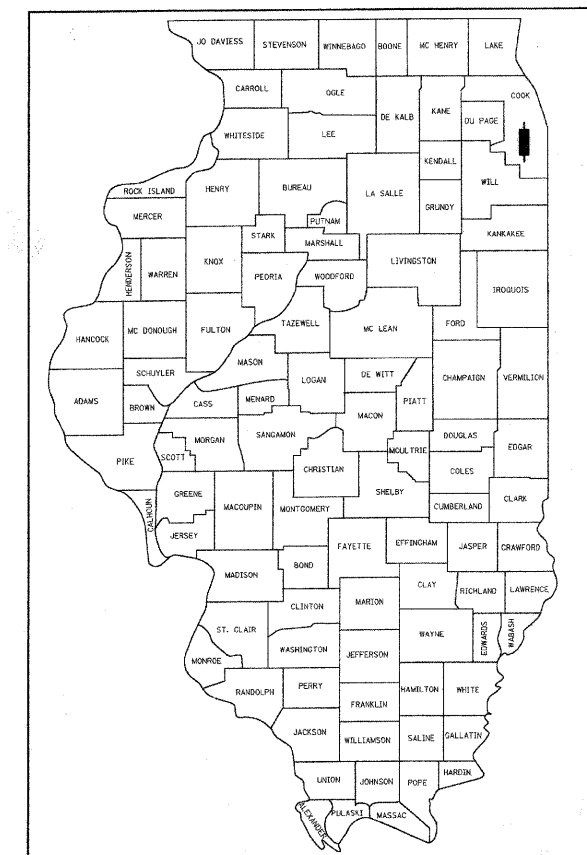


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
06-00169-00-TL	COOK	53	1	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
VILLAGE OF OAK LAWN
EMERGENCY VEHICLE
PREEMPTION PROJECT
DISTRICT 1
VARIOUS SIGNAL LOCATIONS
FEDERAL PROJECT NO.: HPP-2401 (003)
SECTION 06-00169-00-TL
COOK COUNTY
JOB NO: C-91-187-06



LOCATION OF SECTION INDICATED THIS: - [highlighted area]

ILLINOIS DEPARTMENT OF TRANSPORTATION

APPROVED: *[Signature]* 20 08
Oak Lawn Village Engineer
 LOCAL AGENCY POSITION

PASSED: *[Signature]* 20 08
Christopher H. Co
 DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
 BASED ON LIMITED REVIEW: *[Signature]* 20 08
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

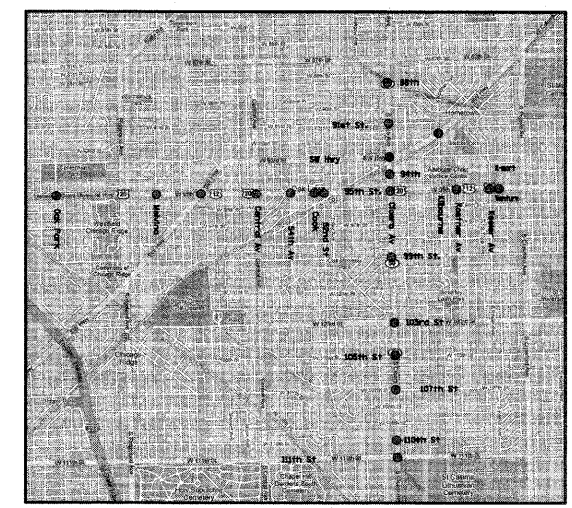
**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

[Signature] 5-6-2008
 ENGINEER DATE

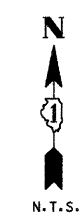
GEORGE M. ZIEGLER
 ILLINOIS REGISTRATION No. 062-045853
 EXPIRATION DATE: 11-30-2009
 PROFESSIONAL DESIGN FIRM No.: 184-001742
 EXPIRATION DATE: 04-30-2009

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	SUMMARY OF QUANTITIES
3	TRAFFIC SIGNAL MODIFICATION U.S. RTE. 1220 (95TH ST.) AND OAK PARK AVE.
4	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE U.S. RTE. 1220 (95TH ST.) AND OAK PARK AVE.
5	TRAFFIC SIGNAL MODIFICATION U.S. RTE. 1220 (95TH ST.) AND MELVINA AVE.
6	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE U.S. RTE. 1220 (95TH ST.) AND MELVINA AVE.
7	TRAFFIC SIGNAL MODIFICATION U.S. RTE. 1220 (95TH ST.) AND SOUTHWEST HIGHWAY
8	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE U.S. RTE. 1220 (95TH ST.) AND SOUTHWEST HIGHWAY
9	TRAFFIC SIGNAL MODIFICATION 95TH STREET AND CENTRAL AVE.
10	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE 95TH STREET AND CENTRAL AVE.
11	TRAFFIC SIGNAL MODIFICATION U.S. RTE. 1220 (95TH ST.) AND 54TH AVE.
12	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE U.S. RTE. 1220 (95TH ST.) AND 54TH AVE.
13	TRAFFIC SIGNAL MODIFICATION U.S. RTE. 1220 (95TH ST.) AND COOK AVE.
14	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE U.S. RTE. 1220 (95TH ST.) AND COOK AVE.
15	TRAFFIC SIGNAL MODIFICATION U.S. RTE. 1220 (95TH ST.) AND 52ND AVE.
16	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE U.S. RTE. 1220 (95TH ST.) AND 52ND AVE.
17	TRAFFIC SIGNAL MODIFICATION U.S. RTE. 1220 (95TH ST.) AND IL 50 (CICERO AVE.)
18	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE U.S. RTE. 1220 (95TH ST.) AND IL 50 (CICERO AVE.)
19	TRAFFIC SIGNAL MODIFICATION U.S. RTE. 1220 (95TH ST.) AND KOSTNER AVE.
20	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE U.S. RTE. 1220 (95TH ST.) AND KOSTNER AVE.
21	TRAFFIC SIGNAL MODIFICATION U.S. RTE. 1220 (95TH ST.) AND KEELER AVE.
22	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE U.S. RTE. 1220 (95TH ST.) AND KEELER AVE.
23	TRAFFIC SIGNAL MODIFICATION U.S. RTE. 1220 (95TH ST.) AND K-MART/VENTURE
24	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE U.S. RTE. 1220 (95TH ST.) AND K-MART/VENTURE
25	TRAFFIC SIGNAL MODIFICATION IL RTE. 50 (CICERO AVE.) AND 88TH STREET
26	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE IL RTE. 50 (CICERO AVE.) AND 88TH STREET
27	TRAFFIC SIGNAL MODIFICATION IL RTE. 50 (CICERO AVE.) AND 91ST STREET
28	SCHEDULE OF QUANTITIES AND CABLE PLAN IL RTE. 50 (CICERO AVE.) AND 91ST STREET
29	TRAFFIC SIGNAL MODIFICATION IL RTE. 50 (CICERO AVE.) AND SOUTHWEST HIGHWAY
30	SCHEDULE OF QUANTITIES AND CABLE PLAN IL RTE. 50 (CICERO AVE.) AND SOUTHWEST HIGHWAY
31	SEQUENCE OF OPERATION, RAILROAD PREEMPTION SEQUENCE OF OPERATION AND EMERGENCY VEHICLE PREEMPTION SEQUENCE IL RTE. 50 (CICERO AVE.) AND SOUTHWEST HIGHWAY
32	TRAFFIC SIGNAL MODIFICATION IL RTE. 50 (CICERO AVE.) AND 94TH STREET
33	SCHEDULE OF QUANTITIES AND CABLE PLAN IL RTE. 50 (CICERO AVE.) AND 94TH STREET
34	SEQUENCE OF OPERATION, RAILROAD PREEMPTION SEQUENCE OF OPERATION AND EMERGENCY VEHICLE PREEMPTION SEQUENCE IL RTE. 50 (CICERO AVE.) AND 94TH STREET
35	TRAFFIC SIGNAL MODIFICATION IL RTE. 50 (CICERO AVE.) AND 99TH STREET
36	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE IL RTE. 50 (CICERO AVE.) AND 99TH STREET
37	TRAFFIC SIGNAL MODIFICATION IL RTE. 50 (CICERO AVE.) AND 103RD STREET
38	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE IL RTE. 50 (CICERO AVE.) AND 103RD STREET
39	TRAFFIC SIGNAL MODIFICATION IL RTE. 50 (CICERO AVE.) AND 105TH STREET
40	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE IL RTE. 50 (CICERO AVE.) AND 105TH STREET
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43	TRAFFIC SIGNAL MODIFICATION IL RTE. 50 (CICERO AVE.) AND 110TH STREET
44	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE IL RTE. 50 (CICERO AVE.) AND 110TH STREET
45	TRAFFIC SIGNAL MODIFICATION IL RTE. 50 (CICERO AVE.) AND 111TH STREET
46	SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE IL RTE. 50 (CICERO AVE.) AND 111TH STREET
47	TRAFFIC SIGNAL MODIFICATION SOUTHWEST HIGHWAY AND KILBOURN AVE.
48	SCHEDULE OF QUANTITIES AND CABLE PLAN SOUTHWEST HIGHWAY AND KILBOURN AVE.
49	SEQUENCE OF OPERATION, RAILROAD PREEMPTION SEQUENCE OF OPERATION AND EMERGENCY VEHICLE PREEMPTION SEQUENCE SOUTHWEST HIGHWAY AND KILBOURN AVE.
50 - 53	DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS



LOCATION MAP

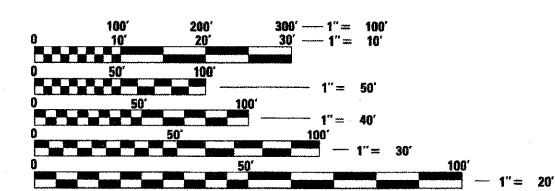


LIST OF STATE STANDARDS

STANDARD NO.	DESCRIPTION
STD. 701701-05	URBAN LANE CLOSURE, MULTI-LANE INTERSECTION
STD. 701901	TRAFFIC CONTROL DEVICES
STD. 857001	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
STD. 880006	TRAFFIC SIGNAL MOUNTING DETAILS

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

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



CONTRACT NO. 63039

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

FEDERAL AID DESIGN ENGINEER: PHIL MARCVN
 (847) 705-4189

PROFILE
 REVISIONS
 GRADES CHECKED
 PLOTTED
 NOTE BOOK NO. _____
 STRUCTURE NOTATIONS CHECKED

PLAN
 CHECKED
 ALIGNED CHECKED
 PLOTTED
 NOTE BOOK NO. _____
 CAD FILE NAME

BY _____ DATE _____
 BY _____ DATE _____

CHRISTOPHER B. BURKE
 ENGINEERING LTD.
 11001 S. BIRCHWOOD, SUITE 600
 ROSEMONT, ILLINOIS 60018
 (847) 823-0500

SUMMARY OF QUANTITIES

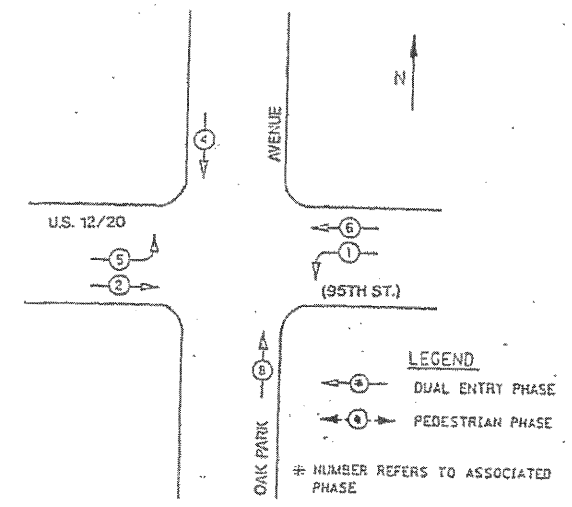
CONSTRUCTION TYPE CODE Y031-1F

CODE NO.	ITEM	UNIT	TOTAL	95th Street @ Oak Park Avenue	95th Street @ Melvina Avenue	95th Street @ Southwest Highway	95th Street @ Central Avenue	95th Street @ 54th Avenue	95th Street @ Cook Avenue	95th Street @ 52nd Avenue	95th Street @ Cicero Avenue	95th Street @ Kostner Avenue	95th Street @ Keeler Avenue	95th Street @ Kmart/Venture	Cicero Avenue @ 88th Street	Cicero Avenue @ 91st Street	Cicero Avenue @ Southwest Highway	Cicero Avenue @ 94th Street	Cicero Avenue @ 99th Street	Cicero Avenue @ 103rd Street	Cicero Avenue @ 105th Street	Cicero Avenue @ 107th Street	Cicero Avenue @ 110th Street	Cicero Avenue @ 111th Street	Southwest Highway @ Kilbourn Avenue
67100100	MOBILIZATION	L SUM	1																						
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	7376	225	156	714	322	291	255	257	1027	232	253	214	307	234	348	215	236	620	354	217	259	323	317
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	9		1									1	1	1	1	1	1	1	1	1	1	1	
88700200	LIGHT DETECTOR	EACH	47	2	2	3	2	2	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	
88700300	LIGHT DETECTOR AMPLIFIER	EACH	22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	9		1									1	1	1	1	1	1	1	1	1	1	1	
89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	8		1									1	1	1	1	1	1	1	1	1	1	1	
89500400	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	8		1									1	1	1	1	1	1	1	1	1	1	1	
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	9		1									1	1	1	1	1	1	1	1	1	1	1	
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	7376	225	156	714	322	291	255	257	1027	232	253	214	307	234	348	215	236	620	354	217	259	323	317
XX002298	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	22	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

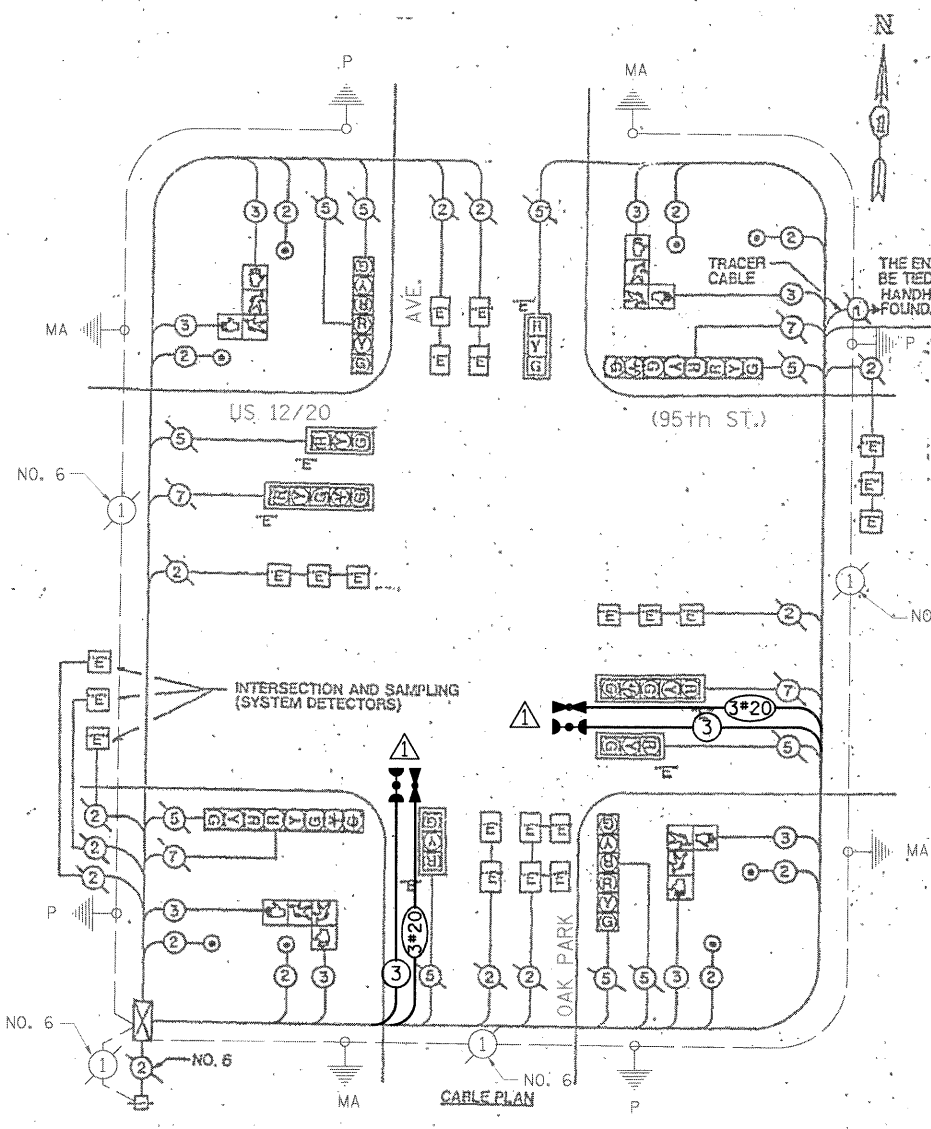
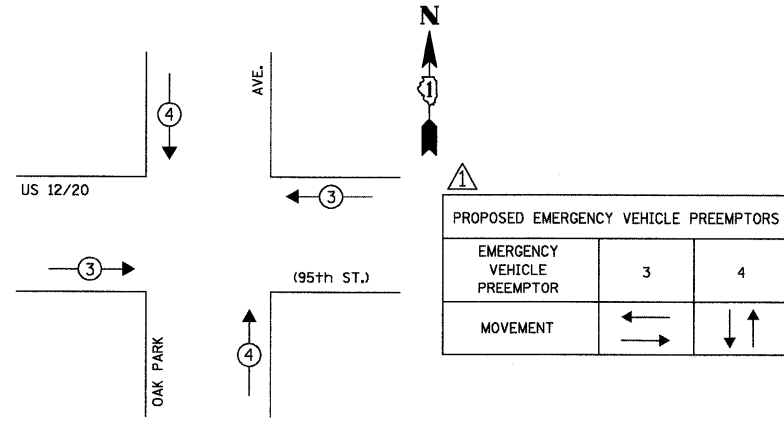
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THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

CONTROLLER SEQUENCE
 REFERRING TO STANDARD 057001, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	8" TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	12" 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. "P" INDICATES PROGRAMMED HEAD. "E" INDICATES EXISTING SIGNAL HEAD OR EXISTING PEDESTRIAN SIGNAL HEAD.
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR CONFIRMATION BEACON

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	225
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	225
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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.

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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

EMC

ILLINOIS DEPARTMENT OF TRANSPORTATION
PHASE DESIGNATION DIAGRAM
CABLE PLAN
SCHEDULE OF QUANTITIES
U.S. RTS. 12 & 20 (95TH ST.)
& OAK PARK AVE.

REVISIONS

NAME	DATE
CBBEL	3/20/08

SCALE: VERT. _____ HORIZ. _____ DATE: 1/18/97
 DRAWN BY: APZ
 DESIGNED BY: TPC
 CHECKED BY: RIF

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

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	135	0.50	945.00
(YELLOW)	14	135	0.25	472.50
(GREEN)	14	135	0.25	472.50
ARROW	8	135	0.10	108.00
PED. SIGNAL	8	90	1.00	720.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	252	0.05	-
FLASHER	-	-	0.50	-

PHASE DESIGNATION DIAGRAM PROPOSED

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	-	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)

ENERGY COSTS TO: TOTAL = 2818.00

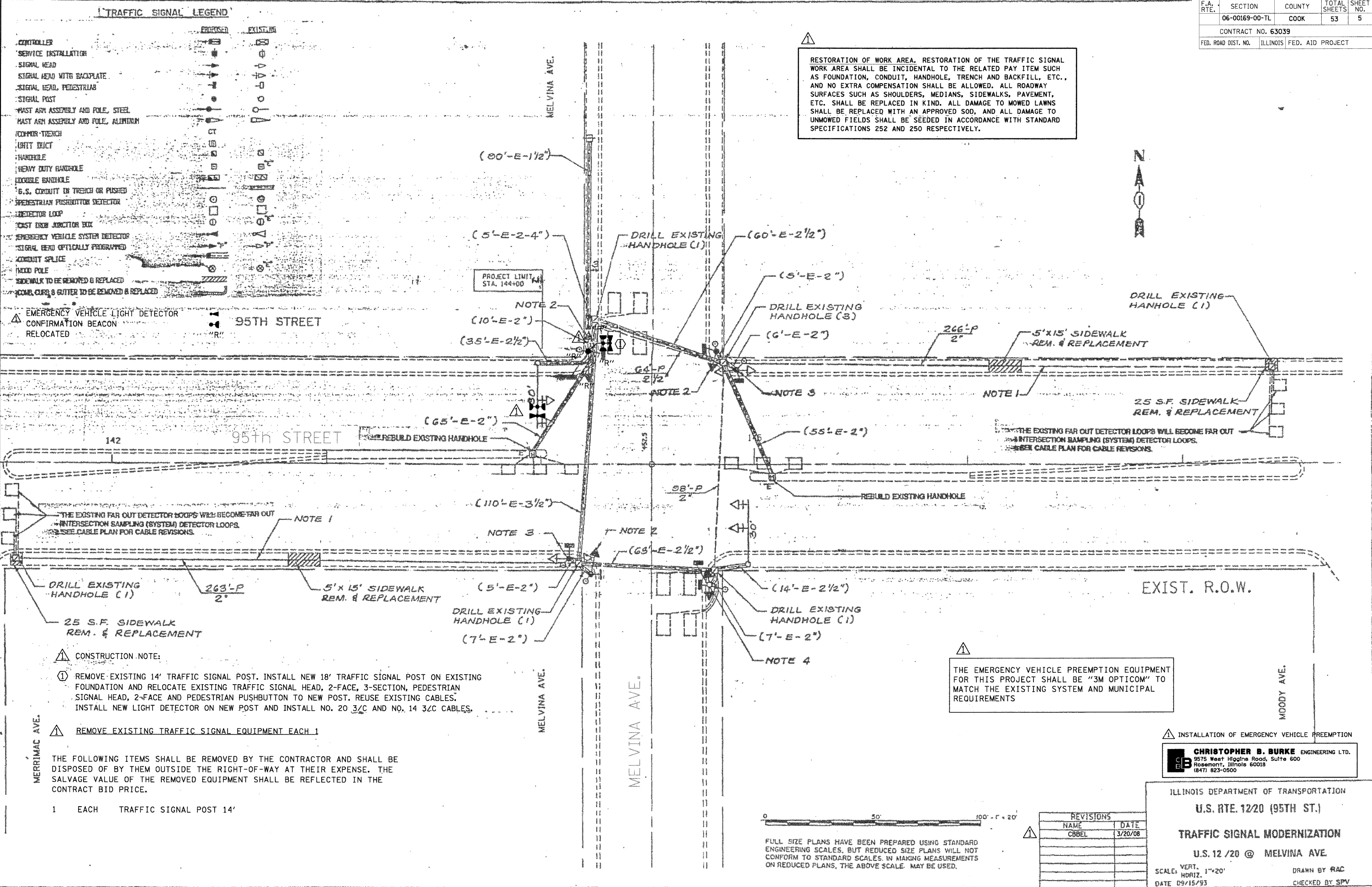
ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 COMPANY: COMED

TRAFFIC SIGNAL LEGEND

CONTROLLED	PROPOSED	EXISTING
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
CONDUIT TRENCH		
UNIT DUCT		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
6.5. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
TRUCK CROSS JUNCTION BOX		
EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL HEAD OPTICALLY PROGRAMMED		
CONDUIT SPLICE		
WOOD POLE		
SIDEWALK TO BE REMOVED & REPLACED		
POLE, CURB, & GUTTER TO BE REMOVED & REPLACED		

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.



EMERGENCY VEHICLE LIGHT DETECTOR
CONFIRMATION BEACON
RELOCATED

NOTE 1: THE EXISTING FAR OUT DETECTOR LOOPS WILL BECOME FAR OUT INTERSECTION SAMPLING (SYSTEM) DETECTOR LOOPS. SEE CABLE PLAN FOR CABLE REVISIONS.

CONSTRUCTION NOTE:
 1. REMOVE EXISTING 14' TRAFFIC SIGNAL POST. INSTALL NEW 18' TRAFFIC SIGNAL POST ON EXISTING FOUNDATION AND RELOCATE EXISTING TRAFFIC SIGNAL HEAD, 2-FACE, 3-SECTION, PEDESTRIAN SIGNAL HEAD, 2-FACE AND PEDESTRIAN PUSHBUTTON TO NEW POST. REUSE EXISTING CABLES. INSTALL NEW LIGHT DETECTOR ON NEW POST AND INSTALL NO. 20 3/C AND NO. 14 3/C CABLES.

2. REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH 1

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.

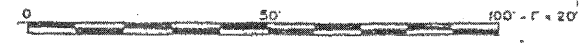
- 1 EACH TRAFFIC SIGNAL POST 14'

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
 U.S. RTE. 12/20 (95TH ST.)
TRAFFIC SIGNAL MODERNIZATION
 U.S. 12 /20 @ MELVINA AVE.
 SCALE: VERT. 1"=20'
 HORIZ. 1"=20'
 DATE 09/15/93
 DRAWN BY RAC
 CHECKED BY SPV

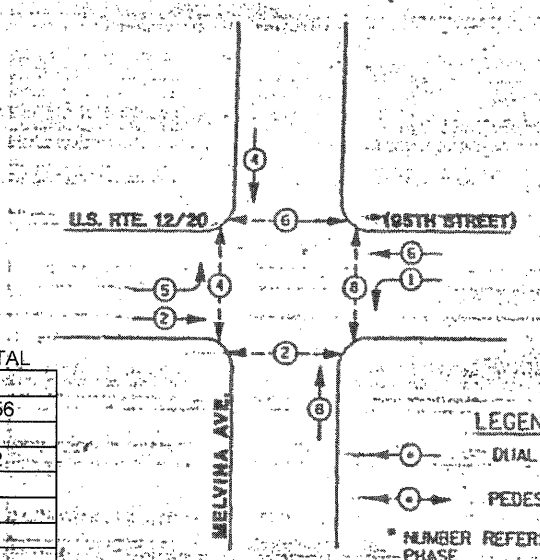


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, BUT REDUCED SIZE PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALE MAY BE USED.

REVISIONS	
NAME	DATE
CBBEL	3/20/08

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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

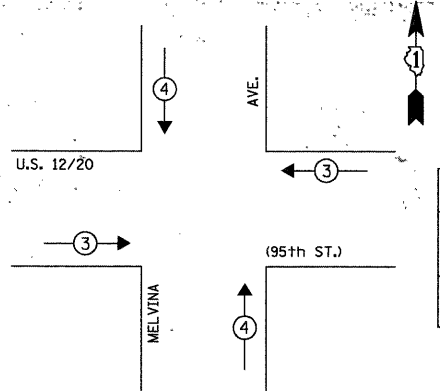
CONTROLLER SEQUENCE IV
 REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



LEGEND
 ○ DUAL ENTRY PHASE
 ○ PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM
 DUAL ENTRY - ALL LEGS
 PROTECTED/PERMITTED LEFT TURN PHASING

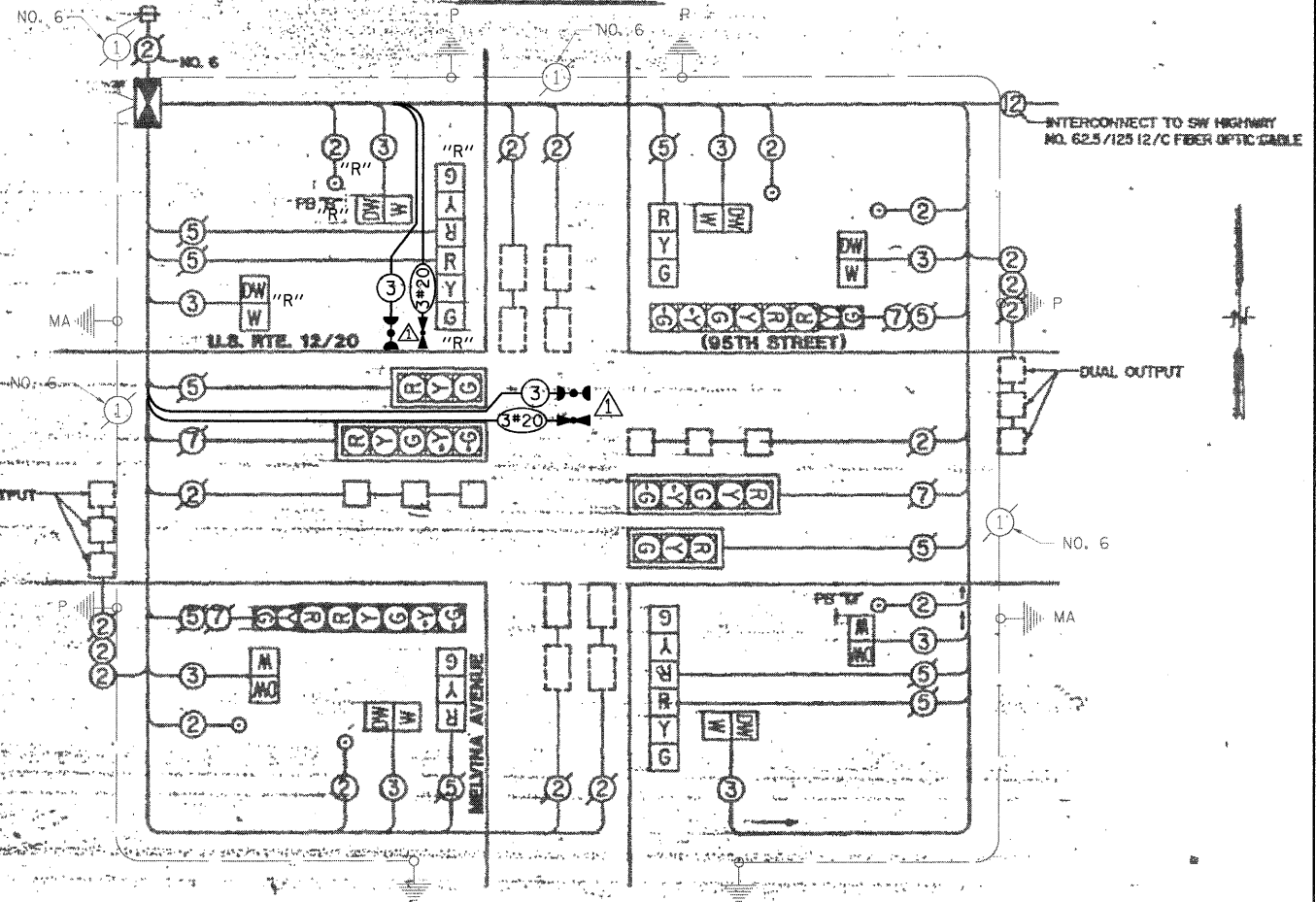
EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

CABLE PLAN



SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	156
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	156
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

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

TYPE	NO. OF LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	135	0.50	945.00
(YELLOW)	14	135	0.25	472.50
(GREEN)	14	135	0.25	472.50
ARROW	8	135	0.10	108.00
PED. SIGNAL	8	90	1.00	720.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	252	0.05	-
FLASHER	-	-	0.50	-

ENERGY COSTS TO: TOTAL = 2818.00
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 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	15 (4.6)	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)

- 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
 - INDICATES PROGRAMMED
 - INDICATES LOWERED
 - EXISTING SIGNAL SECTION
 - MAGNETIC DETECTOR
 - OPTICAL DETECTOR
 - INDICATES NUMBER OF CONDUCTORS (CHS)
 - ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 24 EXCEPT AS INDICATED.
 - EMERGENCY VEHICLE LIGHT DETECTOR CONFIRMATION BEACON RELOCATED

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 623-0500

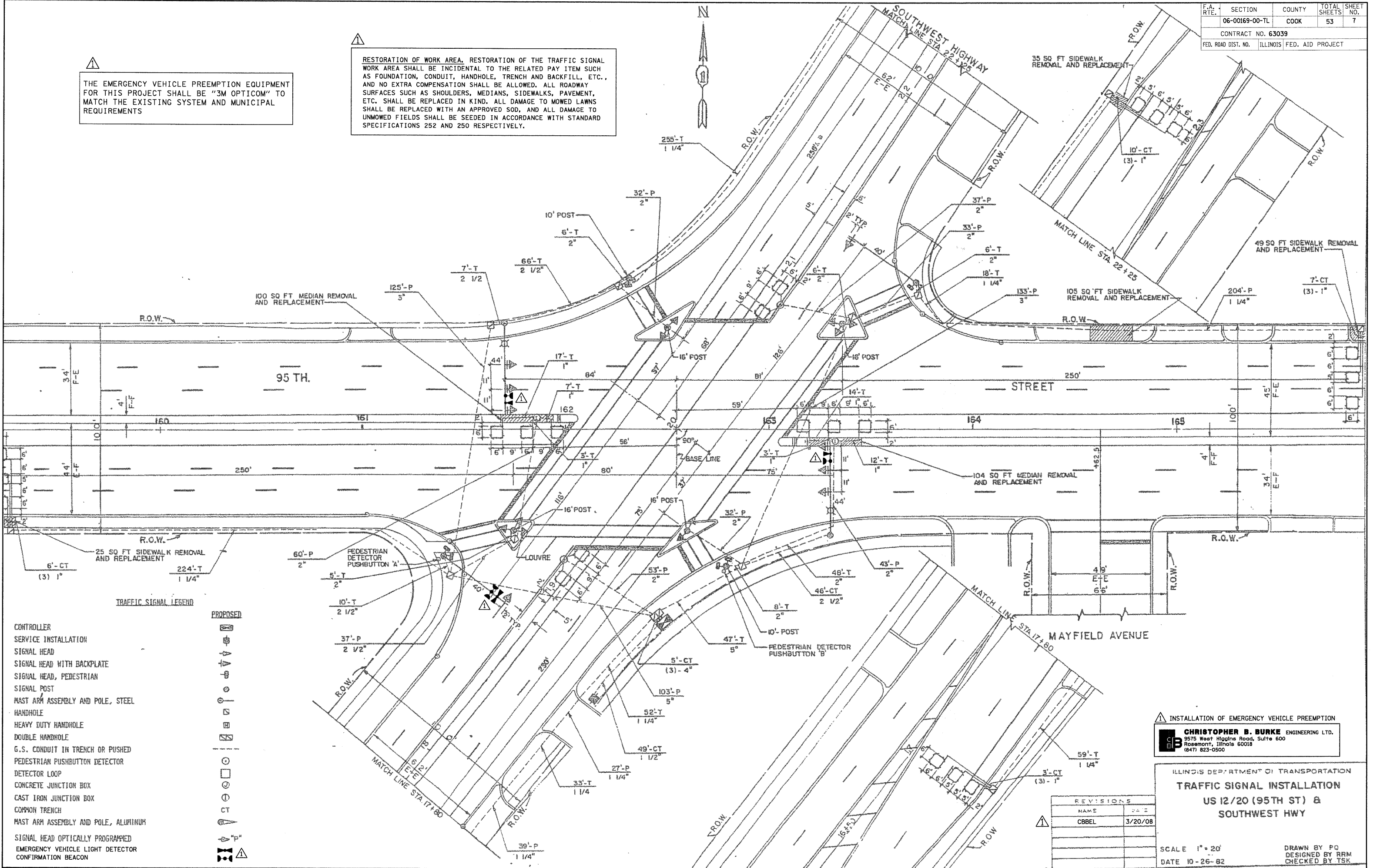
REVISIONS

NAME	DATE
CBBEL	5/20/08

DEPARTMENT OF TRANSPORTATION
U.S. RTE. 12/20 (95TH ST.)
CABLE PLAN
SCHEDULE OF QUANTITIES
PHASE DESIGNATION DIAGRAM
 U.S. 12/20 @ MELVINA AVE.
 DATE 10/27/93
 DRAWN BY CJS
 CHECKED BY RAC

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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 SEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



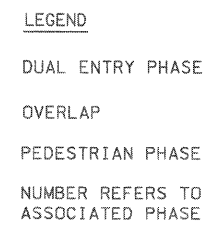
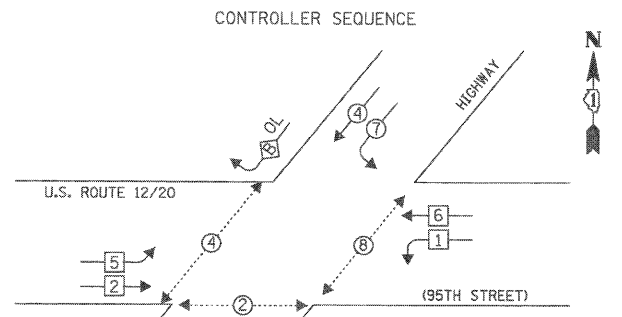
- TRAFFIC SIGNAL LEGEND**
- PROPOSED**
- CONTROLLER
 - SERVICE INSTALLATION
 - SIGNAL HEAD
 - SIGNAL HEAD WITH BACKPLATE
 - SIGNAL HEAD, PEDESTRIAN
 - SIGNAL POST
 - MAST ARM ASSEMBLY AND POLE, STEEL
 - HANDHOLE
 - HEAVY DUTY HANDHOLE
 - DOUBLE HANDHOLE
 - G.S. CONDUIT IN TRENCH OR PUSHED
 - PEDESTRIAN PUSHBUTTON DETECTOR
 - DETECTOR LOOP
 - CONCRETE JUNCTION BOX
 - CAST IRON JUNCTION BOX
 - COMMON TRENCH
 - MAST ARM ASSEMBLY AND POLE, ALUMINUM
 - SIGNAL HEAD OPTICALLY PROGRAMMED
 - EMERGENCY VEHICLE LIGHT DETECTOR
 - CONFIRMATION BEACON

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL INSTALLATION
 US 12/20 (95TH ST) &
 SOUTHWEST HWY

REVISIONS	
NAME	DATE
CBBEL	3/20/08

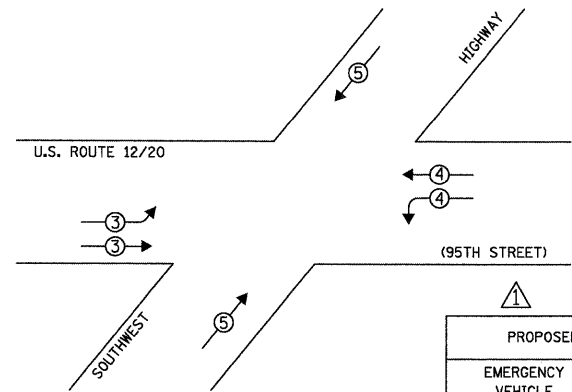
SCALE 1" = 20'
 DATE 10-26-82
 DRAWN BY PQ
 DESIGNED BY RRM
 CHECKED BY TSK



PHASE DESIGNATION DIAGRAM

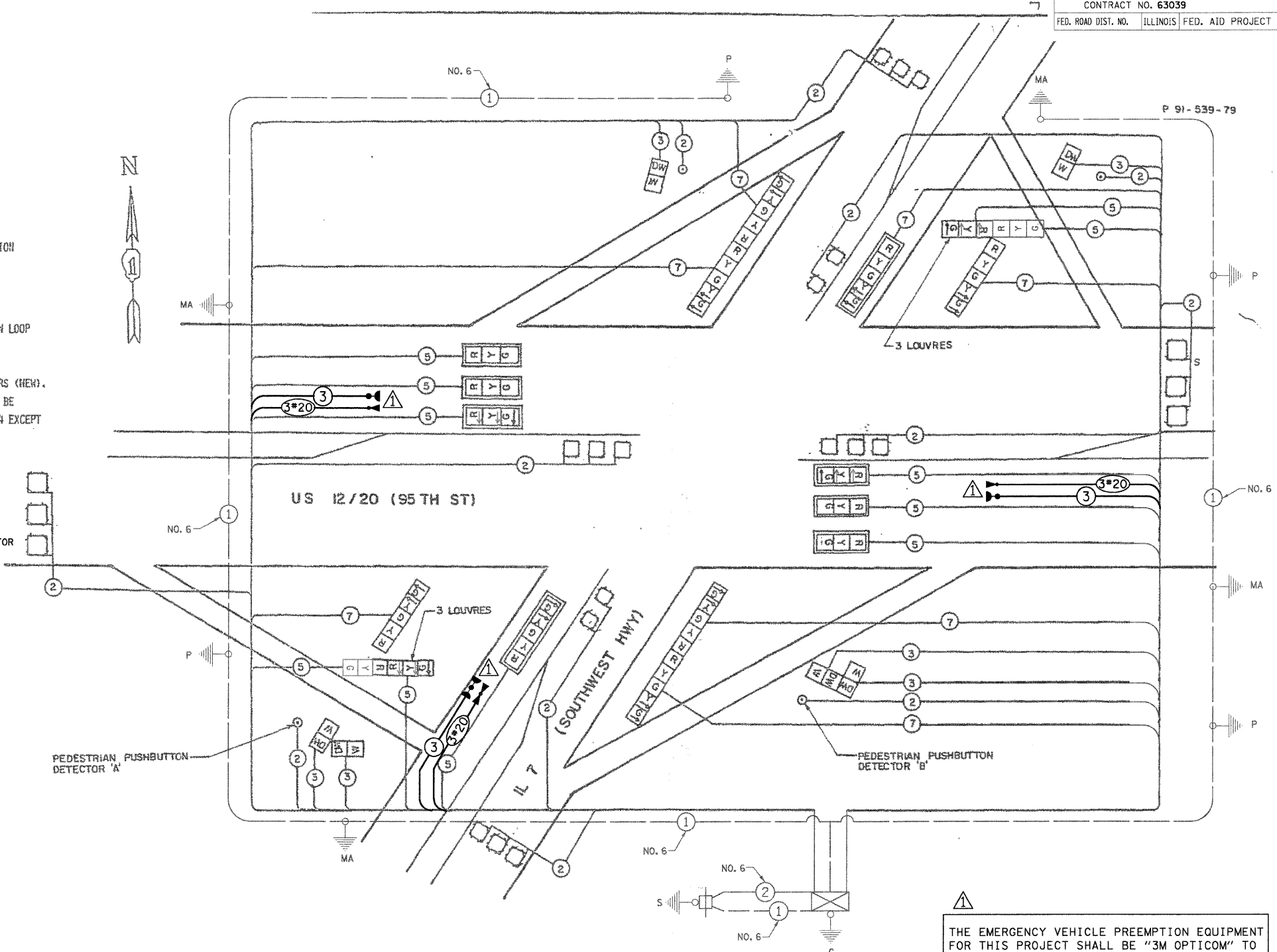
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
D	= 8	+ 1

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

- CABLE PLAN LEGEND**
- [G] 8" TRAFFIC SIGNAL SECTION
 - [R] 12" TRAFFIC SIGNAL SECTION
 - [W] 12" PEDESTRIAN SIGNAL SECTION
 - [C] CONTROLLER CABINET
 - [S] SERVICE INSTALLATION
 - [V] VEHICLE DETECTOR, INDUCTION LOOP
 - [P] PUSHBUTTON DETECTOR
- ② DENOTES NUMBER OF CONDUCTORS (NEW). ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 14 EXCEPT AS INDICATED.
- "P" SIGNAL FACE WITH BACKPLATE "P" INDICATES PROGRAMMED
- [E] EMERGENCY VEHICLE LIGHT DETECTOR CONFIRMATION BEACON



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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	714
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	714
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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

TYPE	NO. OF LAMPS	INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	18	135		0.50	1215.00
(YELLOW)	18	135		0.25	607.50
(GREEN)	18	135		0.25	607.50
ARROW	16	135		0.10	216.00
PED. SIGNAL	6	90		1.00	540.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN	-	252		0.05	-
FLASHER				0.50	-

ENERGY COSTS TO: TOTAL = 3286.00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 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		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)

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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

Illinois Department of Transportation

CABLE PLAN

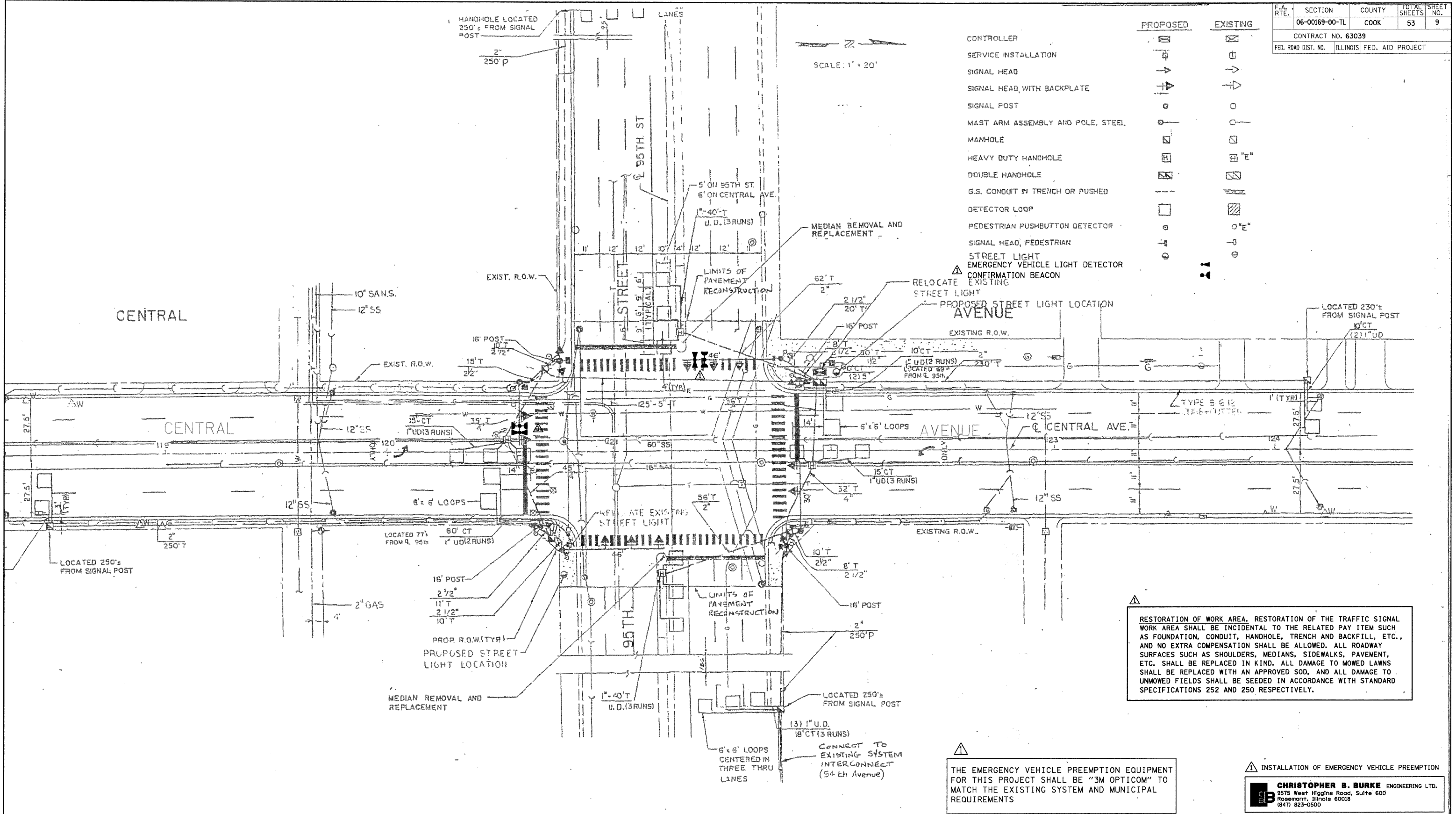
US 12/20 (95TH ST) & SOUTHWEST HWY

SCALE: None
 DATE: 10-26-82

DRAWN BY PQ
 DESIGNED BY RRM
 CHECKED BY TSK

REVISIONS	
NAME	DATE
CBBEL	3/20/08

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00169-00-TL	COOK	53	9
CONTRACT NO. 63039				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
MANHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]
STREET LIGHT EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]

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.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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

UPDATED BY CCHD 7/97

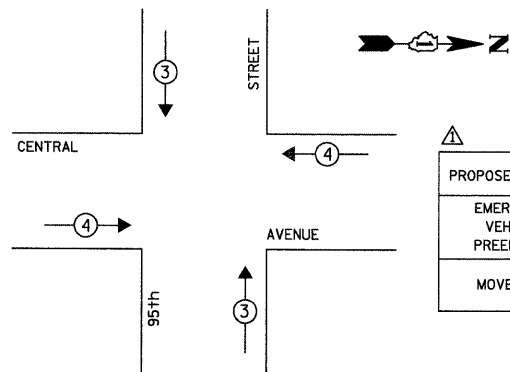
COUNTY OF COOK
 DEPARTMENT OF HIGHWAYS

TRAFFIC SIGNAL INSTALLATION PLAN
 CENTRAL AVENUE AT 95TH STREET

3/20/08	CBBEL

COMPUTED	APPROVED
DRAWN	
CHECKED	
	19
	CHIEF ENGINEER OF DESIGN

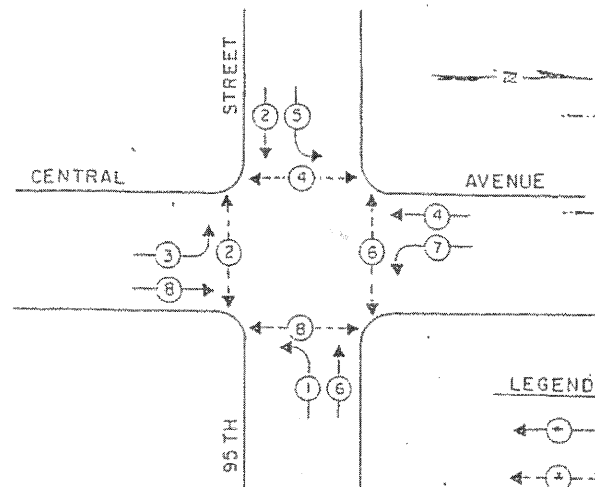
EMERGENCY VEHICLE PREEMPTION SEQUENCE



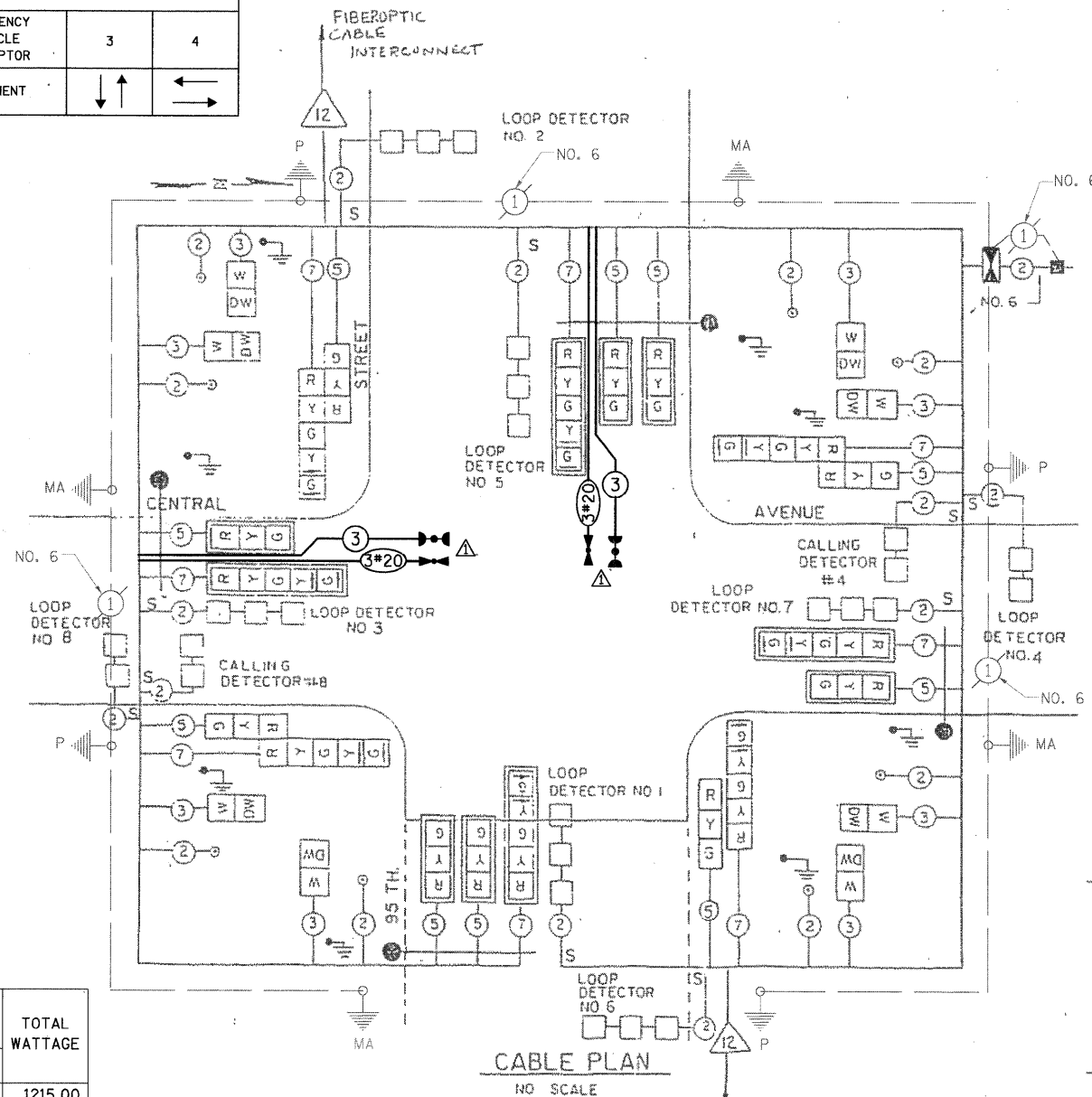
PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↓ ↑	← →

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.

CONTROLLER SEQUENCE
 REFERRING TO STANDARD 8570(D), THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW



PHASE DESIGNATION DIAGRAM
 DUAL ENTRY - ALL LEGS
 PROTECTED/PERMITTED LEFT TURN PHASING



CABLE PLAN LEGEND

- [R] 12" TRAFFIC SIGNAL SECTION
- [C] CONTROLLER CABINET
- [S] SERVICE INSTALLATION
- [L] VEHICLE DETECTOR, INDUCTION LOOP
- (2) DENOTES NUMBER OF CONDUCTORS (NEW). ALL CABLE NO. 14 EXCEPT AS INDICATED.
- [R Y G Y G] SIGNAL FACE WITH BACKPLATE
- [W DW] PEDESTRIAN SIGNAL HEAD
- (P) PEDESTRIAN PUSHBUTTON
- [12] FIBEROPTIC INTERCONNECT CABLE
- [G] GROUNDING SYSTEM CONNECTION
- [S] SHIELDED AND TWISTED
- [A] EMERGENCY VEHICLE LIGHT DETECTOR CONFIRMATION BEACON

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE	
TYPE	NO. OF LAMPS	WATTAGE	X INCAND.	LED	X % OPERATION	
SIGNAL (RED)	18	135			0.50	1215.00
(YELLOW)	18	135			0.25	607.50
(GREEN)	18	135			0.25	607.50
ARROW	16	135			0.10	216.00
PED. SIGNAL	8	90			1.00	720.00
CONTROLLER	1	100			1.00	100.00
ILLUM. SIGN	-	252			0.05	-
FLASHER	-				0.50	-
ENERGY COSTS TO:					TOTAL =	3466.00

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	322
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	322
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

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		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)

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 COMPANY: COMED

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

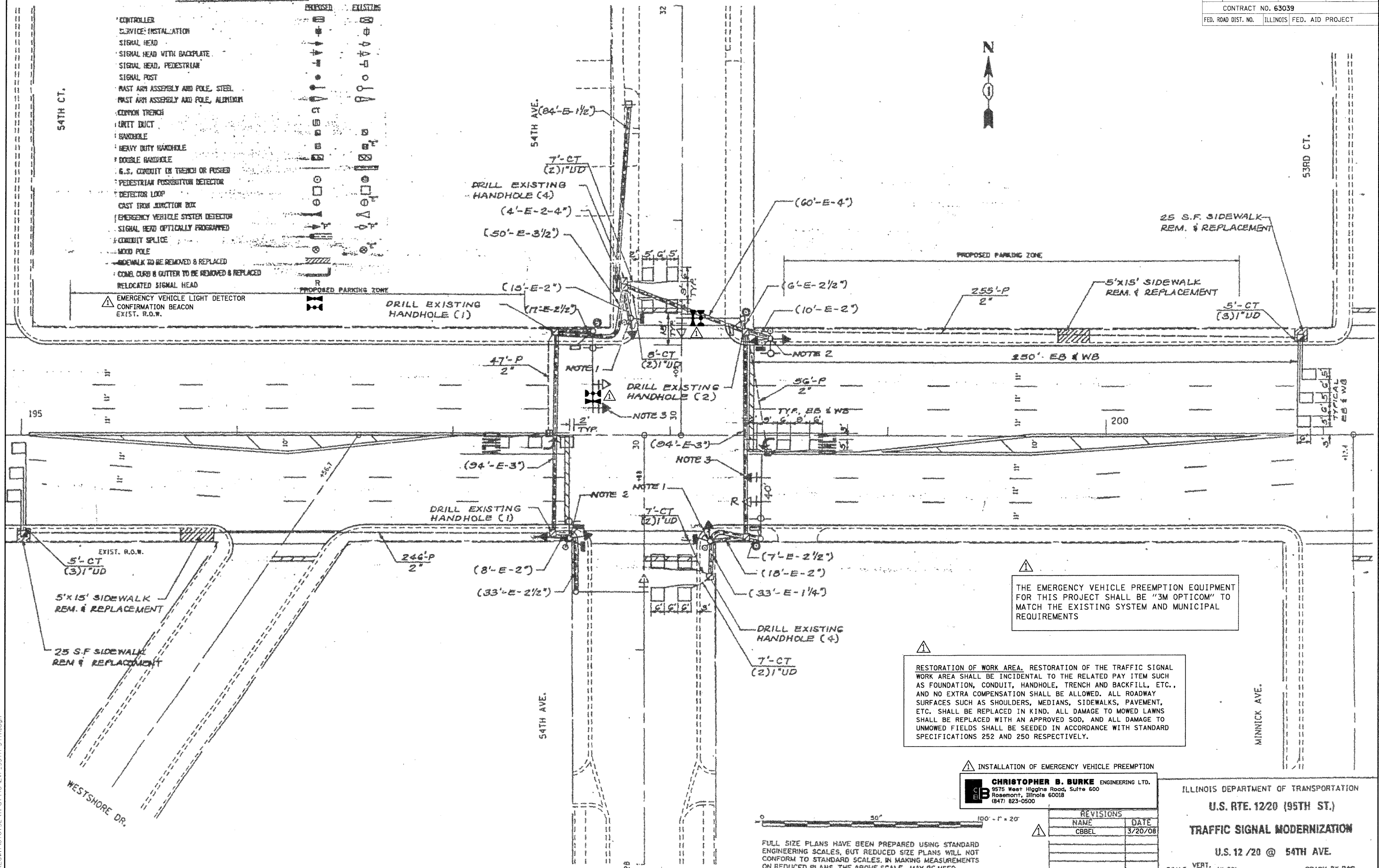
COUNTY OF COOK
 DEPARTMENT OF HIGHWAYS
 McDONOUGH ASSOCIATES, INC.
 ENGINEERS ARCHITECTS

CABLE PLAN, SEQUENCE OF OPERATIONS AND BILL OF MATERIALS
 CENTRAL AVENUE AT 95TH STREET
 COMPUTED _____ APPROVED _____
 DRAWN _____
 CHECKED _____ CHIEF ENGINEER OF DESIGN

UPDATED BY CCHD 797

TRAFFIC SIGNAL LEGEND

- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- POST ARM ASSEMBLY AND POLE, STEEL
- POST ARM ASSEMBLY AND POLE, ALUMINUM
- CONDUIT TRENCH
- URD DUCT
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH OR PUSHED
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE SYSTEM DETECTOR
- SIGNAL HEAD OPTICALLY PROGRAMMED
- CONDUIT SPLICE
- WOOD POLE
- SIDEWALK TO BE REMOVED & REPLACED
- CONC. CURB & GUTTER TO BE REMOVED & REPLACED
- RELOCATED SIGNAL HEAD
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- EXIST. R.O.W.



THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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

REVISIONS	
NAME	DATE
CBBEL	3/20/08

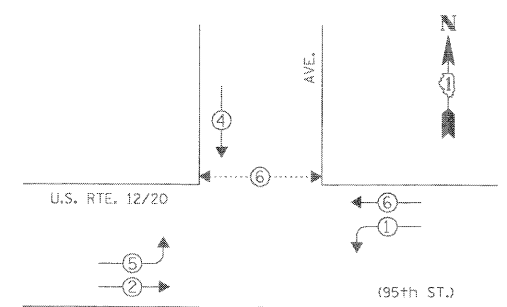
ILLINOIS DEPARTMENT OF TRANSPORTATION
U.S. RTE. 12/20 (95TH ST.)
TRAFFIC SIGNAL MODERNIZATION
U.S. 12 /20 @ 54TH AVE.
 SCALE: VERT. 1"=20'
 HORIZ. 1"=20'
 DATE 06/03/93
 DRAWN BY RAC
 CHECKED BY SPV

N:\ocklawn\070732\Traffic\NEVP_95th-54th.dgn

CABLE PLAN LEGEND

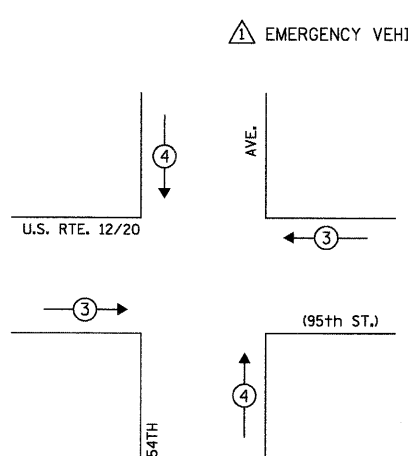
- | | | | | |
|--|-----------------|--|-----------------|---|
| | EXISTING | | PROPOSED | 8" (200mm) TRAFFIC SIGNAL SECTION |
| | | | | 12" (300mm) TRAFFIC SIGNAL SECTION |
| | | | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | | | CONTROLLER CABINET |
| | | | | SERVICE INSTALLATION |
| | | | | TELEPHONE 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 |
| | | | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| | | | | RAILROAD CONTROL CABINET |
| | | | | ILLUMINATED SIGN "NO LEFT TURN" |
| | | | | ILLUMINATED SIGN "NO RIGHT TURN" |
| | | | | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C) |
| | | | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |

CONTROLLER SEQUENCE



- LEGEND**
- DUAL ENTRY PHASE
 - PROTECTED LEFT TURN PHASE
 - PEDESTRIAN PHASE
 - NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

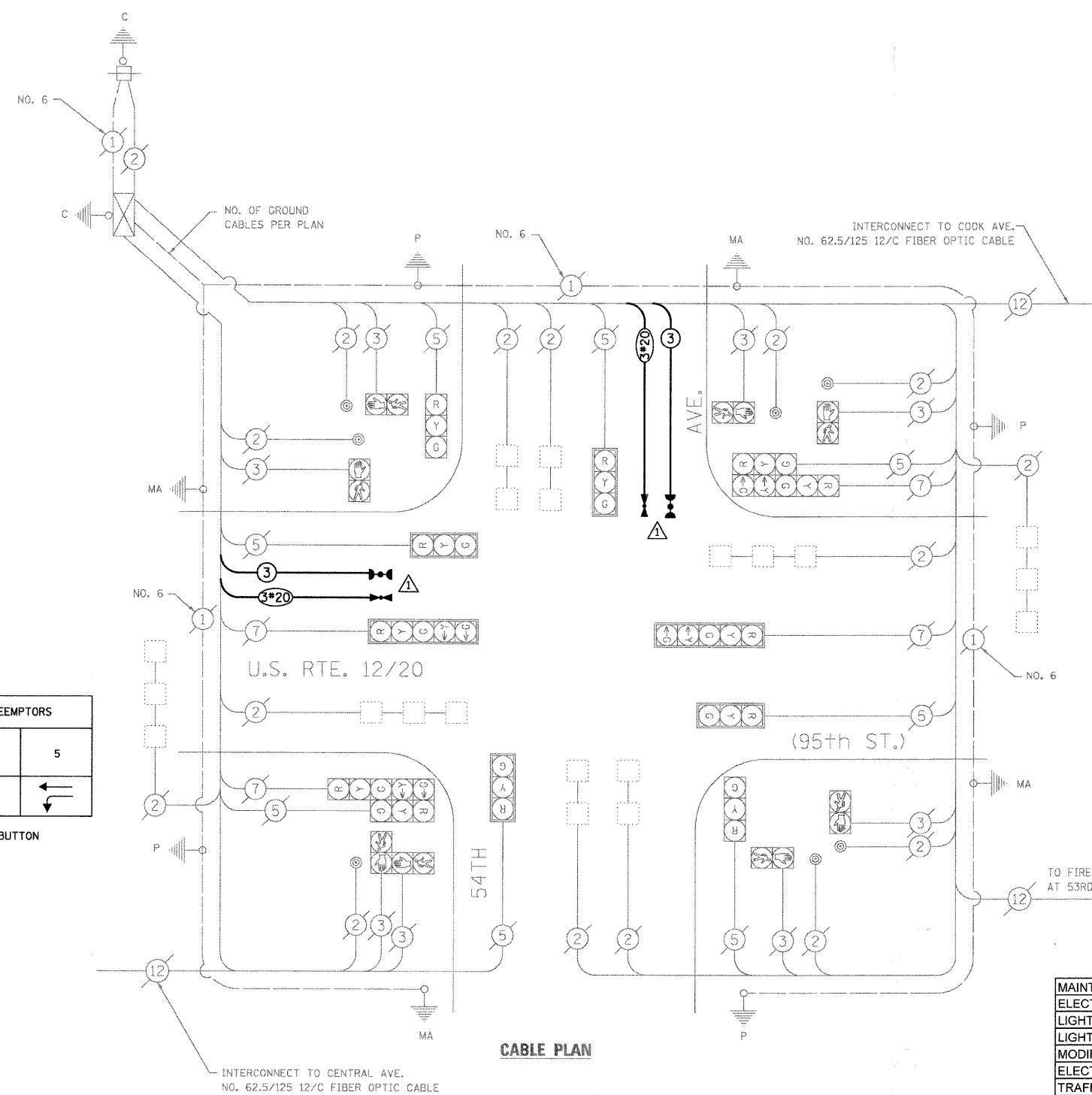


EMERGENCY VEHICLE PREEMPTION SEQUENCE

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

PREEMPTOR 5 IS THE FIRE STATION PUSHBUTTON

NOTE: THE FIRE STATION PREEMPTION SEQUENCE SHALL DISPLAY AN ALL RED INTERVAL PRIOR TO SERVICING THE FIRE LANE INTERVAL.



CABLE PLAN

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	291
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	291
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	12	135		0.50	810.00
(YELLOW)	12	135		0.25	405.00
(GREEN)	12	135		0.25	405.00
ARROW	8	135		0.10	108.00
PED. SIGNAL	8	90		1.00	720.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN					
FLASHER				0.50	

ENERGY COSTS TO: TOTAL = 2548.00
ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 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'-H-2=
E - M. ARM POLE		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)

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

CLIENT:

DSGN.	FCP
DWN.	MJT
CHKD.	
SCALE:	1" = 20'
DATE:	5/8/2008

TITLE: **SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY PREEMPTION SEQUENCE**
 U.S. ROUTE 12/20 (95th ST) AT 54th AVENUE
 OAKLAWN, ILLINOIS

PROJECT NO. 070732
 SHEET 12 OF 53
 DRAWING NO.

53RD AVE.

COOK AVE.

TRAFFIC SIGNAL LEGEND

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
06-00169-00-TL		COOK	53	13
CONTRACT NO. 63039				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

PULL OUT EXISTING 2/C TWISTED SHIELDED CABLE FROM HANDHOLE TO CONTROLLER FOR SB LEFT LANE LOOP (150 L.F.) AND ABANDON EXISTING CONDUIT AND 2/C TWISTED SHIELDED CABLE FROM EXISTING JUNCTION BOX TO EXISTING INTERSECTION HANDHOLE

PULL OUT EXISTING 5/C CABLES FROM HANDHOLE TO CONTROLLER FOR NB FAR LEFT AND SB NEAR RIGHT SIGNALS (2 x 198 L.F. EACH), 2/C & 3/C CABLES FOR PED. SIGNAL CROSSING THE NORTH LEG (2 x 198 L.F. EACH)

PULL OUT EXISTING 2/C & 3/C CABLES TO CONTROLLER FOR PED. SIGNAL CROSSING THE WEST LEG (2 x 208 L.F. EACH) AND 5/C CABLES FROM WB MAST ARM SIGNALS (244 L.F. & 233 L.F.)

(45'-E-1 1/2") TO FIRE STATION

(26'-E-2")

(10'-E-2 1/2")

PULL OUT EXISTING 2/C TWISTED SHIELDED CABLE FOR FAR OUT LOOP DETECTORS FROM HANDHOLE TO CONTROLLER (124 L.F.)

DRILL EXISTING HANDHOLE (1)

ABANDON EXISTING CONDUIT AND 2/C TWISTED SHIELDED CABLE FROM CLEAR OUT EXISTING HANDHOLE TO EXISTING INTERSECTION HANDHOLE

25 SF. SIDEWALK REMOVAL
25 SF. PORTLAND CEMENT
CONCRETE SIDEWALK 5 INCH

EXIST. R.O.W.

U.S. RTE. 12/20 (95TH ST.)

205

+49

TYP. EB & WB

+70

50

+73.3

15

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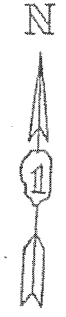
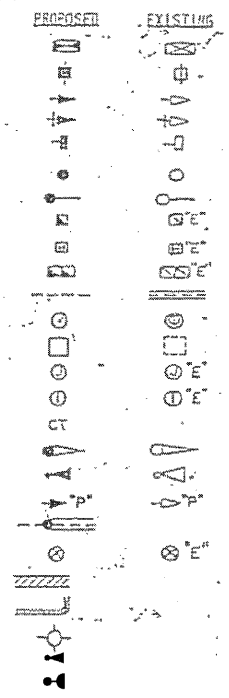
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- CONTROLLER
- SERVICE INSTALLATION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD, PEDESTRIAN
- SIGNAL POST
- MAST ARM ASSEMBLY AND POLE, STEEL
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH OR PUSHED
- PEDESTRIAN 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
- SIDEWALK TO BE REMOVED & REPLACED
- COMB. CURB & GUTTER TO BE REMOVED & REPLACED
- RELOCATED LUMINAIRE, 40' MH
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON



52ND AVE.

52ND AVE.

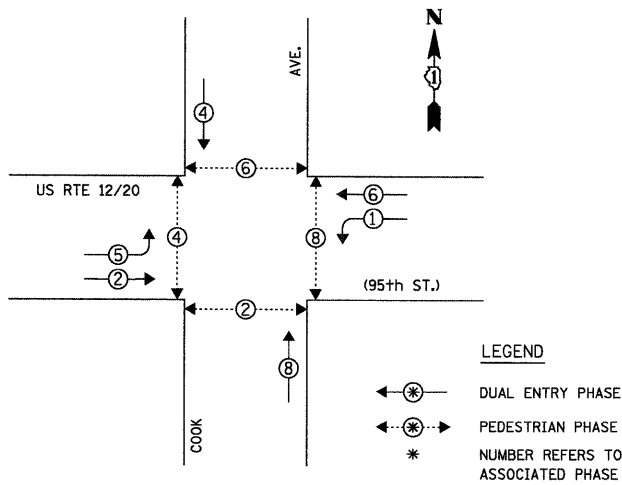
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL 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.

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

REVISIONS	
NAME	DATE
KSM	5-23-94
CBBEL	3/20/08

ILLINOIS DEPARTMENT OF TRANSPORTATION
 U.S. RTE. 12/20 (95th ST.)
 TRAFFIC SIGNAL MODERNIZATION
 U.S. 12/20 @ COOK AVE.
 SCALE: VERT. 1" = 20'
 HORIZ. 1" = 20'
 DATE 5-21-94
 DRAWN BY
 DESIGNED BY
 CHECK BY

CONTROLLER SEQUENCE

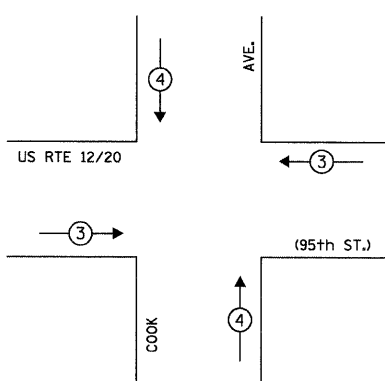


LEGEND

- ← ⊙ → DUAL ENTRY PHASE
- ← ⊙ → PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↔	↕	↗

PREEMPTOR 5 IS THE FIRE STATION PUSHBUTTON

NOTE:
THE FIRE STATION PREEMPTION SEQUENCE SHALL DISPLAY AN ALL RED INTERVAL PRIOR TO SERVICING THE FIRE LANE INTERVAL.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	255
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	255
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

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		SIGNAL POST	2 (1.0)		(6m+L-0.6m)
		24" (600mm)	10 (3.0)	BRACKET MOUNTED	13 (4.0)
		30" (750mm)	15 (4.6)	PED. PUSHBUTTON	4 (1.2)
		36" (900mm)	15 (4.6)	ELECTRIC SERVICE	13.5 (4.1)
				SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE (INCAND.)	LED x % OPERATION	
SIGNAL (RED)	14	135	0.50	945.00
(YELLOW)	14	135	0.25	472.50
(GREEN)	14	135	0.25	472.50
ARROW	8	135	0.10	108.00
PED. SIGNAL	8	90	1.00	720.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN				

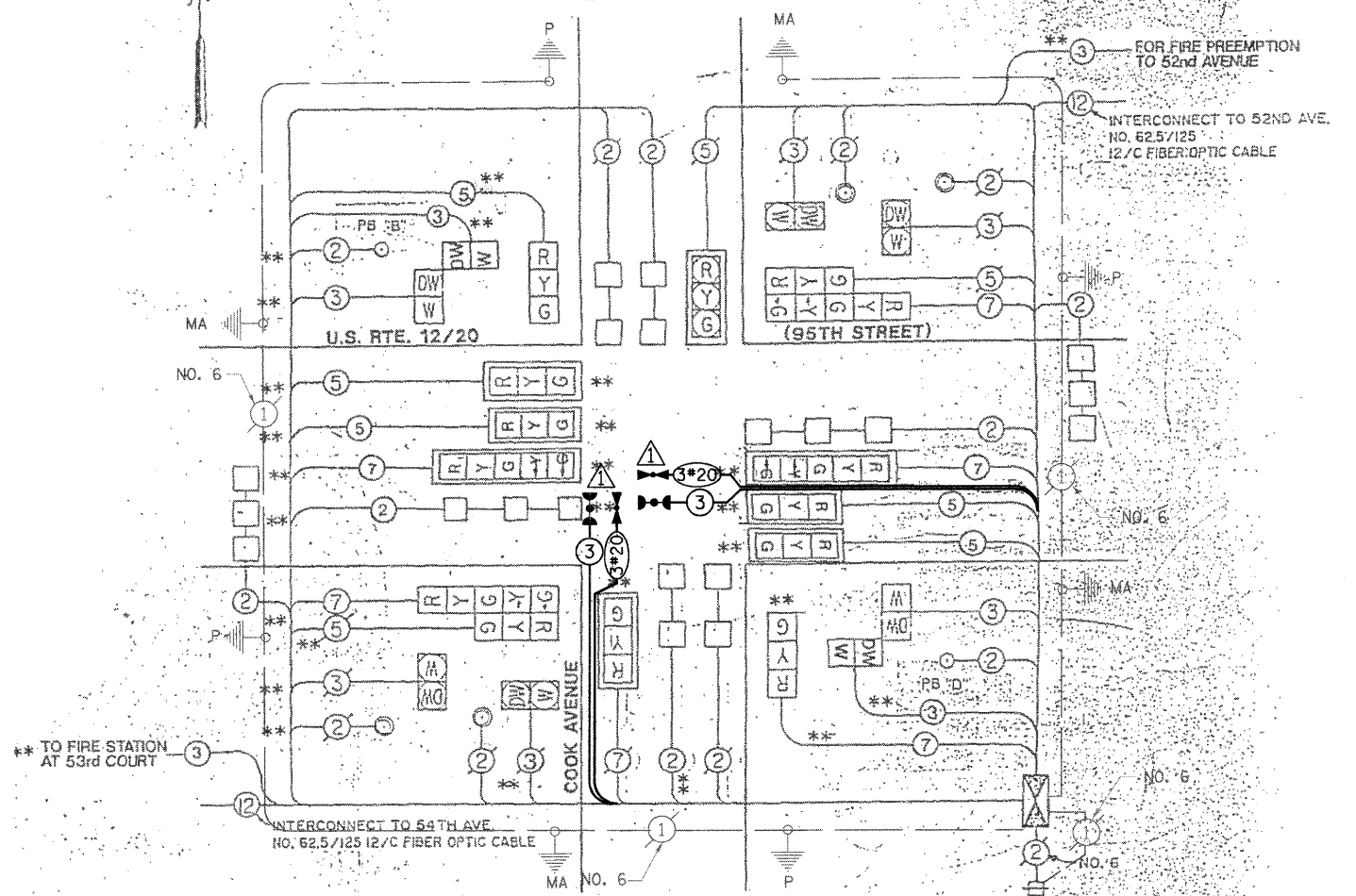
ENERGY COSTS TO: TOTAL = 2818.00

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: MILTON RAY
PHONE: (708) 235-2315
COMPANY: COMED

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.

CABLE PLAN



- 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
 - EXISTING PUSHBUTTON DETECTOR DENOTES NUMBER OF CONDUCTORS (IEH)
 - EMERGENCY VEHICLE LIGHT DETECTOR CONFIRMATION BEACON
 - INDICATES EXISTING CABLE
 - SIGNAL FACE WITH BACKPLATE
 - "P" INDICATES PROGRAMMED
 - "L" INDICATES LOUVERED
 - EXISTING SIGNAL SECTION
 - MAGNETIC DETECTOR
 - OPTICAL DETECTOR

PUSHBUTTON B SHALL PLACE CALLS IN PHASES 4 AND 6
PUSHBUTTON D SHALL PLACE CALLS IN PHASES 2 AND 8

REVISIONS	
NAME	DATE
KSM	5-23-94
CBEL	5/20/08

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

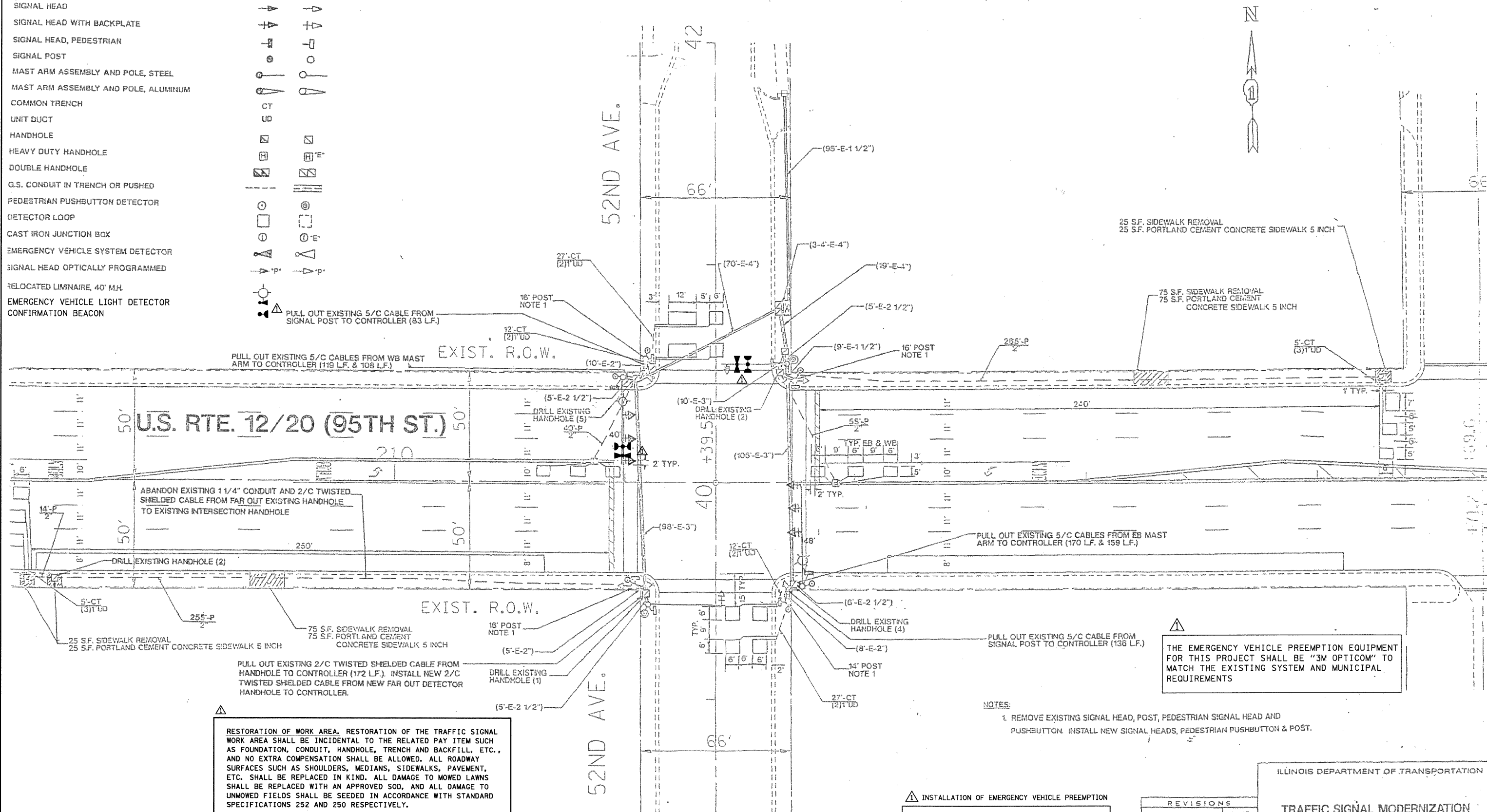
CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0800

DEPARTMENT OF TRANSPORTATION
U.S. RTE 12/20 (95TH ST.)
CONTROLLER SEQUENCE IV
FIRE LANE SEQUENCE
CABLE PLAN
SCHEDULE OF QUANTITIES
U.S. 12/20 @ COOK AVE.

DATE 11/29/93
DRAWN BY CJS
CHECKED BY RAJ

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMMON TRENCH		
UNIT DUCT		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL HEAD OPTICALLY PROGRAMMED		
RELOCATED LIMINAIRE, 40' M.H.		
EMERGENCY VEHICLE LIGHT DETECTOR CONFIRMATION BEACON		



THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

- NOTES:**
- REMOVE EXISTING SIGNAL HEAD, POST, PEDESTRIAN SIGNAL HEAD AND PUSHBUTTON. INSTALL NEW SIGNAL HEADS, PEDESTRIAN PUSHBUTTON & POST.

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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

REVISIONS	
NAME	DATE
KSM	5-23-94
CBBEL	3/20/08

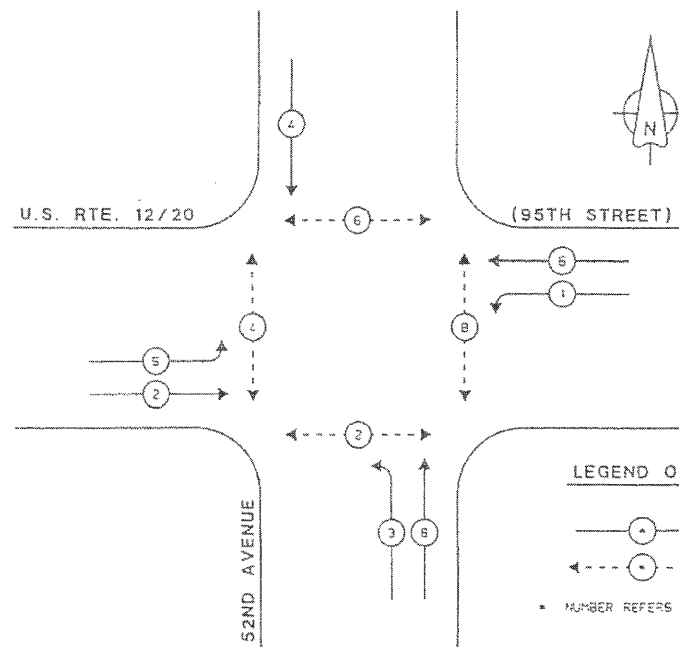
ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION
 U.S. RTE. 12/20 (95th ST.) AT 52nd AVE.
 OAK LAWN, ILLINOIS

△ SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	257
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	257
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

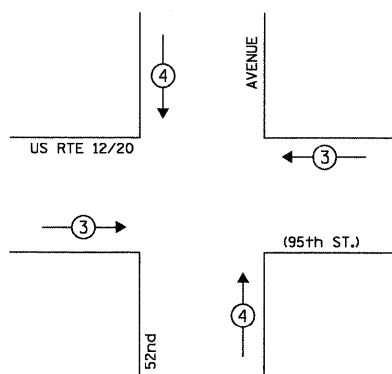
LEGEND OF SYMBOLS

- → DUAL ENTRY PHASE
- → PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

△ THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

△ RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, 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.

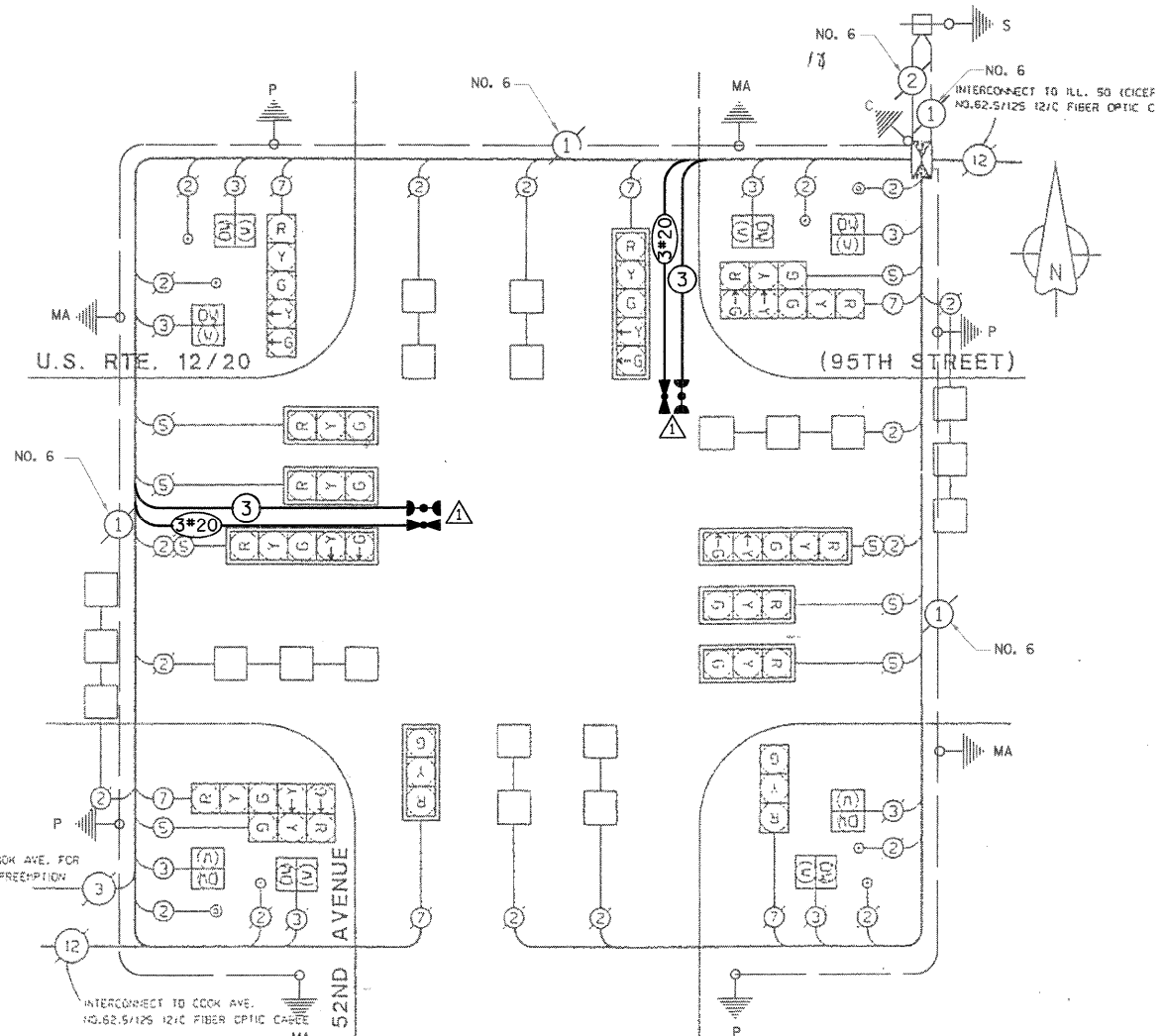
△ EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

PREEMPTOR 5 IS THE FIRE STATION PUSHBUTTON

NOTE: THE FIRE PREEMPTION SEQUENCE SHALL DISPLAY AN ALL RED INTERVAL PRIOR TO SERVICING THE FIRE LANE INTERVAL.



CABLE PLAN LEGEND

- 12" TRAFFIC SIGNAL SECTION
- 12" PEDESTRIAN SIGNAL SECTION
- CONTROLLER CABINET
- SERVICE INSTALLATION
- VEHICLE DETECTOR, INDUCTION LOOP
- PROPOSED PUSHBUTTON DETECTOR
- EXISTING PUSHBUTTON DETECTOR
- EXISTING SIGNAL SECTION
- MAGNETIC DETECTOR
- OPTICAL DETECTOR
- INDICATES EXISTING CABLE
- SIGNAL FACE WITH BACKPLATE
- "P" INDICATES PROGRAMMED
- "L" INDICATES LOWERED
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)	14	135		0.50	945.00
(YELLOW)	14	135		0.25	472.50
(GREEN)	14	135		0.25	472.50
ARROW	12	135		0.10	162.00
PED. SIGNAL	8	90		1.00	720.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN		252			
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 2872.00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 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		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)

△ INSTALLATION OF EMERGENCY VEHICLE PREEMPTION
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9515 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

EDWIN HANCOCK ENGINEERING COMPANY
 CONSULTING ENGINEERS
 9933 ROOSEVELT ROAD WESTCHESTER, ILLINOIS 60154-2700
 (708) 985-0300 ESTABLISHED 1911

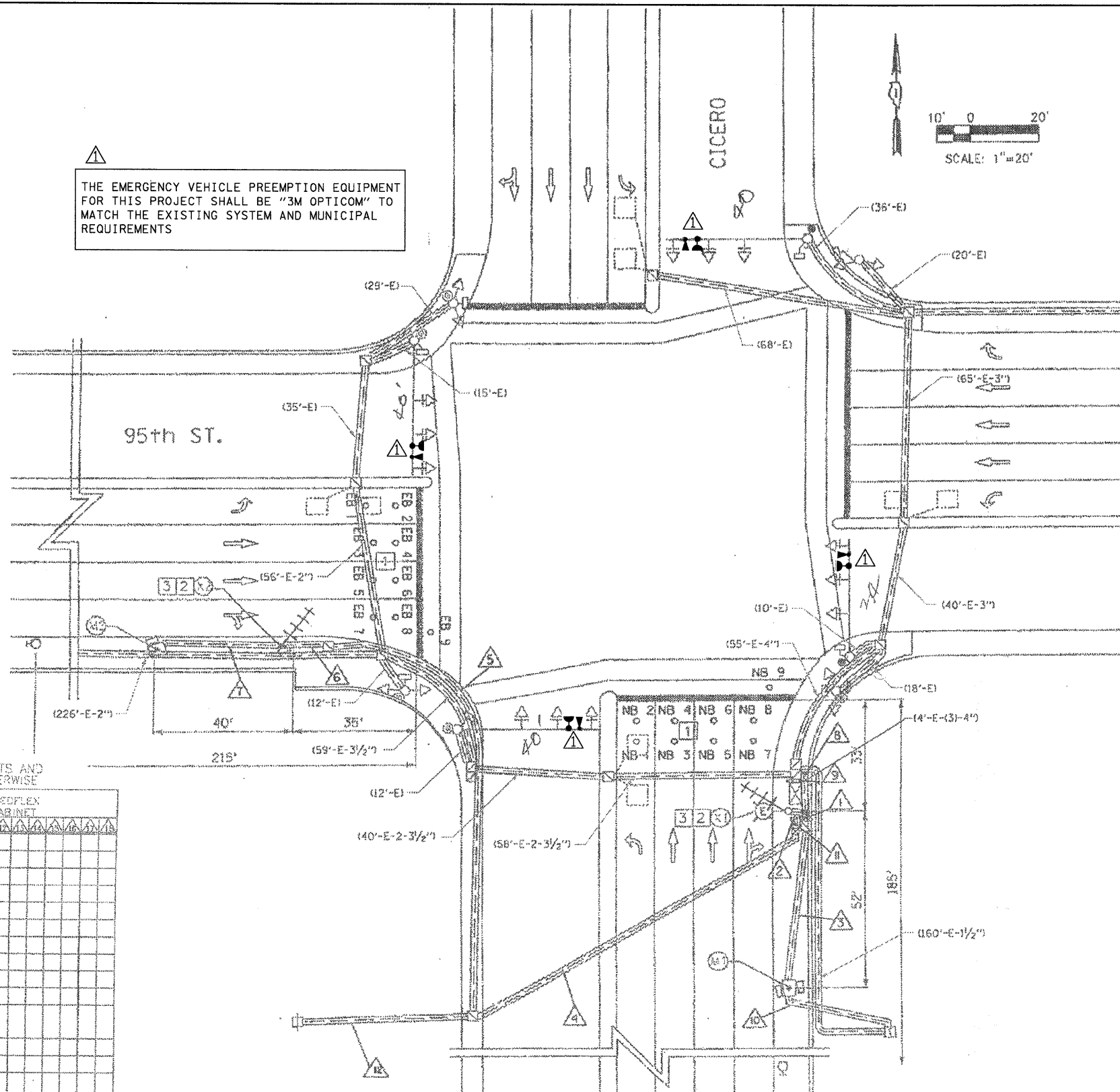
95TH STREET PAVING AND DEGRADATIVE LIGHTING PROJECT
 M.F.T. SECTION NO. 97-00147-00-RS
 VILLAGE OF OAK LAWN, ILLINOIS

TRAFFIC SIGNAL PLAN - 95TH STREET & 52ND AVENUE
 SCALE: _____ SHEET NO. 26
 DRAWN BY: D.C.
 BOOK NO.: _____
 DATE: 8-13-97
 9/05/97 D.C.
 CBBEL 3/20/08

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]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
SIGNAL HEAD, OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
CONDUIT SPLICE	[Symbol]	[Symbol]
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
(FMS) FLUSH MOUNTED SENSOR (# INDICATES SENSOR NUMBER)	[Symbol]	[Symbol]
CAMERA W/FLASH	[Symbol]	[Symbol]
PLATE FLASH	[Symbol]	[Symbol]
REDFLEX CONTROL CABINET	[Symbol]	[Symbol]
SIGN POLE WITH PANEL	[Symbol]	[Symbol]
SIGN PANEL	[Symbol]	[Symbol]
RTS POWER PEDESTAL	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
EXISTING LIGHTING UNIT	[Symbol]	[Symbol]
FMS AP ANTENNA BOX	[Symbol]	[Symbol]
EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS



THE TABLE BELOW IS FOR EXISTING CONDUITS AND CONDUCTORS EXCEPT WHERE NOTED OTHERWISE

SUBJECT	CONDUCTORS	CONDUITS TERMINATION-REDFLEX POWER PEDESTAL AND CABINET									
		DATE	TYPE	3	3						
POLE (E)	#10	2	2								
	#14	2	2								
POLE (W)	#10	3	3	3	3					3	
	#14	2	2	2	2	2				2	
POLE (S)	#10	2	2	2	2					2	
	#14	1	1	1	1					1	
CONDUIT	#10	2	2	2	2					2	
	#14	1	1	1	1					1	
TOTAL	CONDUCTORS	30	2	5	12	9	9	7	10	10	2
	CONDUIT LENGTH (FEET)	30	2	2	2	2	2	2	3	2	2
CONDUIT LENGTH (FEET)		3	8	4	18	13	17	6	30	3	50
NEW/EXISTING CONDUIT		E	E	E	E	E	E	E	E	E	E

FOR UNDERGROUND UTILITY LOCATIONS, CALL
JULIE TOLL FREE
TEL. 800-892-0123

ABBREVIATIONS

CATS	=	CATEGORY FIVE CABLE
DLC	=	DETECTOR LOOP CABLE (SHIELDED)
TSP	=	TWISTED SHIELDED PAIR
LED	=	LIGHT EMITTING DIODE
R.O.W	=	RIGHT OF WAY
E.O.P.	=	EDGE OF PAVEMENT

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.

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION
CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 500
Rosemont, Illinois 60018
(847) 823-0500

SEAL: **PK. GANDHI**
REGISTERED PROFESSIONAL ENGINEER
ILLINOIS
DATE: 2-4-2008
EXP. 11-30-2009

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
8035 N. HERMITAGE HIGHWAY
SUITE 308
CHICAGO, ILLINOIS 60631
TEL. (773) 776-6810

REDFLEX TRAFFIC SYSTEMS
15020 N. 74TH STREET
SCOTTSDALE, AZ 85260
PH: 480 607 0705

DRAWN BY: XXX	REVIEWED BY VILLAGE STAFF:	APPROVED BY:
DESIGNED BY: XXX	DEPARTMENT: PUBLIC WORKS (OPEN)	INITIAL DATE:
CHECKED BY: XXX	PUBLIC WORKS (CONV)	PUBLIC WORKS DIRECTOR / VILLAGE ENGINEER DATE:
RECOMMENDED BY: XXX	PUBLIC WORKS (MAINT)	RECOMMENDED BY: RECOMMENDED BY:
	PUBLIC WORKS (SEPP)	DEPUTY VILLAGE ENGINEER DEVELOPMENT SERVICES:

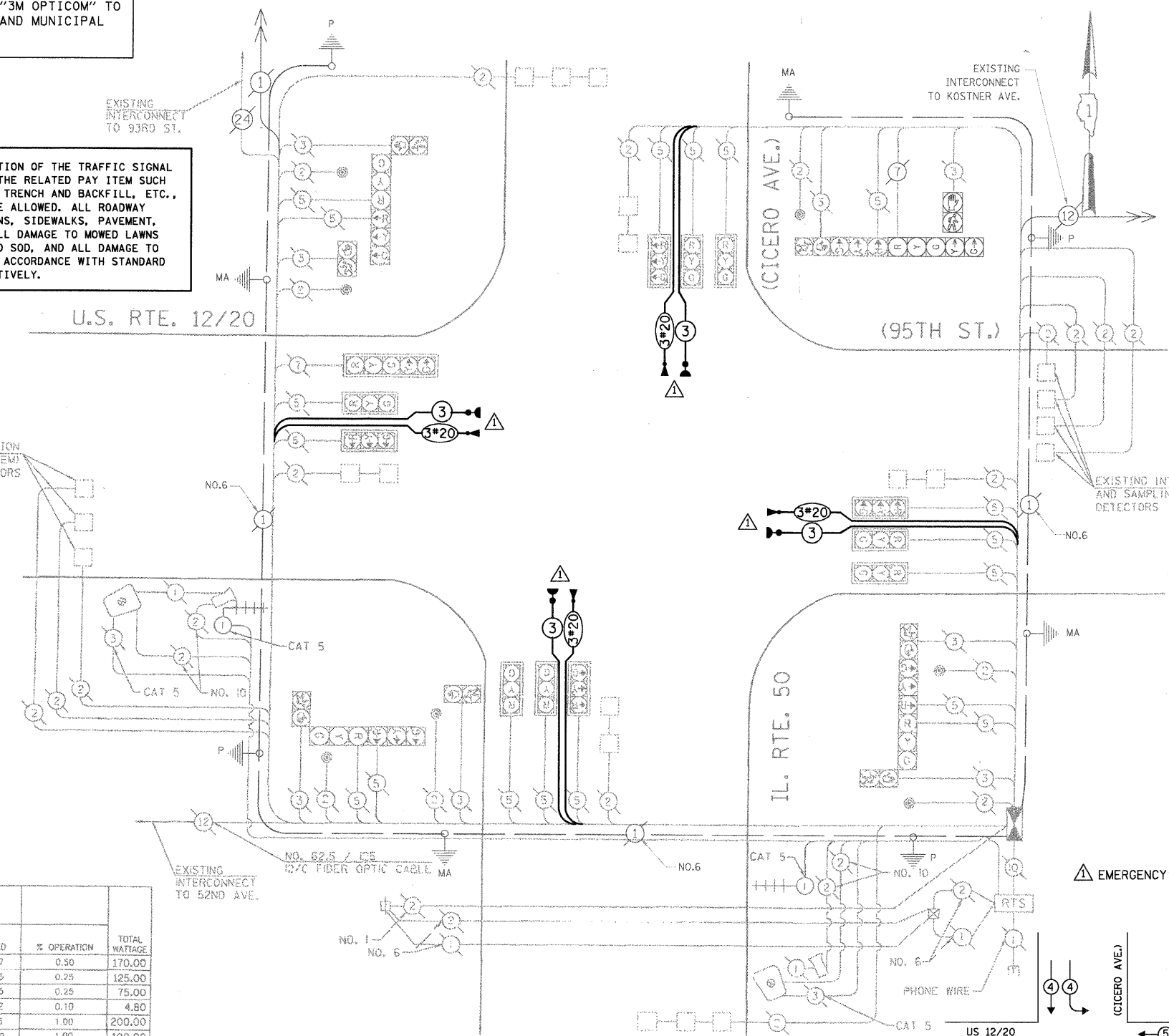
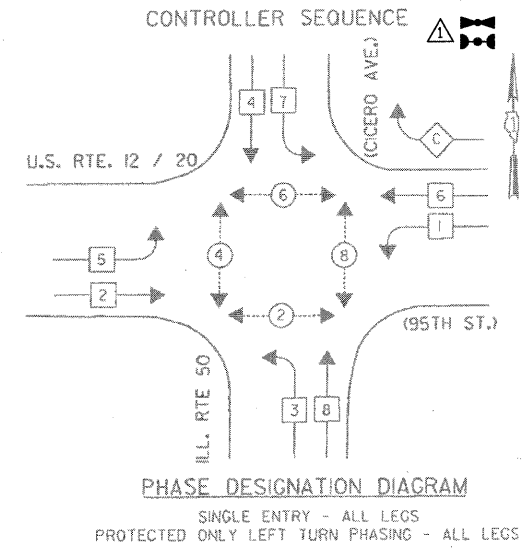
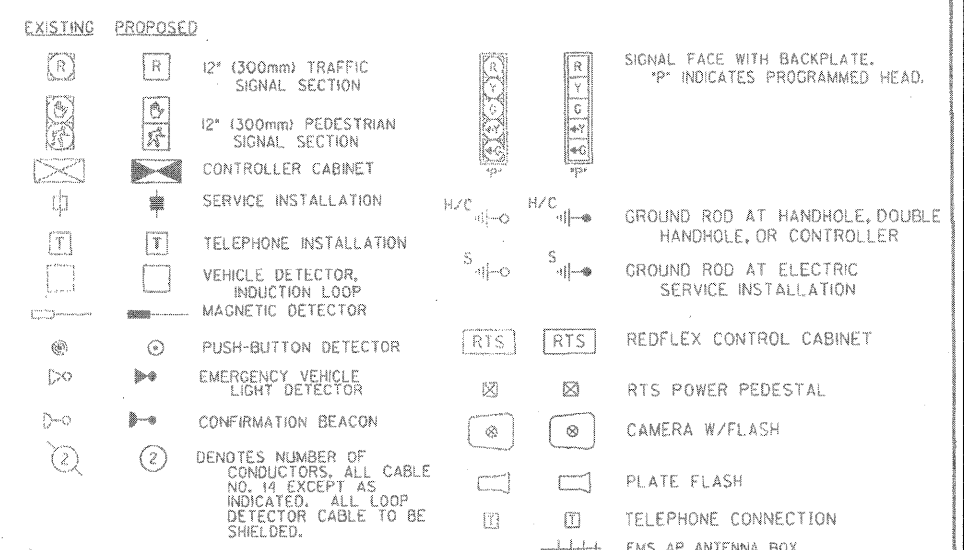
VILLAGE OF: **OAK LAWN**
DRAWING NO.: 3025
TITLE: **REDLIGHT PHOTO ENFORCEMENT**
IL. ROUTE 50 (CICERO AVE)
AT US ROUTE 12 / 20 (95TH ST.)
-102

N:\ocklawn\070732\Traffic\NEP_95th-cicero.dgn

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CABLE PLAN LEGEND



CABLE PLAN
NOT TO SCALE

ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAY / DISTRICT 1 201 WEST CENTER COURT / SCHALMOUR, ILLINOIS 60186-1096

TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20		17	0.50	170.00
(YELLOW)	20		25	0.25	125.00
(GREEN)	20		15	0.25	75.00
ARROW	4		12	0.10	4.80
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN				0.05	
FLASHER				0.5	
ENERGY COST TO:					TOTAL = 674.80

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-POST	4	(1.2)	DOUBLE HANDHOLE	13	(4.0)	MAST ARM (L) POLE	20' + L - 2 =	
E-M ARM-POLE			SIGNAL POST	2	(1.0)	(6M + L - 0.6M) =		
24" (600MM)	10	(3.0)	CONTROLLER CAB.	1	(.5)	BRACKET MOUNTED	13	(4.0)
36" (750MM)	15	(4.5)	FIBER OPTIC	13	(4.0)	PED. PUSH BOTTON	4	(1.2)
			ELECTRICAL SERVICE	1	(0.5)	ELECTRICAL SERVICE	13.5	(4.0)
			GROUND CABLE	1	(0.5)	SERVICE TO GROUND	3.5	(1.0)
						POST MOUNTED	6	(1.8)

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1027
LIGHT DETECTOR	EACH	4
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	1027
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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

SEAL

VER. DATE INITIAL DESCRIPTION

PK. GANDHI

2-4-2008

Exp. 11-30-2009

GO

GANDHI AND ASSOCIATES, INC.
ENGINEERS AND PLANNERS
8035 N. NORTHWEST HIGHWAY
SUITE 308
CHICAGO, ILLINOIS 60631
TEL: (773) 714-5910

REDFLEX TRAFFIC SYSTEMS

15020 N. 74TH STREET
SCOTTSDALE, AZ 85260
PH: 480 607 0705

REVIEWED BY VILLAGE STAFF

APPROVED BY:

VILLAGE OF:

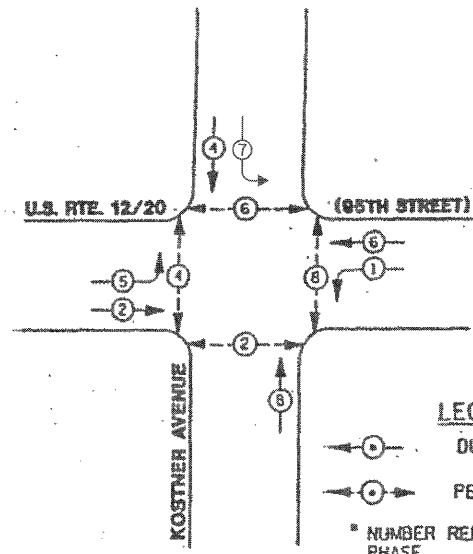
OAK LAWN

REDLIGHT PHOTO ENFORCEMENT

IL. ROUTE 50 (CICERO AVE.)
AT US ROUTE 12 / 20 (95TH ST.)

DRAWING NO. 3025-103

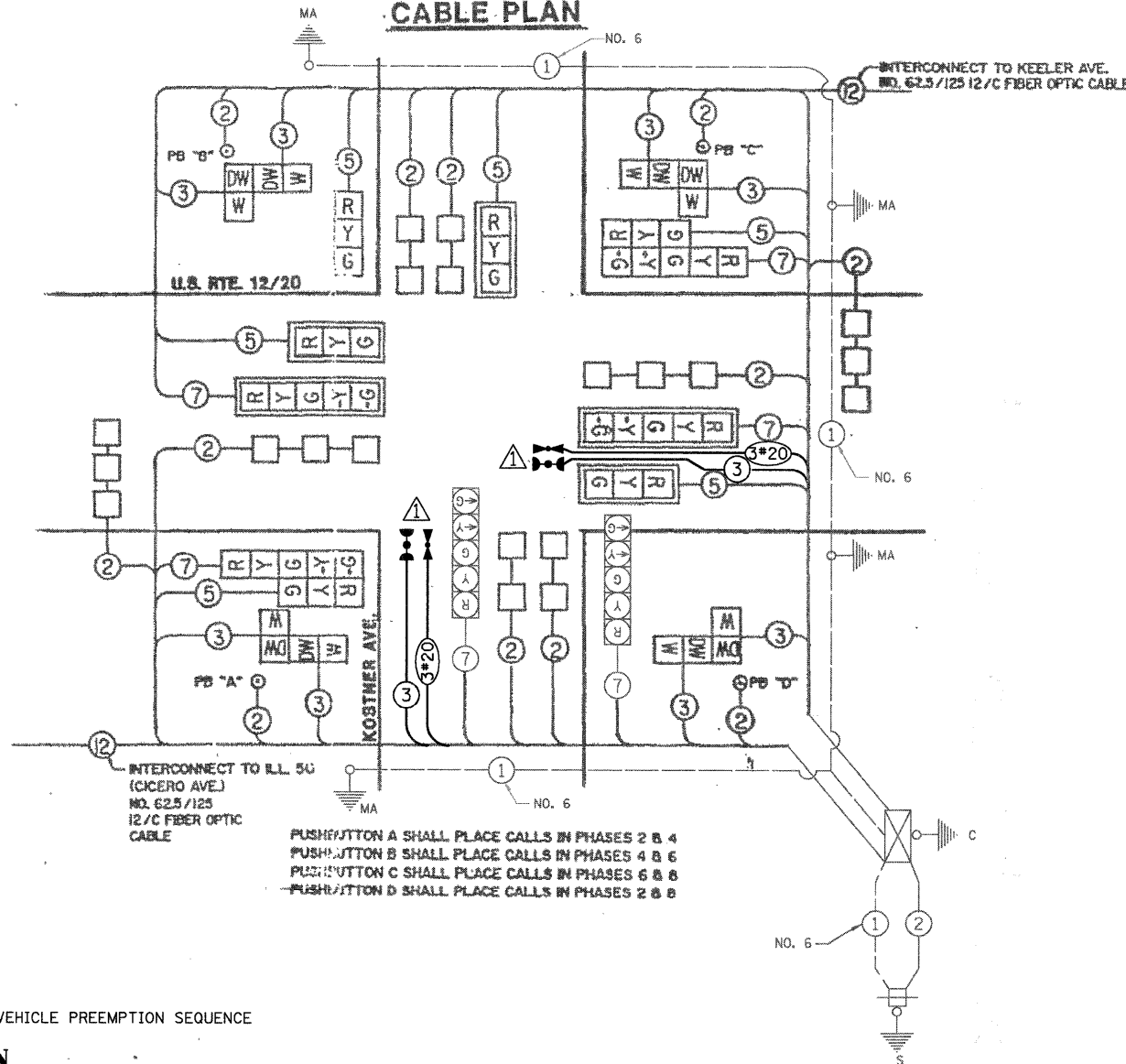
CONTROLLER SEQUENCE IV
 REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



LEGEND
 ○ DUAL ENTRY PHASE
 ○ PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM
 DUAL ENTRY - ALL LEGS
 PROTECTED/PERMITTED LEFT TURN PHASING

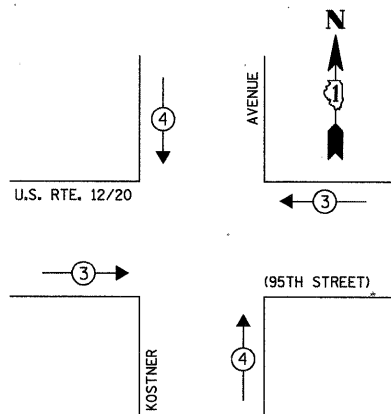
CABLE PLAN



- EXISTING PLAN LEGEND**
- ⊠ 8" TRAFFIC SIGNAL SECTION
 - ⊠ 12" TRAFFIC SIGNAL SECTION
 - ⊠ 12" PEDESTRIAN SIGNAL SECTION
 - ⊠ CONTROLLER CABINET
 - ⊠ SERVICE INSTALLATION
 - ⊠ VEHICLE DETECTOR, INDUCTION LOOP
 - ⊠ PUSHBUTTON DETECTOR
 - ⊠ (NUMBER) NUMBER OF CONDUCTORS (NEW)
 - ⊠ ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 24 EXCEPT AS INDICATED.
 - ⊠ INDICATES EXISTING CABLE
 - ⊠ SIGNAL FACE WITH BACKPLATE
 - ⊠ "P" INDICATES PROGRAMMED
 - ⊠ "L" INDICATES LOWERED
 - ⊠ EXISTING SIGNAL SECTION
 - ⊠ MAGNETIC DETECTOR
 - ⊠ OPTICAL DETECTOR
 - ⊠ EMERGENCY VEHICLE LIGHT DETECTOR
 - ⊠ CONFIRMATION BEACON

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	232
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	232
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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

DEPARTMENT OF TRANSPORTATION
U.S. RTE. 12/20 (95TH STREET)
CONTROLLER SEQUENCE IV
CABLE PLAN
SCHEDULE OF QUANTITIES
 U.S. 12/20 @ KOSTNER AVENUE
 DATE: 10/13/93
 DRAWN BY: C.J.S.
 CHECKED BY: RBC

REVISIONS

NAME	DATE
CBBEL	3/20/08

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

TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		X INCAND.	X LED		
SIGNAL (RED)	12	135		0.50	810.00
(YELLOW)	12	135		0.25	405.00
(GREEN)	12	135		0.25	405.00
ARROW	12	135		0.10	162.00
PED. SIGNAL	8	90		1.00	720.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN	-	252		0.05	-

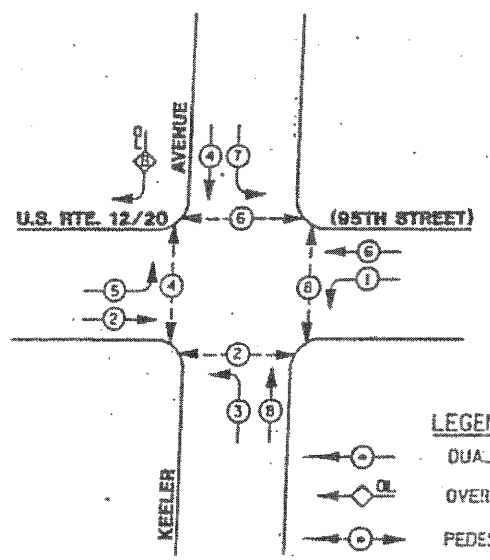
ENERGY COSTS TO: TOTAL = 2602.00
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 COMPANY: COMED

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		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)
		ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
(C)	(G)	8" (200mm) TRAFFIC SIGNAL SECTION
(R)	(W)	12" (300mm) TRAFFIC SIGNAL SECTION
(W)	(P)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(P)	(P)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(CAB)	(CAB)	CONTROLLER CABINET SERVICE INSTALLATION
(TEL)	(TEL)	TELEPHONE INSTALLATION
(V.D.)	(V.D.)	VEHICLE DETECTOR, INDUCTION LOOP
(M.D.)	(M.D.)	MAGNETIC DETECTOR
(E.V.L.D.)	(E.V.L.D.)	EMERGENCY VEHICLE LIGHT DETECTOR
(C.B.)	(C.B.)	CONFIRMATION BEACON
(P.B.)	(P.B.)	PUSHBUTTON DETECTOR
(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. 62.5/125 2-MM12F SM12F
(R)	(R)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(Y)	(Y)	
(G)	(G)	
(G)	(G)	
(R)	(R)	RAILROAD CONTROL CABINET
(L)	(L)	ILLUMINATED SIGN "NO LEFT TURN"
(R)	(R)	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
(E.V.L.D.)	(E.V.L.D.)	EMERGENCY VEHICLE LIGHT DETECTOR CONFIRMATION BEACON

CONTROLLER SEQUENCE IV
 REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



LEGEND

(Symbol)	DUAL ENTRY PHASE
(Symbol)	OVERLAP
(Symbol)	PEDESTRIAN PHASE

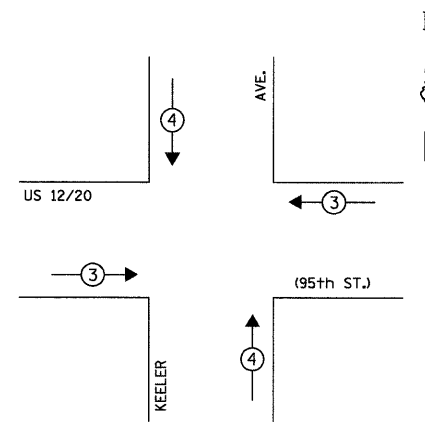
* NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM
 DUAL ENTRY - ALL LEGS
 PROTECTED/PERMITTED LEFT TURN PHASING
 WITH RIGHT TURN OVERLAPS

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE	DISPLAY
B	4	5	4

EMERGENCY VEHICLE PREEMPTION SEQUENCE

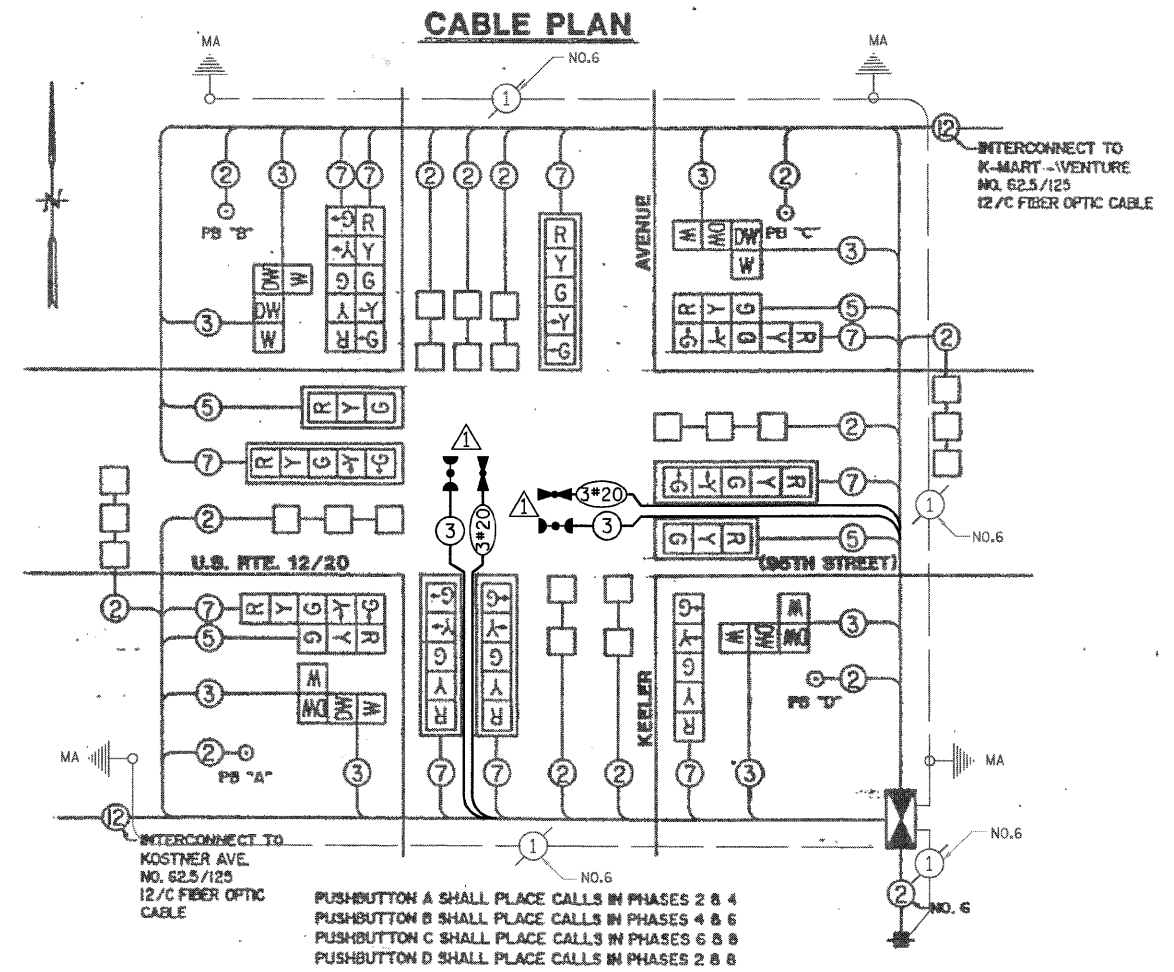


PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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.



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

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	253
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	253
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

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

REVISIONS

NAME	DATE
CBBEL	3/20/08

DEPARTMENT OF TRANSPORTATION
U.S. RTE. 12/20 (95TH ST.)
CONTROLLER SEQUENCE IV
RIGHT TURN OVERLAP PHASE DESIGNATION
CABLE PLAN
SCHEDULE OF QUANTITIES
 U.S. 12/20 @ KEELER AVE.
 DATE 10/8/93
 DRAWN BY CJS
 CHECKED BY RAC

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

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	135	0.50	945.00
(YELLOW)	14	135	0.25	472.50
(GREEN)	14	135	0.25	472.50
ARROW	20	135	0.10	270.00
PED. SIGNAL	8	90	1.00	720.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	252	0.05	-
FLASHER	-	-	0.50	-

ENERGY COSTS TO: TOTAL = 2980.00
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 COMPANY: COMED

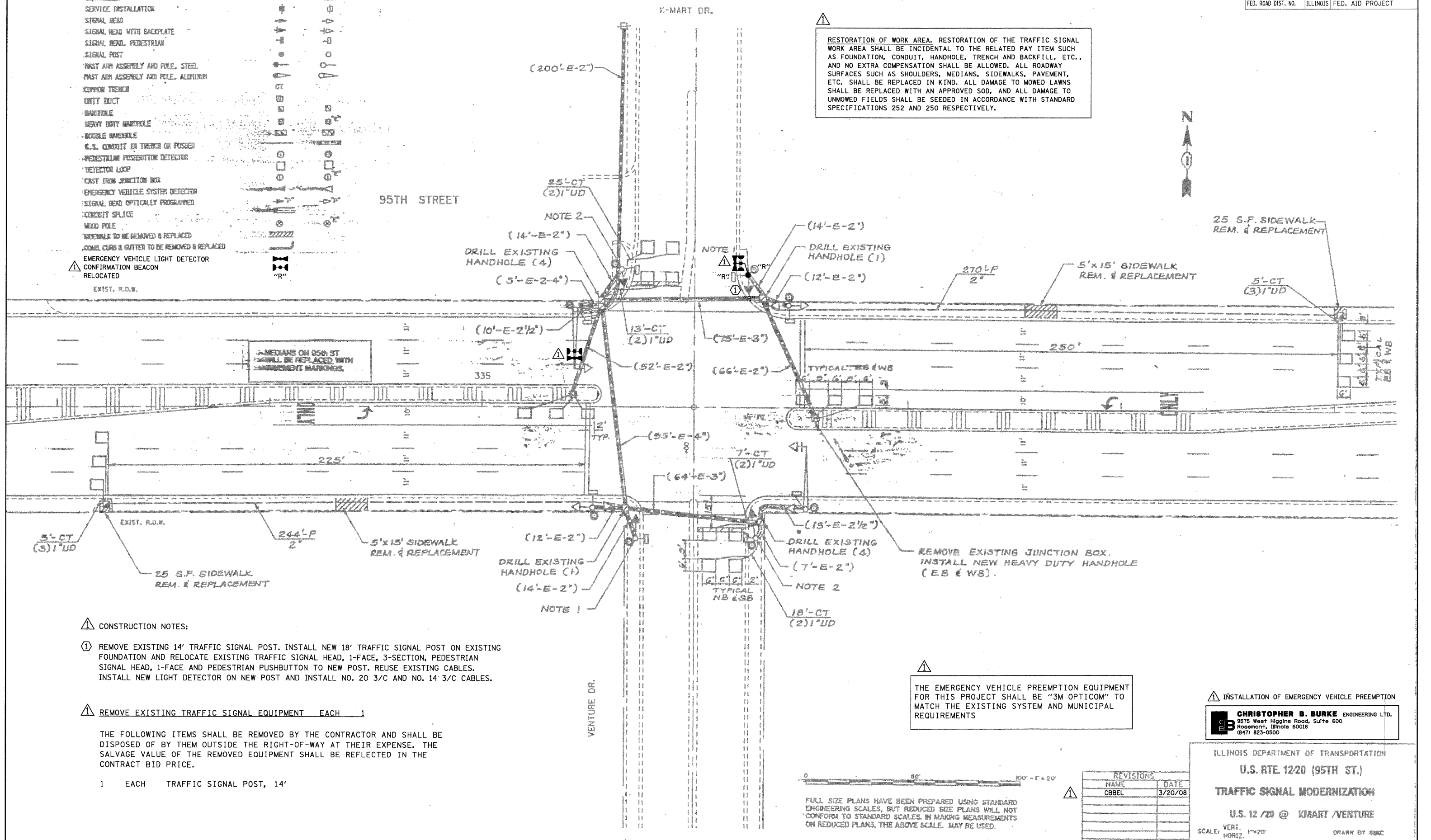
FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		SIGNAL POST	2 (0.5)	(6m+L-0.6m)	
	24" (600mm)	CONTROLLER CAB.	1 (0.5)	BRACKET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

N:\06k\lawn\070732\Traffic\NEP_95th+Keeler.dgn

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]
POST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
POST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]
CONCRETE TRENCH	[Symbol]	[Symbol]
URTI DUCT	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
6.3. CONDUIT IN TRENCH OR PUSSED	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
CONDUIT SPLICE	[Symbol]	[Symbol]
WOOD POLE	[Symbol]	[Symbol]
SIDEWALK TO BE REMOVED & REPLACED	[Symbol]	[Symbol]
CONCRETE CURB & GUTTER TO BE REMOVED & REPLACED	[Symbol]	[Symbol]
EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON RELOCATED	[Symbol]	[Symbol]
EXIST. R.O.W.	[Symbol]	[Symbol]

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
06-00169-00-TL		COOK	53	23
CONTRACT NO. 63039				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

CONSTRUCTION NOTES:

1 REMOVE EXISTING 14' TRAFFIC SIGNAL POST. INSTALL NEW 18' TRAFFIC SIGNAL POST ON EXISTING FOUNDATION AND RELOCATE EXISTING TRAFFIC SIGNAL HEAD, 1-FACE, 3-SECTION, PEDESTRIAN SIGNAL HEAD, 1-FACE AND PEDESTRIAN PUSHBUTTON TO NEW POST. REUSE EXISTING CABLES. INSTALL NEW LIGHT DETECTOR ON NEW POST AND INSTALL NO. 20 3/C AND NO. 14' 3/C CABLES.

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH 1

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 TRAFFIC SIGNAL POST, 14'

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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

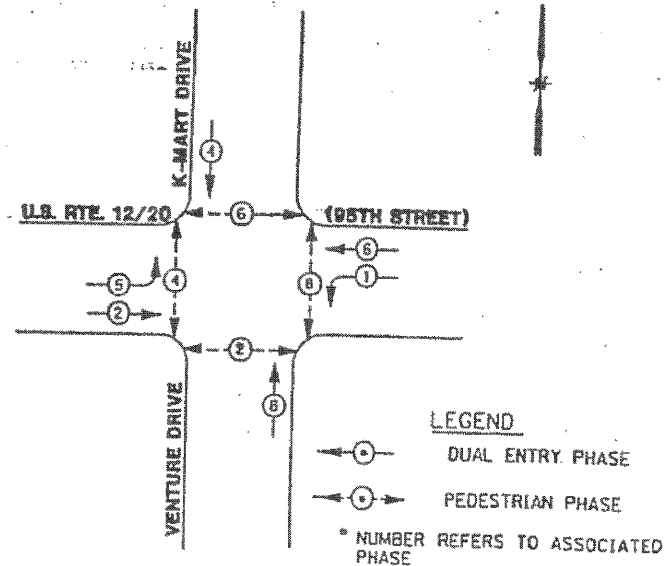
ILLINOIS DEPARTMENT OF TRANSPORTATION
 U.S. RTE. 12/20 (95TH ST.)
 TRAFFIC SIGNAL MODERNIZATION
 U.S. 12 / 20 @ KMART / VENTURE
 SCALE: VERT. 1"=20'
 HORIZ. 1"=20'
 DATE 06/03/03
 DRAWN BY: RBC
 CHECKED BY: SPV



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.

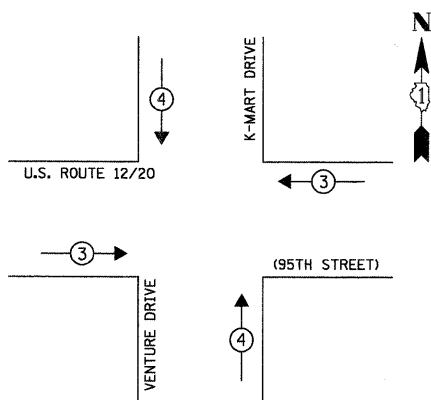
REVISIONS	
NAME	DATE
CBBEL	3/20/08

CONTROLLER SEQUENCE IV
 REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



PHASE DESIGNATION DIAGRAM
 DUAL ENTRY - ALL LEGS
 PROTECTED/PERMITTED LEFT TURN PHASING

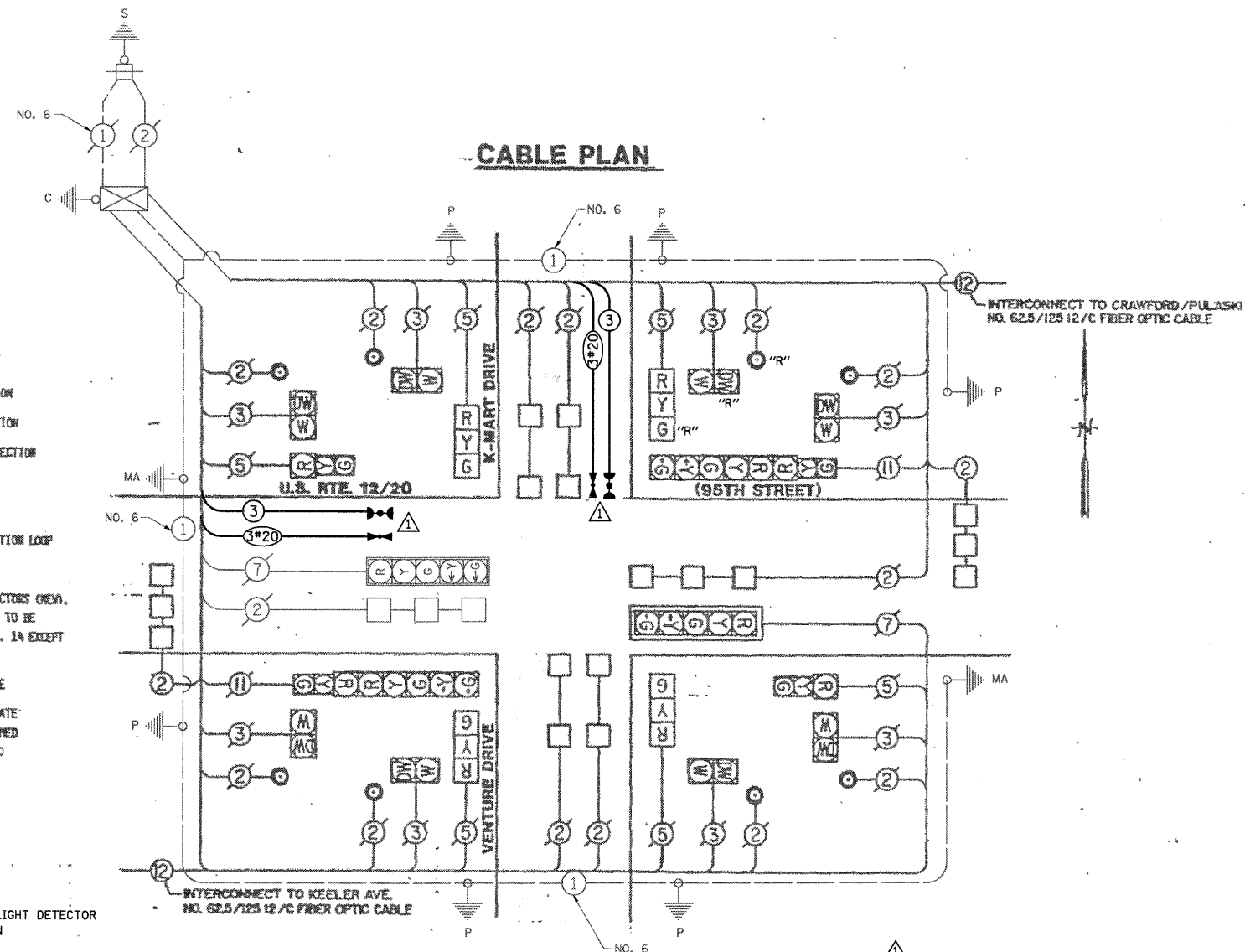
EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

- CABLE PLAN LEGEND**
- Ⓢ 8" TRAFFIC SIGNAL SECTION
 - Ⓡ 12" TRAFFIC SIGNAL SECTION
 - Ⓦ 12" PEDESTRIAN SIGNAL SECTION
 - Ⓢ CONTROLLER
 - Ⓢ SERVICE INSTALLATION
 - Ⓢ VEHICLE DETECTOR, INDUCTION LOOP
 - Ⓢ PROXIMITY DETECTOR
 - Ⓢ INDICATES NUMBER OF CONDUCTORS (REQD). ALL 100' DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 14 EXCEPT AS INDICATED.
 - Ⓢ INDICATES EXISTING CABLE
 - Ⓢ SIGNAL FACE WITH BACKPLATE: "R" INDICATES PROGRAMMED "L" INDICATES LOWERED
 - Ⓢ EXISTING SIGNAL SECTION
 - Ⓢ MAGNETIC DETECTOR
 - Ⓢ OPTICAL DETECTOR
 - Ⓢ EMERGENCY VEHICLE LIGHT DETECTOR CONFIRMATION BEACON RELOCATED



SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	214
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C TWISTED SHIELDED	FOOT	214
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135	0.50	810.00
(YELLOW)	12	135	0.25	405.00
(GREEN)	12	135	0.25	405.00
ARROW	8	135	0.10	108.00
PED. SIGNAL	8	90	1.00	720.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	252	0.05	-
FLASHER	-	-	0.50	-

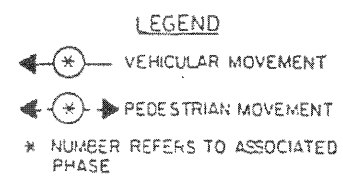
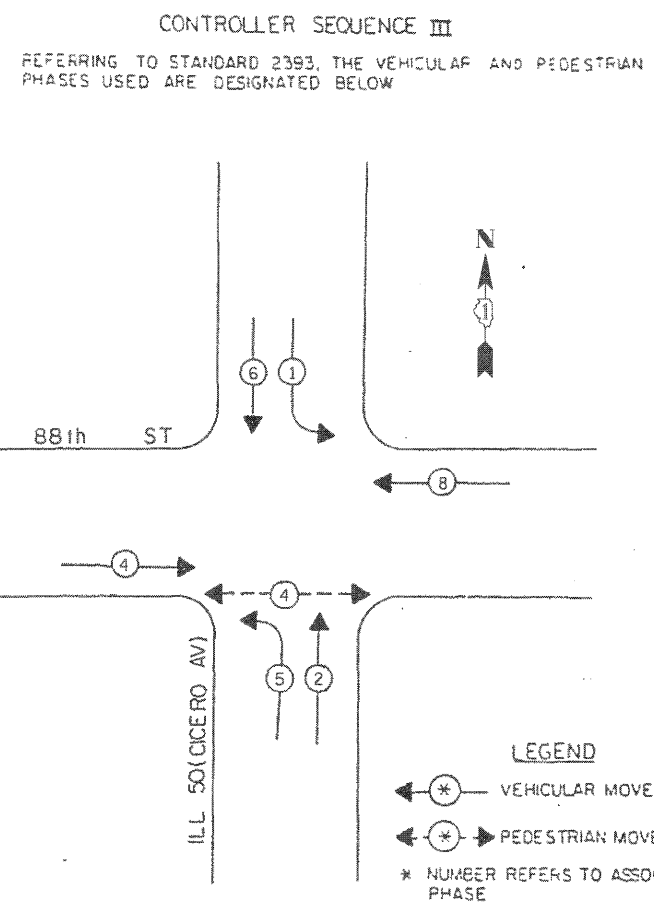
ENERGY COSTS TO: TOTAL = 2548.00
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 COMPANY: COMED

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		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)

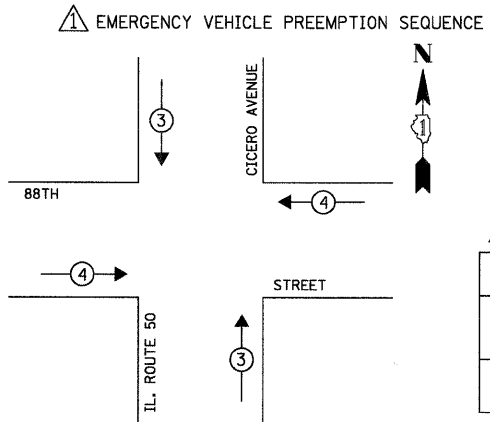
INSTALLATION OF EMERGENCY VEHICLE PREEMPTION
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

NAME	DATE
CBBEL	3/20/08

DEPARTMENT OF TRANSPORTATION
 U.S. RTE. 12/20 (95TH ST.)
CABLE PLAN
SCHEDULE OF QUANTITIES
 U.S. 12/20 @ K-MART/VENTURE
 DATE 10/27/93
 DRAWN BY CJS
 CHECKED BY RAC

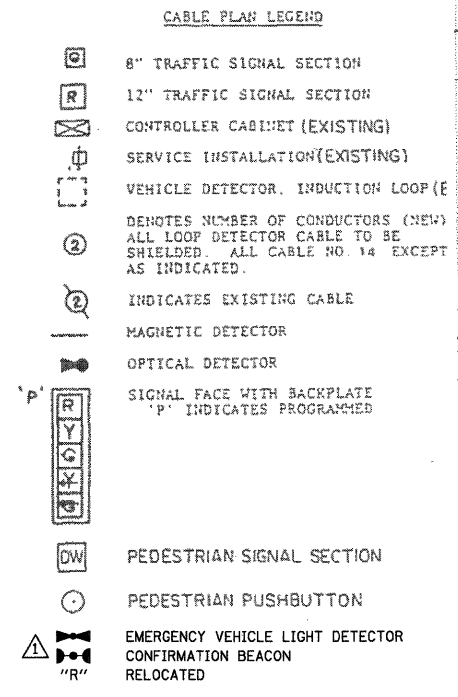
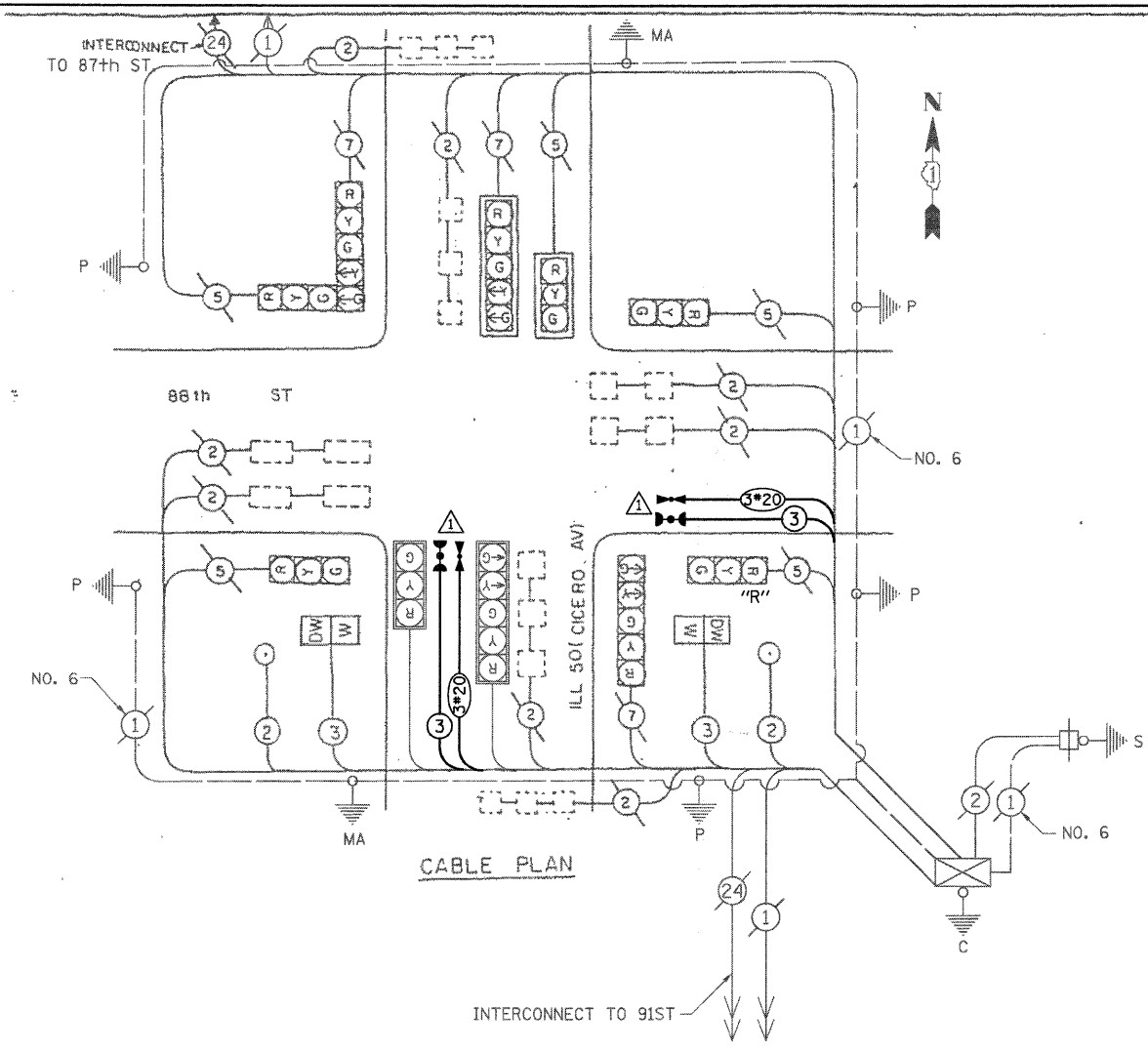


PHASE DESIGNATION DIAGRAM



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↓ ↑	← →



THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	307
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	307
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

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

TYPE	NO. OF LAMPS	WATTAGE X INCAND. LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	10	135	0.50	675.00
(YELLOW)	10	135	0.25	337.50
(GREEN)	10	135	0.25	337.50
ARROW	8	135	0.10	108.00
PED. SIGNAL	2	90	1.00	180.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	252	0.05	-
FLASHER	-	-	0.50	-
TOTAL =				1738.00

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	-	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)

ENERGY COSTS TO: TOTAL = 1738.00

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
ENERGY SUPPLY: CONTACT: MILTON RAY
PHONE: (708) 235-2315
COMPANY: COMED

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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

1987 EMC WORK

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN
PHASE DESIGNATION DIAGRAM
SUMMARY OF EMC ITEMS
ILL 50(CICERO AV) & 88th ST.

REVISIONS

NAME	DATE
RKF-LW QUAN &	
CABLE	7-29-86
RKF-PH.DES.DIA.	
CBBEL	3/20/08

DRAWN BY PQ

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00169-00-TL	COOK	53	27
CONTRACT NO. 63039				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

P 91-325-83

CONSTRUCTION NOTES:

1 REMOVE EXISTING 14' TRAFFIC SIGNAL POST. INSTALL NEW 18' TRAFFIC SIGNAL POST ON EXISTING FOUNDATION AND RELOCATE EXISTING TRAFFIC SIGNAL HEAD, 1-FACE, 3-SECTION, PEDESTRIAN SIGNAL HEAD, 1-FACE AND PEDESTRIAN PUSHBUTTON TO NEW POST. REUSE EXISTING CABLES. INSTALL NEW LIGHT DETECTOR ON NEW POST AND INSTALL NO. 20 3/C AND NO. 14 3/C CABLES.

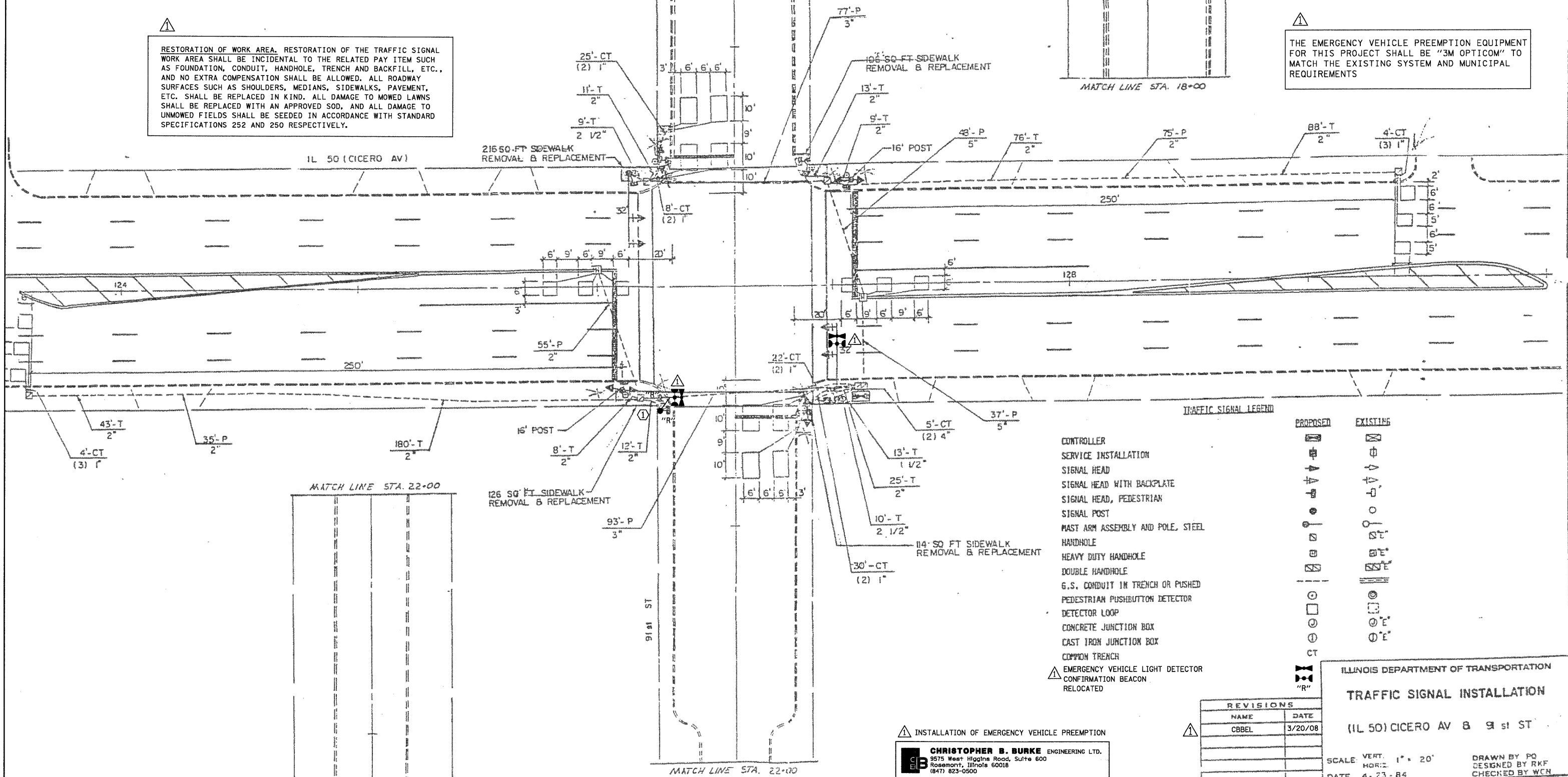
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH

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 TRAFFIC SIGNAL POST, 14'

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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS



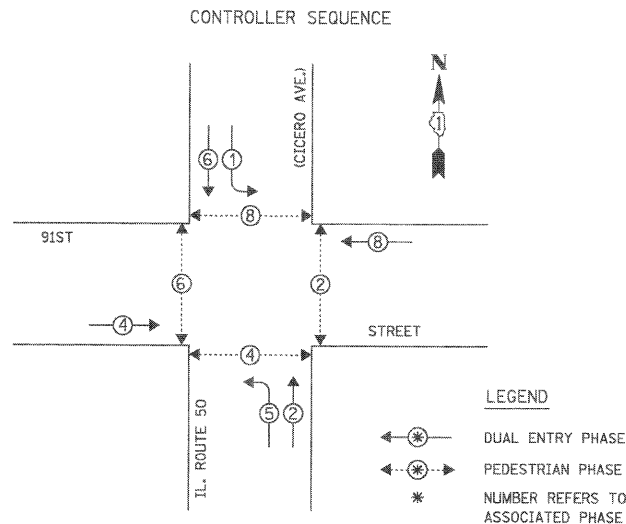
TRAFFIC SIGNAL LEGEND

PROPOSED	EXISTING

REVISIONS	
NAME	DATE
CBBEL	3/20/08

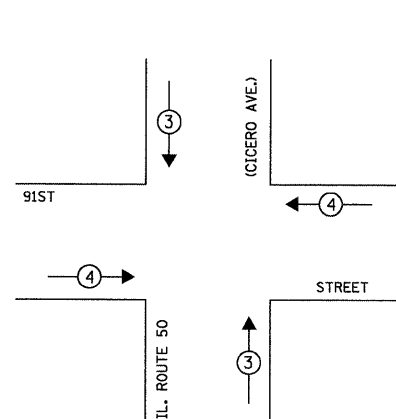
ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL INSTALLATION
 (IL 50) CICERO AV & 91st ST
 SCALE: VERT. 1" = 20'
 HORIZ. 1" = 20'
 DATE 4-23-84
 DRAWN BY PG
 DESIGNED BY RKF
 CHECKED BY WCH

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



PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



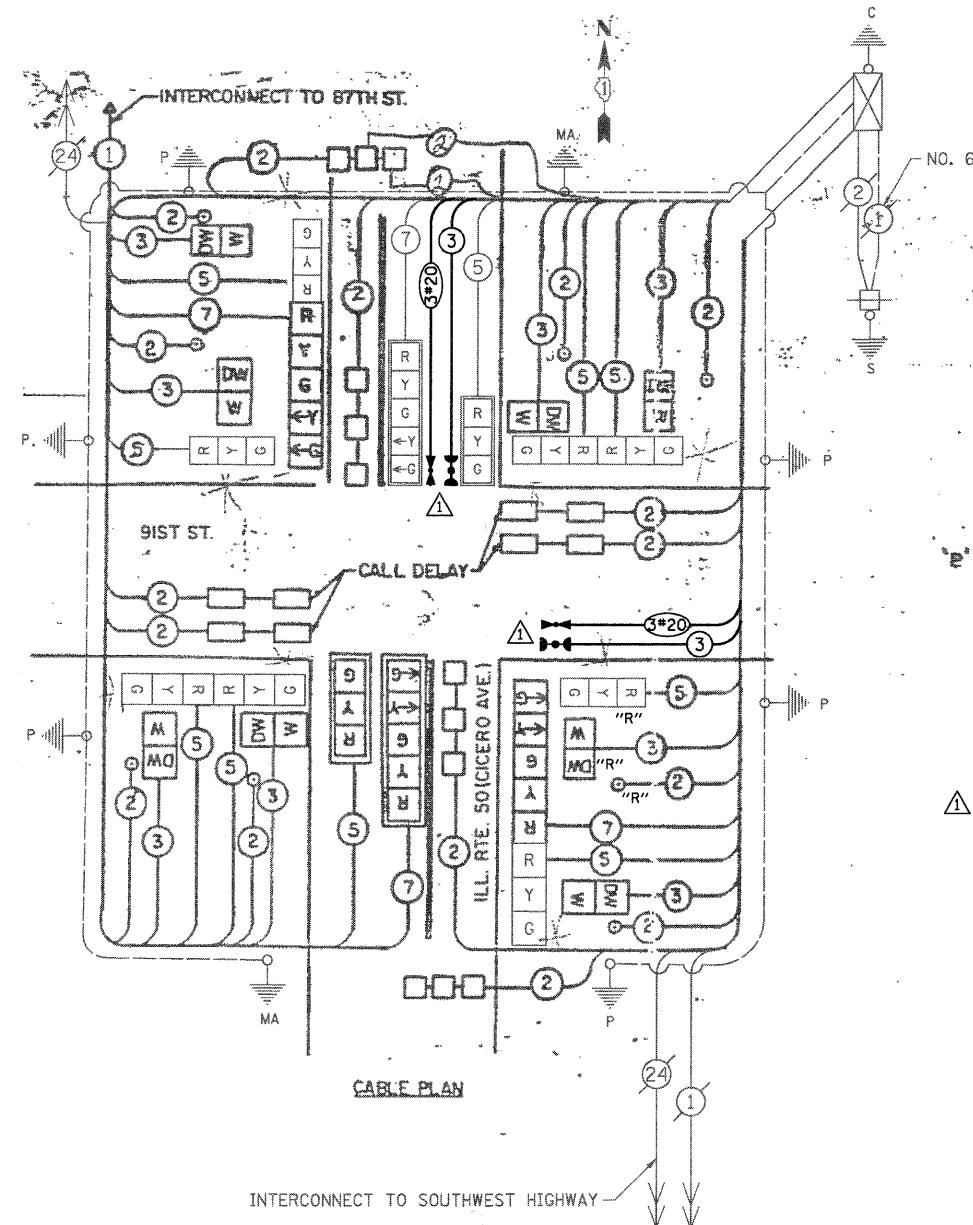
PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↓ ↑	← →

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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	234
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	234
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1



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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	135	0.50	945.00
(YELLOW)	14	135	0.25	472.50
(GREEN)	14	135	0.25	472.50
ARROW	8	135	0.10	108.00
PED. SIGNAL	8	90	1.00	720.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	252	0.05	-

ENERGY COSTS TO: TOTAL = 2818.00

ILLINOIS DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAY/DISTRICT 1

201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: MILTON RAY

PHONE: (708) 235-2315

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		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)

REVISIONS

NAME	DATE
CBBEL	3/20/08

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

CHRISTOPHER B. BURKE ENGINEERING LTD.

9575 West Higgins Road, Suite 600

Rosemont, Illinois 60018

(847) 823-0500

ILLINOIS DEPARTMENT OF TRANSPORTATION

PHASE DESIGNATION DIAGRAM

CABLE PLAN

SCHEDULE OF QUANTITIES

LOOP DETECTOR SCHEMATIC

SCHEDULE OF SIGNAL HEADS

ILL. RTE. 50 (CICERO AVE.) & 91ST ST.

SCALE: NONE

DATE 4-23-04

DRAWN BY RMT

DESIGNED BY RKF

CHECKED BY WCN

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMMON TRENCH		
UNIT DUCT		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP		
CAST IRON JUNCTION BOX		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
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 CABRIET		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		

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.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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

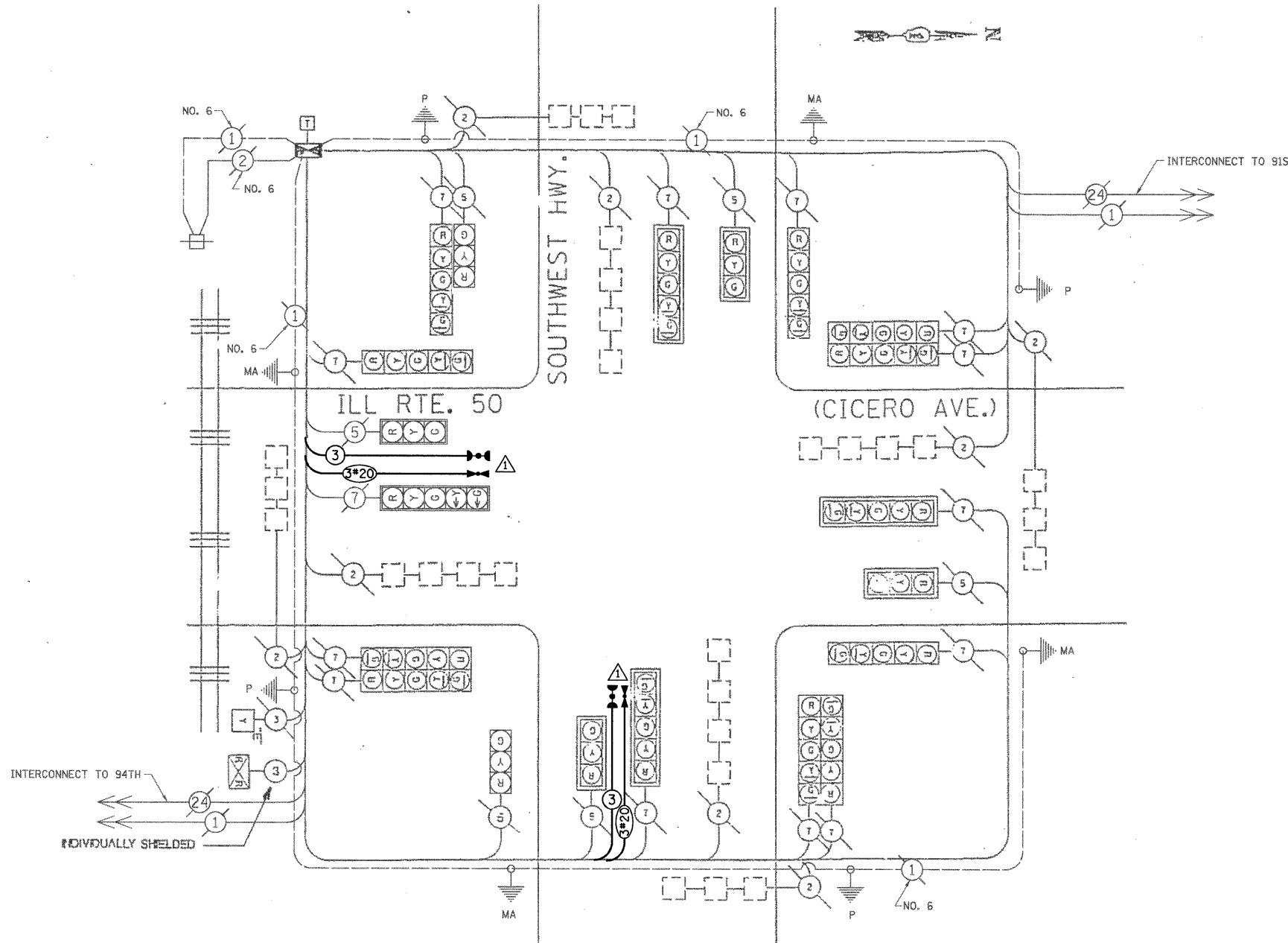
EMC

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC SIGNAL MODIFICATION
 ILLINOIS ROUTE 50 (CICERO AVENUE)
 @ SOUTHWEST HIGHWAY

REVISIONS	
NAME	DATE
MCS	10-03-00
CBBEL	3/20/08

SCALE: VERT. 1"=20'
 HORIZ. 1"=20'
 DATE 08-14-00

DRAWN BY MAC
 DESIGNED BY MAC
 CHECKED BY DAD



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, INDUCTION LOOP
[Symbol]	[Symbol]	MAGNETIC DETECTOR
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	2 DENOTES NUMBER OF CONDUCTORS.
[Symbol]	[Symbol]	ALL CABLE NO. 14 EXCEPT AS INDICATED.
[Symbol]	[Symbol]	ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE.
[Symbol]	[Symbol]	"P" INDICATES PROGRAMMED LEAD.
[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
[Symbol]	[Symbol]	YELLOW FLASHER
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON

CABLE PLAN

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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	348
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	348
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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

EMC

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

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	135		0.50	1350.00
(YELLOW)	20	135		0.25	675.00
(GREEN)	20	135		0.25	675.00
ARROW	28	135		0.10	378.00
PED. SIGNAL	-	90		1.00	-
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN	-	252		0.05	-
FLASHER	-			0.50	-

ENERGY COSTS TO: TOTAL = 3178.00
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 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'+H-2=
E - M. ARM POLE		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)

REVISIONS

NAME	DATE
MCS	08-14-00
MCS	10-03-00
CBBEL	3/20/08

ILLINOIS DEPARTMENT OF TRANSPORTATION
 CABLE PLAN
 SCHEDULE OF QUANTITIES
 ILL. RTE. 50 (CICERO AVE.)
 @
 SOUTHWEST HIGHWAY
 SCALE: VERT. NONE
 HORIZ. NONE
 DRAWN BY SLB
 REVISION BY SI R/MAC

SEQUENCE OF OPERATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00169-00-TL	COOK	53	31
CONTRACT NO. 63039				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

MOVEMENT	1	2	3	4	5	6	7	8	9	10A	10B	11	12	13	14	15	16A	16B	17	18	19A	19B	20	21	22A	22B	
PHASE	1+5		1+6		2+5		2+6		3+7		3+8		4+7		4+8												
INTERVAL	1	2	3	4	5	6	7	8	9	10A	10B	11	12	13	14	15	16A	16B	17	18	19A	19B	20	21	22A	22B	
CHANGE TO		1+6	2+5	2+6	2+6	2+6	2+6	2+6	3+7	3+8	4+7	4+8	1+5	1+6	2+5	2+6	4+8	1+5	1+6	2+5	2+6	4+8	1+5	1+6	2+5	2+6	
IL ROUTE 50 (CICERO AVENUE) NEAR AND FAR RIGHT SIGNALS	NB	R	R	R	R	R	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
IL ROUTE 50 (CICERO AVENUE) MID MAST ARM SIGNAL	NB	R	R	R	R	R	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
IL ROUTE 50 (CICERO AVENUE) END MAST ARM AND FAR LEFT SIGNALS	NB	R	R	R	R	R	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
IL ROUTE 50 (CICERO AVENUE) NEAR AND FAR RIGHT SIGNALS	SB	R	R	R	R	G	G	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
IL ROUTE 50 (CICERO AVENUE) MID MAST ARM SIGNAL	SB	R	R	R	R	G	G	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
IL ROUTE 50 (CICERO AVENUE) END MAST ARM AND FAR LEFT SIGNALS	SB	R	R	R	R	G	G	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
SOUTHWEST HIGHWAY NEAR RIGHT, FAR RIGHT AND MID MAST ARM SIGNALS	EB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	Y	R
SOUTHWEST HIGHWAY END MAST ARM AND FAR LEFT SIGNALS	EB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	Y	R
SOUTHWEST HIGHWAY NEAR AND FAR RIGHT MAST ARM SIGNALS	WB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	Y	R
SOUTHWEST HIGHWAY MID MAST ARM SIGNAL	WB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	Y	R
SOUTHWEST HIGHWAY END MAST ARM AND FAR LEFT SIGNALS	WB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	G	Y	R
IL ROUTE 50 (CICERO AVENUE) YELLOW FLASHER	NB	FL	FL	FL	FL	FL	FL	DARK	DARK	DARK	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	

PHASE 2+6 SHALL BE PLACED ON RECALL

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.

RAILROAD PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	5	7	9	11	15	18	21	PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 2						CLEAR TO NORMAL SEQUENCE										
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER												2	3														
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	2	3	4	5						
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	2	2	1F	2	2	1J	2	1L	2	1N	2	1Q	2	1S	2	3	4	5							
IL ROUTE 50 (CICERO AVENUE) NEAR AND FAR RIGHT SIGNALS	NB	R	R	R	G	G	G	R	Y	R	R	R	R	R	R	R	R	G	Y	R	R						△
IL ROUTE 50 (CICERO AVENUE) MID MAST ARM SIGNAL	NB	R	R	R	G	G	G	R	Y	R	R	R	R	R	R	R	R	G	Y	R	R						△
IL ROUTE 50 (CICERO AVENUE) END MAST ARM AND FAR LEFT SIGNALS	NB	R	R	R	G	G	G	R	Y	R	R	R	R	R	R	R	R	G	Y	R	R						△
IL ROUTE 50 (CICERO AVENUE) NEAR AND FAR RIGHT SIGNALS	SB	R	Y	R	R	Y	R	Y	R	R	Y	R	R	R	R	R	R	R	R	R	R						△
IL ROUTE 50 (CICERO AVENUE) MID MAST ARM SIGNAL	SB	R	Y	R	R	Y	R	Y	R	R	Y	R	R	R	R	R	R	R	R	R	R						△
IL ROUTE 50 (CICERO AVENUE) END MAST ARM AND FAR LEFT SIGNALS	SB	R	Y	R	R	Y	R	Y	R	R	Y	R	R	R	R	R	R	R	R	R	R						△
SOUTHWEST HIGHWAY NEAR RIGHT, FAR RIGHT AND MID MAST ARM SIGNALS	EB	R	R	R	R	R	R	R	R	Y	R	Y	R	R	R	Y	R	R	R	R	G						△
SOUTHWEST HIGHWAY END MAST ARM AND FAR LEFT SIGNALS	EB	R	R	R	R	R	R	R	R	Y	R	Y	R	R	R	Y	R	R	R	R	G						△
SOUTHWEST HIGHWAY NEAR AND FAR RIGHT MAST ARM SIGNALS	WB	R	R	R	R	R	R	Y	R	R	Y	R	R	R	R	Y	R	R	R	R	G						△
SOUTHWEST HIGHWAY MID MAST ARM SIGNAL	WB	R	R	R	R	R	R	Y	R	R	Y	R	R	R	R	Y	R	R	R	R	G						△
SOUTHWEST HIGHWAY END MAST ARM AND FAR LEFT SIGNALS	WB	R	R	R	R	R	R	Y	R	R	Y	R	R	R	R	Y	R	R	R	R	G						△
IL ROUTE 50 (CICERO AVENUE) YELLOW FLASHER	NB	FL	FL	FL	DARK	DARK	DARK	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	DARK	FL	FL	FL	FL	

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	5	5	7	7	9	9	11	15	15	18	18	21	21	PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	CLEAR TO NORMAL SEQUENCE								
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	2	3			
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	2	1D	3	2	1G	3	2	1K	3	2	3	1R	2	3	1U	2	3			2	3			
IL ROUTE 50 (CICERO AVENUE) NEAR AND FAR RIGHT SIGNALS	NB	R	R	R	R	G	Y	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
IL ROUTE 50 (CICERO AVENUE) MID MAST ARM SIGNAL	NB	R	R	R	R	G	Y	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
IL ROUTE 50 (CICERO AVENUE) END MAST ARM AND FAR LEFT SIGNALS	NB	R	R	R	R	G	Y	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
IL ROUTE 50 (CICERO AVENUE) NEAR AND FAR RIGHT SIGNALS	SB	R	G	Y	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
IL ROUTE 50 (CICERO AVENUE) MID MAST ARM SIGNAL	SB	R	G	Y	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
IL ROUTE 50 (CICERO AVENUE) END MAST ARM AND FAR LEFT SIGNALS	SB	R	G	Y	R	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
SOUTHWEST HIGHWAY NEAR RIGHT, FAR RIGHT AND MID MAST ARM SIGNALS	EB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	G	Y
SOUTHWEST HIGHWAY END MAST ARM AND FAR LEFT SIGNALS	EB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	G	Y
SOUTHWEST HIGHWAY NEAR AND FAR RIGHT MAST ARM SIGNALS	WB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	G	Y
SOUTHWEST HIGHWAY MID MAST ARM SIGNAL	WB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	G	Y
SOUTHWEST HIGHWAY END MAST ARM AND FAR LEFT SIGNALS	WB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	G	Y
IL ROUTE 50 (CICERO AVENUE) YELLOW FLASHER	NB	FL	FL	FL	FL	DARK	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL

△ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

△ THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 OR 3 IS TERMINATED.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SEQUENCE OF OPERATION, RAILROAD
PREEMPTION SEQUENCE OF OPERATION AND
EMERGENCY VEHICLE PREEMPTION SEQUENCE
ILL. RTE. 50 (CICERO AVENUE) AND
SOUTHWEST HIGHWAY
SCALE N.T.S. DRAWN BY FN
DATE 4-24-08 CHECKED BY GMZ

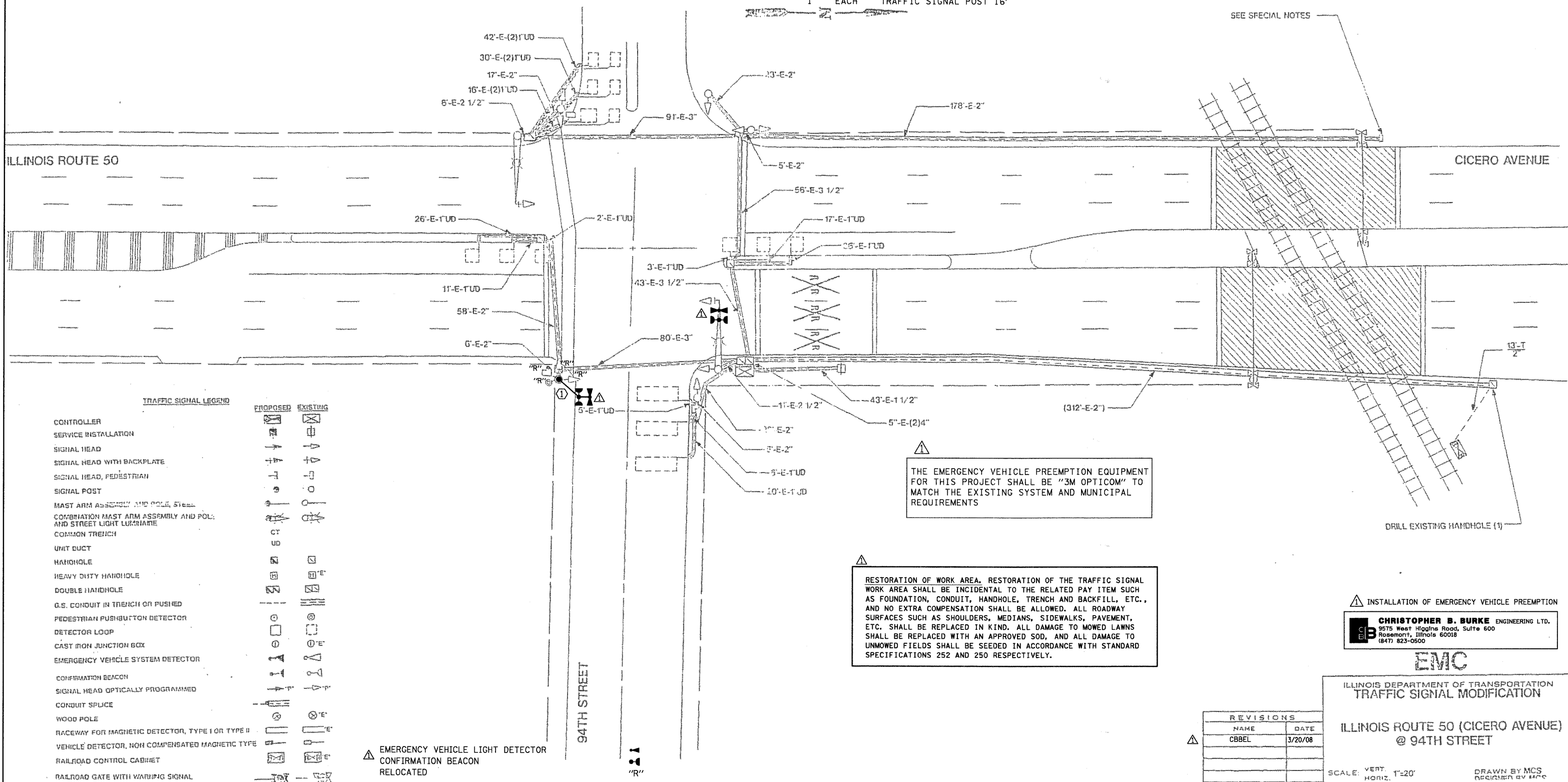
△ CONSTRUCTION NOTES:

① REMOVE EXISTING 16' TRAFFIC SIGNAL POST. INSTALL NEW 18' TRAFFIC SIGNAL POST ON EXISTING FOUNDATION AND RELOCATE EXISTING TRAFFIC SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION PEDESTRIAN SIGNAL HEAD, 1-FACE AND PEDESTRIAN PUSHBUTTON TO NEW POST. REUSE EXISTING CABLES. INSTALL NEW LIGHT DETECTOR ON NEW POST AND INSTALL NO. 20 3/C AND NO. 14 3/C CABLES

△ REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH 1

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 TRAFFIC SIGNAL POST 16'



SEE SPECIAL NOTES

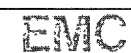
TRAFFIC SIGNAL LEGEND

	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]
COMBINATION MAST ARM ASSEMBLY AND POLE AND STREET LIGHT LUMINAIRE	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
UNIT DUCT	[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]
CAST IRON JUNCTION BOX	[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]
RAILROAD GATE WITH WARNING SIGNAL	[Symbol]	[Symbol]

△ THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

△ 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.

△ INSTALLATION OF EMERGENCY VEHICLE PREEMPTION
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

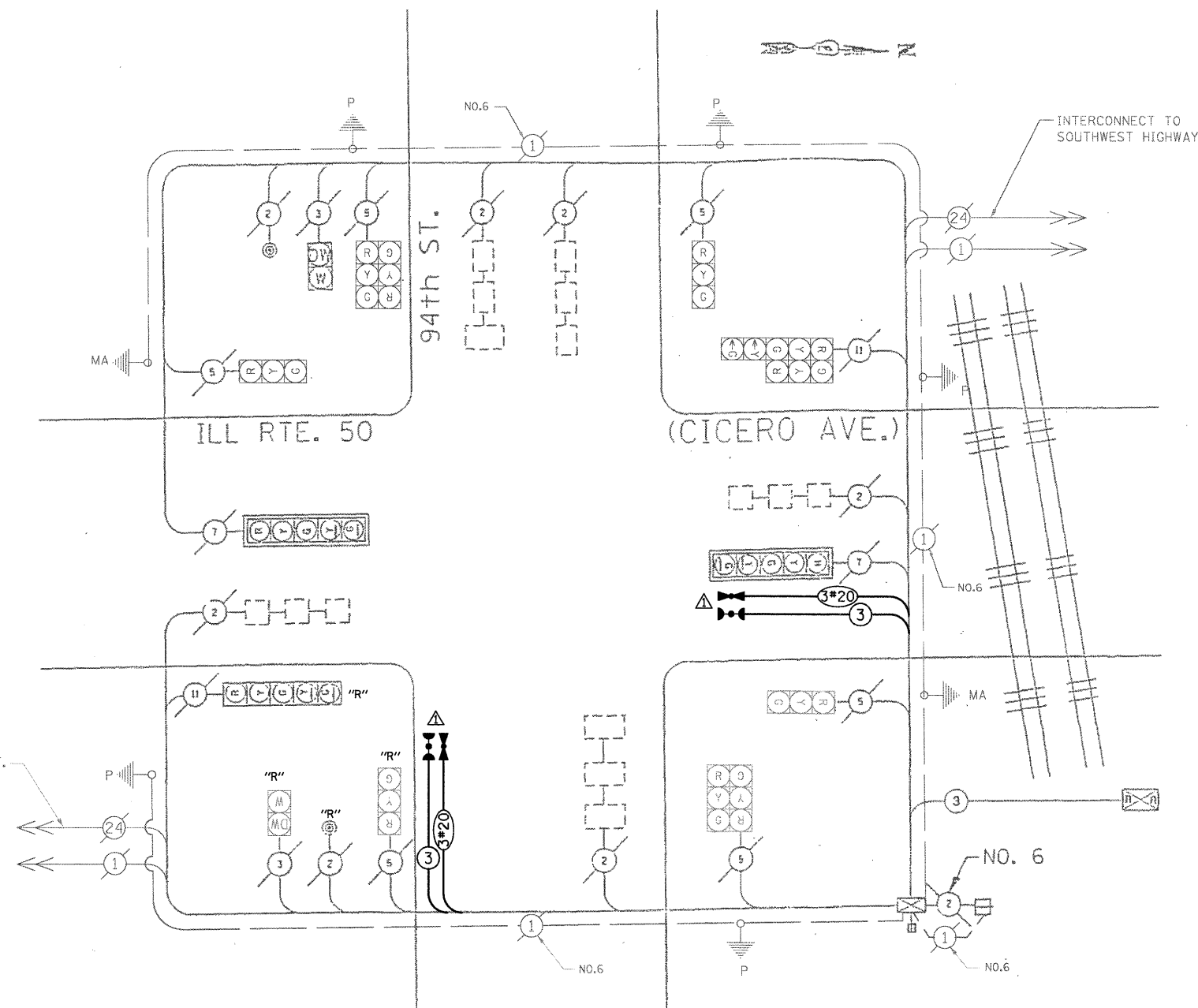


ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC SIGNAL MODIFICATION

ILLINOIS ROUTE 50 (CICERO AVENUE)
 @ 94TH STREET

REVISIONS	
NAME	DATE
CBBEL	3/20/08

SCALE: VERT. 1"=20'
 HORIZ. 1"=20'
 DRAWN BY MCS
 REVISION BY MCS



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
	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. "T" INDICATES PROGRAMMED HEAD.
	RAILROAD CONTROL CABINET
	ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"
	ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"
	EMERGENCY VEHICLE LIGHT DETECTOR
	CONFIRMATION BEACON
	RELOCATED

CABLE PLAN

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	215
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	215
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

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

EMC

REVISIONS	
NAME	DATE
MCS	08-14-99
CBBEL	3/20/08

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN
 SCHEDULE OF QUANTITIES
 ILL RTE. 50(CICERO AVE.) @ 94TH ST.
 SCALE: VERT. NONE
 HORIZ. 1"=40'
 DATE 10/18/99
 DRAWN BY SLB
 DESIGNED BY SLB/MAC
 CHECKED BY RRF

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	13		17	0.50	110.50
(YELLOW)	13		25	0.25	81.25
(GREEN)	13		15	0.25	48.75
ARROW	8		12	0.10	9.60
PED. SIGNAL	2		25	1.00	50.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
FLASHER				0.50	

ENERGY COSTS TO: TOTAL = 400.10
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 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'-H-2=
E - M. ARM POLE		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)

N:\ocklawn\070732\Traffic\EXP_cicero-94th.dgn

SEQUENCE OF OPERATION

MOVEMENT	5 ↗ 1		← 6		5 ↘ 2		← 6		4 ↕ 8		F	L	A	S	H		
PHASE	1+5				1+6		2+5		2+6		4+8						
INTERVAL	1	2	3	4	5	6	7	8	9	10A	10B	11	12	13A	13B		
CHANGE TO		1+6	2+5	2+6		2+6		2+6		4+8				1+5	1+6	2+5	2+6
IL ROUTE 50 (CICERO AVENUE) FAR RIGHT SIGNAL	N/B	R	R	R	R	R	G	G	G	Y	R	R	R	R	R	R	
IL ROUTE 50 (CICERO AVENUE) END MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	G	G	G	Y	R	R	R	R	R	R	
IL ROUTE 50 (CICERO AVENUE) NEAR AND FAR RIGHT SIGNALS	S/B	R	R	R	R	G	G	R	R	G	Y	R	R	R	R	R	
IL ROUTE 50 (CICERO AVENUE) END MAST ARM AND FAR LEFT SIGNALS	S/B	R	R	R	R	G	G	R	R	G	Y	R	R	R	R	R	
94TH STREET ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	
94TH STREET ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	
PEDESTRIAN SIGNALS CROSSING IL ROUTE 50 (CICERO AVENUE) ON SOUTH SIDE OF 94TH STREET	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	*W	**FL DW	DW	DW	DARK	

PHASE 2+6 SHALL BE PLACED ON RECALL

* TO APPEAR ONLY UPON PUSHBUTTON ACTUATION

** FLASHING "DON'T WALK" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

W = "WALK"
 FL = FLASHING "DON'T WALK"
 DW = "DON'T WALK"

RAILROAD PREEMPTION SEQUENCE OF OPERATION

	1	5	7	9	11	PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 2									
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER																	
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER																	
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	2	3	4	5	CLEAR TO NORMAL SEQUENCE
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	2	1D	2	1F	2	1H	2	1K	2	1M	2	3	4	5		
IL ROUTE 50 (CICERO AVENUE) FAR RIGHT SIGNAL	N/B	R	R	Y	R	Y	R	R	Y	R	R	R	R	R	R	R	△
IL ROUTE 50 (CICERO AVENUE) END MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	Y	R	Y	R	R	Y	R	R	R	R	R	R	R	△
IL ROUTE 50 (CICERO AVENUE) NEAR AND FAR RIGHT SIGNALS	S/B	R	G	R	R	G	G	R	R	G	G	R	R	G	Y	R	△
IL ROUTE 50 (CICERO AVENUE) END MAST ARM AND FAR LEFT SIGNALS	S/B	R	G	R	R	G	G	R	R	G	G	R	R	G	Y	R	△
94TH STREET ALL SIGNALS	E/B	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	R	△
94TH STREET ALL SIGNALS	W/B	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	R	△
PEDESTRIAN SIGNALS CROSSING IL ROUTE 50 (CICERO AVENUE) ON SOUTH SIDE OF 94TH STREET	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	△

△ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

	1	5	5	7	7	9	9	11	11	PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4						
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER																	
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	2	3	CLEAR TO NORMAL SEQUENCE
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2 OR 3	2	1D	3	2	1G	3	2	1K	3	1M	1N	2	3			
IL ROUTE 50 (CICERO AVENUE) FAR RIGHT SIGNAL	N/B	R	R	R	R	G	Y	R	G	Y	R	R	R	R	G	R	◇
IL ROUTE 50 (CICERO AVENUE) END MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	G	Y	R	G	Y	R	R	R	R	G	R	◇
IL ROUTE 50 (CICERO AVENUE) NEAR AND FAR RIGHT SIGNALS	S/B	R	G	Y	R	R	R	R	G	Y	R	R	R	R	G	R	◇
IL ROUTE 50 (CICERO AVENUE) END MAST ARM AND FAR LEFT SIGNALS	S/B	R	G	Y	R	R	R	R	G	Y	R	R	R	R	G	R	◇
94TH STREET ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	◇
94TH STREET ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	G	◇
PEDESTRIAN SIGNALS CROSSING IL ROUTE 50 (CICERO AVENUE) ON SOUTH SIDE OF 94TH STREET	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	◇

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 OR 3 IS TERMINATED.

△ THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

△ 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.

△ INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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

REVISIONS	
NAME	DATE
CBBEL	3/20/08

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SEQUENCE OF OPERATION, RAILROAD
 PREEMPTION SEQUENCE OF OPERATION AND
 EMERGENCY VEHICLE PREEMPTION SEQUENCE
 IL 50 (CICERO AVENUE) AND 94TH STREET

SCALE N.T.S
 DATE 3/20/08

DRAWN BY FN
 CHECKED BY GMZ

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CONSTRUCTION NOTES:

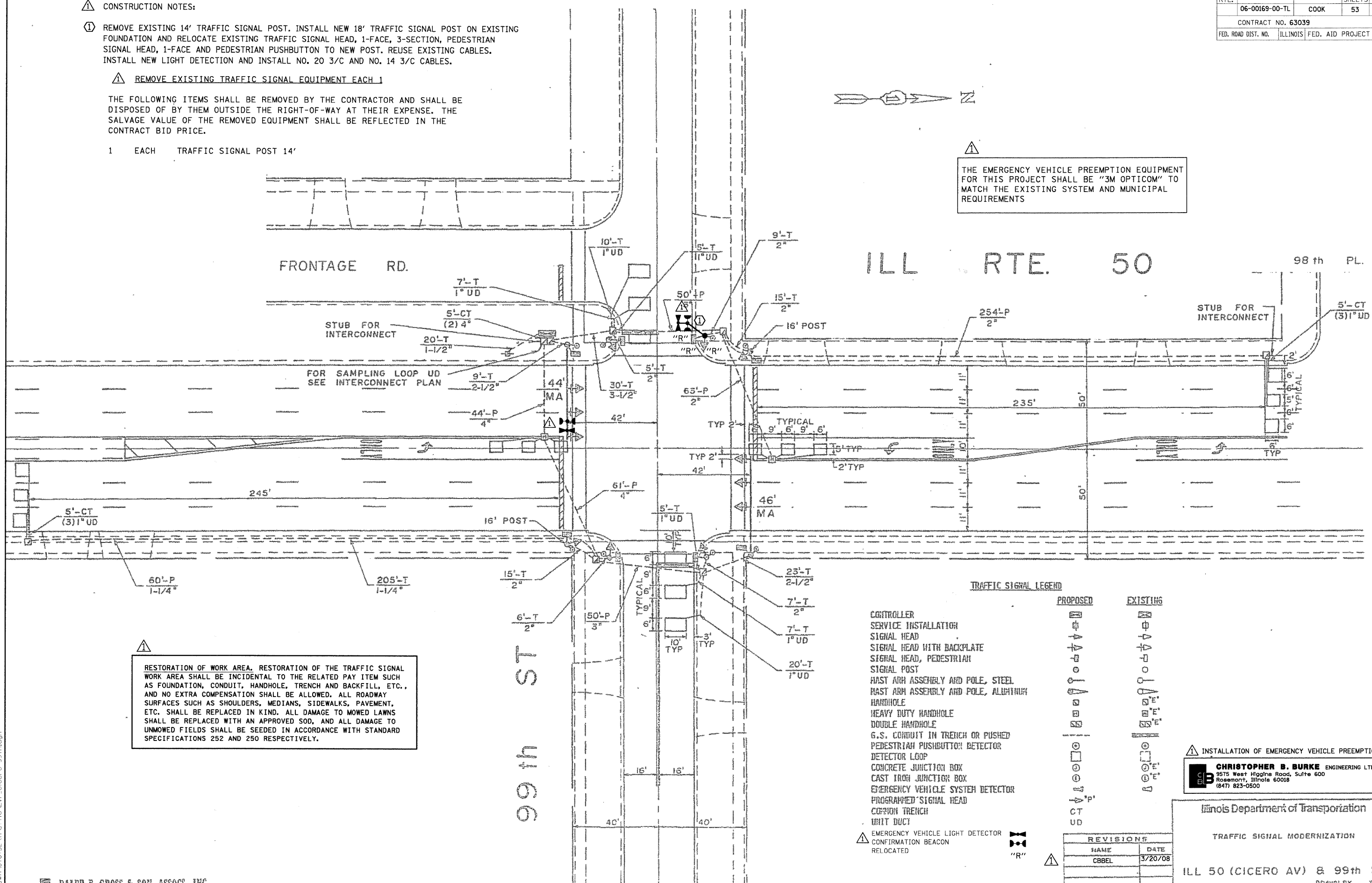
① REMOVE EXISTING 14' TRAFFIC SIGNAL POST. INSTALL NEW 18' TRAFFIC SIGNAL POST ON EXISTING FOUNDATION AND RELOCATE EXISTING TRAFFIC SIGNAL HEAD, 1-FACE, 3-SECTION, PEDESTRIAN SIGNAL HEAD, 1-FACE AND PEDESTRIAN PUSHBUTTON TO NEW POST. REUSE EXISTING CABLES. INSTALL NEW LIGHT DETECTION AND INSTALL NO. 20 3/C AND NO. 14 3/C CABLES.

△ REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH 1

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 TRAFFIC SIGNAL POST 14'

△ THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS



△ 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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]
HAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
HAST ARM ASSEMBLY AND POLE, ALUMINUM	[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]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
PROGRAMMED SIGNAL HEAD	[Symbol]	[Symbol]
CORNER TRENCH	[Symbol]	[Symbol]
UTILITY DUCT	[Symbol]	[Symbol]
EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
RELOCATED	[Symbol]	[Symbol]

△ INSTALLATION OF EMERGENCY VEHICLE PREEMPTION
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (647) 823-0500

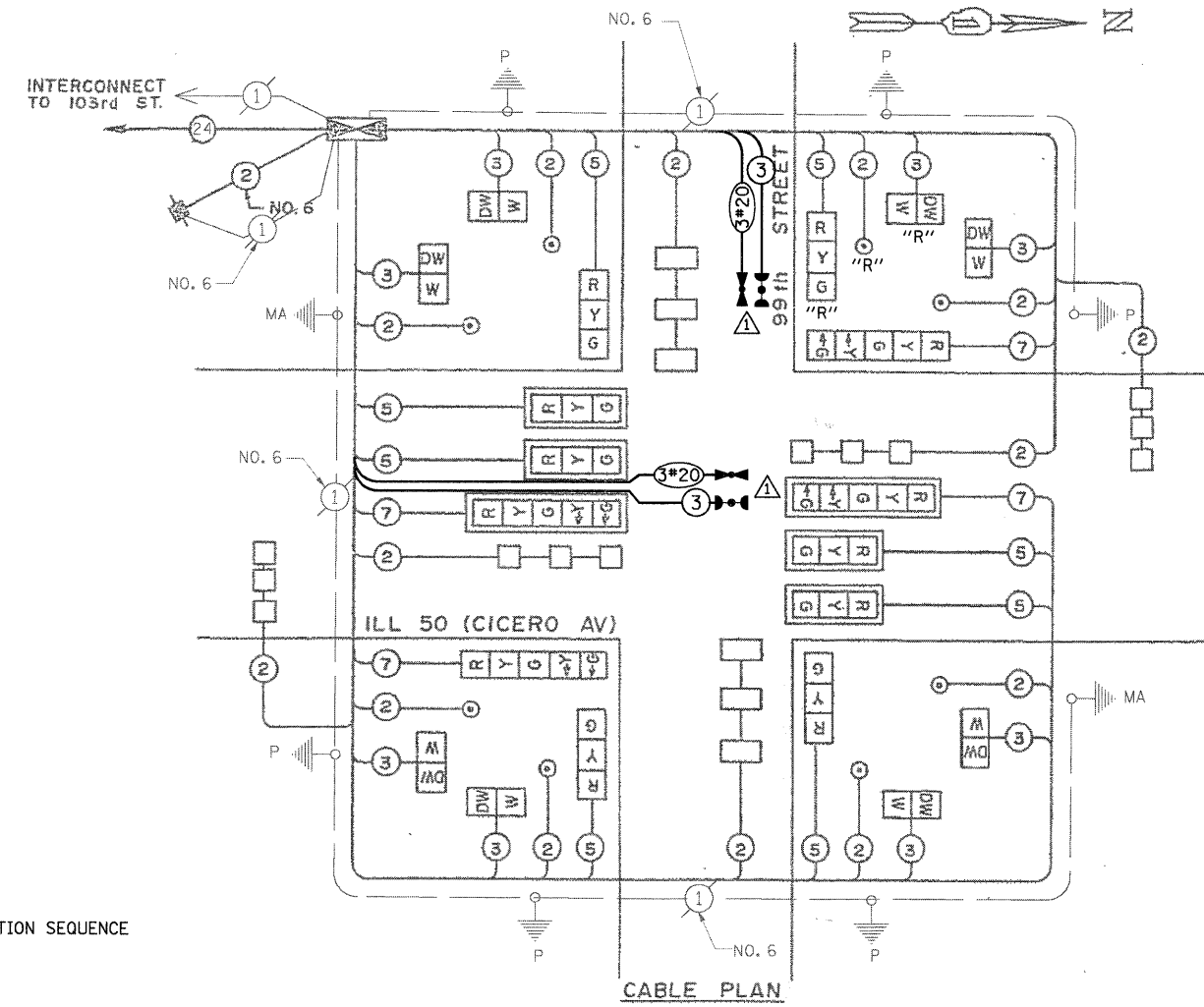
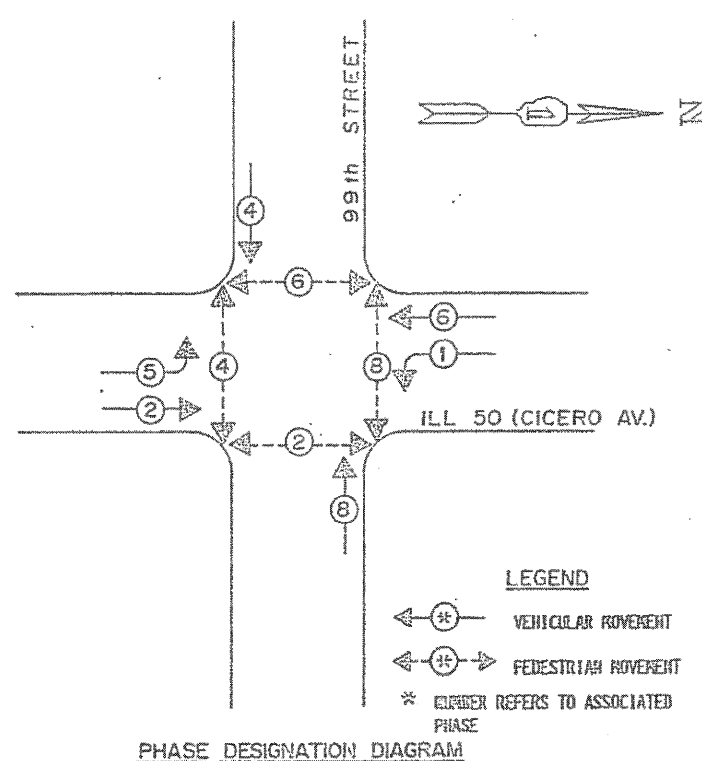
Illinois Department of Transportation
TRAFFIC SIGNAL MODERNIZATION
 ILL 50 (CICERO AV) & 99th ST
 SCALE: 1" = 20'
 DATE: 1-8-08
 DRAWN BY: DMH
 DESIGNED BY: DMH
 CHECKED BY: LHD

REVISIONS	
NAME	DATE
CBBEL	3/20/08

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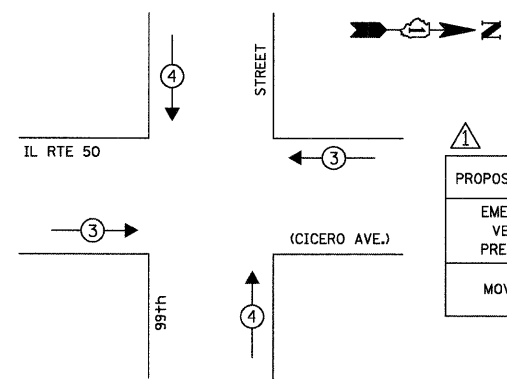
CONTROLLER SEQUENCE IV

REFERRING TO STANDARD 2393-1, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



- CABLE PLAN LEGEND**
- [G] 8" TRAFFIC SIGNAL SECTION
 - [R] 12" TRAFFIC SIGNAL SECTION
 - [W] 12" PEDESTRIAN SIGNAL SECTION
 - [C] CONTROLLER CABINET
 - [S] SERVICE INSTALLATION
 - [V] VEHICLE DETECTOR, INDUCTION LOOP
 - [P] PUSHBUTTON DETECTOR
 - (2) DENOTES NUMBER OF CONDUCTORS (NEW). ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 14 EXCEPT AS INDICATED.
 - (2) INDICATES EXISTING CABLE
 - [P] SIGNAL FACE WITH BACKPLATE
 - "P" INDICATES PROGRAMMED FACE
 - "L" INDICATES LOUVERED LENS
 - [D] OPTICAL DETECTOR
 - [R] EXISTING SIGNAL SECTION
 - [E] EMERGENCY VEHICLE LIGHT DETECTOR CONFIRMATION BEACON RELOCATED
 - "R"

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

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 QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	236
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	236
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

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

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135		0.50	810.00
(YELLOW)	12	135		0.25	405.00
(GREEN)	12	135		0.25	405.00
ARROW	8	135		0.10	108.00
PED. SIGNAL	8	90		1.00	720.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN	-	252		0.05	-
FLASHER	-			0.50	-
ENERGY COSTS TO: TOTAL =					2548.00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 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		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)

RALPH P. GROSS & SON, ASSOCS. INC.
 SURVEY AND CIVIL ENGINEERS CONSULTANTS
 VILLA PARK, ILL. 60181

REVISIONS

NAME	DATE
CBBEL	3/20/08

Illinois Department of Transportation
 CABLE PLAN
 PHASE DESIGNATION DIAGRAM
 SCHEDULE OF QUANTITIES
 ILL 50 (CICERO AV) & 99th ST.
 SCALE: NONE
 DATE: 1-8-90
 DRAWN BY: DMH
 CHECKED BY: LND

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.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

4" DIA. GALV. ST'L. PIPE, SCHEDULE 80 - TO BE FILLED W/ CONCRETE

FINISHED GRADE LINE

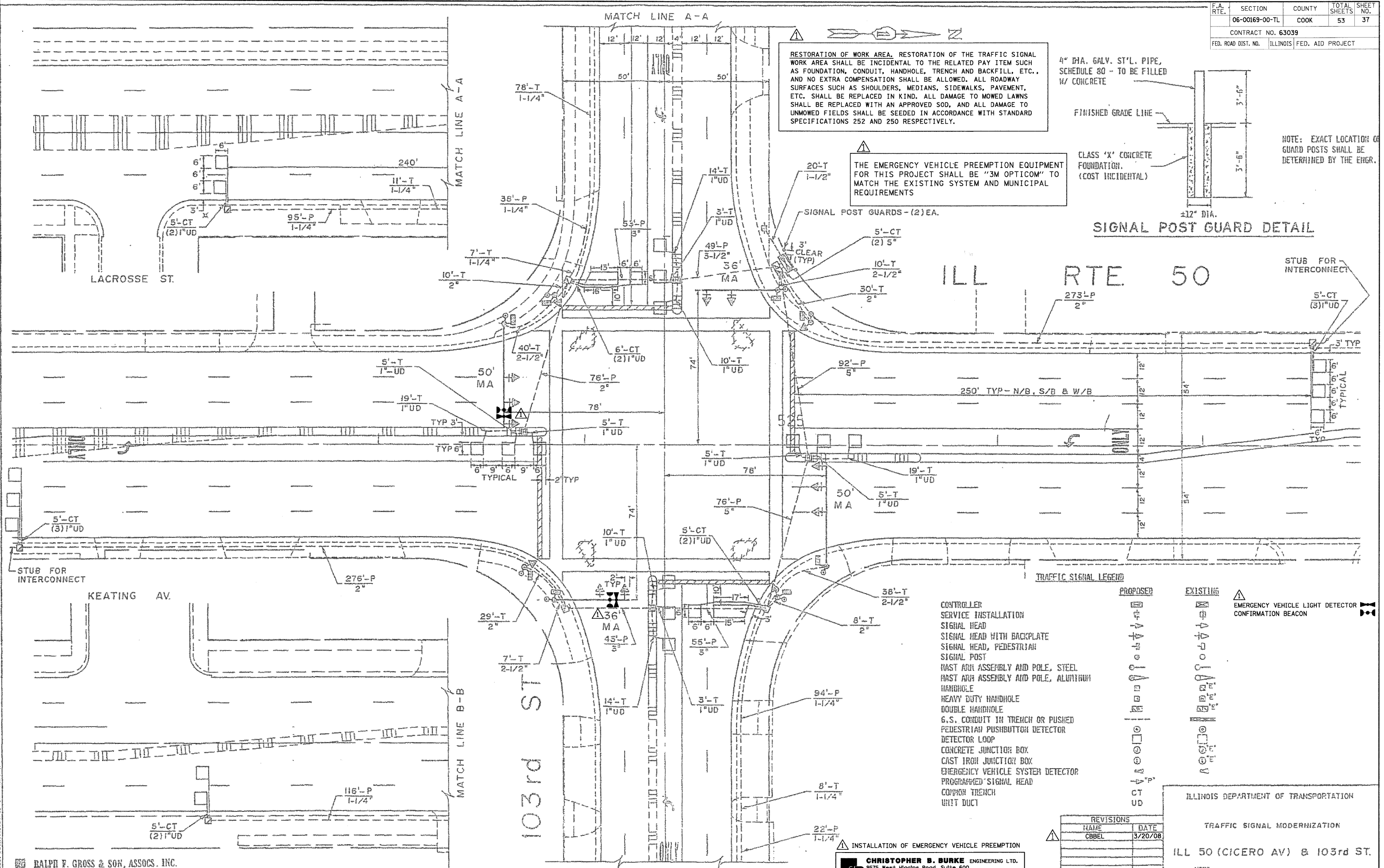
CLASS 'X' CONCRETE FOUNDATION. (COST INCIDENTAL)

NOTE: EXACT LOCATION OF GUARD POSTS SHALL BE DETERMINED BY THE ENGR.

SIGNAL POST GUARD DETAIL

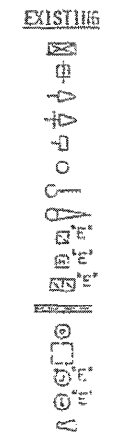
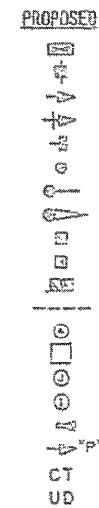
±12" DIA.

STUB FOR INTERCONNECT



TRAFFIC SIGNAL LEGEND

- | | | | |
|--------------------------------------|----------|----------------------------------|---------------------|
| PROPOSED | EXISTING | EMERGENCY VEHICLE LIGHT DETECTOR | CONFIRMATION BEACON |
| CONTROLLER | | | |
| SERVICE INSTALLATION | | | |
| SIGNAL HEAD | | | |
| SIGNAL HEAD WITH BACKPLATE | | | |
| SIGNAL HEAD, PEDESTRIAN | | | |
| SIGNAL POST | | | |
| HAST ARM ASSEMBLY AND POLE, STEEL | | | |
| HAST ARM ASSEMBLY AND POLE, ALUMINUM | | | |
| 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 | | | |
| EMERGENCY VEHICLE SYSTEM DETECTOR | | | |
| PROGRAMMED SIGNAL HEAD | | | |
| COMMON TRENCH | | | |
| UNIT DUCT | | | |



ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION

ILL 50 (CICERO AV) & 103rd ST.

SCALE: VERT. 1"=20'
HORIZ. 1"=80'

DATE 1-8-80
DRAWN BY DMH
DESIGNED BY DMH
CHECKED BY LMD

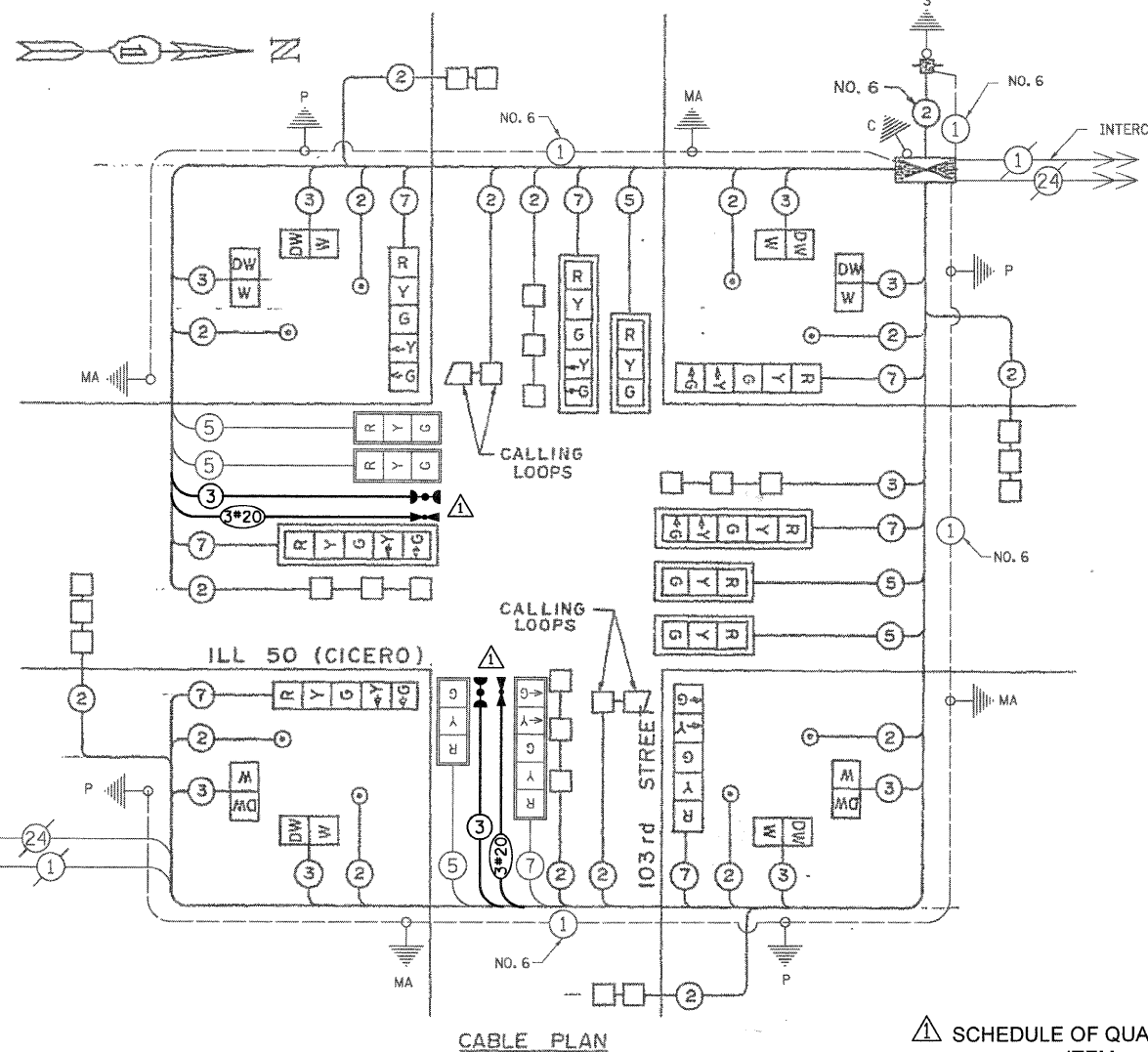
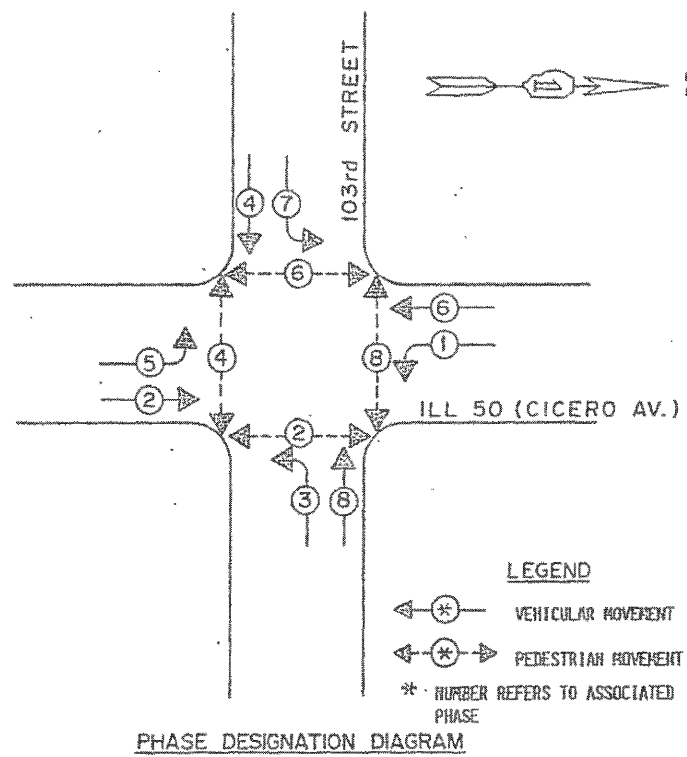
REVISIONS	
NAME	DATE
CBEL	3/20/08

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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

CONTROLLER SEQUENCE IV

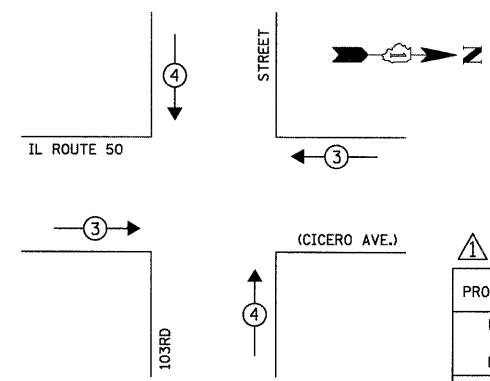
REFERRING TO STANDARD 2393-1, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



- 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
 - 2 DENOTES NUMBER OF CONDUCTORS (HEW). ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 14 EXCEPT AS INDICATED.
 - 2 INDICATES EXISTING CABLE
 - "P" SIGNAL FACE WITH BACKPLATE
 - "L" "P" INDICATES PROGRAMMED FACE
 - "L" "L" INDICATES LOUVERED LENS
 - OPTICAL DETECTOR
 - EXISTING SIGNAL SECTION
 - EMERGENCY VEHICLE LIGHT DETECTOR CONFIRMATION BEACON

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.

EMERGENCY VEHICLE PREEMPTION SEQUENCE



THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	620
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	620
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

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

TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		X INCAND.	LED		
SIGNAL (RED)	14	135		0.50	945.00
(YELLOW)	14	135		0.25	472.50
(GREEN)	14	135		0.25	472.50
ARROW	16	135		0.10	216.00
PED. SIGNAL	8	90		1.00	720.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN	-	252		0.05	-
FLASHER	-			0.50	-

ENERGY COSTS TO: TOTAL = 2926.00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 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'H-2=
E - M. ARM POLE		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)

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION
CHRISTOPHER B. BURKE ENGINEERING LTD.
 2575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

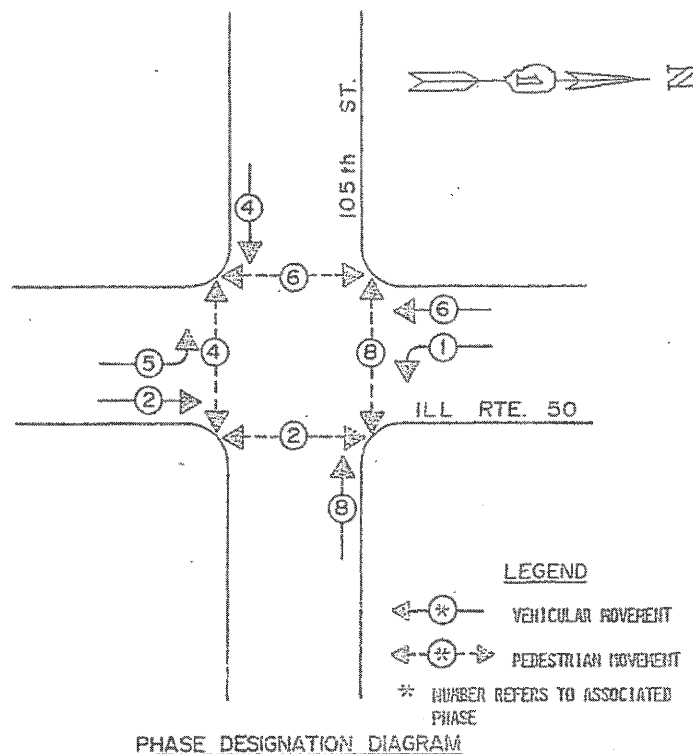
Illinois Department of Transportation
 CABLE PLAN
 PHASE DESIGNATION DIAGRAM
 SCHEDULE OF QUANTITIES
 ILL 50 (CICERO AV) & 103rd ST.
 SCALE: NONE
 DATE: 1-8-90
 DRAWN BY: DMH
 DESIGNED BY: DMH
 CHECKED BY: LHD

REVISIONS

NAME	DATE
CBBEL	3/20/08

CONTROLLER SEQUENCE IV

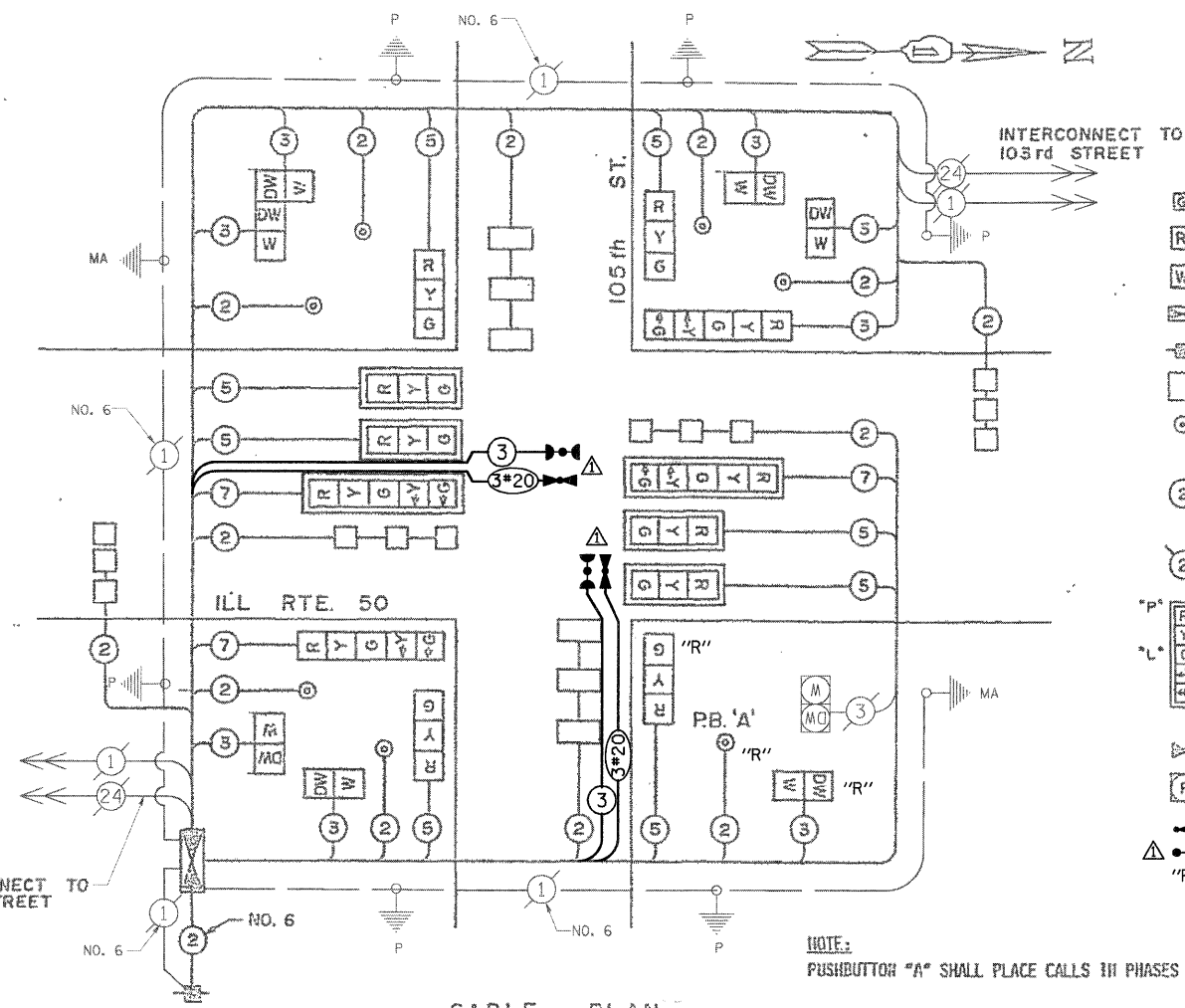
REFERRING TO STANDARD 2393-L, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



LEGEND

- ←*→ VEHICULAR MOVEMENT
- ←*→ PEDESTRIAN MOVEMENT
- * NUMBER REFERS TO ASSOCIATED PHASE

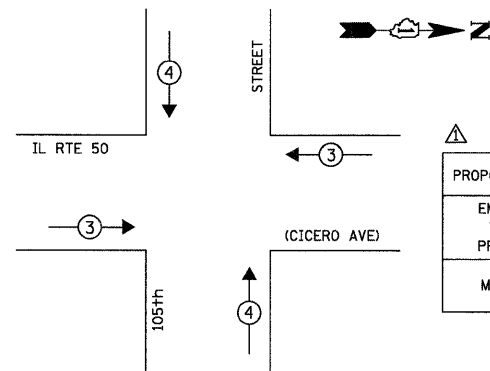
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL 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.



- #### 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 (NEW). ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 14 EXCEPT AS INDICATED.
 - Ⓜ INDICATES EXISTING CABLE
 - Ⓜ SIGNAL FACE WITH BACKPLATE
 - "P" INDICATES PROGRAMMED FACE
 - "L" INDICATES LOWERED LENS
 - Ⓜ OPTICAL DETECTOR
 - Ⓜ EXISTING SIGNAL SECTION
 - Ⓜ EMERGENCY VEHICLE LIGHT DETECTOR
 - Ⓜ CONFIRMATION BEACON
 - "R" RELOCATED

NOTE: PUSHBUTTON "A" SHALL PLACE CALLS IN PHASES 2 AND 8

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

CABLE PLAN

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	354
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	354
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 500
 Rosemont, Illinois 60018
 (847) 823-0500

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	135	0.50		810.00
(YELLOW)	12	135	0.25		405.00
(GREEN)	12	135	0.25		405.00
ARROW	8	135	0.10		108.00
PED. SIGNAL	8	90	1.00		720.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	252	0.05		-
FLASHER	-		0.50		-

ENERGY COSTS TO: TOTAL = 2548.00
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 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'-H-2"=
E - M. ARM POLE	10 (3.0)	SIGNAL POST	2 (1.0)	(6m-H-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)

REVISIONS	
NAME	DATE
CBBEL	3/20/08

Illinois Department of Transportation
 CABLE PLAN
 PHASE DESIGNATION DIAGRAM
 SCHEDULE OF QUANTITIES
 ILL 50 (CICERO AV) & 105th ST.
 SCALE: NONE
 DATE: 5-5-08
 DRAWN BY: DMH
 DESIGNED BY: DMH
 CHECKED BY: LHD

RALPH F. GROSS & SON, ASSOCS. INC.
 PROFESSIONAL AND CIVIL ENGINEERING CONSULTANTS
 VILLA PARK, ILL. 60181

4" DIA. GALV. ST'L. PIPE,
SCHEDULE 80 - TO BE FILLED
W/ CONCRETE

FINISHED GRADE LINE

CLASS 'X' CONCRETE
FOUNDATION.
(COST INCIDENTAL)

±12" DIA.

NOTE: EXACT LOCATION OF
GUARD POSTS SHALL BE
DETERMINED BY THE ENGR.

SIGNAL POST GUARD DETAIL

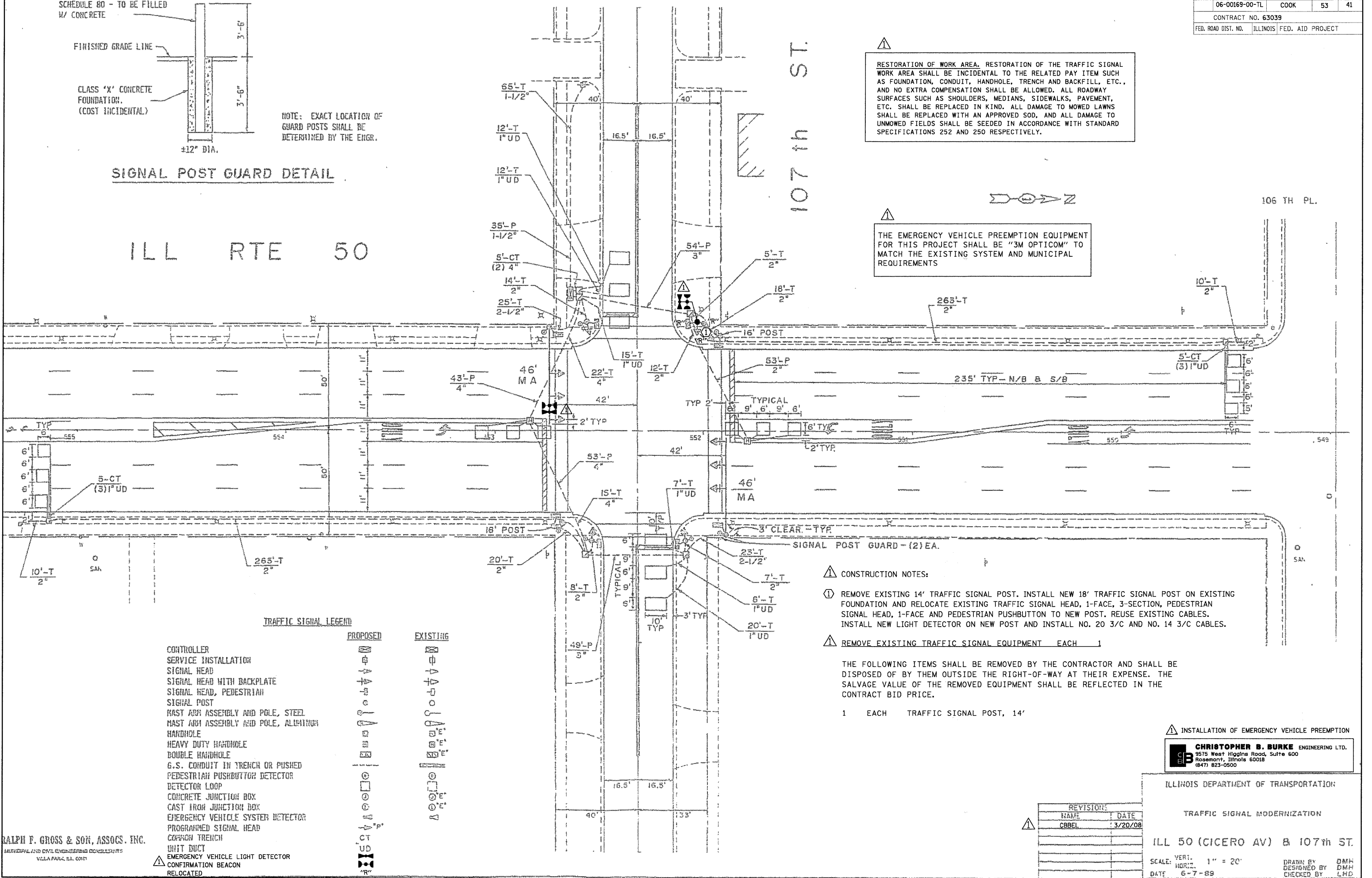
ILL RTE 50

107th ST.

106 TH. PL.

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.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS



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] |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | [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] |
| EMERGENCY VEHICLE SYSTEM DETECTOR | [Symbol] | [Symbol] |
| PROGRAMMED SIGNAL HEAD | [Symbol] | [Symbol] |
| COMMON TRENCH | [Symbol] | [Symbol] |
| UNIT DUCT | [Symbol] | [Symbol] |
| EMERGENCY VEHICLE LIGHT DETECTOR | [Symbol] | [Symbol] |
| CONFIRMATION BEACON | [Symbol] | [Symbol] |
| RELOCATED | [Symbol] | [Symbol] |

CONSTRUCTION NOTES:

- 1 REMOVE EXISTING 14' TRAFFIC SIGNAL POST. INSTALL NEW 18' TRAFFIC SIGNAL POST ON EXISTING FOUNDATION AND RELOCATE EXISTING TRAFFIC SIGNAL HEAD, 1-FACE, 3-SECTION, PEDESTRIAN SIGNAL HEAD, 1-FACE AND PEDESTRIAN PUSHBUTTON TO NEW POST. REUSE EXISTING CABLES. INSTALL NEW LIGHT DETECTOR ON NEW POST AND INSTALL NO. 20 3/C AND NO. 14 3/C CABLES.
- 2 REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH 1

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 TRAFFIC SIGNAL POST, 14'

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION

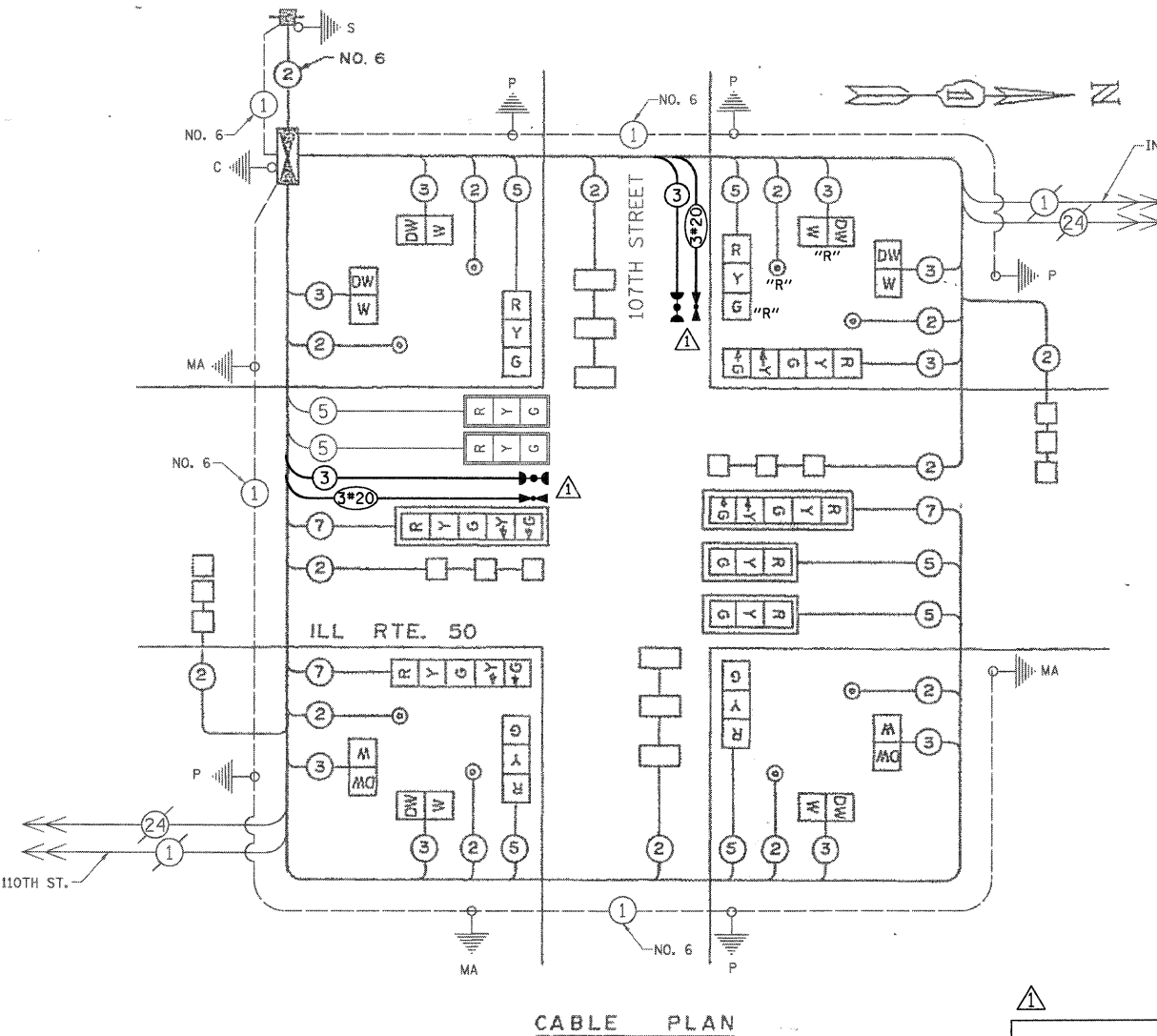
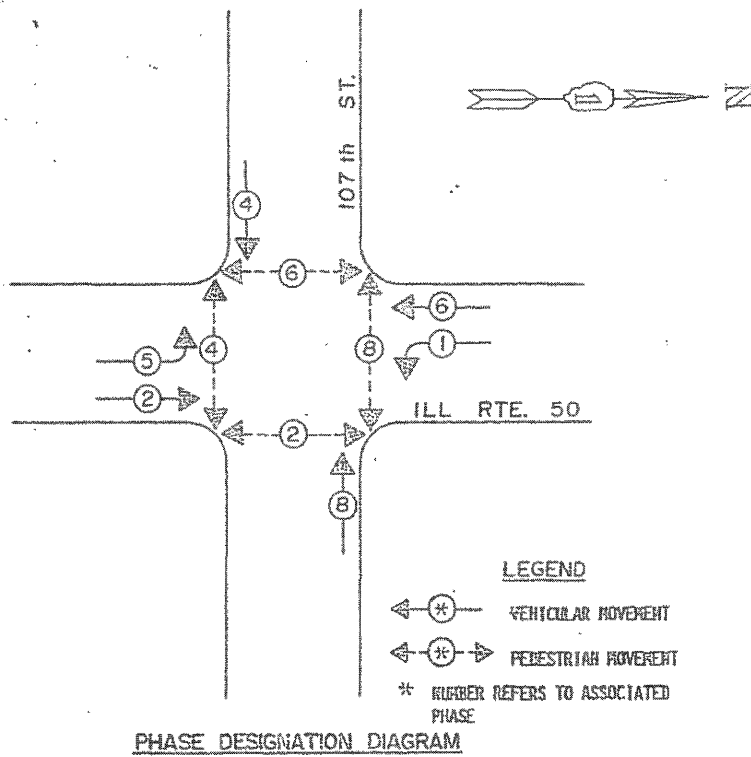
ILL 50 (CICERO AV) & 107th ST.

REVISIONS	
NAME	DATE
CBEL	3/20/08

SCALE: VERT. 1" = 20'
HORIZ. 1" = 20'
DATE: 6-7-89
DRAWN BY: DMH
DESIGNED BY: DMH
CHECKED BY: LHD

CONTROLLER SEQUENCE IV

REFERRING TO STANDARD 2393-1, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.

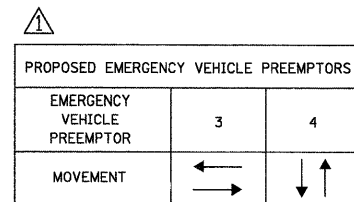
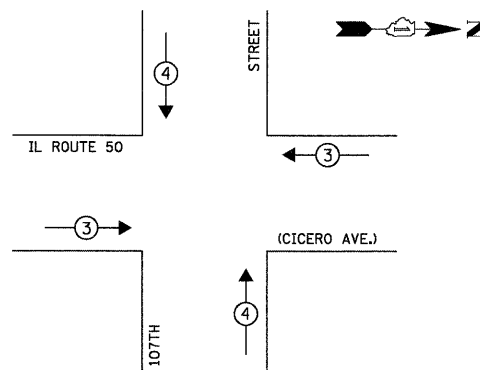


- CABLE PLAN LEGEND**
- 8" TRAFFIC SIGNAL SECTION
 - 12" TRAFFIC SIGNAL SECTION
 - 12" PEDESTRIAN SIGNAL SECTION
 - CONTROLLER CABINET
 - SERVICE INSTALLATION
 - VEHICLE DETECTOR, INDUCTION LOOP
 - PUSHBUTTON DETECTOR
 - DEROTES NUMBER OF CONDUCTORS (NEW). ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL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

INTERCONNECT TO 110TH ST.

INTERCONNECT TO 105TH ST.

EMERGENCY VEHICLE PREEMPTION SEQUENCE



SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	217
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	217
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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

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

TYPE	NO. OF LAMPS	WATTAGE	INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135			0.50	810.00
(YELLOW)	12	135			0.25	405.00
(GREEN)	12	135			0.25	405.00
ARROW	8	135			0.10	108.00
PED. SIGNAL	8	90			1.00	720.00
CONTROLLER	1	100			1.00	100.00
ILLUM. SIGN	-	252			0.05	-
FLASHER					0.50	-

ENERGY COSTS TO: TOTAL = 2548.00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 COMPANY: COMED

TYPE	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
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'=(6m+L-0.6m)
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

REVISIONS

NAME	DATE
CBBEL	3/20/08

Illinois Department of Transportation

CABLE PLAN
 PHASE DESIGNATION DIAGRAM
 SCHEDULE OF QUANTITIES

ILL 50 (CICERO AV) & 107th ST.

SCALE: NONE
 DATE: 6-7-89

DRAWN BY: DMH
 DESIGNED BY: DMH
 CHECKED BY: LHD

CONSTRUCTION NOTES:

① REMOVE EXISTING 16' TRAFFIC SIGNAL POST. INSTALL NEW 18' TRAFFIC SIGNAL POST ON EXISTING FOUNDATION AND RELOCATE EXISTING TRAFFIC SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, PEDESTRIAN SIGNAL HEAD, 2-FACE AND PEDESTRIAN PUSHBUTTON TO NEW POST. REUSE EXISTING CABLES. INSTALL NEW LIGHT DETECTOR ON NEW POST AND INSTALL NO. 20 3/C AND NO. 14 3/C CABLES.

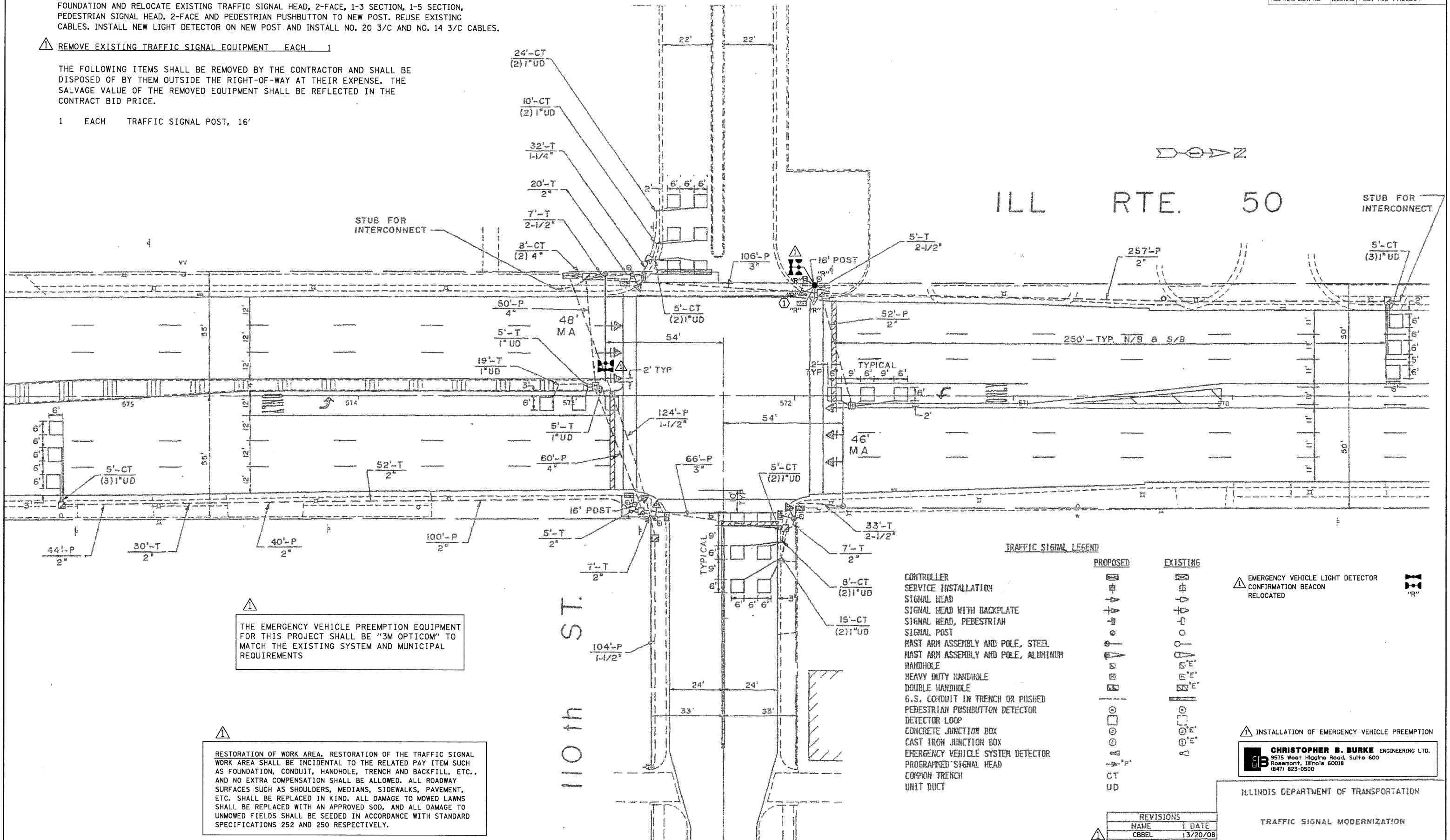
① REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT EACH 1

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 TRAFFIC SIGNAL POST, 16'

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00169-00-TL	COOK	53	43
CONTRACT NO. 63039				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SHOPPING MALL ENTRANCE



① THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

① 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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]	
FAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]	
FAST ARM ASSEMBLY AND POLE, ALUMINUM	[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]	
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]	
PROGRAMMED SIGNAL HEAD	[Symbol]	[Symbol]	
COMMON TRENCH	[Symbol]	[Symbol]	
UNIT DUCT	[Symbol]	[Symbol]	
EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]	[Symbol]	
CONFIRMATION BEACON	[Symbol]	[Symbol]	
RELOCATED	[Symbol]	[Symbol]	
INSTALLATION OF EMERGENCY VEHICLE PREEMPTION	[Symbol]	[Symbol]	

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC SIGNAL MODERNIZATION

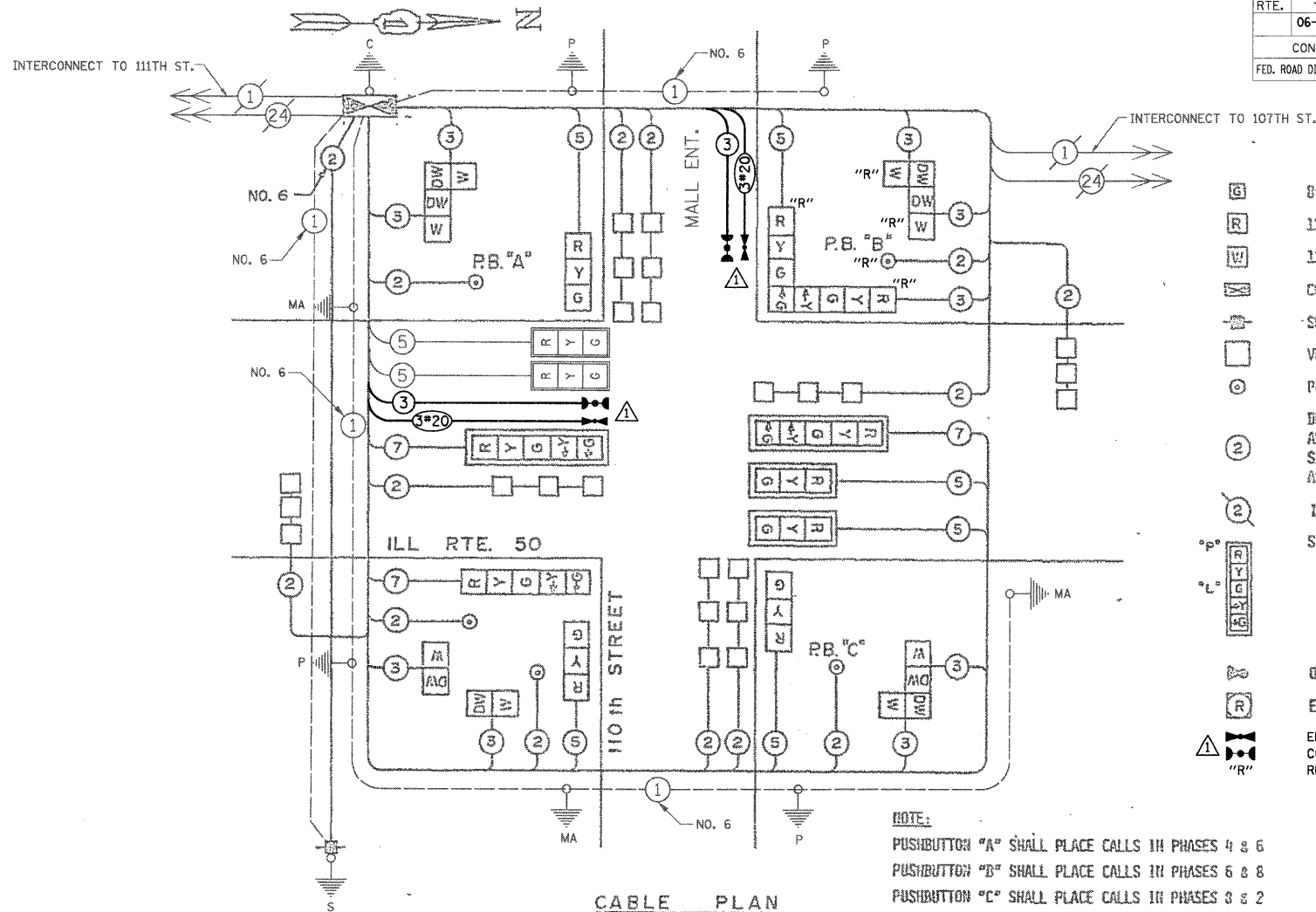
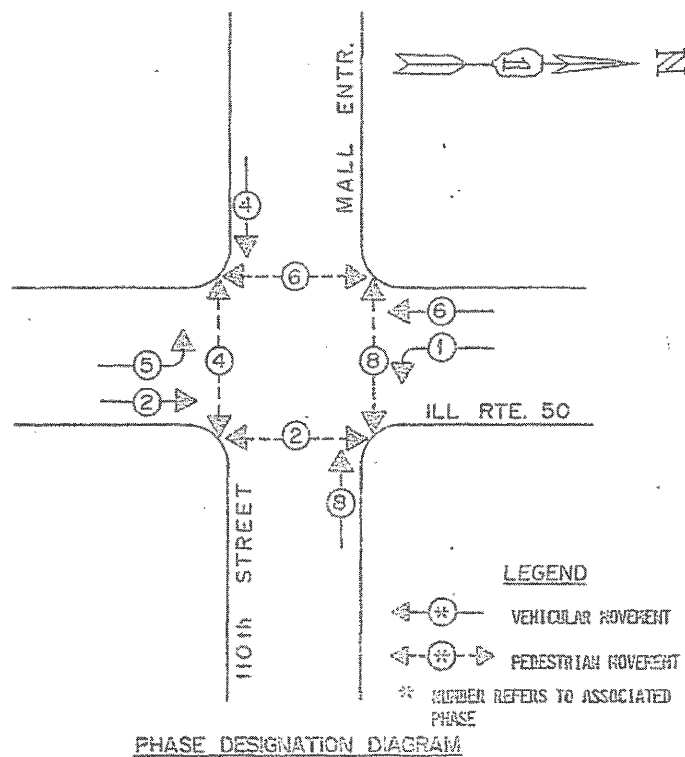
ILL 50 (CICERO AV) & 110th ST.

REVISIONS	
NAME	DATE
CBBEL	3/20/08

SCALE: VERT. 1" = 20'
 HORIZ. 1" = 80'
 DATE 1-8-90
 DRAWN BY DMH
 DESIGNED BY DMH
 CHECKED BY LWD

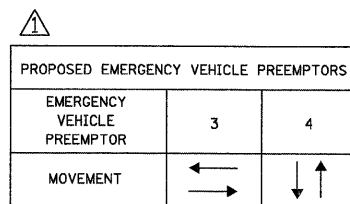
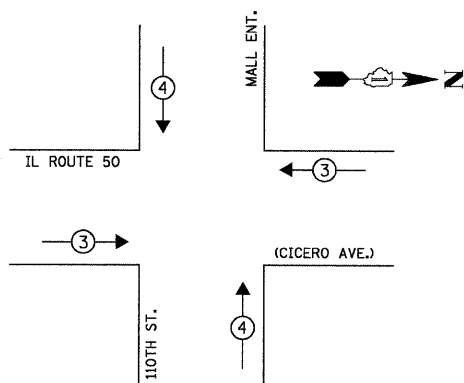
CONTROLLER SEQUENCE IV

REFERRING TO STANDARD 2393-1, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



- 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
 - 2 DENOTES NUMBER OF CONDUCTORS (NEW). ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. 14 EXCEPT AS INDICATED.
 - 2 INDICATES EXISTING CABLE
 - ⊕ SIGNAL FACE WITH BACKPLATE
 - "P" INDICATES PROGRESSIVE FACE
 - "L" INDICATES LOWERED LENS
 - ⊕ OPTICAL DETECTOR
 - ⊕ EXISTING SIGNAL SECTION
 - ⊕ EMERGENCY VEHICLE LIGHT DETECTOR CONFIRMATION BEACON RELOCATED

EMERGENCY VEHICLE PREEMPTION SEQUENCE



SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	259
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	1
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	259
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

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 SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	135		0.50	810.00
(YELLOW)	12	135		0.25	405.00
(GREEN)	12	135		0.25	405.00
ARROW	8	135		0.10	108.00
PED. SIGNAL	8	90		1.00	720.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN	-	252		0.05	-
FLASHER				0.50	-

ENERGY COSTS TO: TOTAL = 2548.00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY: CONTACT: MILTON RAY
 PHONE: (708) 235-2315
 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	2 (1.0)	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)

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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

Illinois Department of Transportation
 CABLE PLAN
 PHASE DESIGNATION DIAGRAM
 SCHEDULE OF QUANTITIES

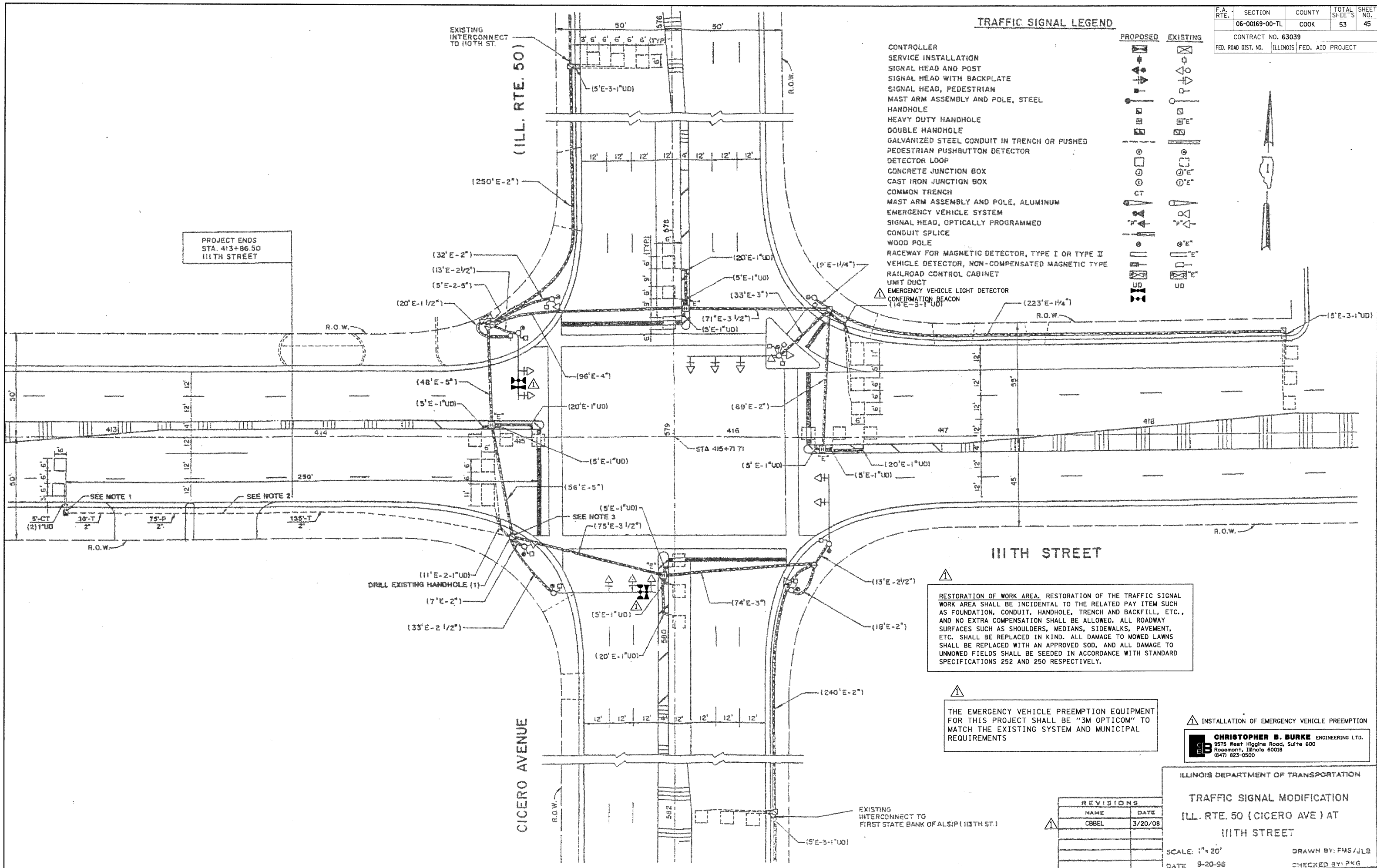
ILL 50 (CICERO AV) & 110th ST.
 SCALE: NONE
 DATE: 1-8-90
 DRAWN BY: DMH
 DESIGNED BY: DMH
 CHECKED BY: LHD

REVISIONS

NAME	DATE
CBBEL	3/20/08

TRAFFIC SIGNAL LEGEND

- | | | |
|--|----------|----------|
| | PROPOSED | EXISTING |
| 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 | | |
| CONCRETE JUNCTION BOX | | |
| CAST IRON JUNCTION BOX | | |
| COMMON TRENCH | | |
| MAST ARM ASSEMBLY AND POLE, ALUMINUM | | |
| EMERGENCY VEHICLE SYSTEM | | |
| 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 | | |
| UNIT DUCT | | |
| EMERGENCY VEHICLE LIGHT DETECTOR | | |
| CONFIRMATION BEACON | | |



PROJECT ENDS
STA. 413+86.50
111TH STREET

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.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

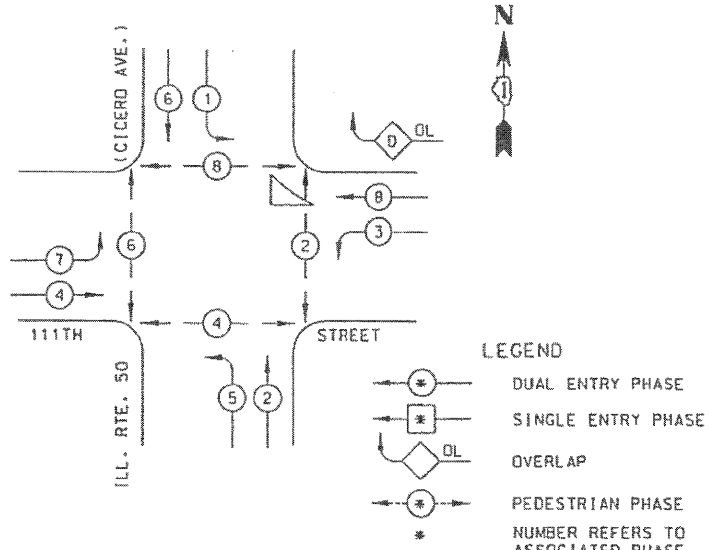
INSTALLATION OF EMERGENCY VEHICLE PREEMPTION
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC SIGNAL MODIFICATION
 ILL. RTE. 50 (CICERO AVE) AT
 111TH STREET

REVISIONS	
NAME	DATE
CBBEL	3/20/08

SCALE: 1" = 20'
 DATE: 9-20-96
 DRAWN BY: FMS/JLB
 CHECKED BY: PKG

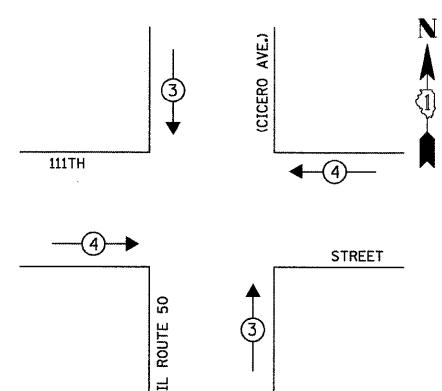
CONTROLLER SEQUENCE



EXISTING AND PROPOSED PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D = 8	+ 1	- 8

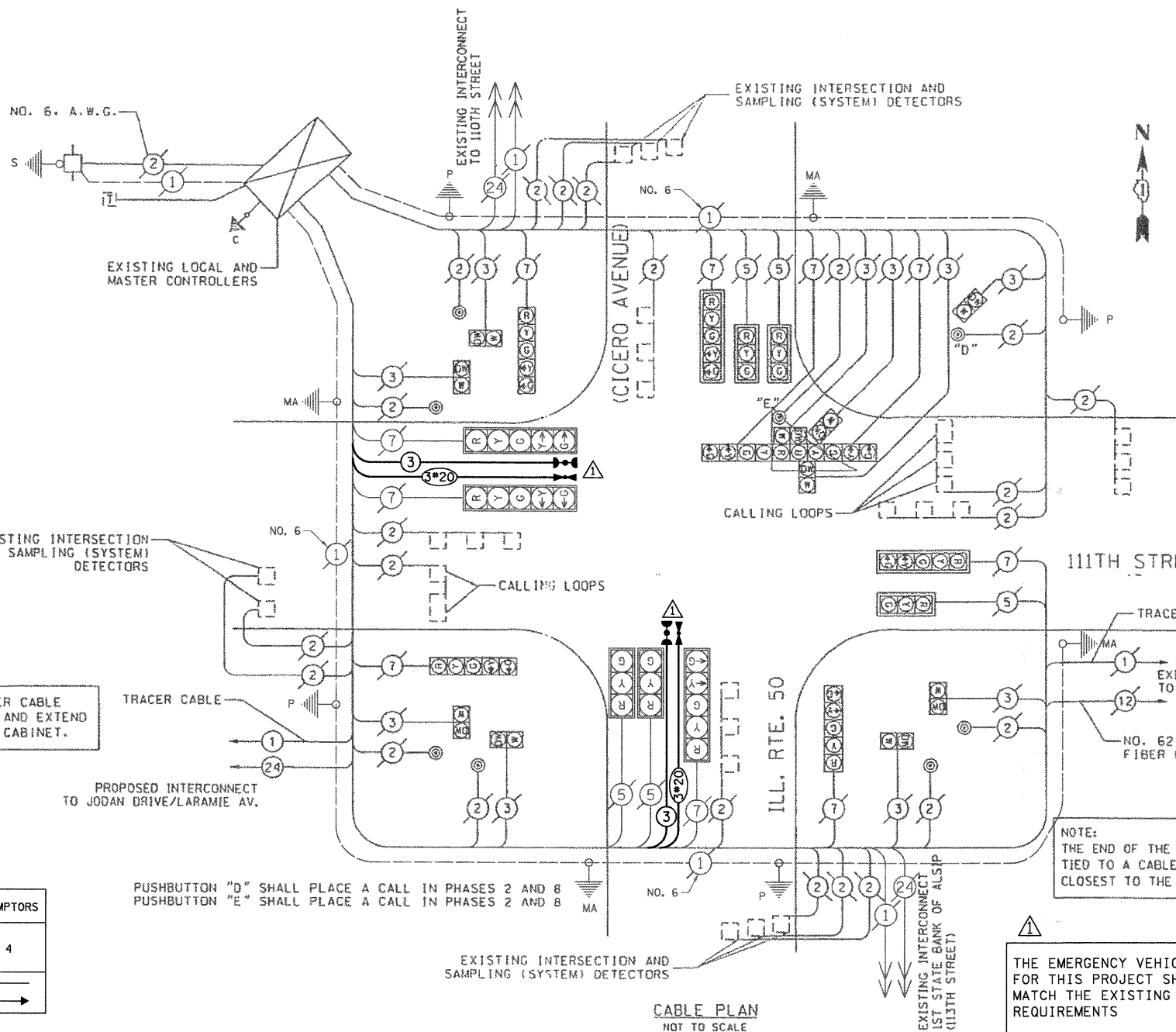
EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

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

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



CABLE PLAN NOT TO SCALE

CABLE PLAN LEGEND

- EXISTING: [Symbol] 8" (200mm) TRAFFIC SIGNAL SECTION
- EXISTING: [Symbol] 12" (300mm) TRAFFIC SIGNAL SECTION
- EXISTING: [Symbol] 12" (300mm) PEDESTRIAN SIGNAL SECTION
- EXISTING: [Symbol] 12" (300mm) PEDESTRIAN SIGNAL SECTION
- EXISTING: [Symbol] CONTROLLER CABINET
- EXISTING: [Symbol] SERVICE INSTALLATION
- EXISTING: [Symbol] TELEPHONE CONNECTION
- EXISTING: [Symbol] MAGNETIC DETECTOR
- EXISTING: [Symbol] EMERGENCY VEHICLE LIGHT DETECTOR
- EXISTING: [Symbol] CONFIRMATION BEACON
- EXISTING: [Symbol] PUSHBUTTON DETECTOR
- EXISTING: [Symbol] VEHICLE DETECTOR, INDUCTION LOOP
- EXISTING: [Symbol] DENOTES NUMBER OF CONDUCTORS, ALL CABLE 1/4" EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- EXISTING: [Symbol] MICROWAVE VEHICLE SENSOR
- EXISTING: [Symbol] SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
- EXISTING: [Symbol] RAILROAD CONTROL CABINET
- EXISTING: [Symbol] ILLUMINATED SIGN "NO LEFT TURN"
- EXISTING: [Symbol] ILLUMINATED SIGN "NO RIGHT TURN"
- EXISTING: [Symbol] GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C).
- EXISTING: [Symbol] GROUND ROD AT POST (P), OR MAST ARM POLE (MA).
- EXISTING: [Symbol] GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- EXISTING: [Symbol] GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
- EXISTING: [Symbol] FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
- PROPOSED: [Symbol] 8" (200mm) TRAFFIC SIGNAL SECTION
- PROPOSED: [Symbol] 12" (300mm) TRAFFIC SIGNAL SECTION
- PROPOSED: [Symbol] 12" (300mm) PEDESTRIAN SIGNAL SECTION
- PROPOSED: [Symbol] 12" (300mm) PEDESTRIAN SIGNAL SECTION
- PROPOSED: [Symbol] CONTROLLER CABINET
- PROPOSED: [Symbol] SERVICE INSTALLATION
- PROPOSED: [Symbol] TELEPHONE CONNECTION
- PROPOSED: [Symbol] MAGNETIC DETECTOR
- PROPOSED: [Symbol] EMERGENCY VEHICLE LIGHT DETECTOR
- PROPOSED: [Symbol] CONFIRMATION BEACON
- PROPOSED: [Symbol] PUSHBUTTON DETECTOR
- PROPOSED: [Symbol] VEHICLE DETECTOR, INDUCTION LOOP
- PROPOSED: [Symbol] DENOTES NUMBER OF CONDUCTORS, ALL CABLE 1/4" EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- PROPOSED: [Symbol] MICROWAVE VEHICLE SENSOR
- PROPOSED: [Symbol] SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
- PROPOSED: [Symbol] RAILROAD CONTROL CABINET
- PROPOSED: [Symbol] ILLUMINATED SIGN "NO LEFT TURN"
- PROPOSED: [Symbol] ILLUMINATED SIGN "NO RIGHT TURN"
- PROPOSED: [Symbol] GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C).
- PROPOSED: [Symbol] GROUND ROD AT POST (P), OR MAST ARM POLE (MA).
- PROPOSED: [Symbol] GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- PROPOSED: [Symbol] GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
- PROPOSED: [Symbol] FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F

NOTE: THE END OF THE TRACER CABLE SHALL BE TIED TO A CABLE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION

NOTE: THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	323
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	323
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1

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.

NOTE: THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONDLITE" TO MATCH THE EXISTING SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	15	135		0.50	1013
(YELLOW)	15	135		0.25	506
(GREEN)	15	135		0.25	506
ARROW	20	135		0.10	270
PED. SIGNAL	10	90		1.00	900
CONTROLLER	1	100		1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					3295

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'+L-2=
E - M. ARM POLE		SIGNAL POST	2 (0.0)	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	7 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.0)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.0)
				POST MOUNTED	7 (1.8)

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION
 201 W. CENTER ST.
 SCHAMBOURG, IL 60196

ENERGY SUPPLY: CONTACT: KEN YOUNG
 PHONE: 708-235-2328
 COMPANY: COM. ED.

INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

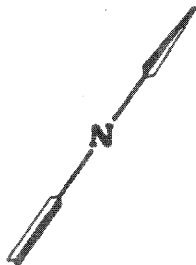
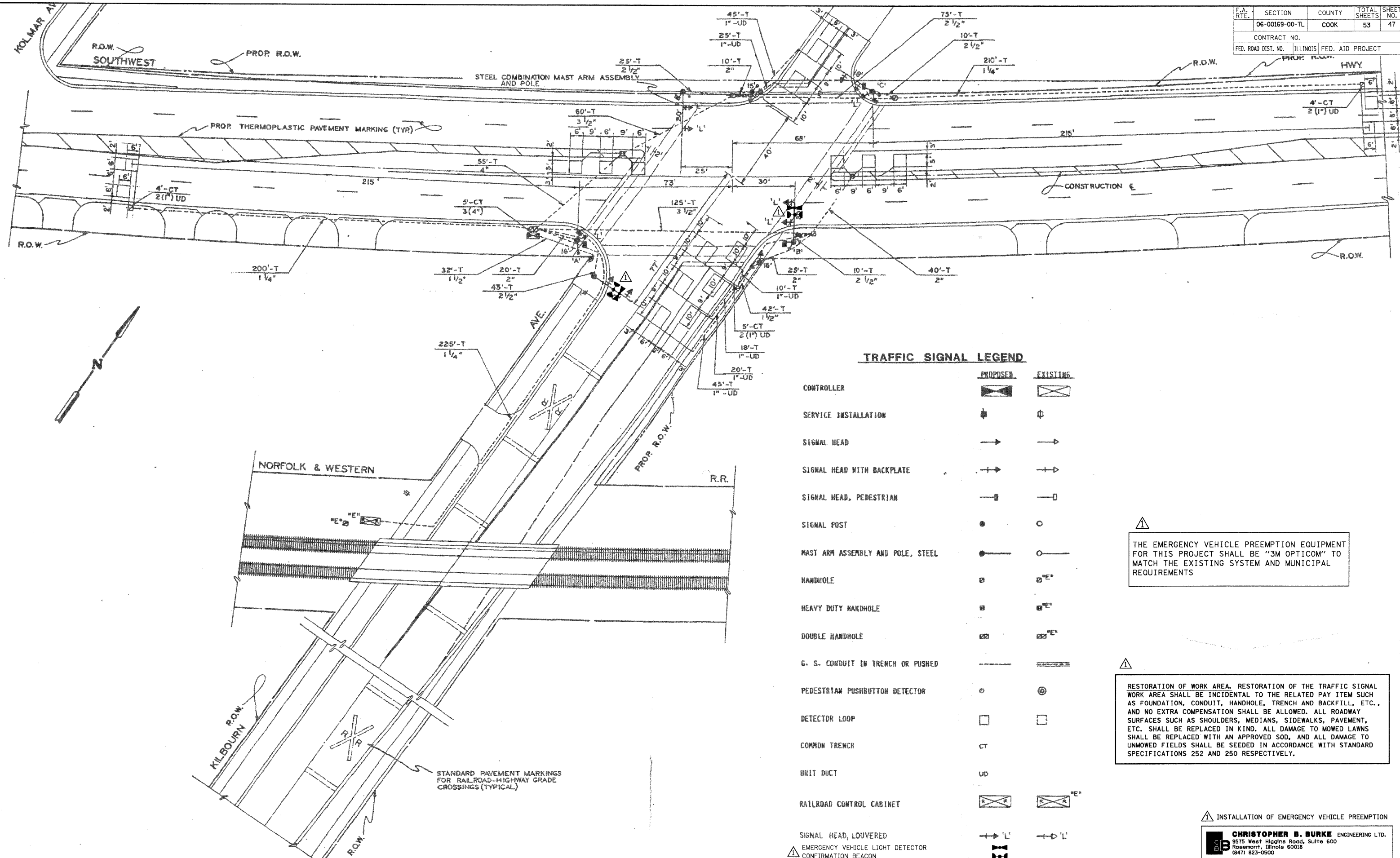
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

REVISIONS	
NAME	DATE
CBEL	3/20/08

ILLINOIS DEPARTMENT OF TRANSPORTATION
 CABLE PLAN, PHASE DESIGNATION
 DIAGRAM & SCHEDULE OF QUANTITIES
 ILL. RTE. 50 (CICERO AVE.) & 111TH STRE

SCALE: NONE
 DATE: 10/15/02

DRAWN BY: BCK
 DESIGNED BY: RKF
 CHECKED BY: DAD



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER		
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		
COMMON TRENCH		
UNIT DUCT		
RAILROAD CONTROL CABINET		
SIGNAL HEAD, LOUVERED		
EMERGENCY VEHICLE LIGHT DETECTOR CONFIRMATION BEACON		

▲ THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

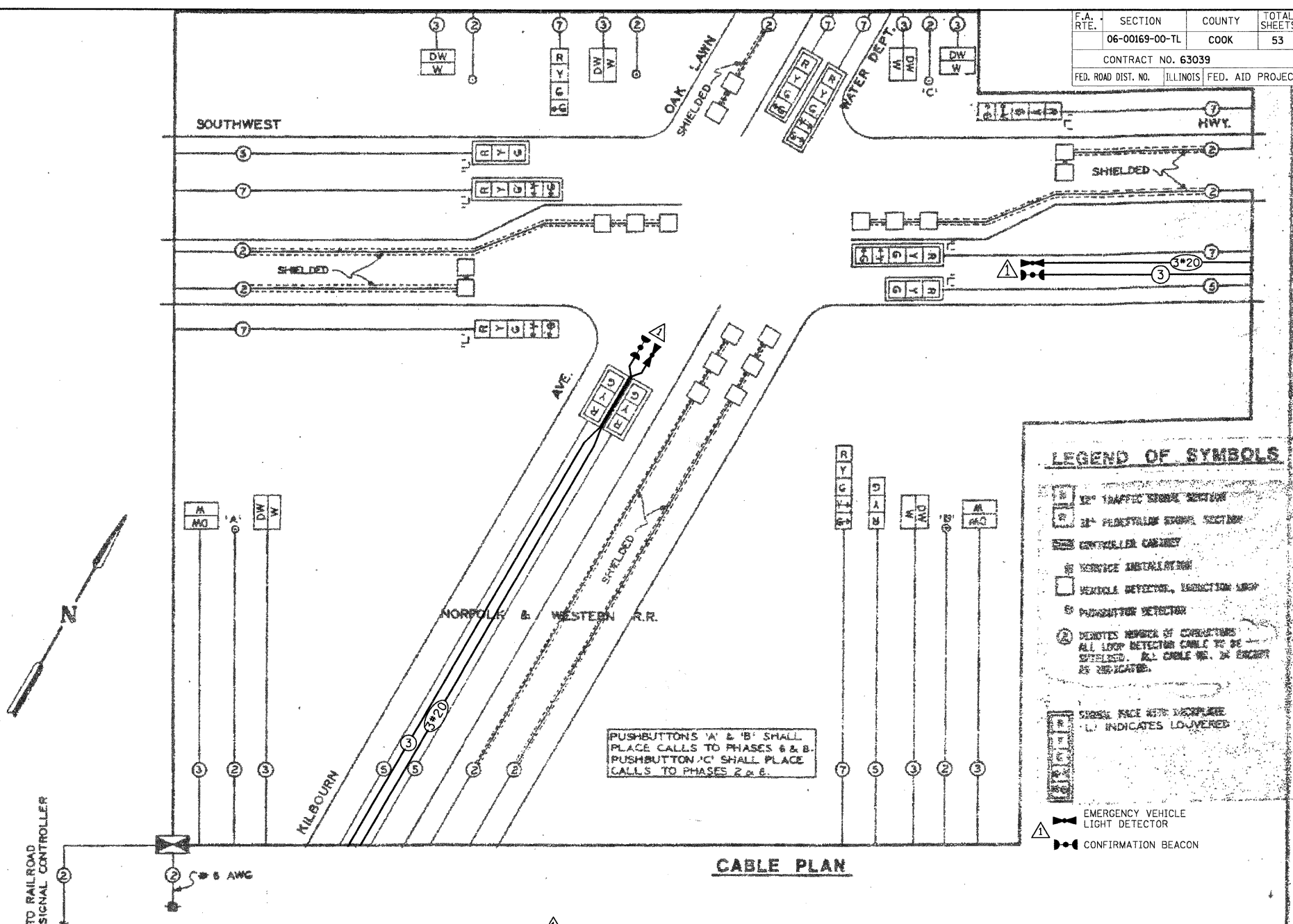
▲ RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. 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 SEEDD IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

▲ INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

△ SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	317
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	317
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	EACH	1



LEGEND OF SYMBOLS

- 12" TRAFFIC SIGNAL SECTION
- 24" FIBER OPTIC SIGNAL SECTION
- CONTROLLER CABINET
- SERVICE INSTALLATION
- VEHICLE DETECTOR, INDICATION LOOP
- PUSHBUTTON DETECTOR
- ② DENOTES NUMBER OF CONDUITS. ALL LOOP DETECTOR CABLE TO BE SHIELDED. ALL CABLE NO. TO BE INDICATED.
- SIGNAL FACE WITH MESSAGE (L) INDICATES LOWERED
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON

CABLE PLAN

△ THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

△ 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.

△

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	
		X INCAND.	LED		
SIGNAL (RED)	12	135		0.50	810.00
(YELLOW)	12	135		0.25	405.00
(GREEN)	12	135		0.25	405.00
ARROW	14	135		0.10	189.00
PED. SIGNAL	8	90		1.00	720.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN	-	252		0.05	-
FLASHER				0.50	-

ENERGY COSTS TO: TOTAL = 2629.00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAY/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY: CONTACT: _____
 PHONE: _____
 COMPANY: _____

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'-H-2=
E - M. ARM POLE		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)

△ INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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

N:\OakLawn\070732\Trf\offic\EMP_swhwy-kilbourn.dgn

SEQUENCE OF OPERATION

MOVEMENT	↑ N	5 →	← 1 ← OL	← 6 ← OL	5 →	← 2 ←	← 6 ←	← 4 ←	← 8 ←	F L A S H										
PHASE		1+5		1+6		2+5		2+6		4+8										
INTERVAL		1	2	3	4	5	6	7	8	9	10	11	12	13A	13B	14	15	16A	16B	
CHANGE TO			1+6	2+5	2+8	θ	θ	2+6	θ	θ	2+6			4+8					1+5 1+6 2+5 2+6	
SOUTHWEST HIGHWAY RIGHT MAST ARM SIGNAL	E/B	R	R	R	R	R	R	G	G	G	G	G	G	Y	R	R	R	R	R	
SOUTHWEST HIGHWAY END MAST ARM AND FAR LEFT SIGNALS	E/B	R	R	R	R	R	R	G	G	G	G	G	G	Y	R	R	R	R	R	
SOUTHWEST HIGHWAY RIGHT MAST ARM SIGNAL	W/B	R	R	R	R	G	G	G	G	R	R	R	G	Y	R	R	R	R	R	
SOUTHWEST HIGHWAY END MAST ARM AND FAR LEFT SIGNALS	W/B	R	R	R	R	G	G	G	G	R	R	R	G	Y	R	R	R	R	R	
KILBOURN AVENUE FAR RIGHT AND NEAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R
KILBOURN AVENUE END MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R
KILBOURN AVENUE ALL SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	R
PEDESTRIAN SIGNALS CROSSING KILBOURN AVENUE ON NORTH SIDE OF SOUTHWEST HIGHWAY	DW	DW	DW	DW	DW	**FL DW	DW	DW	DW	DW	*W	**FL DW	DW	DW	DW	DW	DW	DW	DW	
PEDESTRIAN SIGNALS CROSSING KILBOURN AVENUE ON SOUTH SIDE OF SOUTHWEST HIGHWAY	DW	DW	DW	DW	DW	DW	DW	*W	**FL DW	DW	*W	**FL DW	DW	DW	DW	DW	DW	DW	DW	
PEDESTRIAN SIGNALS CROSSING SOUTHWEST HIGHWAY ON EAST SIDE OF KILBOURN AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	*W	**FL DW	DW	DW	
PEDESTRIAN SIGNALS CROSSING SOUTHWEST HIGHWAY ON WEST SIDE OF KILBOURN AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	*W	**FL DW	DW	DW	

PHASE 2+6 SHALL BE PLACED ON RECALL

* TO APPEAR ONLY UPON PUSHBUTTON ACTUATION

** FLASHING "DON'T WALK" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.

θ THIS "WALK" OR FLASHING "DON'T WALK" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "WALK" OR FLASHING "DON'T WALK" INTERVALS.

W = "WALK"
FL = FLASHING "DON'T WALK"
DW = "DON'T WALK"



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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

RAILROAD PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	5	8	11	14	PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 2											
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER						2	3												
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	2	3	4	5	CLEAR TO NORMAL SEQUENCE	
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	2	1E	2	1G	2	1J	2	1L	2	1N	2	3	4	5			
SOUTHWEST HIGHWAY RIGHT MAST ARM SIGNAL	E/B	R	R	R	Y	R	Y	R	R	Y	R	R	R	R	R	R	R	G	△
SOUTHWEST HIGHWAY END MAST ARM AND FAR LEFT SIGNALS	E/B	R	R	R	Y	R	Y	R	R	Y	R	R	R	R	R	R	R	G	△
SOUTHWEST HIGHWAY RIGHT MAST ARM SIGNAL	W/B	R	Y	R	R	R	Y	R	R	Y	R	R	R	R	R	R	R	G	△
SOUTHWEST HIGHWAY END MAST ARM AND FAR LEFT SIGNALS	W/B	R	Y	R	R	R	Y	R	R	Y	R	R	R	R	R	R	R	G	△
KILBOURN AVENUE FAR RIGHT AND NEAR RIGHT SIGNALS	N/B	R	Y	R	R	R	Y	R	R	Y	R	R	R	R	R	R	R	G	△
KILBOURN AVENUE END MAST ARM AND FAR LEFT SIGNALS	N/B	R	Y	R	R	R	Y	R	R	Y	R	R	R	R	R	R	R	G	△
KILBOURN AVENUE ALL SIGNALS	S/B	R	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	R	R	△
PEDESTRIAN SIGNALS CROSSING KILBOURN AVENUE ON NORTH SIDE OF SOUTHWEST HIGHWAY	DW	FL DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	△
PEDESTRIAN SIGNALS CROSSING KILBOURN AVENUE ON SOUTH SIDE OF SOUTHWEST HIGHWAY	DW	DW	DW	FL DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	△
PEDESTRIAN SIGNALS CROSSING SOUTHWEST HIGHWAY ON EAST SIDE OF KILBOURN AVENUE	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	△
PEDESTRIAN SIGNALS CROSSING SOUTHWEST HIGHWAY ON WEST SIDE OF KILBOURN AVENUE	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	△

△ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.



THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE "3M OPTICOM" TO MATCH THE EXISTING SYSTEM AND MUNICIPAL REQUIREMENTS

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	5	5	8	8	11	11	14	14	PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4												
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	2	3	CLEAR TO NORMAL SEQUENCE	
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2 OR 3	1C	2	1E	1F	3	1H	2	1K	1L	3	2	1P	1Q	3	1S	1T	2	3				
SOUTHWEST HIGHWAY RIGHT MAST ARM SIGNAL	E/B	R	R	R	R	R	G	G	G	Y	R	G	G	Y	R	R	R	R	R	G	R	◇	
SOUTHWEST HIGHWAY END MAST ARM AND FAR LEFT SIGNALS	E/B	R	R	R	R	R	G	G	G	Y	R	G	G	Y	R	R	R	R	R	G	R	◇	
SOUTHWEST HIGHWAY RIGHT MAST ARM SIGNAL	W/B	R	G	G	G	Y	R	R	R	R	R	R	R	G	Y	R	R	R	R	G	R	◇	
SOUTHWEST HIGHWAY END MAST ARM AND FAR LEFT SIGNALS	W/B	R	G	G	G	Y	R	R	R	R	R	R	R	G	Y	R	R	R	R	G	R	◇	
KILBOURN AVENUE FAR RIGHT AND NEAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	◇
KILBOURN AVENUE END MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	◇
KILBOURN AVENUE ALL SIGNALS	S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	◇
PEDESTRIAN SIGNALS CROSSING KILBOURN AVENUE ON NORTH SIDE OF SOUTHWEST HIGHWAY	DW	FL DW	DW	FL DW	DW	DW	DW	DW	DW	DW	DW	FL DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇
PEDESTRIAN SIGNALS CROSSING KILBOURN AVENUE ON SOUTH SIDE OF SOUTHWEST HIGHWAY	DW	DW	DW	DW	DW	DW	FL DW	DW	FL DW	DW	DW	FL DW	FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇
PEDESTRIAN SIGNALS CROSSING SOUTHWEST HIGHWAY ON EAST SIDE OF KILBOURN AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	FL DW	DW	DW	DW	◇
PEDESTRIAN SIGNALS CROSSING SOUTHWEST HIGHWAY ON WEST SIDE OF KILBOURN AVENUE	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	FL DW	DW	DW	FL DW	DW	DW	DW	◇



EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER EMERGENCY VEHICLE INTERVAL 2 OR 3 IS TERMINATED.

△ INSTALLATION OF EMERGENCY VEHICLE PREEMPTION

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Rosemont, Illinois 60018
(847) 823-0500

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SEQUENCE OF OPERATION, RAILROAD
PREEMPTION SEQUENCE OF OPERATION AND
EMERGENCY VEHICLE PREEMPTION SEQUENCE

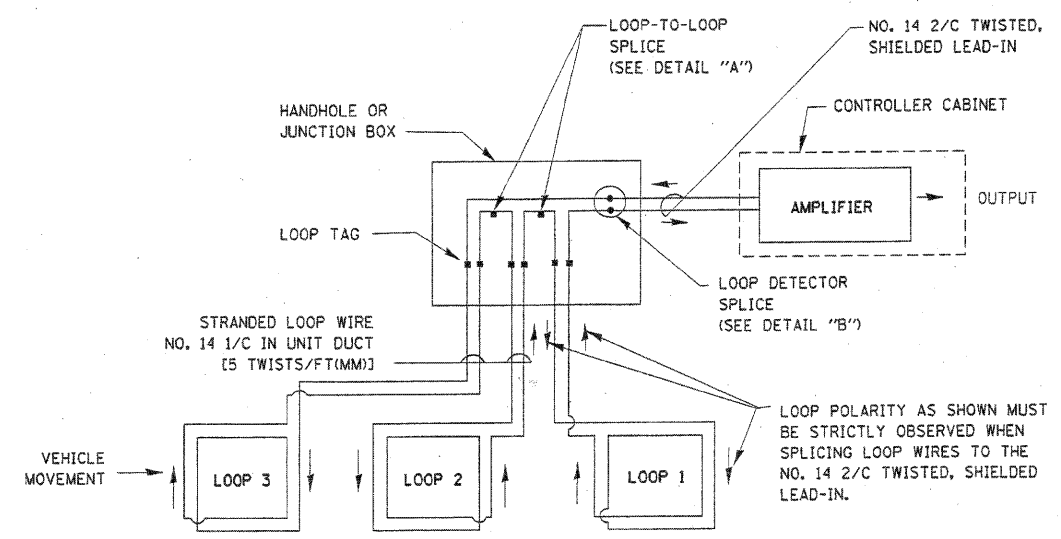
SOUTHWEST HIGHWAY AT KILBOURN AVENUE

SCALE N.T.S. DRAWN BY FN
DATE 3/20/08 CHECKED BY GMZ

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LOOP DETECTOR NOTES

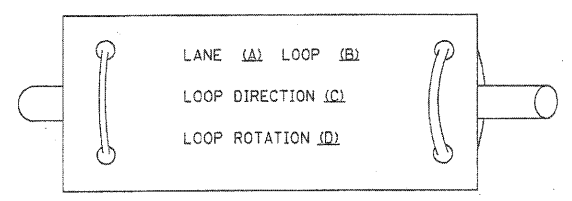
1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED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



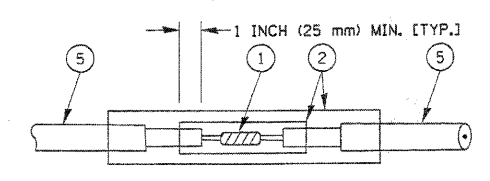
DETECTOR LOOP WIRING SCHEMATIC

- 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.

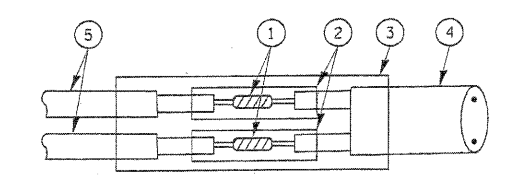
LOOP LEAD-IN CABLE TAG



- 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.



**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.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS**

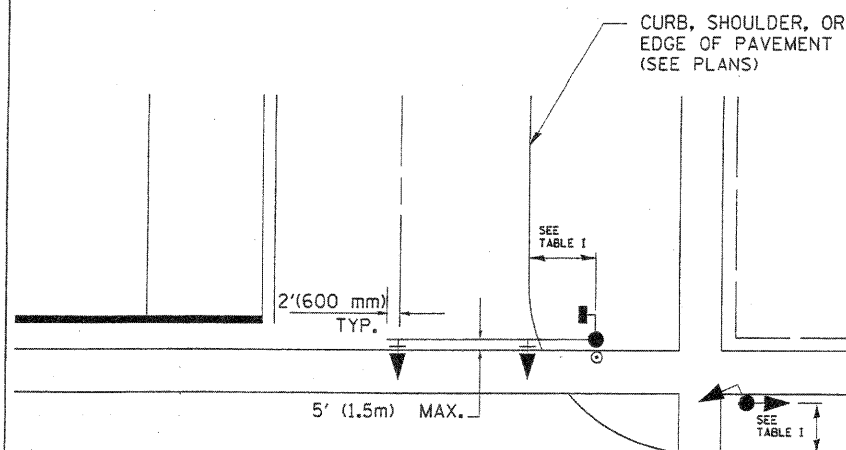
SCALE: VERT. NONE
HORIZ. NONE
DATE 1-01-02

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 1 OF 4

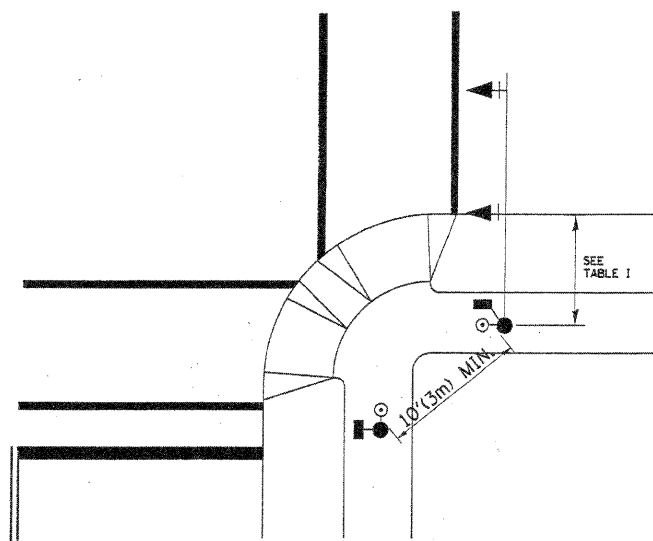
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00169-00-TL	COOK	53	51
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.

AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.

PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 - A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 - B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 - C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 - D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 - E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

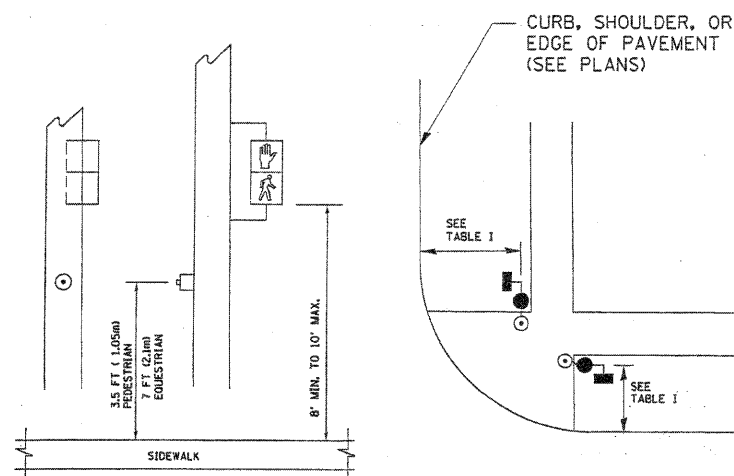


TABLE I

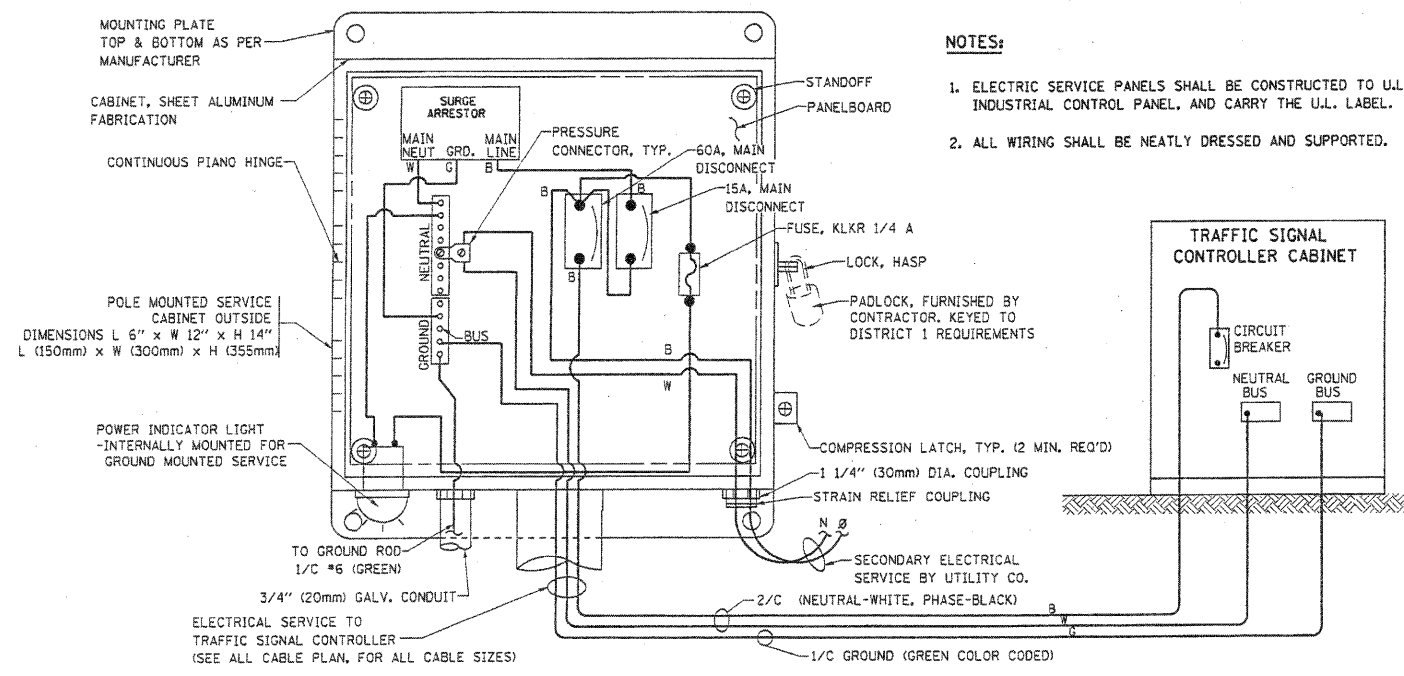
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

REVISIONS	
NAME	DATE

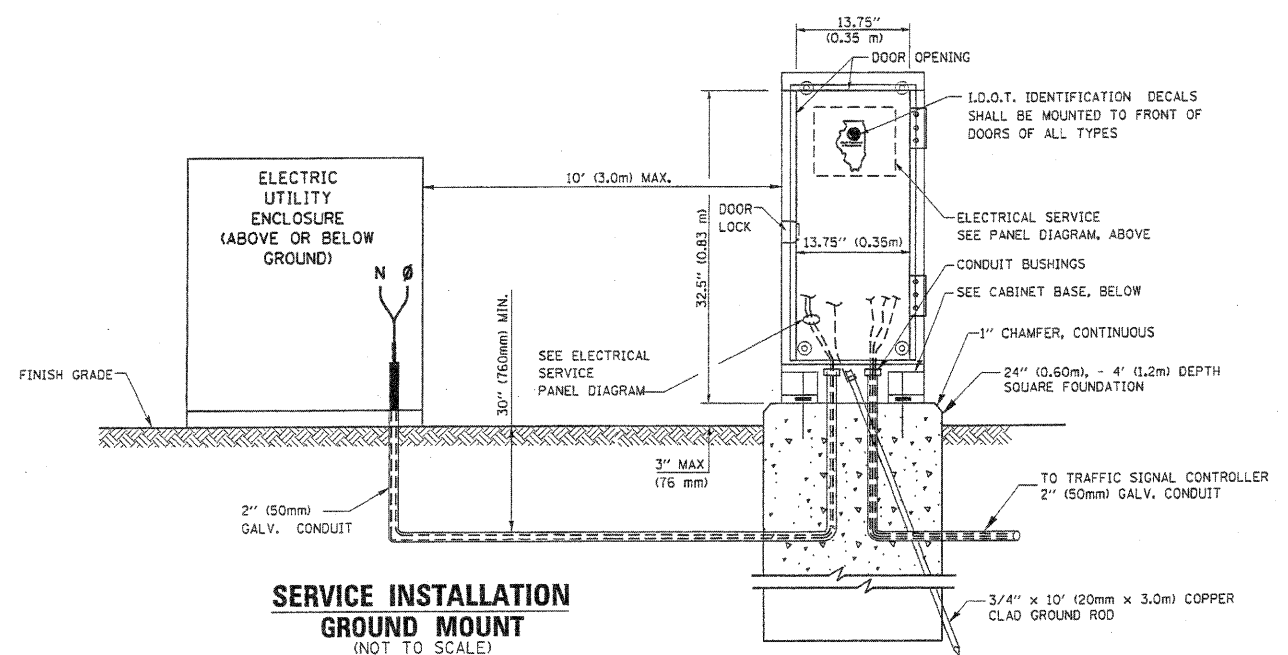
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: VERT. NONE
HORIZ. NONE
DATE 1-01-02
DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 2 OF 4

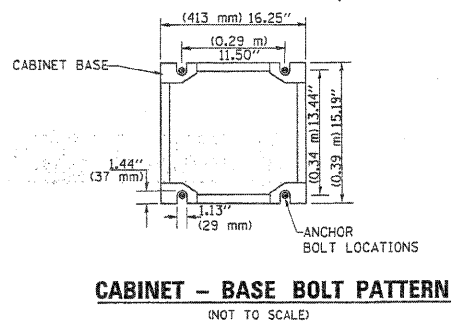
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00169-00-TL	COOK	53	52
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



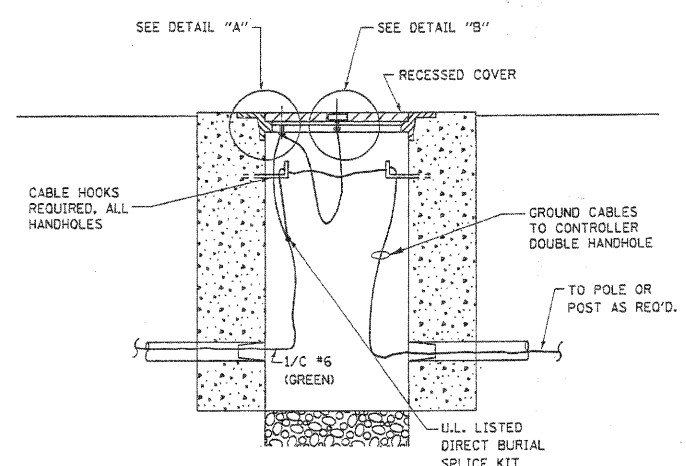
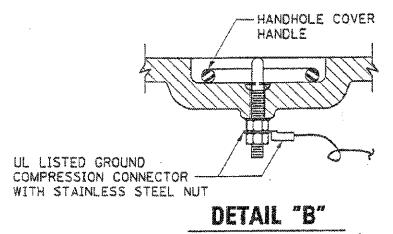
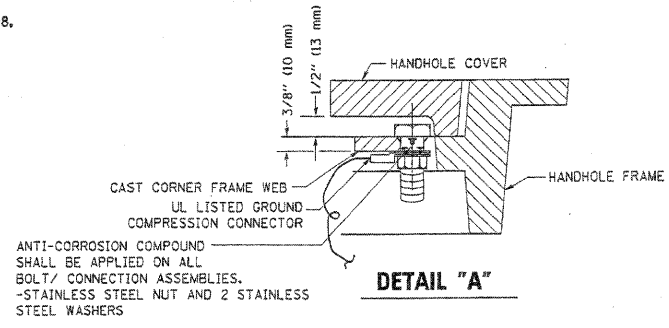
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)



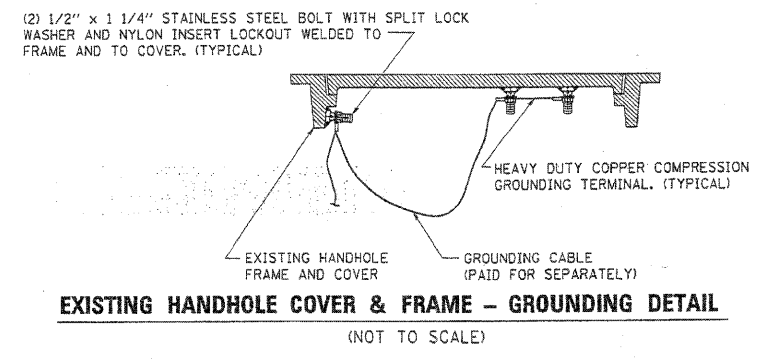
SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)



CABINET - BASE BOLT PATTERN (NOT TO SCALE)



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

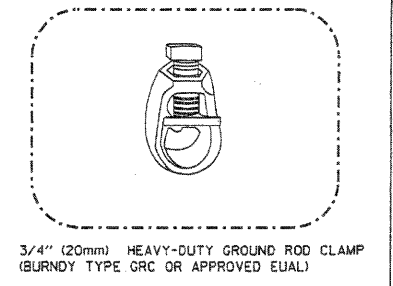
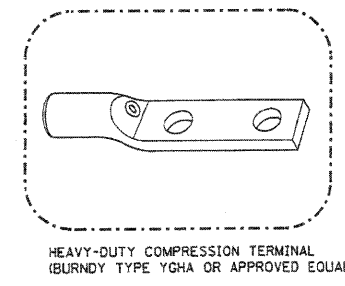


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)

NOTES:

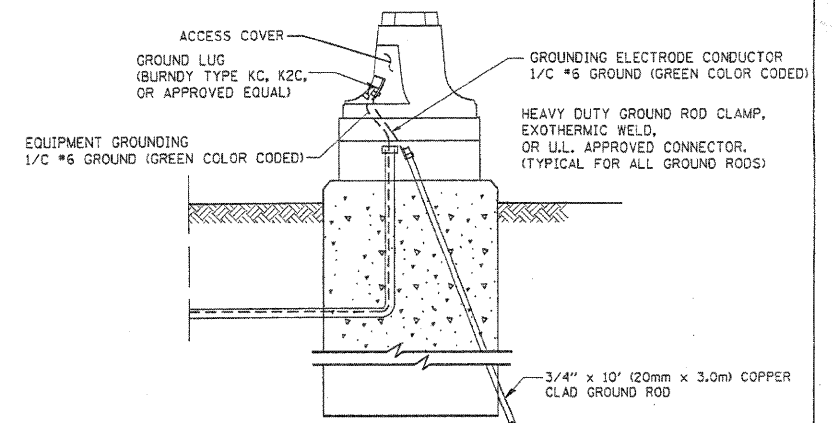
GROUNDING SYSTEM

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



NOTES:

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



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

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

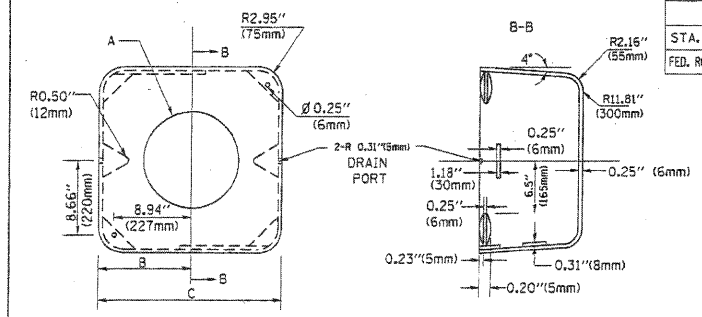
DISTRICT 1

STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: VERT. NONE
HORIZ. NONE
DATE 1-01-02

DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 3 OF 4

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00169-00-TL	COOK	53	53
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



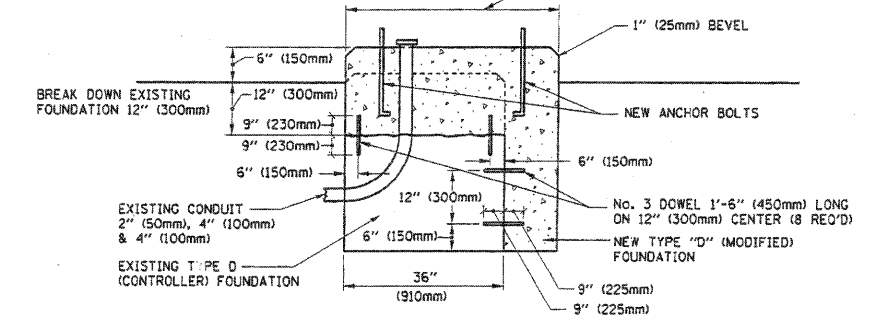
TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125" (257mm)	9.5" (241mm)	19" (483mm)	12" (300mm)	24kg
II	Ø 11.125" (283mm)	10.75" (273mm)	21.5" (546mm)	12" (300mm)	26kg

SHROUD DETAIL

MATERIAL:
 - ASTM A48 CLASS 30 GREY IRON
 - ASTM A123 HOT DIPPED GALVANIZED

NOTE:

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.

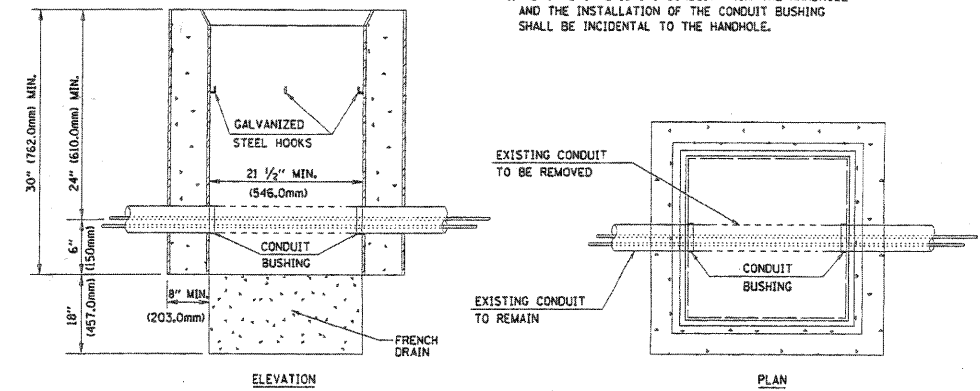


MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)

NOTES:

1. REMOVAL OF EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHING SHALL BE INCIDENTAL TO THE HANDHOLE.



DETAIL HANDHOLE TO INTERCEPT EXISTING CONDUIT N.T.S.

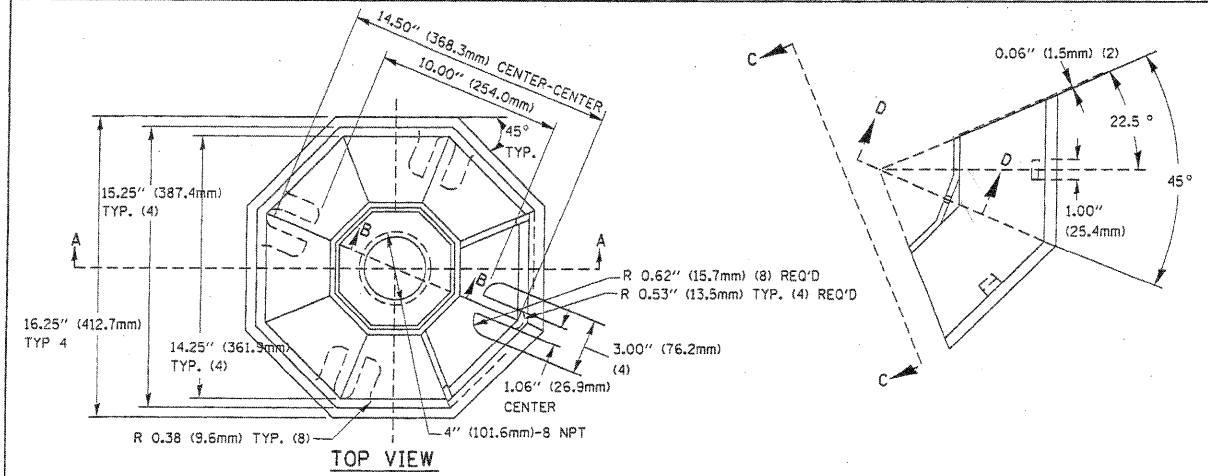
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT 1
 STANDARD TRAFFIC SIGNAL
 DESIGN DETAILS

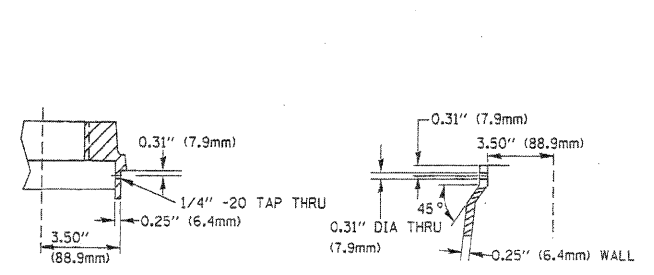
SCALE: VERT. NONE
 HORIZ. 1"=1'-0"

DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 4 OF 4

TS05

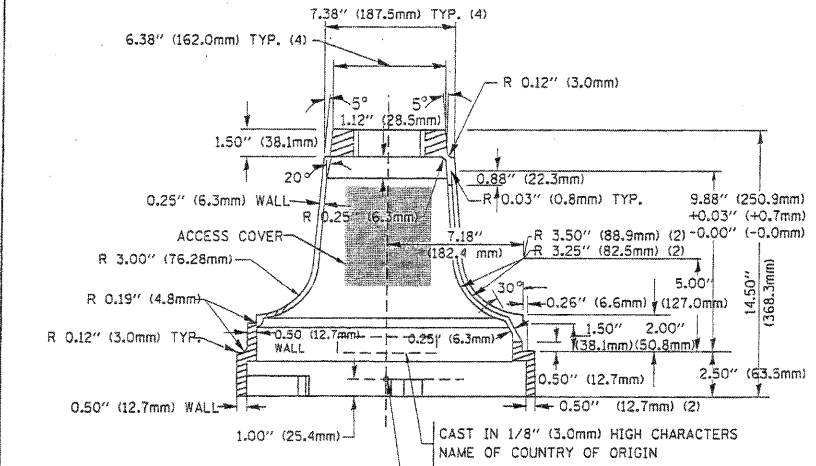


TOP VIEW

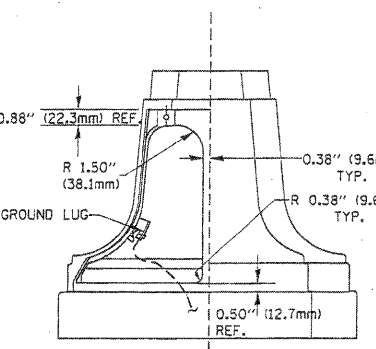


SECTION B-B

SECTION D-D

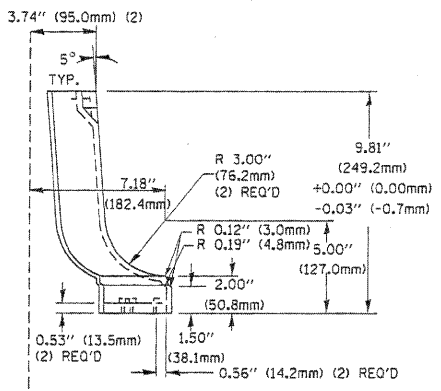


SECTION A-A



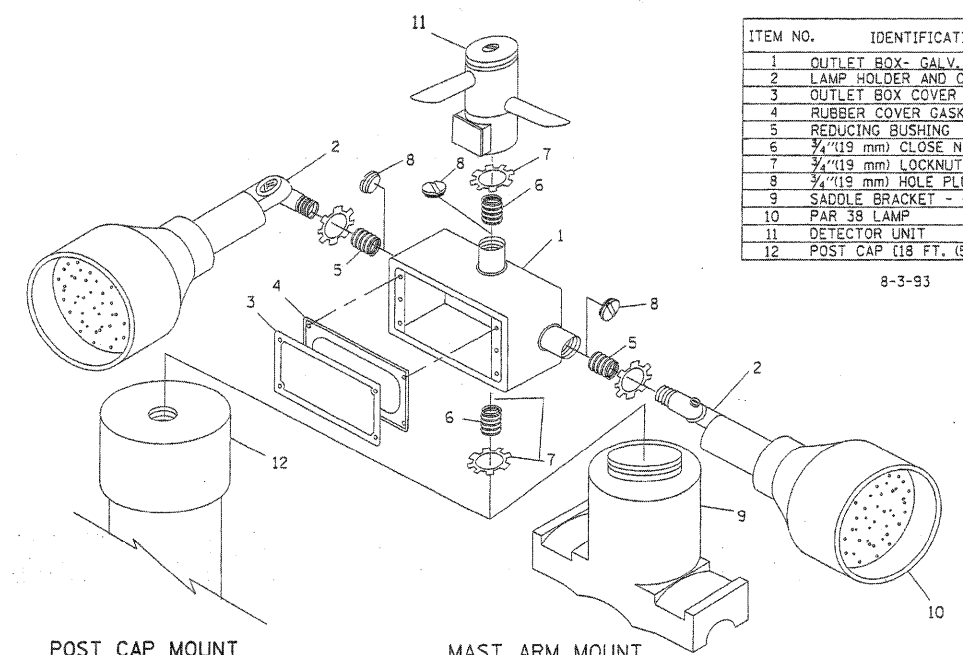
VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



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.



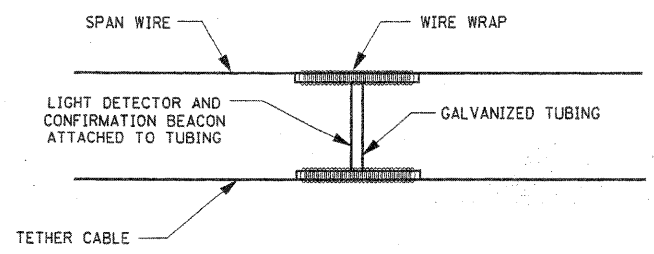
POST CAP MOUNT

MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 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	PAR 38 LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

8-3-93



LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS

(NOT TO SCALE)