------------------|
| | | 8' (200MM) TRAFFIC SIGNAL SECTION |
| | | 12' (300MM) TRAFFIC SIGNAL SECTION |
| | | 12' (300MM) PEDESTRIAN SIGNAL SECTION |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | VEHICLE DETECTOR INDUCTION LOOP |
| | | MAGNETIC DETECTOR |

CABLE PLAN



CONTROLLER SEQUENCE



OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
C	= 6	+ 7
D	= 8	+ 1

LEGEND

- ⊕ DUAL ENTRY PHASE
- ⊖ OVERLAP
- ⊙ PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE.

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

PHASE DESIGNATION DIAGRAM



METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60103 PH# 630 213-1000

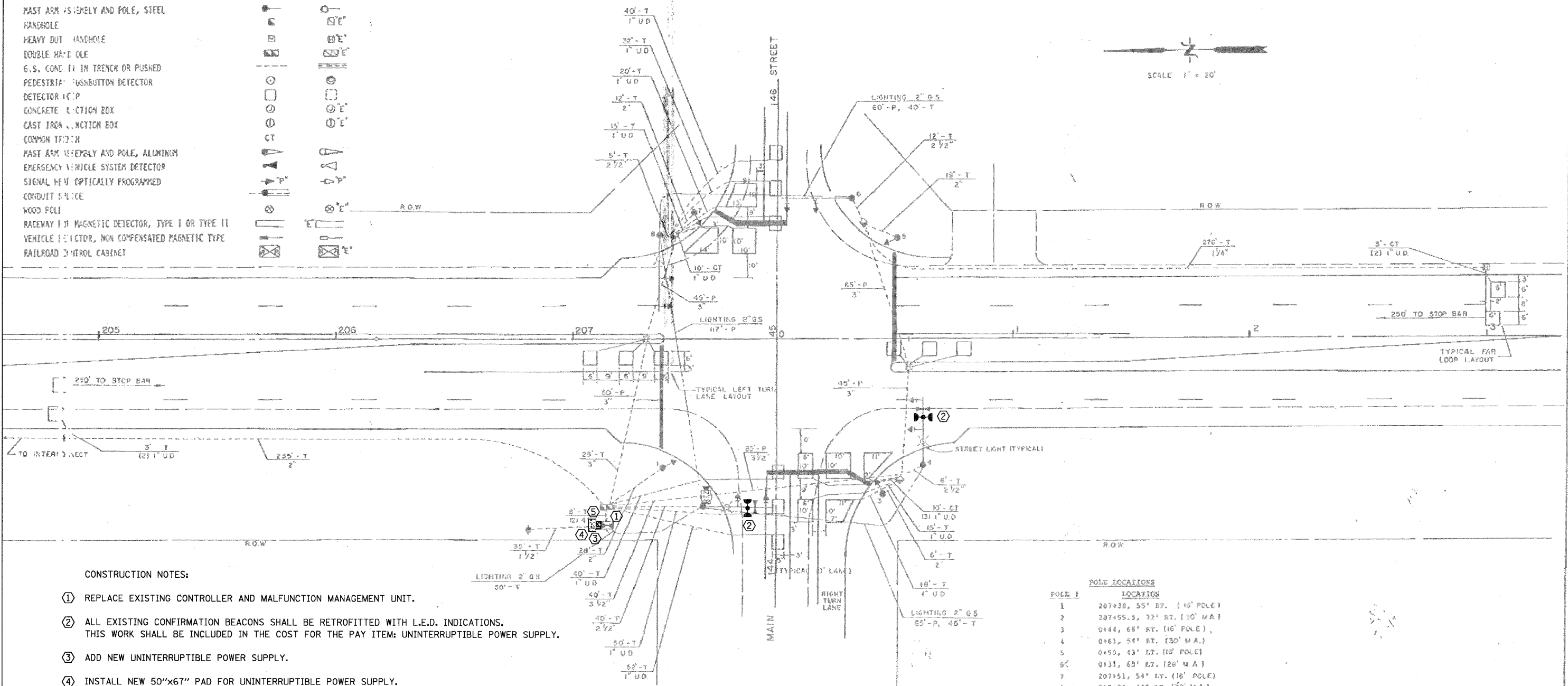
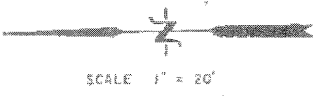
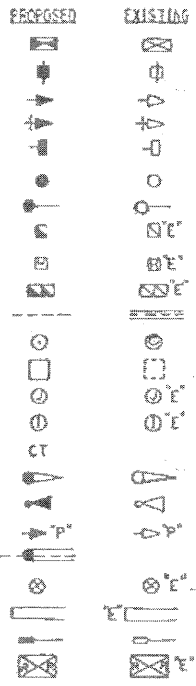
REVISIONS		
NO.	DATE	DESCRIPTION
1	04/15/99	ADD INTERCONNECT

CABLE PLAN, PHASE DESIGNATION DIAGRAM and SCHEDULE OF QUANTITIES
 RANDALL RD. @ WILSON ST
 BATAVIA, ILLINOIS

FILE NAME: wilson_cp.dgn	SHEET NO. 4
DATE: April 15, 1999	
PROJECT NO.:	

TRAFFIC SIGNAL LEGEND

- CONTROLLER:
 SERVICE DISMOUNT
 SIGNAL HEAD
 SIGNAL HEAD WITH BACKPLATE
 SIGNAL HEAD PEDESTRIAN
 SIGNAL POST
 MAST ARM ASSEMBLY AND POLE, STEEL
 HANDHOLE
 HEAVY DUTY HANDHOLE
 DOUBLE HANDHOLE
 G.S. CONDUIT IN TRENCH OR PUSHED
 PEDESTRIAN PUSHBUTTON DETECTOR
 DETECTOR LOOP
 CONCRETE LOCATION BOX
 CAST IRON LOCATION BOX
 COMMON TRAFFIC
 MAST ARM ASSEMBLY AND POLE, ALUMINUM
 EMERGENCY VEHICLE SYSTEM DETECTOR
 SIGNAL HEAD OPTICALLY PROGRAMMED
 CONDUIT SERVICE
 WOOD POLE
 RACEWAY WITH MAGNETIC DETECTOR, TYPE I OR TYPE II
 VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
 RAILROAD SIGNAL CABINET



CONSTRUCTION NOTES:

- ① REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
- ④ INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.
- ⑤ ADD NEW GROUNDING.

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 CONFLICT MONITOR

POLE LOCATIONS

POLE #	LOCATION
1	207+38, 55' RT. (16' POLE)
2	207+55.5, 72' RT. (30' M.A.)
3	0+44, 66' RT. (16' POLE)
4	0+63, 58' RT. (30' M.A.)
5	0+50, 43' LT. (16' POLE)
6	0+33, 60' LT. (26' M.A.)
7	207+51, 54' LT. (16' POLE)
8	207+36, 44' LT. (32' M.A.)

REVISIONS		TRAFFIC SIGNAL PLAN	
NAME	DATE		
HDN	12-8-09	RAMDALL ROAD AT MAIN STREET	

SCALE: 1" = 20'
 DATE: 9-15-09
 DRAWN BY: KAG
 CHECKED BY: HDN

DATE	BY	DATE	BY

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

FILE NAME =
 N:\kane\county\090673\Traffic\038_TSD_RandallMain.dgn

USER NAME = FPACIONE	DESIGNED - ABR	REVISED -
	DRAWN - FCP	REVISED -
	CHECKED - MJT	REVISED -
	DATE - AUGUST 31, 2010	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN
RAMDALL ROAD AND MAIN STREET**

F.A.P. R.T.E. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 38
CONTRACT NO. 63525				
ILLINOIS FED. AID PROJECT				

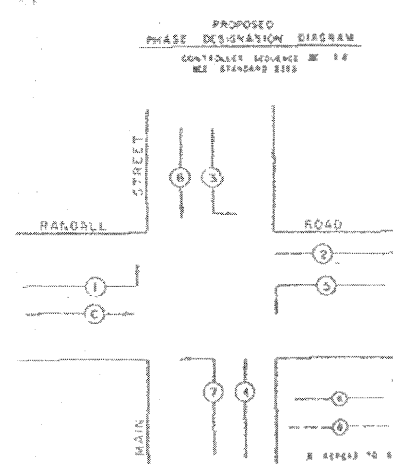
SCALE: SHEET NO. OF SHEETS STA. -- TO STA. --

SURVEYED BY: _____ DATE: _____
 PLOTTED BY: _____ CHECKED BY: _____
 PLAN NO.: _____
 NOTE BOOK NO.: _____
 CADD FILE NAME: _____
 PROFILE SURVEYED BY: _____ DATE: _____
 PLOTTED BY: _____ CHECKED BY: _____
 STRUCTURE NOTATIONS CHKD: _____
 NO.: _____

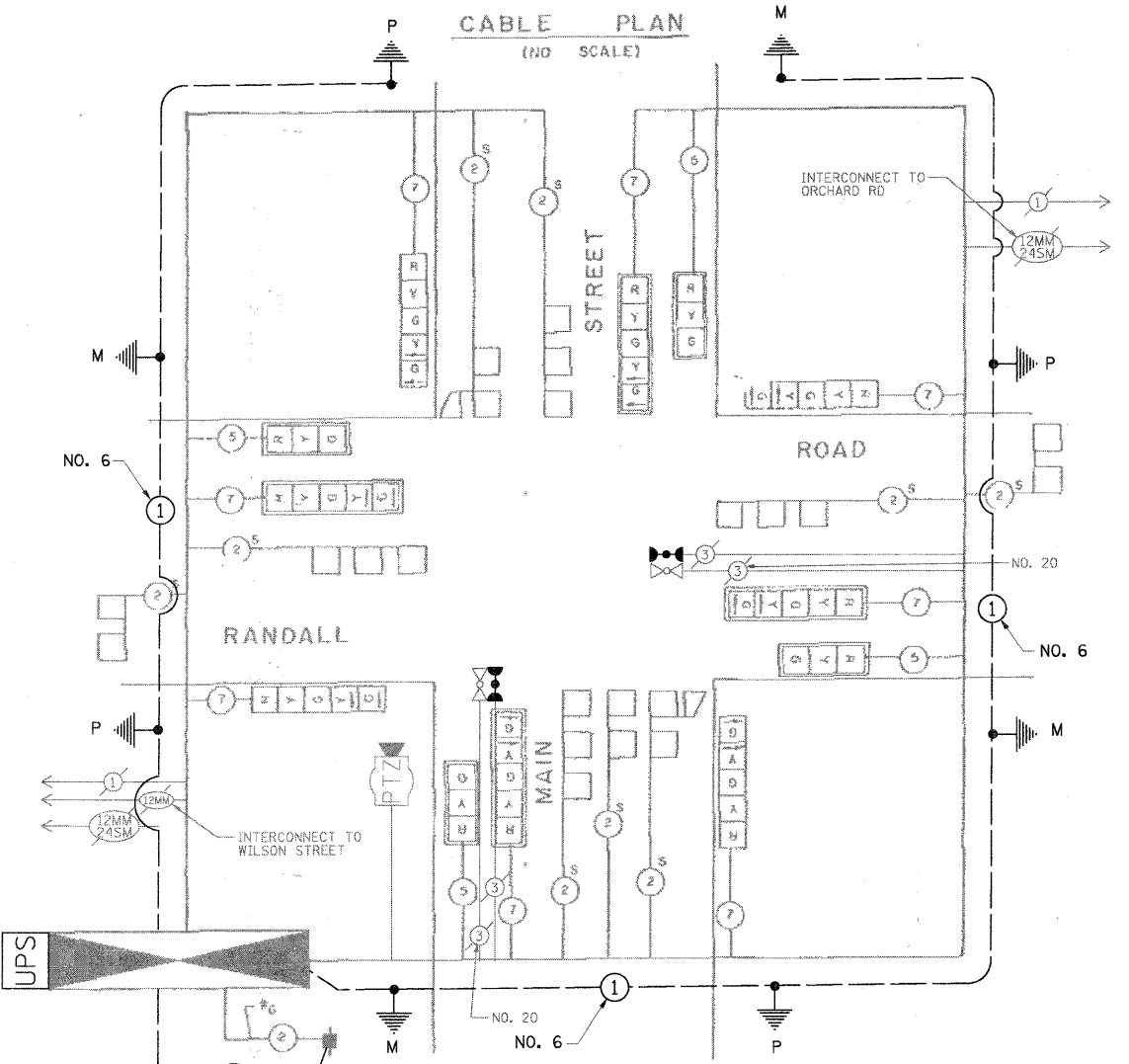
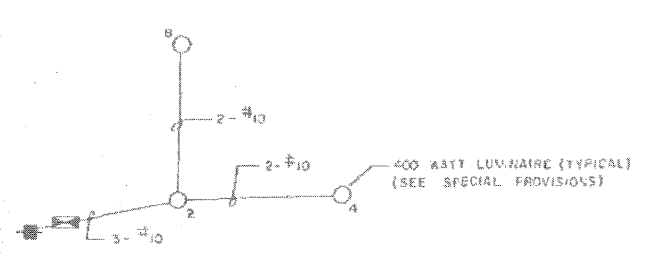
- CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
 - ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
 - ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
 - INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.
 - ADD NEW GROUNDING.

SCHEDULE OF QUANTITIES		
ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	6
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C	FOOT	696
TERMINATE FIBER IN CABINET	EACH	6
SPLICE FIBER IN CABINET	EACH	6
UPS BATTERY BACK-UP CABINET	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1

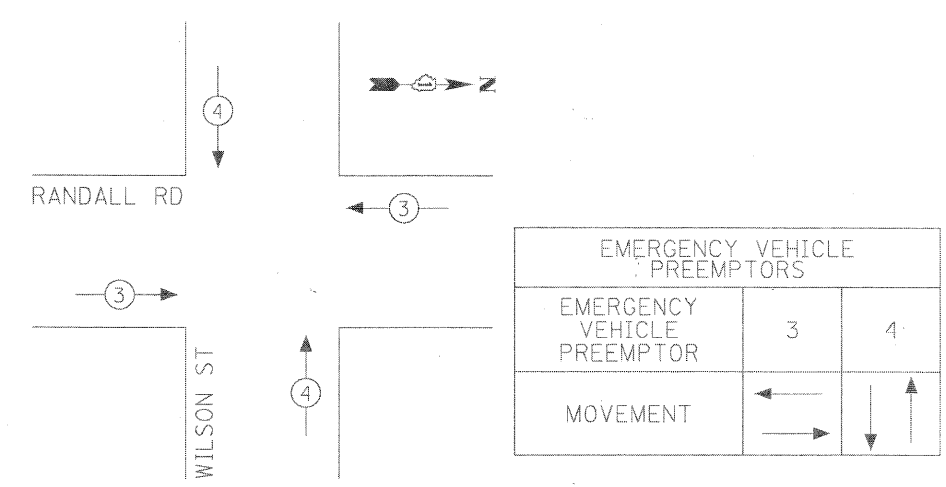
- CABLE PLAN LEGEND**
- 8" TRAFFIC SIGNAL SECTION
 - 12" TRAFFIC SIGNAL SECTION
 - 12" PEDESTRIAN SIGNAL SECTION
 - CONTROLLER CABINET
 - SERVICE INSTALLATION
 - VEHICLE DETECTOR, INDUCTION LOOP
 - PUSHBUTTON DETECTOR
 - DENOTES NUMBER OF CONDUCTORS (HEX).
 - ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 14 EXCEPT AS INDICATED.
 - INDICATES EXISTING CABLE
 - SIGNAL FACE WITH BACKPLATE
 - "P" INDICATES PROGRAMMED
 - EXISTING SIGNAL SECTION
 - MAGNETIC DETECTOR
 - OPTICAL DETECTOR



LIGHTING CABLE PLAN



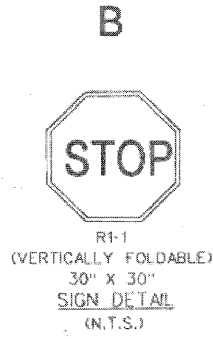
EMERGENCY VEHICLE PREEMPTION SEQUENCE



REVISIONS		CABLE PLAN, SCHEDULE OF QUANTITIES & SIGNAL SEQUENCES
NAME	DATE	
HON	12-8-89	RANDALL ROAD AT MAIN STREET

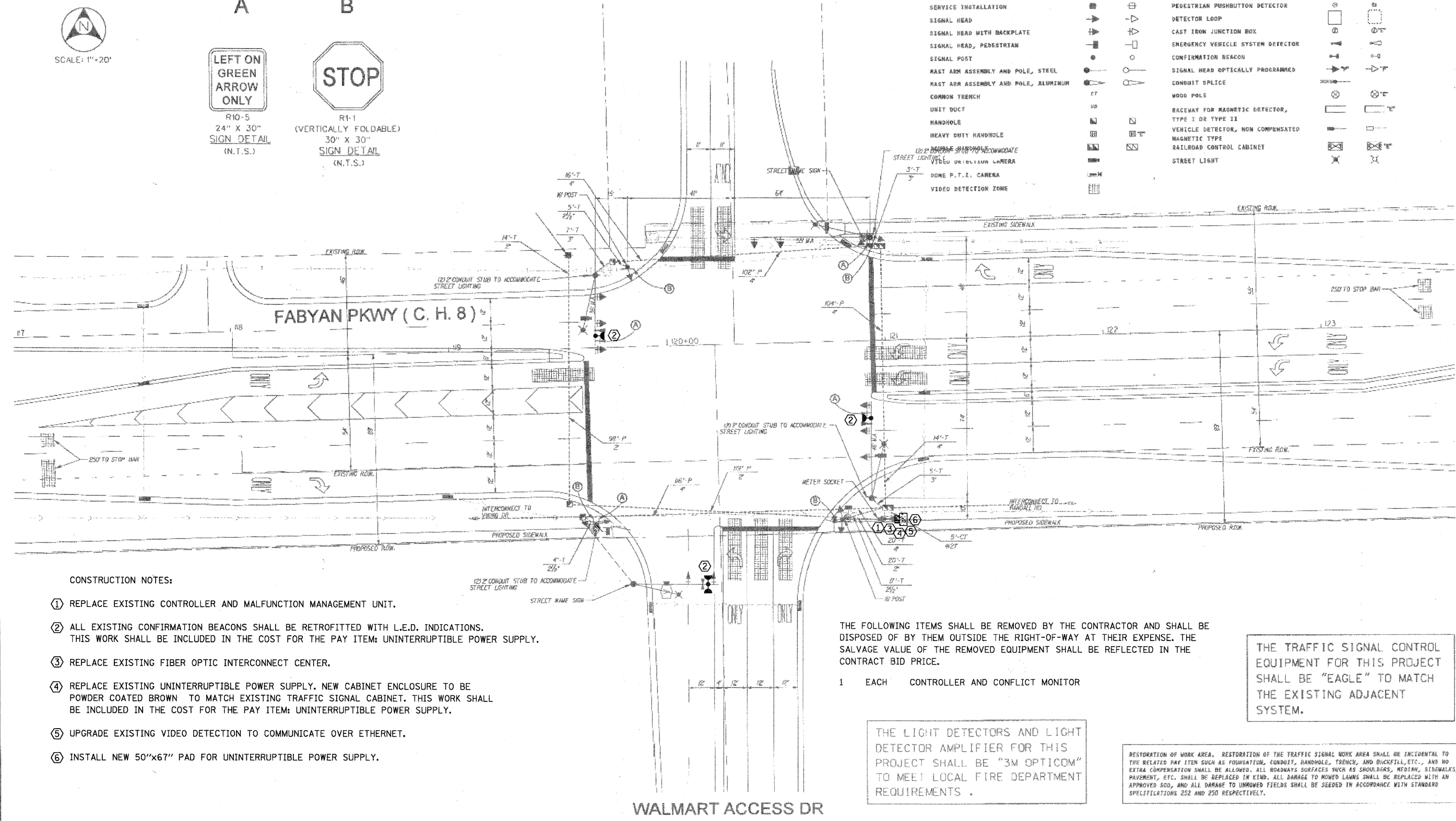
SCALE: NONE
DATE: 9-15-89
DRAWN BY: KAG
CHECKED BY: HDN

SIGN DETAILS



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]	G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]	PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]	DETECTOR LOOP	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]	CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]	CONFIRMATION BEACON	[Symbol]	[Symbol]
RAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]	SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
RAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]	CONDUIT SPLICE	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]	WOOD POLE	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]	RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]	VEHICLE DETECTOR, NON COMPENSATED	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]	MAGNETIC TYPE	[Symbol]	[Symbol]
VIDEO DETECTION ZONE	[Symbol]	[Symbol]	RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
VIDEO DETECTION CAMERA	[Symbol]	[Symbol]	STREET LIGHT	[Symbol]	[Symbol]



CONSTRUCTION NOTES:

- ① REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- ④ REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY. NEW CABINET ENCLOSURE TO BE POWDER COATED BROWN TO MATCH EXISTING TRAFFIC SIGNAL CABINET. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ⑤ UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.
- ⑥ INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.

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 CONFLICT MONITOR

THE LIGHT DETECTORS AND LIGHT DETECTOR AMPLIFIER FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MEET LOCAL FIRE DEPARTMENT REQUIREMENTS.

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

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



METRO TRANSPORTATION GROUP, INC.
 TRAFFIC ENGINEERING, TRANSPORTATION PLANNING
 AND SIGNAL SYSTEMS/DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60133 PH# 630 213-1000

REVISIONS	
NO.	DESCRIPTION

TRAFFIC SIGNAL INSTALLATION PLAN
 FABYAN PKWY (C.H. 8) @ WALMART ACCESS DR
 BATAVIA/GENEVA, ILLINOIS

FILE NAME: 06_sp_acc.dgn
DATE: JAN. 30, 2004
PROJECT NO.: M0302-26

DATE: _____ BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 DRAWN: _____
 STRUCTURE NOTATIONS OK/NO

DATE: _____ BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 DRAWN: _____
 STRUCTURE NOTATIONS OK/NO

PLAN
 NOTE BOOK NO. _____
 CAD FILE NAME: _____

PROFILE
 NOTE BOOK NO. _____
 CAD FILE NAME: _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9675 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500



SCALE: 1"=20'

SIGN DETAILS

A



RI0-5
24" X 30"
SIGN DETAIL
(N.T.S.)

B



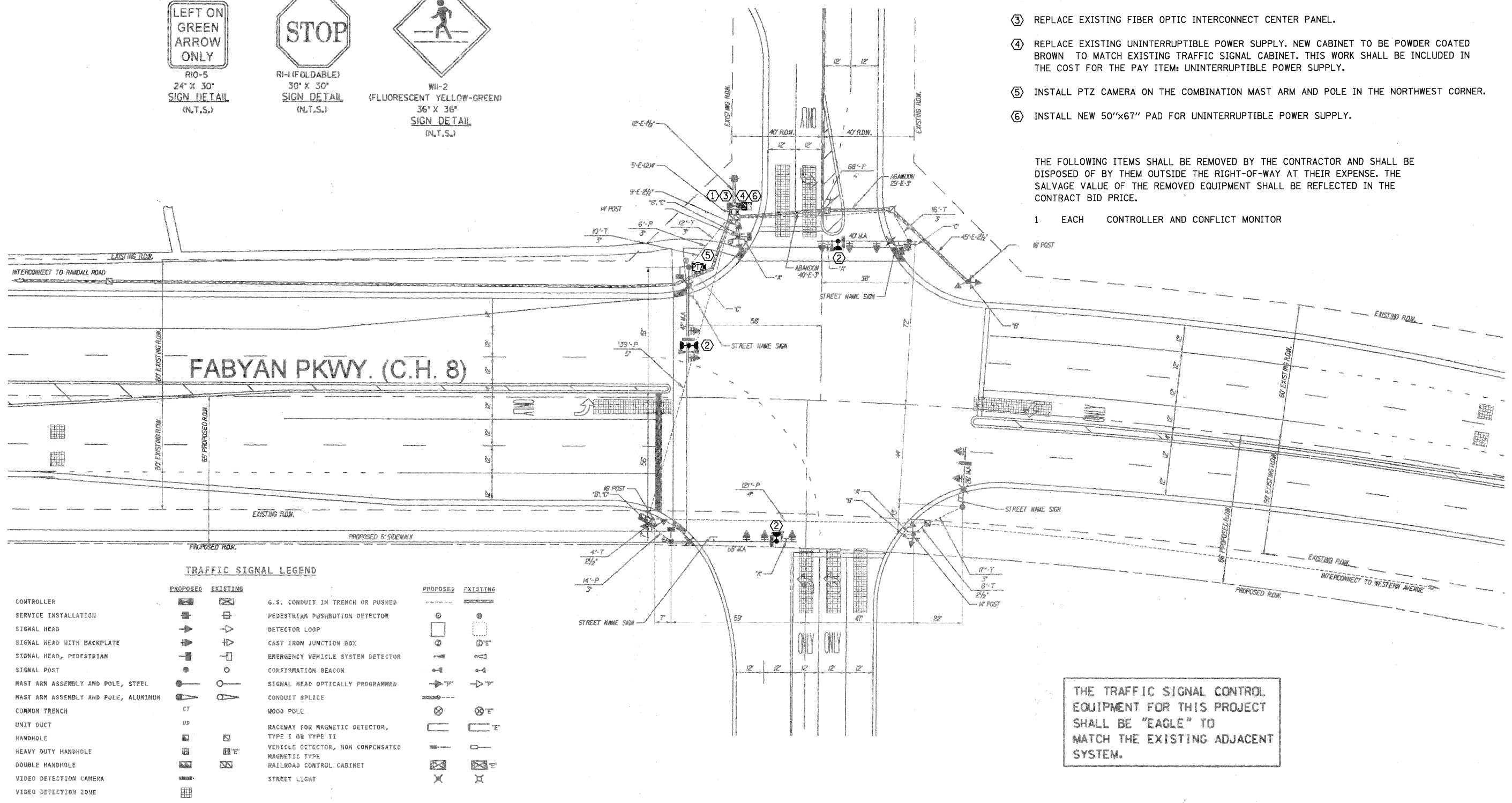
RI-1 (FOLDABLE)
30" X 30"
SIGN DETAIL
(N.T.S.)

C



W11-2
(FLUORESCENT YELLOW-GREEN)
36" X 36"
SIGN DETAIL
(N.T.S.)

BENT TREE DR



- CONSTRUCTION NOTES:
- REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
 - ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
 - REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER PANEL.
 - REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY. NEW CABINET TO BE POWDER COATED BROWN TO MATCH EXISTING TRAFFIC SIGNAL CABINET. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
 - INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM AND POLE IN THE NORTHWEST CORNER.
 - INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.

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.

- EACH CONTROLLER AND CONFLICT MONITOR

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER			G.S. CONDUIT IN TRENCH OR PUSHED		
SERVICE INSTALLATION			PEDESTRIAN PUSHBUTTON DETECTOR		
SIGNAL HEAD			DETECTOR LOOP		
SIGNAL HEAD WITH BACKPLATE			CAST IRON JUNCTION BOX		
SIGNAL HEAD, PEDESTRIAN			EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL POST			CONFIRMATION BEACON		
MAST ARM ASSEMBLY AND POLE, STEEL			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			CONDUIT SPLICE		
COMMON TRENCH			WOOD POLE		
UNIT DUCT			RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
HANDHOLE			VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
HEAVY DUTY HANDHOLE			RAILROAD CONTROL CABINET		
DOUBLE HANDHOLE			STREET LIGHT		
VIDEO DETECTION CAMERA					
VIDEO DETECTION ZONE					

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



METRO TRANSPORTATION GROUP, INC.
 TRAFFIC ENGINEERING, TRANSPORTATION PLANNING
 AND SIGNAL SYSTEMS/DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60133 PH# 630 213-1000

REVISIONS	
NO.	DATE DESCRIPTION

SIGNAL INSTALLATION PLAN

FABYAN PKWY (C.H. 8) @ BENT TREE DR
 BATAVIA, ILLINOIS

FILE NAME: 07...sd.dgn	SHEET NO.:
DATE: AUG 27, 2002	7
PROJECT NO.:	OF 15
H0112-17	

SURVEYED BY: DATE: _____
 PLOTTED BY: DATE: _____
 CHECKED BY: DATE: _____
 ALIGNED BY: DATE: _____
 CAD FILE NAME: _____
 PLAN NO.: _____
 PROFILE NO.: _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500
 CBE

CONSTRUCTION NOTES:

- REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER PANEL.
- REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY. NEW CABINET TO BE POWDER COATED BROWN TO MATCH EXISTING TRAFFIC SIGNAL CABINET. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY.
- INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM AND POLE IN THE NORTHWEST CORNER.
- INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MEDIA CONVERTER	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
TERMINATE FIBER IN CABINET	EACH	6
MODIFY VIDEO PROCESSING UNIT	EACH	1
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPLICE FIBER IN CABINET	EACH	6
OUTDOOR RATED NETWORK CABLE	FOOT	78
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO TRAFFIC MONITORING SYSTEM WITH PTZ CAMERA	EACH	1
VIDEO ENCODER, VIDEO DETECTION SYSTEM	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

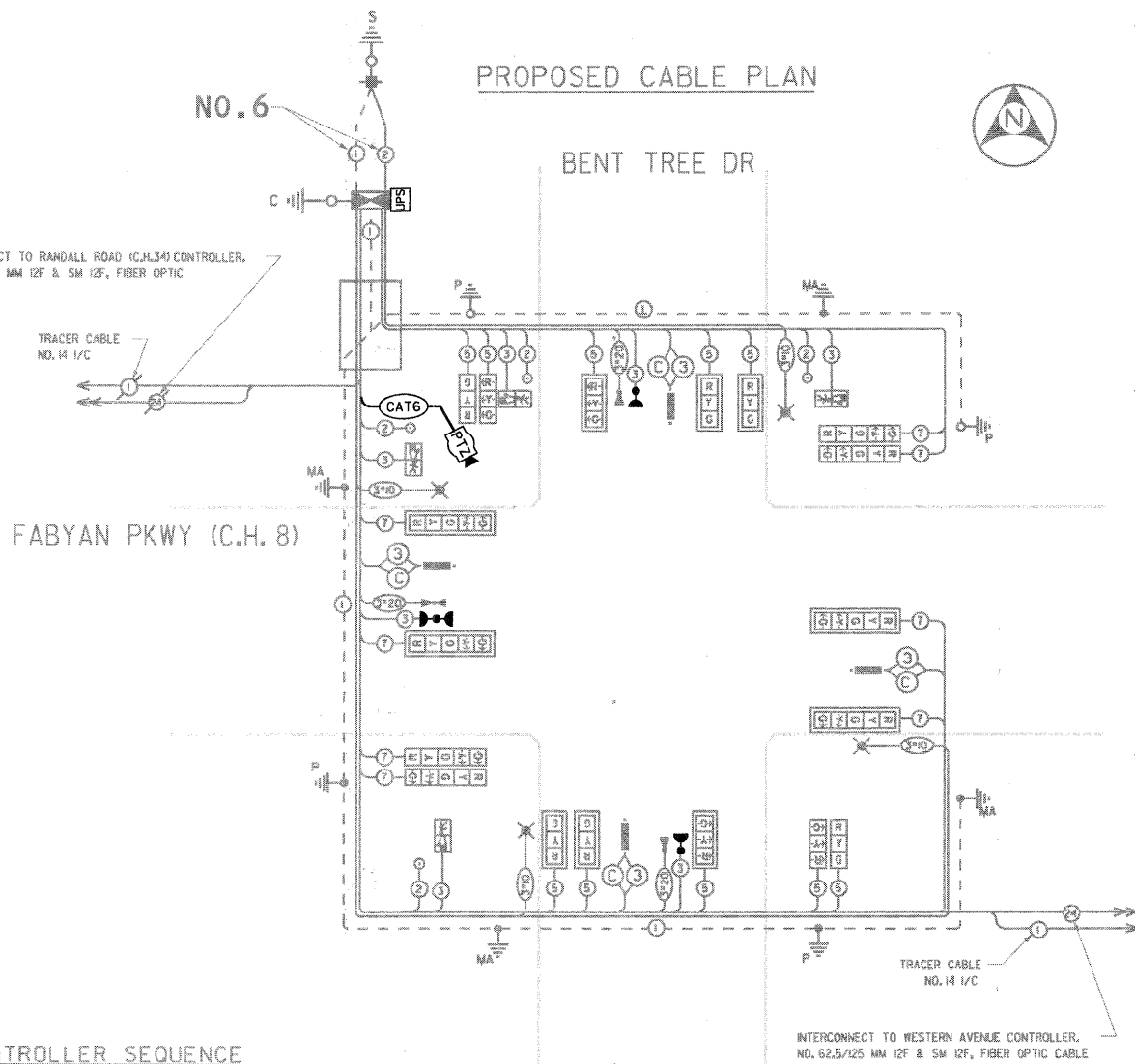
NOTE: ALL L.E.D. PRODUCTS SHALL BE DIALIGHT BRAND.

NOTE: ALL TRAFFIC SIGNAL POSTS, POLES, MAST ARM ASSEMBLY, CONTROLLER CABINET, SHROUDS, LIGHTING MAST ARMS AND LUMINAIRES SHALL BE POWDER COATED "DARK BRONZE."

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

CABLE PLAN LEGEND

- | | |
|--|---|
| | 8" (282mm) TRAFFIC SIGNAL SECTION |
| | 12" (305mm) TRAFFIC SIGNAL SECTION |
| | 12" (305mm) PEDESTRIAN SIGNAL SECTION |
| | 12" (305mm) PEDESTRIAN SIGNAL SECTION |
| | CONTROLLER CABINET |
| | SERVICE INSTALLATION |
| | TELEPHONE CONNECTION |
| | MAGNETIC DETECTOR |
| | EMERGENCY VEHICLE LIGHT DETECTOR |
| | CONFIRMATION BEACON |
| | PUSHBUTTON DETECTOR |
| | VEHICLE DETECTOR, INDUCTION LOOP |
| | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | SIGNAL FACE WITH BACKPLATE |
| | *P INDICATES PROGRAMMED HEAD |
| | RAILROAD CONTROL CABINET |
| | ILLUMINATED SIGN, FIBER OPTIC 'NO LEFT TURN' |
| | ILLUMINATED SIGN, FIBER OPTIC 'NO RIGHT TURN' |
| | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HD) OR CONTROLLER (C) |
| | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN) |
| | NO. 62.5/125 MM 12F & 5M 12F, FIBER OPTIC CABLE |
| | NO. COAXIAL CABLE |
| | VIDEO DETECTION CAMERA |
| | LUMINAIRE, SODIUM VAPOR, HORIZ. MOUNT |
| | PHOTO CELL CONT., 318 W, 120 V BALLAST |
- NOTE: ALL NEW GROUND RODS SHALL BE 3/4" X 18"-0" LONG COPPER CLAD. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

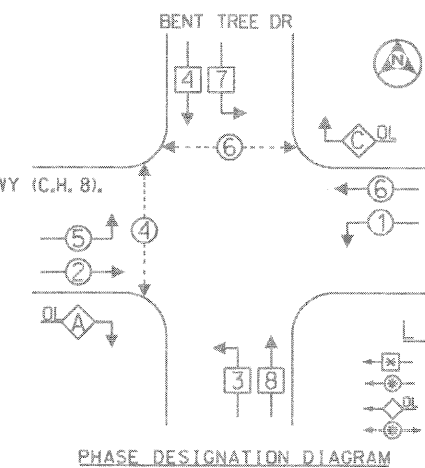


PROPOSED RIGHT TURN OVERLAP PHASE DESIGNATION

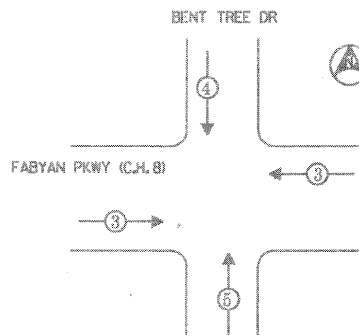
OVERLAP LETTER	PROTECTED PHASE
A	= 3
C	= 7

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 ROADWAYS SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FOUNDATION (DEPTH)	FT. (M)	CABLE SLACK	FT. (M)	VERTICAL	FT. (M)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.1)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20+L-2 =
E - M ARM POLE		SIGNAL POST	2 (1.0)	(6.1+L-1.0)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	12 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4 5
MOVEMENT	↔	↓ ↑

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	% OPERATIONS	
SIGNAL (RED)	14	135	0.50	119
(YELLOW)	14	135	0.25	87.5
(GREEN)	14	135	0.25	52.5
ARROW	28	135	0.10	33.6
PED. SIGNAL	4	90	1.00	100
CONTROLLER	1	100	1.00	100
ILLUM. SIGN		84	0.05	
LUMINAIRE	4	310	0.50	620
FLASHER			0.50	
TOTAL =				1113

ENERGY COSTS - BILLED TO: CITY OF GENEVA (ADDRESS)
 ENERGY SUPPLY - CONTACT: MS. JENNIFER HILKEMAN (630) 232-1503 COMPANY: CITY OF GENEVA



METRO TRANSPORTATION GROUP, INC.
 TRAFFIC ENGINEERING, TRANSPORTATION PLANNING AND SIGNAL SYSTEMS/DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60133 PH# 630 213-1000

REVISIONS		
NO.	DATE	DESCRIPTION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES

FABYAN PKWY (C.H. 8) @ BENT TREE DR
 BATAVIA, ILLINOIS

FILE NAME: 08_cp.dgn	SHEET NO.: 8
DATE: AUG 27, 2002	OF 15
PROJECT NO.: H0112-17	

DATE BY DATE BY DATE BY
 SURVEYED PLOTTED CHECKED CHECKED CHECKED
 PLAN NOTE BOOK NO. NO. NO. NO. NO. NO.
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 822-0500
 PROFILE SURVEYED PLOTTED CHECKED CHECKED CHECKED
 NOTE BOOK NO. NO. NO. NO. NO. NO.
 STRUCTURE NOTATIONS OK

CONSTRUCTION NOTES:

- ① REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ② ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- ③ REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- ④ ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
- ⑤ INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.

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.

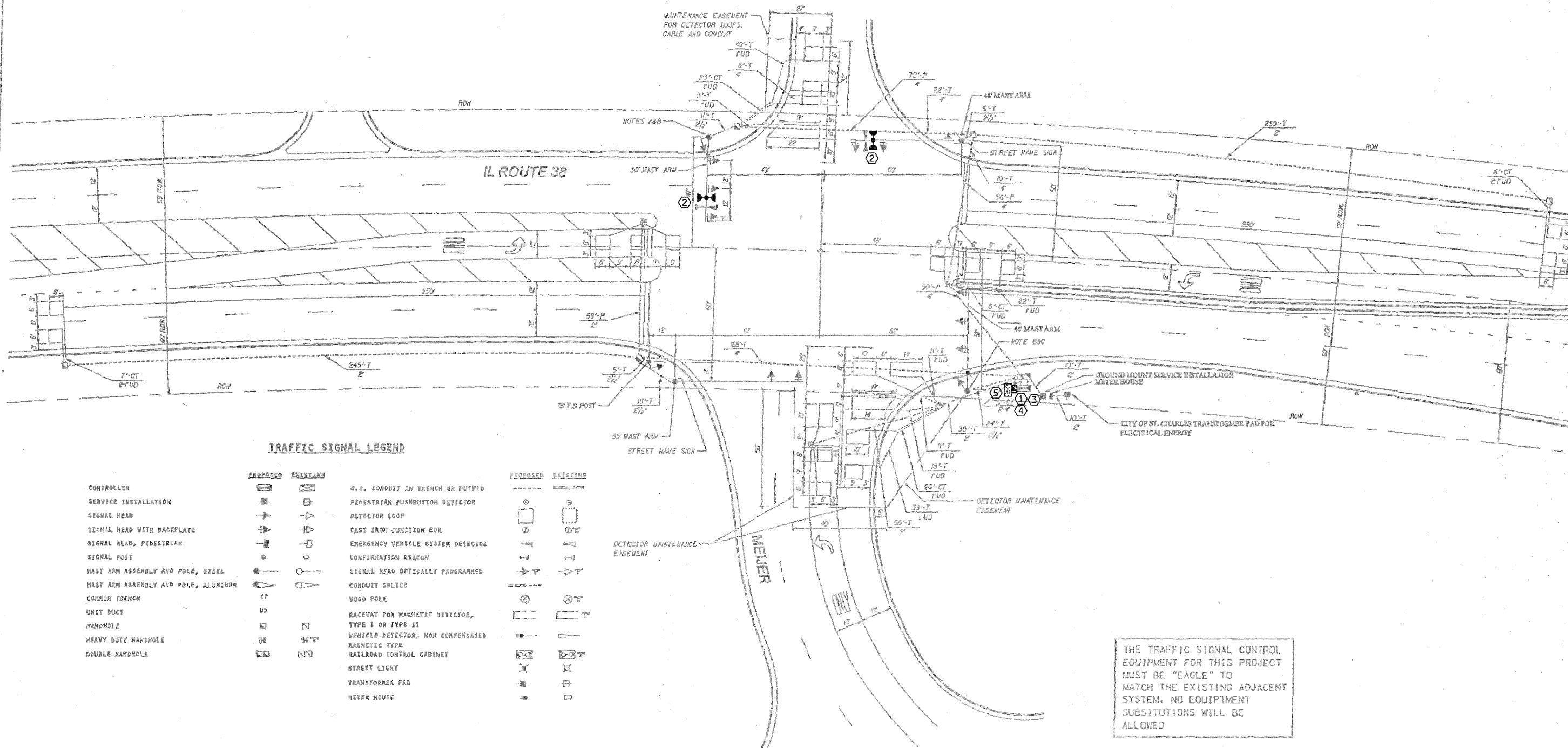
- 1 EACH CONTROLLER AND CONFLICT MONITOR



SCALE: 1" = 20'

DATE	BY	SURVEYED	PLOTTED	CHECKED	DATE	BY
		NOTE BOOK	NOTE BOOK	NOTE BOOK		
		NO. 1	NO. 1	NO. 1		
		NO. 2	NO. 2	NO. 2		
		NO. 3	NO. 3	NO. 3		

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]	4.5' CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]	PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]	DETECTOR LOOP	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]	CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]	CONFIRMATION BEACON	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]	SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]	CONDUIT SPLICE	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]	WOOD POLE	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]	RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]	VEHICLE DETECTOR, NON COMPENSATED	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]	MAGNETIC TYPE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]	RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
			STREET LIGHT	[Symbol]	[Symbol]
			TRANSFORMER PAD	[Symbol]	[Symbol]
			METER HOUSE	[Symbol]	[Symbol]

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT MUST BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM. NO EQUIPMENT SUBSTITUTIONS WILL BE ALLOWED



METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60103 PH# 630-213-1000

REVISIONS		
NO.	DATE	DESCRIPTION

GEOMETRIC PLAN AND SIGNAL INSTALLATION PLAN
 Illinois Route 38 @ Meijer
 ST. CHARLES, ILLINOIS

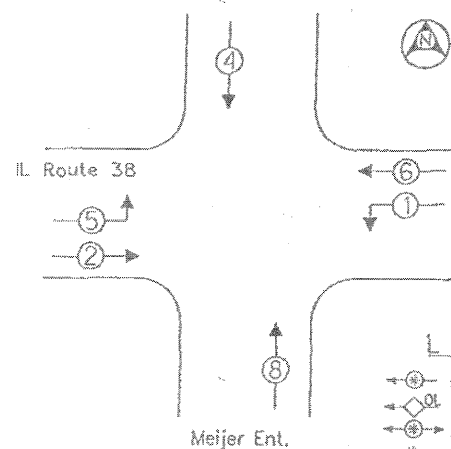
FILE NAME: mj_sp.dgn	SHEET NO. 1
DATE: MARCH 6, 2000	6
PROJECT NO. 1 H9912.08	OF 23

FILE NAME = N:\kenecounty\0806731\Traffic\046.TSD_IL38-Meijer.dgn	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN IL ROUTE 38 AND MEIJER	F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 46	
PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISED -	REVISED -			SCALE: SHEET NO. OF SHEETS STA. -- TO STA. --					
PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISED -	REVISED -			ILLINOIS FED. AID PROJECT					
						CONTRACT NO. 63525					

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 CHECKED: _____
 ALIGNED: _____
 ROADWAY: _____
 STRUCTURE: _____
 NOTATION: _____
 DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 CHECKED: _____
 ALIGNED: _____
 ROADWAY: _____
 STRUCTURE: _____
 NOTATION: _____

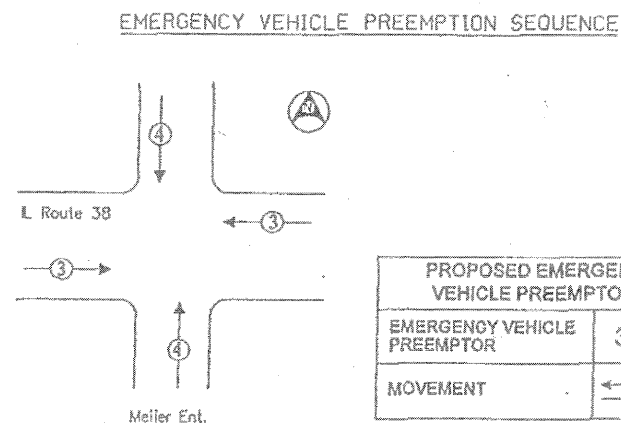
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

CONTROLLER SEQUENCE



LEGEND
 ⊕ → DUAL ENTRY PHASE
 ⊕ → OVERLAP
 ⊕ → PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE.

PHASE DESIGNATION DIAGRAM

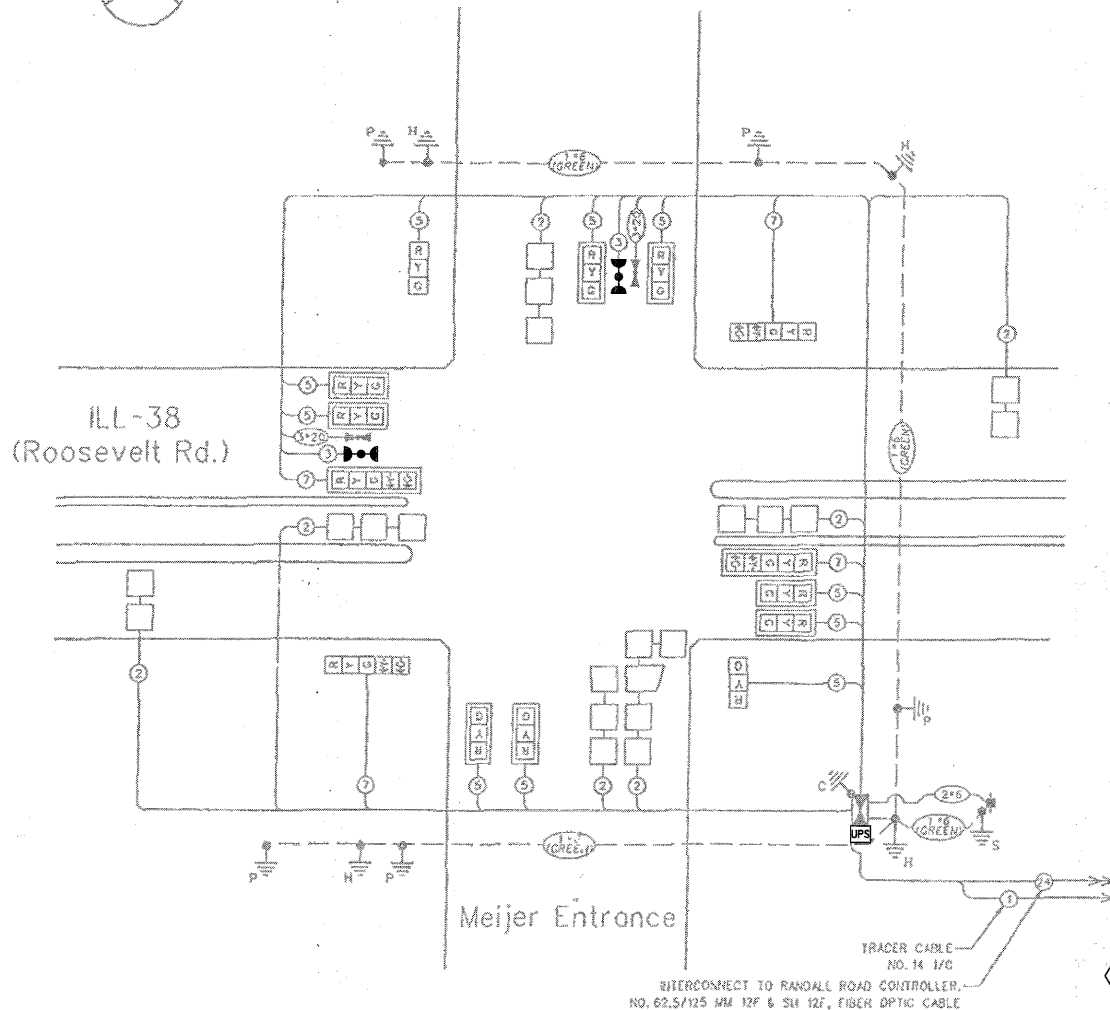


PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	← → ↑ ↓

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT MUST BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM. NO EQUIPMENT SUBSTITUTIONS WILL BE ALLOWED

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CURB, HANDHOLE, TRENCH, AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOVED LANES SHALL BE REPLACED WITH AN APPROVED 505, AND ALL DAMAGE TO UNMOVED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CABLE PLAN



CABLE PLAN LEGEND

- | EXISTING | PROPOSED | |
|----------|----------|--|
| □ | □ | 6" (200MM) TRAFFIC SIGNAL SECTION |
| □ | □ | 12" (300MM) TRAFFIC SIGNAL SECTION |
| □ | □ | 12" (300MM) PEDESTRIAN SIGNAL SECTION |
| □ | □ | 12" (300MM) PEDESTRIAN SIGNAL SECTION |
| □ | □ | CONTROLLER CABINET |
| □ | □ | SERVICE INSTALLATION |
| □ | □ | VEHICLE DETECTOR, INDUCTION LOOP |
| □ | □ | MAGNETIC DETECTOR |
| □ | □ | EMERGENCY VEHICLE LIGHT DETECTOR |
| □ | □ | CONFIRMATION BEACON |
| □ | □ | PUSHBUTTON DETECTOR |
| □ | □ | 2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| □ | □ | SIGNAL FACE WITH BACKPLATE
"P" INDICATES PROGRAMMED HEAD
"E" INDICATES EXISTING SIGNAL HEAD OR EXISTING PEDESTRIAN SIGNAL HEAD |
| □ | □ | GROUND ROD AT HANDHOLE OR CONTROLLER |
| □ | □ | GROUND ROD AT POST OR MAST ARM POLE |
| □ | □ | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| □ | □ | GROUND ROD EXISTING TO BE REUSED |
| □ | □ | GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN) |
| □ | □ | NO. 62.5/125 MM 12F & 5H 12F, FIBER OPTIC CABLE |
| □ | □ | NO. 14 IC TRACER CABLE |

*NOTE: ALL NEW GROUND RODS SHALL BE 3/4" X 18"-8" LONG COPPER CLAD. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

CONSTRUCTION NOTES:

- REPLACE EXISTING CONTROLLER AND MALFUNCTION MANAGEMENT UNIT.
- ALL EXISTING CONFIRMATION BEACONS SHALL BE RETROFITTED WITH L.E.D. INDICATIONS. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: UNINTERRUPTIBLE POWER SUPPLY.
- REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
- INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
TERMINATE FIBER IN CABINET	EACH	6
FIBER OPTIC INTERCONNECT CENTER	EACH	1
UPS BATTERY BACK-UP CABINET	EACH	1
MALFUNCTION MANAGEMENT UNIT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	X OPERATIONS	
SIGNAL (RED)	14	135	0.50	945.0
(YELLOW)	14	135	0.25	472.5
(GREEN)	14	135	0.25	472.5
ARROW	8	135	0.10	108
PEP. SIGNAL		90	1.00	
CONTROLLER		100	1.00	100
ILLUM. SIGN			0.05	
FLASHER LED			0.50	
TOTAL				2098

ENERGY COSTS - BILLED TO: MEIJER'S INC OR AS (ADDRESS) ASSIGNED.
 ENERGY SUPPLY - CONTACT: Tom Lesiewicz (630) 377-4407
 COMPANY: City of St. Charles

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'±L-2
E - M ARM POLE	24"	SIGNAL POST	2	BRACKET MOUNTED	13
	30"	CONTROLLER CAB.	1	PEP. PUSHBUTTON	4
		FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6



METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60103 PH# 630 213-1000

REVISIONS		
NO.	DATE	DESCRIPTION

CABLE PLAN, PHASE DESIGNATION DIAGRAM and SCHEDULE OF QUANTITIES

Illinois Route 38 @ Meijer ST. CHARLES, ILLINOIS

FILE NAME: mj_cp.dgn
 DATE: MARCH 6, 2000
 PROJECT NO.: H9912.08

SHEET NO. 7 OF 23

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
L-WBS-1	KANE	100	48
STA.	TO STA.		
F&A P&E, P&C, PLANS	ILLINOIS	F&A PROJECT	

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE AGENCY LISTED BELOW. THE CONTRACTOR SHALL SAFELY STORE AND ARRANGE FOR PICK UP OF ALL EQUIPMENT TO BE RETURNED TO THE LISTED AGENCY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

AGENCY: CITY OF ST. CHARLES

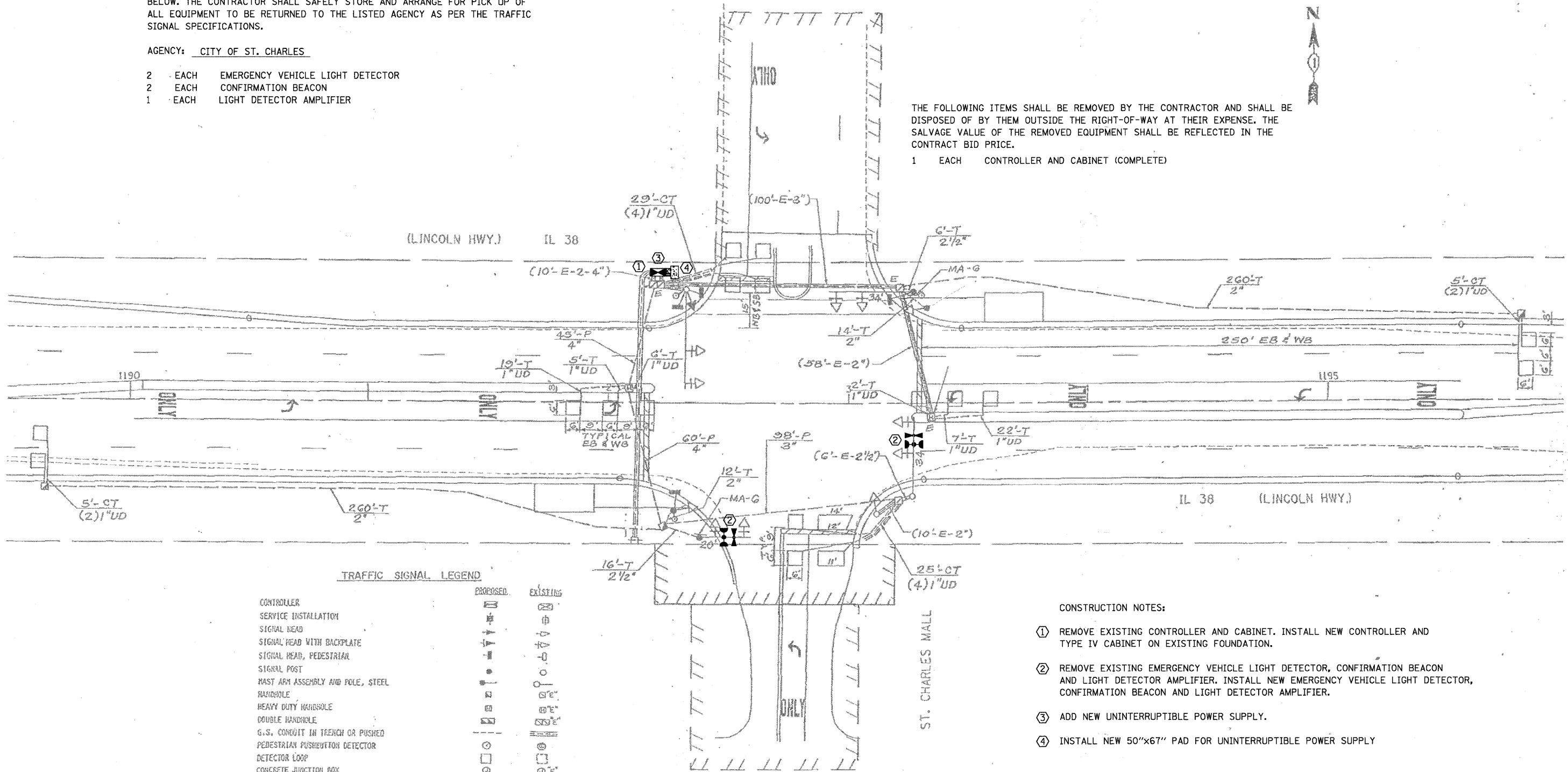
- 2 EACH EMERGENCY VEHICLE LIGHT DETECTOR
- 2 EACH CONFIRMATION BEACON
- 1 EACH LIGHT DETECTOR AMPLIFIER

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)

DATE	BY	DATE	BY
SURVEYED ALIGNED CHECKED PLAN NOTE BOOK NO. OF WAY CHECKED PROFILE NOTE BOOK NO. STRUCTURE NOTATIONS CHECKED			

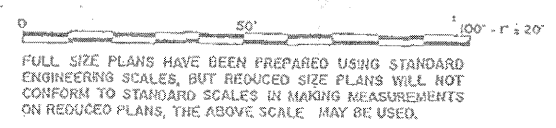
CHRISTOPHER B. BURKE ENGINEERING LTD.
 5575 West Higgins Road, Suite 600
 Skokie, Illinois 60077
 (847) 823-0800



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
CONCRETE JUNCTION BOX	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
CONDUIT SPLICE	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
SIDEWALK TO BE REMOVED & REPLACED	[Symbol]	[Symbol]
COMB. CURB & CUTTER TO BE REMOVED & REPLACED	[Symbol]	[Symbol]

- CONSTRUCTION NOTES:
- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
 - REMOVE EXISTING EMERGENCY VEHICLE LIGHT DETECTOR, CONFIRMATION BEACON AND LIGHT DETECTOR AMPLIFIER. INSTALL NEW EMERGENCY VEHICLE LIGHT DETECTOR, CONFIRMATION BEACON AND LIGHT DETECTOR AMPLIFIER.
 - ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
 - INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY



REVISIONS	
NAME	DATE

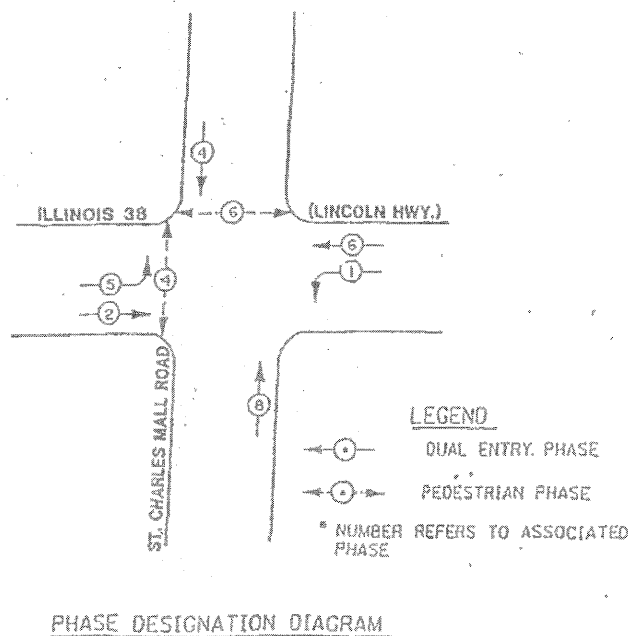
ILLINOIS DEPARTMENT OF TRANSPORTATION
 PROPOSED TRAFFIC SIGNAL PLAN
 IL 38 & ST. CHARLES MALL ROAD

SCALE: VERT. 1"=20'
 HORIZ. DATE 3/1/94

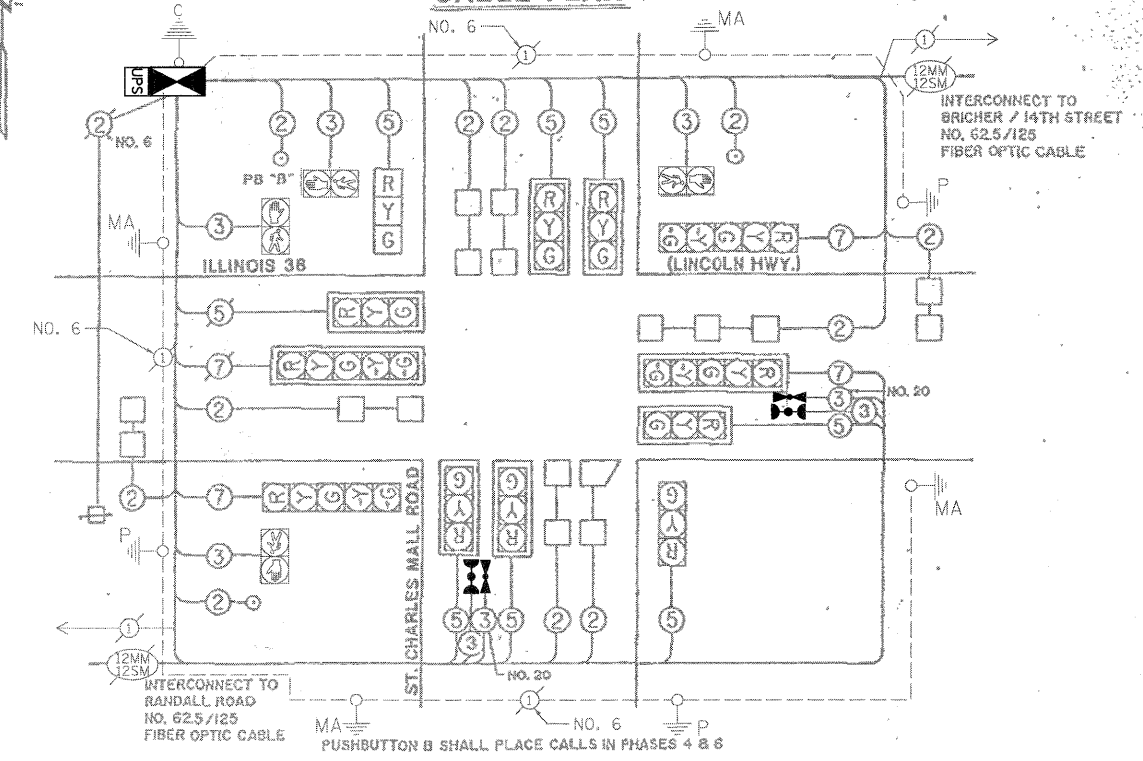
DRAWN BY RAC
 CHECKED BY SPV

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
347	L-WRS-1	KANE	104	709
STA.		TO STA.		
111.845+00, 111.8		111.845+00, 111.8		

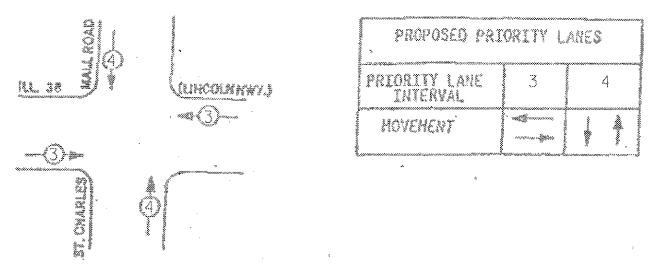
CONTROLLER SEQUENCE



CABLE PLAN



EMERGENCY VEHICLE PREEMPTION SEQUENCE NOTES



CABLE PLAN LEGEND

- 8" TRAFFIC SIGNAL SECTION
- 12" TRAFFIC SIGNAL SECTION
- 12" PEDESTRIAN SIGNAL SECTION
- CONTROLLER CABINET
- SERVICE INSTALLATION
- VEHICLE DETECTOR, INDUCTION LOOP
- PUSHBUTTON DETECTOR
- INDICATES NUMBER OF CONDUCTORS (IND). ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 14 EXCEPT AS INDICATED.
- INDICATES EXISTING CABLE
- SIGNAL FACE WITH BACKPLATE
- "P" INDICATES PROGRAMMED
- "L" INDICATES LOWERED
- EXISTING SIGNAL SECTION
- MAGNETIC DETECTOR
- LIGHT DETECTOR
- CONFIRMATION BEACON

CONSTRUCTION NOTES:

- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
- REMOVE EXISTING EMERGENCY VEHICLE LIGHT DETECTOR, CONFIRMATION BEACON AND LIGHT DETECTOR AMPLIFIER. INSTALL NEW EMERGENCY VEHICLE LIGHT DETECTOR, CONFIRMATION BEACON AND LIGHT DETECTOR AMPLIFIER.
- ADD NEW UNINTERRUPTIBLE POWER SUPPLY.
- INSTALL NEW 50"x67" PAD FOR UNINTERRUPTIBLE POWER SUPPLY

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	24
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	8
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
TERMINATE FIBER IN CABINET	EACH	6
SPLICE FIBER IN CABINET	EACH	6
UPS BATTERY BACK-UP CABINET	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

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

TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	8		12	0.10	9.60
PED. SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	-		-	1.00	-
BATTERY BACKUP SYSTEM	1		-	-	-
FLASHER	-		-	0.50	-
TOTAL =					431.60

ENERGY COSTS TO: CITY OF ST. CHARLES
 2 E. MAIN STREET
 ST CHARLES, IL 60174
 ENERGY SUPPLY: CONTACT: CITY OF ST. CHARLES
 PHONE: (630) 377-4400
 COMPANY: CITY OF ST. CHARLES

REVISIONS

NAME	DATE

DEPARTMENT OF TRANSPORTATION
**CONTROLLER SEQUENCE IV
 EMERGENCY VEHICLE PREEMPTION SEQUENCE
 CABLE PLAN
 SCHEDULE OF QUANTITIES**
 IL 38 & ST. CHARLES MALL ROAD
 DRAWN BY CJS
 CHECKED BY RAC
 DATE 3/1/94

DATE: _____ BY: _____
 CHECKED: _____
 DATE: _____ BY: _____
 CHECKED: _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

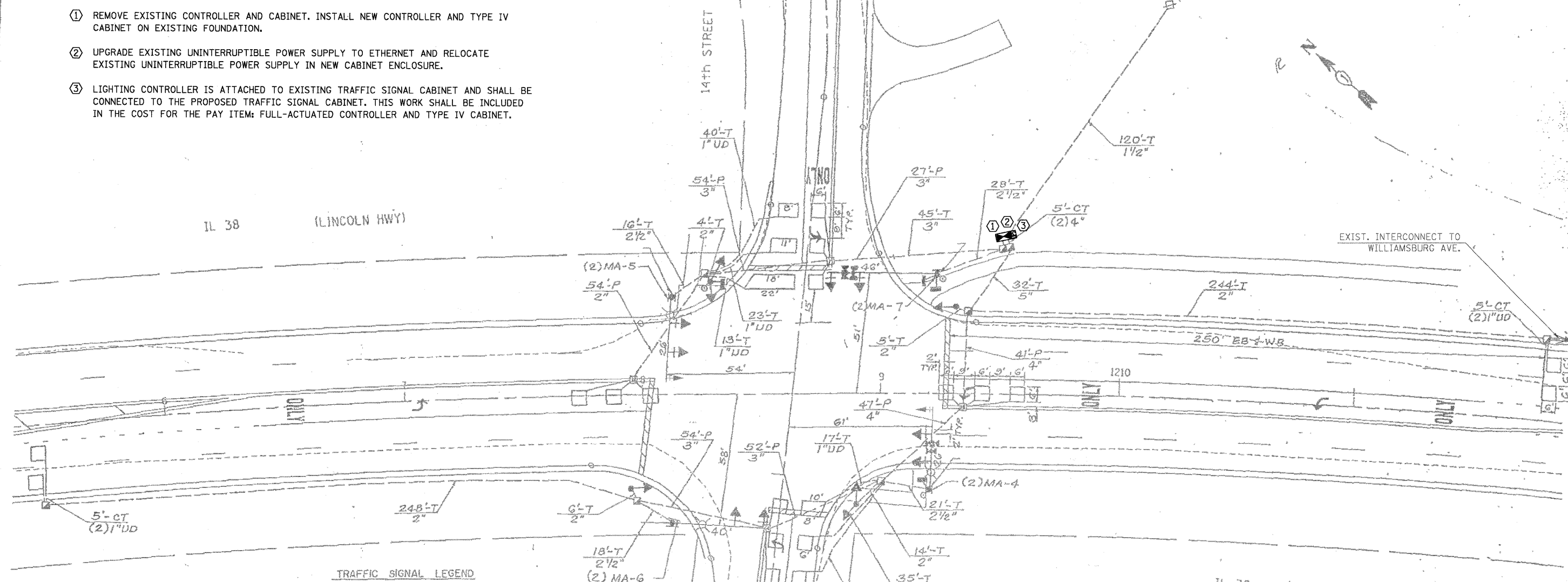
P.A. NO.	SECTION	COUNTY	FILE NO.	DATE
347	L-WB-1	KANE		
STA.	TO STA.			
P.L. ROAD DIST. NO.	ELMENTS	P.L. NO. PROJECT		

CONSTRUCTION NOTES:

- ① REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
- ② UPGRADE EXISTING UNINTERRUPTIBLE POWER SUPPLY TO ETHERNET AND RELOCATE EXISTING UNINTERRUPTIBLE POWER SUPPLY IN NEW CABINET ENCLOSURE.
- ③ LIGHTING CONTROLLER IS ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET AND SHALL BE CONNECTED TO THE PROPOSED TRAFFIC SIGNAL CABINET. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: FULL-ACTUATED CONTROLLER AND TYPE IV CABINET.

DATE	BY	SURVEYED	PLANNED
		PLOTTED	CHECKED
		FILED	RECORDED
		NO. _____	NO. _____
		NO. _____	NO. _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
CONCRETE JUNCTION BOX	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
CANYON TRENCH	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
CONDUIT SPLICE	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
SIDEWALK TO BE REPAVED & REPLACED	[Symbol]	[Symbol]
COMB. CURB & GUTTER TO BE REMOVED & REPLACED	[Symbol]	[Symbol]

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)

0 50' 100' 1" = 20'

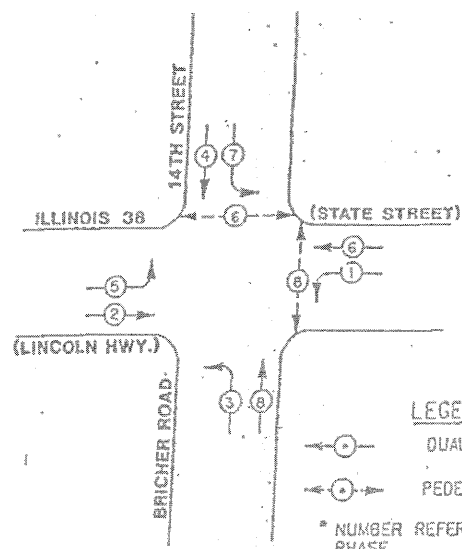
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, BUT REDUCED SIZE PLANS WILL NOT CONFORM TO STANDARD SCALES. IF MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALE MAY BE USED.

REVISIONS	
NAME	DATE

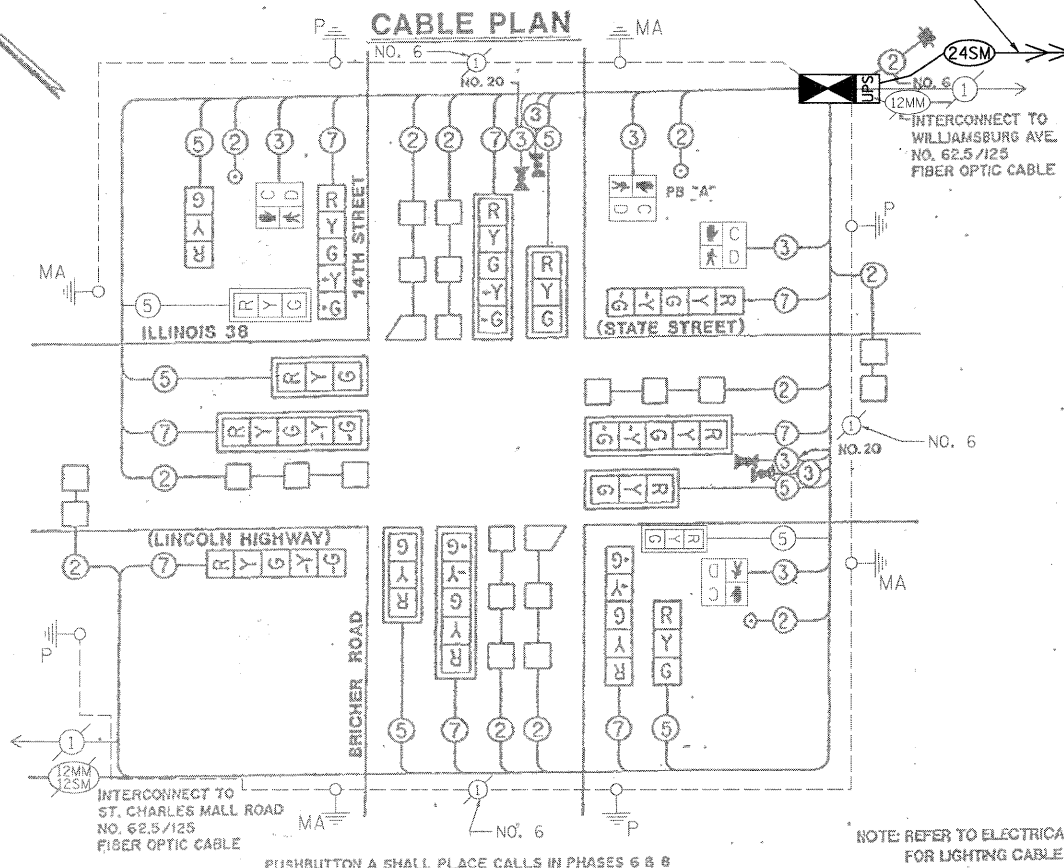
ILLINOIS DEPARTMENT OF TRANSPORTATION
 PROPOSED TRAFFIC SIGNAL PLAN
 IL 38 & 14th ST. / BRICHER RD.
 SCALE: VERT. 1"=20'
 HORIZ. DATE 3-2-94
 DRAWN BY RAC
 CHECKED BY SPV

FILE NAME = N:\kane\count\0806731\Traffic\0508.TSD.IL38-Bricher.dgn	USER NAME = FPCIONE	DESIGNED - ABR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODERNIZATION PLAN IL ROUTE 38 AND BRICHER /14th STREET	F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 50	CONTRACT NO. 63525 ILLINOIS/FED. AID PROJECT
PLOT SCALE = NOT TO SCALE	CHECKED - MUT	REVISED -	SCALE: SHEET NO. OF SHEETS STA. -- TO STA. --								
PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISED -									

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



CABLE PLAN LEGEND

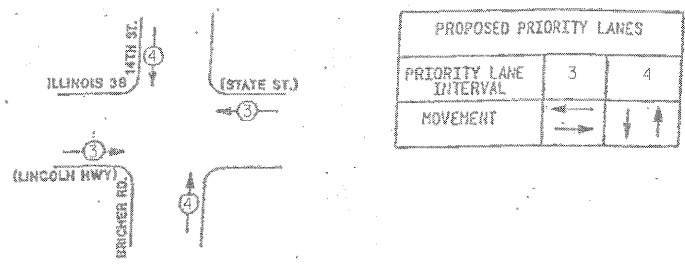
- [8"] 8" TRAFFIC SIGNAL SECTION
- [12"] 12" TRAFFIC SIGNAL SECTION
- [24SM] 24SM PEDESTRIAN SIGNAL SECTION
- [CABINET] CONTROLLER CABINET
- [SERVICE] SERVICE INSTALLATION
- [VEHICLE] VEHICLE DETECTOR, INDUCTION LOOP
- [PUSHBUTTON] PUSHBUTTON DETECTOR
- [CONDUCTORS] DENOTES NUMBER OF CONDUCTORS (CIRCUITS)
- [SHEATHED] ALL LOOP DETECTOR CABLE TO BE SHEATHED, ALL CABLE NO. 14 EXCEPT AS INDICATED.
- [EXISTING] INDICATES EXISTING CABLE
- [SIGNAL FACE] SIGNAL FACE WITH BACKPLATE - "P" INDICATES PROPOSED "L" INDICATES LOWERED
- [EXISTING SIGNAL] EXISTING SIGNAL SECTION
- [MAGNETIC] MAGNETIC DETECTOR
- [LIGHT] LIGHT DETECTOR
- [BI-DIRECTIONAL] BI-DIRECTIONAL (SPLIT) LIGHT DETECTOR HEAD
- [BEACON] CONFIRMATION BEACON

- CONSTRUCTION NOTES:
- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
 - UPGRADE EXISTING UNINTERRUPTIBLE POWER SUPPLY TO ETHERNET AND RELOCATE EXISTING UNINTERRUPTIBLE POWER SUPPLY IN NEW CABINET ENCLOSURE.
 - LIGHTING CONTROLLER IS ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET AND SHALL BE CONNECTED TO THE PROPOSED TRAFFIC SIGNAL CABINET. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAY ITEM: FULL-ACTUATED CONTROLLER AND TYPE IV CABINET.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	8
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UPGRADE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1
UPS BATTERY BACK-UP CABINET	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

EMERGENCY VEHICLE PREEMPTION SEQUENCE NOTES



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	15		17	0.50	127.50
(YELLOW)	15		25	0.25	93.75
(GREEN)	15		15	0.25	56.25
ARROW	16		12	0.10	19.20
PED. SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	-		-	1.00	-
BATTERY BACKUP SYSTEM	-		-	-	-
FLASHER	-		-	0.50	-
TOTAL =					496.70

ENERGY COSTS TO: TOTAL = 496.70

CITY OF ST. CHARLES
 2 E. MAIN STREET
 ST CHARLES, IL 60174
 ENERGY SUPPLY: CONTACT: CITY OF ST. CHARLES
 PHONE: (630) 377-4400
 COMPANY: CITY OF ST. CHARLES

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 CHECKED: _____ ALIGNED: _____
 NOTE BOOK NO.: _____ CAD FILE NAME: _____
 PLAN NO.: _____
 CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
 IL ROUTE 38 AND BRICHER / 14th STREET

DEPARTMENT OF TRANSPORTATION
 CONTROLLER SEQUENCE IV
 EMERGENCY VEHICLE PREEMPTION SEQUENCE
 CABLE PLAN
 SCHEDULE OF QUANTITIES
 IL. 38 & 14TH / BRICHER RD.
 DRAWN BY CJS
 CHECKED BY RAC
 DATE 3/2/94

FILE NAME =	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -
Ne\konecounty\0826731\office\051_CAB_IL38-Bricher.dgn		DRAWN - FCP	REVISED -
	PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISED -
	PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISED -

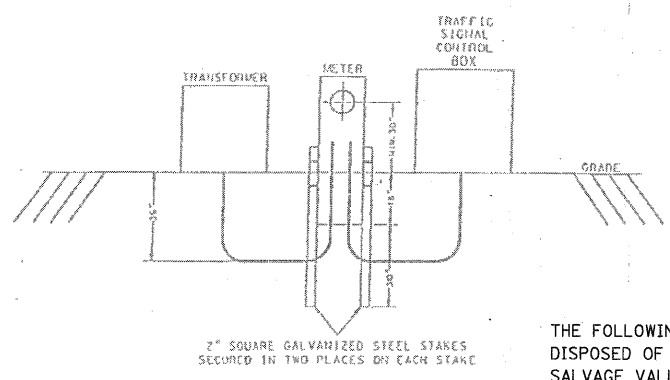
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	KANE	100	51
CONTRACT NO. 63525				ILLINOIS FED. AID PROJECT

F.A.P. RTE.	SECTION	CHARTER	DATE
336	L-WRS-1	6.411	
STA. 1230+140	TO STA. 1231+110		
FILE NAME	REVISED	DATE	

CONSTRUCTION NOTE:

- 1 REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.

TRAFFIC SIGNAL METERING DETAIL
11/9/94 NO SCALE

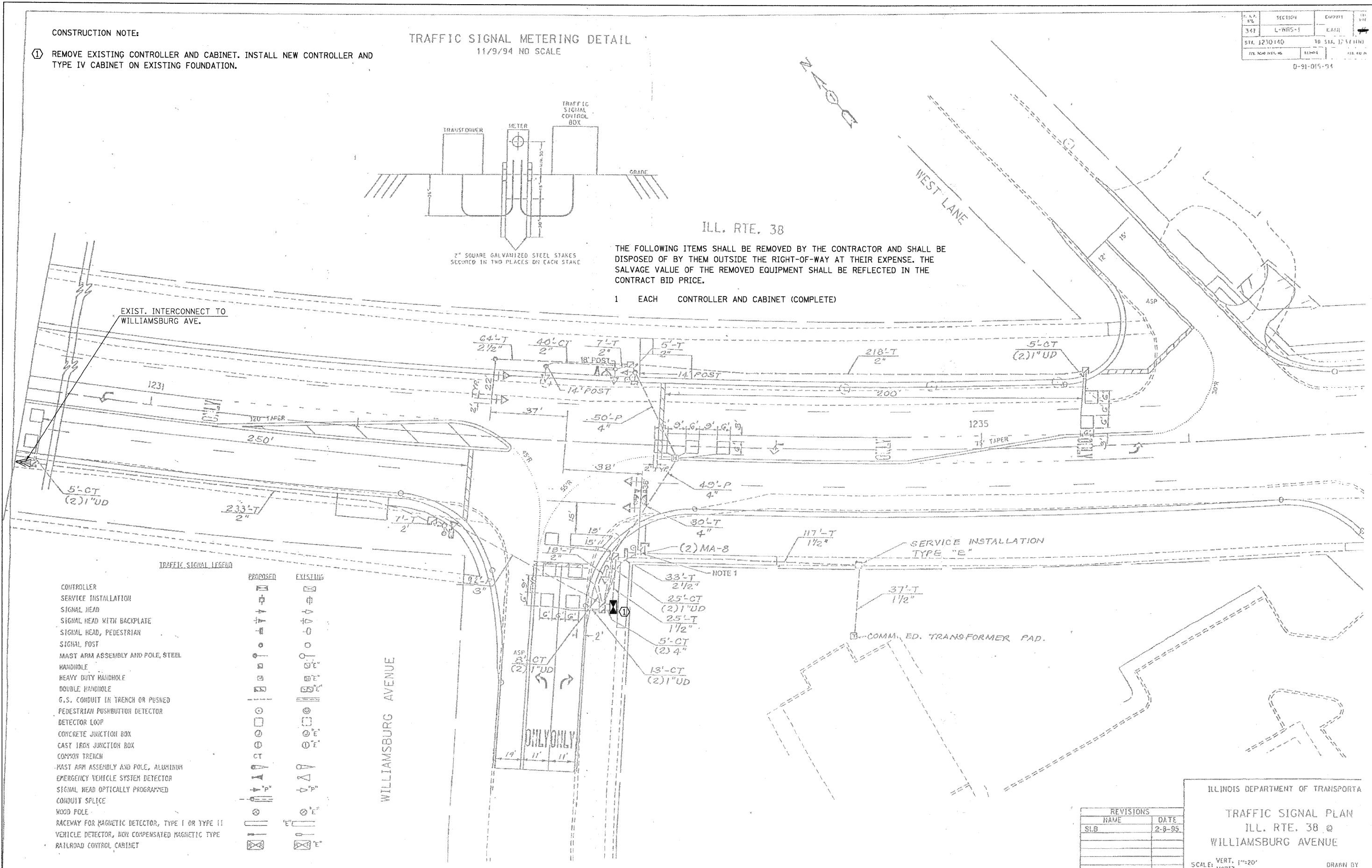


THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

DATE	BY	DATE	BY
DATE	BY	DATE	BY

CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 822-0500



TRAFFIC SIGNAL LEGEND

- | | | | | | |
|--|--|----------|--|----------|--|
| CONTROLLER | | PROPOSED | | EXISTING | |
| SERVICE INSTALLATION | | | | | |
| SIGNAL HEAD | | | | | |
| SIGNAL HEAD WITH BACKPLATE | | | | | |
| SIGNAL HEAD, PEDESTRIAN | | | | | |
| SIGNAL POST | | | | | |
| MAST ARM ASSEMBLY AND POLE, STEEL | | | | | |
| HANDHOLE | | | | | |
| HEAVY DUTY HANDHOLE | | | | | |
| DOUBLE HANDHOLE | | | | | |
| G.S. CONDUIT IN TRENCH OR PUSHED | | | | | |
| PEDESTRIAN PUSHBUTTON DETECTOR | | | | | |
| DETECTOR LOOP | | | | | |
| CONCRETE JUNCTION BOX | | | | | |
| CAST IRON JUNCTION BOX | | | | | |
| COMMON TRENCH | | | | | |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | | | | | |
| EMERGENCY VEHICLE SYSTEM DETECTOR | | | | | |
| SIGNAL HEAD OPTICALLY PROGRAMMED | | | | | |
| CONDUIT SPLICE | | | | | |
| WOOD POLE | | | | | |
| RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II | | | | | |
| VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE | | | | | |
| RAILROAD CONTROL CABINET | | | | | |

REVISIONS	
NAME	DATE
SLB	2-8-95

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL PLAN
ILL. RTE. 38 @
WILLIAMSBURG AVENUE
SCALE: VERT. 1"=20'
HORIZ. DATE 4-25-94
DRAWN BY
CHECKED BY

FILE NAME =	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -
N:\kane\county\WB0673\Traffic\052.TSD.IL38-W11	amburg.dgn	DRAWN - FCP	REVISED -
	PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISED -
	PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISED -

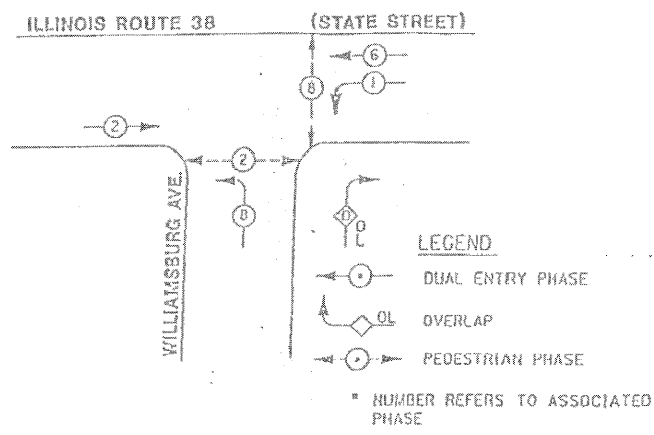
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN			
IL ROUTE 38 AND WILLIAMSBURG AVENUE			
SCALE:	SHEET NO.	OF SHEETS	STA. -- TO STA. --

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	KANE	100	52
CONTRACT NO. 63525				
ILLINOIS FED. AID PROJECT				

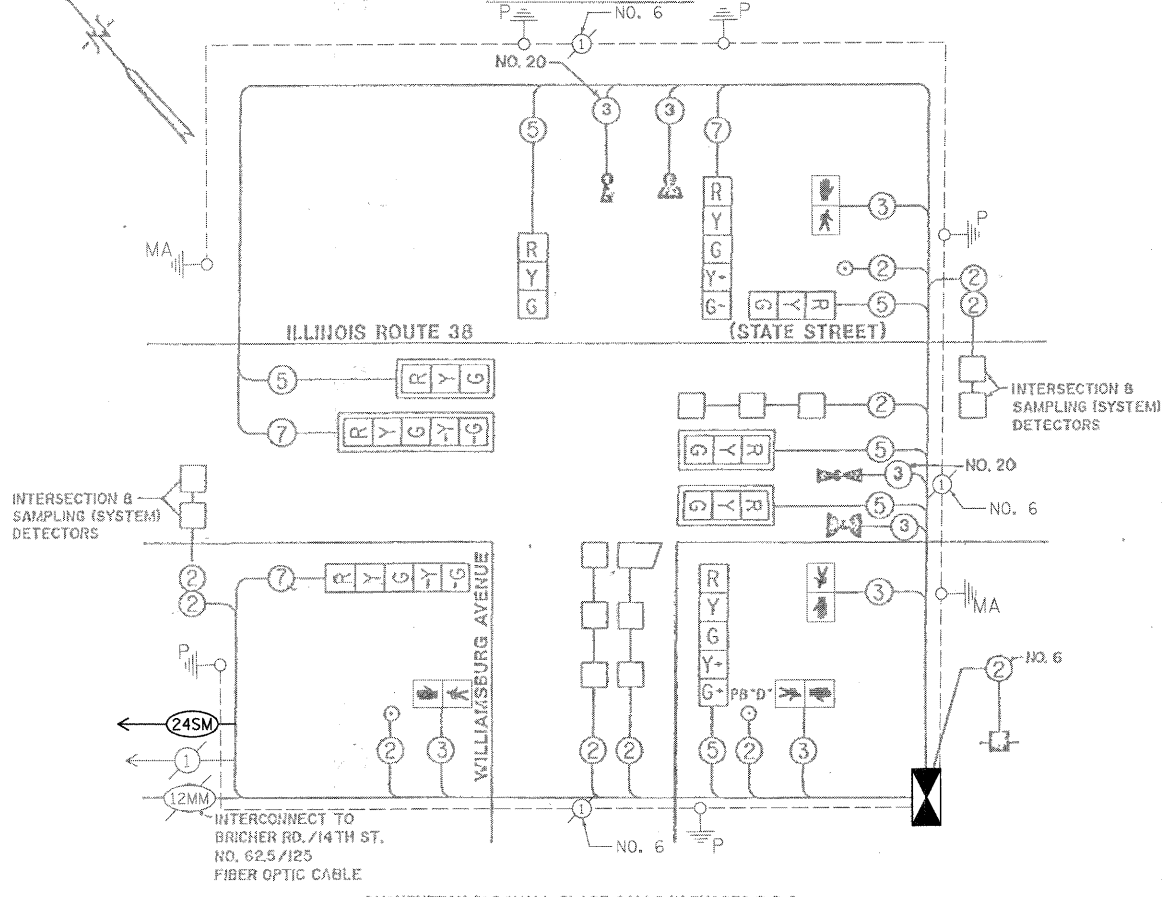
BYE	SECTION	COUNTY	DATE
347	C-WRS-1	KANE	11/19/2010
STA.		TO STA.	
723 ROAD DIST. NO. 7		FED. AID PROJECT	

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

CABLE PLAN



PUSHBUTTON "D" SHALL PLACE CALLS IN PHASES 2 & 8

CABLE PLAN LEGEND

- 8" TRAFFIC SIGNAL SECTION
- 12" TRAFFIC SIGNAL SECTION
- 12" PEDESTRIAN SIGNAL SECTION
- CONTROLLER CABINET
- SERVICE INSTALLATION
- VEHICLE DETECTOR, INDUCTION LOOP
- PUSHBUTTON DETECTOR
- INDICATES EXISTING CABLE
- SIGNAL FACE WITH BACKPLATE
- "P" INDICATES PROGRAMMED
- "L" INDICATES LOWERED
- EXISTING SIGNAL SECTION
- MAGNETIC DETECTOR
- OPTICAL DETECTOR
- DI-DIRECTIONAL (SPLIT) OPTICAL DETECTOR HEAD
- TELEPHONE CONNECTION
- CONFIRMATION BEACON

CONSTRUCTION NOTE:
 ① REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.

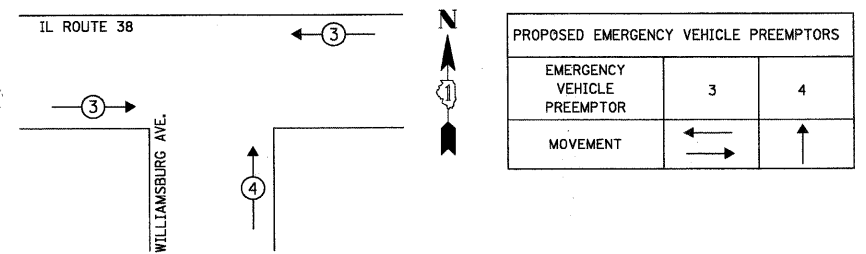
SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	7
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

RIGHT TURN OVERLAP PHASE DESIGNATION



EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑

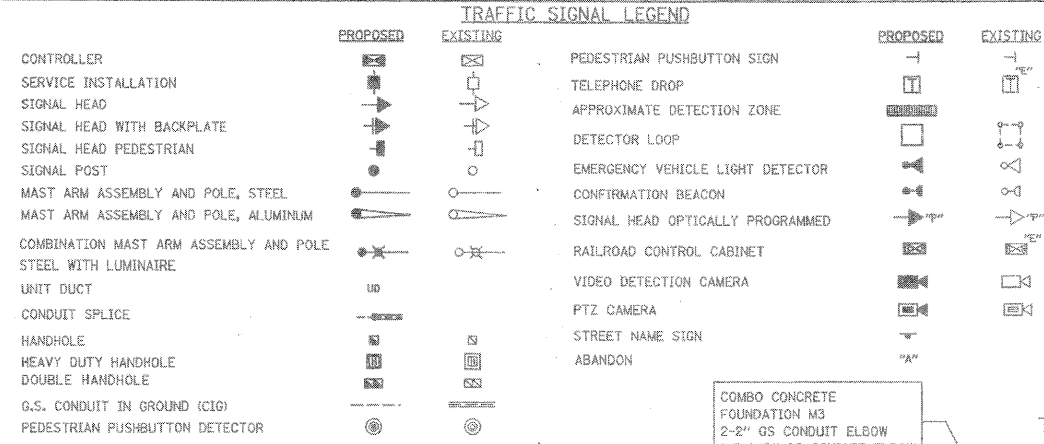
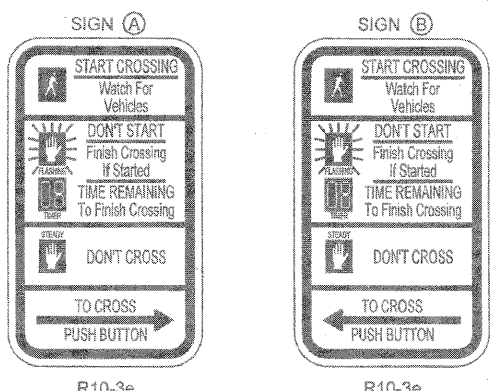
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	9	135		0.50	607.50
(YELLOW)	9	135		0.25	303.75
(GREEN)	9	135		0.25	303.75
ARROW	8	135		0.10	108.00
PED. SIGNAL	4	90		1.00	360.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN	-	252		0.05	-
VIDEO SYSTEM	-	150		1.00	-
BATTERY BACKUP SYSTEM					
FLASHER	-	-		0.50	-
ENERGY COSTS TO:					TOTAL = 1783.00

CITY OF ST. CHARLES
 2 E. MAIN STREET
 ST CHARLES, IL 60174
 ENERGY SUPPLY: CONTACT: CITY OF ST. CHARLES
 PHONE: (630) 377-4400
 COMPANY: CITY OF ST. CHARLES

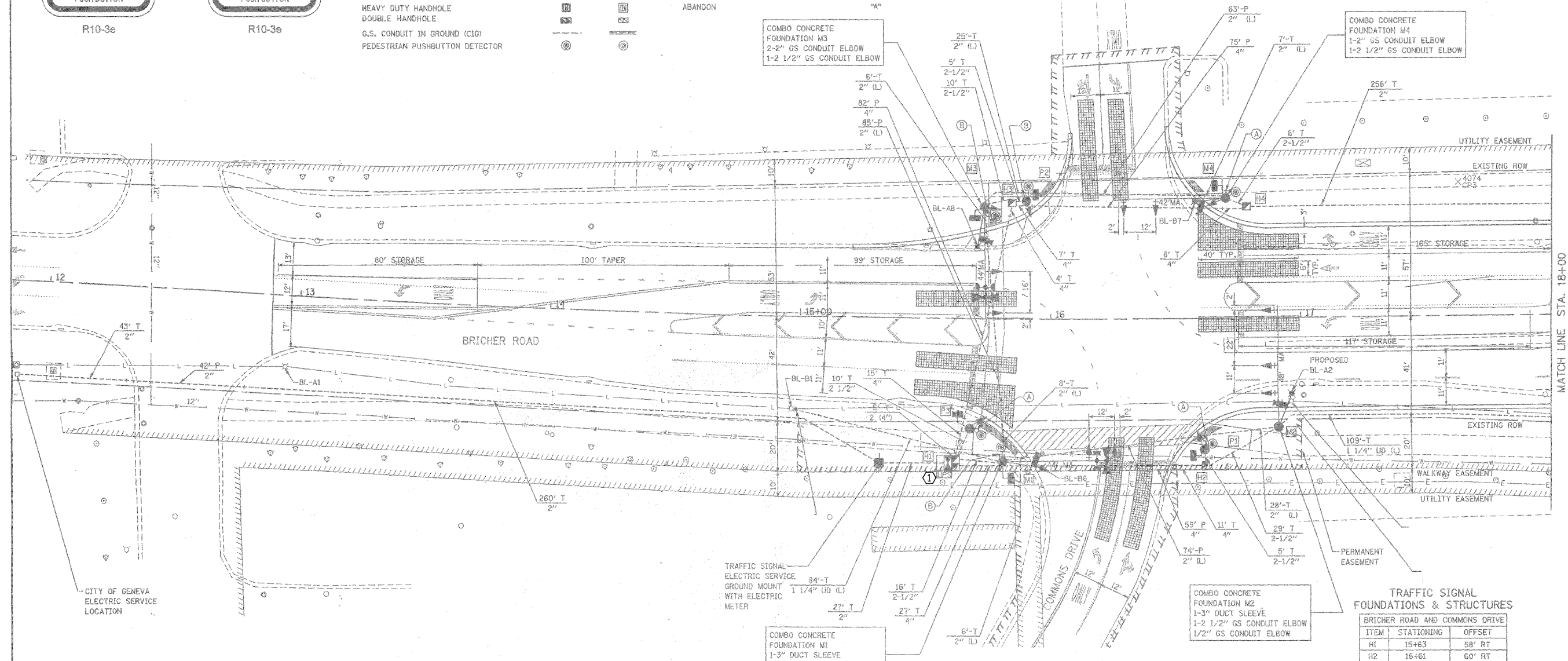
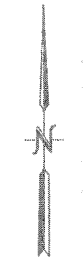
DATE	BY	DATE	BY
DATE	BY	DATE	BY

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9875 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0800

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____ CHECKED: _____
 ALIGNMENT: _____ CADD FILE NAME: _____
 PLAN: _____ NO. _____
 NOTE BOOK: _____
 CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500
 DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____ CHECKED: _____
 ALIGNMENT: _____ CADD FILE NAME: _____
 PROFILE: _____ NO. _____
 NOTE BOOK: _____
 STRUCTURE NOTATION: _____



CONSTRUCTION NOTE:
 ① INSTALL MANAGED ETHERNET SWITCH, TYPE I IN EXISTING TRAFFIC SIGNAL CABINET.



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, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

SCHEDULE OF COMBINATION MAST ARM ASSEMBLY AND POLE

ITEM	DESCRIPTION
MA-1	44' MAST ARM, 15' LUMINAIRE ARM, 45' VIDEO DETECTION MOUNTING HEIGHT
MA-2	48' MAST ARM, 15' LUMINAIRE ARM, 45' VIDEO DETECTION MOUNTING HEIGHT
MA-3	44' MAST ARM, 15' LUMINAIRE ARM, 45' VIDEO DETECTION MOUNTING HEIGHT
MA-4	42' MAST ARM, 15' LUMINAIRE ARM, 45' VIDEO DETECTION MOUNTING HEIGHT

THE TRAFFIC SIGNAL CONTROLLER SUPPLIED FOR THIS CONTRACT SHALL BE MANUFACTURED BY "EAGLE" AND BE COMPATIBLE WITH THE ADJACENT RANDALL ROAD CLOSED LOOP SIGNAL SYSTEM

TRAFFIC SIGNAL FOUNDATIONS & STRUCTURES

ITEM	STATIONING	OFFSET
H1	15+63	58' RT
H2	16+61	60' RT
H3	15+85	47' LT
H4	16+79	45' LT
H5	19+49	48' LT
M1	15+81	57' RT
M2	16+91	44' RT
M3	15+73	45' LT
M4	16+70	48' LT
P1	16+61	53' RT
P2	15+90	47' LT
P3	15+68	44' RT

REVISIONS

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION

CITY OF GENEVA
 1800 SOUTH STREET
 GENEVA, ILLINOIS 60134
 (630)232-1501

HAMPTON, LENZINI & RENWICK, INC.
 380 SHEPARD DRIVE • ELGIN, ILLINOIS 60123
 (847)697-6700 • www.hirengineering.com
 CIVIL ENGINEERS • STRUCTURAL ENGINEERS • LAND SURVEYORS

DESIGNED - CJM
 DRAWN - SMS
 CHECKED - JAS
 DATE - 5/1/03

PROJECT NO. - 06.0039
 FILE - sht-ts-bricher
 SCALE - 1"=20'

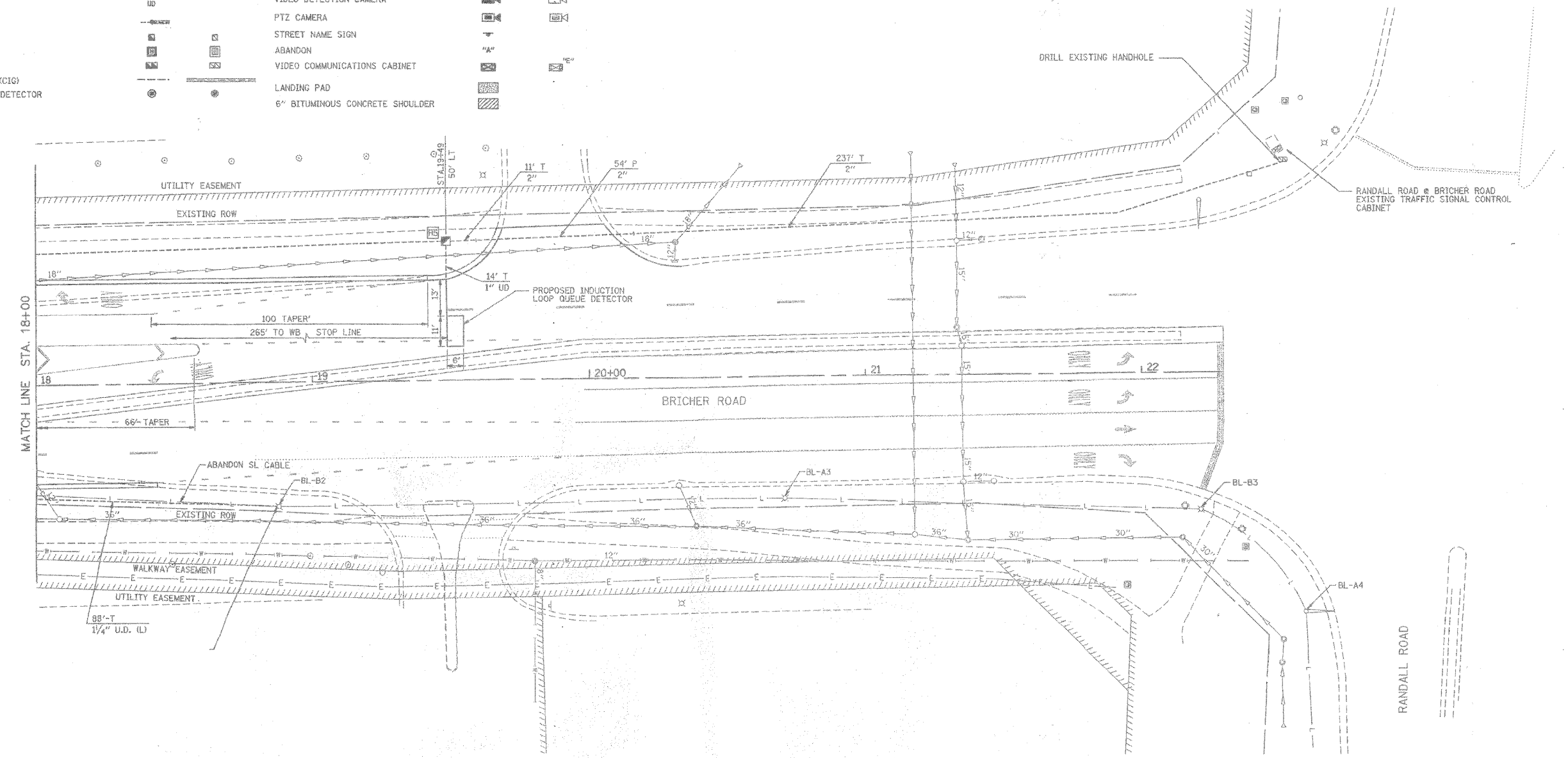
BRICHER ROAD AT COMMONS DRIVE
 TRAFFIC SIGNAL PLAN
 STA. 12+00 TO STA. 18+00

31 **9**
 TOTAL SHEETS SHEET NUMBER

SURVEYED BY: _____ DATE: _____
 PLOTTED BY: _____ CHECKED BY: _____
 ALIGNMENT CHECKED BY: _____
 CADD FILE NAME: _____
 NO. _____
 PLAN NO. _____
 NOTE BOOK NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500
 SURVEYED BY: _____ DATE: _____
 PLOTTED BY: _____ CHECKED BY: _____
 STRUCTURE NOTATION CHKD BY: _____
 NO. _____
 PROFILE NO. _____

TRAFFIC SIGNAL LEGEND

CONTROLLER		EXISTING		PEDESTRIAN PUSHBUTTON SIGN		
SERVICE INSTALLATION				TELEPHONE DROP		
SIGNAL HEAD				APPROXIMATE DETECTION ZONE		
SIGNAL HEAD WITH BACKPLATE				DETECTOR LOOP		
SIGNAL HEAD PEDESTRIAN				EMERGENCY VEHICLE LIGHT DETECTOR		
SIGNAL POST				CONFIRMATION BEACON		
MAST ARM ASSEMBLY AND POLE, STEEL				SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, ALUMINUM				RAILROAD CONTROL CABINET		
COMBINATION MAST ARM ASSEMBLY AND POLE STEEL WITH LUMINAIRE				VIDEO DETECTION CAMERA		
UNIT DUCT				PTZ CAMERA		
CONDUIT SPLICE				STREET NAME SIGN		
HANDHOLE				ABANDON		
HEAVY DUTY HANDHOLE				VIDEO COMMUNICATIONS CABINET		
DOUBLE HANDHOLE				LANDING PAD		
G.S. CONDUIT IN GROUND (CIG)				6" BITUMINOUS CONCRETE SHOULDER		
PEDESTRIAN PUSHBUTTON DETECTOR						



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 SOG, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

THE TRAFFIC SIGNAL CONTROLLER SUPPLIED FOR THIS CONTRACT SHALL BE MANUFACTURED BY "EAGLE" AND BE COMPATIBLE WITH THE ADJACENT RANDALL ROAD CLOSED LOOP SIGNAL SYSTEM

REVISIONS

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION

CITY OF GENEVA
 1800 SOUTH STREET
 GENEVA, ILLINOIS 60134
 (630)232-1501

HILR
 HAMPTON, LENZINI & RENWICK, INC.
 380 SHEPARD DRIVE • ELGIN, ILLINOIS 60123
 (847)697-6700 • www.hlrengineering.com
 CIVIL ENGINEERS • STRUCTURAL ENGINEERS • LAND SURVEYORS

DESIGNED - CJM
 DRAWN - SMS
 CHECKED - JAS
 DATE - 5/1/09

PROJECT NO. - 08.0039
 FILE - sst-ts-bricher1
 SCALE - 1"=20'

BRICHER ROAD AT COMMONS DRIVE
TRAFFIC SIGNAL INTERCONNECT AND QUEUE DETECTOR
 STA. 18+00 TO STA. 22+00

31 **10**
 TOTAL SHEETS SHEET NUMBER

FILE NAME = N:\kane\county\0806731\Traffic\085.TS02.Br-cher
 USER NAME = FPACIONE
 DESIGNED - ABR
 DRAWN - FCP
 CHECKED - MJT
 PLOT DATE = 11/3/2010

REVISED -
 REVISED -
 REVISED -
 REVISED -
 DATE - AUGUST 31, 2010
 REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

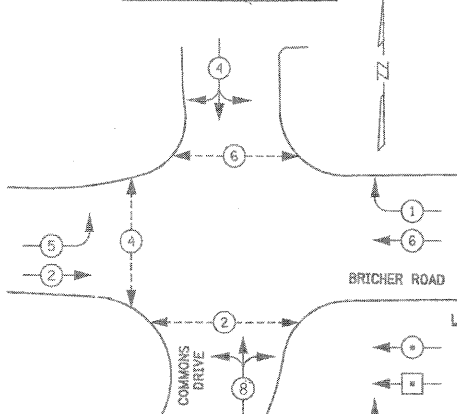
TRAFFIC SIGNAL MODERNIZATION PLAN
BRICHER ROAD AND GENEVA COMMONS
 SCALE: SHEET NO. OF SHEETS STA. -- TO STA. --

F.A.P. R.T.E. 336 SECTION 09-00237-02-TL COUNTY KANE TOTAL SHEETS 100 SHEET NO. 55 CONTRACT NO. 63525 ILLINOIS FED. AID PROJECT

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 CHECKED: _____ ALIGNED: _____
 NO. _____ DATE: _____
 FILE NAME: _____
 PROJECT: _____
 STRUCTURE: _____
 NOTES: _____
 NO. _____
 DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 CHECKED: _____ ALIGNED: _____
 NO. _____ DATE: _____
 FILE NAME: _____
 PROJECT: _____
 STRUCTURE: _____
 NOTES: _____
 NO. _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

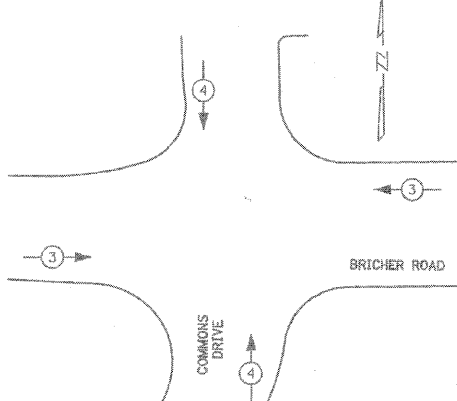
CONTROLLER SEQUENCE



THE TRAFFIC SIGNAL CONTROLLER SUPPLIED FOR THIS CONTRACT SHALL BE MANUFACTURED BY "EAGLE" AND BE COMPATIBLE WITH THE ADJACENT RANDALL ROAD CLOSED LOOP SIGNAL SYSTEM

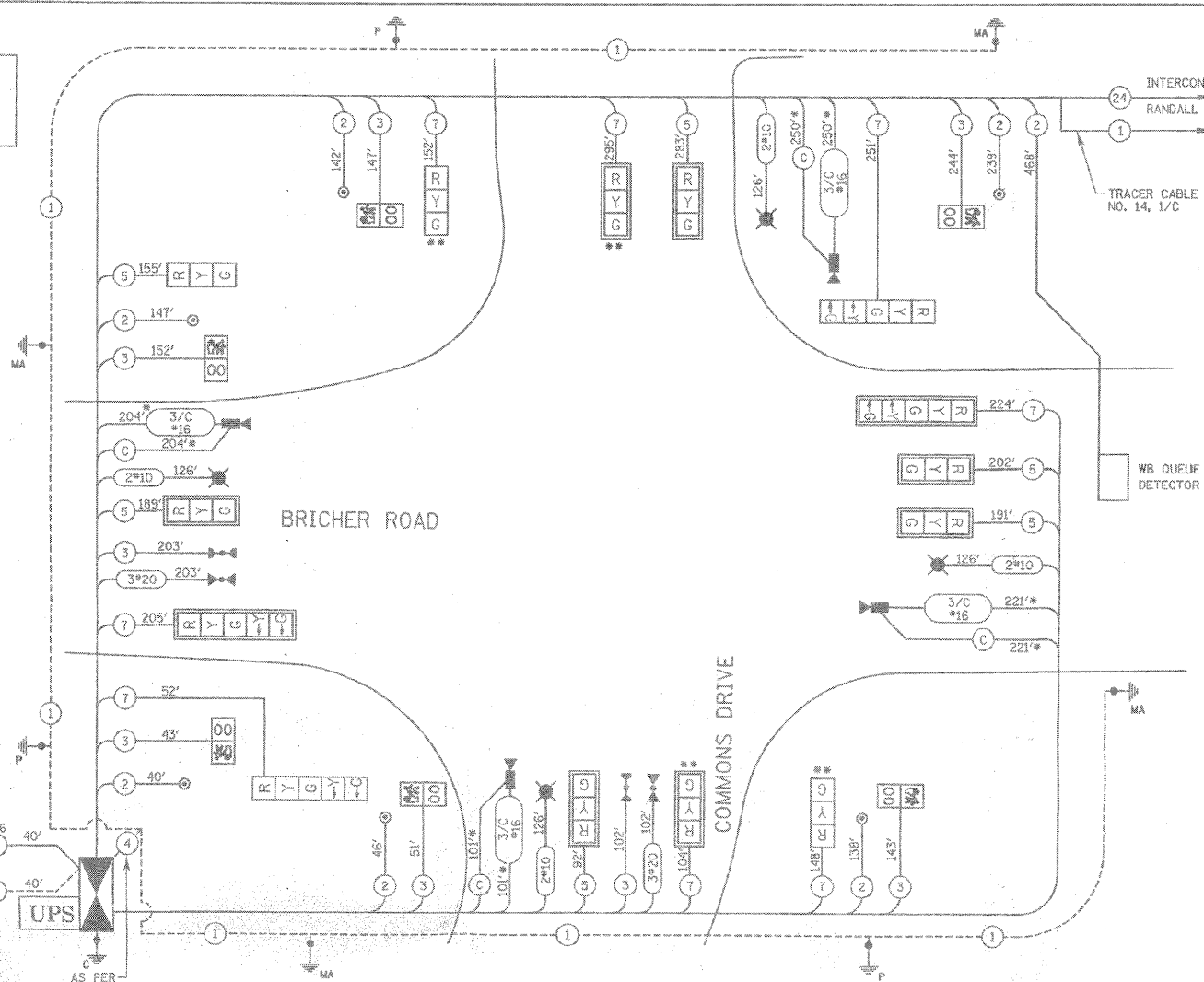
LEGEND
 ○ DUAL ENTRY
 □ SINGLE ENTRY
 ○ OVERLAP
 ○ PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE

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



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
○	○	8" (200mm) TRAFFIC SIGNAL SECTION
○	○	12" (300mm) TRAFFIC SIGNAL SECTION
○	○	12" (300mm) PEDESTRIAN SIGNAL SECTION
○	○	12" (300mm) PEDESTRIAN SIGNAL FACE WITH COUNTDOWN FEATURE
○	○	CONTROLLER CABINET
○	○	SERVICE INSTALLATION
○	○	TELEPHONE CONNECTION
○	○	VEHICLE DETECTOR, INDUCTION LOOP
○	○	MAGNETIC DETECTOR
○	○	EMERGENCY VEHICLE LIGHT DETECTOR
○	○	CONFIRMATION BEACON
○	○	PUSHBUTTON DETECTOR
○	○	LUMINAIRE
○	○	2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP LEAD-IN CABLE TO BE SHIELDED.
○	○	1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
○	○	24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM2F SM12F
○	○	COAXIAL CABLE IN CONDUIT BELDEN 6281 RG-59U TYPE COAXIAL
○	○	SIGNAL FACE WITH BACKPLATE, "F" INDICATES PROGRAMMED HEAD
○	○	RAILROAD CONTROL CABINET
○	○	ILLUMINATED SIGN, "NO LEFT TURN"
○	○	ILLUMINATED SIGN, "NO RIGHT TURN"
○	○	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (GH), OR CONTROLLER (C)
○	○	GROUND ROD AT POST (P), OR MAST ARM POLE (MA)
○	○	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
○	○	ILLUMINATED STREET NAME SIGN WITH PHOTOCELL
○	○	MACHINE VISION PROCESSOR (MVP)
○	○	DOME PAN/TILT/ZOOM (PTZ) CAMERA
○	○	UNINTERRUPTIBLE POWER SUPPLY

CONSTRUCTION NOTES:
 ① INSTALL MANAGED ETHERNET SWITCH, TYPE I IN EXISTING TRAFFIC SIGNAL CABINET.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
TERMINATE FIBER IN CABINET	EACH	6
ETHERNET MANAGED SWITCH, TYPE 1	EACH	1

Electric Load for Intersection

Intersection	Component Type	Number	Watts	VA	VA	VA	VA	VA	VA
Bricher Road	12" Red Circles LED	14	6	112	0.74	62.28			
	12" Yellow Circles LED	14	10	226	0.61	70.04			
	12" Green Circles LED	14	11	154	0.55	63.59			
Geneva Commons	12" Red Arrow LED	0	6.5	0	0.00	0.00			
	12" Yellow Arrow LED	4	9	58	0.03	1.39			
	12" Green Arrow LED	4	8.5	22	0.10	2.20			
TS Traffic Signal	Pedestrian LED	0	7	42	1.00	42.00			
	TS EYP Detection	2	4	8	1.00	8.00			
	TS Video Detection	4	28	100	1.00	100.00			
SL Street Light	TS UPS	1	50	60	1.00	60.00			
	TS Control Cabinet	1	100	100	1.00	100.00			
	Street Light	4				250	1000	12.00	12000.00
Total watt/hour						450.70		450.70	12.00
Energy costs to City of Geneva						10.93		10.93	12.00
City of Geneva Contract: Jennifer Hilsenrath at 630-232-1500									

FOUNDATION DEPTH

FOUNDATION DEPTH	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL CABLE	FT. (m)
TYPE A - POST	4' (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4' (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (J) POLE	20' (6.1)
E - M. ARM POLE		SIGNAL POST	2 (0.6)		86m (281.7)
C30 MA 30" DIA.	10' (3.0)	CONTROLLER CAB.	1 (0.3)	BRACKET MOUNTED	13 (4.0)
C40 MA 30" DIA.	13' (4.0)	FIBER OPTIC	13 (4.0)	SPEC. PUSHBUTTON	4 (1.2)
C50 MA 36" DIA.	11' (3.4)	ELECTRIC SERVICE	1 (0.3)	ELECTRIC SERVICE	13.5 (4.1)
C60 MA 36" DIA.	13' (4.0)	GROUND CABLE	1 (0.3)	SERVICE TO GROUND	13.5 (4.1)
C80 MA 36" DIA.	15' (4.6)			POST MOUNTED	6 (1.8)

REVISIONS

NO.	DATE	DESCRIPTION

CITY OF GENEVA
 1800 SOUTH STREET
 GENEVA, ILLINOIS 60134
 (630)232-1501

HAMPTON, LENZINI & RENWICK, INC.
 380 SHEPARD DRIVE • ELGIN, ILLINOIS 80123
 (847)897-8700 • www.hlrengineering.com
 CIVIL ENGINEERS • STRUCTURAL ENGINEERS • LAND SURVEYORS

DESIGNED - CJM
 DRAWN - SMS
 CHECKED - JAS
 DATE - 5/1/08

PROJECT NO. - 08.0039
 FILE - sh-t-cable
 SCALE - NONE

BRICHER ROAD AT COMMONS DRIVE
TRAFFIC SIGNAL CABLE PLAN
31 12
 TOTAL SHEETS SHEET NUMBER

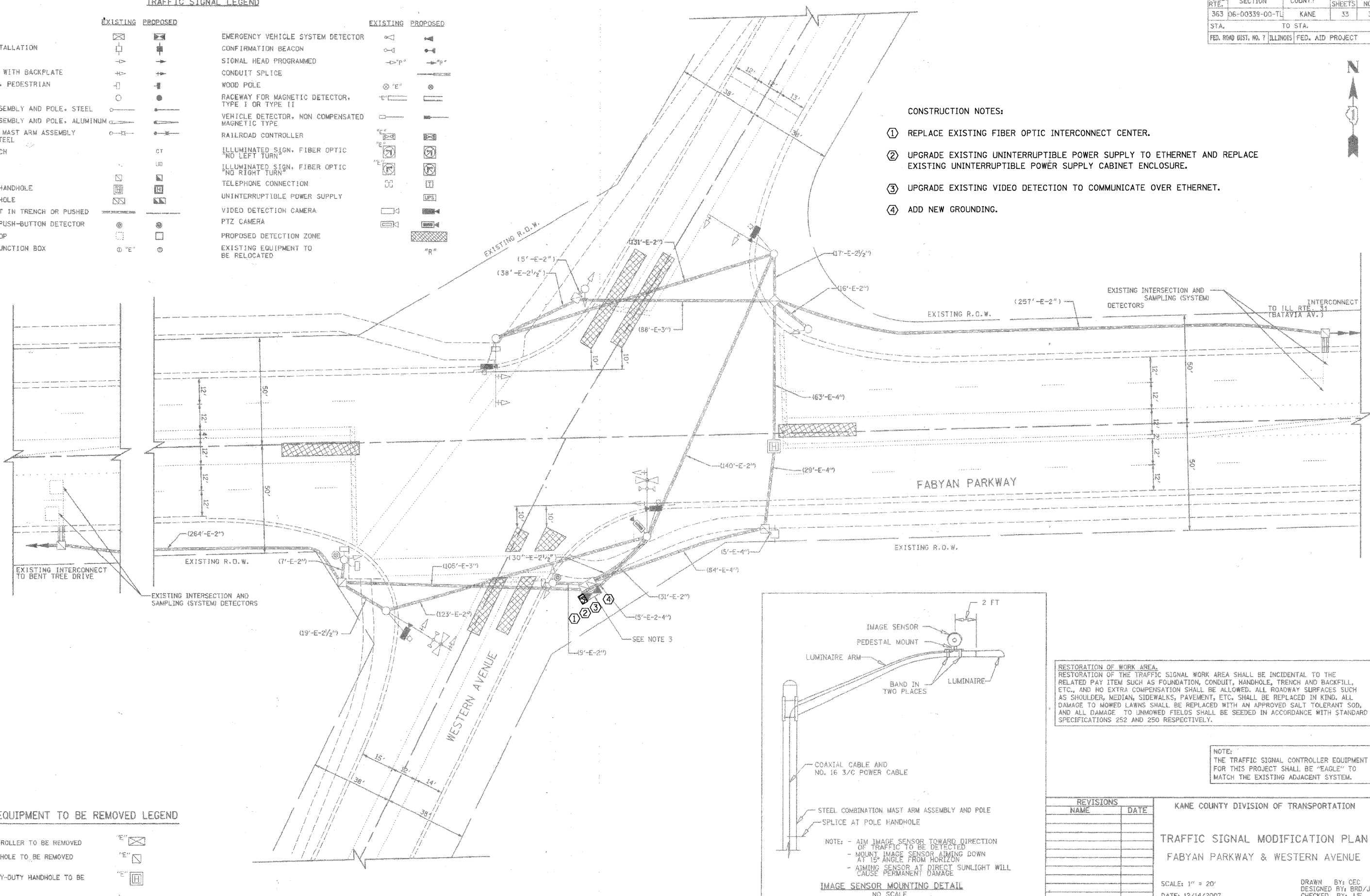
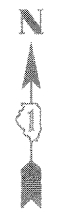
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
363	06-00339-00-TL	KANE	33	3
STA.	TO STA.			
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

TRAFFIC SIGNAL LEGEND

EXISTING		PROPOSED		EXISTING		PROPOSED	
CONTROLLER			EMERGENCY VEHICLE SYSTEM DETECTOR			CONFIRMATION BEACON	
SERVICE INSTALLATION			SIGNAL HEAD PROGRAMMED			CONDUIT SPLICE	
SIGNAL HEAD			WOOD POLE			RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	
SIGNAL HEAD WITH BACKPLATE			VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE			RAILROAD CONTROLLER	
SIGNAL HEAD, PEDESTRIAN			ILLUMINATED SIGN, FIBER OPTIC NO LEFT TURN			ILLUMINATED SIGN, FIBER OPTIC NO RIGHT TURN	
SIGNAL POST			TELEPHONE CONNECTION			UNINTERRUPTIBLE POWER SUPPLY	
MAST ARM ASSEMBLY AND POLE, STEEL			UNINTERRUPTIBLE POWER SUPPLY			VIDEO DETECTION CAMERA	
MAST ARM ASSEMBLY AND POLE, ALUMINUM			VIDEO DETECTION CAMERA			PTZ CAMERA	
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL			PROPOSED DETECTION ZONE			EXISTING EQUIPMENT TO BE RELOCATED	
COMMON TRENCH			EXISTING EQUIPMENT TO BE RELOCATED				
UNIT DUCT							
HANDHOLE							
HEAVY-DUTY HANDHOLE							
DOUBLE HANDHOLE							
G.S. CONDUIT IN TRENCH OR PUSHED							
PEDESTRIAN PUSH-BUTTON DETECTOR							
DETECTOR LOOP							
CAST IRON JUNCTION BOX							

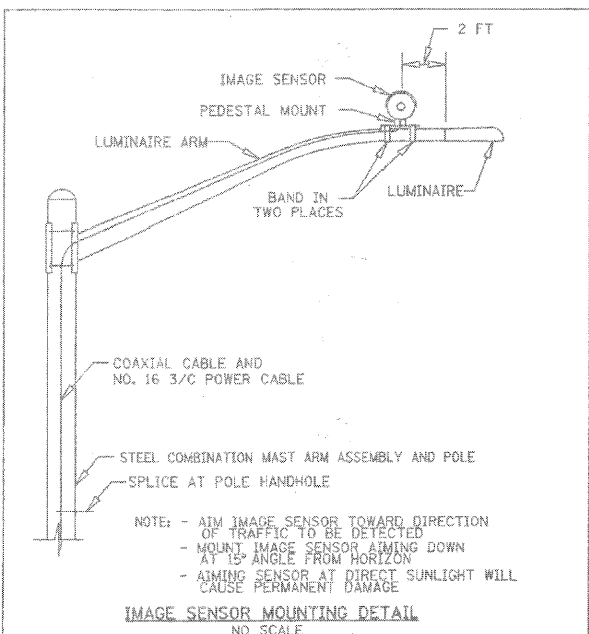
CONSTRUCTION NOTES:

- REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- UPGRADE EXISTING UNINTERRUPTIBLE POWER SUPPLY TO ETHERNET AND REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY CABINET ENCLOSURE.
- UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.
- ADD NEW GROUNDING.



EXISTING EQUIPMENT TO BE REMOVED LEGEND

EXISTING CONTROLLER TO BE REMOVED	
EXISTING HANDHOLE TO BE REMOVED	
EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED	



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 SHOULDER, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SALT TOLERANT SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

REVISIONS	
NAME	DATE

KANE COUNTY DIVISION OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION PLAN
 FABYAN PARKWAY & WESTERN AVENUE
 SCALE: 1" = 20'
 DATE: 12/14/2007
 DRAWN BY: CEC
 DESIGNED BY: BRD/JSH
 CHECKED BY: JUE

FILE NAME = N:\kanecounty\080673\Traffic\057_TSD_Fabyan	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -
	Plwy-Western.dgn	DRAWN - FCP	REVISED -
	PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISED -
	PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN			
FABYAN PARKWAY AND WESTERN AVENUE			
SCALE:	SHEET NO.	OF SHEETS	STA. -- TO STA. --

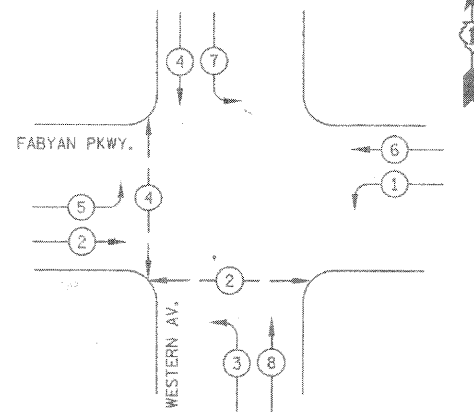
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	KANE	100	57
CONTRACT NO. 63525				ILLINOIS FED. AID PROJECT

DATE: _____ BY: _____
 SURVEYED: _____
 PLOTTED: _____
 ALIGNED: _____
 CHECKED: _____
 CADD FILE NAME: _____
 PLAN NO.: _____
 NOTE BOOK NO.: _____
 DATE: _____ BY: _____
 SURVEYED: _____
 PLOTTED: _____
 STRUCTURE: NOTAT/NE CRK40

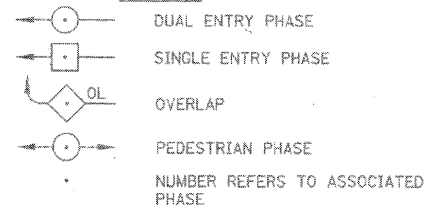
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
363	06-00339-00-TL	KANE	33	4
STA. TO STA.		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		

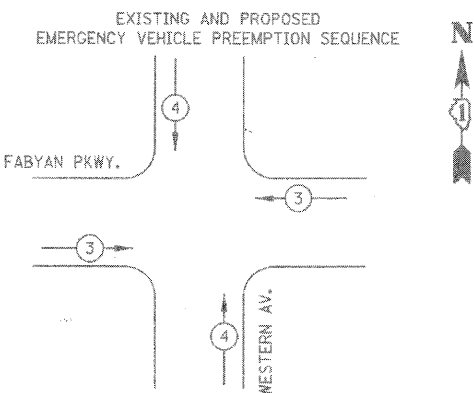
EXISTING AND PROPOSED CONTROLLER SEQUENCE



LEGEND



PHASE DESIGNATION DIAGRAM



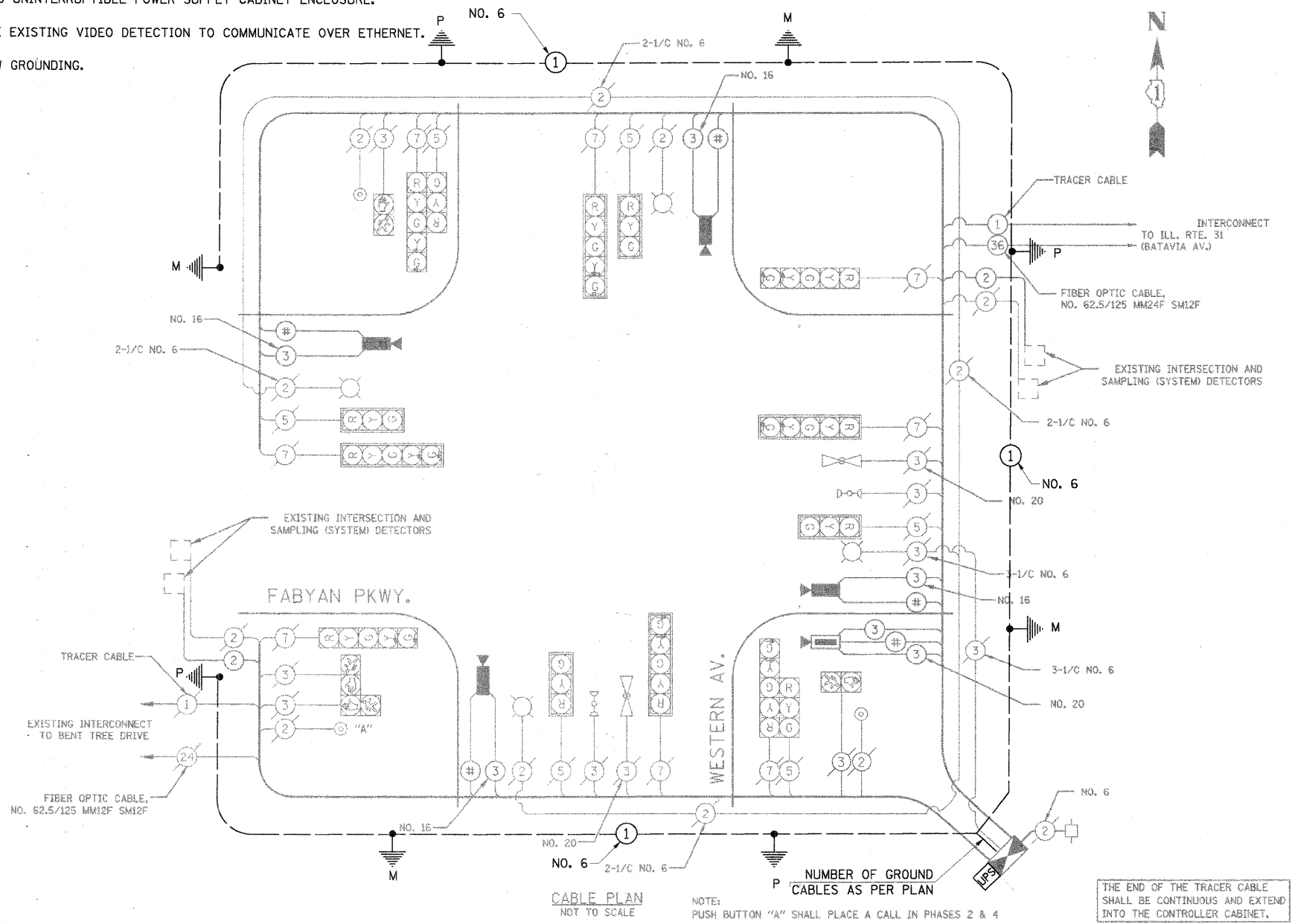
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	→

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	8" (200mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	TELEPHONE CONNECTION
[Symbol]	[Symbol]	MAGNETIC DETECTOR
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	VEHICLE DETECTOR, INDUCTION LOOP
[Symbol]	[Symbol]	2 DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol]	MICROWAVE VEHICLE SENSOR
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"
[Symbol]	[Symbol]	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C).
[Symbol]	[Symbol]	GROUND ROD AT POST (P), OR MAST ARM POLE (MA).
[Symbol]	[Symbol]	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
[Symbol]	[Symbol]	# COAXIAL CABLE
[Symbol]	[Symbol]	IMAGE SENSOR
[Symbol]	[Symbol]	STREET LIGHT LUMINAIRE
[Symbol]	[Symbol]	DOME PAN/TILT/ZOOM (PTZ) CAMERA
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY
[Symbol]	[Symbol]	"R" RELOCATED SIGNAL EQUIPMENT

CONSTRUCTION NOTES:

- REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- UPGRADE EXISTING UNINTERRUPTIBLE POWER SUPPLY TO ETHERNET AND REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY CABINET ENCLOSURE.
- UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.
- ADD NEW GROUNDING.



SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	6
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C	FOOT	745
TERMINATE FIBER IN CABINET	EACH	6
MODIFY VIDEO PROCESSING UNIT	EACH	1
FIBER OPTIC INTERCONNECT CENTER	EACH	1
SPlice FIBER IN CABINET	EACH	6
UPGRADE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1
UPS BATTERY BACK-UP CABINET	EACH	1
VIDEO ENCODER, VIDEO DETECTION SYSTEM	EACH	1

CONSTRUCTION NOTES:

- REPLACE EXISTING FIBER OPTIC INTERCONNECT CENTER.
- UPGRADE EXISTING UNINTERRUPTIBLE POWER SUPPLY TO ETHERNET AND REPLACE EXISTING UNINTERRUPTIBLE POWER SUPPLY CABINET ENCLOSURE.
- UPGRADE EXISTING VIDEO DETECTION TO COMMUNICATE OVER ETHERNET.

TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14		17	0.50	119
(YELLOW)	14		25	0.25	88
(GREEN)	14		15	0.25	53
ARROW	16		12	0.10	20
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
VIDEO SYSTEMS	1		150	1.00	150
LUMINAIRE	4	310		0.50	620
FLASHER				0.50	
TOTAL =					1250

ENERGY COSTS TO: CITY OF BATAVIA
100 N. ISLAND AVENUE
BATAVIA, IL 60510

ENERGY SUPPLY: CONTACT: STEVE LUSTED
PHONE: (630) 879-1424
COMPANY: CITY OF BATAVIA

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (2.0)
D- CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-HL-2=
E- M. ARM POLE		SIGNAL POST	2 (1.0)		6mHL-0.6m=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

FILE NAME =	USER NAME = FPAIONE	DESIGNED - ABR	REVISED -
N:\kanecounty\0806731\Traffic\0806_CAB_Fabyan Pkwy-Western.dgn		DRAWN - FCP	REVISED -
PLOT SCALE = NOT TO SCALE		CHECKED - MJT	REVISED -
PLOT DATE = 11/3/2010		DATE - AUGUST 31, 2010	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCALE:	SHEET NO. OF SHEETS	STA. -- TO STA. --
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REVISIONS	NAME	DATE

KANE COUNTY DIVISION OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
FABYAN PARKWAY & WESTERN AVENUE
SCALE: NOT TO SCALE
DATE: 12/14/2007
DRAWN BY: CEC
DESIGNED BY: BRD/JSH
CHECKED BY: JJE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	KANE	100	58
CONTRACT NO. 63525				ILLINOIS/FED. AID PROJECT

SURVEYED BY: DATE: _____
 PLOTTED BY: DATE: _____
 CHECKED BY: DATE: _____
 NOTE BOOK NO.: _____
 FILE NAME: _____
 PROFILE SURVEYED BY: DATE: _____
 PLOTTED BY: DATE: _____
 CHECKED BY: DATE: _____
 NOTE BOOK NO.: _____
 FILE NAME: _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9675 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

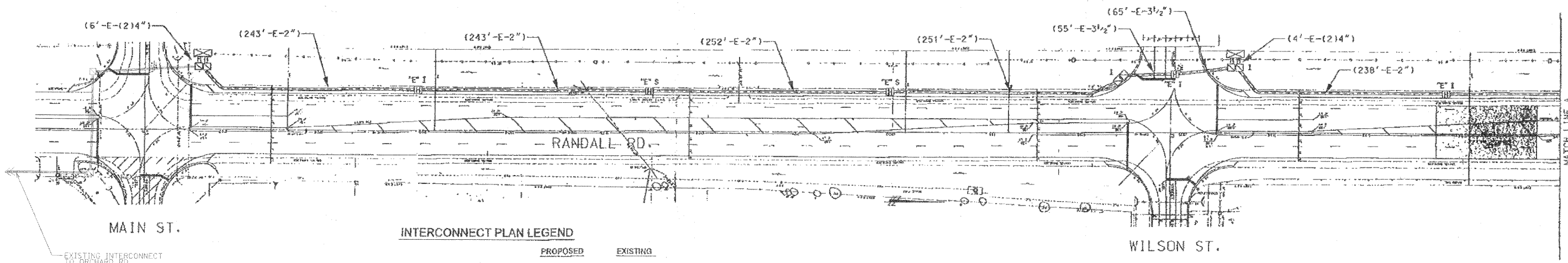
DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____ CHECKED: _____
 ALIGNMENT: _____ ROAD: _____
 CADD FILE NAME: _____
 NO. _____

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____ CHECKED: _____
 STRUCTURE: _____ NOTATION: _____
 NO. _____

PROFILE
 NOTE BOOK
 NO. _____

PLAN
 NOTE BOOK
 NO. _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

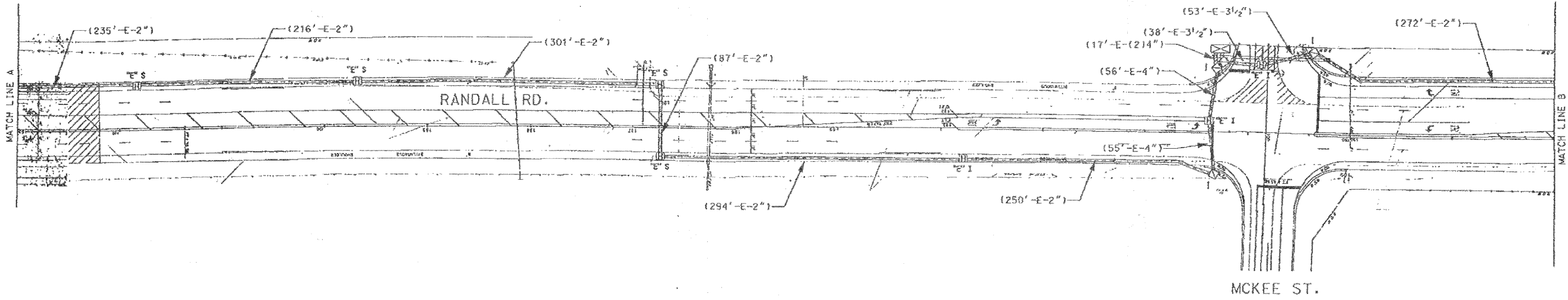


INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
S.S. CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I



SCALE: 1"=50'



FOR INFORMATION ONLY



METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60103 PH# 630-213-1000

REVISIONS		
NO.	DATE	DESCRIPTION

INTERCONNECT PLAN
 RANDALL RD. (MAIN ST. TO KESLINGER RD.)
 GENEVA / BATAVIA, ILLINOIS

FILE NAME: Io_1.dgn	SHEET NO.: 15
DATE: Apr 11 15, 1999	OF 24
PROJECT NO.: 3857-00	

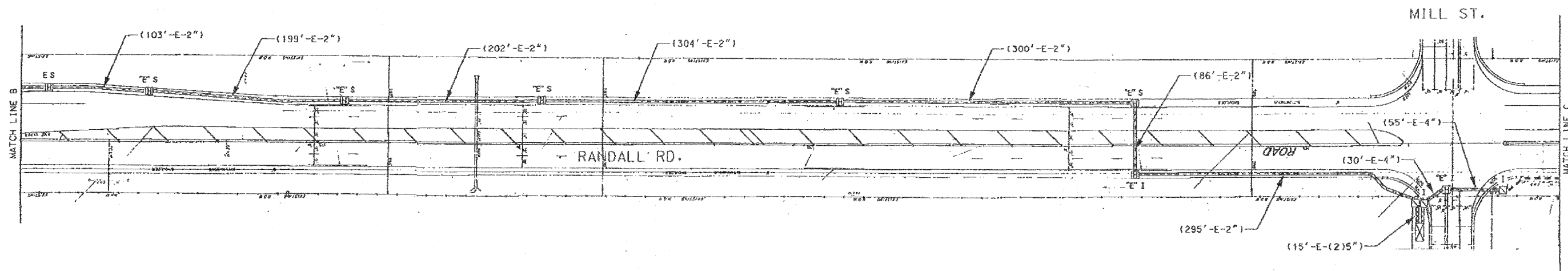
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		DRAWN - FCP	REVISED -
		CHECKED - MJT	REVISED -
		DATE - AUGUST 31, 2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:	SHEET NO.	OF	SHEETS	STA. --	TO STA. --
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F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 59
CONTRACT NO. 63525				
ILLINOIS FED. AID PROJECT				

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____ CHECKED: _____
 ALIGNED: _____ ASSEMBLED: _____
 PLAN: _____ NOTE BOOK: _____
 NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500
 PROFILE: _____ SURVEYED: _____ PLOTTED: _____ CHECKED: _____
 NOTE BOOK: _____
 NO. _____
 STRUCTURE: _____ NO. / DATE: _____

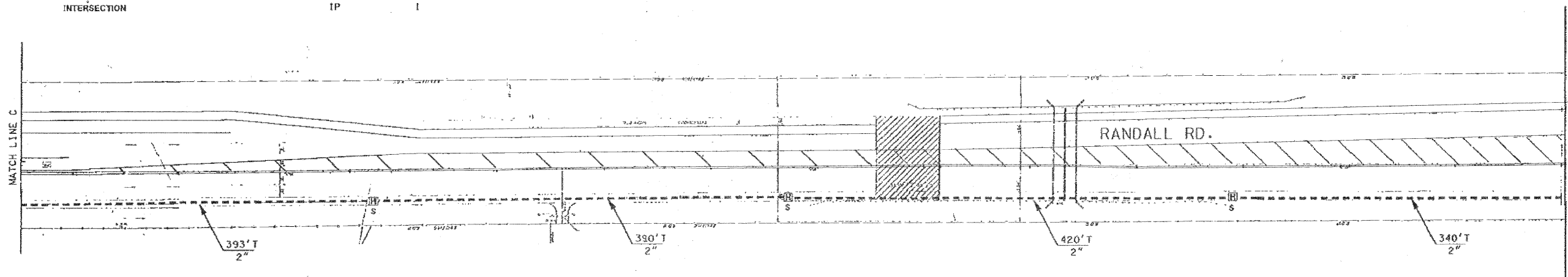


INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I



SCALE: 1"=50'



FOR INFORMATION ONLY



METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60103 PH# 630 213-1000

REVISIONS		
NO.	DATE	DESCRIPTION

INTERCONNECT PLAN
 RANDALL RD. (MAIN ST. TO KESLINGER RD.)
 GENEVA / BATAVIA, ILLINOIS

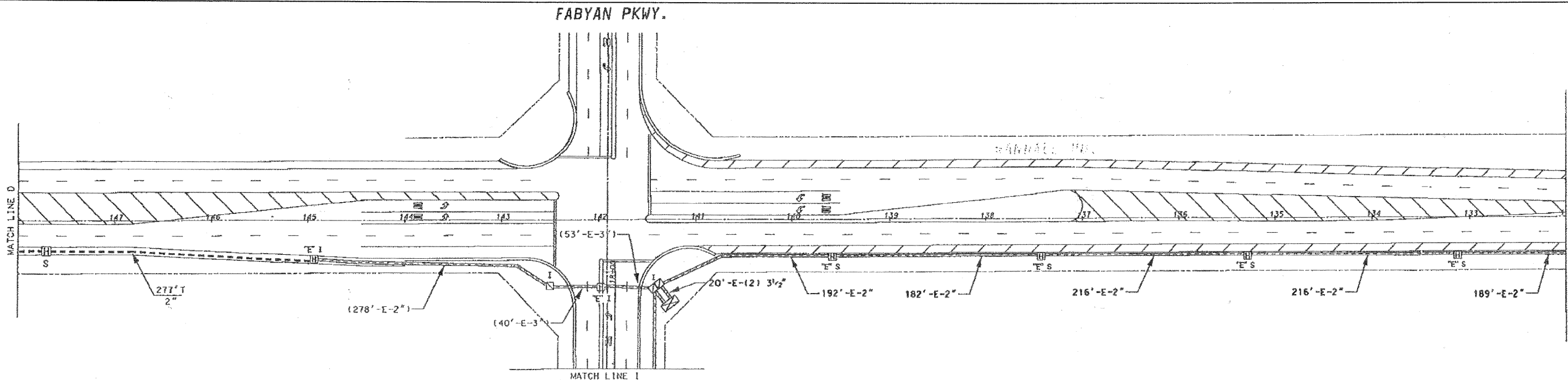
FILE NAME: fo 2 .10.dgn	SHEET NO. 1
DATE: Apr 11 15, 1999	16
PROJECT NO. 1: 3857-00	OF 24

FILE NAME = N:\kane\county\080673\Traffic\060_INT-02_Randall.dgn	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN RANDALL ROAD	F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 60	
PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISED -	REVISED -			SCALE: SHEET NO. OF SHEETS STA. -- TO STA. --					
PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISED -	REVISED -			ILLINOIS FED. AID PROJECT					
CONTRACT NO. 63525											

DATE: _____
 BY: _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 ALL DIMENSIONS IN FEET
 CADD FILE NAME: _____

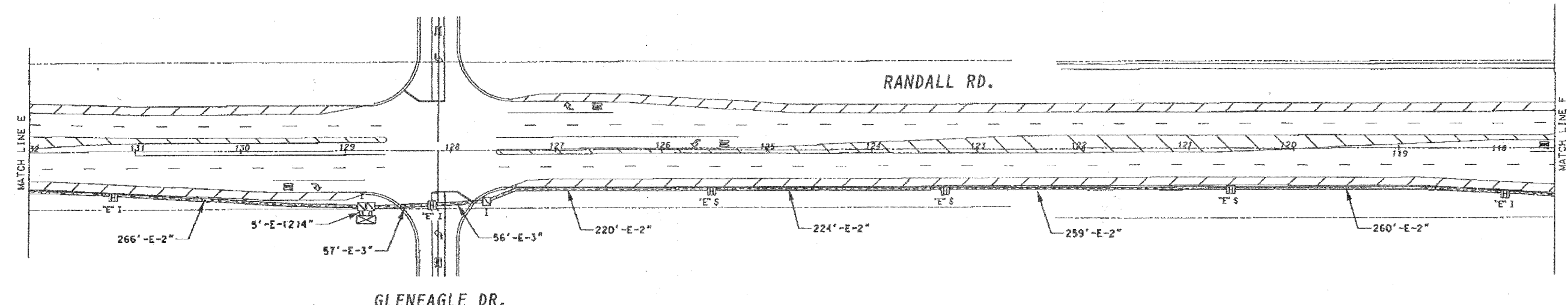
PLAN NO. _____
 NOTE BOOK NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

DATE: _____
 BY: _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 ALL DIMENSIONS IN FEET
 CADD FILE NAME: _____



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I



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METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60103 PH# 630 213-1000

REVISIONS		
NO.	DATE	DESCRIPTION

INTERCONNECT PLAN
 RANDALL RD. (MAIN ST. TO KESLINGER RD.)
 GENEVA / BATAVIA, ILLINOIS

FILE NAME: lc_3.dgn	SHEET NO.:
DATE: Apr 11 15, 1999	17
PROJECT NO.:3857-00	OF 24

FILE NAME = N:\kanecounty\890673\Traffic\061-INT-03-Randall.dgn	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN RANDALL ROAD	F.A.P. RTE.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISED -	336			09-00237-02-TL	KANE	100	61	
PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISED -	CONTRACT NO. 63525							
SCALE: SHEET NO. OF SHEETS STA. -- TO STA. --						ILLINOIS FED. AID PROJECT				

PROFILE	SURVEYED	DATE	BY
	PLOTTED		
	CHECKED		
	BY		
	STRUCTURE	NOTATION	CRK
	NO.		
PLAN	SURVEYED	DATE	BY
	PLOTTED		
	CHECKED		
	BY		
	NOTE BOOK		
	NO.		

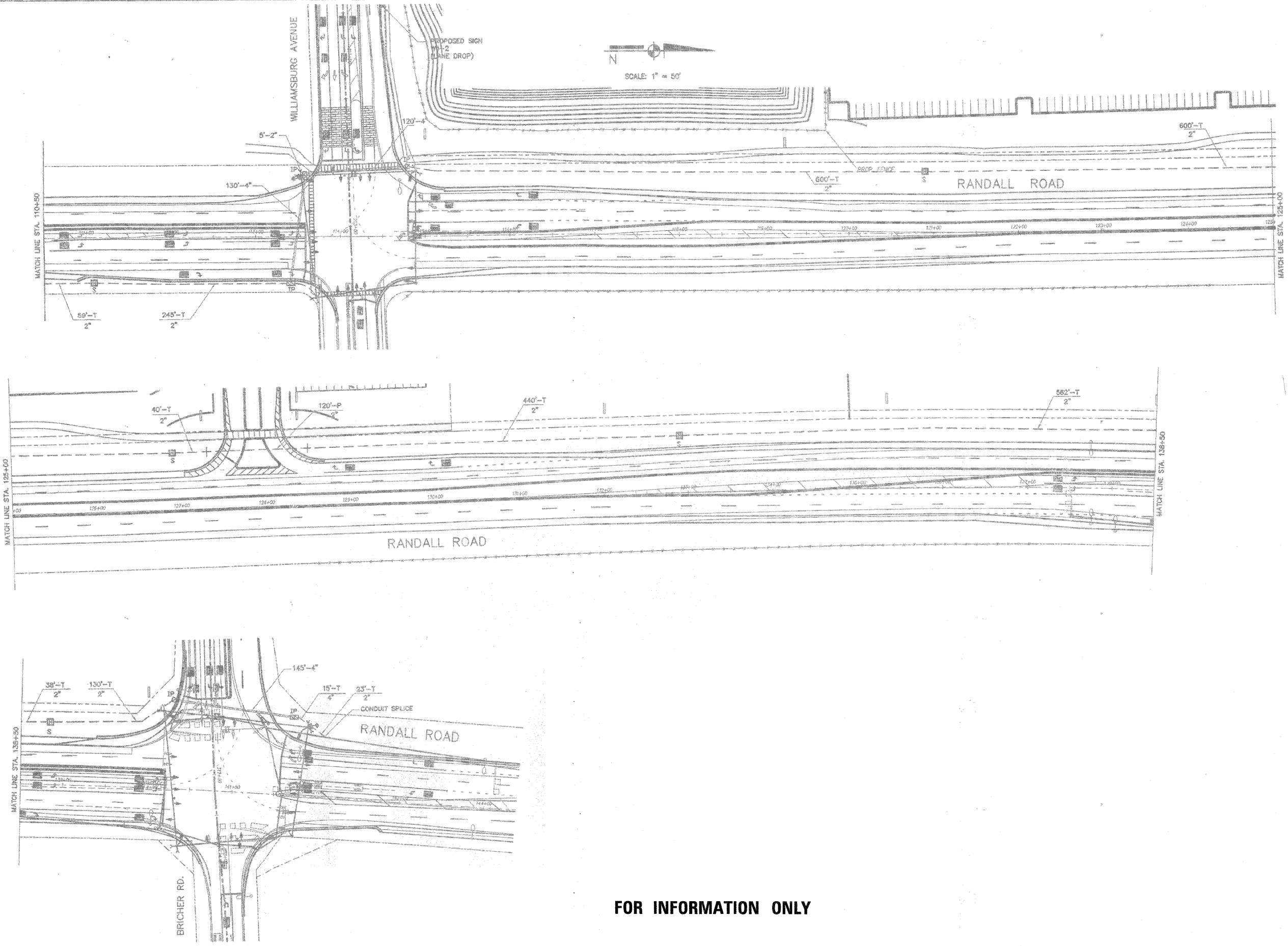
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

MJD ENGINEERING
 INTERCONNECT PLAN
 REV: 7/02/02 (REV: 8/03/02)
 DATE: 5/02/02 (REV: 5/28/02)
 DRAWN: MJD DESIGN: MJD

MJD ENGINEERING
 3709 NORTH OKETO
 CHICAGO, ILLINOIS 60634 (773) 625-6565

INTERCONNECT PLAN
 AND INTERCONNECT SCHEMATIC DIAGRAM
 RANDALL AVENUE FROM KESINGER/KANEVILLE ROAD TO BRICHER ROAD
 GENEVA, ILLINOIS

6/20 OF 6



FOR INFORMATION ONLY

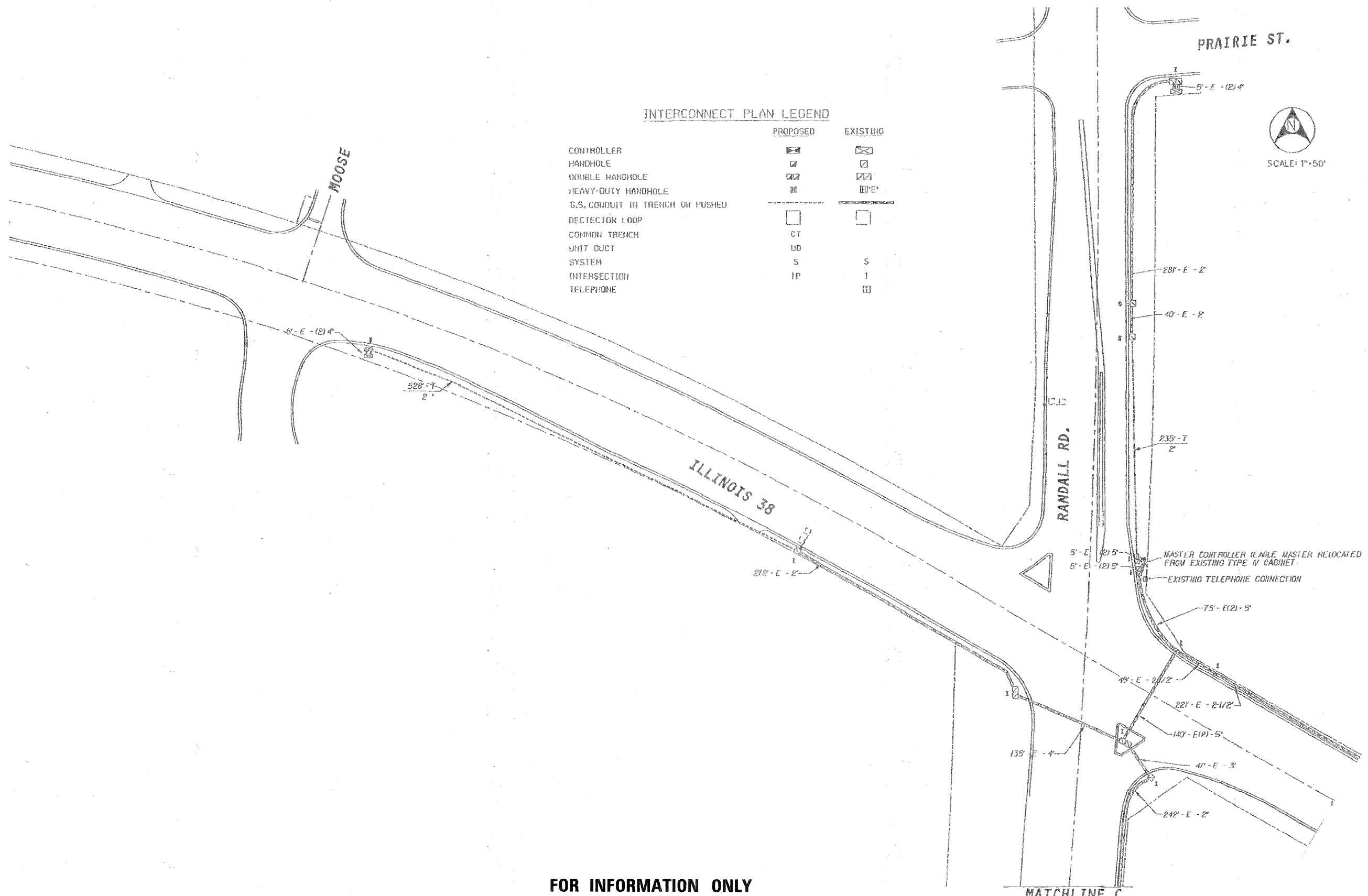
FILE NAME = N:\kanecounty\0806731\Traffic\085_INT-07_Randall.dgn	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN RANDALL ROAD				F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 65
	PLOT SCALE = NOT TO SCALE	DRAWN - FCP	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA. --	TO STA. --	CONTRACT NO. 63525		
	PLOT DATE = 11/3/2010	CHECKED - MUT	REVISED -		ILLINOIS FED. AID PROJECT								
		DATE - AUGUST 31, 2010	REVISED -										

PROFILE SURVEYED _____ DATE _____
 PLOTTED _____
 NOTE BOOK _____
 NO. _____
 STRUCTURE NOTATIONS CHKD _____
 PLAN SURVEYED _____ DATE _____
 PLOTTED _____
 NOTE BOOK _____
 NO. _____
 CADD FILE NAME _____

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 Rosemont, Illinois 60018
 (847) 823-0500

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
DETECT FOR LOOP		
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	S
INTERSECTION	IP	I
TELEPHONE		



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METRO TRANSPORTATION GROUP, INC.
 TRANSPORTATION PLANNING, ENGINEERING AND DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60103 PH# 630 213-1000

REVISIONS	
NO.	DATE

SIGNAL INTERCONNECT PLAN
SHEET 10F 2

Illinois Route 38 & Randall Road
 ST CHARLES, ILLINOIS

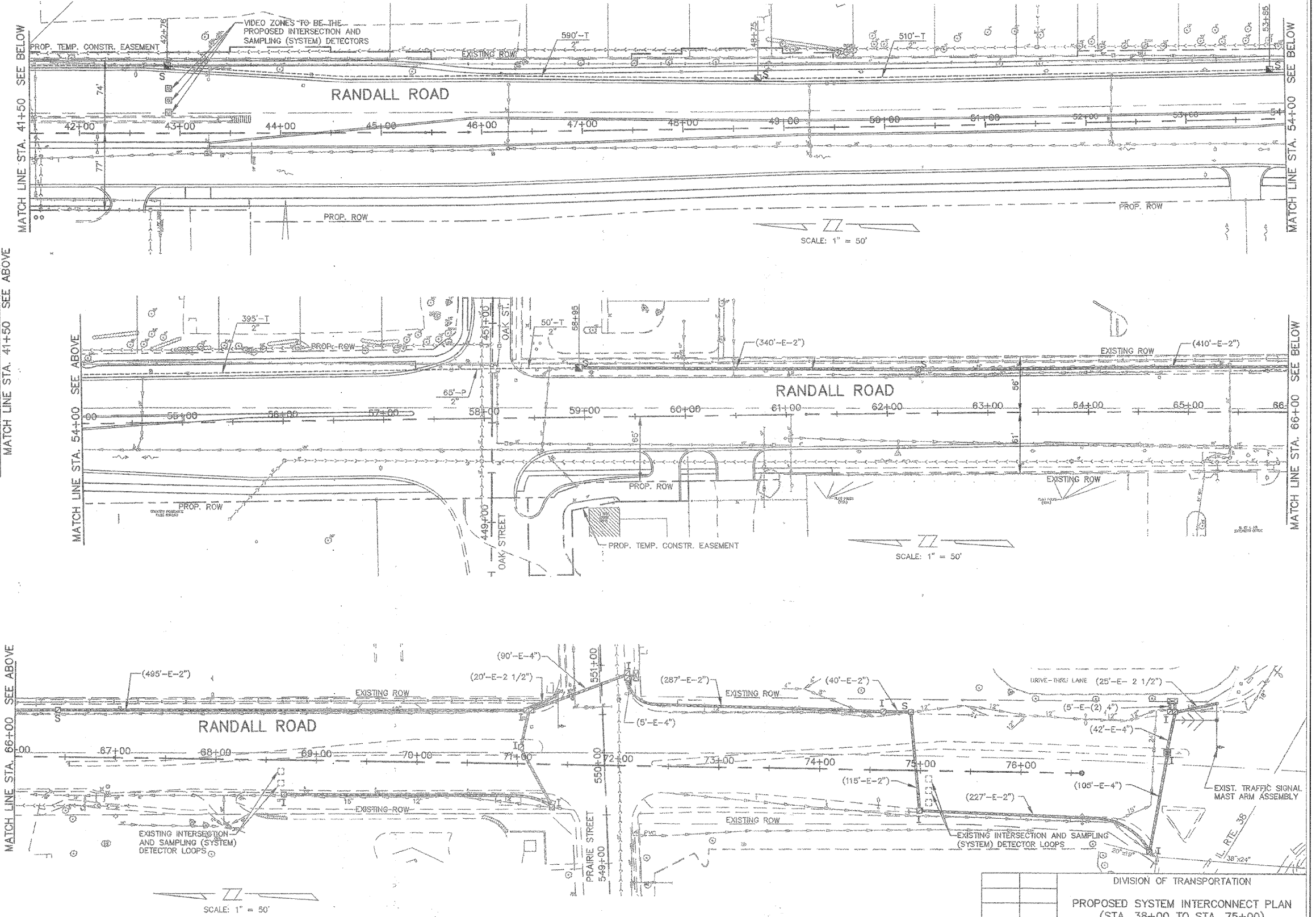
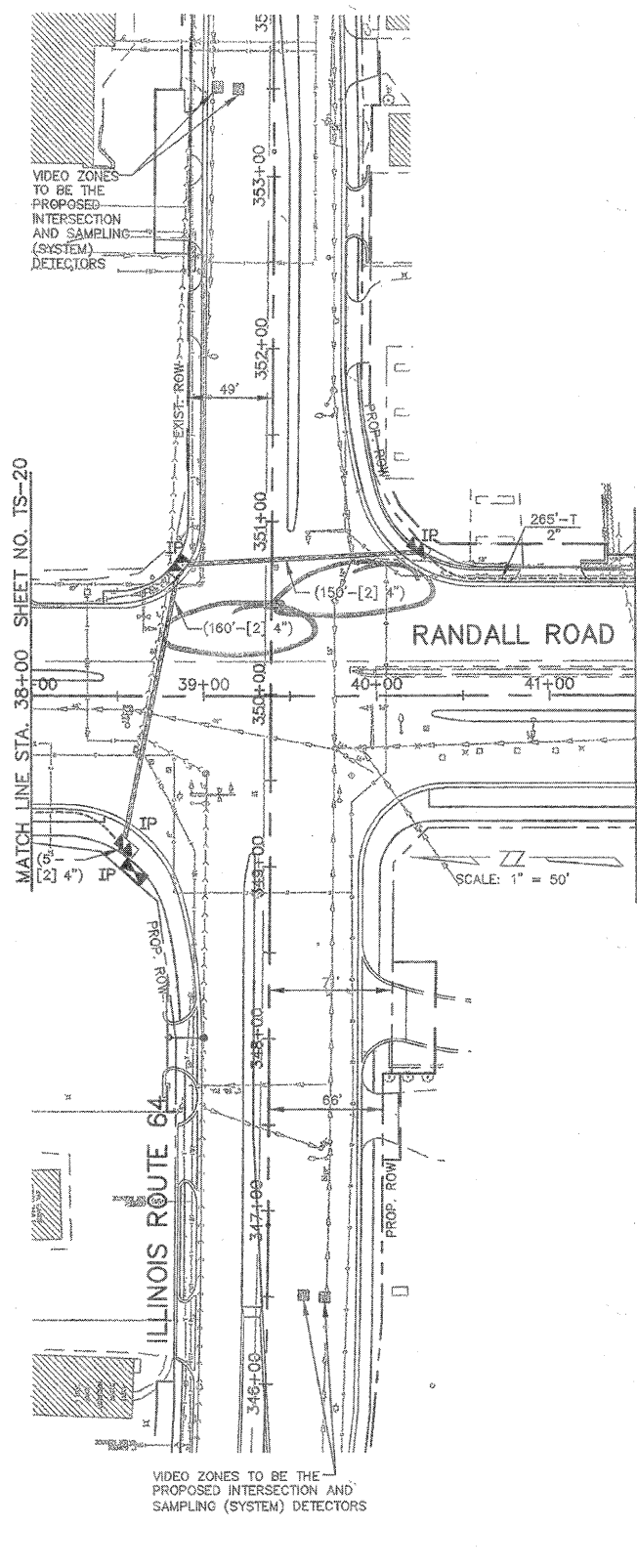
FILE NAME: 1c.dgn
 DATE: MARCH 6, 2000
 PROJECT NO.: 10001000

FILE NAME = N:\kanecounty\080673\Traffic\0866_INT-08_Randall.dgn	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN RANDALL ROAD	F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 66		
PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISIED -	REVISIED -			SCALE:	SHEET NO. OF SHEETS	STA. --	TO STA. --	CONTRACT NO. 63525		
PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISIED -	REVISIED -			ILLINOIS FED. AID PROJECT						

F.A.P. ROUTE	COUNTY SECTION	COUNTY	TOTAL SHEETS
336	09-00237-02-TL	KANE	100
	CONTRACT NO.		SHEETS NO.
	63782		68
PROPOSED SYSTEM INTERCONNECT PLAN			
F.H.W.A. REG.5 ILLINOIS PROJECT F-0336(008)			

DATE	BY	DATE	BY
PLAN	NO.	PROFILE	NO.
SURVEYED		SURVEYED	
PLOTTED		PLOTTED	
CHECKED		CHECKED	
ALIGNED		ALIGNED	
PAID FILE NAME		STRUCTURE NOTATION CHKD	

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 Rosemont, Illinois 60018
 (847) 923-0500



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DIVISION OF TRANSPORTATION
 PROPOSED SYSTEM INTERCONNECT PLAN
 (STA. 38+00 TO STA. 75+00)
 SHEET 2 OF 3
RANDALL ROAD

NAME	DATE
REVISIONS	

SCALE: 1" = 50'
 DATE: SEPTEMBER 23, 2004
 DRAWN BY: JMH
 DESIGNED BY: DMH
 CHECKED BY: JRI

FILE NAME =	USER NAME = FPAIONE	DESIGNED - ABR	REVISED -
N:\kane\county\080673\Traffic\068_INT-10_Randall.dgn		DRAWN - FCP	REVISED -
PLOT SCALE = NOT TO SCALE		CHECKED - MJT	REVISED -
PLOT DATE = 11/3/2010		DATE - AUGUST 31, 2010	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

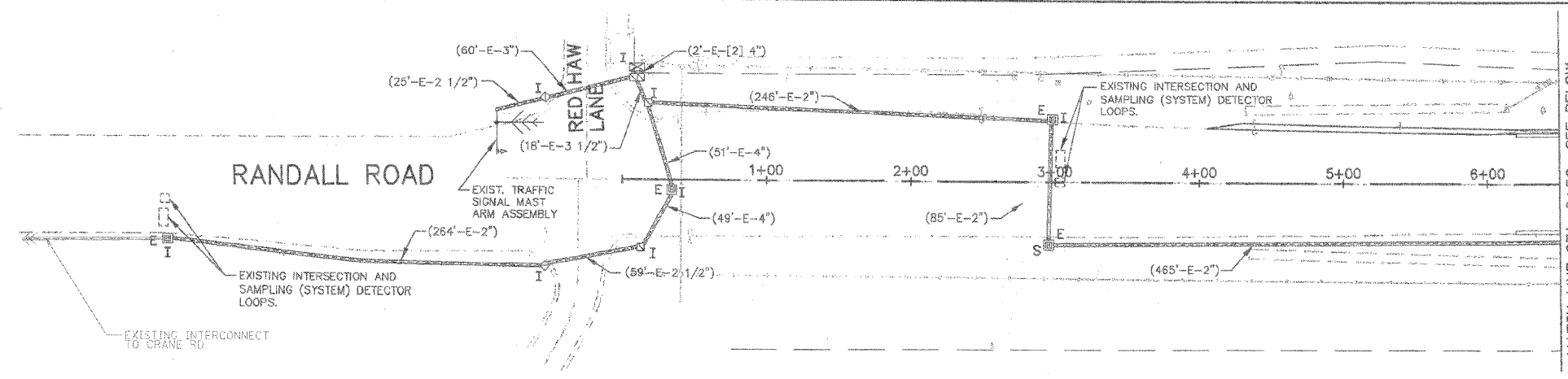
INTERCONNECT PLAN			
RANDALL ROAD			
SCALE:	SHEET NO.	OF SHEETS	STA. -- TO STA. --

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS
336	09-00237-02-TL	KANE	100
			SHEETS NO.
			68
CONTRACT NO. 63525			
ILLINOIS FED. AID PROJECT			

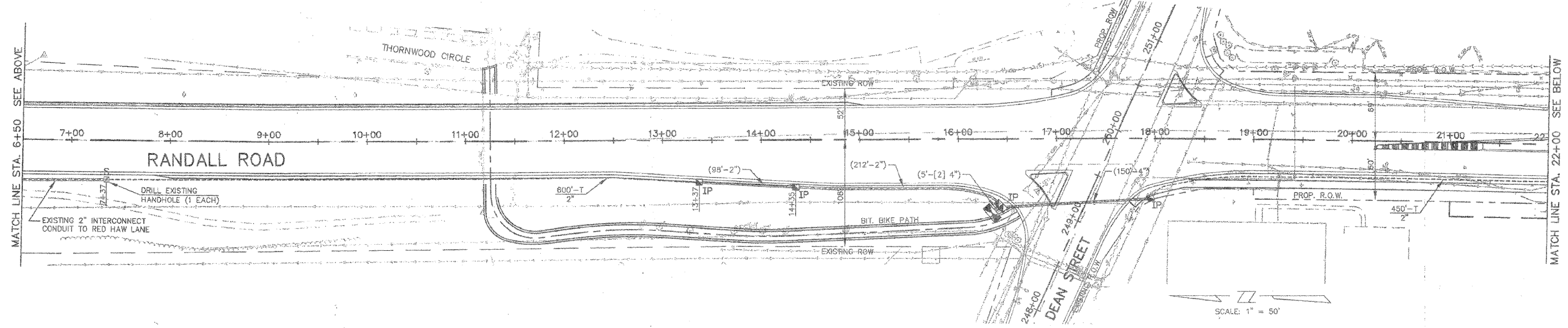
F.A.P. COUNTY SECTION	ROUTE	CONTRACT NO.	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	63525	KANE	100	69

INTERCONNECT PLAN LEGEND

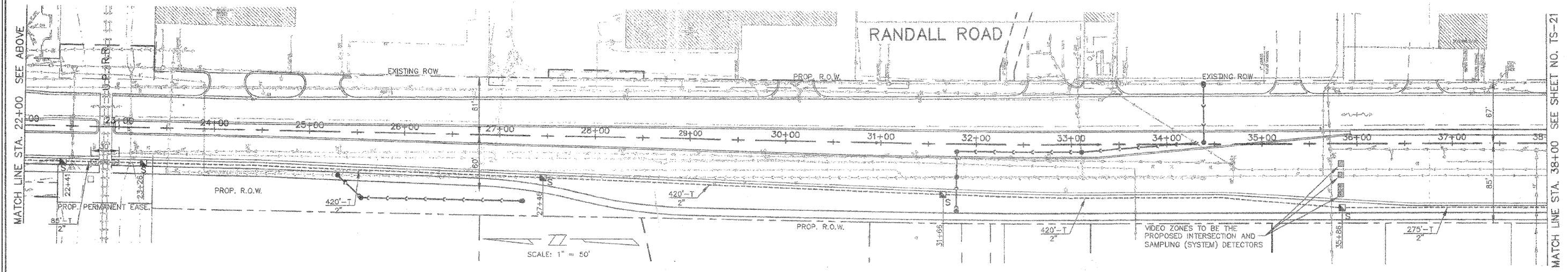
EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	CONTROLLER
[Symbol]	[Symbol]	HANDHOLE
[Symbol]	[Symbol]	DOUBLE HANDHOLE
[Symbol]	[Symbol]	HEAVY DUTY HANDHOLE
[Symbol]	[Symbol]	G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
[Symbol]	[Symbol]	DETECTOR LOOP
[Symbol]	[Symbol]	UNIT DUCT
[Symbol]	[Symbol]	SYSTEM
[Symbol]	[Symbol]	INTERSECTION
[Symbol]	[Symbol]	VIDEO DETECTION ZONE
[Symbol]	[Symbol]	YAGI ANTENNA



MATCH LINE STA. 6+50 SEE BELOW



MATCH LINE STA. 22+00 SEE BELOW



MATCH LINE STA. 38+00 SEE SHEET NO. TS-21

FOR INFORMATION ONLY

DIVISION OF TRANSPORTATION
PROPOSED SYSTEM INTERCONNECT PLAN
 (STA. 7+00 TO STA. 38+00)
 SHEET 1 OF 3
RANDALL ROAD

NAME	DATE	DRAWN BY: JMH DESIGNED BY: DMH CHECKED BY: JRL
REVISIONS		

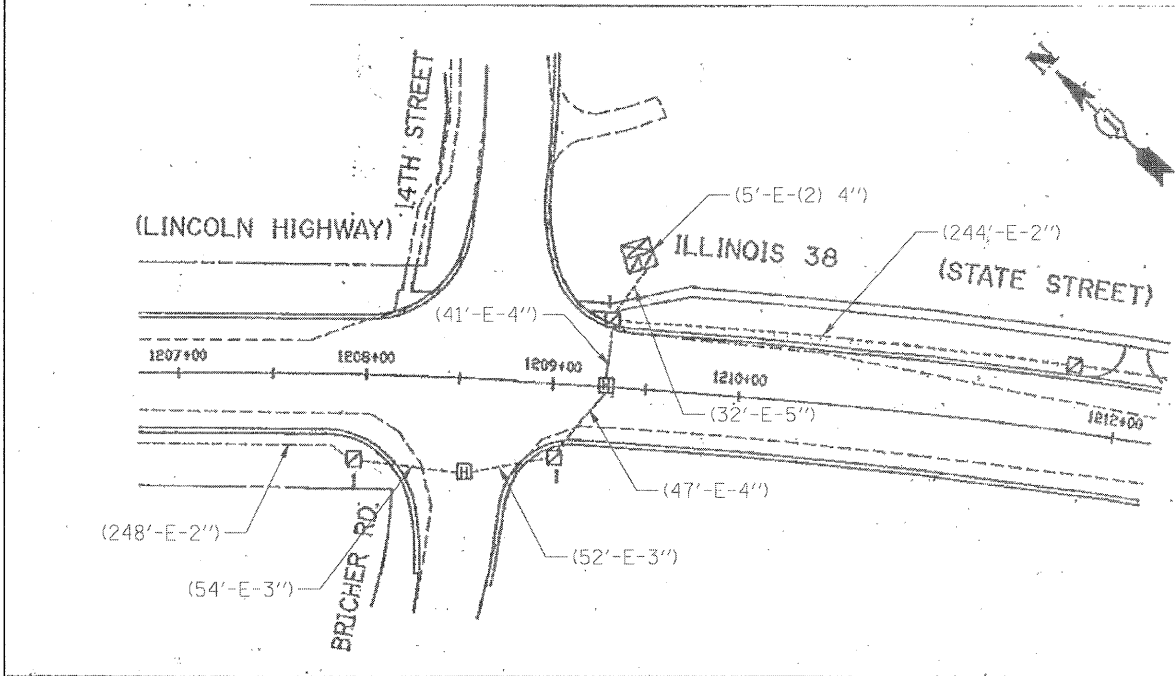
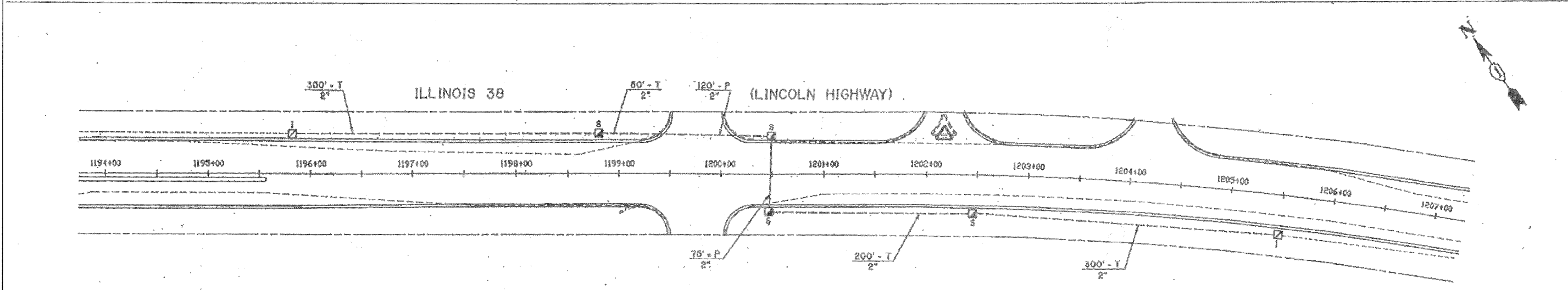
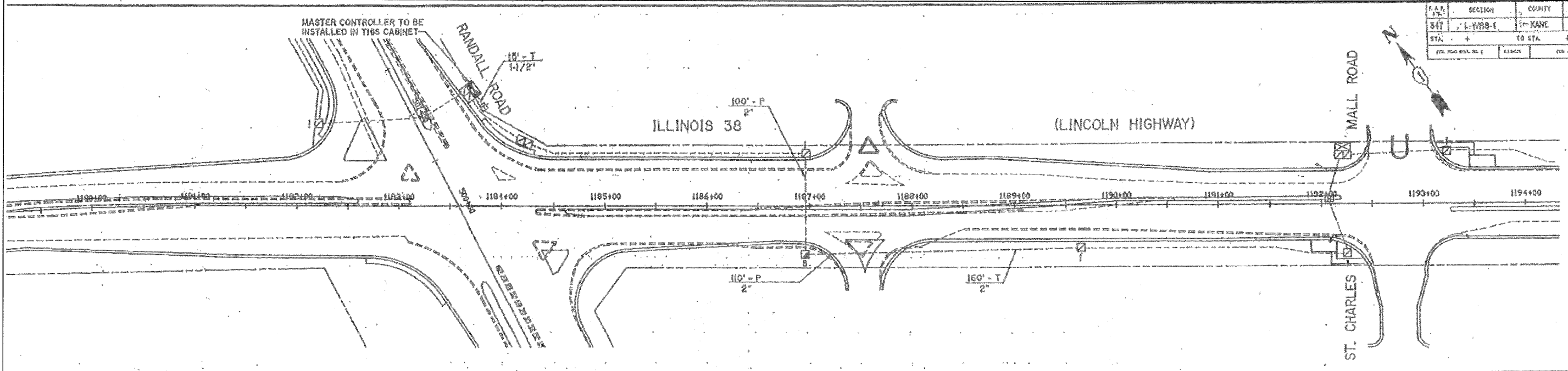
SCALE: 1" = 50'
DATE: SEPTEMBER 23, 2004

DATE	BY	SURVEYED	PLOTTED	CHECKED	FILED
PROFILE SURVEYED NOTE BOOK STRUCTURE NOTATION CHKO					
PLAN NOTE BOOK CAD FILE NAME					

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (647) 823-0500

FILE NAME = N:\kanecounty\0806731\refftc\069.INT-IL-Randall.dgn	USER NAME = FPAIONE	DESIGNED - ABR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN RANDALL ROAD	F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 69		
PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISED -	REVISED -			SCALE:	SHEET NO. OF SHEETS	STA. -- TO STA. --	CONTRACT NO. 63525			
PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISED -	REVISED -			ILLINOIS FED. AID PROJECT						

F.A.P. NO.	SECTION	COUNTY	DATE	SHEET NO.
347	L-1115-1	KANE	11/3/2010	100
STA. +	TO STA. +			
FED. ROAD DIST. NO. 1	PROJECT	FED. AID PROJECT		



- LEGEND**
- ☐ INTERSECTION HANDHOLE
 - ⊗ SYSTEM HANDHOLE
 - ⊠ MASTER CONTROLLER
 - ⊞ EXISTING HEAVY DUTY HANDHOLE
 - ⊞ EXISTING INTERSECTION CONTROLLER
 - PROPOSED INTERCONNECT CONDUIT
 - EXISTING INTERCONNECT CONDUIT
 - ⊞ PROPOSED TELEPHONE SERVICE



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

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 ILL. 38 (LINCOLN HWY.) & RANDALL RD.
 INTERCONNECT PLAN
 SHEET 1 OF 3
 SCALE: VERT. 1" = 60'
 HORIZ. 1" = 100'
 DATE 3-3-94
 DRAWN BY: CJS
 CHECKED BY: RAC

DATE: _____ BY: _____
 SURVEYED: _____ CHECKED: _____
 PLOTTED: _____ CHECKED: _____
 PLAN: _____ NO. _____
 NOTE BOOK: _____
 DATE: _____ BY: _____
 SURVEYED: _____ CHECKED: _____
 PLOTTED: _____ CHECKED: _____
 PROFILE: _____ NO. _____
 NOTE BOOK: _____
 DATE: _____ BY: _____
 SURVEYED: _____ CHECKED: _____
 PLOTTED: _____ CHECKED: _____
 STRUCTURE NOTATIONS: _____

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 Rosemont, Illinois 60018
 (847) 823-0500

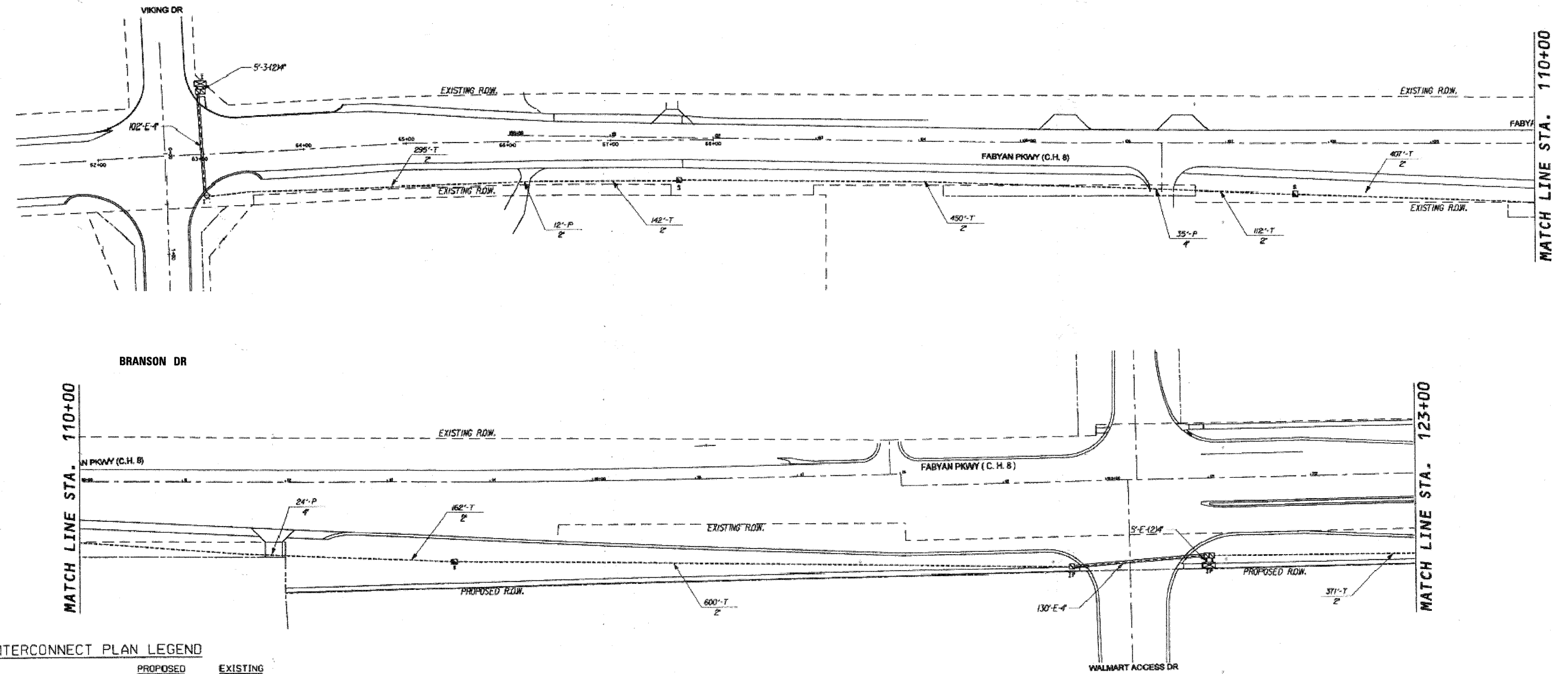
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PLOT SCALE = NOT TO SCALE	CHECKED - MJT	DRAWN - FCP	REVISED -
PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISOR -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**INTERCONNECT PLAN
 IL ROUTE 38**

SCALE: SHEET NO. OF SHEETS STA. -- TO STA. --

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	KANE	100	70
				CONTRACT NO. 63525
ILLINOIS FED. AID PROJECT				



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
COMMON TRENCH	CT	
UNIT DUCT	UD	
SYSTEM	S	S
INTERSECTION	IP	I
TELEPHONE		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m.) MIN.		

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METRO TRANSPORTATION GROUP, INC.
 TRAFFIC ENGINEERING, TRANSPORTATION PLANNING
 AND SIGNAL SYSTEMS/DESIGN
 1300 GREENBROOK, HANOVER PARK, IL 60133 PH# 630 213-1000

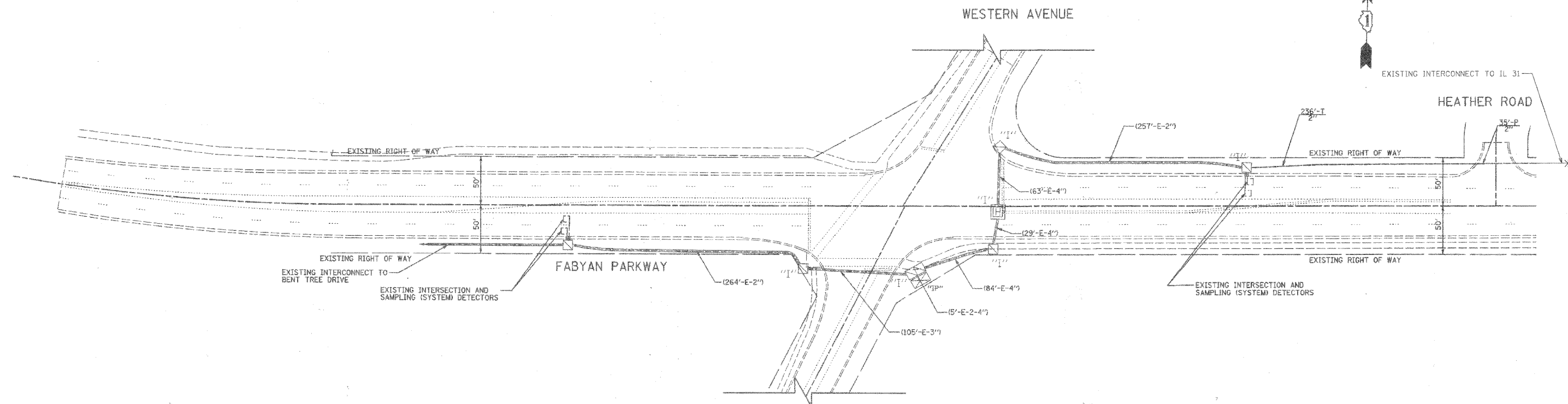
REVISIONS		
NO.	DATE	DESCRIPTION

**SIGNAL INTERCONNECT PLAN
 and SCHEDULE OF QUANTITIES (1 OF 2)**
 FABYAN PKWY (C.H. 8)
 FROM VIKING DR TO RANDALL RD (C.H. 34)
 BATAVIA/GENEVA, ILLINOIS

FILE NAME: 13_1c1.dgn
DATE: JAN. 30, 2004
PROJECT NO. 1: H0302-26

SURVEYED BY: _____ DATE: _____
 PLOTTED BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____
 PLAN NO. _____
 NOTE BOOK NO. _____
 CADD FILE NAME: _____
 STRUCTURE NOTATION: _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500
 DATE: _____ BY: _____
 SURVEYED BY: _____ DATE: _____
 PLOTTED BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____
 PROFILE NO. _____
 NOTE BOOK NO. _____
 STRUCTURE NOTATION: _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
363	06-00339-00-TL	KANE	33	20
STA. TO STA.		FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT		



DATE	BY	DATE	BY
DATE	BY	DATE	BY

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 Rosemont, Illinois 60018
 (847) 923-0500

INTERCONNECT PLAN LEGEND

	EXISTING	PROPOSED
CONTROLLER		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
SYSTEM	S	S
INTERSECTION	I	IP
UNIT DUCT		UD
COMMON TRENCH		CT

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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 SHOULDER, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SALT TOLERANT SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

REVISIONS		KANE COUNTY DIVISION OF TRANSPORTATION	
NAME	DATE		
		INTERCONNECT PLAN	
		FABYAN PARKWAY	
		WESTERN AVENUE TO KRIK ROAD	
		SHEET 1 OF 5	
		SCALE: 1" = 50'	DRAWN BY: CEC
		DATE: 12/14/2007	DESIGNED BY: BRD/JSH
			CHECKED BY: JJE

FILE NAME = N:\kanecounty\080673\Traffic\076_INT-10_Fabypk	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -
	Pkwy.dgn	DRAWN - FCP	REVISED -
	PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISED -
	PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN			
FABYAN PARKWAY			
SCALE:	SHEET NO.	OF SHEETS	STA. -- TO STA. --

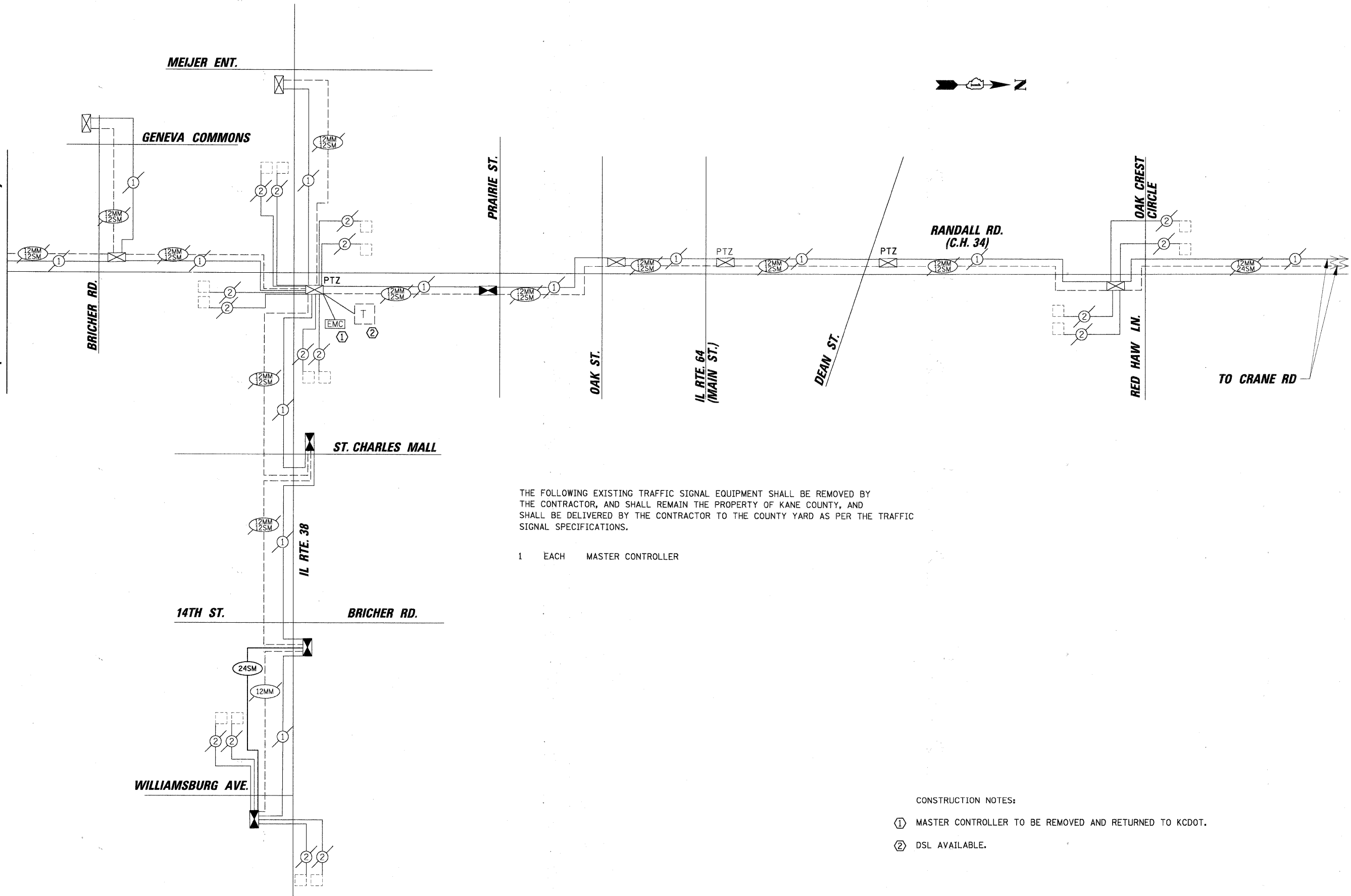
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	KANE	100	76
CONTRACT NO. 63525				ILLINOIS FED. AID PROJECT

DATE	BY	DATE	BY
DATE	BY	DATE	BY
DATE	BY	DATE	BY
DATE	BY	DATE	BY

CHRISTOPHER B. BURKE ENGINEERING LTD.
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 Rosemont, Illinois 60018
 (847) 821-0500

PROFILE SURVEYED
 PLOTTED
 B.M. NUMBER
 STRUCTURE NOTATION CHKD

**MATCHLINE A-A
 (SEE SHEET NO. 82)**



THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF KANE COUNTY, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE COUNTY YARD AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

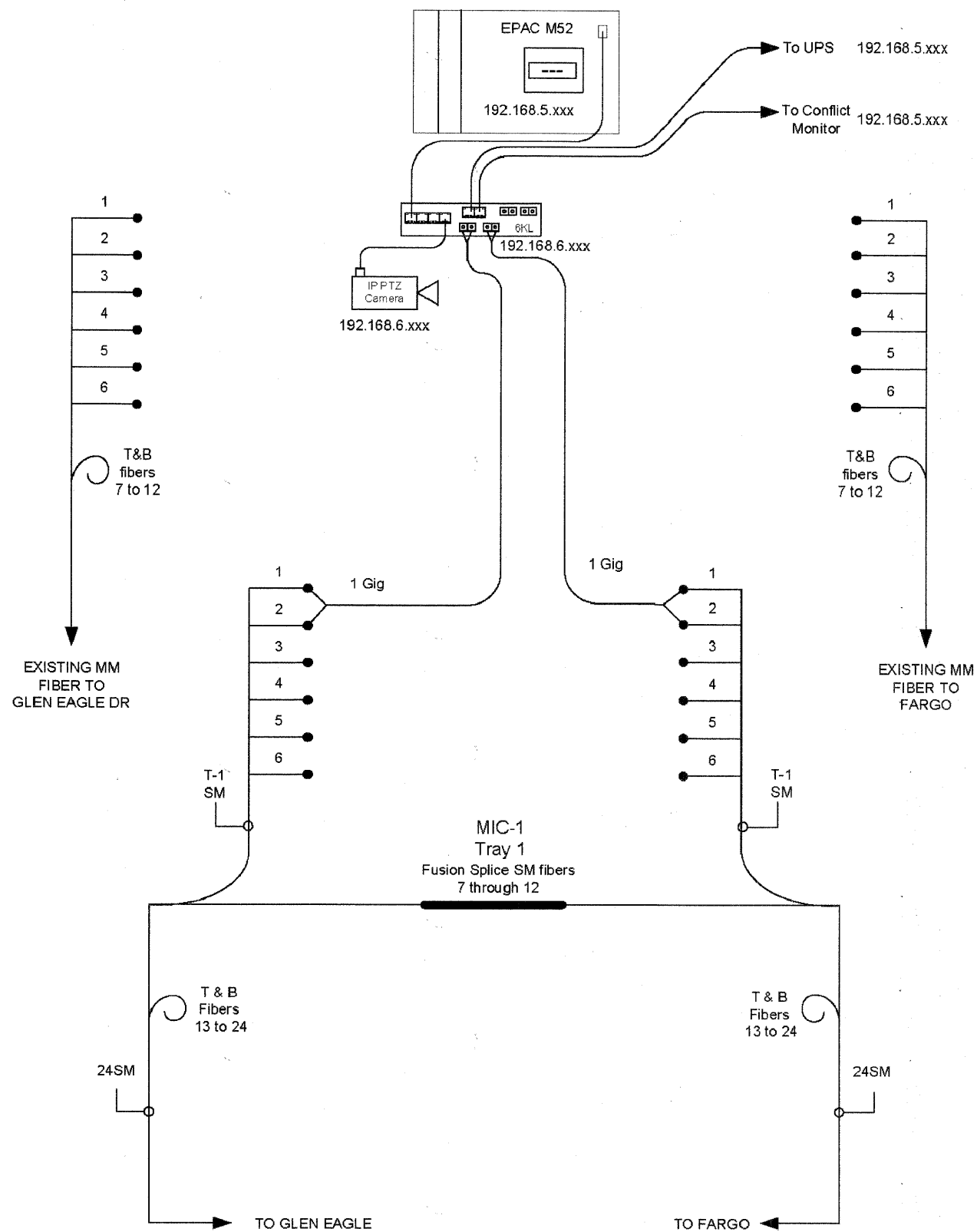
- 1 EACH MASTER CONTROLLER

- CONSTRUCTION NOTES:
- ① MASTER CONTROLLER TO BE REMOVED AND RETURNED TO KCDOT.
 - ② DSL AVAILABLE.

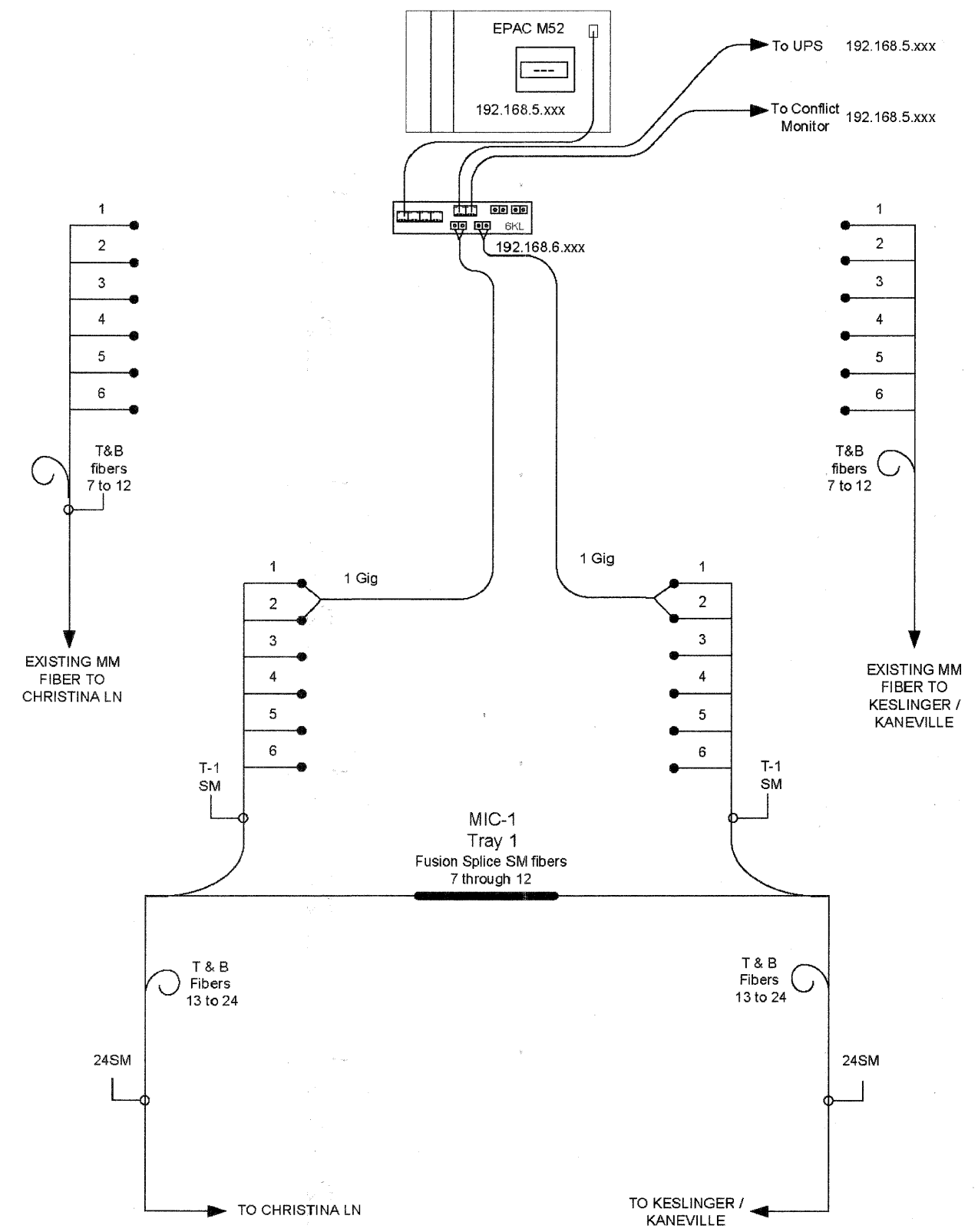
FILE NAME =	USER NAME = FPACIONE	DESIGNED - ABR	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT SCHEMATIC IL RTE. 38 AT RANDALL ROAD SYSTEM	F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 78	
N:\kenecounty\880673\Traffic\078_SCH-02_200673.dgn	PLOT SCALE = NOT TO SCALE	CHECKED - MJT	REVISED -			CONTRACT NO. 63525					
	PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISED -			ILLINOIS FED. AID PROJECT					
SCALE: SHEET NO. OF SHEETS STA. -- TO STA. --											

DATE: _____ BY: _____
 SURVEYED: _____ PLOTTED: _____
 ALIGNMENT CHECKED: _____
 PLAN: _____ NOTE BOOK: _____
 NO. _____ CADD FILE NAME: _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500
 PROFILE: _____ SURVEYED: _____
 PLOTTED: _____ CHECKED: _____
 NOTE BOOK: _____
 NO. _____ STRUCTURE: NOT A/N/S OK/KO

CHRISTINA LN



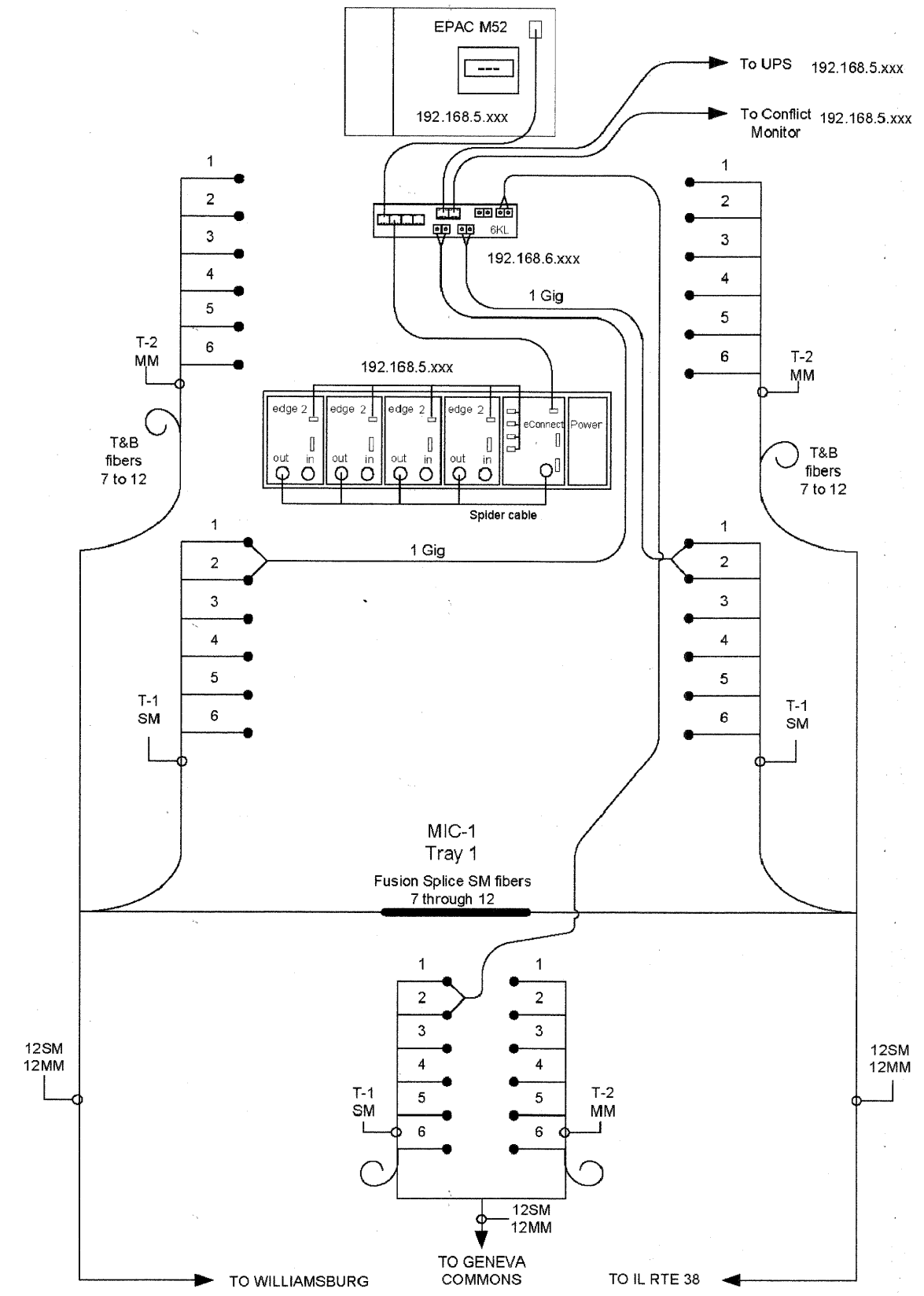
FARGO



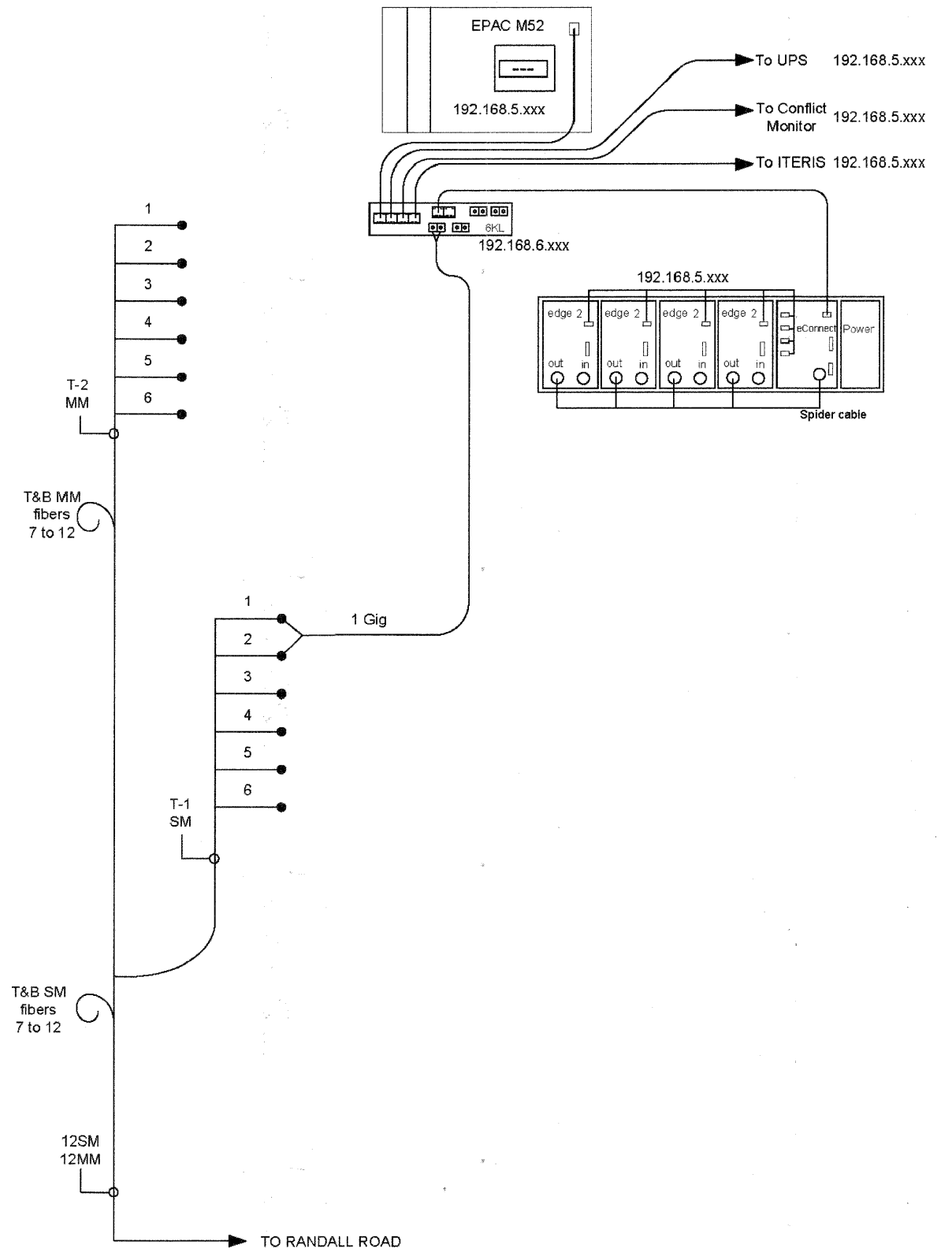
FILE NAME = N:\kanecounty\1806731\Traffic\082.DET.04 Fiber	USER NAME = FPACONE Spic Dwg.dgn	DESIGNED - ABR DRAWN - FCP	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIBER SPlicing DIAGRAM CHRISTINA - FARGO	F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 82		
PLOT SCALE = NOT TO SCALE						SCALE:	SHEET NO. OF SHEETS	STA. -- TO STA. --	ILLINOIS FED. AID PROJECT			
PLOT DATE = 11/3/2010						DATE - AUGUST 31, 2010	CONTRACT NO. 63525					

SURVEYED _____ DATE _____
 PLOTTED _____
 ALIGNMENT CHECKED _____
 CADD FILE NAME _____
 NO. _____
 PLAN _____
 NOTE BOOK _____
 NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500
 PROFILE SURVEYED _____ DATE _____
 PLOTTED _____
 CHECKED _____
 DRAWN _____
 STRUCTURE NOTATIONS CHECKED _____
 NO. _____

BRICHER



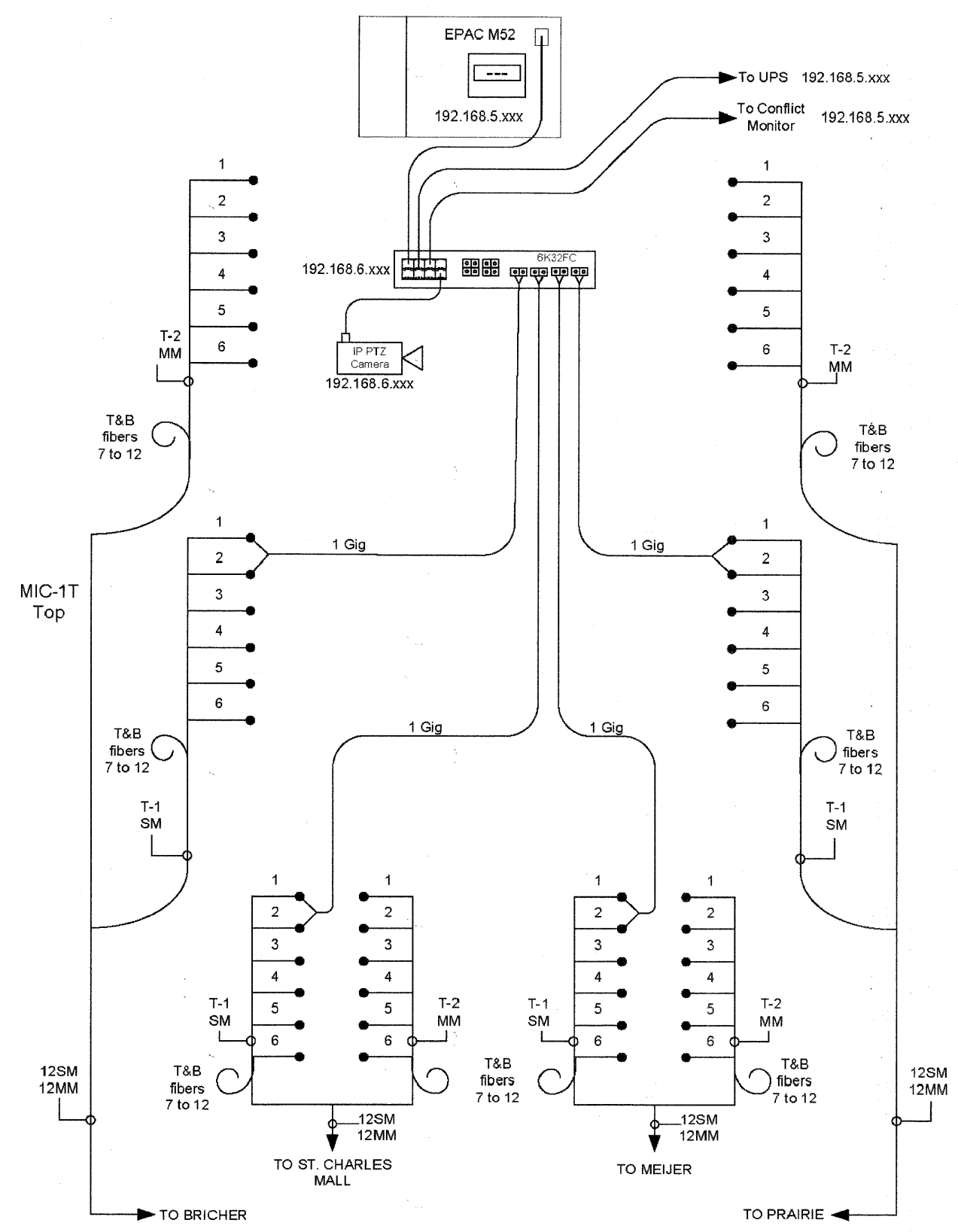
GENEVA COMMONS



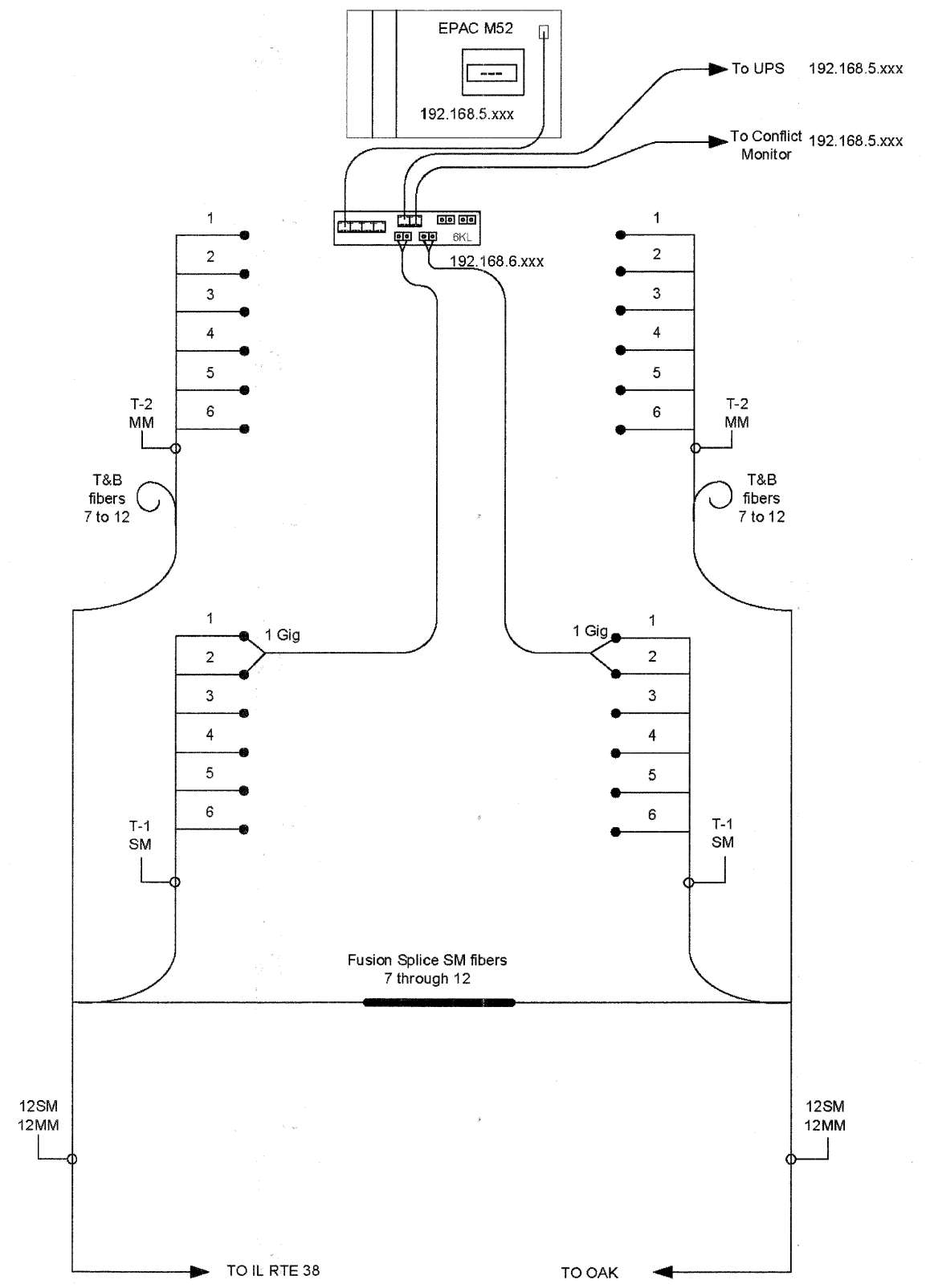
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PLOT DATE = 11/3/2010	DATE - AUGUST 31, 2010	REVISED -	CONTRACT NO. 63525								

PROFILE SURVEYED PLOTTED CHECKED
 NOTE BOOK SHOWN IN FIELD STRUCTURE NOTATIONS OK'D
 NO. DATE BY
 PLAN SURVEYED PLOTTED CHECKED
 NOTE BOOK SHOWN IN FIELD STRUCTURE NOTATIONS OK'D
 NO. DATE BY
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

IL RTE 38

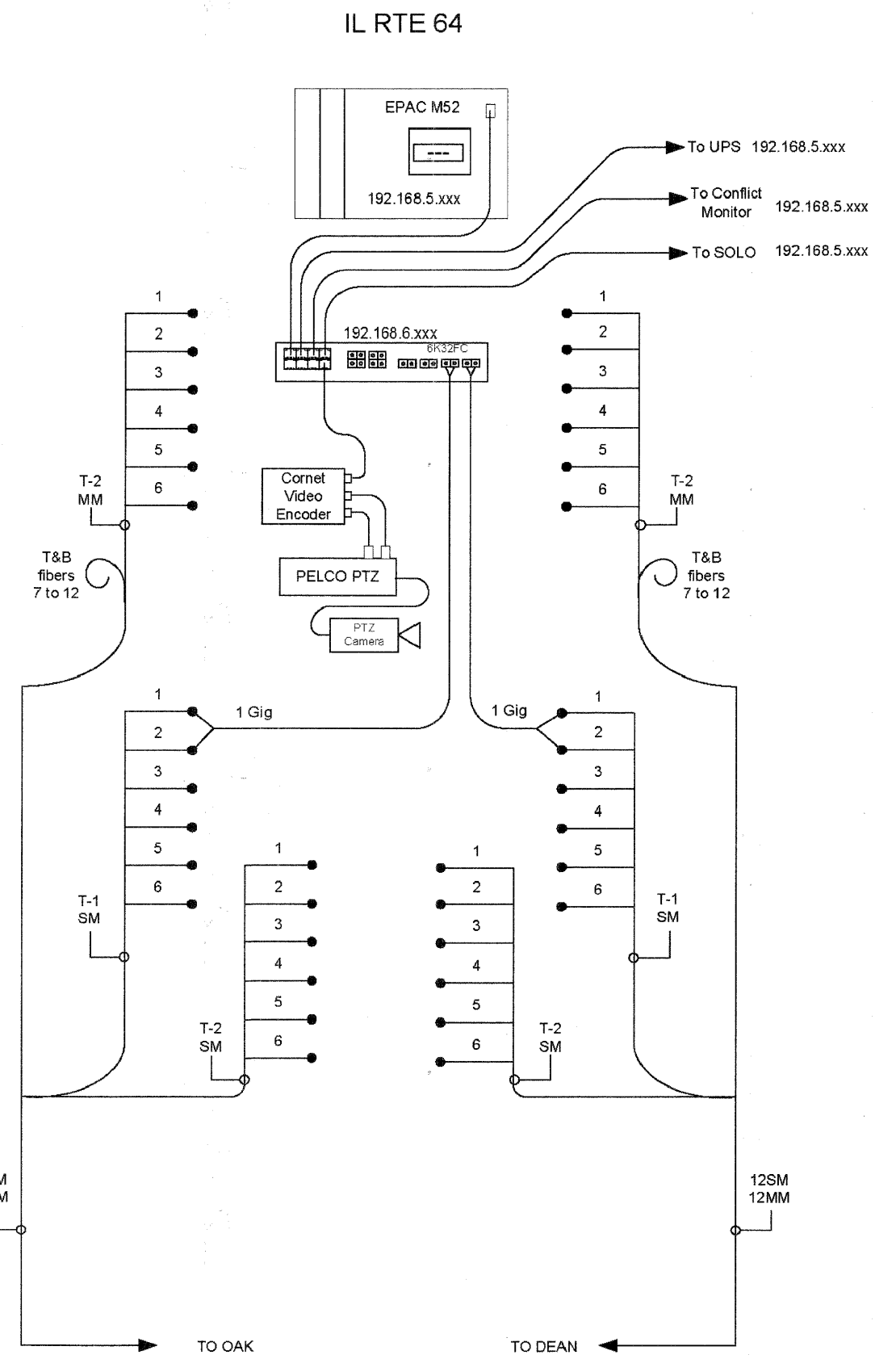
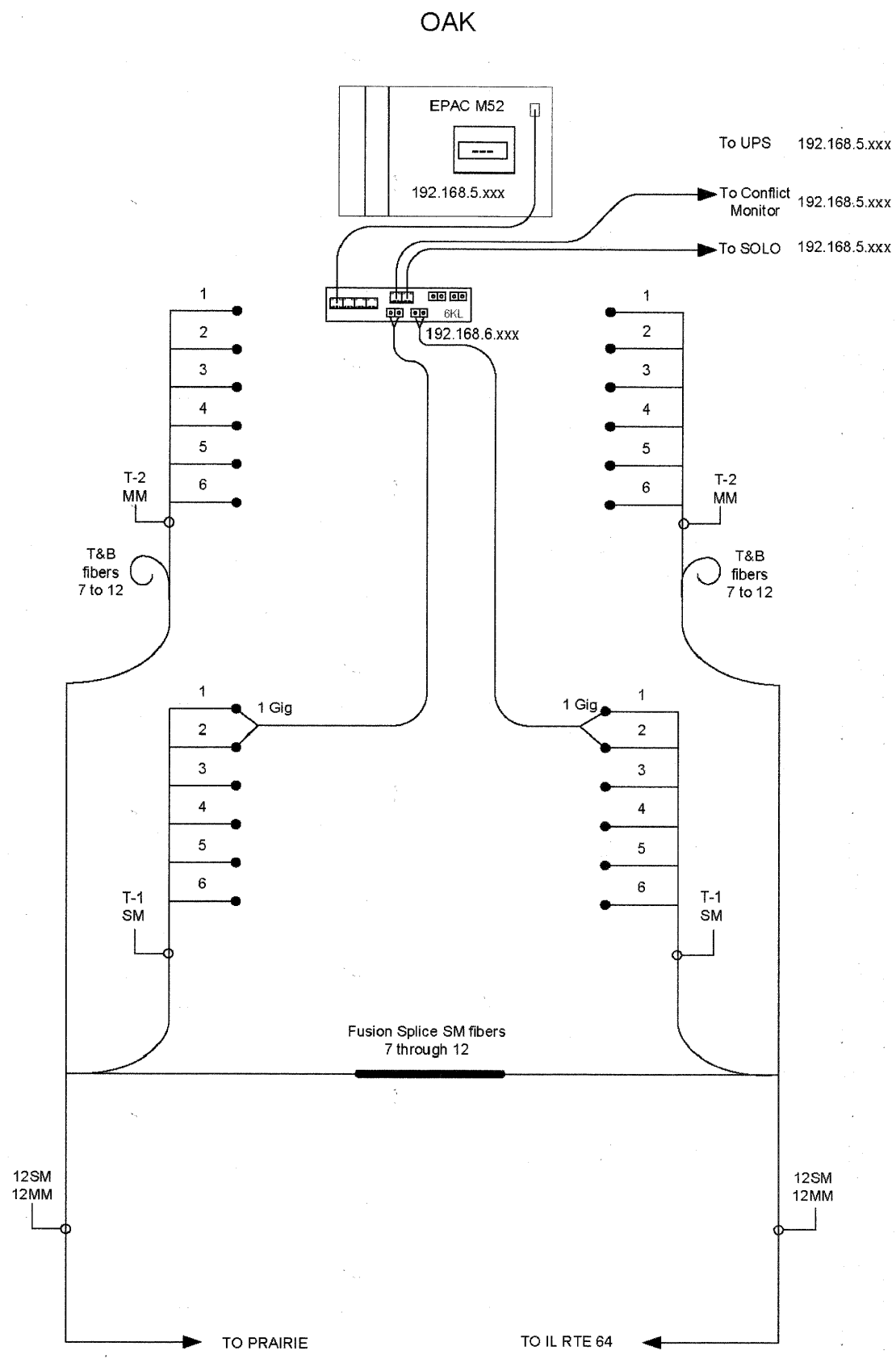


PRAIRIE



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						ILLINOIS FED. AID PROJECT					

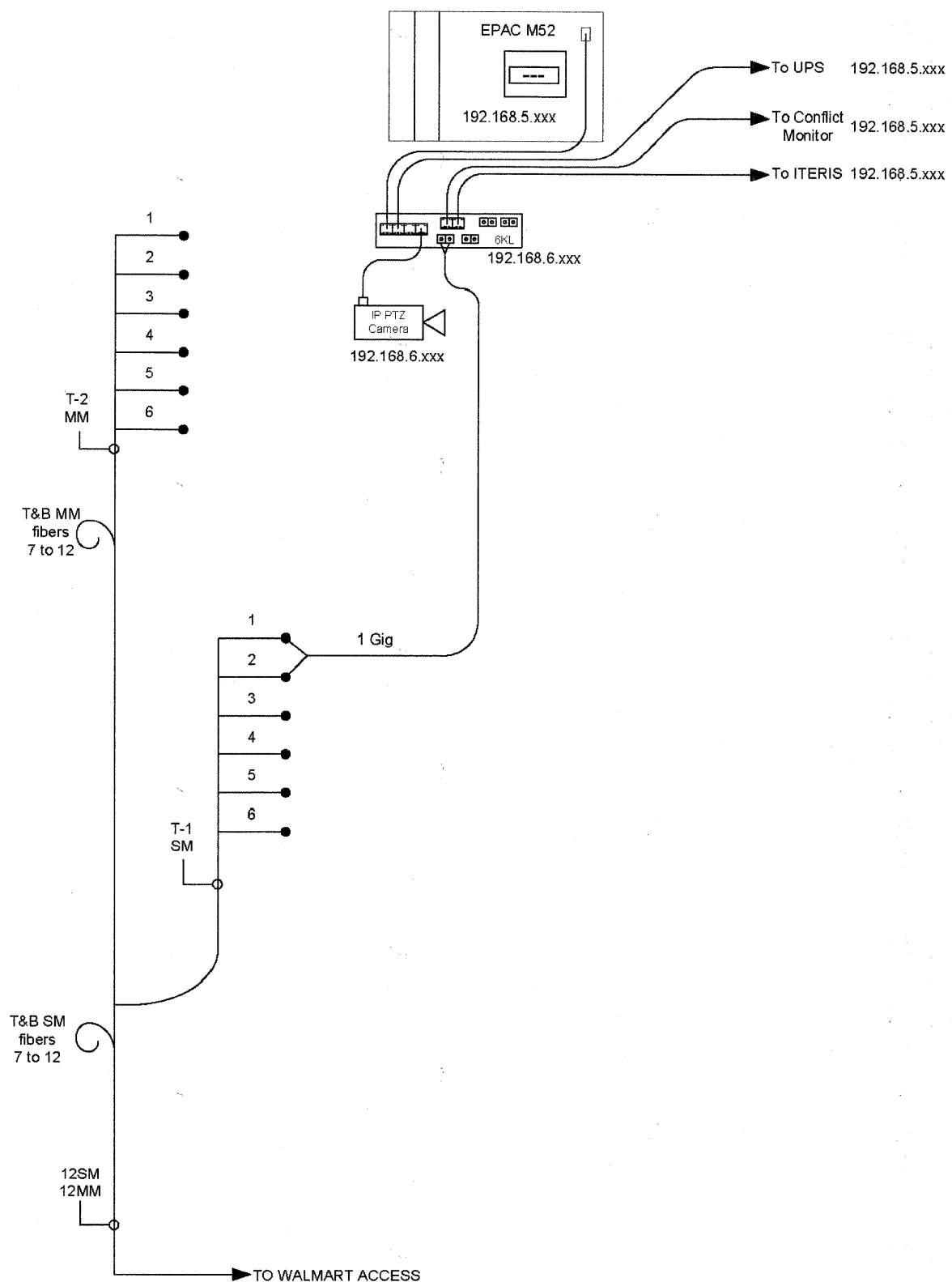
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 Rosemont, Illinois 60018
 (847) 823-0500



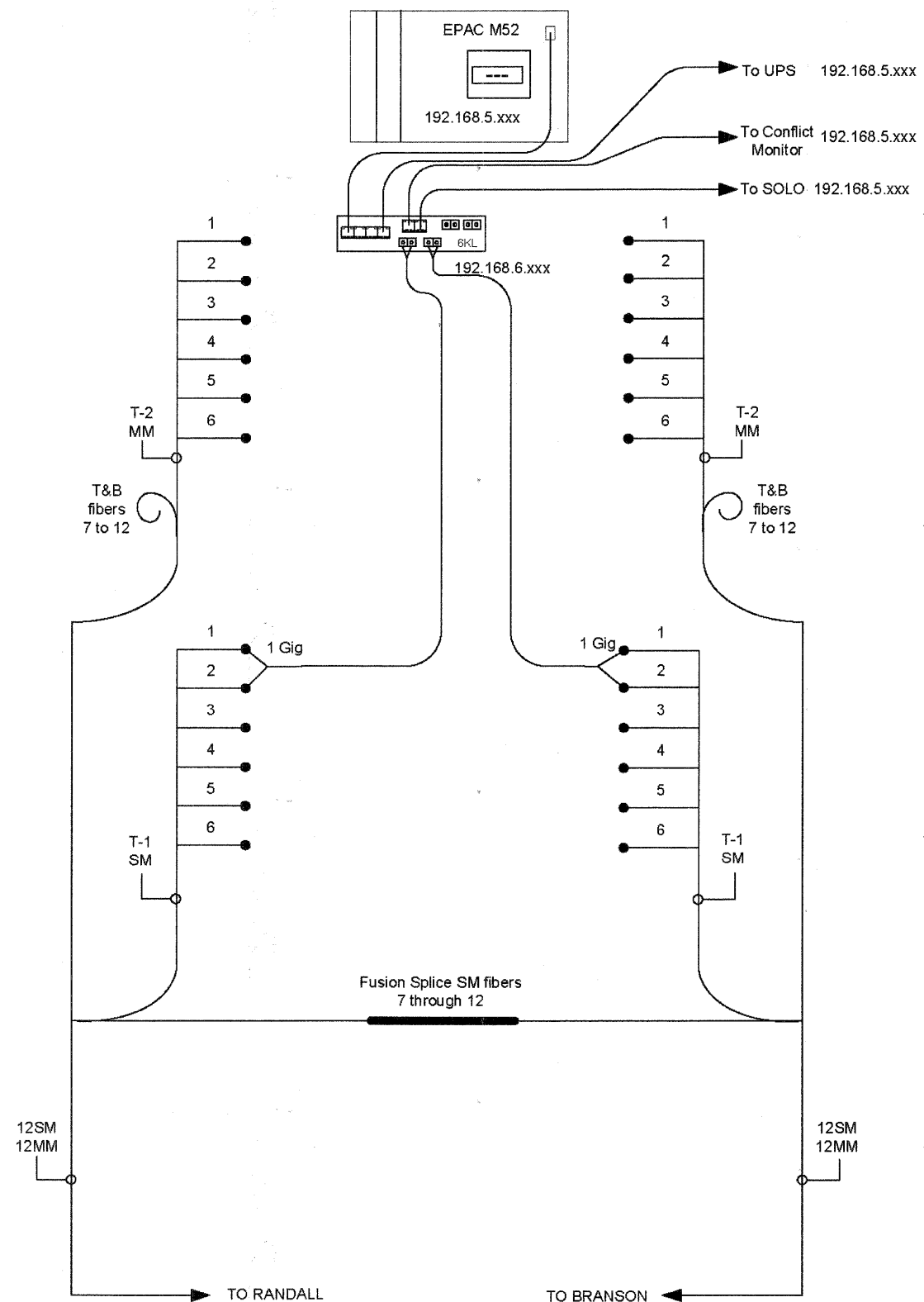
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SCALE: SHEET NO. OF SHEETS STA. -- TO STA. --											

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 NOTE BOOK DRAWN BY M.J.T. DATE
 STRUCTURE NOTATION CHRD
 NO. DATE
 PLAN SURVEYED PLOTTED CHECKED
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 ROAD FILE NAME
 NO. DATE
CHRISTOPHER B. BURKE ENGINEERING LTD.
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 Rosemont, Illinois 60018
 (847) 823-0500

BRANSON/VIKING

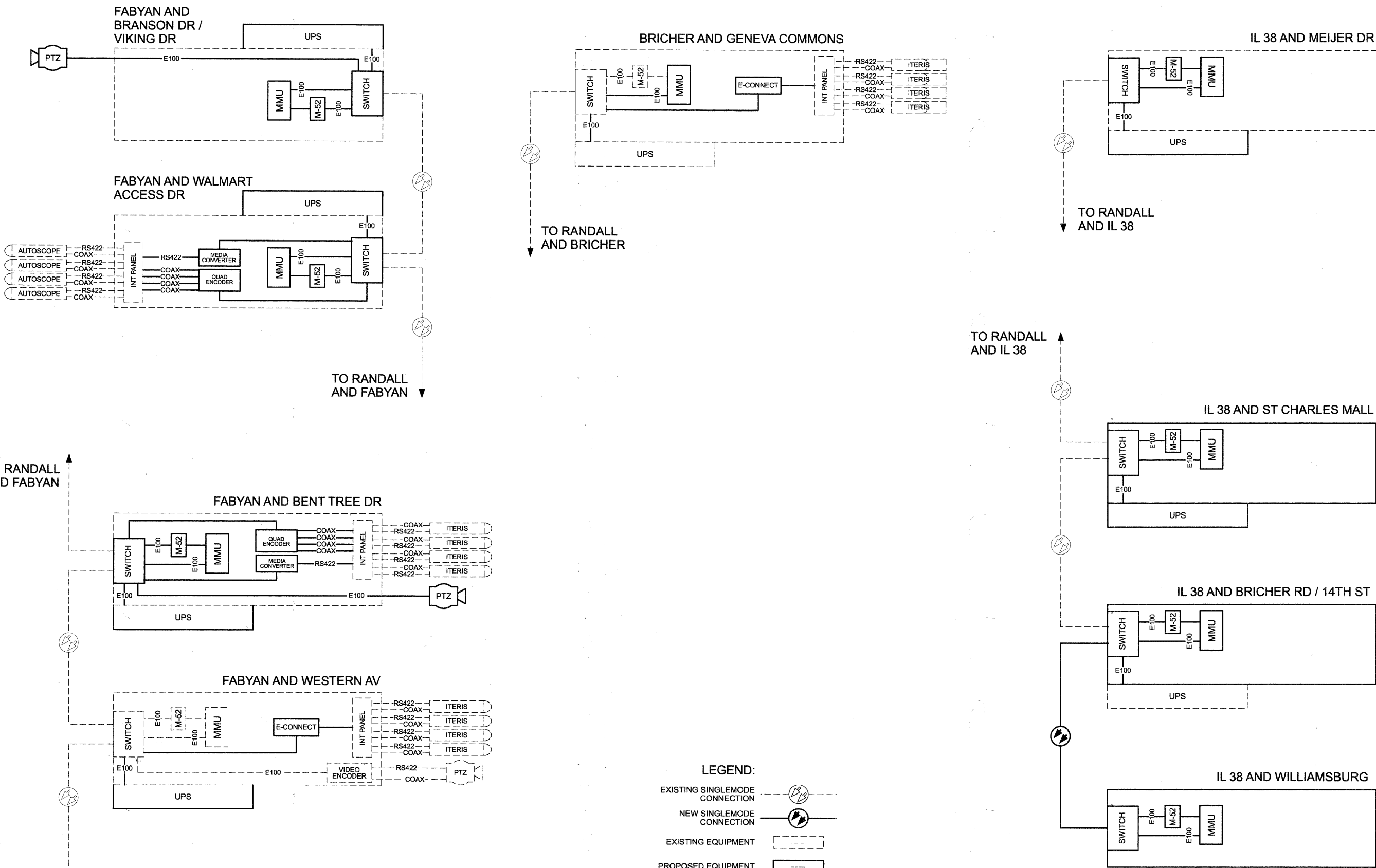


WALMART ACCESS



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SCALE:					SHEET NO. OF SHEETS		STA. -- TO STA. --						

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 ALIGNED: _____
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 PLAN NO.: _____
 NOTE BOOK NO.: _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 875 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500
 PROFILE: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 FILE NAME: _____
 PLAN NO.: _____
 NOTE BOOK NO.: _____
 STRUCTURE NOTATION: CHRD



LEGEND:
 EXISTING SINGLEMODE CONNECTION:
 NEW SINGLEMODE CONNECTION:
 EXISTING EQUIPMENT:
 PROPOSED EQUIPMENT:

FILE NAME =	USER NAME = FPAIONE	DESIGNED - ABR	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

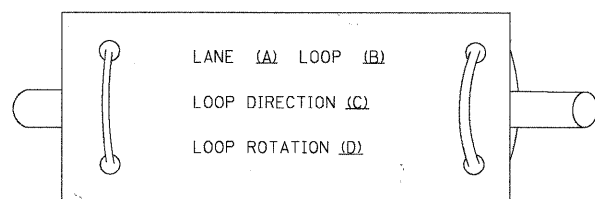
CABINET DETAIL			
SCALE:	SHEET NO.	OF SHEETS	STA. -- TO STA. --

F.A.P. RTE. 336	SECTION 09-00237-02-TL	COUNTY KANE	TOTAL SHEETS 100	SHEET NO. 93
CONTRACT NO. 63525				
ILLINOIS FED. AID PROJECT				

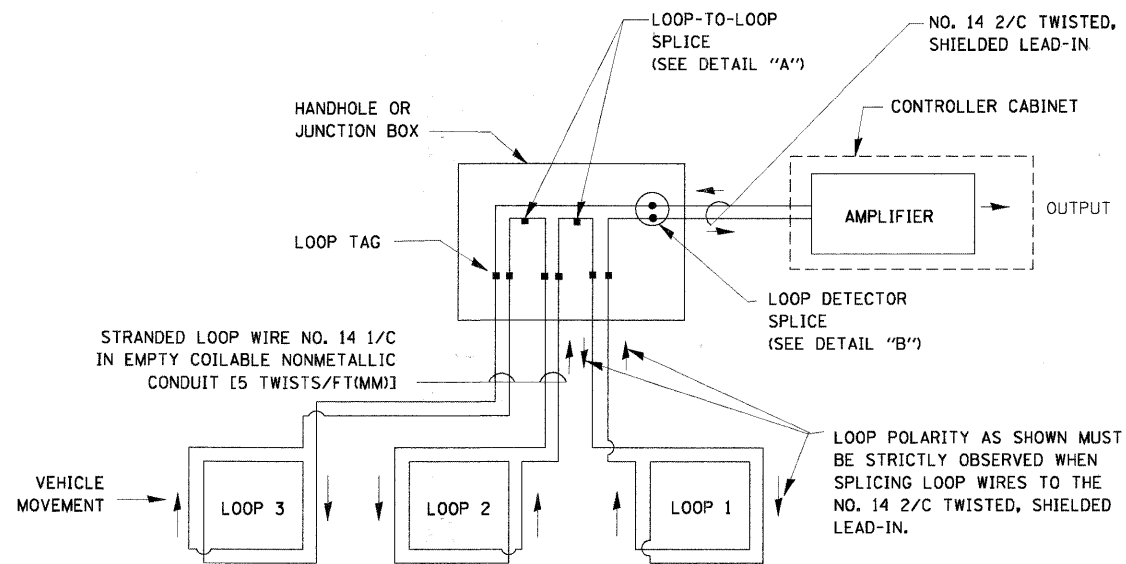
LOOP DETECTOR NOTES

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 DIVESHOLES 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

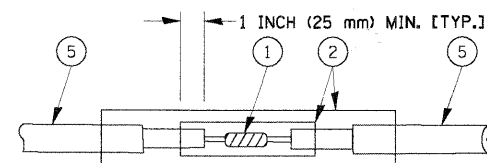


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

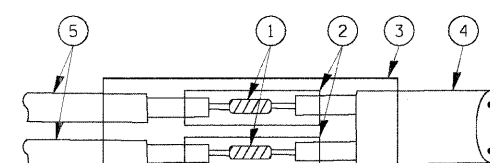


DETECTOR LOOP WIRING SCHEMATIC

- 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.

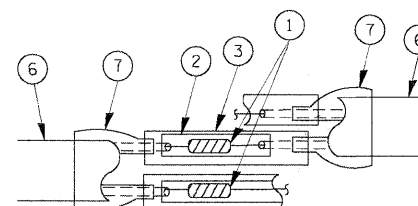


**DETAIL "A"
LOOP-TO-LOOP SPLICE**

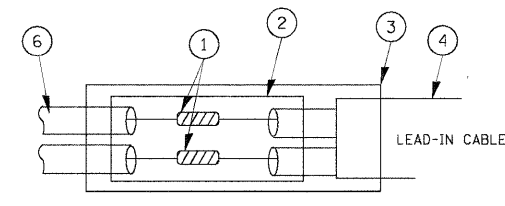


**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

TYPE I LOOP



**DETAIL "A"
LOOP-TO-LOOP SPLICE**



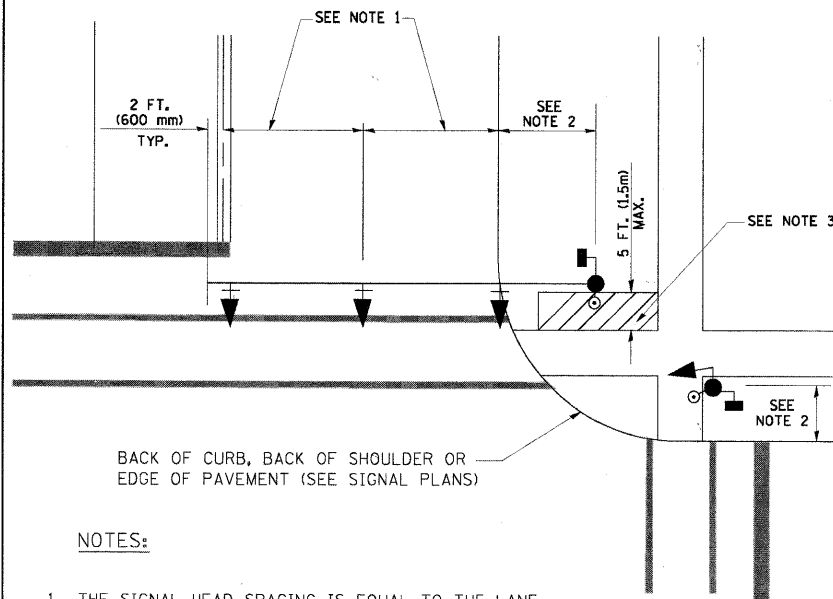
**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

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 PRE-FORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

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.

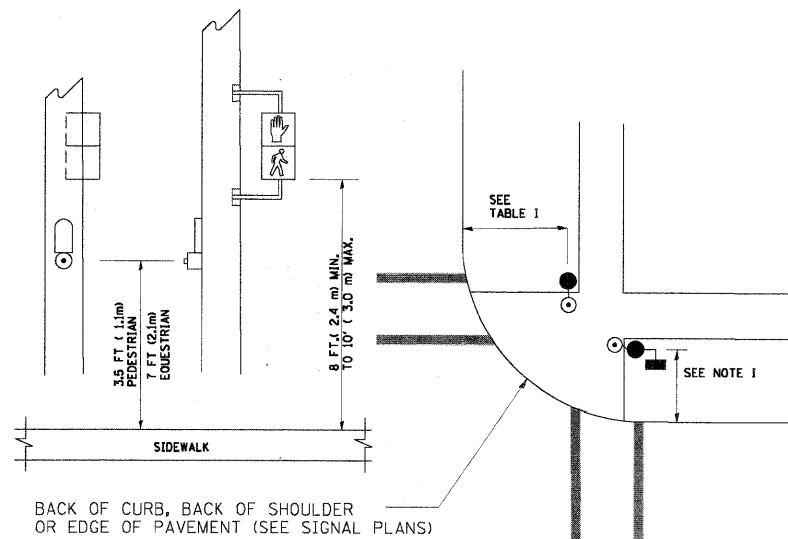


BACK OF CURB, BACK OF SHOULDER OR EDGE OF PAVEMENT (SEE SIGNAL PLANS)

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

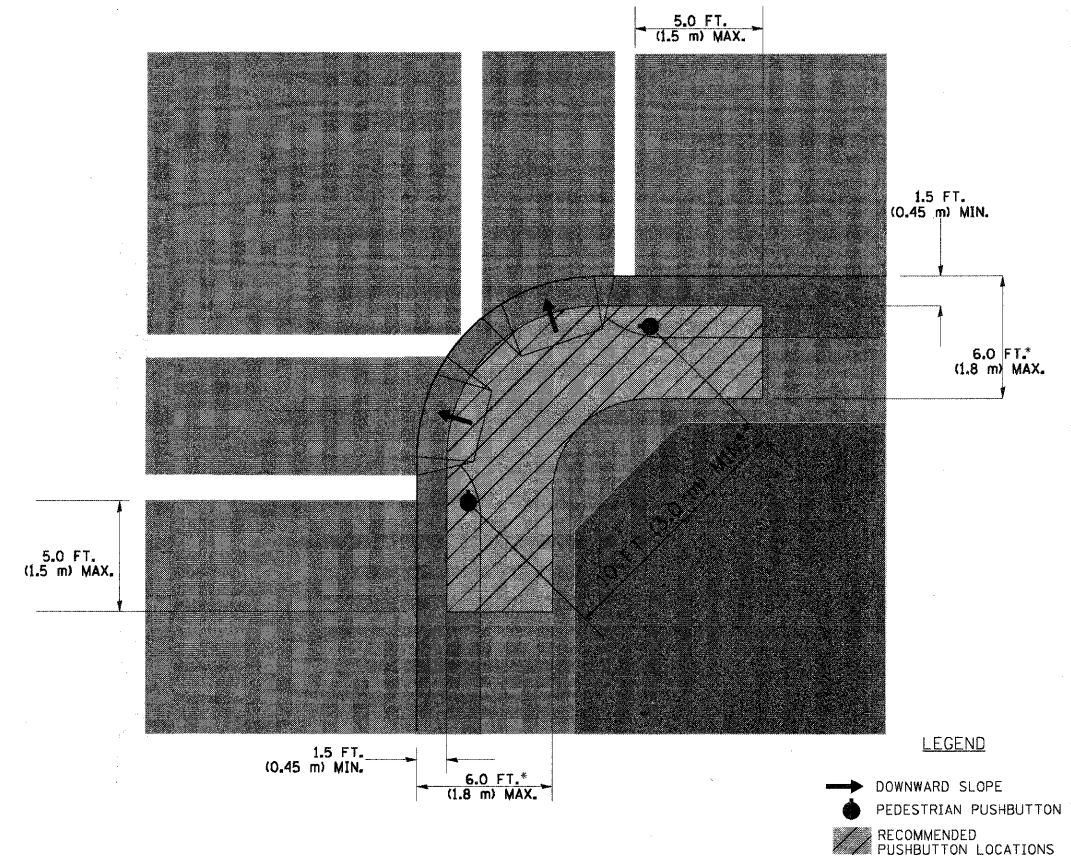


BACK OF CURB, BACK OF SHOULDER OR EDGE OF PAVEMENT (SEE SIGNAL PLANS)

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



LEGEND

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- 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:

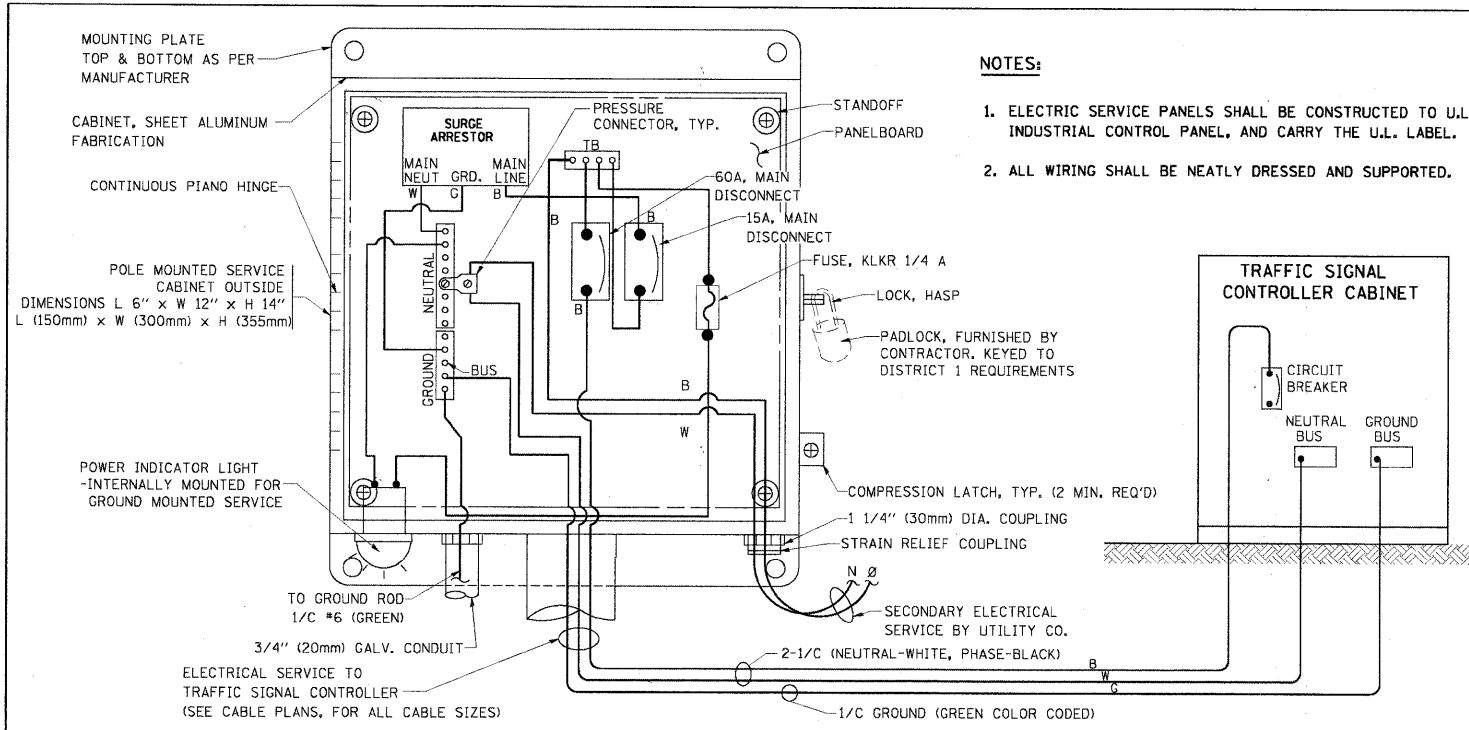
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM 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

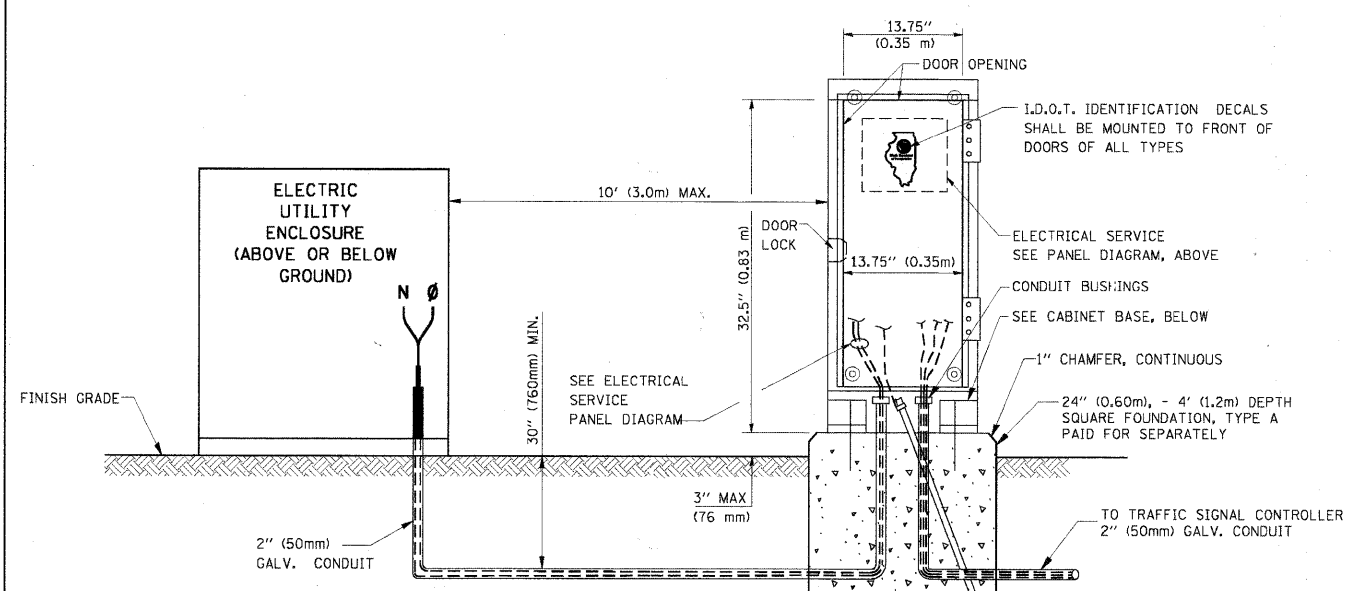
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 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.

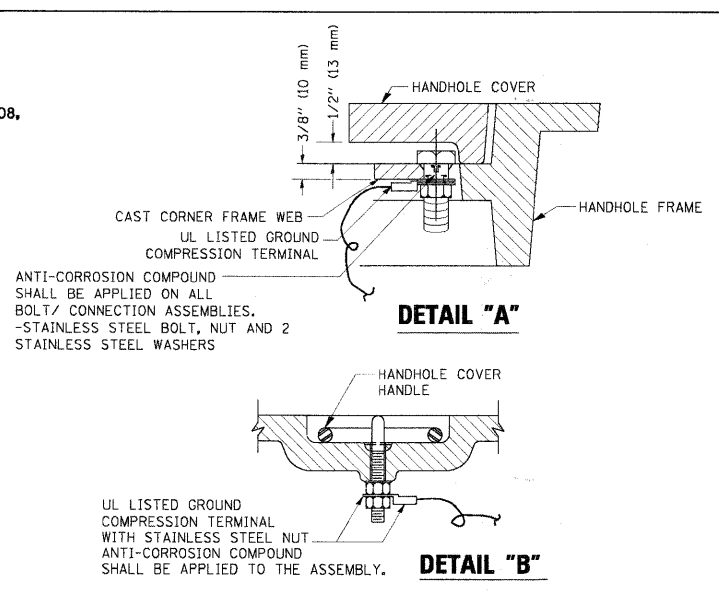
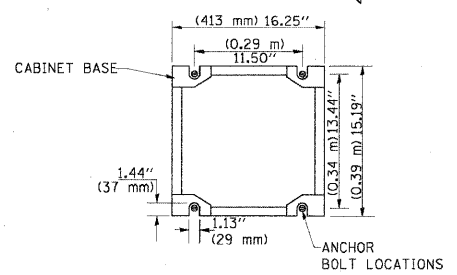


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



SERVICE INSTALLATION GROUND MOUNT
 (NOT TO SCALE)

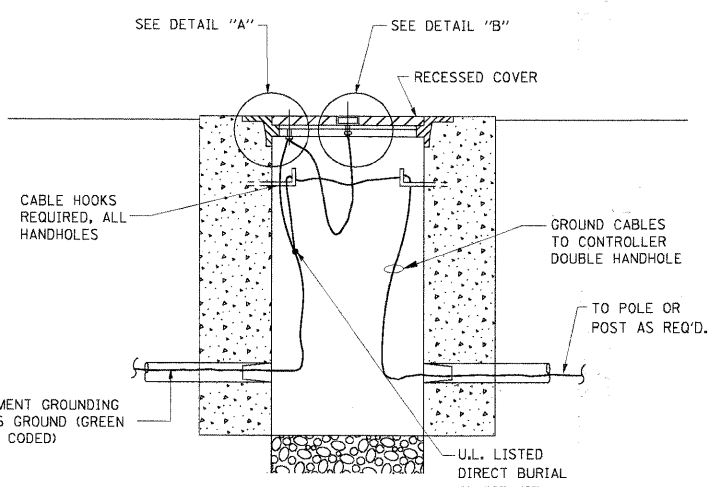
CABINET - BASE BOLT PATTERN
 (NOT TO SCALE)



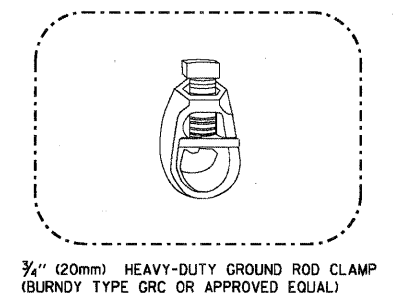
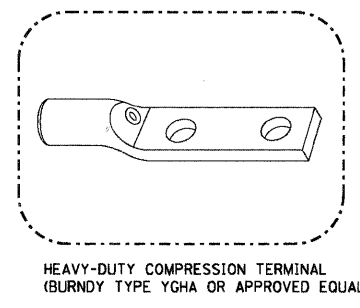
NOTES:

GROUNDING SYSTEM

1. 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.
2. 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.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

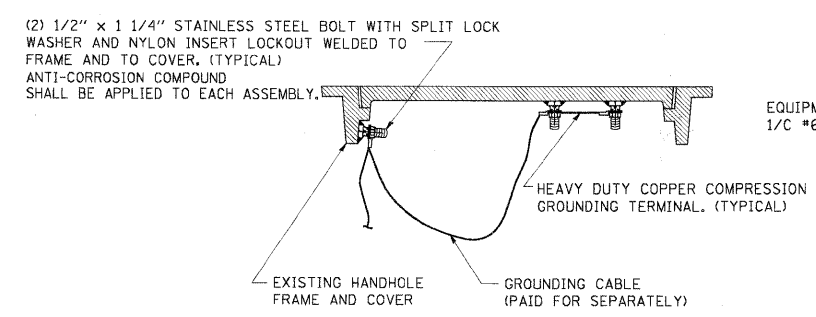


HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)

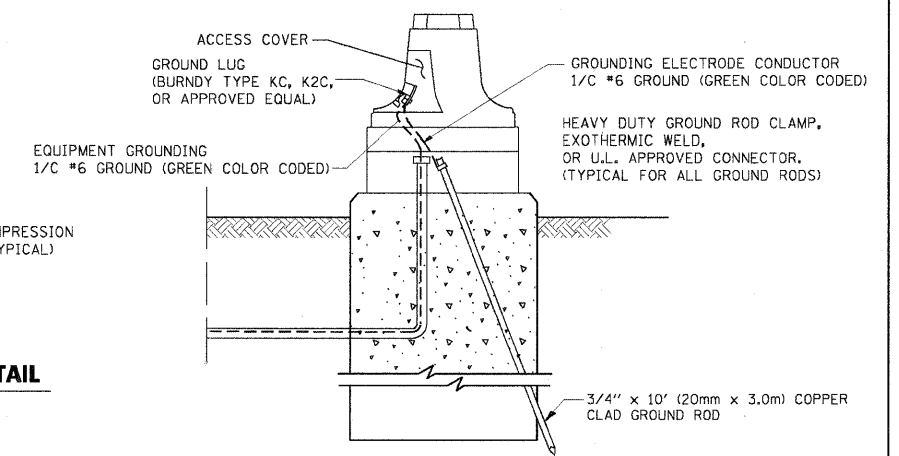


NOTES:

- 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.



EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)



MAST ARM POLE / POST-GROUNDING DETAIL
 (NOT TO SCALE)

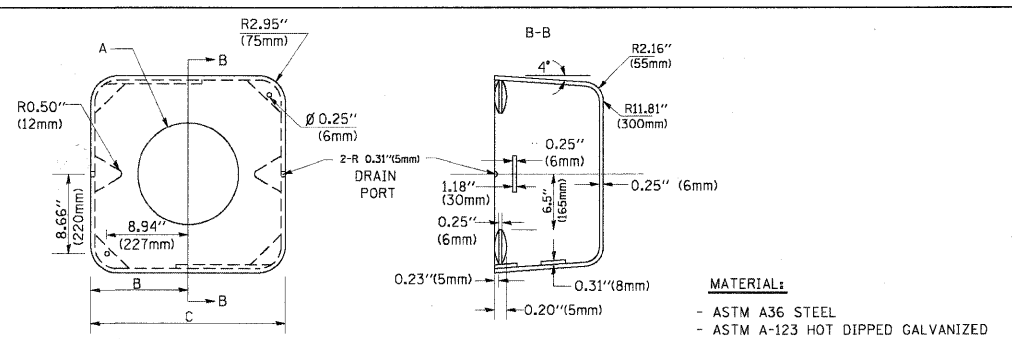
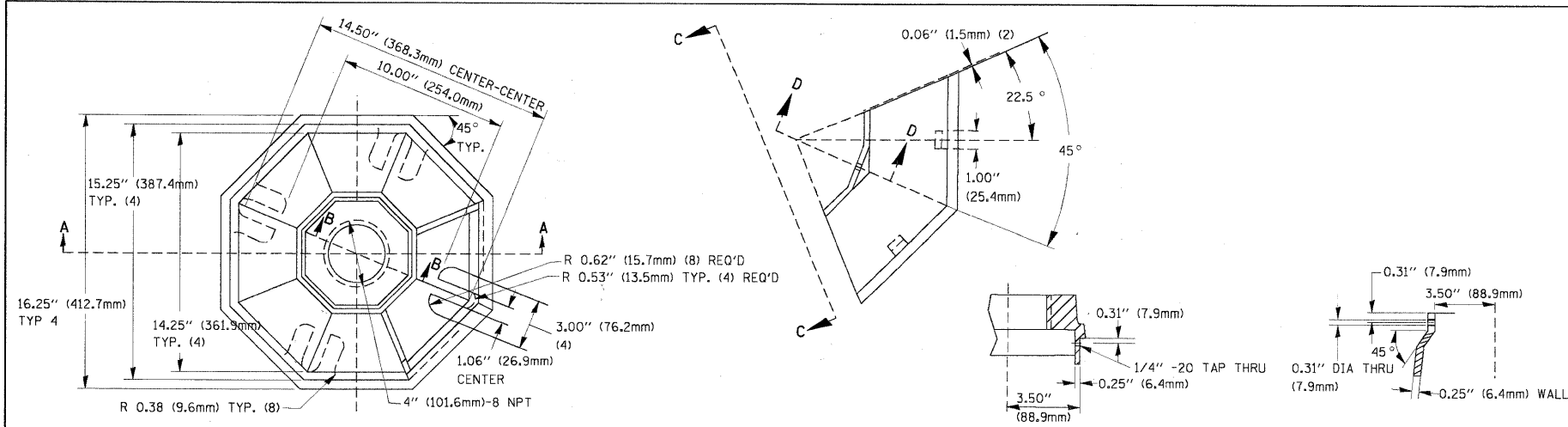
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	PLOT DATE = 10/6/2009	DATE - 10/28/09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	09-00237-02-TL	KANE	100	96
CONTRACT NO. 63525				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

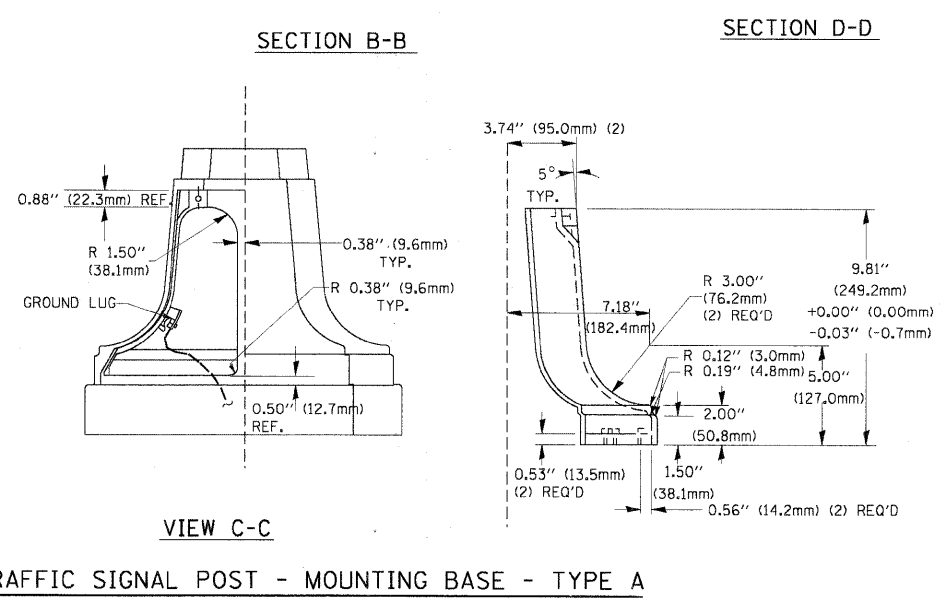
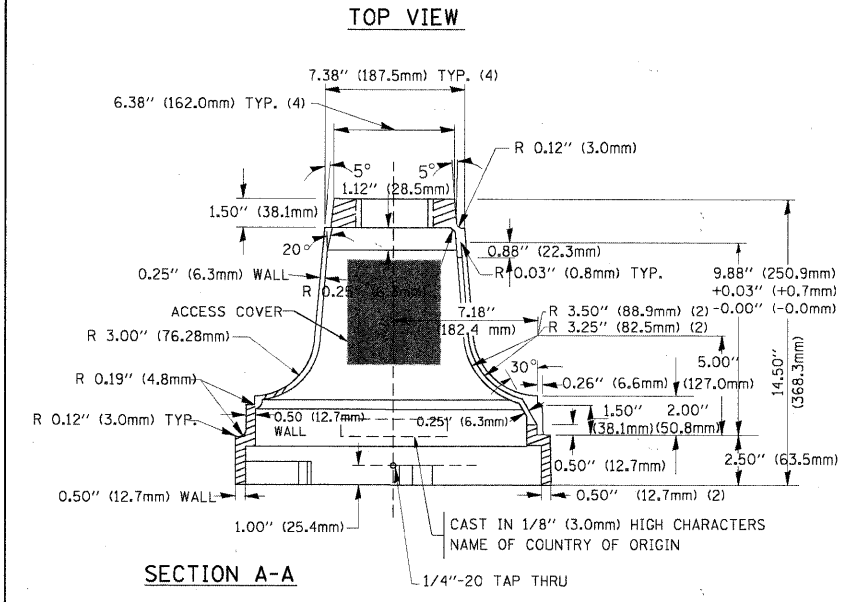
SCALE: SHEET NO. 3 OF 6 SHEETS STA. TO STA.



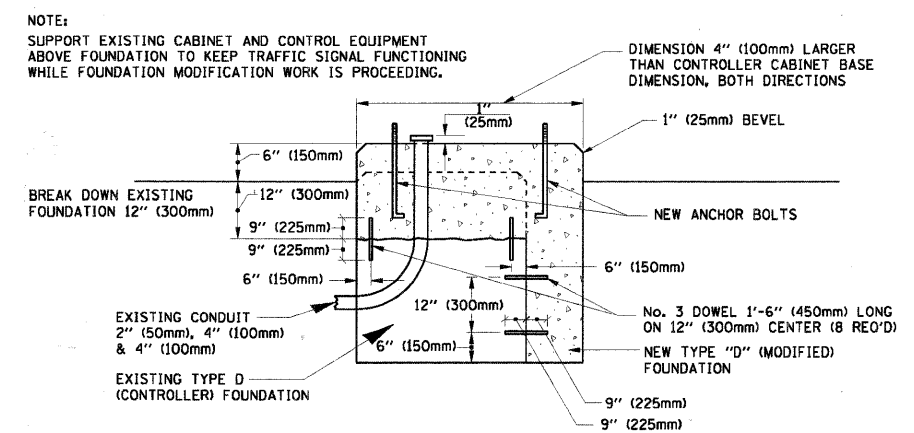
A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5\"(241mm)	19\"(483mm)	7\"(178mm) - 12\"(300mm)	53 lbs (24kg)
VARIABLES	10.75\"(273mm)	21.5\"(546mm)	7\"(178mm) - 12\"(300mm)	68 lbs (31 kg)
VARIABLES	13.0\"(330mm)	26\"(660mm)	7\"(178mm) - 12\"(300mm)	81 lbs (37 kg)
VARIABLES	18.5\"(470mm)	37\"(940mm)	7\"(178mm) - 12\"(300mm)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

SHROUD

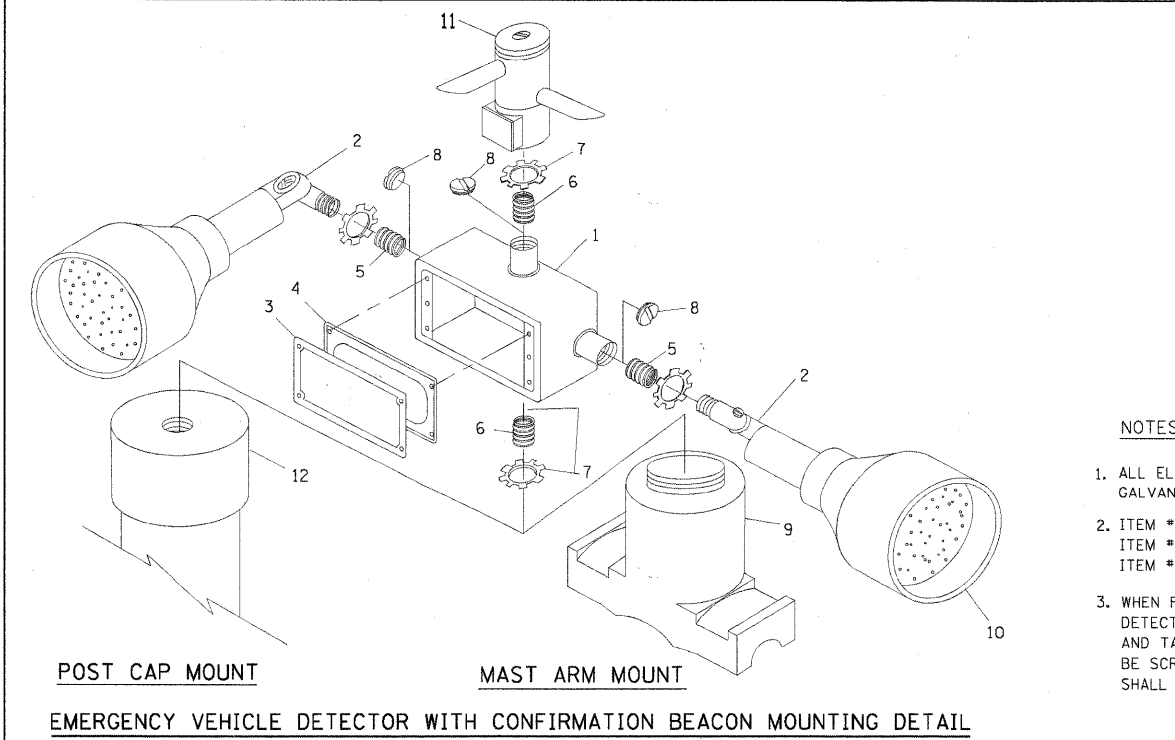
- NOTES:
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
 - THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
 - THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM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



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

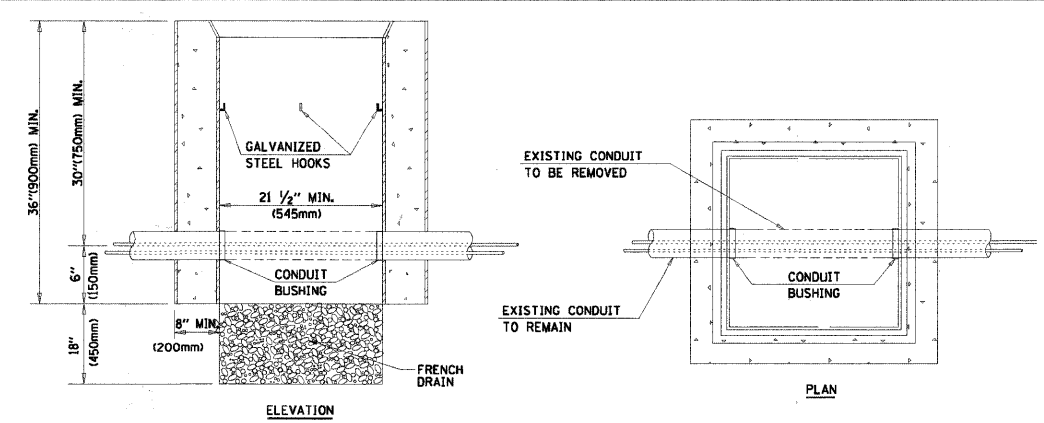


MODIFY EXISTING TYPE "D" FOUNDATION



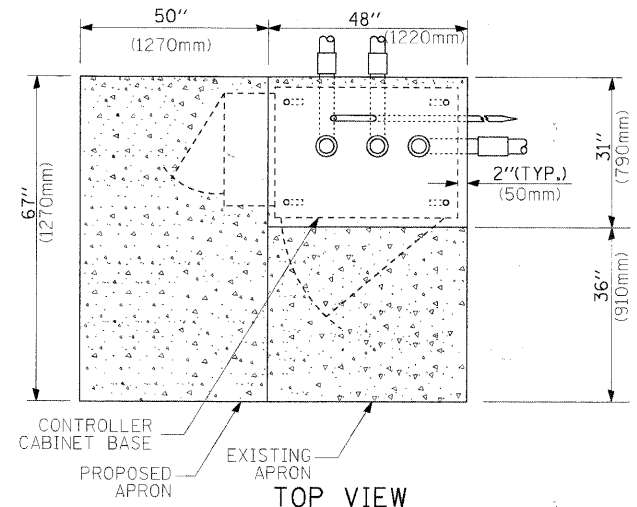
ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.00344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\"(19 mm) CLOSE NIPPLE
7	3/4\"(19 mm) LOCKNUT
8	3/4\"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

- NOTES:
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
 - ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
 - WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\"(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.

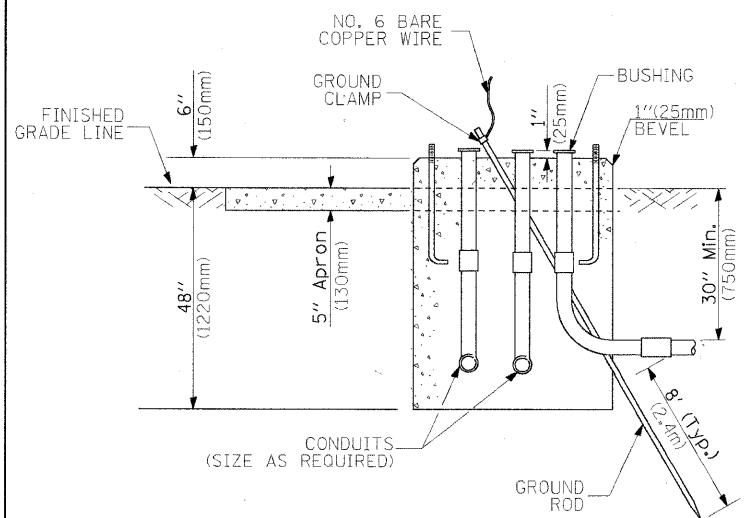


- NOTES:
- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
 - REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

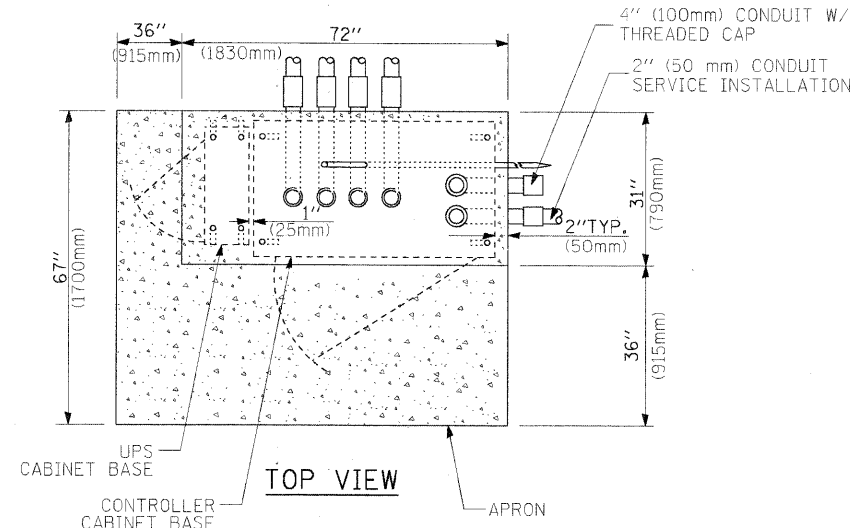
HANDHOLE TO INTERCEPT EXISTING CONDUIT



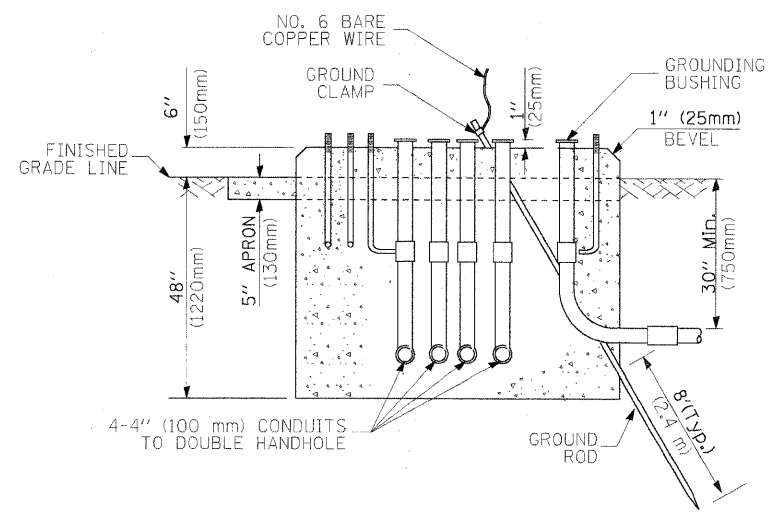
TOP VIEW



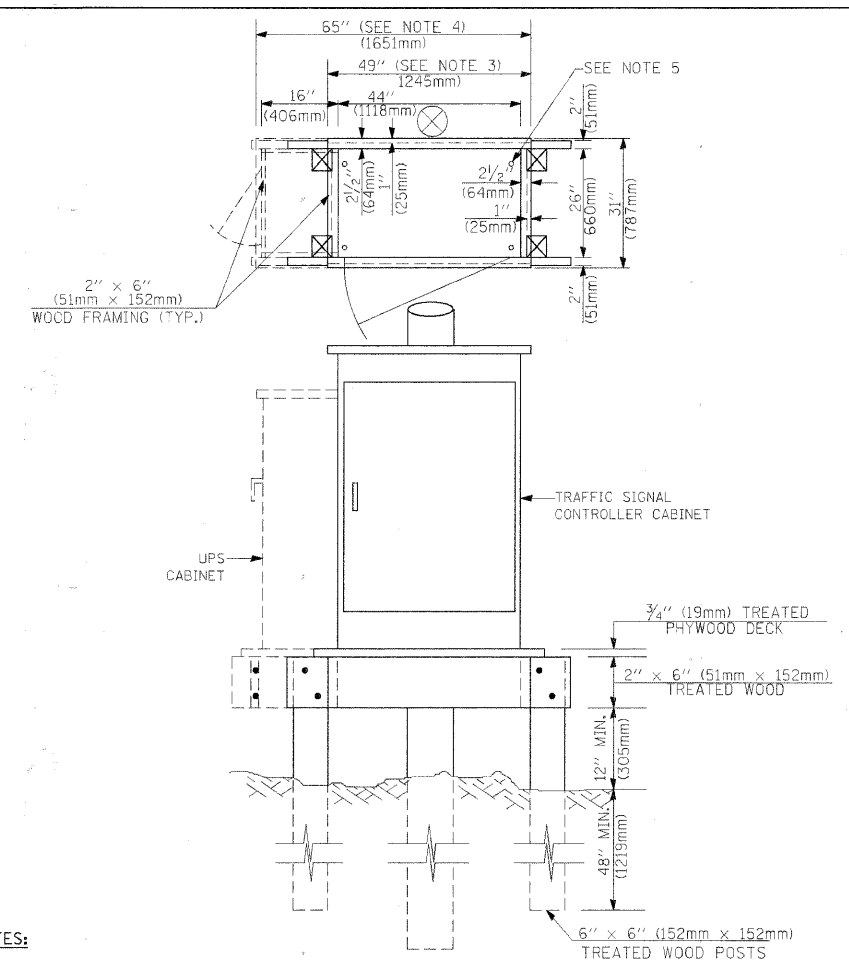
**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



TOP VIEW



**TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



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**

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	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)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

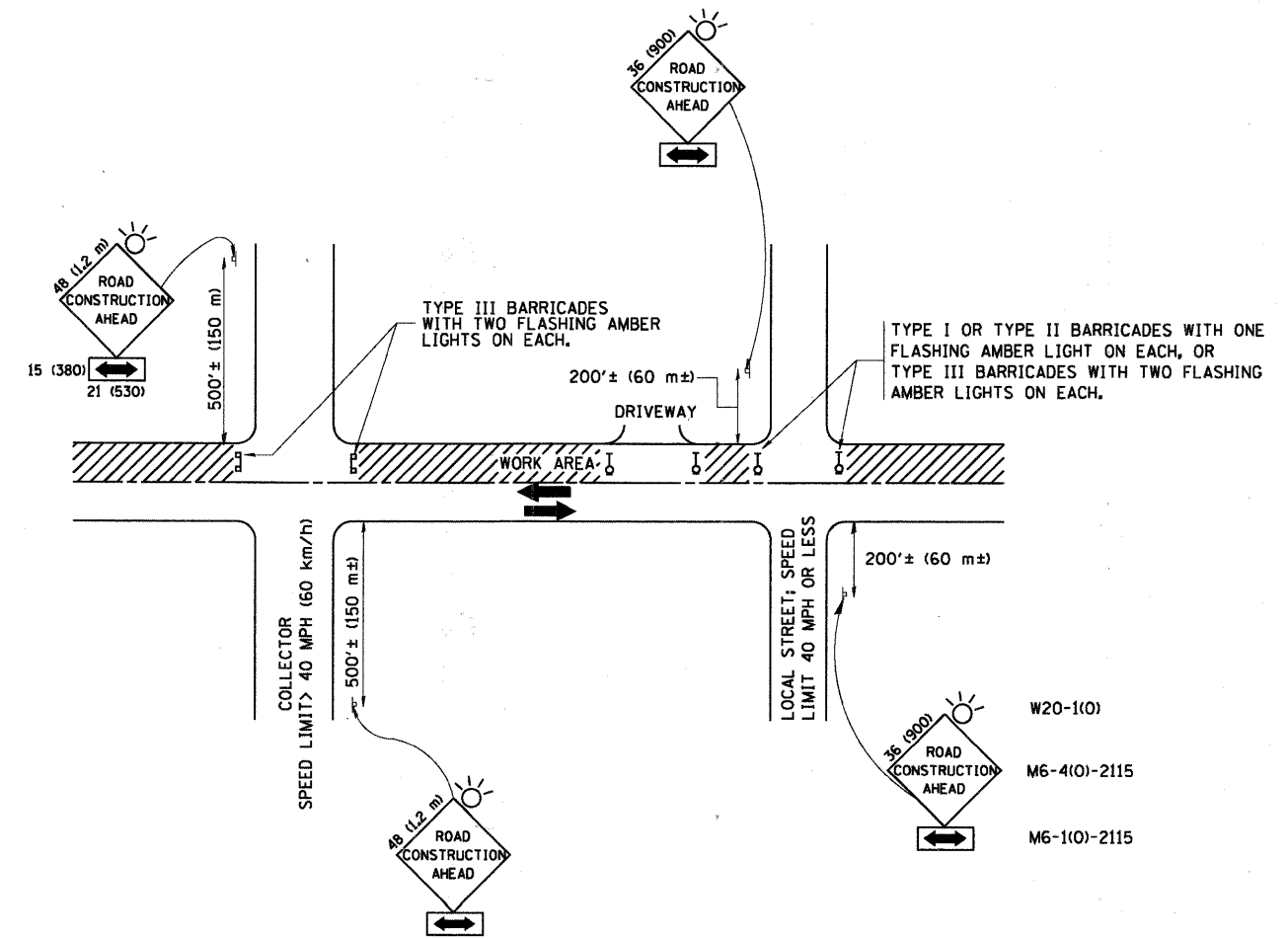
NOTES:

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

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, MMI2F			
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MMI2F 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, MMI2F SM12F			
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		S		STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I		ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM	R			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	RL			SIGNAL POST AND FOUNDATION TO BE REMOVED			
GUY WIRE				ABANDON ITEM	A			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				RAILROAD SYMBOLS			
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				EXISTING		PROPOSED	
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				RAILROAD CONTROL CABINET			
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT				RAILROAD CANTILEVER MAST ARM			
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER				FLASHING SIGNAL			
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED				CROSSING GATE			
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)				CROSSBUCK			
MICROWAVE VEHICLE SENSOR											
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 70150), STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME = W:\distatd\22x34\to10.dgn	USER NAME = gaglianobt	DESIGNED - LHA	REVISOR - J. OBERLE 10-18-95	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISOR - A. HOUSEH 03-06-96		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	336	09-00237-02-TL	KANE	100	100
		CHECKED -	REVISOR - A. HOUSEH 10-15-96						TC-10		CONTRACT NO.		
		DATE - 06-89	REVISOR - T. RAMMACHER 01-06-00						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				