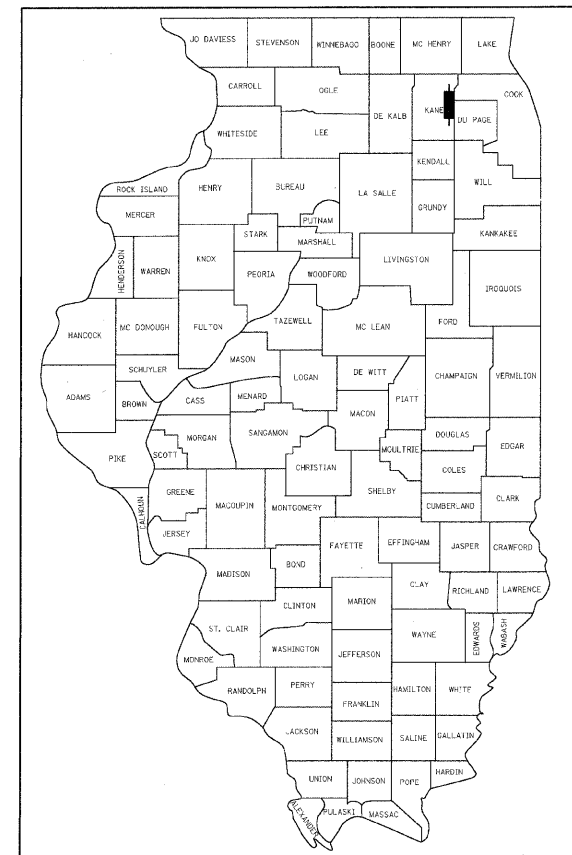


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	06-00346-00-TL	KANE	69	1
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

PLANS FOR PROPOSED TRAFFIC SIGNAL INTERCONNECT

DISTRICT 1
CONGESTION MITIGATION AIR QUALITY
F.A.P. 336 RANDALL ROAD
FROM RED HAW LANE TO SILVER GLEN ROAD
AND
FROM IL RTE 72 TO BINNIE ROAD
FEDERAL PROJECT NO.: CMM-8003(759)
SECTION 06-00346-00-TL
KANE COUNTY
JOB NO: C-91-153-07



LOCATION OF SECTION INDICATED THIS: - ■ -

ILLINOIS DEPARTMENT OF TRANSPORTATION

APPROVED JANUARY 30 2008
Chris Holt
LOCAL AGENCY POSITION

PASSED FEBRUARY 13 2008
Christopher Holt
DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED REVIEW
FEBRUARY 14, 2008
Diana M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ONE ENGINEER

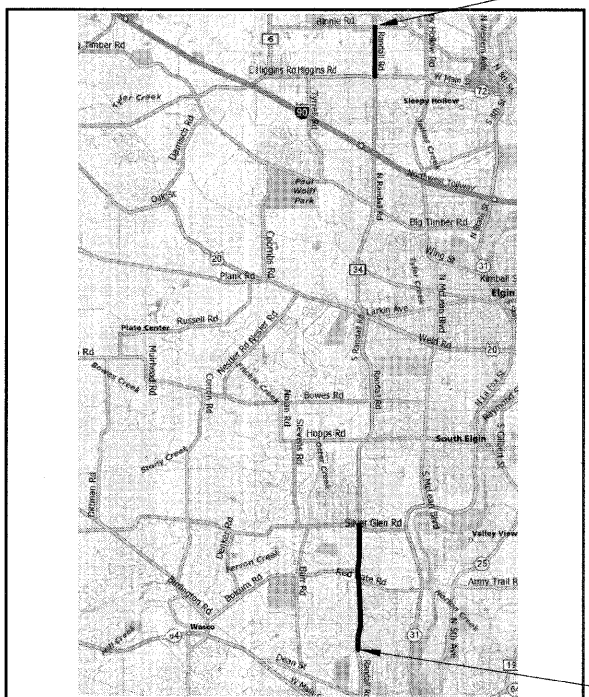
**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

George M. Ziegler 2-7-2008
ENGINEER DATE
GEORGE M. ZIEGLER
ILLINOIS REGISTRATION No. 062-45853
EXPIRATION DATE: 11-30-2009
PROFESSIONAL DESIGN FIRM No.: 184-001742
EXPIRATION DATE: 04-30-2009

INDEX OF SHEETS

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4	RANDALL ROAD AT RED HAW LANE SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
5	RANDALL ROAD AT CRANE ROAD TEMPORARY TRAFFIC SIGNAL AND REMOVE TRAFFIC SIGNAL EQUIPMENT
6	RANDALL ROAD AT CRANE ROAD TRAFFIC SIGNAL INSTALLATION PLAN
7	RANDALL ROAD AT CRANE ROAD SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
8	RANDALL ROAD AT RED GATE ROAD EXISTING CABLE PLAN
9	RANDALL ROAD AT BOLCUM ROAD/RIDGEWOOD DRIVE SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM
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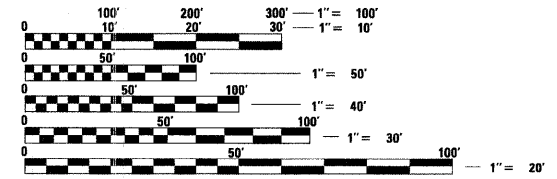
STANDARD NO.	DESCRIPTION
STD. 000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
STD. 701011-01	OFF ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
STD. 7010101-01	OFF ROAD OPERATIONS, MULTILANE, 15' TO 24' FROM PAVEMENT EDGE
STD. 701100-01	OFF ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
STD. 701301-02	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
STD. 701601-05	URBAN LANE CLOSURE, MULTILANE, 2W WITH NON-TRAVERSABLE MEDIAN
STD. 701602-03	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
STD. 701701-05	URBAN LANE CLOSURE, MULTI-LANE INTERSECTION
STD. 701801-03	LANE CLOSURE MULTI-LANE, 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
STD. 701901	TRAFFIC CONTROL DEVICES
STD. 720001	SIGN PANEL MOUNTING DETAILS
STD. 720006	SIGN PANEL ERECTION DETAILS
STD. 780001-01	TYPICAL PAVEMENT MARKINGS
STD. 814001-01	CONCRETE HANDHOLES
STD. 814000-01	DOUBLE HANDHOLES
STD. 857001	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
STD. 862001	UNINTERRUPTIBLE POWER SUPPLY (UPS)
STD. 877001-03	STEEL MAST ARM ASSEMBLY AND POLE 16" THROUGH 55"
STD. 878001-06	CONCRETE FOUNDATION DETAILS
STD. 880006	TRAFFIC SIGNAL MOUNTING DETAILS



LOCATION MAP
LENGTH OF IMPROVEMENTS =
4.0 MILES

PROJECT ENDS
RANDALL ROAD AT BINNIE ROAD

PROJECT BEGINS
RANDALL ROAD AT RED HAW LANE



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. 63011

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

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

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE Y031-1F

CODE NO.	ITEM	UNIT	Randall Road @ Red Haw Lane	Randall Road @ Crane Road	Randall Road @ Bolcum Road	Randall Road @ Silver Glen Road	Randall Road @ Commercial Entrance	Randall Road @ Thornwood Avenue	Randall Road @ McDonald Road	McDonald Road @ Access Drive	Randall Road @ Gyrr Road	Randall Road @ Hopps Road	Randall Road @ Bowes Road	Randall Road @ College Green Drive	Randall Road @ South Street	Randall Road @ Weld Road	Randall Road @ US 20 Ramps C & D
67000400	ENGINEER'S FIELD OFFICE TYPE A	CAL MO															
67100100	MOBILIZATION	L SUM															
70101700	TRAFFIC CONTROL AND PROTECTION	L SUM															
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT		14													
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT		17													
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT		39													
81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT		76													
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT															
81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT		167													
81018700	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT		48													
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT		295													
81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT															
81300810	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 12" X 8"	EACH															
81400100	HANDHOLE	EACH		3													
81400200	HEAVY-DUTY HANDHOLE	EACH		4													
81400300	DOUBLE HANDHOLE	EACH		2													
81700215	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1/C NO. 10	FOOT		596													
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT		140													
82103310	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 310 WATT	EACH		2													
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH		1													
85700305	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH															
85700505	FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1		1	1	1	1		1	1	1	1	1	1	1	1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT		141													
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT		159													
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT		3992													
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT										1375					
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2C	FOOT		29													
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH		3													
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH		1													
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH		1													
87702930	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH		1													
87702990	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH		1													
87800100	CONCRETE FOUNDATION, TYPE A	FOOT		12													
87800200	CONCRETE FOUNDATION, TYPE D	FOOT		4													
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT		30													
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT		30													
87900200	DRILL EXISTING HANDHOLE	EACH															
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH		10													
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH		2													
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH		2													
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH		2													
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH		10													
88500100	INDUCTIVE LOOP DETECTOR	EACH										2					
88800100	PEDESTRIAN PUSH-BUTTON	EACH		2													
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH															
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	1		1	1	1	1	1	1	1	1	1	1	1	1	1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH		2													
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT															
X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL II	EACH	1	1	1												
X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH		1													
X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	1	1	1	1	1	1					1	1	1	1	
X8730027	ELECTRIC CABLE IN CONDUIT, GROUND NO. 6 1C	FOOT		846													
XX005230	VIDEO DETECTION SYSTEM (COMPLETE INTERSECTION)	L SUM		1													
XX005800	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH															
XX005940	REMOTE-CONTROLLED VIDEO SYSTEM	EACH				1											1
XX006654	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT															
Z0076600	TRAINEES	hour															
X0323151	COMMUNICATION OFFICE MONITORING SYSTEM	L SUM															
XX007282	ETHERNET KIT	EACH	1	1	1			1	1	1	1	1	1	1	1	1	1
XX007283	ETHERNET HUB KIT	EACH				1											1
XX007284	CONFLICT MONITOR	EACH	1		1	1	1	1	1	1	1	1	1	1	1	1	1
XX007285	MODIFY VIDEO PROCESSING UNIT	EACH								1							

△ = Y080

SURVEYED BY DATE
 GRADES CHECKED BY DATE
 PLAN NOTE BOOK NO.
 PROFILE NOTE BOOK NO.
 CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60618
 (847) 823-0500

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE Y031-1F

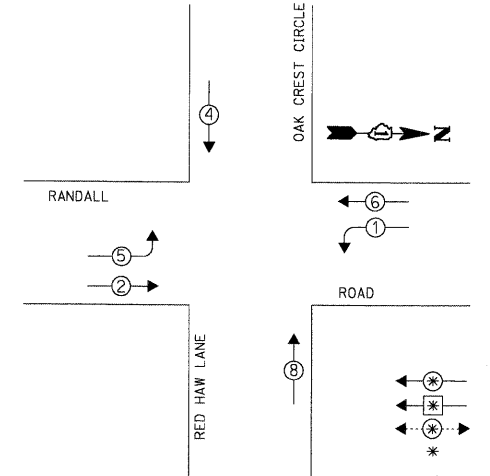
CODE NO.	ITEM	UNIT	TOTAL	Randall Road @ US 20 Ramps A & B	Randall Road @ Highland Avenue	Randall Road @ Royal Blvd.	Randall Road @ Big Timber Road	Randall Road @ Fox Lane	Randall Road @ Alt Lane	Randall Road @ I-90 Ramps B & I	Randall Road @ I-90 Ramps A & C	Randall Road @ Point Blvd.	Randall Road @ Joy Lane/ Northwest Pkw	Randall Road @ Illinois Rte. 72	Randall Road @ Binnie Road	Interconnect
67000400	ENGINEER'S FIELD OFFICE TYPE A	CAL MO	10													10
67100100	MOBILIZATION	L SUM	1													1
70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1													1
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	17613													17599
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	17													
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	39													
81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	76													
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	2127													2127
81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	167													
81018700	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT	48													
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	295													
81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	176													176
81300810	JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 12" X 8"	EACH	2													2
81400100	HANDHOLE	EACH	35													32
81400200	HEAVY-DUTY HANDHOLE	EACH	4													
81400300	DOUBLE HANDHOLE	EACH	2													
81700215	ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1/C NO. 10	FOOT	596													
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	17739													17599
82103310	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 310 WATT	EACH	2													
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	27	1	1	1	1	1	1	1	1	1	1	1	1	
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	6					1	1	1	1					
85700305	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1		1											
85700505	FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	18	1		1	1					1	1			
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	141													
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	159													
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3992													
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1375													
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2C	FOOT	29													
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3													
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1													
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1													
87702930	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1													
87702990	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH	1													
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	12													
87800200	CONCRETE FOUNDATION, TYPE D	FOOT	4													
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30													
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	30													
87900200	DRILL EXISTING HANDHOLE	EACH	5													5
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	10													
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2													
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2													
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2													
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10													
88500100	INDUCTIVE LOOP DETECTOR	EACH	72													
88800100	PEDESTRIAN PUSH-BUTTON	EACH	2			11			10	11	15	15			8	
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1												1	
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	20	1			1	1				1	1		1	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	26	1		1	1	1	1	1	1	1	1	1		
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	2													
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	21925													21925
X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL II	EACH	3													
X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	1													
X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	16			1							1			
X8730027	ELECTRIC CABLE IN CONDUIT, GROUND NO. 6 1C	FOOT	846													
XX005230	VIDEO DETECTION SYSTEM (COMPLETE INTERSECTION)	L SUM	1													
XX005800	RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	2													
XX005940	REMOTE-CONTROLLED VIDEO SYSTEM	EACH	7	1			1				1	1				
XX006654	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	21975													21975
Z0076600	TRAINEES	HOUR	500													500
XX007282	ETHERNET KIT	EACH	22	1			1	1	1	1	1	1	1	1		1
XX007283	ETHERNET HUB KIT	EACH	4			1										
XX007284	CONFLICT MONITOR	EACH	19	1			1	1				1	1			
XX007285	MODIFY VIDEO PROCESSING UNIT	EACH	1													

Δ = Y080

PROFILE SURVEYED GRADES CHECKED BY: DATE: _____
 CHANGES CHECKED BY: DATE: _____
 STRUCTURE NOTATIONS CHECKED BY: DATE: _____
 PLAN NOTE BOOK NO. _____
 SURVEYED ALIGNMENT CHECKED BY: DATE: _____
 RT. OF WAY CHECKED BY: DATE: _____
 ROAD FILE NAME: _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 823-0500
CB
 ENGINEERING

DATE: _____ BY: _____
 SURVEYED _____
 GRADES CHECKED _____
 PLAN _____
 NOTE BOOK _____
 NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

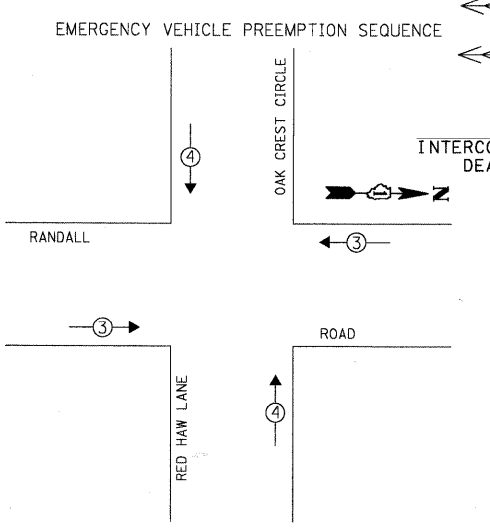
CONTROLLER SEQUENCE



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

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

PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓ ↑

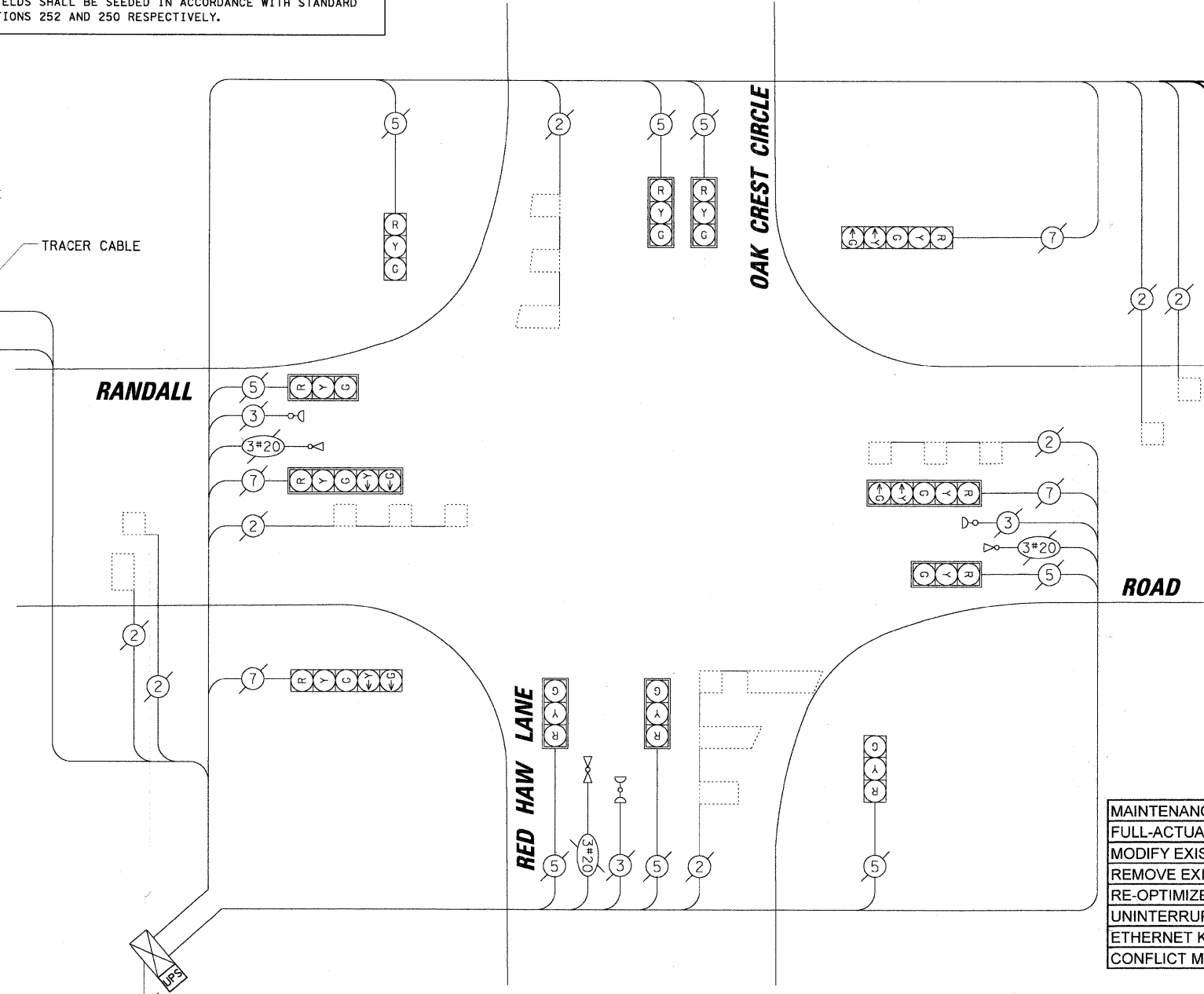
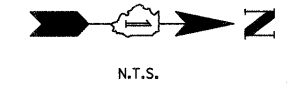
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE X INCAND. LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW	8	12	0.10	9.60
PED. SIGNAL	-	25	1.00	-
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
VIDEO SYSTEM	-	150	1.00	-
FLASHER	-	0.50	-	-
TOTAL =				331.60

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'
E - M. ARM POLE	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)

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



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 SERVICE INSTALLATION
[Symbol]	[Symbol]	TELEPHONE 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]	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"
[Symbol]	[Symbol]	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
[Symbol]	[Symbol]	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
[Symbol]	[Symbol]	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY
[Symbol]	[Symbol]	VENDOR SPECIFIC CABLE
[Symbol]	[Symbol]	DOME CAMERA (PAN/TILT/ZOOM)
[Symbol]	[Symbol]	VIDEO DETECTION CAMERA

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL II	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

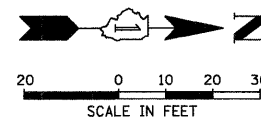
- CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.
 - INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET.

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

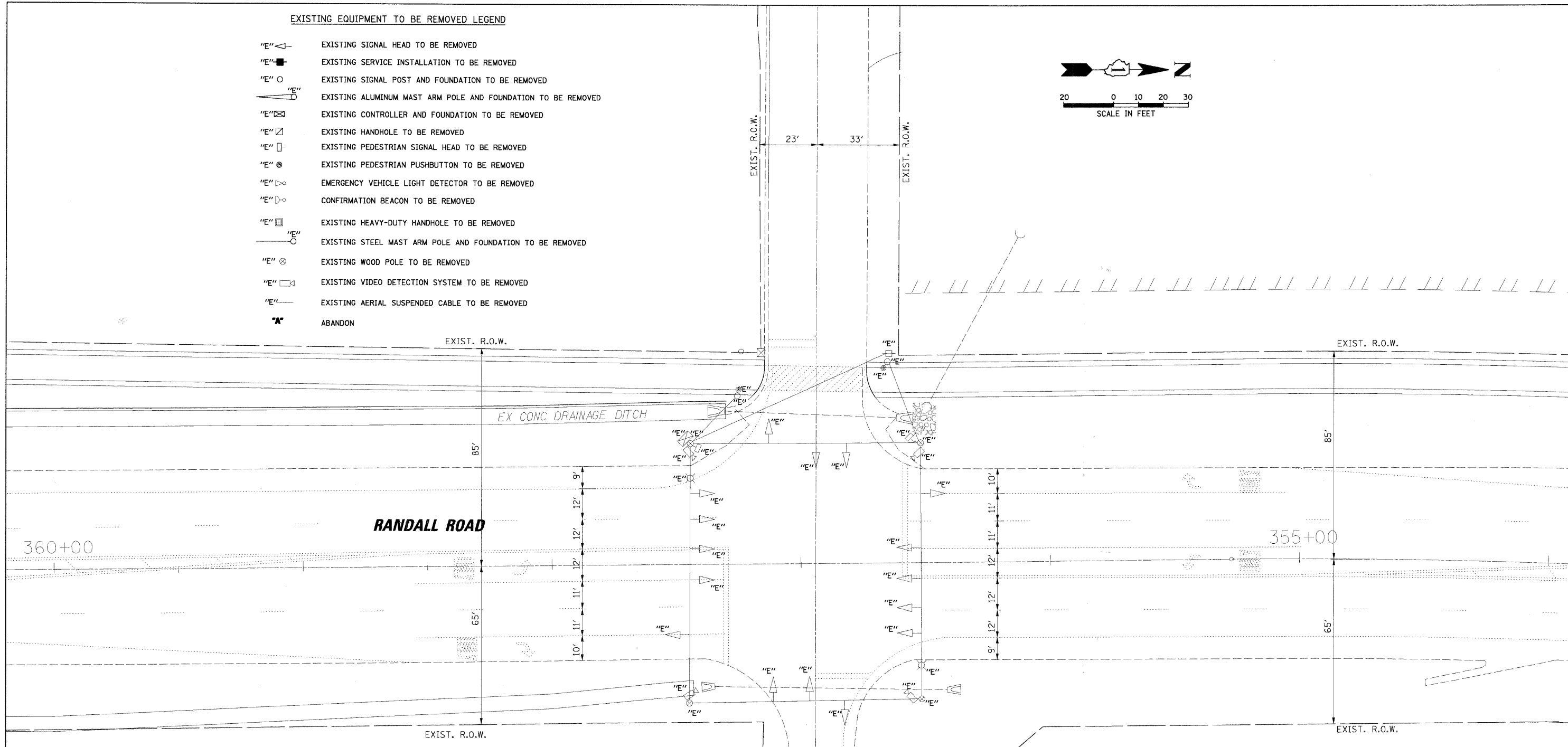
1 EACH CONTROLLER AND CONFLICT MONITOR

EXISTING EQUIPMENT TO BE REMOVED LEGEND

- "E" ◁ EXISTING SIGNAL HEAD TO BE REMOVED
- "E" ■ EXISTING SERVICE INSTALLATION TO BE REMOVED
- "E" ○ EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- "E" ⚡ EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" ☒ EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- "E" □ EXISTING HANDHOLE TO BE REMOVED
- "E" □ EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- "E" ⊙ EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- "E" ⚡ EXISTING EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" ○ EXISTING CONFIRMATION BEACON TO BE REMOVED
- "E" □ EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- "E" ○ EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" ⊗ EXISTING WOOD POLE TO BE REMOVED
- "E" □ EXISTING VIDEO DETECTION SYSTEM TO BE REMOVED
- "E" — EXISTING AERIAL SUSPENDED CABLE TO BE REMOVED
- "A" ABANDON



SURVEYED BY DATE
 PLAN NO. DATE
 PROFILE NO. DATE
 SURVEYED BY DATE
 GRADES CHECKED BY DATE
 B.M. NOTED BY DATE
 PROPOSED NOTATIONS OK'D BY DATE
 CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Elmhurst, IL 60120
 (847) 823-0500



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

4 EACH VIDEO DETECTION CAMERA

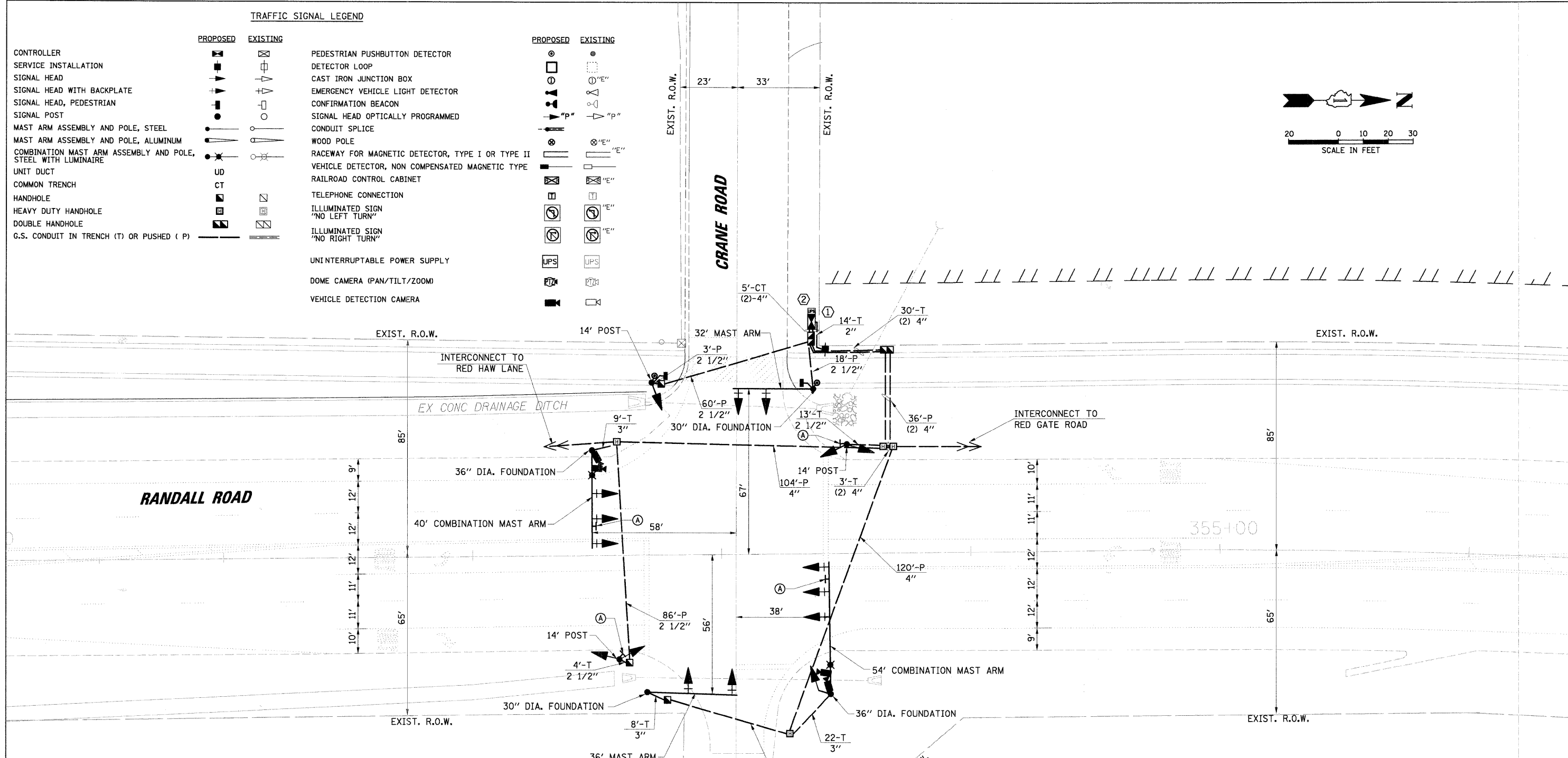
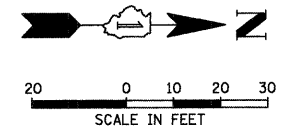
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 16 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 1 EACH SERVICE INSTALLATION
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 2 EACH PEDESTRIAN PUSH-BUTTON
- 2 EACH SIGNAL POST
- 4 EACH WOOD POLE
- 2 EACH LUMINAIRE

FILE NAME = N:\kane\county\070616\1-traffic\TMP_crane.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT RANDALL ROAD AT CRANE ROAD	F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 5
PLOT SCALE = 20' CHECKED - DATE -				CONTRACT NO. 63011 ILLINOIS FED. AID PROJECT						

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER			PEDESTRIAN PUSHBUTTON DETECTOR		
SERVICE INSTALLATION			DETECTOR LOOP		
SIGNAL HEAD			CAST IRON JUNCTION BOX		
SIGNAL HEAD WITH BACKPLATE			EMERGENCY VEHICLE LIGHT DETECTOR		
SIGNAL HEAD, PEDESTRIAN			CONFIRMATION BEACON		
SIGNAL POST			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, STEEL			CONDUIT SPLICE		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			WOOD POLE		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE			RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
UNIT DUCT			VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
COMMON TRENCH			RAILROAD CONTROL CABINET		
HANDHOLE			TELEPHONE CONNECTION		
HEAVY DUTY HANDHOLE			ILLUMINATED SIGN "NO LEFT TURN"		
DOUBLE HANDHOLE			ILLUMINATED SIGN "NO RIGHT TURN"		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)			UNINTERRUPTABLE POWER SUPPLY		
			DOME CAMERA (PAN/TILT/ZOOM)		
			VEHICLE DETECTION CAMERA		



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

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

- CONSTRUCTION NOTES:
- ① INSTALL ETHERNET KIT.
 - ② INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO TRAFFIC SIGNAL CABINET.



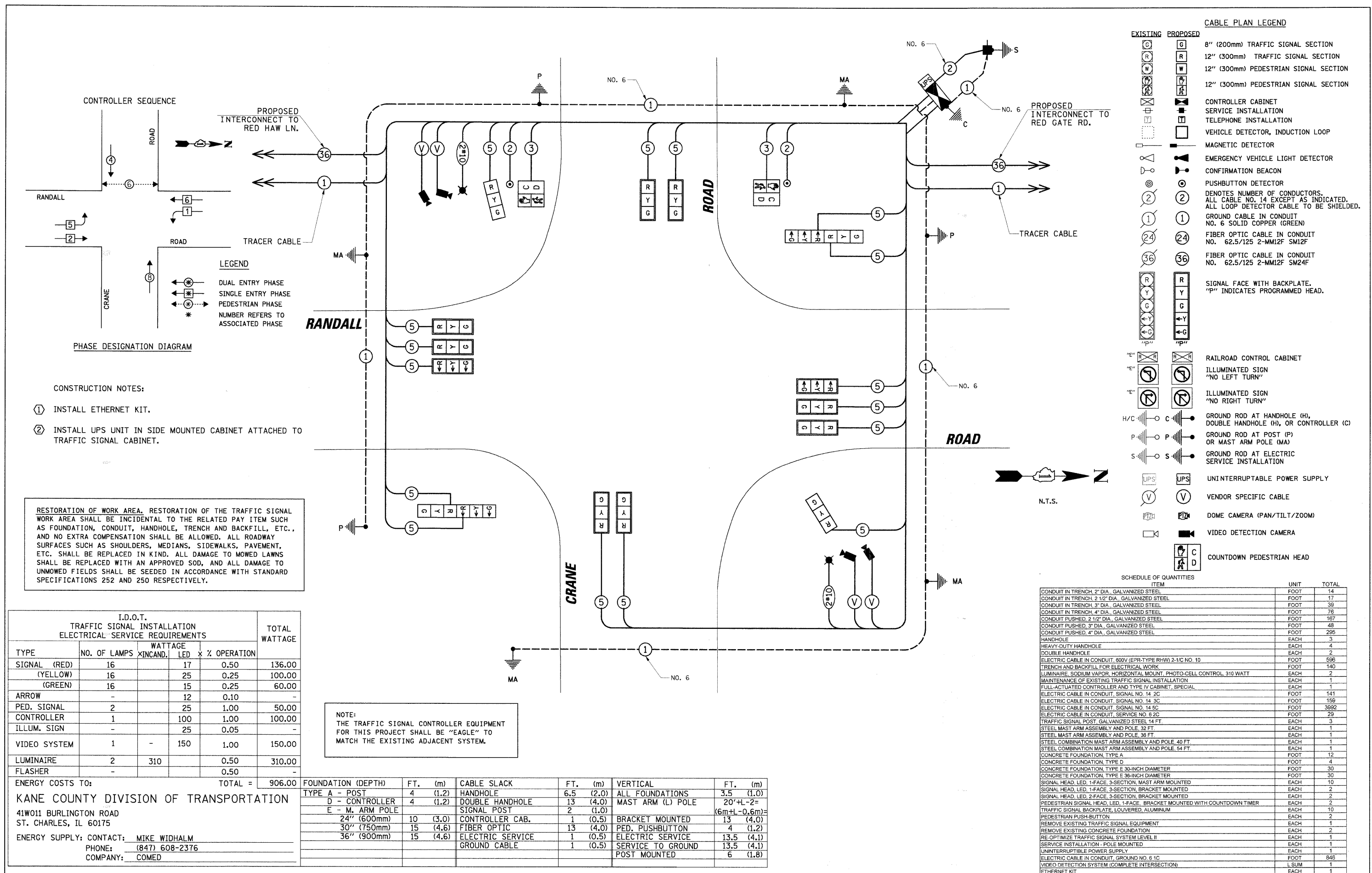
DATE	BY	DATE	BY
SURVEYED _____ GRADES CHECKED _____ E.L.M. NOTES _____ PRODUCE, NOTATIONS OK'D _____			
DATE	BY	DATE	BY
PROFILE _____ NOTE BOOK _____ NO. _____			
PL AN _____ NOTE BOOK _____ NO. _____			
SURVEYED _____ ALIGNMENT CHECKED _____ P.T. OF WAY CHECKED _____ JOB FILE NAME _____			

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Chicago, IL 60638
 (847) 823-0500

DATE: _____ BY: _____
 SURVEYED: _____ GRADES CHECKED: _____
 ALIGNED: _____ RT. OF WAY CHECKED: _____
 NOTE BOOK NO.: _____
 FILE NAME: _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9515 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 823-0500

DATE: _____ BY: _____
 SURVEYED: _____ GRADES CHECKED: _____
 ALIGNED: _____ RT. OF WAY CHECKED: _____
 NOTE BOOK NO.: _____
 FILE NAME: _____



CABLE PLAN LEGEND

	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
	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
	RAILROAD CONTROL CABINET
	ILLUMINATED SIGN "NO LEFT TURN"
	ILLUMINATED SIGN "NO RIGHT TURN"
	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
	UNINTERRUPTIBLE POWER SUPPLY
	VENDOR SPECIFIC CABLE
	DOMED CAMERA (PAN/TILT/ZOOM)
	VIDEO DETECTION CAMERA
	COUNTDOWN PEDESTRIAN HEAD

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
CONDUIT IN TRENCH 2" DIA., GALVANIZED STEEL	FOOT	14
CONDUIT IN TRENCH 2 1/2" DIA., GALVANIZED STEEL	FOOT	17
CONDUIT IN TRENCH 3" DIA., GALVANIZED STEEL	FOOT	39
CONDUIT IN TRENCH 4" DIA., GALVANIZED STEEL	FOOT	76
CONDUIT PUSHED 2 1/2" DIA., GALVANIZED STEEL	FOOT	167
CONDUIT PUSHED 3" DIA., GALVANIZED STEEL	FOOT	48
CONDUIT PUSHED 4" DIA., GALVANIZED STEEL	FOOT	295
HANDHOLE	EACH	3
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1/C NO. 10	FOOT	596
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	140
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 310 WATT	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	141
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	159
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 8C	FOOT	3692
ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2C	FOOT	29
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE B	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	30
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	10
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10
PEDESTRIAN PUSH-BUTTON	EACH	2
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL II	EACH	1
SERVICE INSTALLATION - POLE MOUNTED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUND NO. 6 1C	FOOT	846
VIDEO DETECTION SYSTEM (COMPLETE INTERSECTION)	L SUM	1
ETHERNET KIT	EACH	1

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

TYPE	NO. OF LAMPS	WATTAGE	INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	17			0.50	136.00
(YELLOW)	16	25			0.25	100.00
(GREEN)	16	15			0.25	60.00
ARROW	-	12			0.10	-
PED. SIGNAL	2	25			1.00	50.00
CONTROLLER	1	100			1.00	100.00
ILLUM. SIGN	-	25			0.05	-
VIDEO SYSTEM	1	-	150		1.00	150.00
LUMINAIRE	2	310			0.50	310.00
FLASHER	-	-			0.50	-

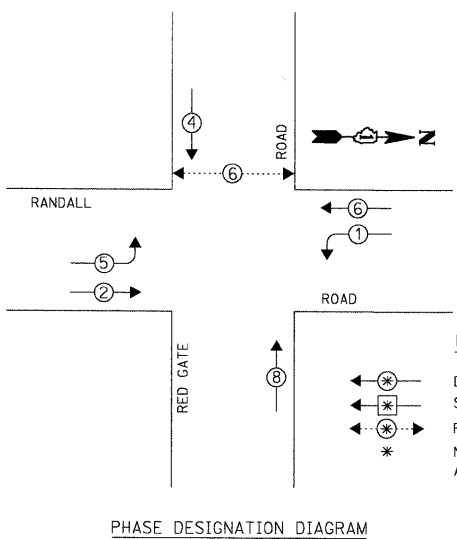
ENERGY COSTS TO: TOTAL = 906.00
 KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	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)

SURVEYED BY DATE
 PLAN NO. DATE
 SURVEYED BY DATE
 GRADES CHECKED BY DATE
 PROFILE NO. DATE
 NOTE BOOK NO. DATE
 NO. OF WAY CHECKED BY DATE
 ROAD FILE NAME
 CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 821-0500

TEMPORARY CONTROLLER SEQUENCE



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

TEMPORARY CABLE DIAGRAM LEGEND

- | EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|--|
| | | TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm) |
| | | TEMPORARY CONTROLLER CABINET |
| | | TEMPORARY SERVICE INSTALLATION |
| | | INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED. |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | PEDESTRIAN PUSHBUTTON DETECTOR |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | VEHICLE DETECTION CAMERA |
| | | UNINTERRUPTIBLE POWER SUPPLY |
| | | VENDOR SPECIFIC CABLE |
| | | DOME CAMERA (PAN/TILT/ZOOM) |

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	INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	8		12	0.10	9.60
PED. SIGNAL	2		25	1.00	50.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	-		150	1.00	-
FLASHER	-		0.50	-	-
TOTAL =					381.60

ENERGY COSTS TO: TOTAL = 381.60
 KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE	2 (0.6)	SIGNAL POST	2 (0.6)		(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)

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

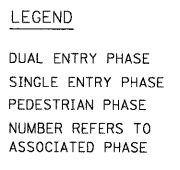
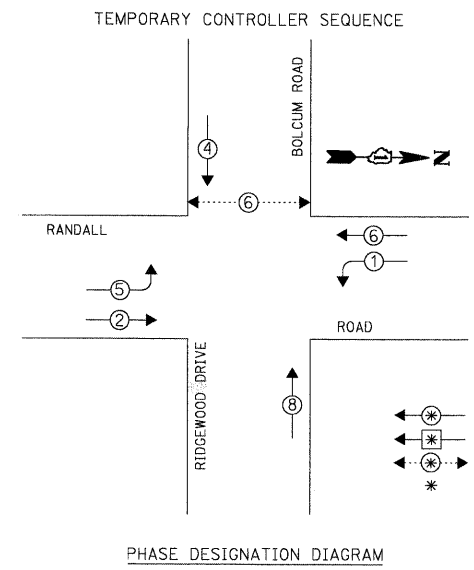
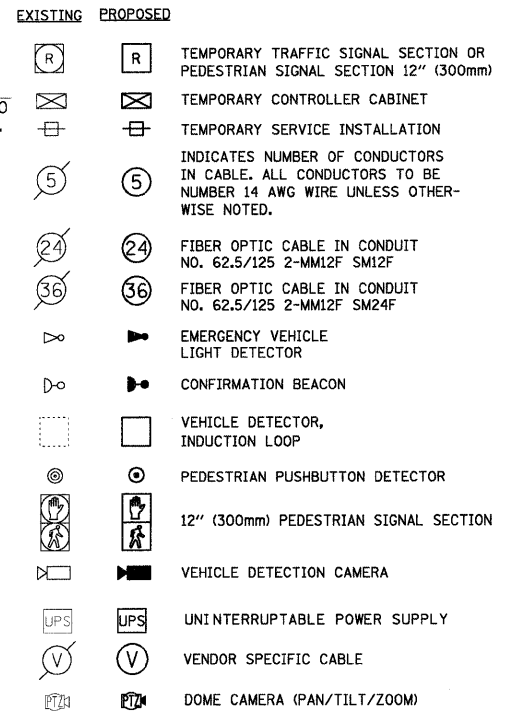
CONSTRUCTION NOTES:
 ① THIS INTERSECTION TO BE WIDENED AND NEW TRAFFIC SIGNALS INSTALLED BY OTHERS.

FOR INFORMATION ONLY

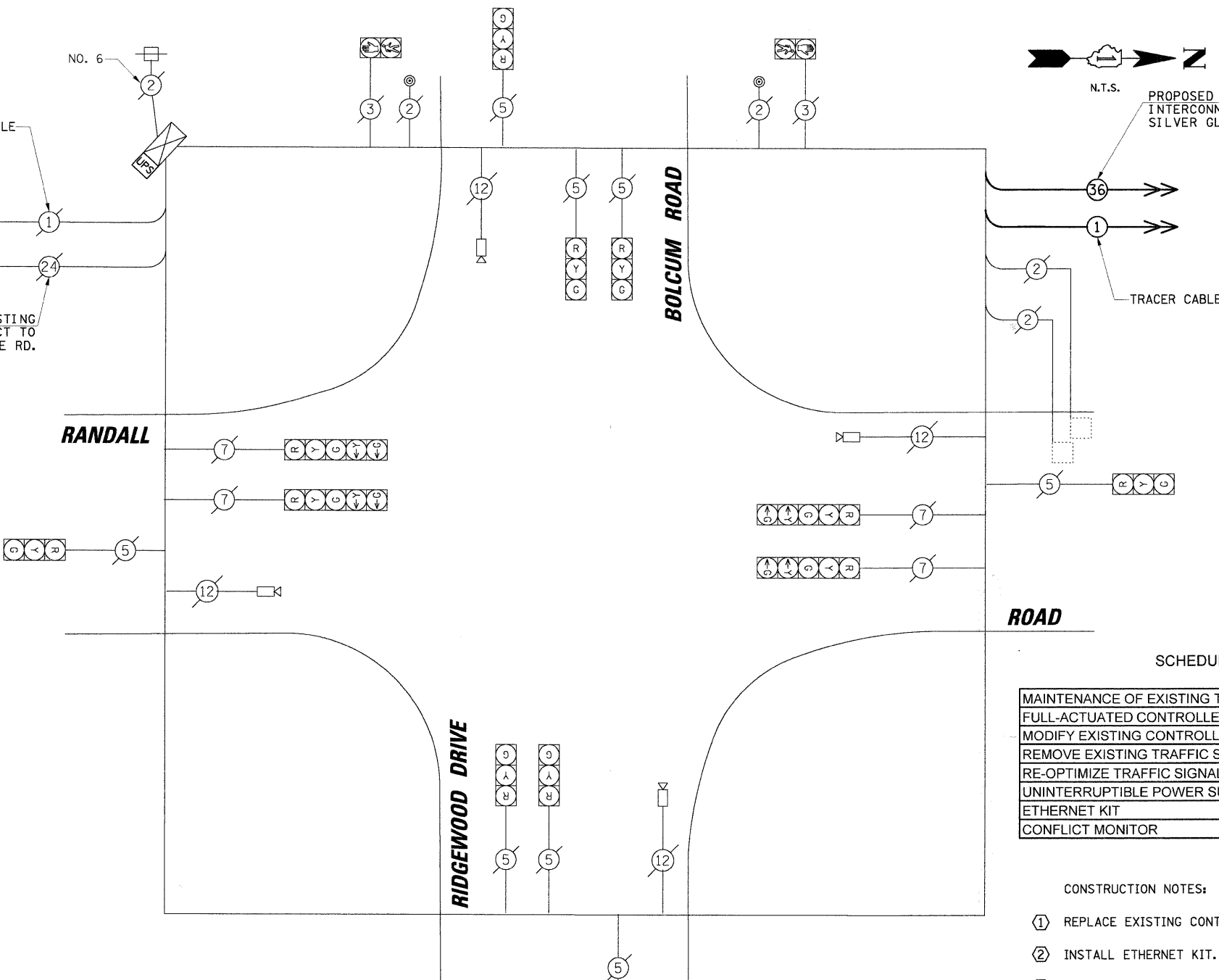
SURVEYED BY DATE
 PLAN NO. DATE
 NOTE BOOK NO. DATE
 CHECKED BY DATE
 DRAFTSMAN DATE
 IN CHARGE DATE
 PROJECT NO. DATE

CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60618
 (847) 823-0500

TEMPORARY CABLE DIAGRAM LEGEND



EXISTING INTERCONNECT TO RED GATE RD.



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
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL II	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

CONSTRUCTION NOTES:

- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
- INSTALL ETHERNET KIT.
- INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET.
- REMOVE MASTER CONTROLLER.

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

1 EACH MASTER CONTROLLER

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

1 EACH CONTROLLER AND CONFLICT MONITOR

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

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	17	0.50		102.00
(YELLOW)	12	25	0.25		75.00
(GREEN)	12	15	0.25		45.00
ARROW	8	12	0.10		9.60
PED. SIGNAL	2	25	1.00		50.00
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
VIDEO SYSTEM	1	150	1.00		150.00
FLASHER	-		0.50		-

ENERGY COSTS TO: TOTAL = 531.60
KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'±
E - M. ARM POLE	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)

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

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

CABLE PLAN

RANDALL ROAD AT BOLCUM ROAD/RIDGEWOOD DRIVE

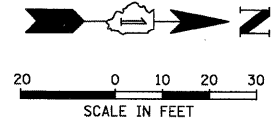
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	06-00346-00-TL	KANE	69	9

CONTRACT NO. 63011

SCALE: _____

FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT _____

FILE NAME	USER NAME	DESIGNED	REVISED
N:\kanecounty\070616\T-raff\c\09_Bolcum.dgn	MWILLIAM	-	-
		DRAWN	REVISED
		CHECKED	REVISED
		DATE	REVISED

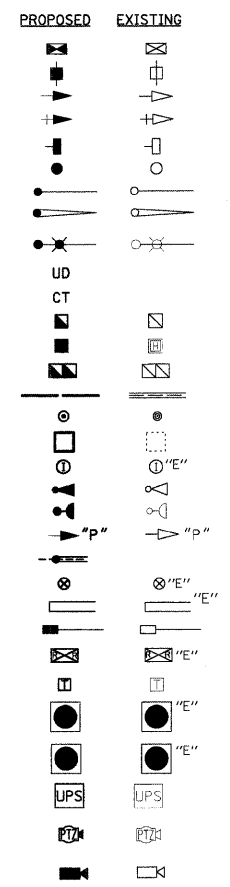


THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CONFLICT MONITOR

TRAFFIC SIGNAL LEGEND

- CONTROLLER CABINET
- 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
- COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE LIGHT 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 CABINET
- TELEPHONE CONNECTION
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"
- UNINTERRUPTABLE POWER SUPPLY
- DOMA CAMERA (PAN/TILT/ZOOM)
- VEHICLE DETECTION CAMERA

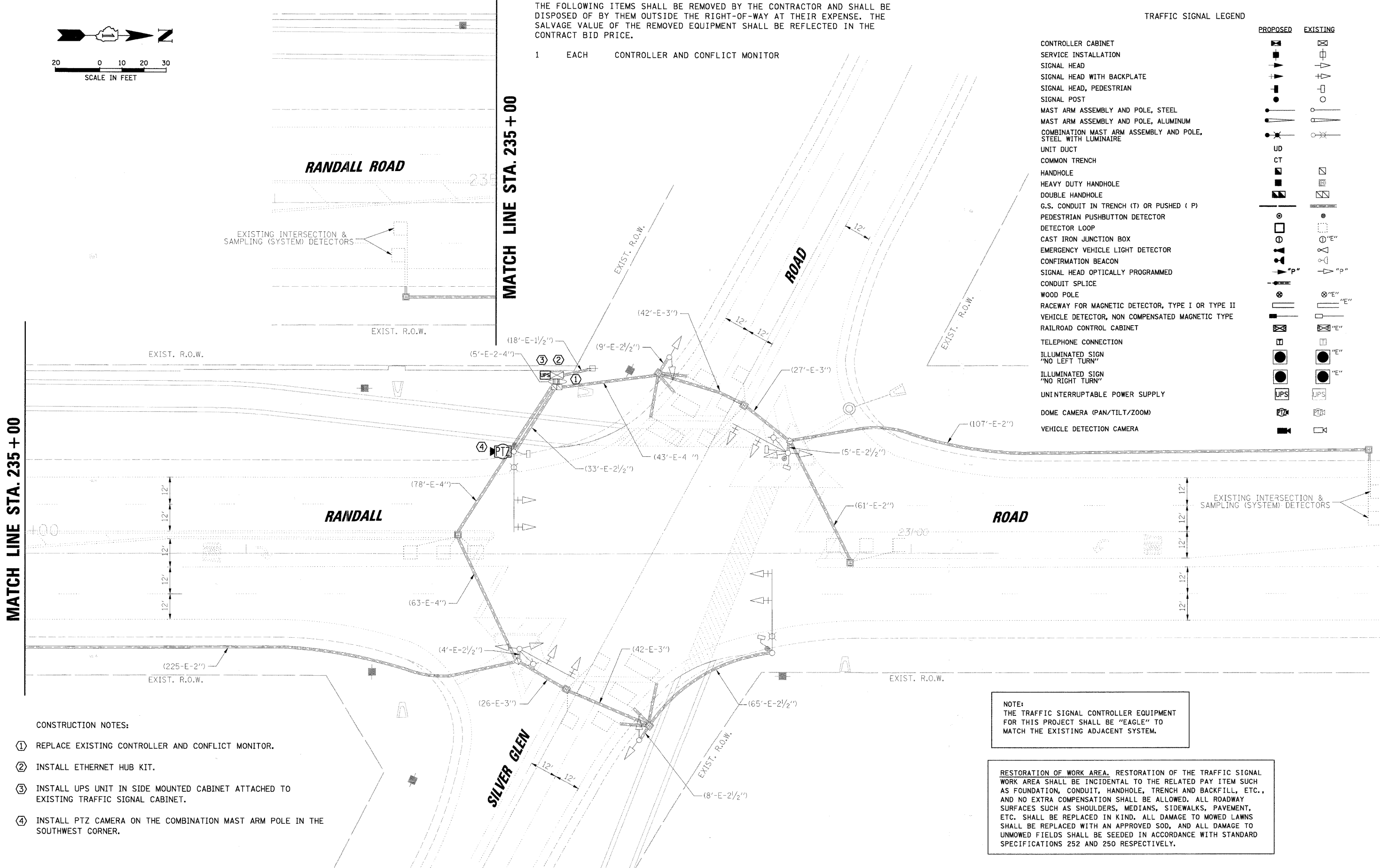


MATCH LINE STA. 235 + 00

MATCH LINE STA. 235 + 00

DATE	BY	DATE	BY
SURVEYED		SURVEYED	
PLAN		PLAN	
NOTE BOOK		NOTE BOOK	
NO.		NO.	
NO.		NO.	
NO.		NO.	
NO.		NO.	

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Chicago, Illinois 60618
 (847) 823-0500



- CONSTRUCTION NOTES:
- ① REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - ② INSTALL ETHERNET HUB KIT.
 - ③ INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET.
 - ④ INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM POLE IN THE SOUTHWEST CORNER.

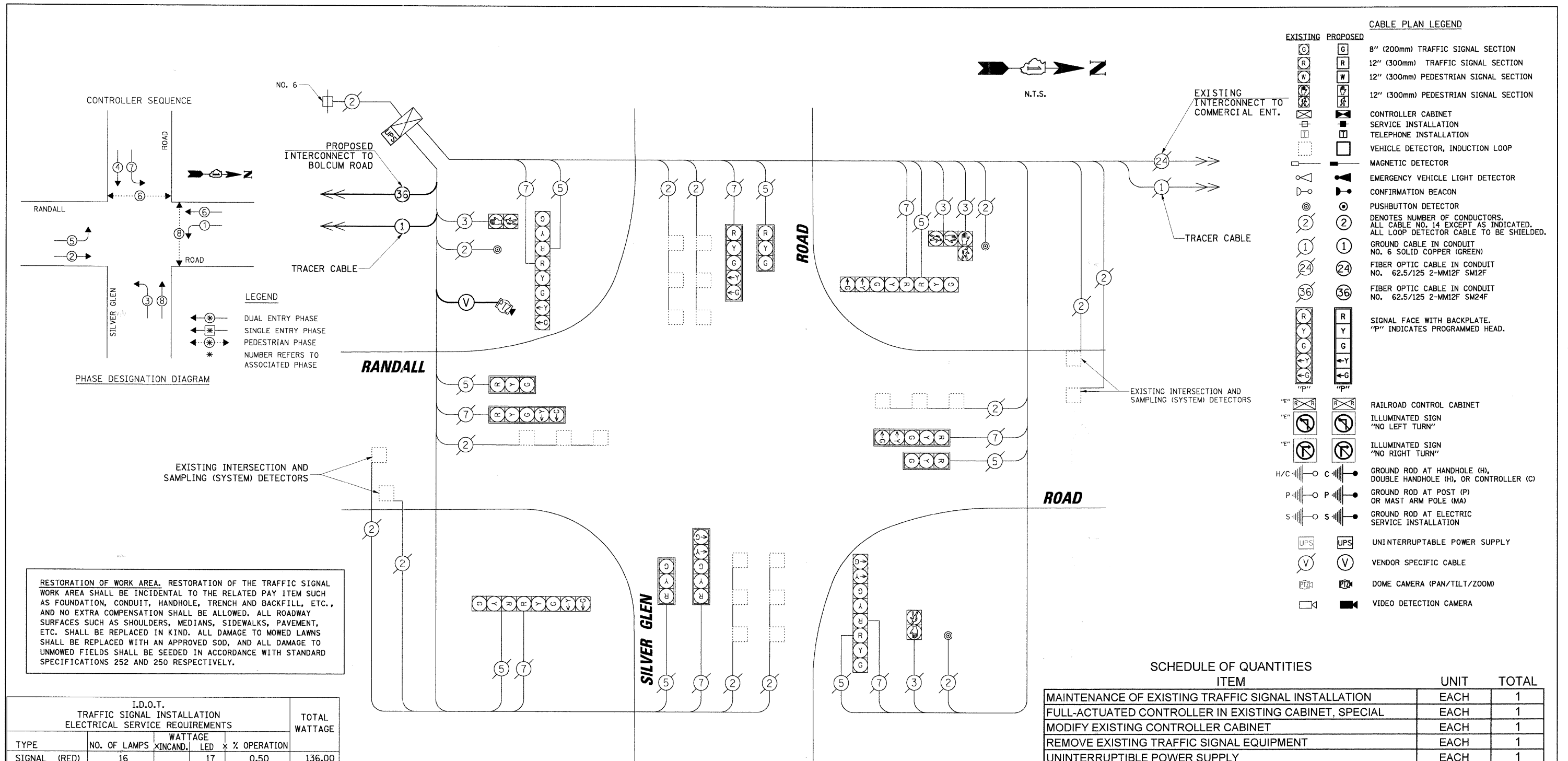
NOTE:
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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

FILE NAME =	USER NAME = MWILLIAM	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODIFICATION PLAN RANDALL ROAD AT SILVER GLEN ROAD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
W:\kane\county\1870616\Traffic\MOD_SilverGlen.dwg		DRAWN -	REVISED -			336	06-00346-00-TL	KANE	69	10
		CHECKED -	REVISED -			CONTRACT NO. 63011				
		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
					SCALE:					

DATE: _____ BY: _____
 SURVEYED: _____
 PLAN: _____
 NO. _____
 CHECKED: _____
 DATE: _____ BY: _____
 SURVEYED: _____
 PROFILE: _____
 NO. _____
 CHECKED: _____
 DATE: _____ BY: _____
 SURVEYED: _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 823-0800



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
		8" (200mm) TRAFFIC SIGNAL SECTION
		12" (300mm) TRAFFIC SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE INSTALLATION
		VEHICLE DETECTOR, INDUCTION LOOP
		MAGNETIC DETECTOR
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		PUSHBUTTON DETECTOR
		GROUND CABLE IN CONDUIT
		FIBER OPTIC CABLE IN CONDUIT
		SIGNAL FACE WITH BACKPLATE
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN
		GROUND ROD AT HANDHOLE (H),
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		UNINTERRUPTIBLE POWER SUPPLY
		VENDOR SPECIFIC CABLE
		DOMED CAMERA (PAN/TILT/ZOOM)
		VIDEO DETECTION CAMERA

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
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
REMOTE-CONTROLLED VIDEO SYSTEM	EACH	1
ETHERNET HUB KIT	EACH	1
CONFLICT MONITOR	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)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	16		12	0.10	19.20
PED. SIGNAL	4		25	1.00	100.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	1		150	1.00	150.00
FLASHER	-		0.50	-	-

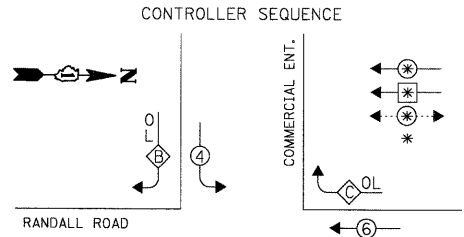
ENERGY COSTS TO: TOTAL = 665.20
 KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
E - M. ARM POLE		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)

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

- CONSTRUCTION NOTES:
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET HUB KIT.
 - INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET.
 - INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM POLE IN THE SOUTHWEST CORNER.

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

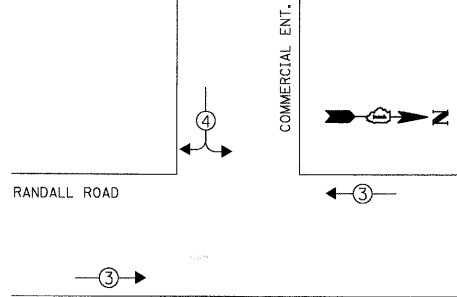


LEGEND
 * DUAL ENTRY PHASE
 ◀ SINGLE ENTRY PHASE
 ◀ PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PROTECTED PHASE	PERMISSIVE PHASE
B	= 5	+ 4
C	= 4	+ 6

EMERGENCY VEHICLE PREEMPTION SEQUENCE



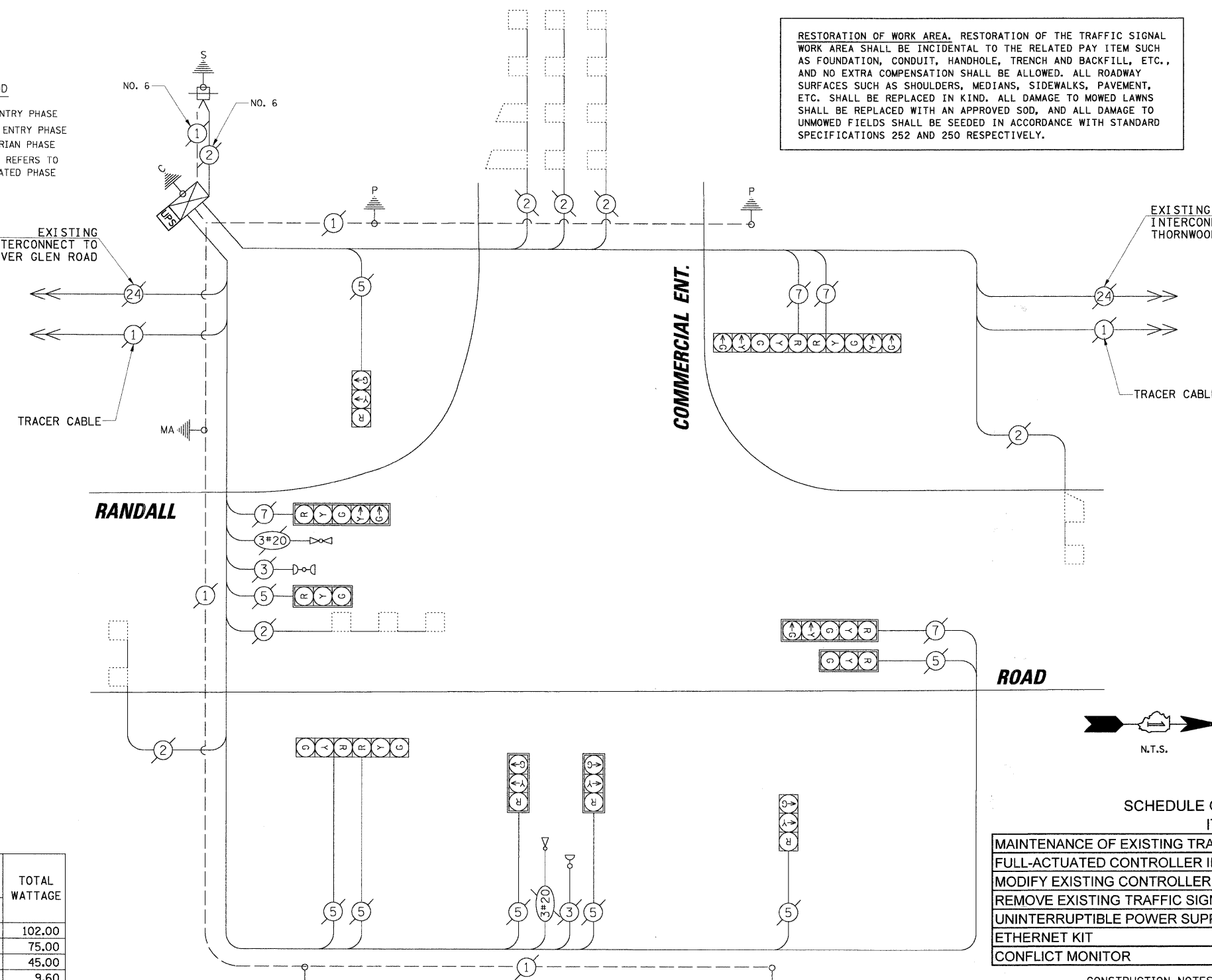
EXISTING EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↘

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

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

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

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

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 SERVICE INSTALLATION
(Symbol)	(Symbol)	TELEPHONE 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)	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
(Symbol)	(Symbol)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO LEFT TURN"
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO RIGHT TURN"
(Symbol)	(Symbol)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
(Symbol)	(Symbol)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY
(Symbol)	(Symbol)	VENDOR SPECIFIC CABLE
(Symbol)	(Symbol)	DOME CAMERA (PAN/TILT/ZOOM)
(Symbol)	(Symbol)	VIDEO DETECTION CAMERA

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

- CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.
 - INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET.

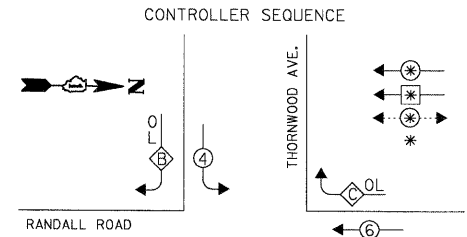
NOTE:
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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

1 EACH CONTROLLER AND CONFLICT MONITOR

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

CHRISTOPHER B. BURKE ENGINEERING LTD.
 315 West Higgins Road, Suite 600
 Elmhurst, Illinois 60120
 (847) 822-0500

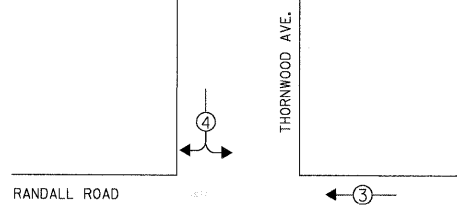


LEGEND
 DUAL ENTRY PHASE
 SINGLE ENTRY PHASE
 PEDESTRIAN PHASE
 NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PROTECTED PHASE	PERMISSIVE PHASE
B	= 5	+ 4
C	= 4	+ 6

EMERGENCY VEHICLE PREEMPTION SEQUENCE



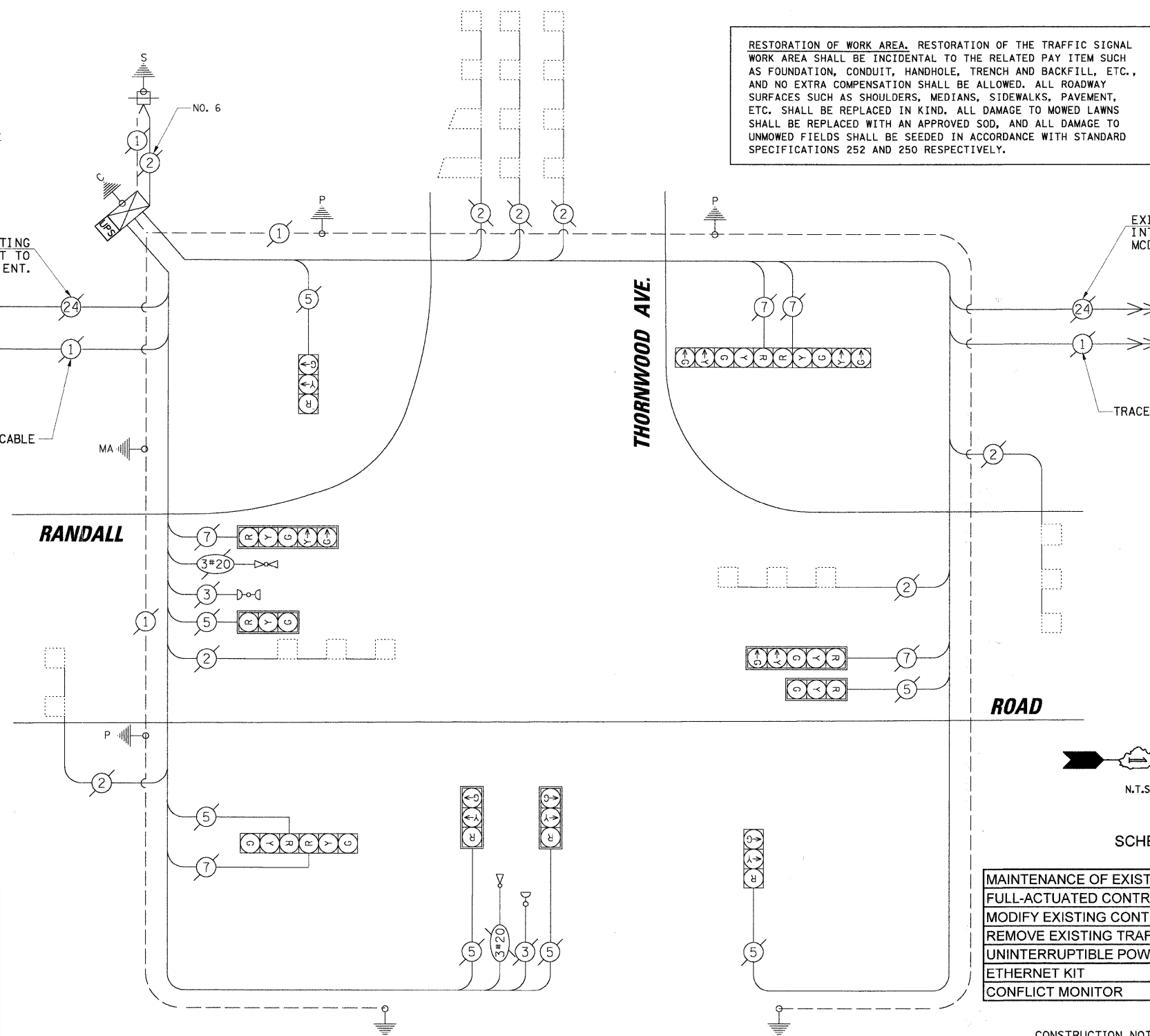
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↔

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

ENERGY COSTS TO: TOTAL = 330.6
KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2' = (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)

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

EXISTING	PROPOSED	DESCRIPTION
(Symbol)	(Symbol)	8" (200mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	CONTROLLER CABINET
(Symbol)	(Symbol)	SERVICE INSTALLATION
(Symbol)	(Symbol)	TELEPHONE 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. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(Symbol)	(Symbol)	1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(Symbol)	(Symbol)	36 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
(Symbol)	(Symbol)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO LEFT TURN"
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO RIGHT TURN"
(Symbol)	(Symbol)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
(Symbol)	(Symbol)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY
(Symbol)	(Symbol)	VENDOR SPECIFIC CABLE
(Symbol)	(Symbol)	DOME CAMERA (PAN/TILT/ZOOM)
(Symbol)	(Symbol)	VIDEO DETECTION CAMERA

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

- CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.
 - INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET.

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

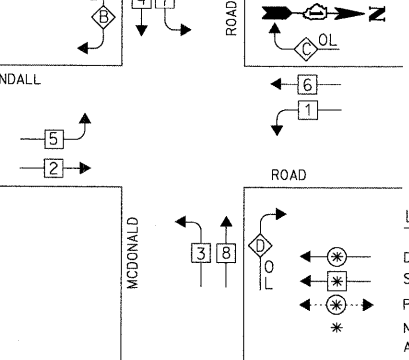
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

1 EACH CONTROLLER AND CONFLICT MONITOR

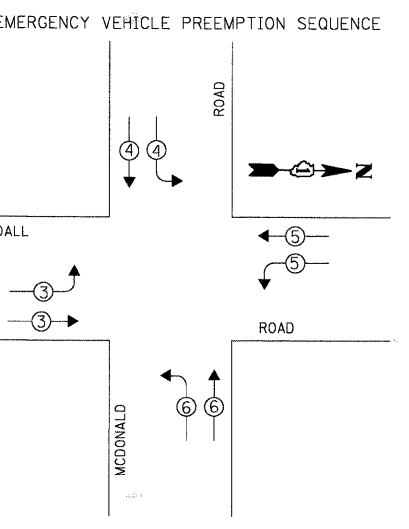
DATE: _____ BY: _____
 SURVEYED _____
 GRADES CHECKED _____
 PLAN _____
 NOTE BOOK _____
 NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 821-0500
 DATE: _____ BY: _____
 SURVEYED _____
 GRADES CHECKED _____
 PROFILE _____
 NOTE BOOK _____
 NO. _____

TEMPORARY CONTROLLER SEQUENCE

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



PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

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

TYPE	NO. OF LAMPS	WATTAGE X 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	12	12	0.10	14.40
PED. SIGNAL	-	25	1.00	-
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
VIDEO SYSTEM	1	150	1.00	150.00
FLASHER	-	0.50	-	-
TOTAL =				634.40

ENERGY COSTS TO: TOTAL = 634.40
KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 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 SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
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)

TEMPORARY CABLE DIAGRAM LEGEND

EXISTING	PROPOSED	DESCRIPTION
		TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
		TEMPORARY CONTROLLER CABINET
		TEMPORARY SERVICE INSTALLATION
		INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		VEHICLE DETECTOR, INDUCTION LOOP
		PEDESTRIAN PUSHBUTTON DETECTOR
		12" (300mm) PEDESTRIAN SIGNAL SECTION
		VEHICLE DETECTION CAMERA
		UNINTERRUPTIBLE POWER SUPPLY
		VENDOR SPECIFIC CABLE
		DOME CAMERA (PAN/TILT/ZOOM)

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

- CONSTRUCTION NOTES:
- ① INSTALL ETHERNET KIT.
 - ② REPLACE EXISTING CONFLICT MONITOR.

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 CONFLICT MONITOR

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

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

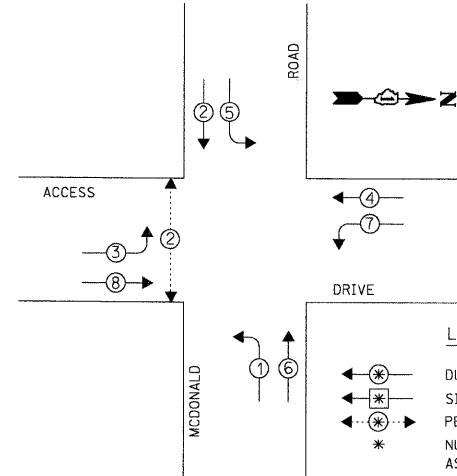
CABLE PLAN
 RANDALL ROAD AT MCDONALD ROAD

FILE NAME = N:\kane\county\0786161\7-rf1c\CAB_Mcd.dgn	USER NAME = WILLIAM	DESIGNED -	REVISED -	SCALE:	F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 14
PLOT SCALE = 20'	PLOT DATE = 1/29/2008	DRAWN -	REVISED -		CONTRACT NO. 63011				
		CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT				
		DATE -	REVISED -						

DATE: _____ BY: _____
 SURVEYED: _____
 PLAN: _____
 CHECKED: _____
 NO. _____
 DATE: _____ BY: _____
 SURVEYED: _____
 PLAN: _____
 CHECKED: _____
 NO. _____

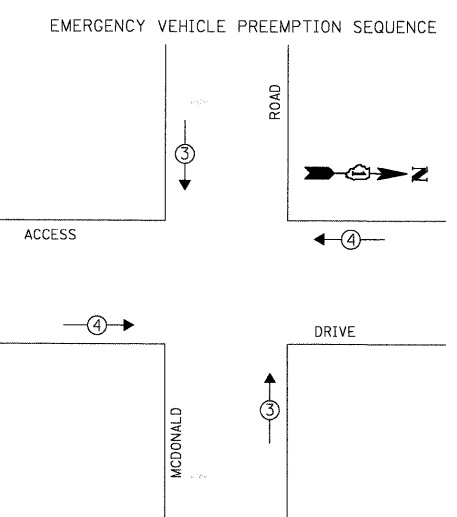
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60618
 (847) 823-0500

CONTROLLER SEQUENCE



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

PHASE DESIGNATION DIAGRAM



EXISTING EMERGENCY VEHICLE PREEMPTORS

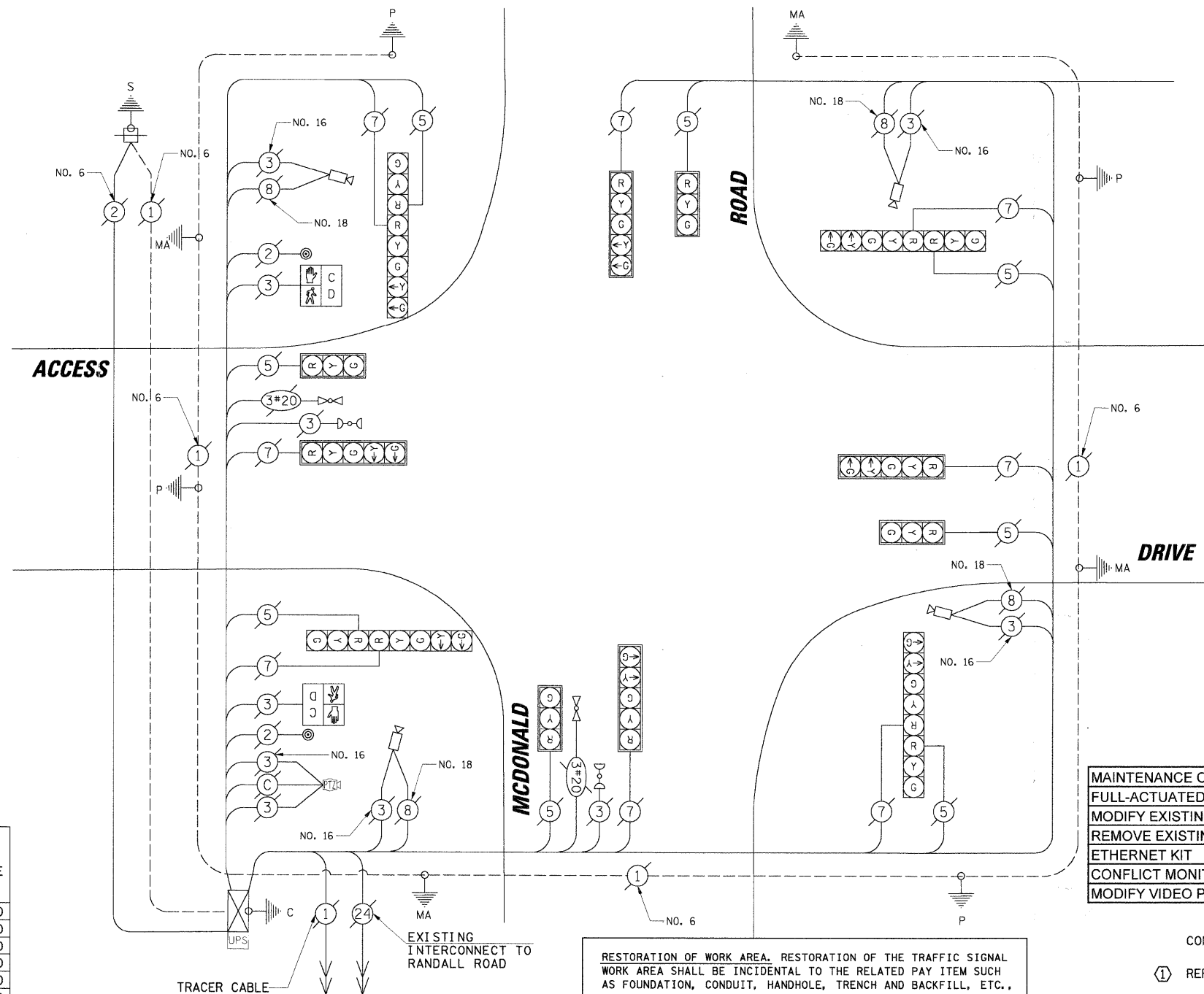
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↓ ↑	← →

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

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW	16	12	0.10	19.20
PED. SIGNAL	2	25	1.00	50.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
VIDEO SYSTEM	1	-	1.00	150.00
FLASHER	-	-	0.50	-

ENERGY COSTS TO: TOTAL = 615.20
CITY OF SOUTH ELGIN
 735 MARTIN DRIVE
 SOUTH ELGIN, IL 60177
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'±
E - M. ARM POLE	2 (0.6)	SIGNAL POST	2 (0.6)	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)



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

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	8" (200mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	TELEPHONE 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.
[Symbol]	[Symbol]	ALL CABLE NO. 14 EXCEPT AS INDICATED.
[Symbol]	[Symbol]	ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol]	GROUND CABLE IN CONDUIT
[Symbol]	[Symbol]	NO. 6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT
[Symbol]	[Symbol]	NO. 62.5/125 2-MM12F SM12F
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT
[Symbol]	[Symbol]	NO. 62.5/125 2-MM12F SM24F
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE.
[Symbol]	[Symbol]	"P" INDICATES PROGRAMMED HEAD.
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"
[Symbol]	[Symbol]	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
[Symbol]	[Symbol]	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
[Symbol]	[Symbol]	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY
[Symbol]	[Symbol]	VENDOR SPECIFIC CABLE
[Symbol]	[Symbol]	DOME CAMERA (PAN/TILT/ZOOM)
[Symbol]	[Symbol]	VIDEO DETECTION CAMERA

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1
MODIFY VIDEO PROCESSING UNIT	EACH	1

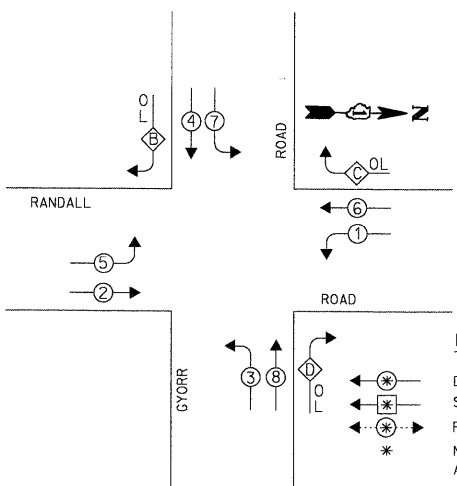
- CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.
 - MODIFY VIDEO PROCESSING UNIT TO COMMUNICATE OVER ETHERNET.

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

1 EACH CONTROLLER AND CONFLICT MONITOR

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

TEMPORARY CONTROLLER SEQUENCE

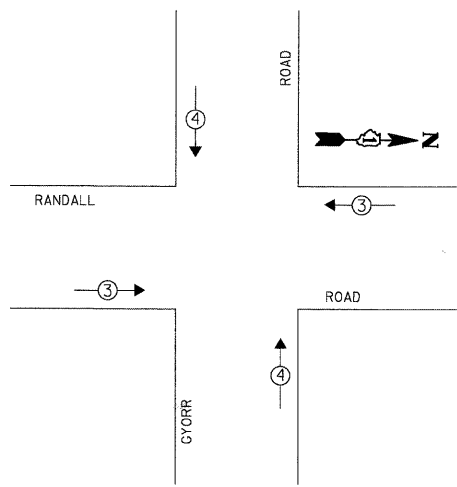


OVERLAP LETTER	PROTECTED PHASE	PERMISSIVE PHASE
B =	5	4
C =	7	6
D =	1	8

LEGEND
 DUAL ENTRY PHASE
 SINGLE ENTRY PHASE
 PEDESTRIAN PHASE
 NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



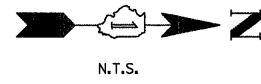
EXISTING EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←	→	↑

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND.	LED	% OPERATION	
SIGNAL (RED)	14		17	0.50	119.00
(YELLOW)	14		25	0.25	87.50
(GREEN)	14		15	0.25	52.50
ARROW	24		12	0.10	28.80
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	1		150	1.00	150.00
LUMINAIRE	4		250	0.50	500.00
FLASHER	-		0.50	-	-
ENERGY COSTS TO:					TOTAL = 1037.80

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		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)

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



TEMPORARY CABLE DIAGRAM LEGEND

EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm)
[Symbol]	[Symbol]	TEMPORARY CONTROLLER CABINET
[Symbol]	[Symbol]	TEMPORARY SERVICE INSTALLATION
[Symbol]	[Symbol]	INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	VEHICLE DETECTOR, INDUCTION LOOP
[Symbol]	[Symbol]	PEDESTRIAN PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	VEHICLE DETECTION CAMERA
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY
[Symbol]	[Symbol]	VENDOR SPECIFIC CABLE
[Symbol]	[Symbol]	DOME CAMERA (PAN/TILT/ZOOM)

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
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

CONSTRUCTION NOTES:

- ① REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
- ② INSTALL ETHERNET KIT.

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

1 EACH CONTROLLER AND CONFLICT MONITOR

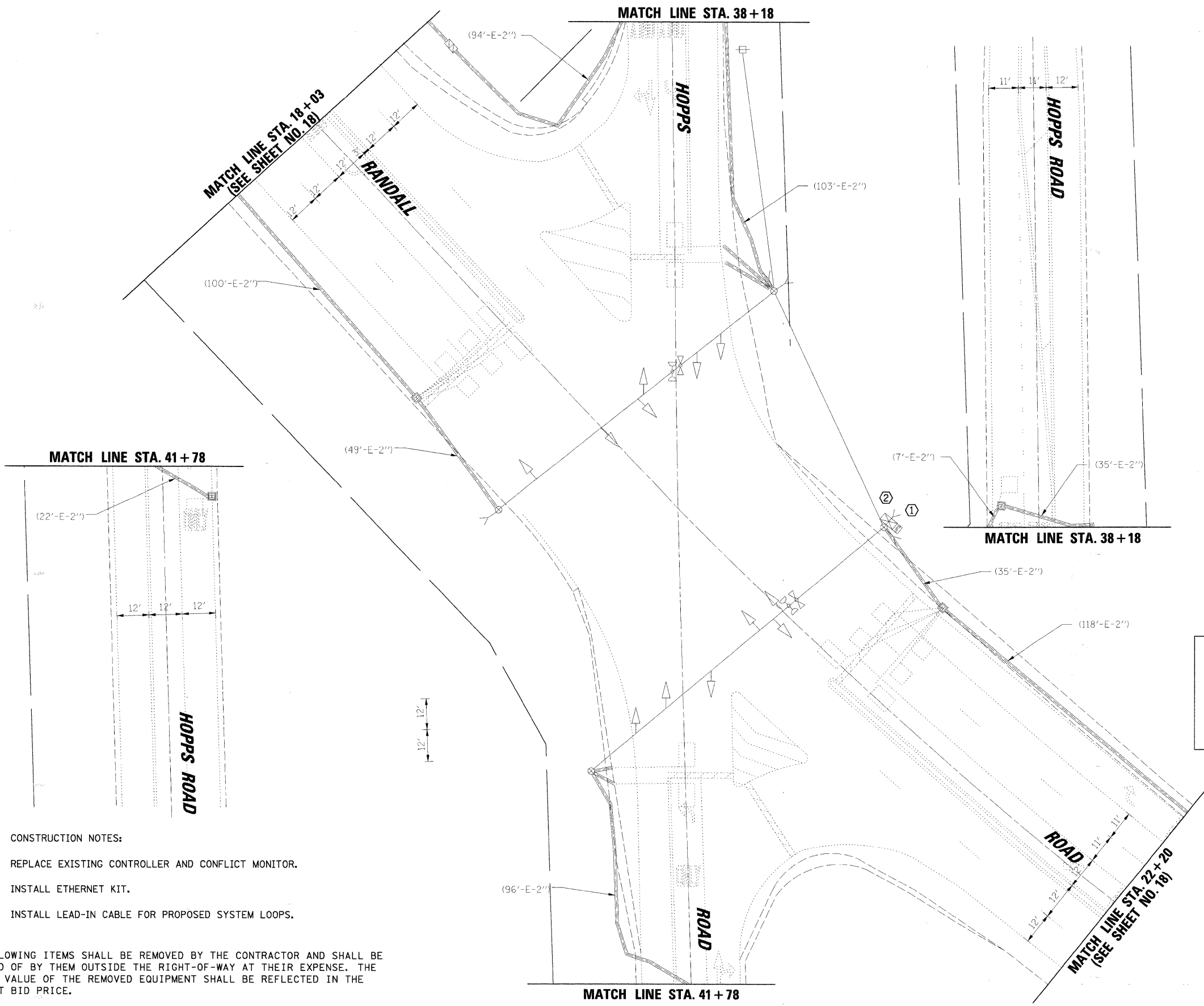
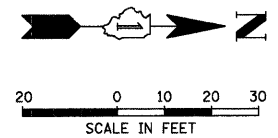
DATE: _____ BY: _____
 SURVEYED _____
 ALIGNED _____
 RT. OF WAY CHECKED _____
 ROAD FILE NAME _____

PLAN
 NOTE BOOK NO. _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 821-0500

DATE: _____ BY: _____
 SURVEYED _____
 GRADES CHECKED _____
 B.M. NOTED _____
 PROPOSED NOTATIONS OK'G

PROFILE
 NOTE BOOK NO. _____



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET	[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]
UNIT DUCT	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
EMERGENCY VEHICLE LIGHT 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]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]
DOME CAMERA (PAN/TILT/ZOOM)	[Symbol]	[Symbol]
VEHICLE DETECTION CAMERA	[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.

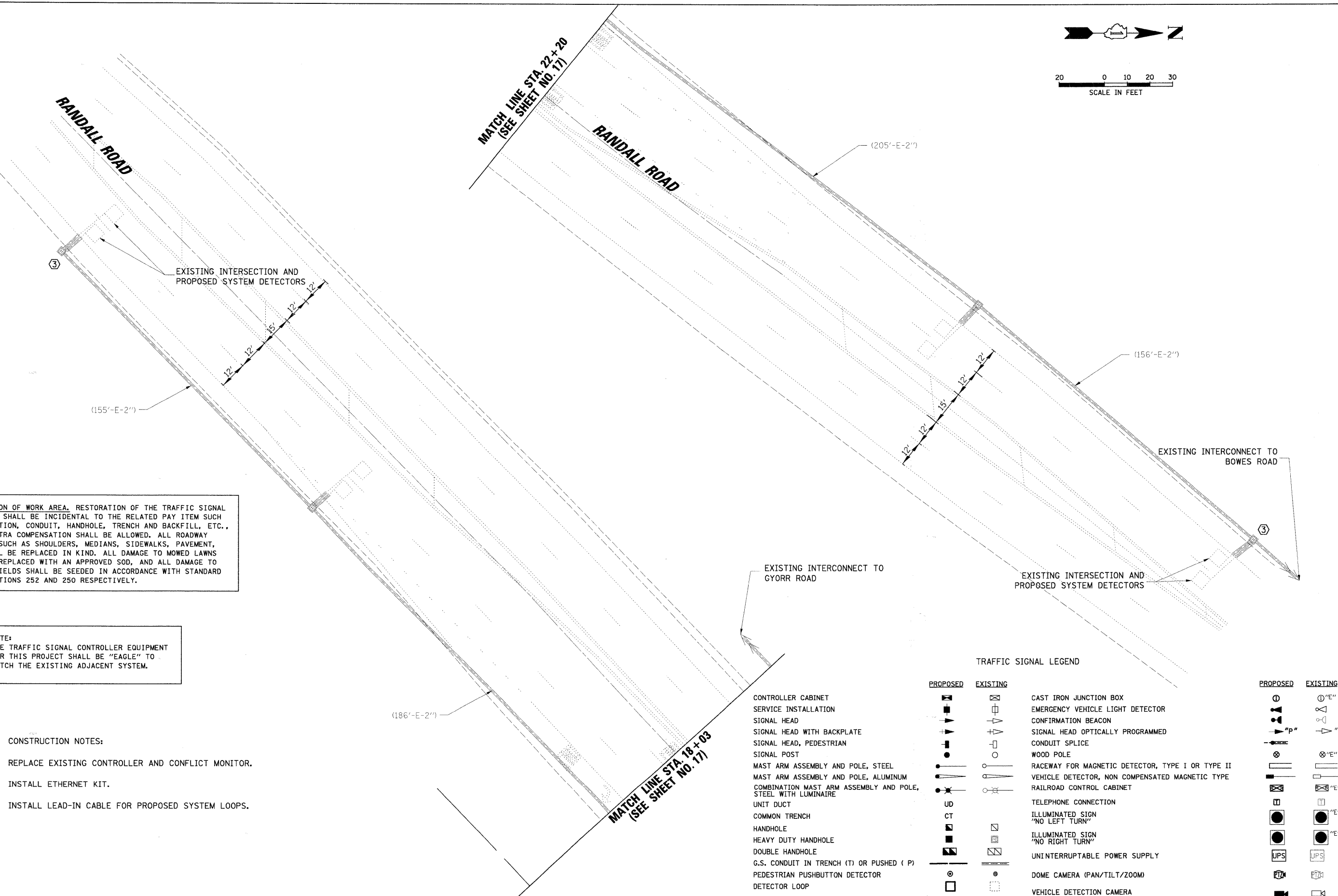
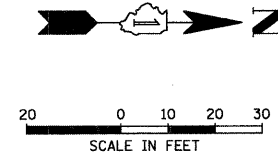
NOTE:
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

- CONSTRUCTION NOTES:
- 1 REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - 2 INSTALL ETHERNET KIT.
 - 3 INSTALL LEAD-IN CABLE FOR PROPOSED SYSTEM LOOPS.

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

1 EACH CONTROLLER AND CONFLICT MONITOR

FILE NAME = N:\kanecounty\27061617\of file\W001_Hoppps.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODIFICATION PLAN RANDALL ROAD AT HOPPPS ROAD	F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 17	
	PLOT SCALE = 20'	DRAWN -	REVISED -			CONTRACT NO. 63011					
	PLOT DATE = 1/28/2008	CHECKED -	REVISED -			SCALE:					
		DATE -	REVISED -			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 SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

- CONSTRUCTION NOTES:
- ① REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - ② INSTALL ETHERNET KIT.
 - ③ INSTALL LEAD-IN CABLE FOR PROPOSED SYSTEM LOOPS.

		TRAFFIC SIGNAL LEGEND	
PROPOSED	EXISTING	PROPOSED	EXISTING
CONTROLLER CABINET		EXISTING CONTROLLER CABINET	
SERVICE INSTALLATION		EXISTING SERVICE INSTALLATION	
SIGNAL HEAD		EXISTING SIGNAL HEAD	
SIGNAL HEAD WITH BACKPLATE		EXISTING SIGNAL HEAD WITH BACKPLATE	
SIGNAL HEAD, PEDESTRIAN		EXISTING SIGNAL HEAD, PEDESTRIAN	
SIGNAL POST		EXISTING SIGNAL POST	
MAST ARM ASSEMBLY AND POLE, STEEL		EXISTING MAST ARM ASSEMBLY AND POLE, STEEL	
MAST ARM ASSEMBLY AND POLE, ALUMINUM		EXISTING MAST ARM ASSEMBLY AND POLE, ALUMINUM	
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		EXISTING COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	
UNIT DUCT		EXISTING UNIT DUCT	
COMMON TRENCH		EXISTING COMMON TRENCH	
HANDHOLE		EXISTING HANDHOLE	
HEAVY DUTY HANDHOLE		EXISTING HEAVY DUTY HANDHOLE	
DOUBLE HANDHOLE		EXISTING DOUBLE HANDHOLE	
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		EXISTING G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	
PEDESTRIAN PUSHBUTTON DETECTOR		EXISTING PEDESTRIAN PUSHBUTTON DETECTOR	
DETECTOR LOOP		EXISTING DETECTOR LOOP	
		CAST IRON JUNCTION BOX	
		EMERGENCY VEHICLE LIGHT 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 CABINET	
		TELEPHONE CONNECTION	
		ILLUMINATED SIGN "NO LEFT TURN"	
		ILLUMINATED SIGN "NO RIGHT TURN"	
		UNINTERRUPTIBLE POWER SUPPLY	
		DOME CAMERA (PAN/TILT/ZOOM)	
		VEHICLE DETECTION CAMERA	

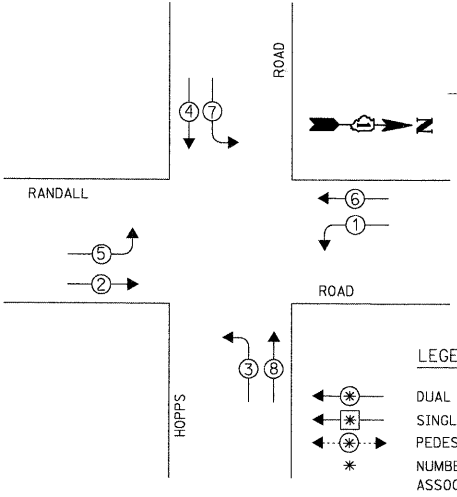
DATE	BY	SURVEYED
DATE	BY	ALIGNED
DATE	BY	CHECKED
DATE	BY	NOTED
DATE	BY	FILED
DATE	BY	PROJECT
DATE	BY	CONTRACT
DATE	BY	SHEET
DATE	BY	TOTAL

CHRISTOPHER B. BURKE ENGINEERING LTD.
315 West Higgins Road, Suite 600
Naperville, Illinois 60563
(847) 822-0500

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

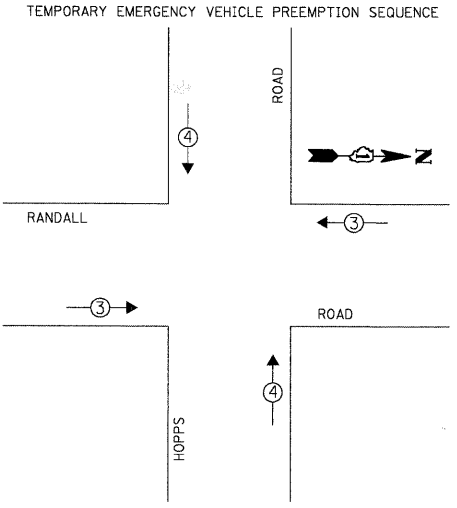
CHRISTOPHER B. BURKE ENGINEERING LTD.
 215 West Higgins Road, Suite 600
 Naperville, Illinois 60563
 (847) 821-0500

TEMPORARY CONTROLLER SEQUENCE



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

PHASE DESIGNATION DIAGRAM



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

TEMPORARY CABLE DIAGRAM LEGEND

- | EXISTING | PROPOSED | |
|----------|----------|--|
| | | TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION 12" (300mm) |
| | | TEMPORARY CONTROLLER CABINET |
| | | TEMPORARY SERVICE INSTALLATION |
| | | INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED. |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F |
| | | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | PEDESTRIAN PUSHBUTTON DETECTOR |
| | | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| | | VEHICLE DETECTION CAMERA |
| | | UNINTERRUPTIBLE POWER SUPPLY |
| | | VENDOR SPECIFIC CABLE |
| | | DOMED CAMERA (PAN/TILT/ZOOM) |

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1375
INDUCTIVE LOOP DETECTOR	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

- CONSTRUCTION NOTES:
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.
 - INSTALL LEAD-IN CABLE FOR PROPOSED SYSTEM LOOPS.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	16		12	0.10	19.20
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	-		150	1.00	-
FLASHER	-			0.50	-

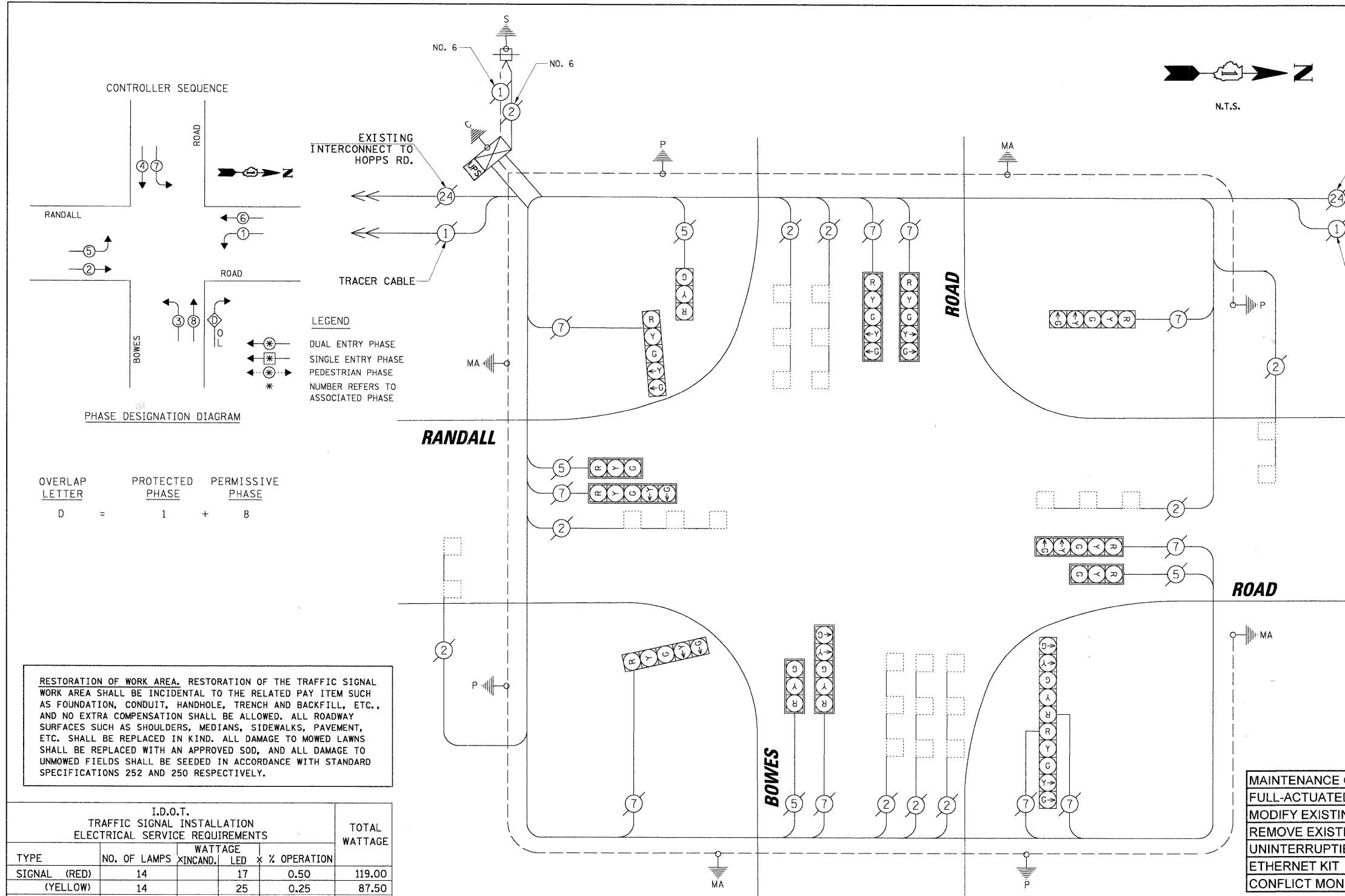
ENERGY COSTS TO: TOTAL = 341.20
 KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		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)

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

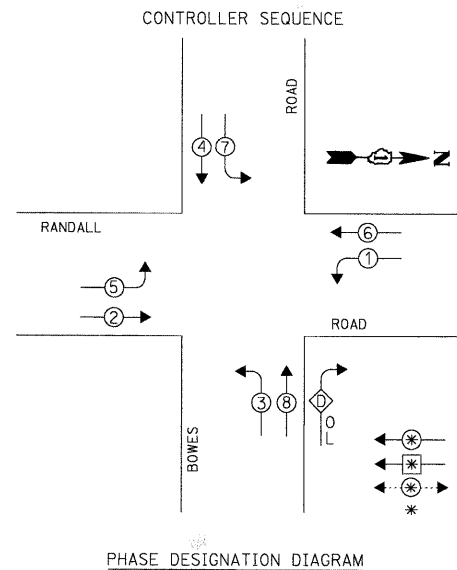
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

DATE: _____ BY: _____
 SURVEYED: _____
 PLAN: _____
 NOTE BOOK: _____
 NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Chicago, IL 60630
 (847) 823-0500
 PROFILE: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 BEAM NOTES: _____
 NO. _____
 STRUCTURE NOTATIONS: _____



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
(Symbol)	(Symbol)	8" (200mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) TRAFFIC SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(Symbol)	(Symbol)	CONTROLLER CABINET
(Symbol)	(Symbol)	SERVICE INSTALLATION
(Symbol)	(Symbol)	TELEPHONE 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)	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
(Symbol)	(Symbol)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO LEFT TURN"
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO RIGHT TURN"
(Symbol)	(Symbol)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
(Symbol)	(Symbol)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY
(Symbol)	(Symbol)	VENDOR SPECIFIC CABLE
(Symbol)	(Symbol)	DOMED CAMERA (PAN/TILT/ZOOM)
(Symbol)	(Symbol)	VIDEO DETECTION CAMERA



LEGEND

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

OVERLAP LETTER **PROTECTED PHASE** **PERMISSIVE PHASE**

D = 1 + 8

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	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	17	0.50	119.00
(YELLOW)	14	25	0.25	87.50
(GREEN)	14	15	0.25	52.50
ARROW	20	12	0.10	24.00
PED. SIGNAL	-	25	1.00	-
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
VIDEO SYSTEM	-	150	1.00	-
FLASHER	-	-	0.50	-

ENERGY COSTS TO: TOTAL = 383.00

KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175

ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+HL-2=
E - M. ARM POLE	-	SIGNAL POST	2 (0.6)	(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)

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

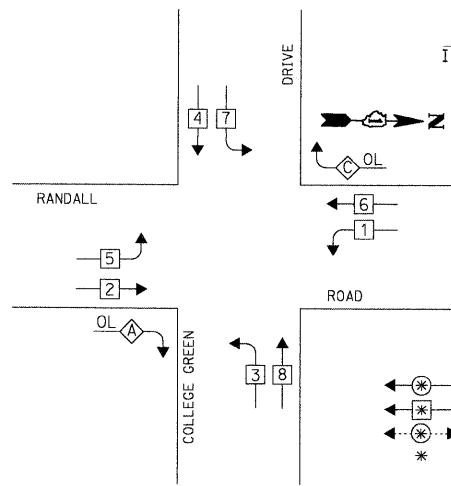
- CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.
 - INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET.

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

1 EACH CONTROLLER AND CONFLICT MONITOR

DATE: _____ BY: _____
 SURVEYED: _____
 PLAN: _____
 NOTE BOOK: _____
 NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60618
 (847) 823-0500
 PROFILE: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 SIGNATURE: _____
 DATE: _____

CONTROLLER SEQUENCE



LEGEND
 * DUAL ENTRY PHASE
 ← SINGLE ENTRY PHASE
 ← PEDESTRIAN PHASE
 * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PROTECTED PHASE	PERMISSIVE PHASE
A	3	2
C	7	6

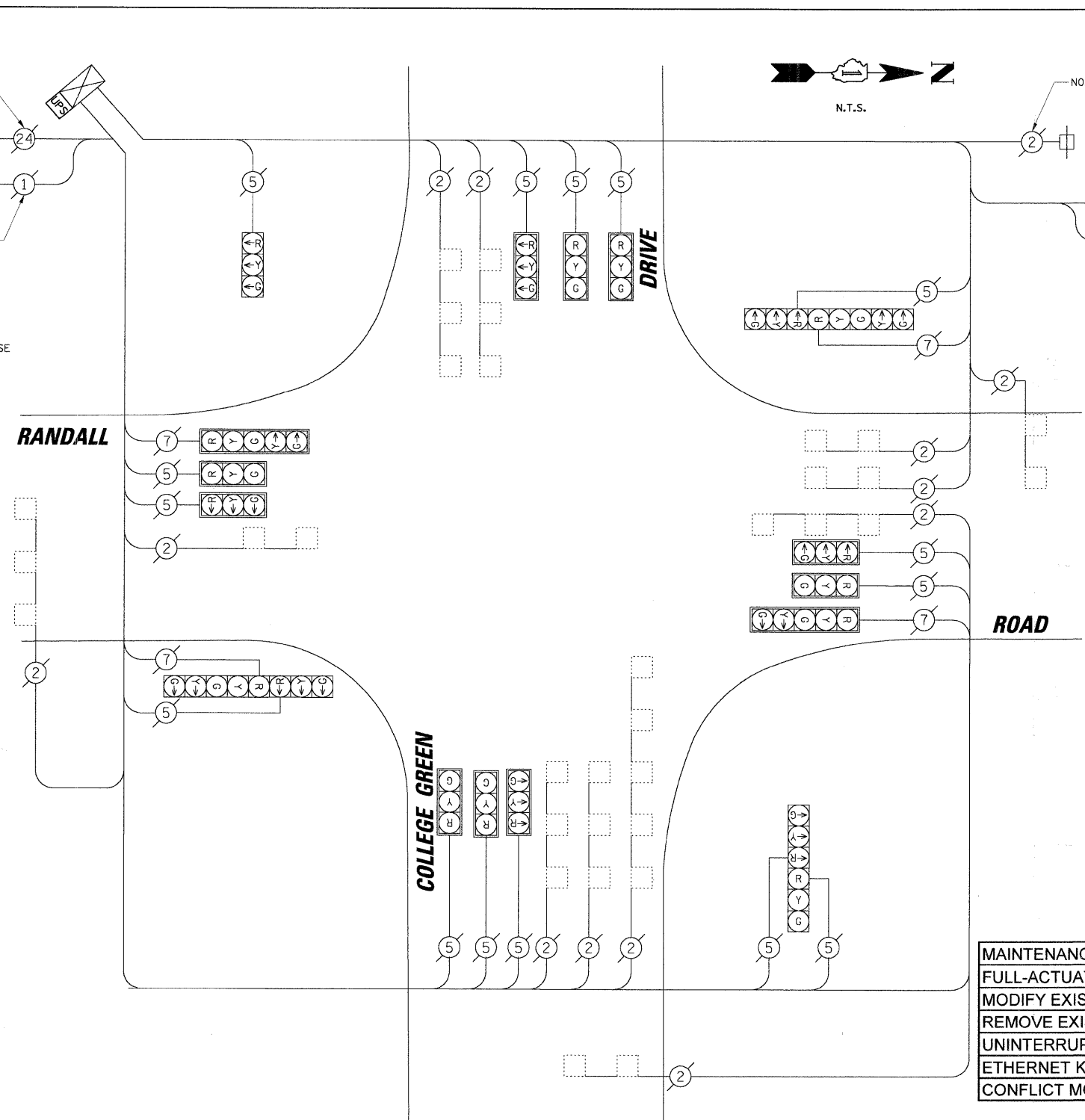
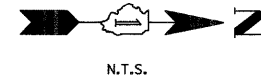
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION		
SIGNAL (RED)	17	17	0.50	144.50	
(YELLOW)	17	25	0.25	106.25	
(GREEN)	17	15	0.25	63.75	
ARROW	18	12	0.10	21.60	
PED. SIGNAL	-	25	1.00	-	
CONTROLLER	1	100	1.00	100.00	
ILLUM. SIGN	-	25	0.05	-	
VIDEO SYSTEM	-	150	1.00	-	
FLASHER	-	-	0.50	-	

ENERGY COSTS TO: TOTAL = 436.10
KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE	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)

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



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	8" (200mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	TELEPHONE 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]	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"
[Symbol]	[Symbol]	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
[Symbol]	[Symbol]	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
[Symbol]	[Symbol]	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY
[Symbol]	[Symbol]	VENDOR SPECIFIC CABLE
[Symbol]	[Symbol]	DOME CAMERA (PAN/TILT/ZOOM)
[Symbol]	[Symbol]	VIDEO DETECTION CAMERA

SCHEDULE OF QUANTITIES

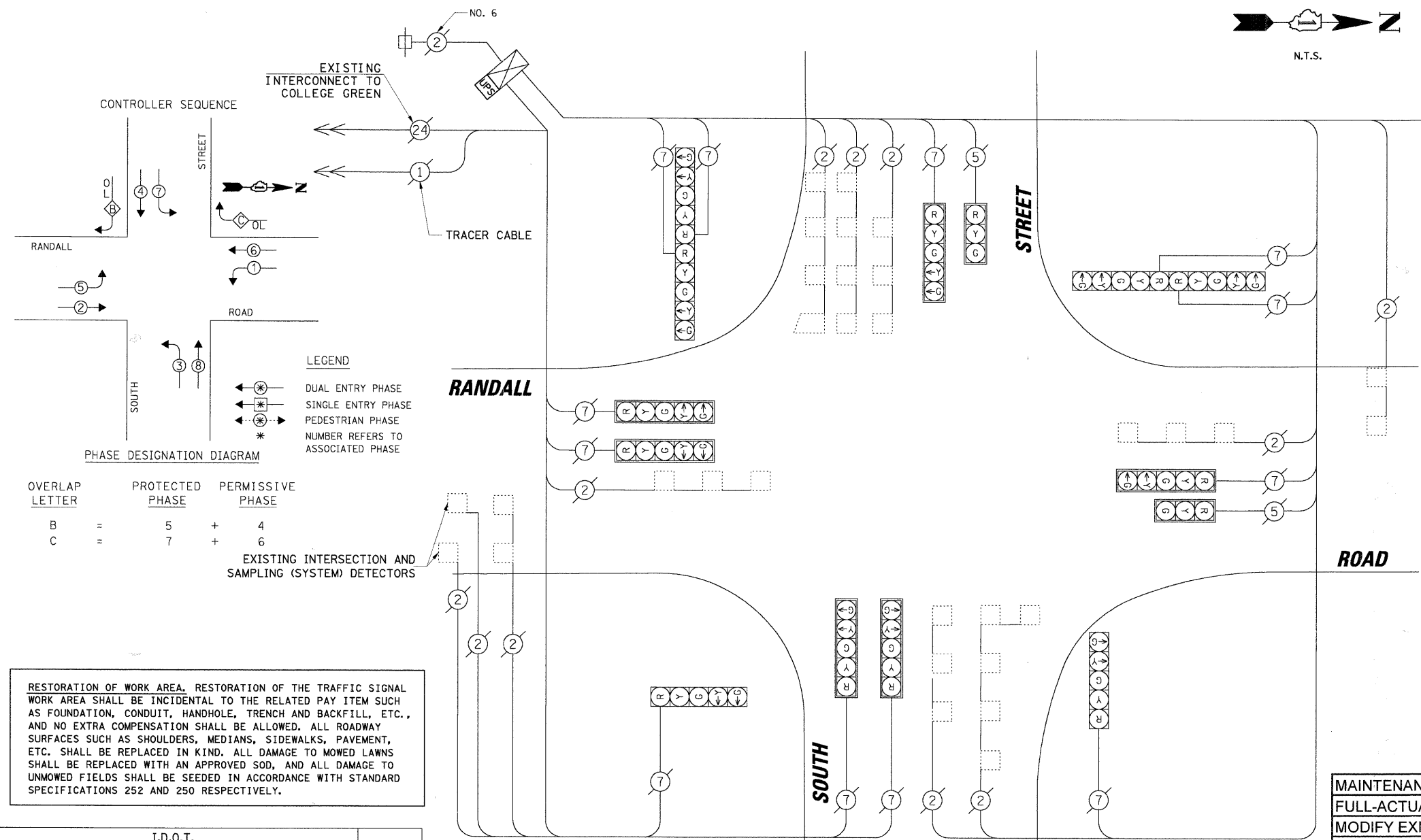
ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

- CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.
 - INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET.

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

1 EACH CONTROLLER AND CONFLICT MONITOR

DATE: _____ BY: _____
 SURVEYED: _____
 PLAN: _____
 NOTE BOOK: _____
 PART OF WAY CHECKED: _____
 ROAD FILE NAME: _____
 NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60618
 (847) 823-0500
 DATE: _____ BY: _____
 SURVEYED: _____
 PROFILE: _____
 NOTE BOOK: _____
 STRUCTURE: _____
 NO. _____



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
		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
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
		GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
		UNINTERRUPTIBLE POWER SUPPLY
		VENDOR SPECIFIC CABLE
		DOMED CAMERA (PAN/TILT/ZOOM)
		VIDEO DETECTION CAMERA

PHASE DESIGNATION DIAGRAM

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

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOG, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE 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	TOTAL WATTAGE
SIGNAL (RED)	14	17	119.00
(YELLOW)	14	25	87.50
(GREEN)	14	15	52.50
ARROW	24	12	28.80
PED. SIGNAL	-	25	-
CONTROLLER	1	100	100.00
ILLUM. SIGN	-	25	-
VIDEO SYSTEM	-	150	-
FLASHER	-	0.50	-

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 = 387.80
KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

- CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.
 - INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET.

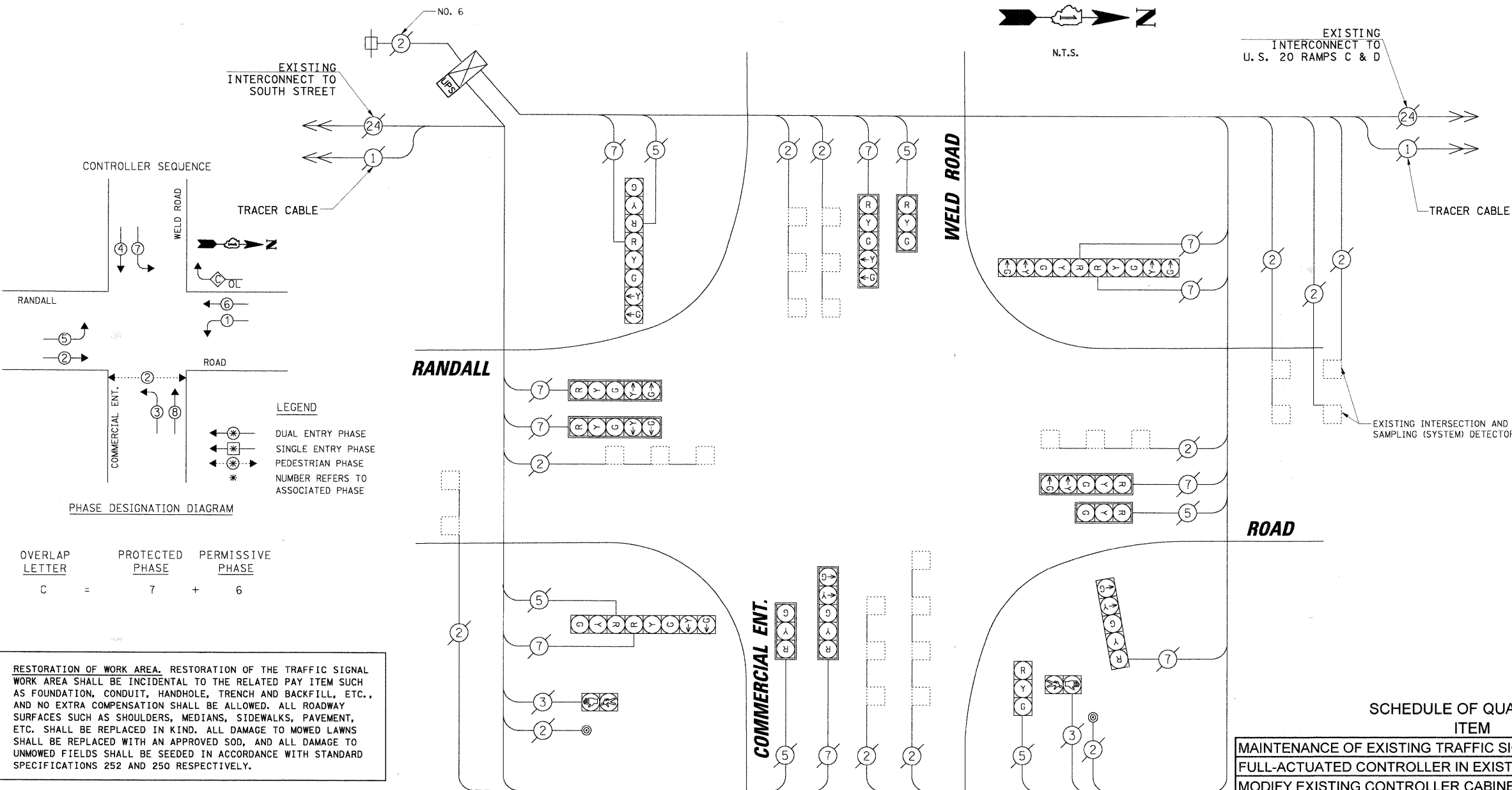
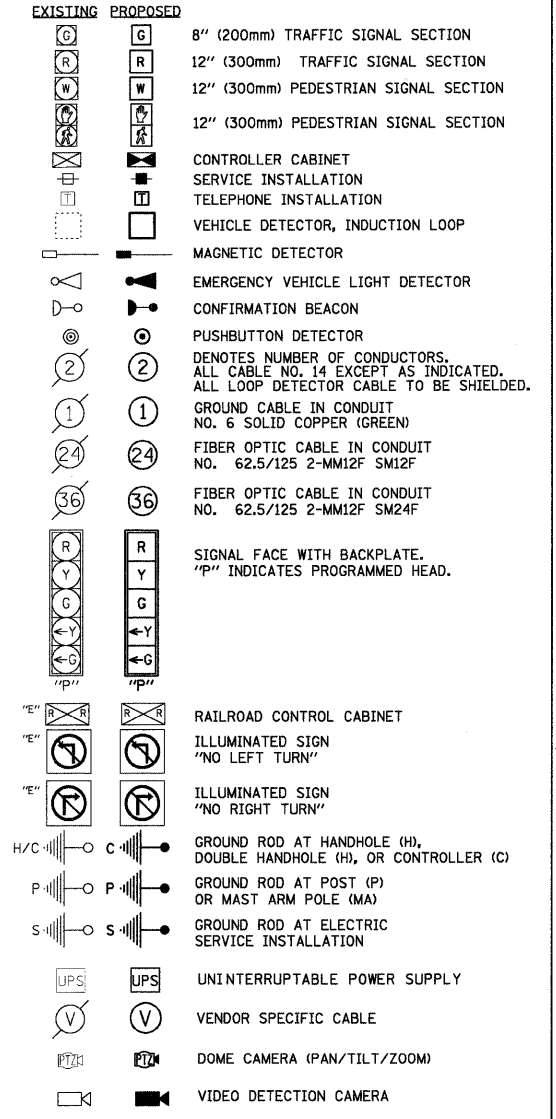
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

1 EACH CONTROLLER AND CONFLICT MONITOR

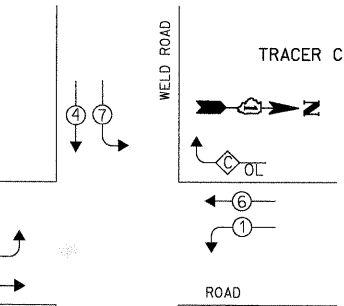
DATE: _____ BY: _____
 SURVEYED _____
 GRADES CHECKED _____
 STRUCTURE NOTATIONS CHECKED _____
 PROFILE _____
 NOTE BOOK NO. _____
 DATE: _____ BY: _____
 SURVEYED _____
 GRADES CHECKED _____
 STRUCTURE NOTATIONS CHECKED _____
 PLAN _____
 NOTE BOOK NO. _____
 DATE: _____ BY: _____
 SURVEYED _____
 GRADES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

CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 823-0500

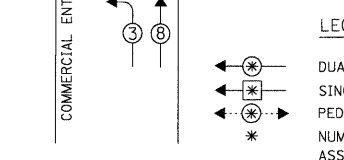
CABLE PLAN LEGEND



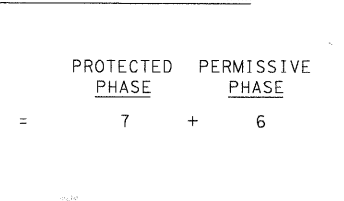
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



LEGEND



OVERLAP LETTER PROTECTED PHASE PERMISSIVE PHASE
 C = 7 + 6

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.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND. LED	% OPERATION		
SIGNAL (RED)	16	17	0.50	136.00	
(YELLOW)	16	25	0.25	100.00	
(GREEN)	16	15	0.25	60.00	
ARROW	20	12	0.10	24.00	
PED. SIGNAL	2	25	1.00	50.00	
CONTROLLER	1	100	1.00	100.00	
ILLUM. SIGN	-	25	0.05	-	
VIDEO SYSTEM	-	150	-	-	
FLASHER	-	0.50	-	-	

ENERGY COSTS TO: TOTAL = 470.00
KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		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)

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

- CONSTRUCTION NOTES:
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.
 - INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET.

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

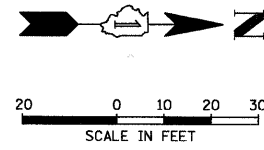
1 EACH CONTROLLER AND CONFLICT MONITOR

FILE NAME = N:\kanecounty\0786161\Trfco\CAB.Weld.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN
 RANDALL ROAD AT WELD ROAD

F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 23
CONTRACT NO. 63011				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



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

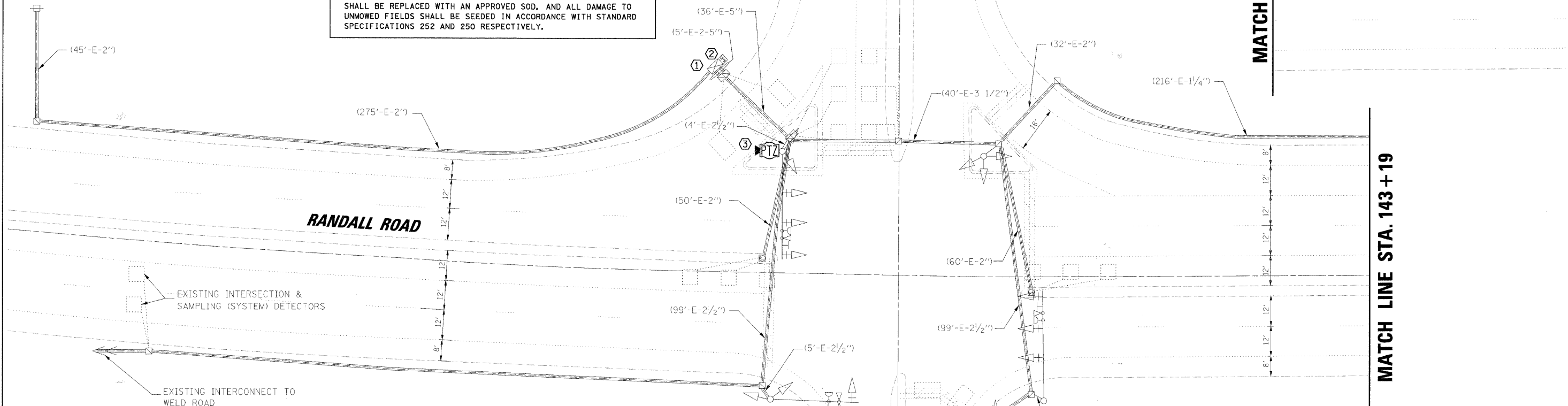
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

U.S. 20 RAMPS C & D

MATCH LINE STA. 143+19

RANDALL ROAD

MATCH LINE STA. 143+19



EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS

EXISTING INTERCONNECT TO WELD ROAD

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			PEDESTRIAN PUSHBUTTON DETECTOR		
SERVICE INSTALLATION			DETECTOR LOOP		
SIGNAL HEAD			CAST IRON JUNCTION BOX		
SIGNAL HEAD WITH BACKPLATE			EMERGENCY VEHICLE LIGHT DETECTOR		
SIGNAL HEAD, PEDESTRIAN			CONFIRMATION BEACON		
SIGNAL POST			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, STEEL			CONDUIT SPLICE		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			WOOD POLE		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE			RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
UNIT DUCT			VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
COMMON TRENCH			RAILROAD CONTROL CABINET		
HANDHOLE			TELEPHONE CONNECTION		
HEAVY DUTY HANDHOLE			ILLUMINATED SIGN "NO LEFT TURN"		
DOUBLE HANDHOLE			ILLUMINATED SIGN "NO RIGHT TURN"		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)			UNINTERRUPTABLE POWER SUPPLY		
			DOME CAMERA (PAN/TILT/ZOOM)		
			VEHICLE DETECTION CAMERA		

CONSTRUCTION NOTES:

- ① REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
- ② INSTALL ETHERNET HUB KIT.
- ③ INSTALL PTZ CAMERA ON MAST ARM POLE IN SOUTHWEST CORNER ON EXTENSION POLE.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE STATE, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CONTROLLER AND CONFLICT MONITOR

FILE NAME = N:\kanecounty\0786161\Traffic\MOD_28EB.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

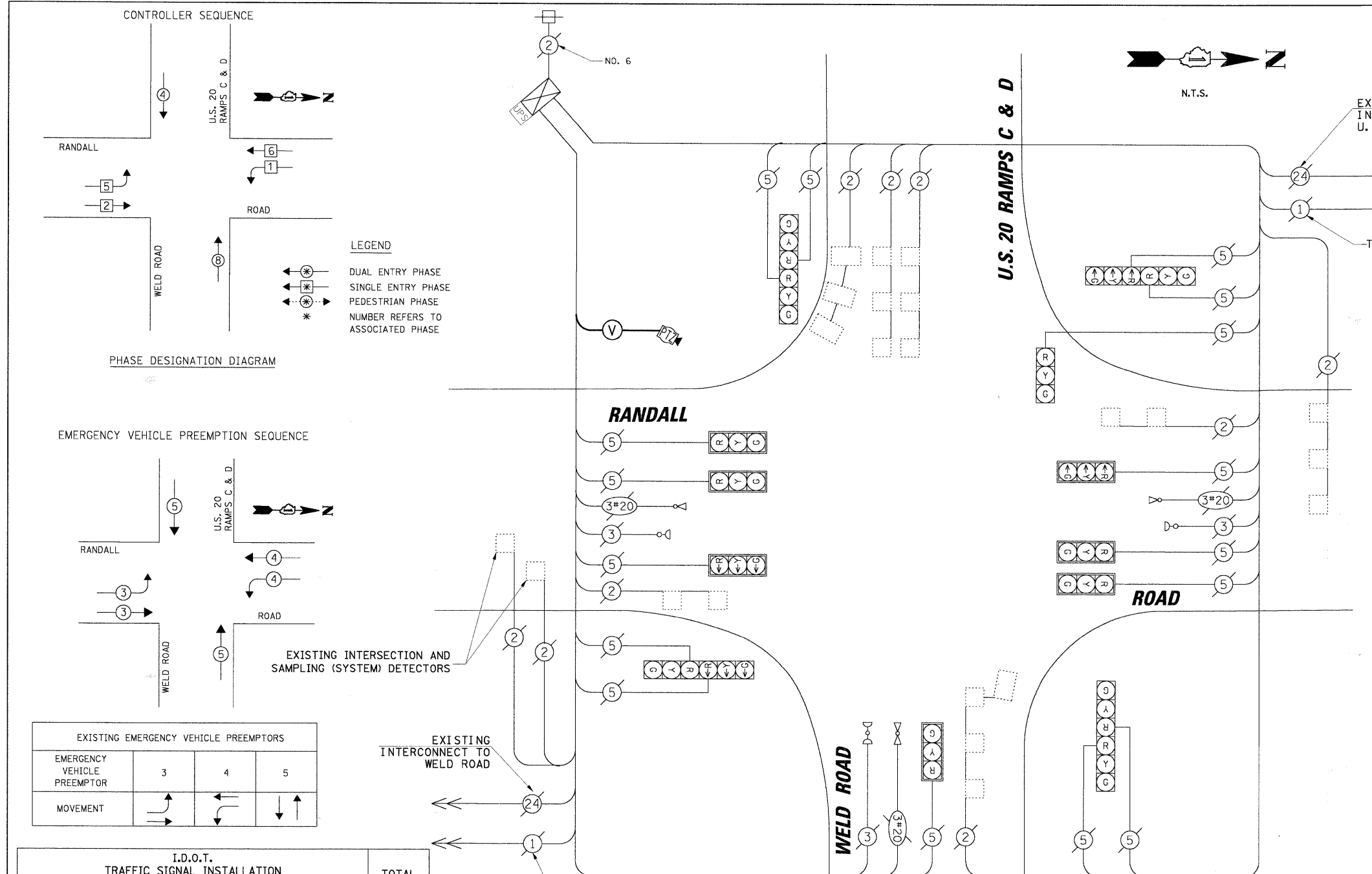
TRAFFIC SIGNAL MODIFICATION PLAN
RANDALL ROAD AT U.S. 20 RAMPS C & D (WELD RD.)

SCALE:

F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 24
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 63011	

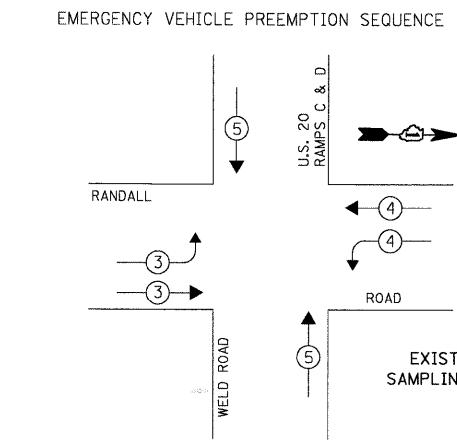
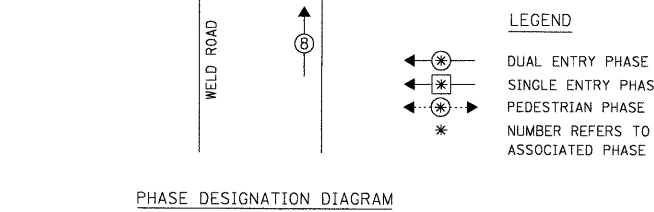
CHRISTOPHER B. BURKE ENGINEERING LTD.
3515 West Higgins Road, Suite 600
Evanston, IL 60201
(847) 823-0500

DATE: _____ BY: _____
 SURVIVED: _____
 PLAN: _____
 NOTE BOOK: _____
 NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Schaumburg, Illinois 60196
 (815) 823-6500



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
		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
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		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
		UNINTERRUPTIBLE POWER SUPPLY
		VENDOR SPECIFIC CABLE
		PTZ DOME CAMERA (PAN/TILT/ZOOM)
		VIDEO DETECTION CAMERA



EXISTING EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT			

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

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	12		12	0.10	14.40
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	1		150	1.00	150.00
FLASHER	-			0.50	-

ENERGY COSTS TO: TOTAL = 486.40

ILLINOIS DEPARTMENT OF TRANSPORTATION
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: **MIKE WIDHALM**
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2=
E - M. ARM POLE	2 (0.6)	SIGNAL POST	2 (0.6)	(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)

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

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

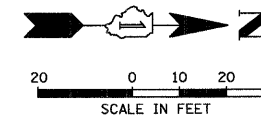
SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOTE-CONTROLLED VIDEO SYSTEM	EACH	1
ETHERNET HUB KIT	EACH	1
CONFLICT MONITOR	EACH	1

- CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET HUB KIT.
 - INSTALL PTZ CAMERA ON MAST ARM POLE IN SOUTHWEST CORNER ON EXTENSION POLE.

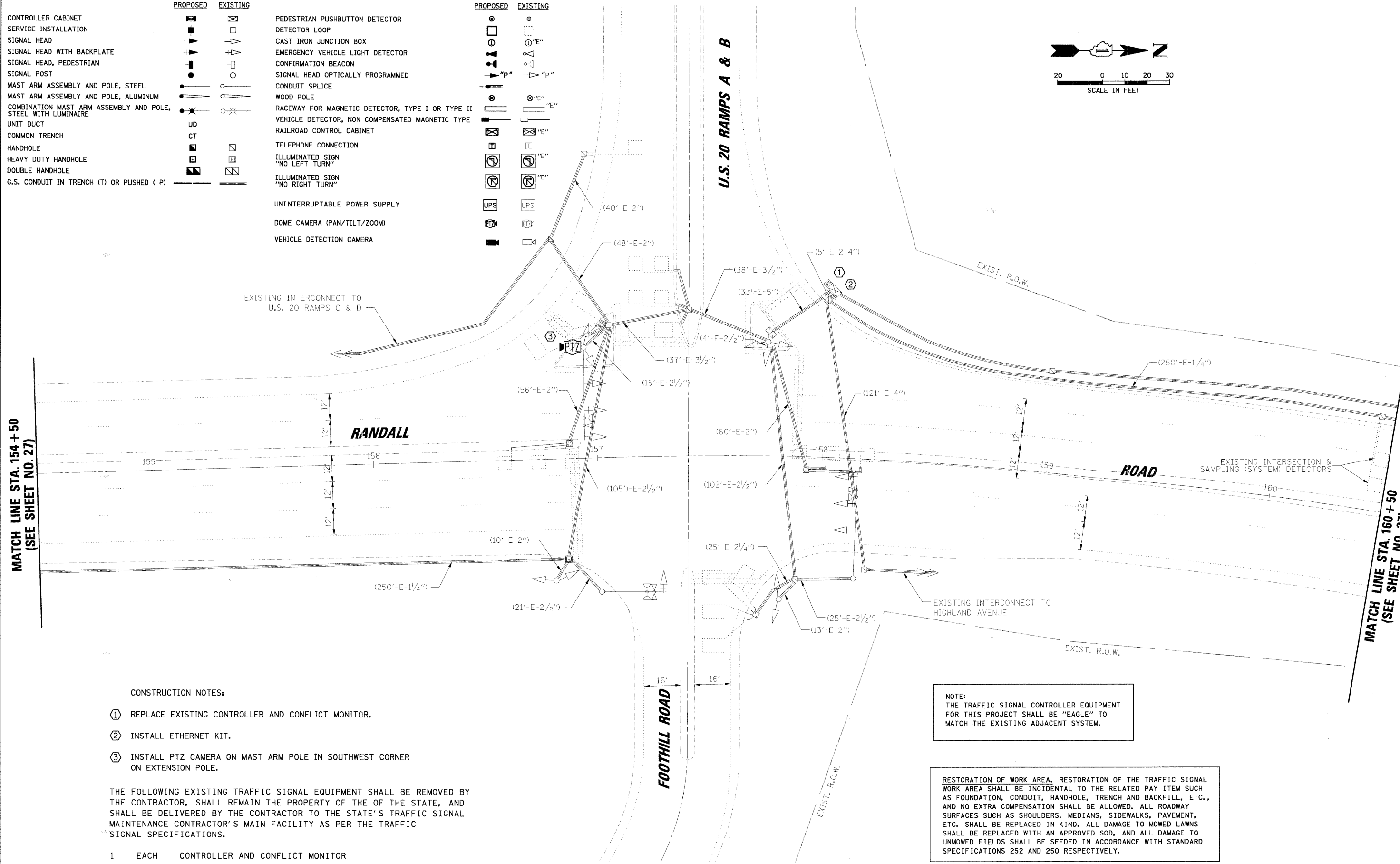
TRAFFIC SIGNAL LEGEND

PROPOSED		EXISTING		PROPOSED		EXISTING	
CONTROLLER CABINET		CONTROLLER CABINET		PEDESTRIAN PUSHBUTTON DETECTOR		PEDESTRIAN PUSHBUTTON DETECTOR	
SERVICE INSTALLATION		SERVICE INSTALLATION		DETECTOR LOOP		DETECTOR LOOP	
SIGNAL HEAD		SIGNAL HEAD		CAST IRON JUNCTION BOX		CAST IRON JUNCTION BOX	
SIGNAL HEAD WITH BACKPLATE		SIGNAL HEAD WITH BACKPLATE		EMERGENCY VEHICLE LIGHT DETECTOR		EMERGENCY VEHICLE LIGHT DETECTOR	
SIGNAL HEAD, PEDESTRIAN		SIGNAL HEAD, PEDESTRIAN		CONFIRMATION BEACON		CONFIRMATION BEACON	
SIGNAL POST		SIGNAL POST		SIGNAL HEAD OPTICALLY PROGRAMMED		SIGNAL HEAD OPTICALLY PROGRAMMED	
MAST ARM ASSEMBLY AND POLE, STEEL		MAST ARM ASSEMBLY AND POLE, STEEL		CONDUIT SPLICE		CONDUIT SPLICE	
MAST ARM ASSEMBLY AND POLE, ALUMINUM		MAST ARM ASSEMBLY AND POLE, ALUMINUM		WOOD POLE		WOOD POLE	
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	
UNIT DUCT		UNIT DUCT		VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	
COMMON TRENCH		COMMON TRENCH		RAILROAD CONTROL CABINET		RAILROAD CONTROL CABINET	
HANDHOLE		HANDHOLE		TELEPHONE CONNECTION		TELEPHONE CONNECTION	
HEAVY DUTY HANDHOLE		HEAVY DUTY HANDHOLE		ILLUMINATED SIGN "NO LEFT TURN"		ILLUMINATED SIGN "NO LEFT TURN"	
DOUBLE HANDHOLE		DOUBLE HANDHOLE		ILLUMINATED SIGN "NO RIGHT TURN"		ILLUMINATED SIGN "NO RIGHT TURN"	
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		UNINTERRUPTIBLE POWER SUPPLY		UNINTERRUPTIBLE POWER SUPPLY	
				DOMA CAMERA (PAN/TILT/ZOOM)		DOMA CAMERA (PAN/TILT/ZOOM)	
				VEHICLE DETECTION CAMERA		VEHICLE DETECTION CAMERA	



MATCH LINE STA. 154 + 50
(SEE SHEET NO. 27)

MATCH LINE STA. 160 + 50
(SEE SHEET NO. 27)



CONSTRUCTION NOTES:

- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
- INSTALL ETHERNET KIT.
- INSTALL PTZ CAMERA ON MAST ARM POLE IN SOUTHWEST CORNER ON EXTENSION POLE.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE STATE, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CONTROLLER AND CONFLICT MONITOR

FILE NAME = N:\kansascity\0786161\7\offic\1001.20\wb.dgn

USER NAME = MWILLIAM

DESIGNED -
DRAWN -

REVISED -
REVISED -

PLOT SCALE = 20'
PLOT DATE = 1/29/2008

CHECKED -
DATE -

REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
RANDALL ROAD AT U.S. 20 RAMPS A & B (FOOTHILL RD.)

SCALE:

F.A.P. RTE. 336 SECTION 06-00346-00-TL COUNTY KANE TOTAL SHEETS 69 SHEET NO. 26

CONTRACT NO. 63011
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

PROFILE	DATE	BY
SURVEYED		
GRADES CHECKED		
PLAN NOTED		
PRODUCTION NOTATIONS OK'D		
NO.		

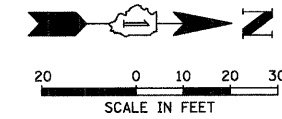
PLAN	DATE	BY
SIGNATURE		
ALIGNED CHECKED		
PT. OF WAY CHECKED		
CON. FILE NAME		
NO.		

DATE	BY

CHRISTOPHER B. BURKE ENGINEERING LTD.
3515 West Higgins Road, Suite 600
Chicago, IL 60638
(847) 823-0500

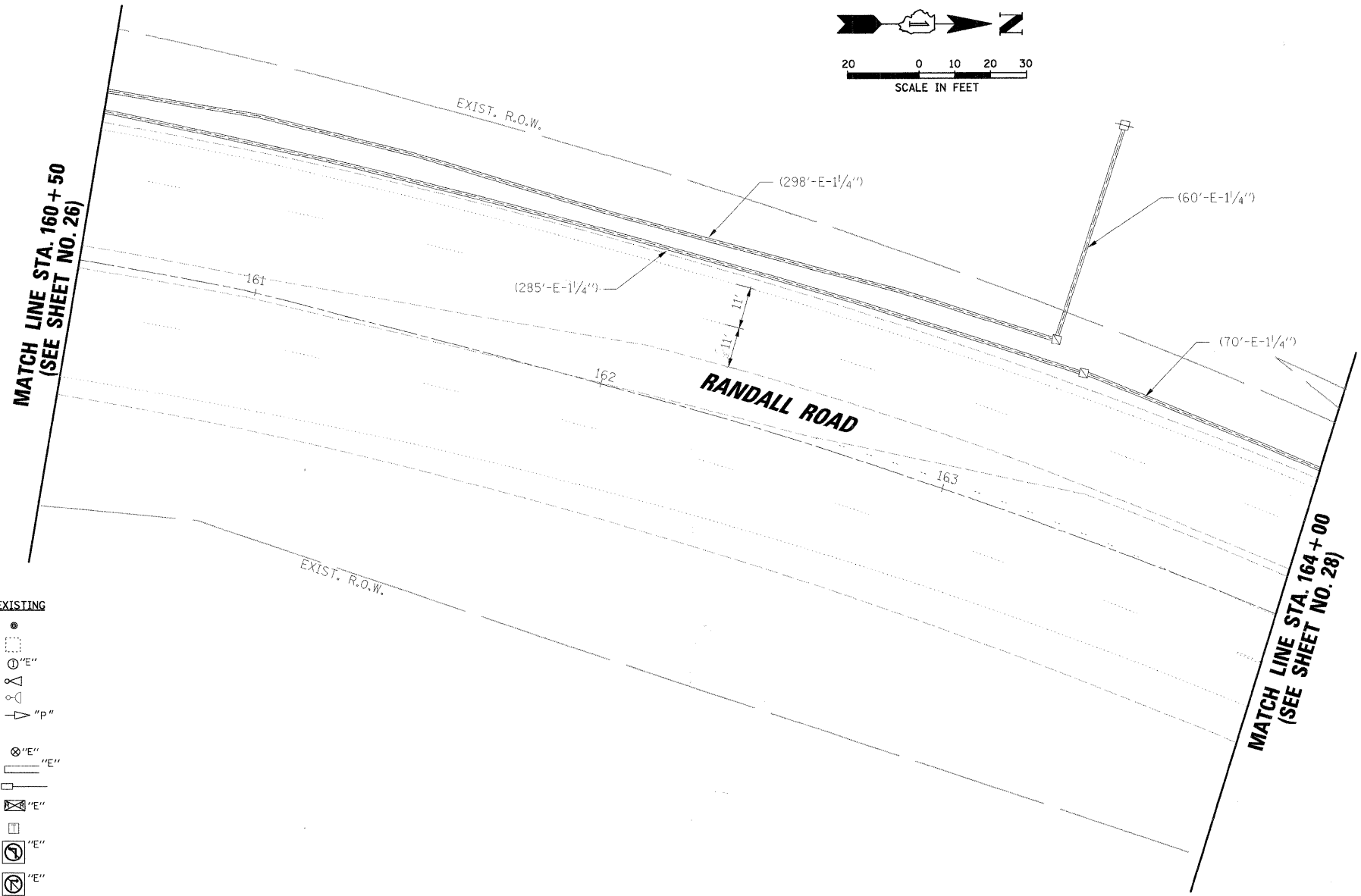
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

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



MATCH LINE STA. 160+50
(SEE SHEET NO. 26)

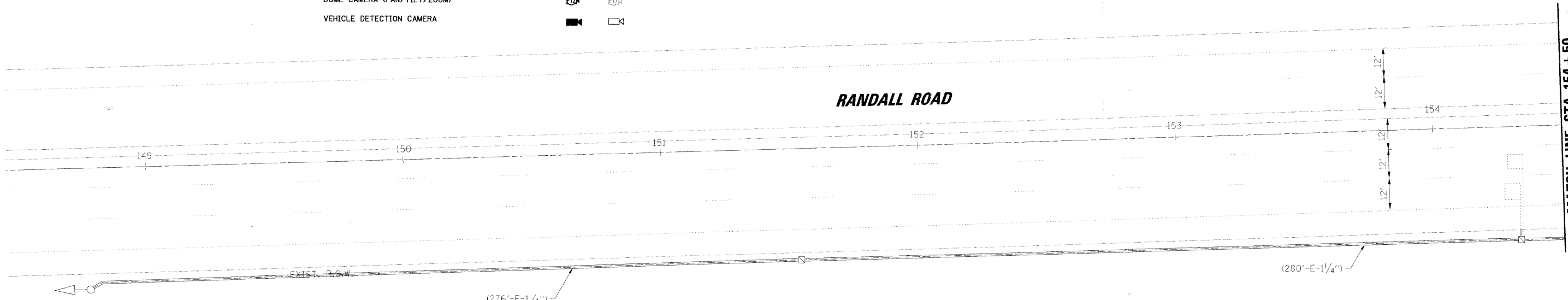
MATCH LINE STA. 164+00
(SEE SHEET NO. 28)



TRAFFIC SIGNAL LEGEND

PROPOSED		EXISTING		PROPOSED		EXISTING	
CONTROLLER CABINET		EXISTING cabinet symbol	PEDESTRIAN PUSHBUTTON DETECTOR		EXISTING pushbutton symbol	PEDESTRIAN PUSHBUTTON DETECTOR	
SERVICE INSTALLATION		EXISTING service symbol	DETECTOR LOOP		EXISTING loop symbol	DETECTOR LOOP	
SIGNAL HEAD		EXISTING head symbol	CAST IRON JUNCTION BOX		EXISTING junction box symbol	CAST IRON JUNCTION BOX	
SIGNAL HEAD WITH BACKPLATE		EXISTING head with backplate symbol	EMERGENCY VEHICLE LIGHT DETECTOR		EXISTING EVD symbol	EMERGENCY VEHICLE LIGHT DETECTOR	
SIGNAL HEAD, PEDESTRIAN		EXISTING pedestrian head symbol	CONFIRMATION BEACON		EXISTING beacon symbol	CONFIRMATION BEACON	
SIGNAL POST		EXISTING post symbol	SIGNAL HEAD OPTICALLY PROGRAMMED		EXISTING OP symbol	SIGNAL HEAD OPTICALLY PROGRAMMED	
MAST ARM ASSEMBLY AND POLE, STEEL		EXISTING steel mast arm symbol	CONDUIT SPLICE		EXISTING splice symbol	CONDUIT SPLICE	
MAST ARM ASSEMBLY AND POLE, ALUMINUM		EXISTING aluminum mast arm symbol	WOOD POLE		EXISTING wood pole symbol	WOOD POLE	
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		EXISTING combination mast arm symbol	RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		EXISTING raceway symbol	RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	
UNIT DUCT	UD	EXISTING unit duct symbol	VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		EXISTING VDM symbol	VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	
COMMON TRENCH	CT	EXISTING common trench symbol	RAILROAD CONTROL CABINET		EXISTING RCC symbol	RAILROAD CONTROL CABINET	
HANDHOLE		EXISTING handhole symbol	TELEPHONE CONNECTION		EXISTING telephone connection symbol	TELEPHONE CONNECTION	
HEAVY DUTY HANDHOLE		EXISTING heavy duty handhole symbol	ILLUMINATED SIGN "NO LEFT TURN"		EXISTING sign symbol	ILLUMINATED SIGN "NO LEFT TURN"	
DOUBLE HANDHOLE		EXISTING double handhole symbol	ILLUMINATED SIGN "NO RIGHT TURN"		EXISTING sign symbol	ILLUMINATED SIGN "NO RIGHT TURN"	
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	T/P	EXISTING G.S. conduit symbol	UNINTERRUPTABLE POWER SUPPLY	UPS	EXISTING UPS symbol	UNINTERRUPTABLE POWER SUPPLY	UPS
			DOME CAMERA (PAN/TILT/ZOOM)		EXISTING dome camera symbol	DOME CAMERA (PAN/TILT/ZOOM)	
			VEHICLE DETECTION CAMERA		EXISTING VDC symbol	VEHICLE DETECTION CAMERA	

RANDALL ROAD



MATCH LINE STA. 154+50
(SEE SHEET NO. 26)

DATE	BY	DATE	BY
DATE	BY	DATE	BY

CHRISTOPHER B. BURKE ENGINEERING LTD.
315 West Higgins Road, Suite 600
Bloomington, IL 61810
(847) 823-0600

DATE	BY

FILE NAME =	USER NAME = MWILLIAM	DESIGNED -	REVISED -
N:\kanecounty\8786161\Traffic\4002.28vb.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

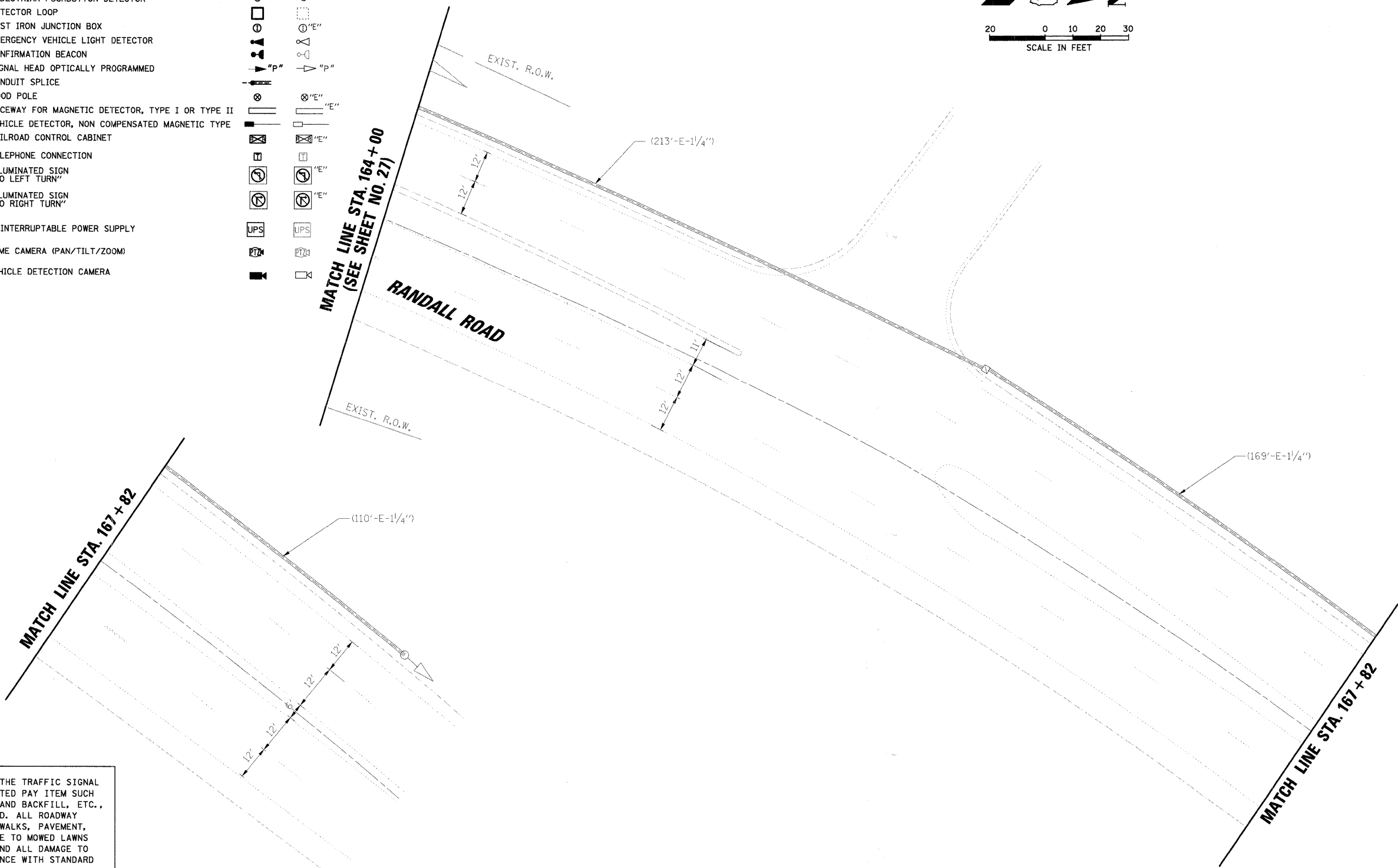
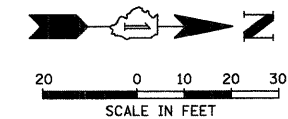
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
RANDALL ROAD AT U.S. 20 RAMPS A & B (FOOTHILL RD.)

F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 27
CONTRACT NO. 63011			ILLINOIS FED. AID PROJECT	

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			PEDESTRIAN PUSHBUTTON DETECTOR		
SERVICE INSTALLATION			DETECTOR LOOP		
SIGNAL HEAD			CAST IRON JUNCTION BOX		
SIGNAL HEAD WITH BACKPLATE			EMERGENCY VEHICLE LIGHT DETECTOR		
SIGNAL HEAD, PEDESTRIAN			CONFIRMATION BEACON		
SIGNAL POST			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, STEEL			CONDUIT SPLICE		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			WOOD POLE		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE			RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
UNIT DUCT			VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
COMMON TRENCH			RAILROAD CONTROL CABINET		
HANDHOLE			TELEPHONE CONNECTION		
HEAVY DUTY HANDHOLE			ILLUMINATED SIGN "NO LEFT TURN"		
DOUBLE HANDHOLE			ILLUMINATED SIGN "NO RIGHT TURN"		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)			UNINTERRUPTABLE POWER SUPPLY		
			DOME CAMERA (PAN/TILT/ZOOM)		
			VEHICLE DETECTION CAMERA		



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

DATE	BY	DESCRIPTION

CHRISTOPHER B. BURKE ENGINEERING LTD.
9575 West Higgins Road, Suite 600
Chicago, Illinois 60618
(877) 823-0580

FILE NAME = N:\kane\county\078616\Traffic\0003_28\td.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -
	PLOT SCALE = 20'	DRAWN -	REVISED -
	PLOT DATE = 1/28/2008	CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

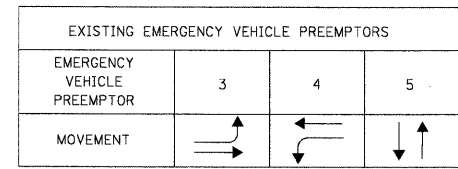
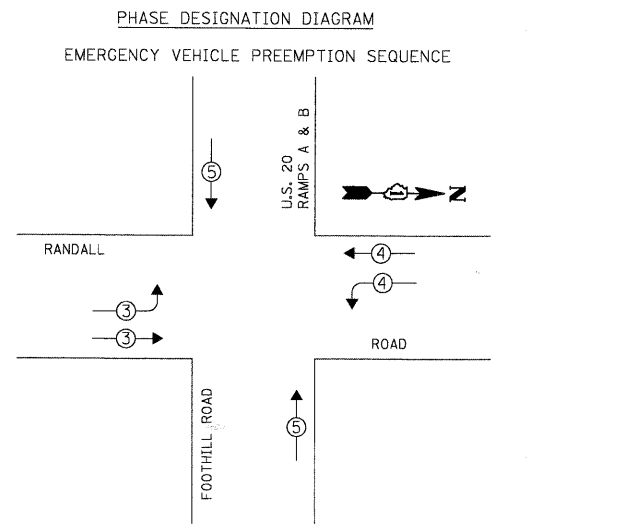
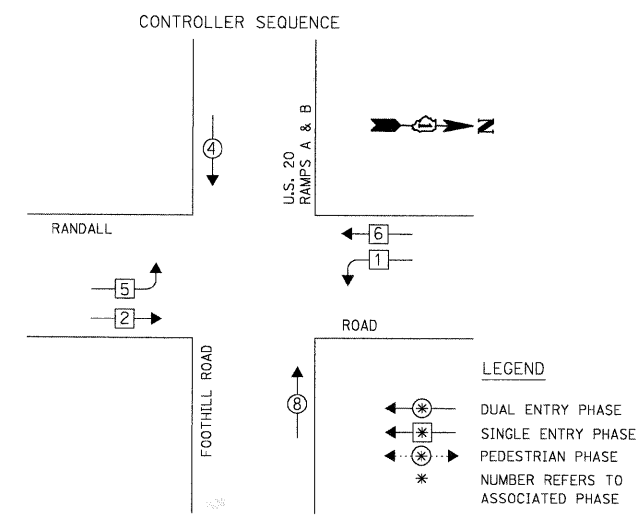
TRAFFIC SIGNAL MODIFICATION PLAN
RANDALL ROAD AT U.S. 20 RAMPS A & B (FOOTHILL RD.)

F.A.P. R/E:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	06-00346-00-TL	KANE	69	28
CONTRACT NO. 63011				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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

CHRISTOPHER B. BURKE ENGINEERING LTD.
 315 West Higgins Road, Suite 600
 Schaumburg, IL 60196
 (847) 823-0500

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



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

TYPE	NO. OF LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	17	0.50	102.00
(YELLOW)	12	25	0.25	75.00
(GREEN)	12	15	0.25	45.00
ARROW	12	12	0.10	14.40
PED. SIGNAL	-	25	1.00	-
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
VIDEO SYSTEM	1	150	1.00	150.00
FLASHER	2	25	0.50	25.00

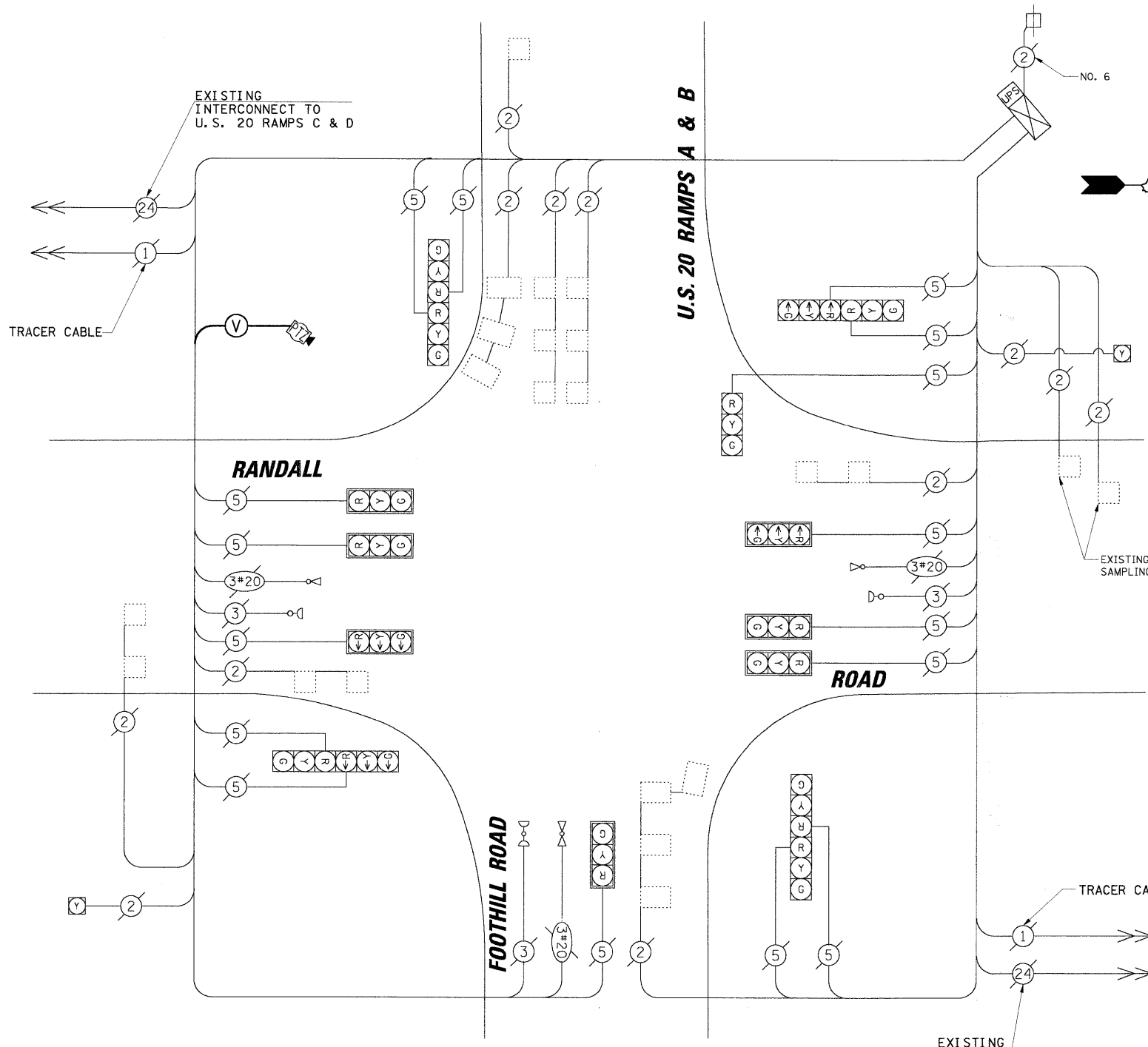
ENERGY COSTS TO: TOTAL = 511.40

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.

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FILE NAME = USER NAME = MWILLIAM
 DESIGNED - REVISED -
 DRAWN - REVISED -
 CHECKED - REVISED -
 DATE - REVISED -



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
⊖	G	8" (200mm) TRAFFIC SIGNAL SECTION
⊖	R	12" (300mm) TRAFFIC SIGNAL SECTION
⊖	W	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊖	P	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊖	⊖	CONTROLLER CABINET SERVICE INSTALLATION
⊖	⊖	TELEPHONE INSTALLATION
⊖	⊖	VEHICLE DETECTOR, INDUCTION LOOP
⊖	⊖	MAGNETIC DETECTOR
⊖	⊖	EMERGENCY VEHICLE LIGHT DETECTOR
⊖	⊖	CONFIRMATION BEACON
⊖	⊖	PUSHBUTTON DETECTOR
⊖	⊖	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
⊖	⊖	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
⊖	⊖	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
⊖	⊖	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
⊖	⊖	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
⊖	⊖	RAILROAD CONTROL CABINET
⊖	⊖	ILLUMINATED SIGN "NO LEFT TURN"
⊖	⊖	ILLUMINATED SIGN "NO RIGHT TURN"
H/C	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
UPS	UPS	UNINTERRUPTIBLE POWER SUPPLY
V	V	VENDOR SPECIFIC CABLE
PTZ	PTZ	PTZ CAMERA (PAN/TILT/ZOOM)
⊖	⊖	VIDEO DETECTION CAMERA

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOTE-CONTROLLED VIDEO SYSTEM	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

- CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.
 - INSTALL PTZ CAMERA ON MAST ARM POLE IN SOUTHWEST CORNER ON EXTENSION POLE.

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

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

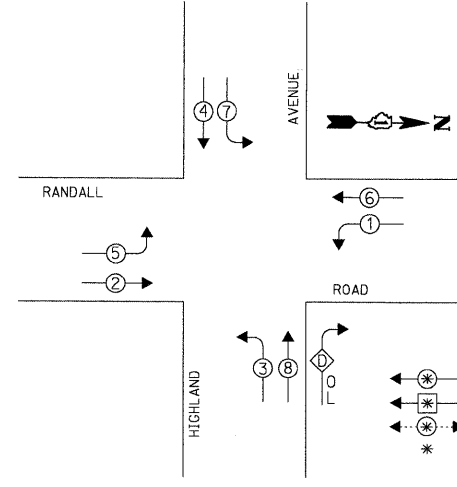
CABLE PLAN
 RANDALL ROAD AT U.S. 20 RAMP A & B

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	06-00346-00-TL	KANE	69	29

CONTRACT NO. 63011
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

SURVEYED BY: DATE: _____
 PLAN NO. _____
 SURVEYED BY: DATE: _____
 GRADES CHECKED BY: DATE: _____
 B.M. NOTED BY: DATE: _____
 PROFILE NO. _____
 SURVEYED BY: DATE: _____
 GRADES CHECKED BY: DATE: _____
 B.M. NOTED BY: DATE: _____
 PROFILE NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Chicago, Illinois 60630
 (847) 823-0600

CONTROLLER SEQUENCE



LEGEND

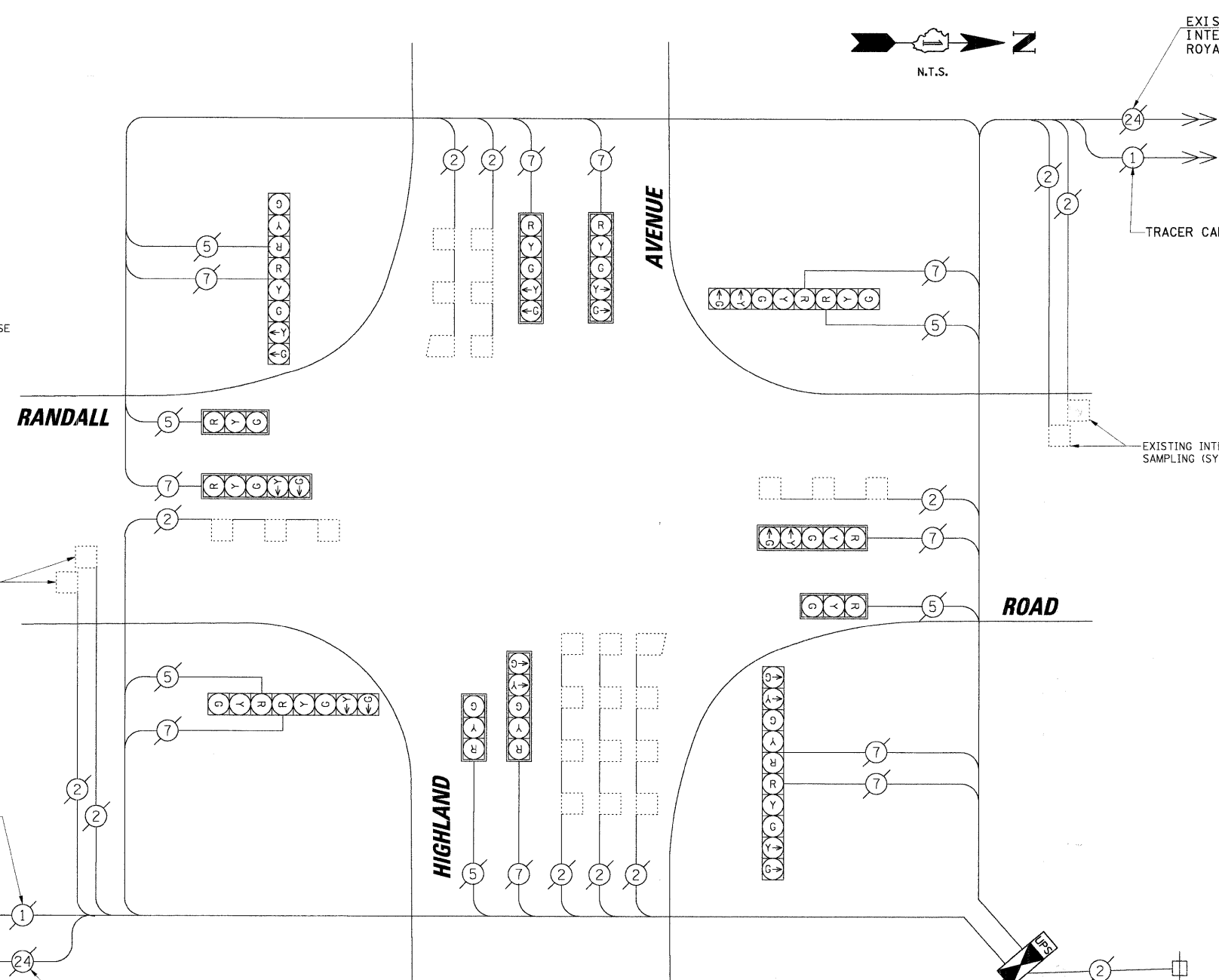
- ← (arrow with 4) DUAL ENTRY PHASE
- ← (arrow with 6) SINGLE ENTRY PHASE
- ← (arrow with 8) PEDESTRIAN PHASE
- ← (arrow with 1) NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

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

EXISTING INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

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

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 SERVICE INSTALLATION
(Symbol)	(Symbol)	TELEPHONE 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)	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
(Symbol)	(Symbol)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO LEFT TURN"
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO RIGHT TURN"
(Symbol)	(Symbol)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
(Symbol)	(Symbol)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY
(Symbol)	(Symbol)	VENDOR SPECIFIC CABLE
(Symbol)	(Symbol)	DOMED CAMERA (PAN/TILT/ZOOM)
(Symbol)	(Symbol)	VIDEO DETECTION CAMERA

CONSTRUCTION NOTES:

- ① REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE V CABINET ON EXISTING FOUNDATION.
- ② REMOVE EXISTING MASTER CONTROLLER.
- ③ INSTALL ETHERNET HUB KIT.
- ④ INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO TRAFFIC SIGNAL CABINET.

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

1 EACH MASTER CONTROLLER

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

1 EACH CONTROLLER AND CABINET (COMPLETE)

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	11
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ETHERNET HUB KIT	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)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	20		12	0.10	24.00
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	-		150	1.00	-
FLASHER	-			0.50	-

ENERGY COSTS TO: TOTAL = 420.00

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		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)

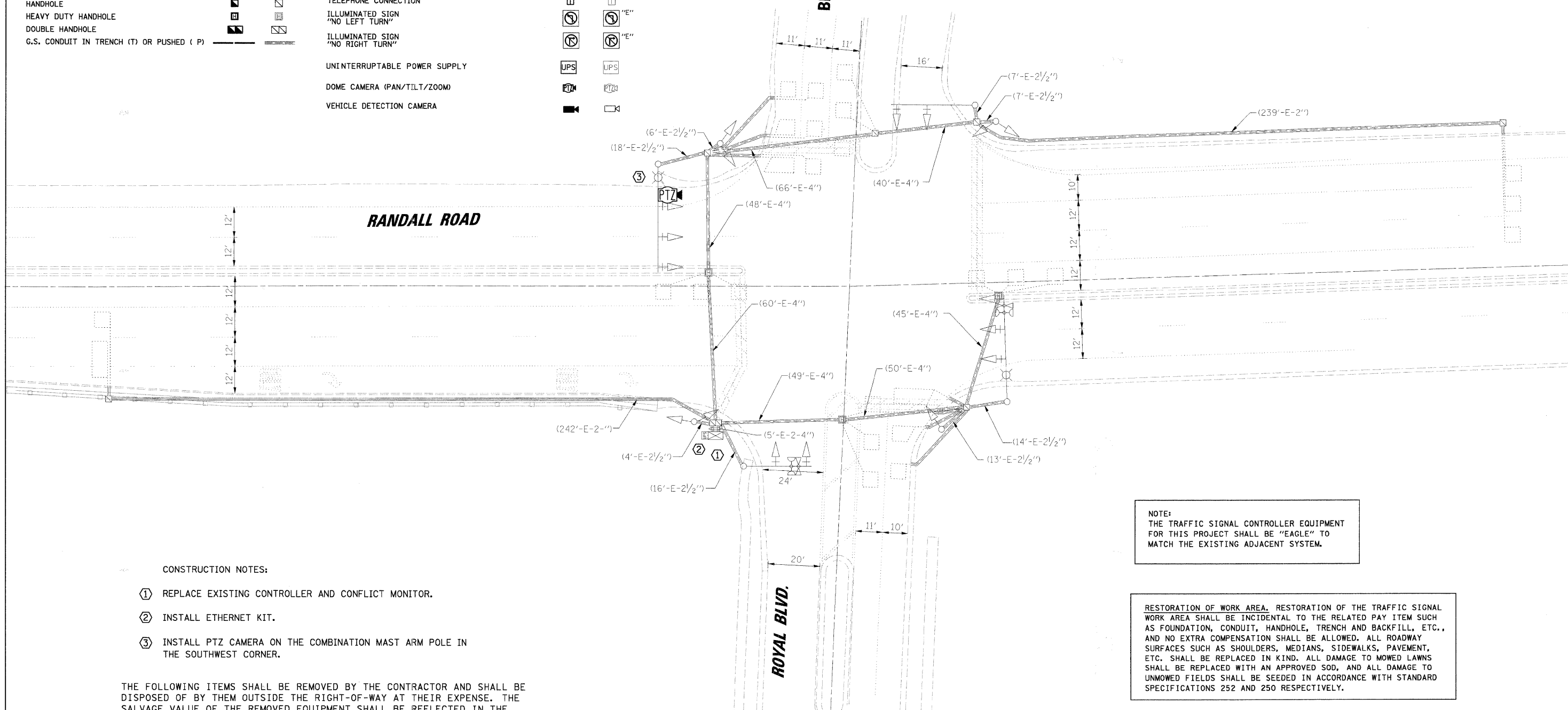
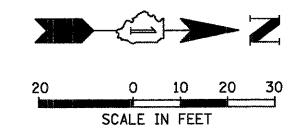
PROFILE SURVEYED BY DATE
 GRADES CHECKED BY DATE
 STRUCTURE NOTATIONS BY DATE
 NO. NO. NO.

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

CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 823-0500

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			PEDESTRIAN PUSHBUTTON DETECTOR		
SERVICE INSTALLATION			DETECTOR LOOP		
SIGNAL HEAD			CAST IRON JUNCTION BOX		
SIGNAL HEAD WITH BACKPLATE			EMERGENCY VEHICLE LIGHT DETECTOR		
SIGNAL HEAD, PEDESTRIAN			CONFIRMATION BEACON		
SIGNAL POST			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, STEEL			CONDUIT SPLICE		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			WOOD POLE		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE			RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
UNIT DUCT			VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
COMMON TRENCH			RAILROAD CONTROL CABINET		
HANDHOLE			TELEPHONE CONNECTION		
HEAVY DUTY HANDHOLE			ILLUMINATED SIGN "NO LEFT TURN"		
DOUBLE HANDHOLE			ILLUMINATED SIGN "NO RIGHT TURN"		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)			UNINTERRUPTABLE POWER SUPPLY		
			DOMI CAMERA (PAN/TILT/ZOOM)		
			VEHICLE DETECTION CAMERA		



- CONSTRUCTION NOTES:**
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.
 - INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM POLE IN THE SOUTHWEST CORNER.

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

- 1 EACH CONTROLLER AND CONFLICT MONITOR

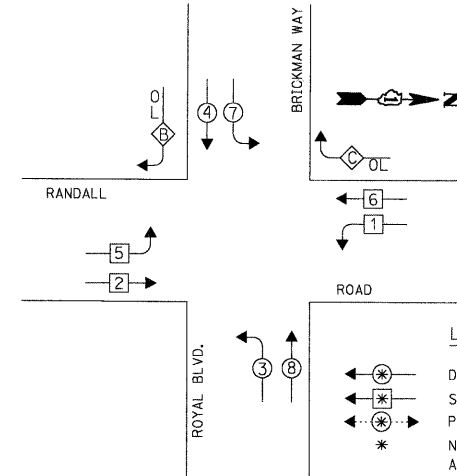
NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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

FILE NAME = N:\kane\county\078E16\Tran\1000_Royal.dgn	USER NAME = M\WILLIAM	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODIFICATION PLAN RANDALL ROAD AT ROYAL BOULEVARD	F.A.P. R.T.E. = 336	SECTION = 06-00346-00-TL	COUNTY = KANE	TOTAL SHEETS = 69	SHEET NO. = 31
PLOT SCALE = 20'	CHECKED -	REVISED -	FED. ROAD DIST. NO. =			ILLINOIS FED. AID PROJECT				
PLOT DATE = 1/28/2008	DATE -	REVISED -	CONTRACT NO. 63011							
SCALE:										

DATE: _____ BY: _____
 SURVIVED _____
 PLAN NOTE BOOK _____
 NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 8575 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 923-0500
 PROFILE SURVIVED _____
 NOTE BOOK _____
 NO. _____
 B.M. NOTED _____
 STRUCTURE NOTATION OK

CONTROLLER SEQUENCE

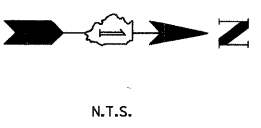


OVERLAP LETTER

B	=	5	+	4
C	=	7	+	6

PROTECTED PHASE

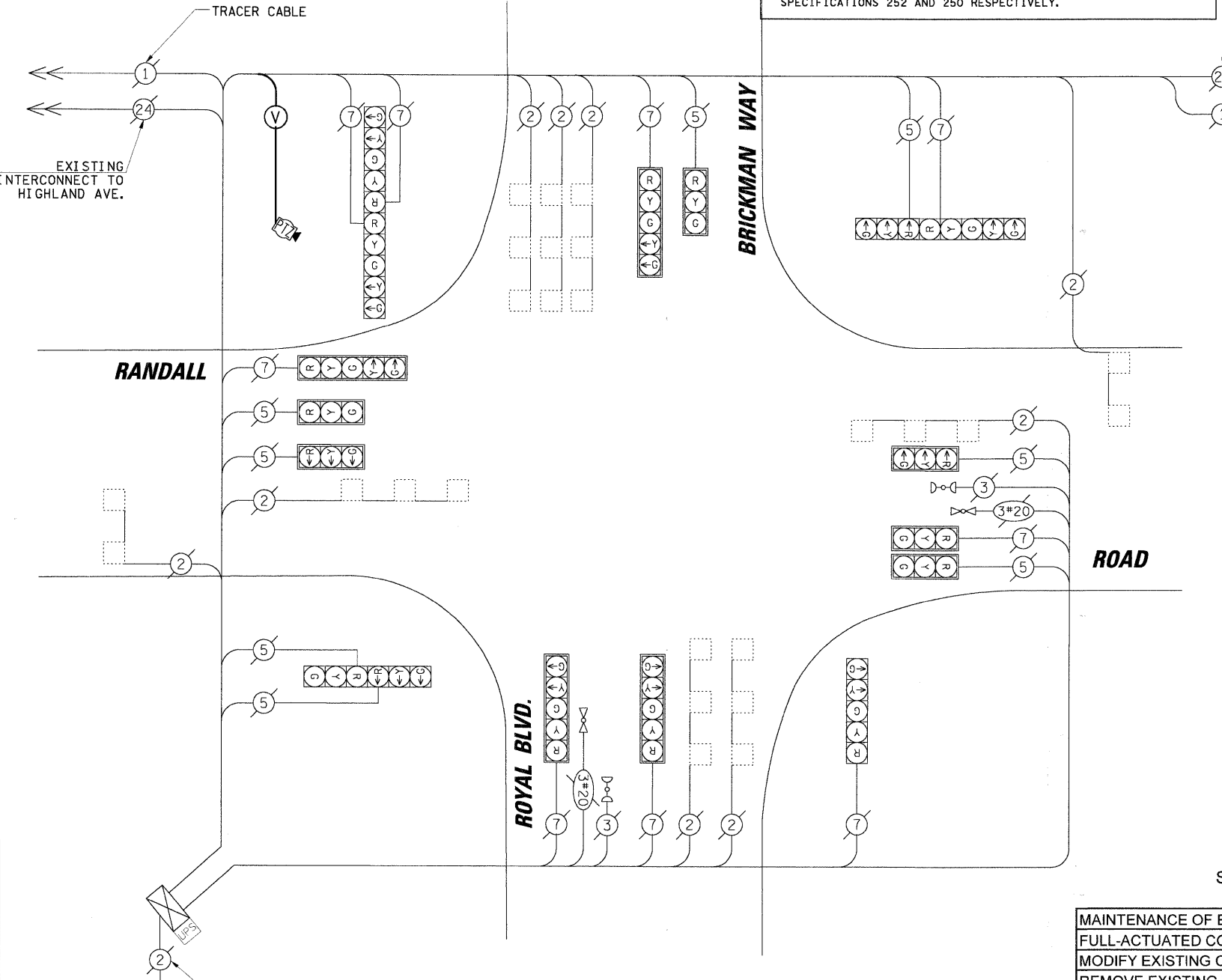
PERMISSIVE PHASE



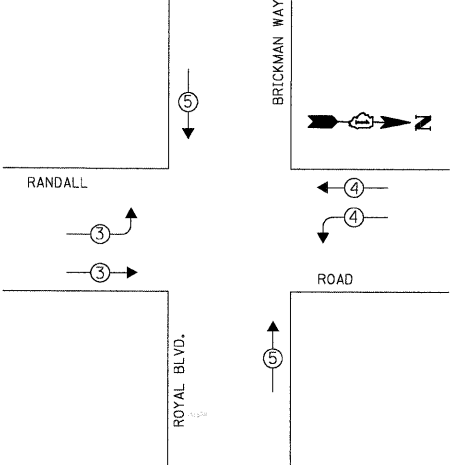
RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL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

CABLE PLAN LEGEND

- | EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|--|
| (G) | (G) | 8" (200mm) TRAFFIC SIGNAL SECTION |
| (R) | (R) | 12" (300mm) TRAFFIC SIGNAL SECTION |
| (W) | (W) | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| (P) | (P) | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| (C) | (C) | CONTROLLER CABINET SERVICE INSTALLATION |
| (T) | (T) | TELEPHONE INSTALLATION |
| (V) | (V) | VEHICLE DETECTOR, INDUCTION LOOP |
| (M) | (M) | MAGNETIC DETECTOR |
| (E) | (E) | EMERGENCY VEHICLE LIGHT DETECTOR |
| (B) | (B) | CONFIRMATION BEACON |
| (D) | (D) | PUSHBUTTON DETECTOR |
| (N) | (N) | DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. GROUND 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 |
| (36) | (36) | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F |
| (R) | (R) | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. |
| (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 |
| (UPS) | (UPS) | UNINTERRUPTIBLE POWER SUPPLY |
| (V) | (V) | VENDOR SPECIFIC CABLE |
| (PTZ) | (PTZ) | DOME CAMERA (PAN/TILT/ZOOM) |
| (VDC) | (VDC) | VIDEO DETECTION CAMERA |



EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	→	←	↑

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

TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	17	17	0.50		144.50
(YELLOW)	17	25	0.25		106.25
(GREEN)	17	15	0.25		63.75
ARROW	16	12	0.10		19.20
PED. SIGNAL	-	25	1.00		-
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
VIDEO SYSTEM	1	-	150	1.00	150.00
FLASHER	-	-	0.50		-

ENERGY COSTS TO: TOTAL = 583.70

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		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)

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOTE-CONTROLLED VIDEO SYSTEM	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

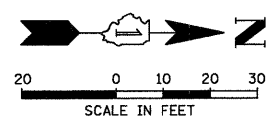
- CONSTRUCTION NOTES:
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.
 - INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM POLE IN THE SOUTHWEST CORNER.

DATE: _____ BY: _____
 SURVEYED: _____ GRADES CHECKED: _____
 PLAN: _____ NOTE BOOK NO.: _____
 SURVEYED: _____ GRADES CHECKED: _____
 PROFILE: _____ NOTE BOOK NO.: _____
 STRUCTURE NOTATIONS OK'D

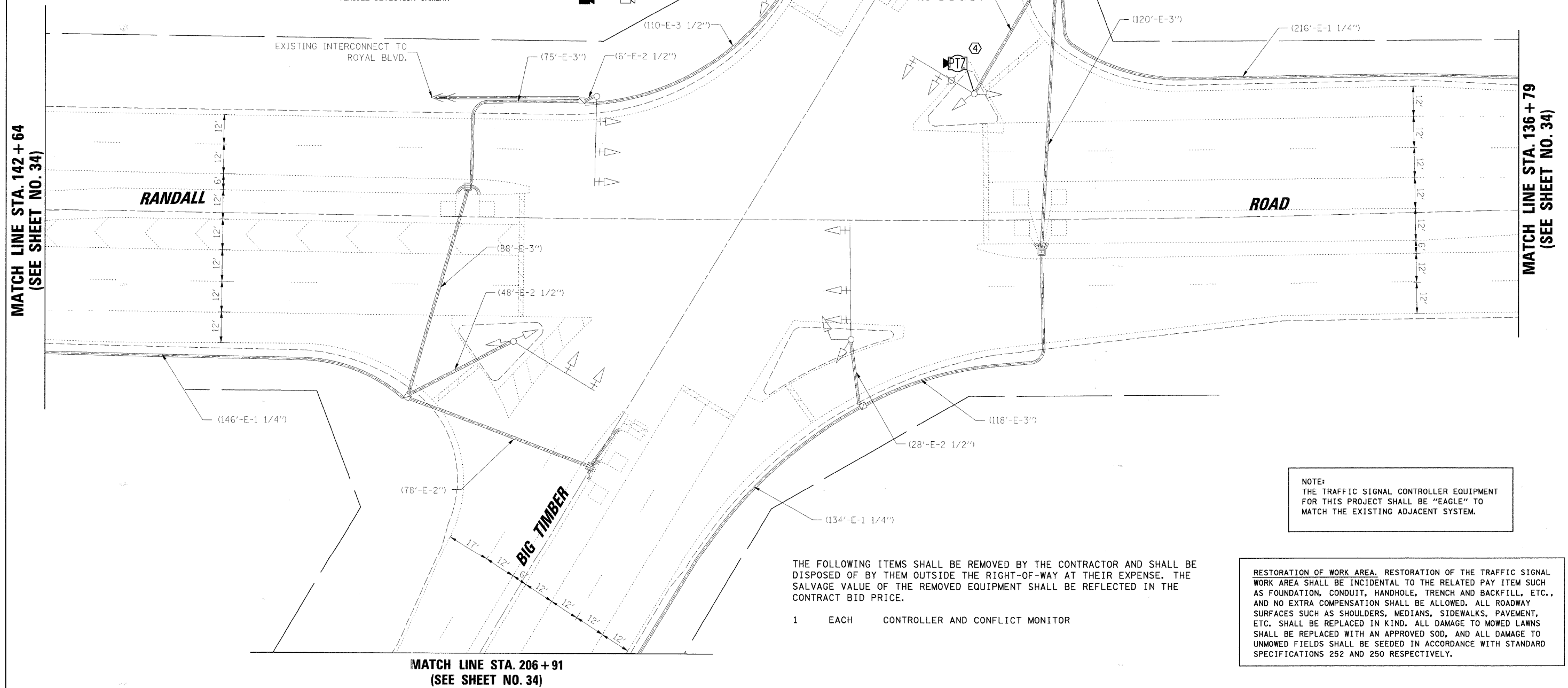
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60688
 (847) 823-0500

TRAFFIC SIGNAL LEGEND

PROPOSED	EXISTING	PROPOSED	EXISTING
CONTROLLER CABINET	[Symbol]	PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]
SERVICE INSTALLATION	[Symbol]	DETECTOR LOOP	[Symbol]
SIGNAL HEAD	[Symbol]	CAST IRON JUNCTION BOX	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	CONFIRMATION BEACON	[Symbol]
SIGNAL POST	[Symbol]	SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	CONDUIT SPLICE	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	WOOD POLE	[Symbol]
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	[Symbol]	RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]
UNIT DUCT	[Symbol]	VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]
COMMON TRENCH	[Symbol]	RAILROAD CONTROL CABINET	[Symbol]
HANDHOLE	[Symbol]	TELEPHONE CONNECTION	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]
DOUBLE HANDHOLE	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	[Symbol]	UNIINTERRUPTABLE POWER SUPPLY	[Symbol]
		DOME CAMERA (PAN/TILT/ZOOM)	[Symbol]
		VEHICLE DETECTION CAMERA	[Symbol]



- CONSTRUCTION NOTES:**
- 1 REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - 2 INSTALL ETHERNET KIT.
 - 3 INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET.
 - 4 INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM POLE IN THE NORTHWEST CORNER.



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

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

- 1 EACH CONTROLLER AND CONFLICT MONITOR

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.

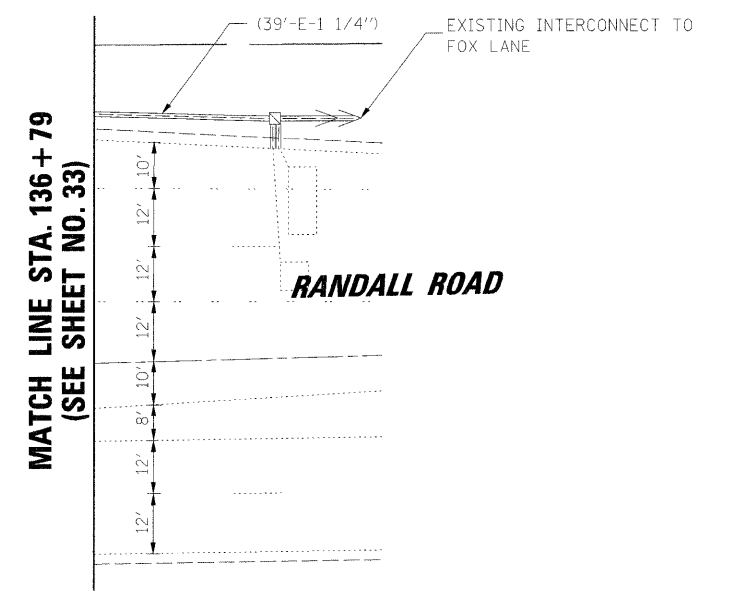
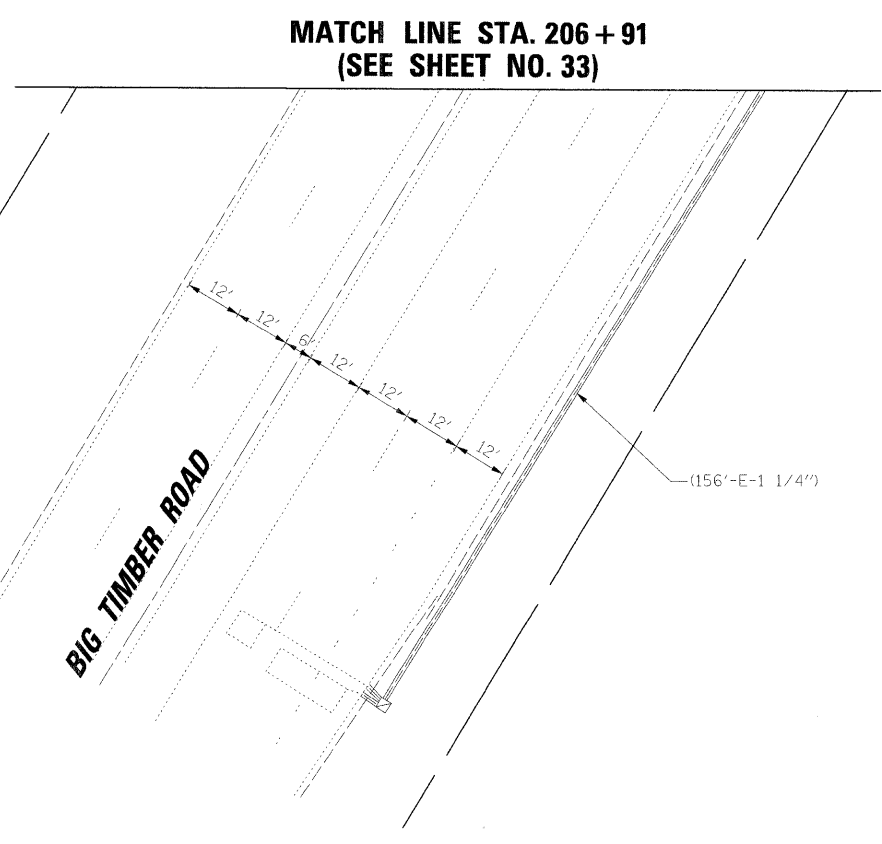
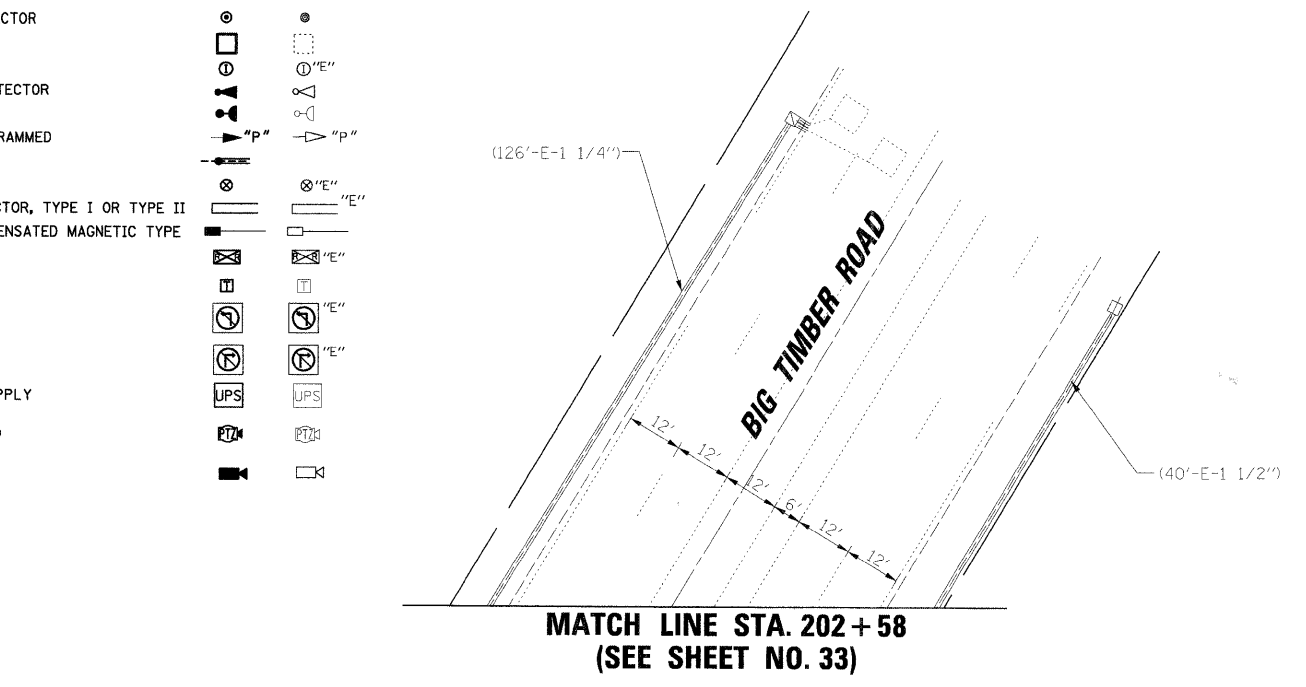
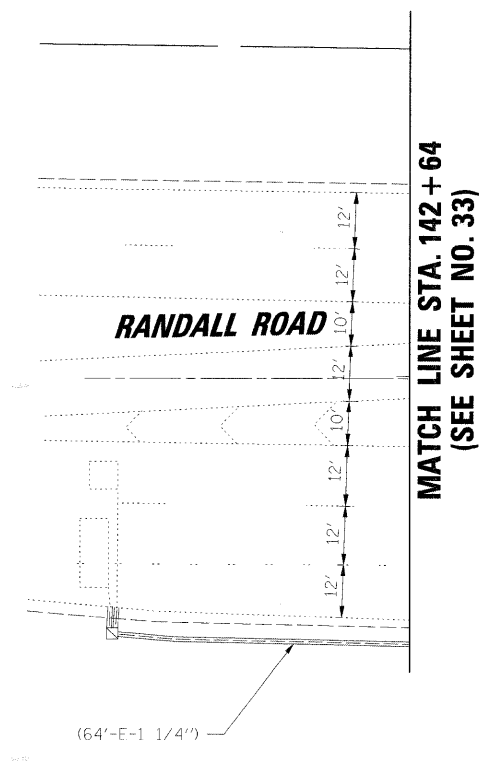
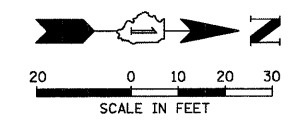
FILE NAME = N:\kane\county\070616\Traffic\MOD1_BigTimber.dwg	USER NAME = M\WILLIAM	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODIFICATION PLAN RANDALL ROAD AT BIG TIMBER ROAD	F.A.P. RTE. = 336	SECTION = 06-00346-00-TL	COUNTY = KANE	TOTAL SHEETS = 69	SHEET NO. = 33	
	PLOT SCALE = 20'	DRAWN -	REVISED -			CONTRACT NO. 63011					
	PLOT DATE = 1/29/2008	CHECKED -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
		DATE -	REVISED -								

DATE	BY	SURVISED	PLAN
		ALIGNED	NO.
		RT. OF WAY CHECKED	
		NO. FILE NAME	
DATE	BY	SURVISED	PLAN
		GRADES CHECKED	NO.
		STRUCTURE NOTATION/NO. DERO	

CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 823-0500

TRAFFIC SIGNAL LEGEND

PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET	[Symbol]	PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	DETECTOR LOOP	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	CONFIRMATION BEACON	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	CONDUIT SPLICE	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	WOOD POLE	[Symbol]	[Symbol]
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	[Symbol]	RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	TELEPHONE CONNECTION	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	[Symbol]	UNINTERRUPTABLE POWER SUPPLY	[Symbol]	[Symbol]
		DOME CAMERA (PAN/TILT/ZOOM)	[Symbol]	[Symbol]
		VEHICLE DETECTION CAMERA	[Symbol]	[Symbol]



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

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

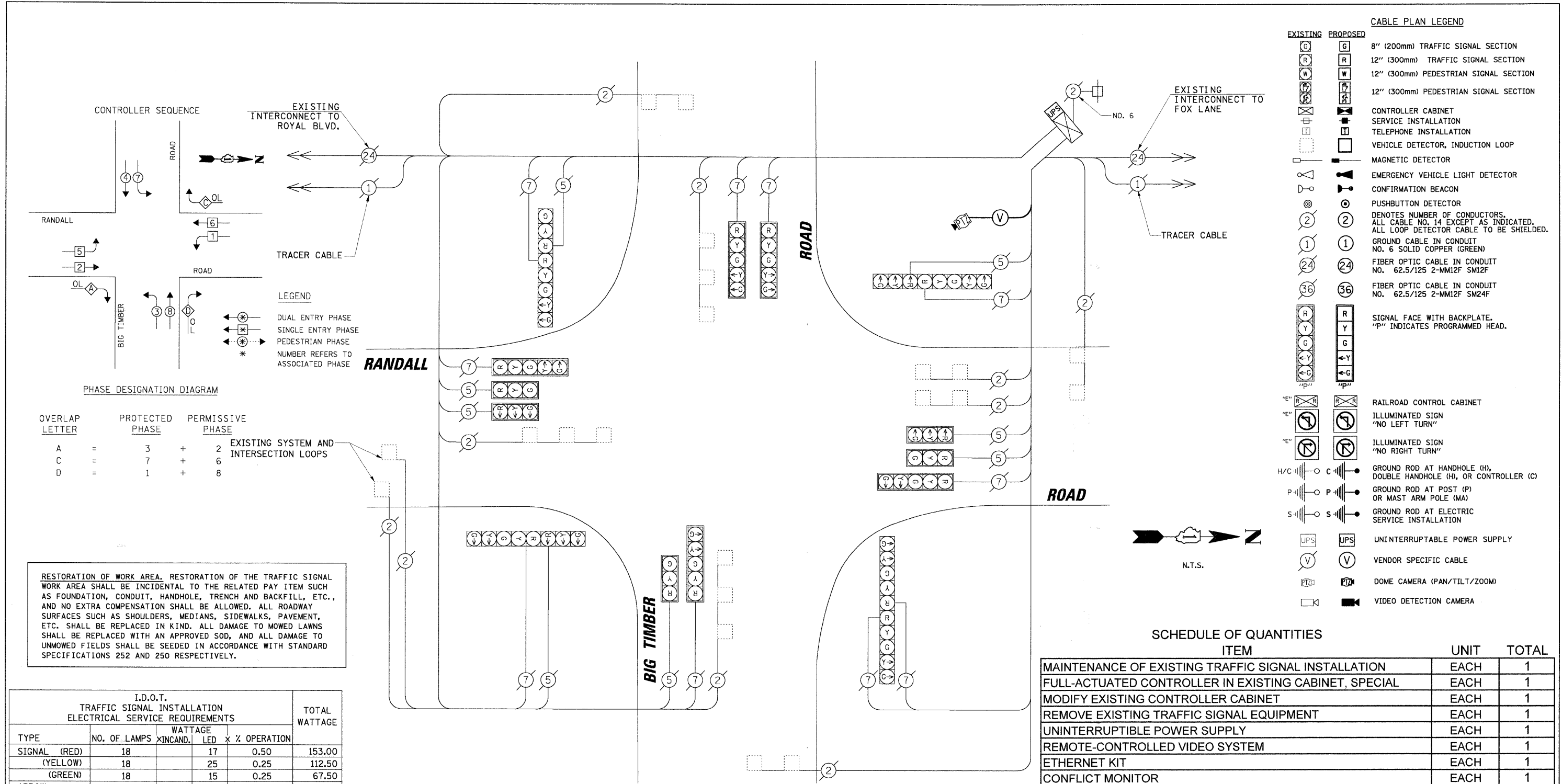
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PLOT SCALE = 20'	DATE = 1/28/2008	DRAWN -	REVISED -			CONTRACT NO. 63011					
PLOT DATE = 1/28/2008	DATE =	CHECKED -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
		DATE =	REVISED -								

DATE: _____ BY: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 SIGNATURE: _____
 NO. _____

DATE: _____ BY: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 SIGNATURE: _____
 NO. _____

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 3575 West Higgins Road, Suite 600
 Chicago, IL 60638
 (847) 823-0500

FILE NAME = N:\kanecounty\070616\1-rd\cab\BigTimber.dgn
 USER NAME = MWILLIAM
 DESIGNED - _____
 DRAWN - _____
 CHECKED - _____
 DATE - 1/28/2008



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
		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
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		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
		UNINTERRUPTIBLE POWER SUPPLY
		VENDOR SPECIFIC CABLE
		DOMED CAMERA (PAN/TILT/ZOOM)
		VIDEO DETECTION CAMERA

PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PROTECTED PHASE	PERMISSIVE PHASE
A	= 3	+ 2
C	= 7	+ 6
D	= 1	+ 8

EXISTING SYSTEM AND INTERSECTION LOOPS

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

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

TYPE	NO. OF LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	18	17	0.50	153.00
(YELLOW)	18	25	0.25	112.50
(GREEN)	18	15	0.25	67.50
ARROW	20	12	0.10	24.00
PED. SIGNAL	-	25	1.00	-
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
VIDEO SYSTEM	1	150	1.00	150.00
FLASHER	-	-	0.50	-

ENERGY COSTS TO: TOTAL = 607.00
 KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE	-	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)

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
REMOTE-CONTROLLED VIDEO SYSTEM	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

- CONSTRUCTION NOTES:
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.
 - INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET.
 - INSTALL PTZ CAMERA ON THE COMBINATION MAST ARM POLE IN THE NORTHWEST CORNER.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN
 RANDALL ROAD AT BIG TIMBER ROAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	06-00346-00-TL	KANE	69	35

CONTRACT NO. 63011

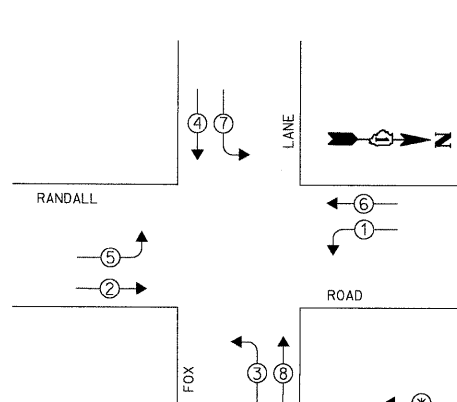
DATE: _____ BY: _____
 SURVIVED _____
 GRADES CHECKED _____
 STRUCTURE NOTATIONS OK'D _____
 DATE: _____ BY: _____
 SURVIVED _____
 GRADES CHECKED _____
 STRUCTURE NOTATIONS OK'D _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Chicago, Illinois 60618
 (847) 823-0500

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 |
| | | TELEPHONE INSTALLATION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | DENOTES NUMBER OF CONDUCTORS. |
| | | ALL CABLE NO. 14 EXCEPT AS INDICATED. |
| | | ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| | | GROUND CABLE IN CONDUIT |
| | | NO. 6 SOLID COPPER (GREEN) |
| | | FIBER OPTIC CABLE IN CONDUIT |
| | | NO. 62.5/125 2-MM12F SM12F |
| | | FIBER OPTIC CABLE IN CONDUIT |
| | | NO. 62.5/125 2-MM12F SM24F |
| | | SIGNAL FACE WITH BACKPLATE. |
| | | "P" INDICATES PROGRAMMED HEAD. |
| | | RAILROAD CONTROL CABINET |
| | | ILLUMINATED SIGN |
| | | "NO LEFT TURN" |
| | | ILLUMINATED SIGN |
| | | "NO RIGHT TURN" |
| | | 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 |
| | | UNINTERRUPTIBLE POWER SUPPLY |
| | | VENDOR SPECIFIC CABLE |
| | | DOME CAMERA (PAN/TILT/ZOOM) |
| | | VIDEO DETECTION CAMERA |

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

- LEGEND**
- DUAL ENTRY PHASE
 - SINGLE ENTRY PHASE
 - PEDESTRIAN PHASE
 - NUMBER REFERS TO ASSOCIATED PHASE

EXISTING INTERCONNECT TO BIG TIMBER RD.

TRACER CABLE

EXISTING SYSTEM & INTERSECTION LOOPS

EXISTING SYSTEM & INTERSECTION LOOPS

N.T.S.

TRACER CABLE

EXISTING INTERCONNECT TO ALFT LANE

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	INCAND.	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	16		12	0.10	19.20
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	-		25	0.05	-
VIDEO SYSTEM	-		150	1.00	-
FLASHER	-			0.50	-

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	10
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ETHERNET KIT	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)

ENERGY COSTS TO: TOTAL = 415.20
 KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

CONSTRUCTION NOTES:

- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
- INSTALL ETHERNET KIT.
- INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO TRAFFIC SIGNAL CABINET.

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

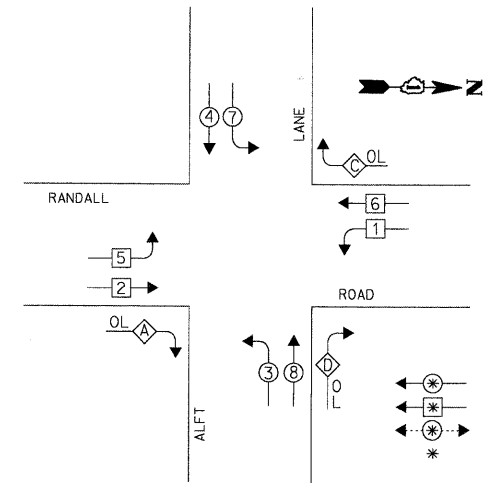
1 EACH CONTROLLER AND CABINET (COMPLETE)

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

CHRISTOPHER B. BURKE ENGINEERING LTD.
 1515 West Higgins Road, Suite 600
 Rosemont, Illinois 60018
 (847) 823-0500

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

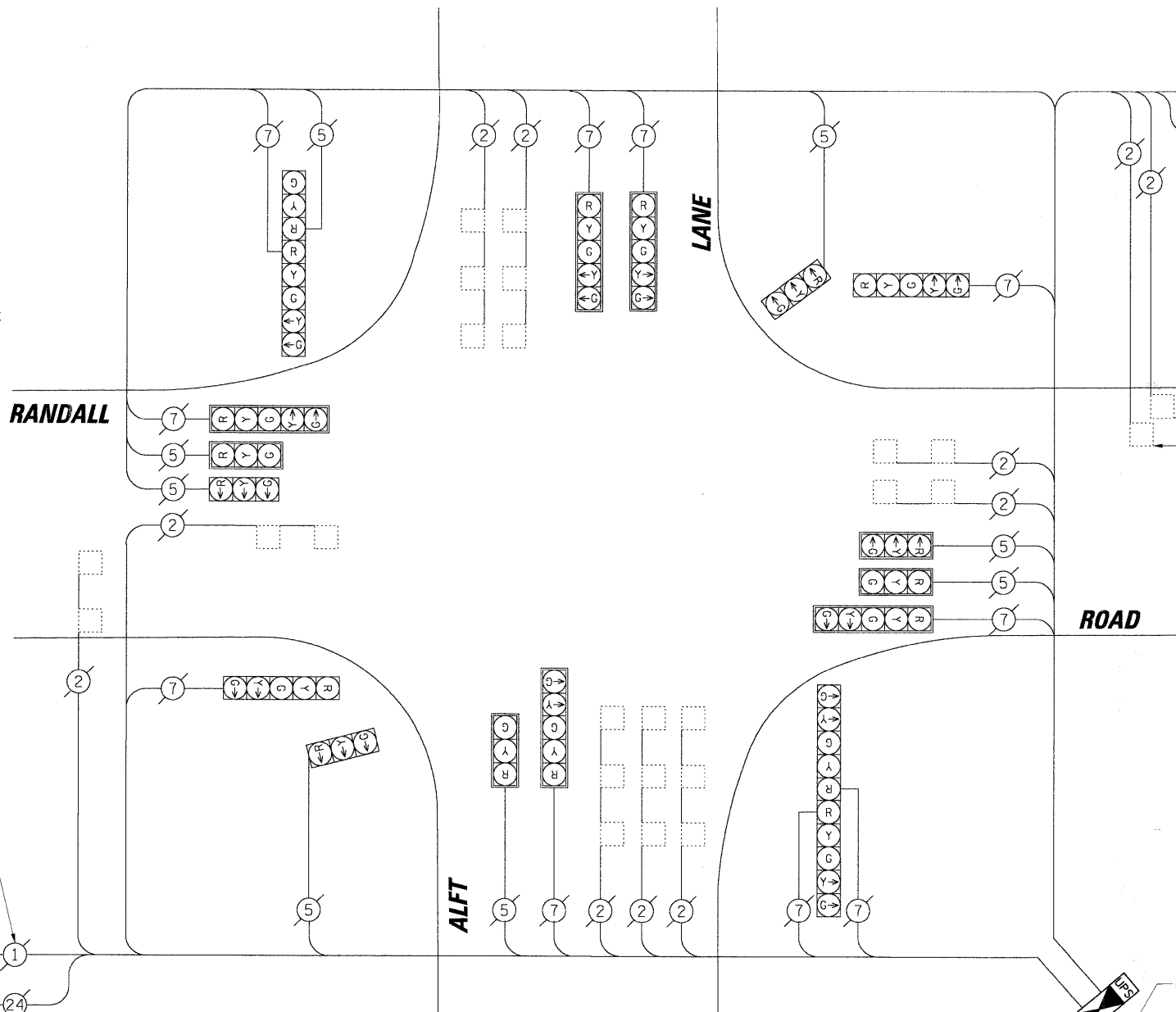
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PROTECTED PHASE	PERMISSIVE PHASE
A =	3 +	2
C =	7 +	6
D =	1 +	8

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

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 SERVICE INSTALLATION
[Symbol]	[Symbol]	TELEPHONE 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. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol]	1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
[Symbol]	[Symbol]	36 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"
[Symbol]	[Symbol]	H/C GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
[Symbol]	[Symbol]	P GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
[Symbol]	[Symbol]	S GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	UPS UNINTERRUPTIBLE POWER SUPPLY
[Symbol]	[Symbol]	V VENDOR SPECIFIC CABLE
[Symbol]	[Symbol]	PTM DOME CAMERA (PAN/TILT/ZOOM)
[Symbol]	[Symbol]	VIDEO DETECTION CAMERA

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	11
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ETHERNET KIT	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)	18	17	0.50	153.00	
(YELLOW)	18	25	0.25	112.50	
(GREEN)	18	15	0.25	67.5	
ARROW	20	12	0.10	24.00	
PED. SIGNAL	-	25	1.00	-	
CONTROLLER	1	100	1.00	100.00	
ILLUM. SIGN	-	25	0.05	-	
VIDEO SYSTEM	-	-	1.00	-	
FLASHER	-	-	0.50	-	

ENERGY COSTS TO: TOTAL = 457.00
 KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		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)

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

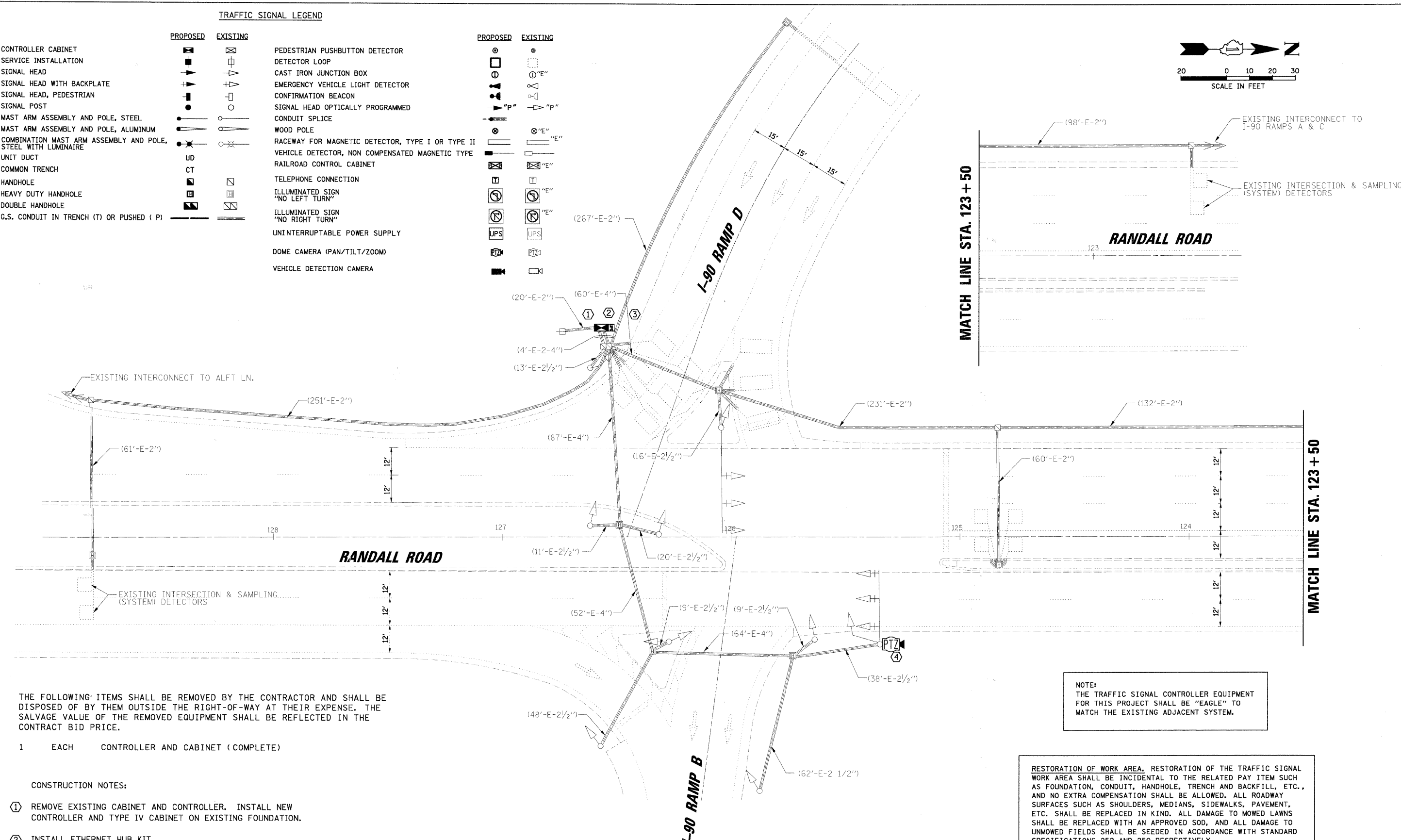
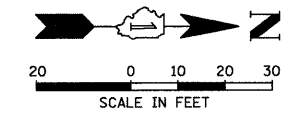
- CONSTRUCTION NOTES:**
- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
 - INSTALL ETHERNET KIT.
 - INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO TRAFFIC SIGNAL CABINET.

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

1 EACH CONTROLLER AND CABINET (COMPLETE)

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET SERVICE INSTALLATION			PEDESTRIAN PUSHBUTTON DETECTOR		
SIGNAL HEAD			DETECTOR LOOP		
SIGNAL HEAD WITH BACKPLATE			CAST IRON JUNCTION BOX		
SIGNAL HEAD, PEDESTRIAN			EMERGENCY VEHICLE LIGHT DETECTOR		
SIGNAL POST			CONFIRMATION BEACON		
MAST ARM ASSEMBLY AND POLE, STEEL			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			CONDUIT SPLICE		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE			WOOD POLE		
UNIT DUCT	UD		RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
COMMON TRENCH	CT		VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
HANDHOLE			RAILROAD CONTROL CABINET		
HEAVY DUTY HANDHOLE			TELEPHONE CONNECTION		
DOUBLE HANDHOLE			ILLUMINATED SIGN "NO LEFT TURN"		
C.S. CONDUIT IN TRENCH (T) OR PUSHED (P)			ILLUMINATED SIGN "NO RIGHT TURN"		
			UNINTERRUPTIBLE POWER SUPPLY	UPS	
			VEHICLE DETECTION CAMERA		



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

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, 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 FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

CONSTRUCTION NOTES:

- 1 REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
- 2 INSTALL ETHERNET HUB KIT.
- 3 INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO TRAFFIC SIGNAL CABINET.
- 4 INSTALL PTZ CAMERA ON MAST ARM POLE IN NORTHEAST CORNER ON EXTENSION POLE.

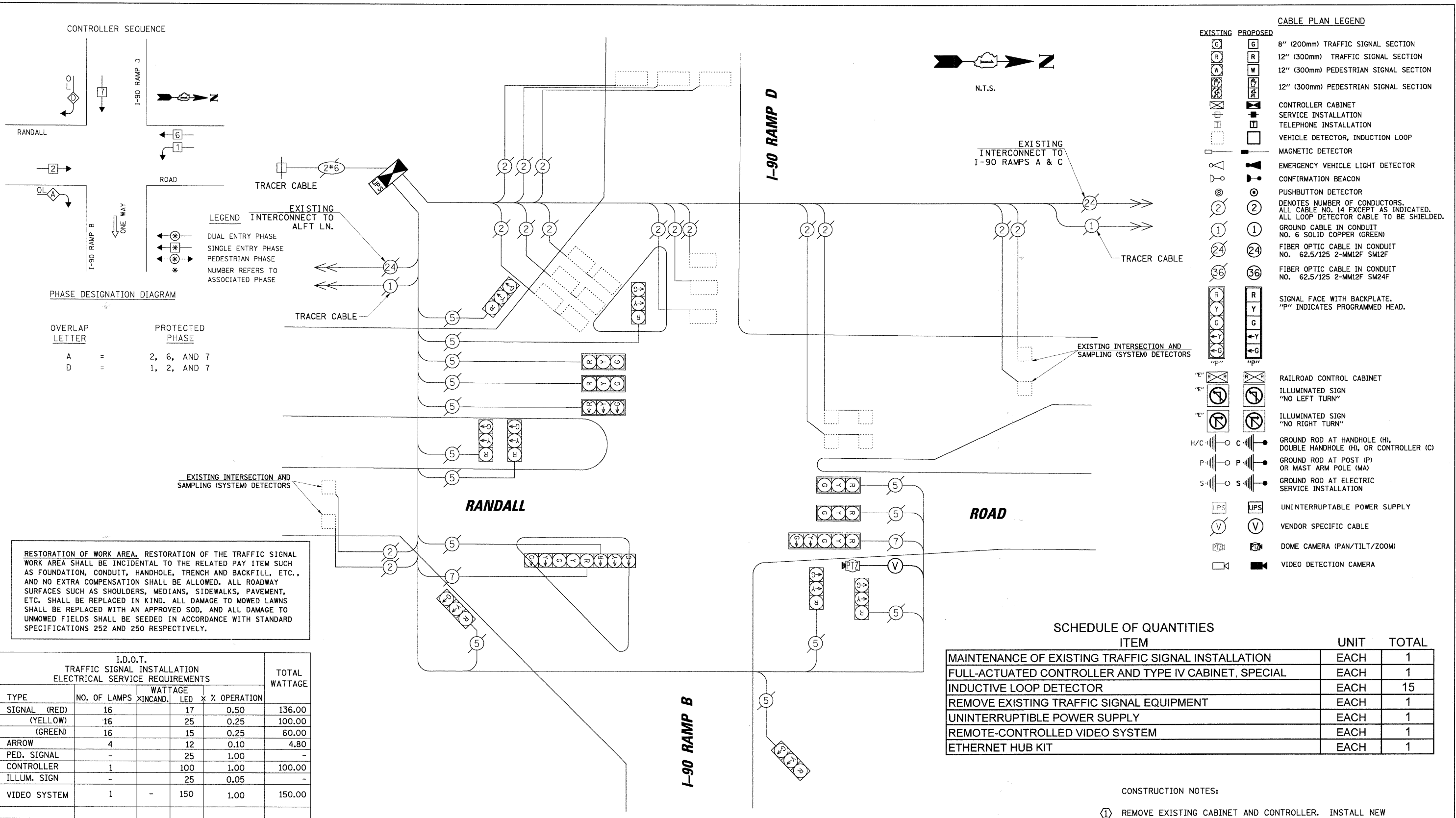
DATE	BY	DATE	BY
DATE	BY	DATE	BY

CHRISTOPHER B. BURKE ENGINEERING LTD.
315 West Higgins Road, Suite 600
Bloomington, IL 61810
(847) 822-0500

DATE: _____ BY: _____
 SURVEYED: _____ PLAN: _____
 B.M. NOTED: _____ NOTE BOOK: _____
 GRADES CHECKED: _____ ALIGNMENT CHECKED: _____
 STRUCTURE: _____ ROAD FILE NAME: _____

DATE: _____ BY: _____
 SURVEYED: _____ PROFILE: _____
 B.M. NOTED: _____ NOTE BOOK: _____
 GRADES CHECKED: _____ ROAD FILE NAME: _____

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



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	8" (200mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	TELEPHONE 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]	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"
[Symbol]	[Symbol]	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C)
[Symbol]	[Symbol]	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
[Symbol]	[Symbol]	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY
[Symbol]	[Symbol]	VENDOR SPECIFIC CABLE
[Symbol]	[Symbol]	PTZ DOME CAMERA (PAN/TILT/ZOOM)
[Symbol]	[Symbol]	VIDEO DETECTION CAMERA

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

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW	4	12	0.10	4.80
PED. SIGNAL	-	25	1.00	-
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
VIDEO SYSTEM	1	-	1.00	150.00
FLASHER	-	-	0.50	-

ENERGY COSTS TO: TOTAL = 550.80
KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2'
E - M. ARM POLE	-	SIGNAL POST	2 (1.0)		(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)

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	15
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
REMOTE-CONTROLLED VIDEO SYSTEM	EACH	1
ETHERNET HUB KIT	EACH	1

- CONSTRUCTION NOTES:
- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
 - INSTALL ETHERNET HUB KIT.
 - INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO TRAFFIC SIGNAL CABINET.
 - INSTALL PTZ CAMERA ON MAST ARM POLE IN NORTHEAST CORNER ON EXTENSION POLE.

DATE: _____ BY: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 STRUCTURE NOTATIONS OK'D: _____
 NO. _____

DATE: _____ BY: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 STRUCTURE NOTATIONS OK'D: _____
 NO. _____

PI, AN
 NOTE BOOK
 NO. _____

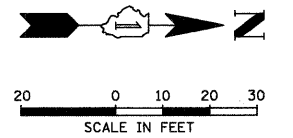
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 823-0500

TRAFFIC SIGNAL LEGEND

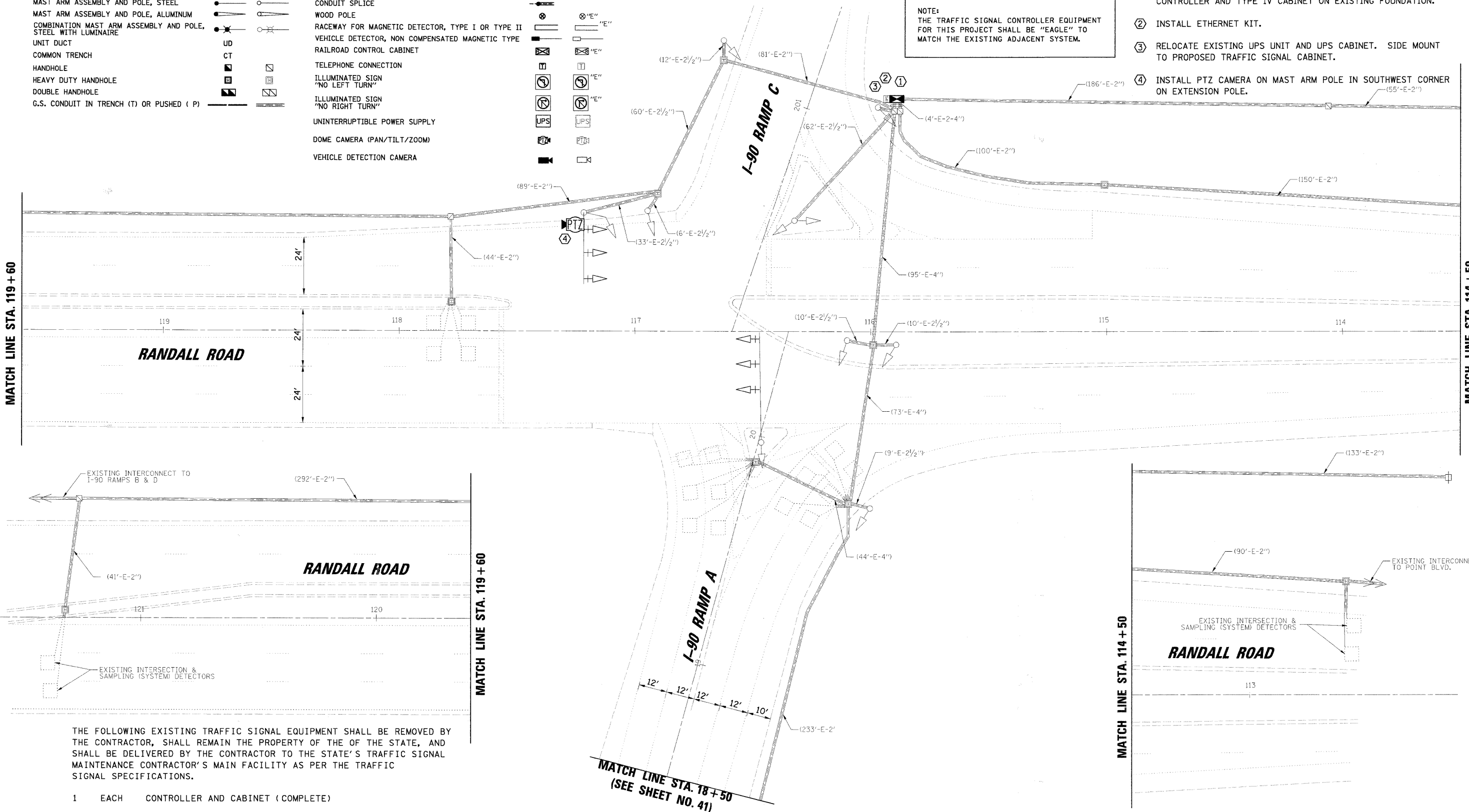
PROPOSED	EXISTING	PROPOSED	EXISTING
CONTROLLER CABINET	☒	PEDESTRIAN PUSHBUTTON DETECTOR	⊙
SERVICE INSTALLATION	☒	DETECTOR LOOP	⊙
SIGNAL HEAD	⬆	CAST IRON JUNCTION BOX	⊙
SIGNAL HEAD WITH BACKPLATE	⬆	EMERGENCY VEHICLE LIGHT DETECTOR	⊙ "E"
SIGNAL HEAD, PEDESTRIAN	⬆	CONFIRMATION BEACON	⊙ "P"
SIGNAL POST	⊙	SIGNAL HEAD OPTICALLY PROGRAMMED	⊙ "P"
MAST ARM ASSEMBLY AND POLE, STEEL	⊙	CONDUIT SPLICE	⊙ "E"
MAST ARM ASSEMBLY AND POLE, ALUMINUM	⊙	WOOD POLE	⊙ "E"
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	⊙	RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	⊙ "E"
UNIT DUCT	UD	VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	⊙ "E"
COMMON TRENCH	CT	RAILROAD CONTROL CABINET	⊙ "E"
HANDHOLE	⊙	TELEPHONE CONNECTION	⊙ "E"
HEAVY DUTY HANDHOLE	⊙	ILLUMINATED SIGN "NO LEFT TURN"	⊙ "E"
DOUBLE HANDHOLE	⊙	ILLUMINATED SIGN "NO RIGHT TURN"	⊙ "E"
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	—	UNINTERRUPTIBLE POWER SUPPLY	UPS
		DOME CAMERA (PAN/TILT/ZOOM)	PTZ
		VEHICLE DETECTION CAMERA	⊙

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



- CONSTRUCTION NOTES:
- 1 REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
 - 2 INSTALL ETHERNET KIT.
 - 3 RELOCATE EXISTING UPS UNIT AND UPS CABINET. SIDE MOUNT TO PROPOSED TRAFFIC SIGNAL CABINET.
 - 4 INSTALL PTZ CAMERA ON MAST ARM POLE IN SOUTHWEST CORNER ON EXTENSION POLE.



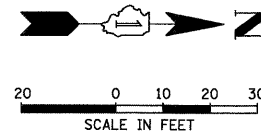
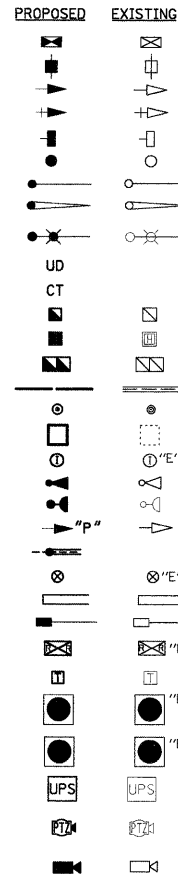
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

FILE NAME = N:\kanecounty\070816\1-rf-fic\MOD1_90.tb.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODIFICATION PLAN RANDALL ROAD AT I-90 RAMPS A & C	F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 40	
	PLOT SCALE = 20'	DRAWN -	REVISED -			CONTRACT NO. 63011					
	PLOT DATE = 1/28/2008	CHECKED -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
		DATE -	REVISED -								

TRAFFIC SIGNAL LEGEND

- CONTROLLER CABINET
- 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
- COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
- UNIT DUCT
- COMMON TRENCH
- HANDHOLE
- HEAVY DUTY HANDHOLE
- DOUBLE HANDHOLE
- G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)
- PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP
- CAST IRON JUNCTION BOX
- EMERGENCY VEHICLE LIGHT 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 CABINET
- TELEPHONE CONNECTION
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"
- UNINTERRUPTABLE POWER SUPPLY
- DOME CAMERA (PAN/TILT/ZOOM)
- VEHICLE DETECTION CAMERA



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.

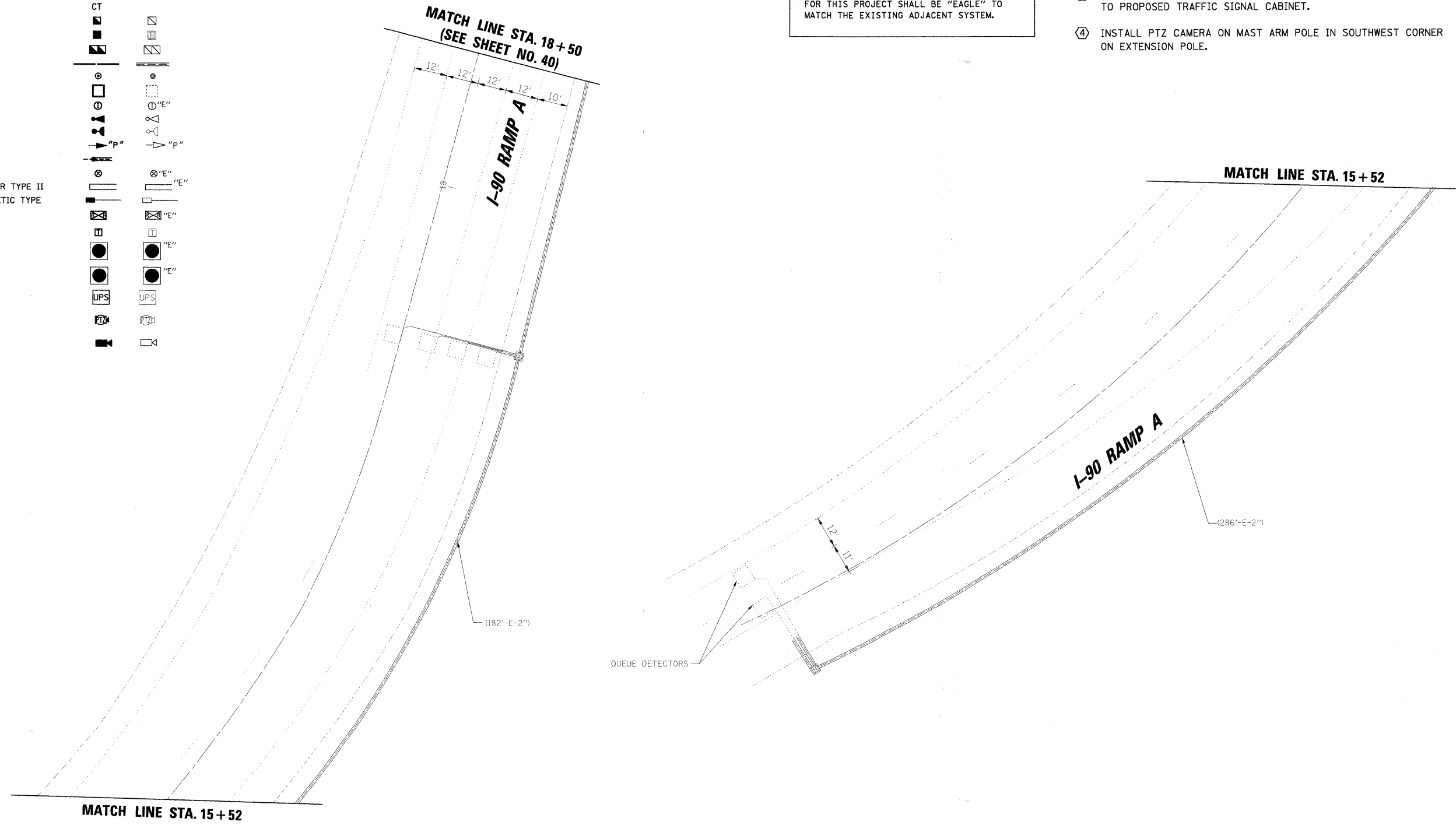
NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

CONSTRUCTION NOTES:

- ① REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
- ② INSTALL ETHERNET KIT.
- ③ RELOCATE EXISTING UPS UNIT AND UPS CABINET. SIDE MOUNT TO PROPOSED TRAFFIC SIGNAL CABINET.
- ④ INSTALL PTZ CAMERA ON MAST ARM POLE IN SOUTHWEST CORNER ON EXTENSION POLE.

<p>DATE: _____</p> <p>BY: _____</p> <p>DATE: _____</p> <p>BY: _____</p>	<p>DATE: _____</p> <p>BY: _____</p> <p>DATE: _____</p> <p>BY: _____</p>
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CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Chicago, IL 60630
 (847) 823-0500

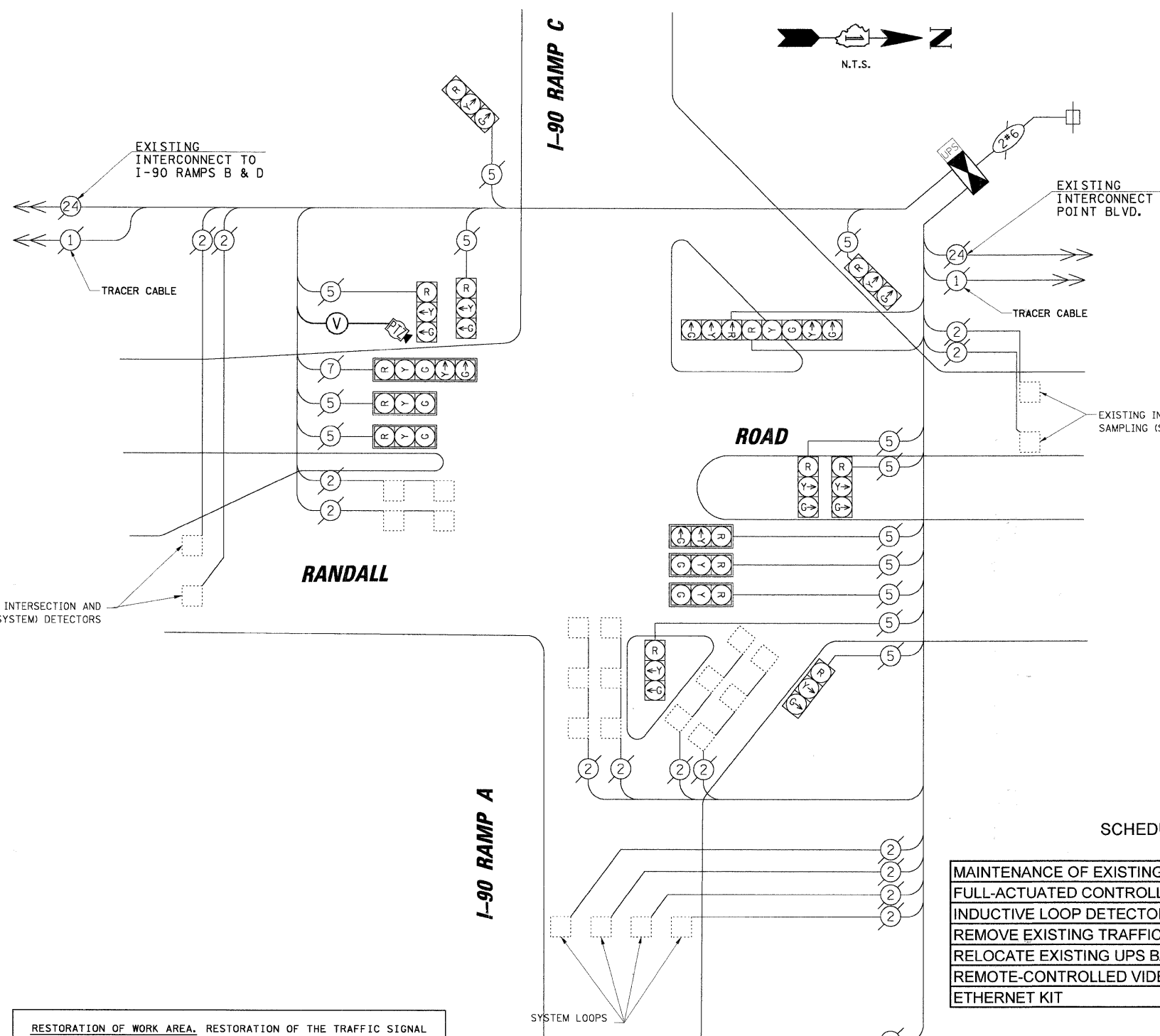
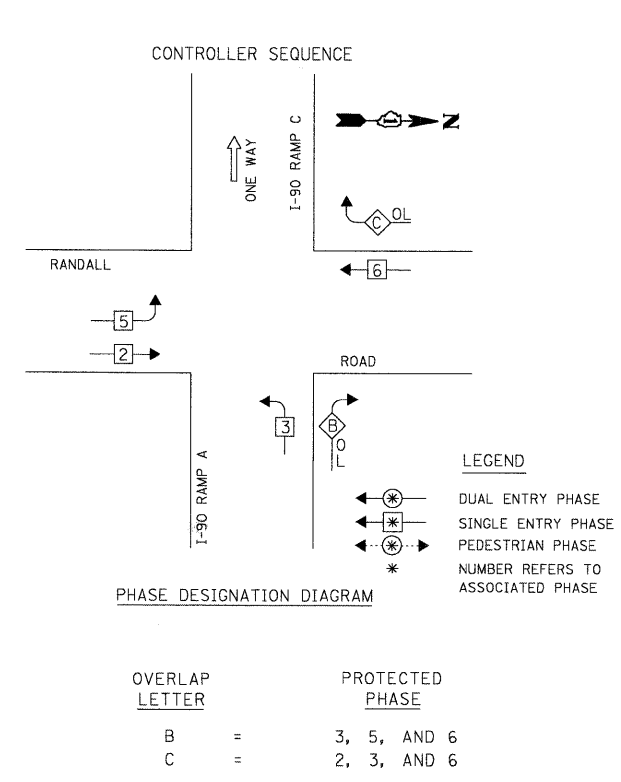


FILE NAME =	USER NAME = MWILLIAM	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL MODIFICATION PLAN RANDALL ROAD AT I-90 RAMPS A & C	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -			336	06-00346-00-TL	KANE	69	41	
		CHECKED -	REVISED -			CONTRACT NO. 63011					
		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

DATE: _____ BY: _____
 SURVIVED: _____
 GRADES CHECKED: _____
 STRUCTURE NOTATIONS CHECKED: _____
 PROFILE: _____
 NOTE BOOK NO.: _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 823-0500

DATE: _____ BY: _____
 SURVIVED: _____
 GRADES CHECKED: _____
 STRUCTURE NOTATIONS CHECKED: _____
 PROFILE: _____
 NOTE BOOK NO.: _____



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 SERVICE INSTALLATION
(Symbol)	(Symbol)	TELEPHONE 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. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
(Symbol)	(Symbol)	1 GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	24 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(Symbol)	(Symbol)	36 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
(Symbol)	(Symbol)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO LEFT TURN"
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO RIGHT TURN"
(Symbol)	(Symbol)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
(Symbol)	(Symbol)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY
(Symbol)	(Symbol)	VENDOR SPECIFIC CABLE
(Symbol)	(Symbol)	DOME CAMERA (PAN/TILT/ZOOM)
(Symbol)	(Symbol)	VIDEO DETECTION CAMERA

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

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

TYPE	NO. OF LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	17	0.50	136.00
(YELLOW)	16	25	0.25	100.00
(GREEN)	16	15	0.25	60.00
ARROW	4	12	0.10	4.80
PED. SIGNAL	-	25	1.00	-
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN	-	25	0.05	-
VIDEO SYSTEM	1	150	1.00	150.00
FLASHER	-	-	0.50	-

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.

ENERGY COSTS TO: TOTAL = 550.80

KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175

ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2=
E - M. ARM POLE	-	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)

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	15
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING UPS BATTERY BACK-UP SYSTEM	EACH	1
REMOTE-CONTROLLED VIDEO SYSTEM	EACH	1
ETHERNET KIT	EACH	1

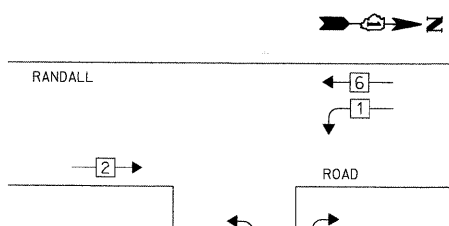
- CONSTRUCTION NOTES:**
- REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
 - INSTALL ETHERNET KIT.
 - RELOCATE EXISTING UPS UNIT AND UPS CABINET. SIDE MOUNT TO PROPOSED TRAFFIC SIGNAL CABINET.
 - INSTALL PTZ CAMERA ON MAST ARM POLE IN SOUTHWEST CORNER ON EXTENSION POLE.

DATE: _____ BY: _____
 CHECKED: _____
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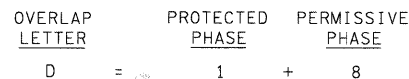
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Chicago, Illinois 60688
 (847) 823-0500

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

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

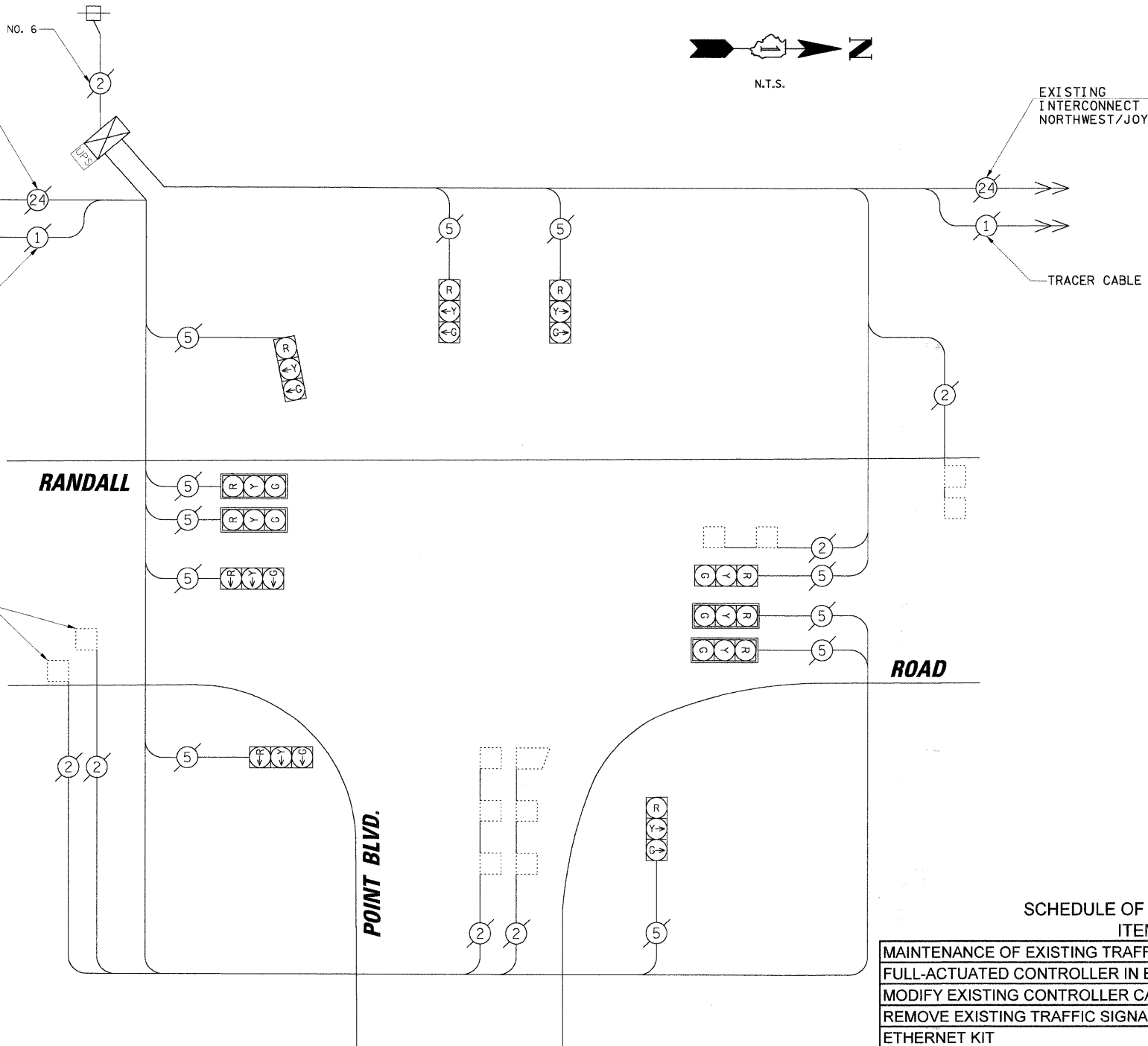


LEGEND
 DUAL ENTRY PHASE
 SINGLE ENTRY PHASE
 PEDESTRIAN PHASE
 NUMBER REFERS TO ASSOCIATED PHASE

EXISTING INTERCONNECT TO I-90 RAMP A & C

TRACER CABLE

EXISTING INTERSECTION & SYSTEM SAMPLING DETECTOR LOOPS



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 SERVICE INSTALLATION
(Symbol)	(Symbol)	TELEPHONE 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)	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(Symbol)	(Symbol)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
(Symbol)	(Symbol)	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
(Symbol)	(Symbol)	RAILROAD CONTROL CABINET
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO LEFT TURN"
(Symbol)	(Symbol)	ILLUMINATED SIGN "NO RIGHT TURN"
(Symbol)	(Symbol)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
(Symbol)	(Symbol)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(Symbol)	(Symbol)	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
(Symbol)	(Symbol)	UNINTERRUPTIBLE POWER SUPPLY
(Symbol)	(Symbol)	VENDOR SPECIFIC CABLE
(Symbol)	(Symbol)	DOMED CAMERA (PAN/TILT/ZOOM)
(Symbol)	(Symbol)	VIDEO DETECTION CAMERA

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

- CONSTRUCTION NOTES:
- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
 - INSTALL ETHERNET KIT.

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

1 EACH CONTROLLER AND CONFLICT MONITOR

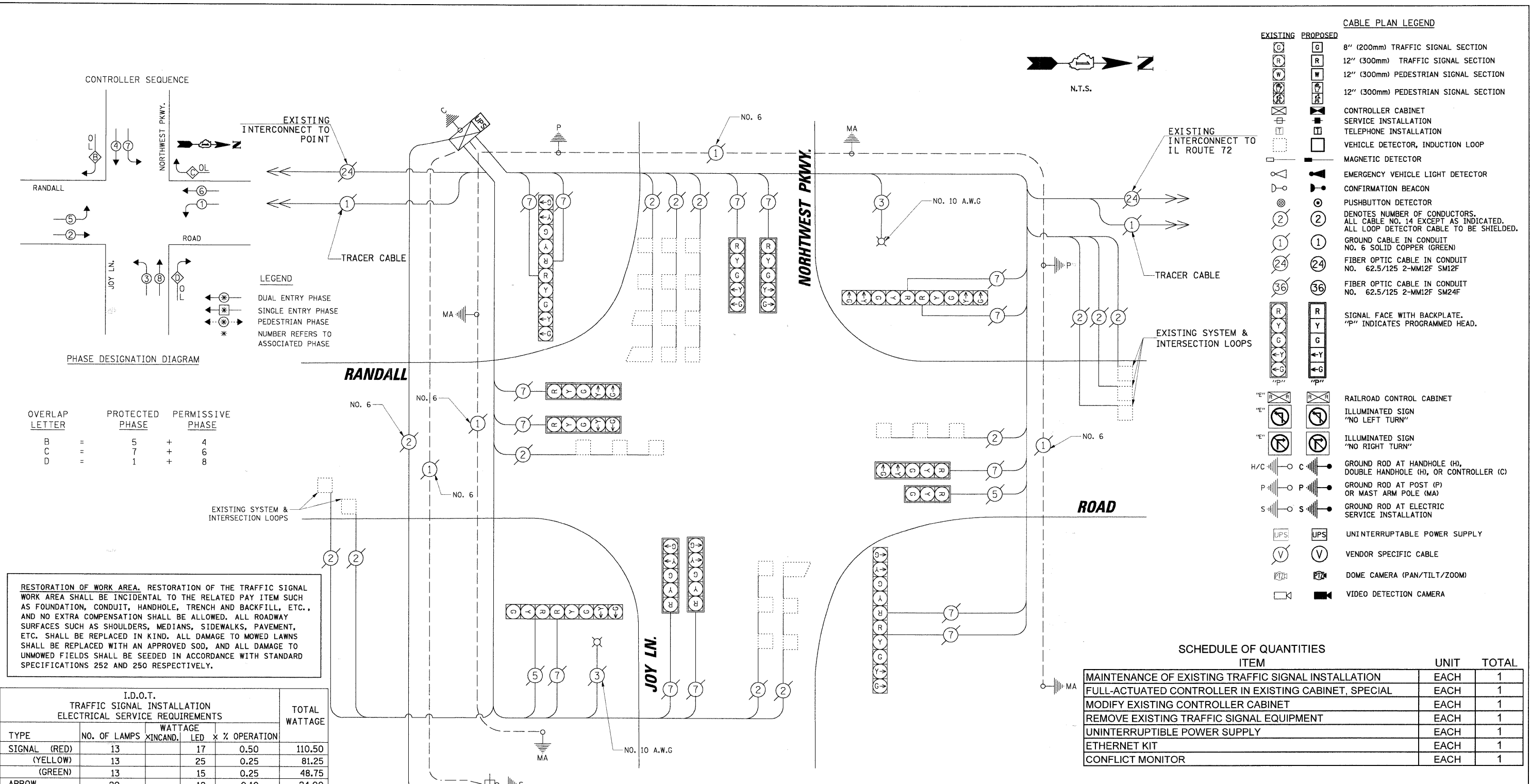
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	11	17	0.50		93.50
(YELLOW)	11	25	0.25		68.75
(GREEN)	11	15	0.25		41.25
ARROW	-	12	0.10		-
PED. SIGNAL	-	25	1.00		-
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
VIDEO SYSTEM	-	150	1.00		-
FLASHER	-	0.50			-

ENERGY COSTS TO: TOTAL = 303.50
 KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'H-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)

DATE: _____ BY: _____
 SURVEYED: _____
 PLAN: _____
 NOTE BOOK: _____
 NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Chicago, Illinois 60688
 (847) 821-0500
 PROFILE: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 SIGNATURE: _____
 NO. _____



CABLE PLAN LEGEND

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

PHASE DESIGNATION DIAGRAM

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

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.

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

TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	13	17	0.50		110.50
(YELLOW)	13	25	0.25		81.25
(GREEN)	13	15	0.25		48.75
ARROW	20	12	0.10		24.00
PED. SIGNAL	-	25	1.00		-
CONTROLLER	1	100	1.00		100.00
ILLUM. SIGN	-	25	0.05		-
VIDEO SYSTEM	-	-	150	1.00	-
LUMINAIRE	2	310	0.50		310.00
FLASHER	-	-	0.50		-

ENERGY COSTS TO: TOTAL = 674.50
KANE COUNTY DIVISION OF TRANSPORTATION
 41W011 BURLINGTON ROAD
 ST. CHARLES, IL 60175
 ENERGY SUPPLY CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE		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)

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

SCHEDULE OF QUANTITIES

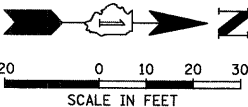
ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ETHERNET KIT	EACH	1
CONFLICT MONITOR	EACH	1

CONSTRUCTION NOTES:

- REPLACE EXISTING CONTROLLER AND CONFLICT MONITOR.
- INSTALL ETHERNET KIT.
- INSTALL UPS UNIT IN SIDE MOUNTED CABINET ATTACHED TO EXISTING TRAFFIC SIGNAL CABINET.

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

1 EACH CONTROLLER AND CONFLICT MONITOR



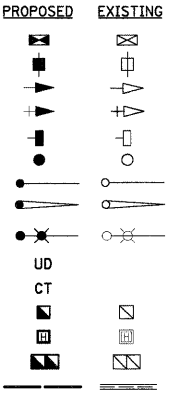
NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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

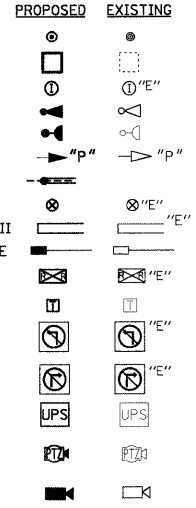
**MATCH LINE STA. 312 + 18
(SEE SHEET NO. 46)**

TRAFFIC SIGNAL LEGEND

CONTROLLER CABINET
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
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
UNIT DUCT
COMMON TRENCH
HANDHOLE
HEAVY DUTY HANDHOLE
DOUBLE HANDHOLE
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)



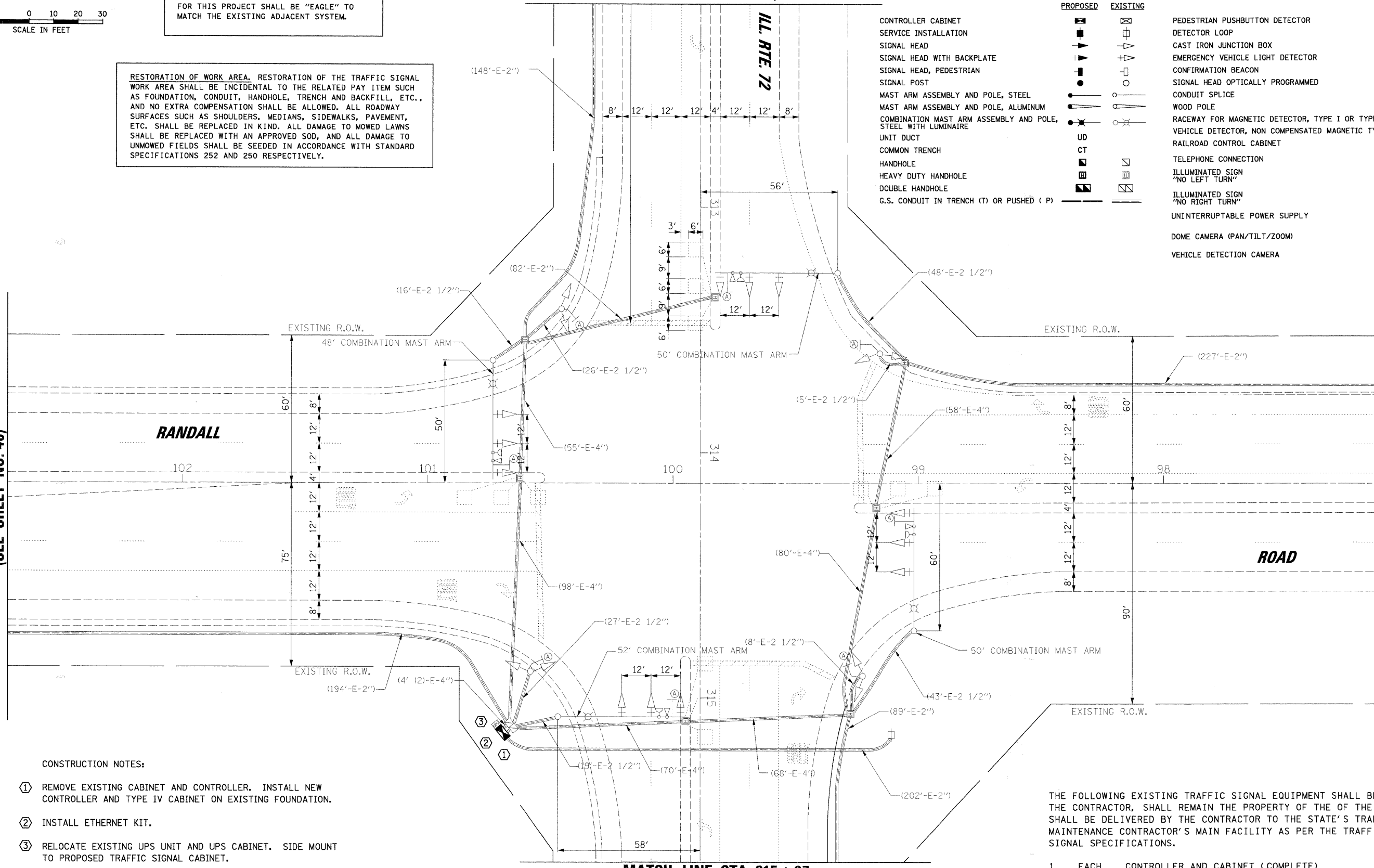
PEDESTRIAN PUSHBUTTON DETECTOR
DETECTOR LOOP
CAST IRON JUNCTION BOX
EMERGENCY VEHICLE LIGHT DETECTOR
CONFIRMATION BEACON
SIGNAL HEAD OPTICALLY PROGRAMMED
CONDUIT SPLICE
WOOD POLE
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
RAILROAD CONTROL CABINET
TELEPHONE CONNECTION
ILLUMINATED SIGN "NO LEFT TURN"
ILLUMINATED SIGN "NO RIGHT TURN"
UNINTERRUPTIBLE POWER SUPPLY
DOME CAMERA (PAN/TILT/ZOOM)
VEHICLE DETECTION CAMERA



FILE NO. 102-071
DATE: 1/28/2008
BY: WILLIAM M.
CHECKED: CHRISTOPHER B. BURKE
DATE: 1/28/2008
BY: WILLIAM M.
CHECKED: CHRISTOPHER B. BURKE
DATE: 1/28/2008
BY: WILLIAM M.
CHECKED: CHRISTOPHER B. BURKE
DATE: 1/28/2008
BY: WILLIAM M.
CHECKED: CHRISTOPHER B. BURKE
DATE: 1/28/2008

**MATCH LINE STA. 102 + 71
(SEE SHEET NO. 46)**

**MATCH LINE STA. 97 + 14
(SEE SHEET NO. 46)**



- CONSTRUCTION NOTES:**
- 1 REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
 - 2 INSTALL ETHERNET KIT.
 - 3 RELOCATE EXISTING UPS UNIT AND UPS CABINET. SIDE MOUNT TO PROPOSED TRAFFIC SIGNAL CABINET.

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OF THE STATE, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

1 EACH CONTROLLER AND CABINET (COMPLETE)

**MATCH LINE STA. 315 + 67
(SEE SHEET NO. 46)**

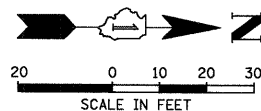
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USER NAME = MWILLIAM

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

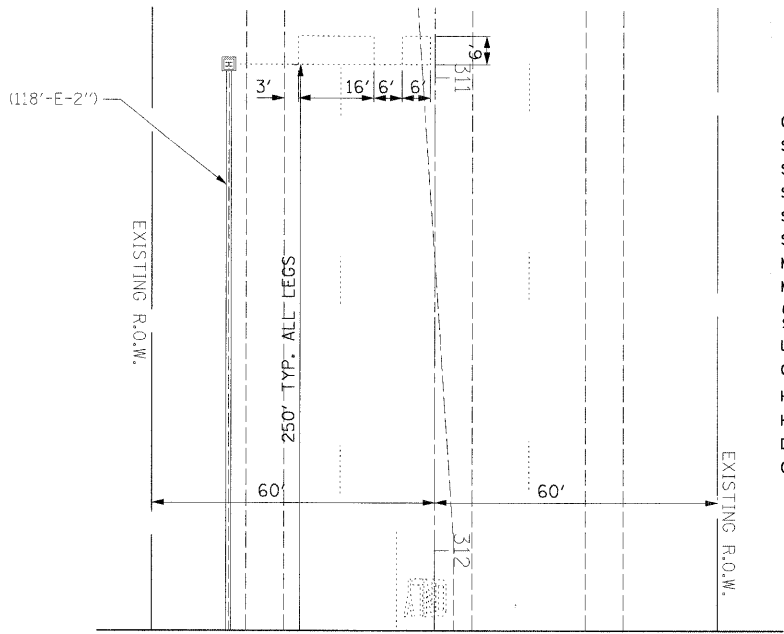
TRAFFIC SIGNAL MODIFICATION PLAN
RANDALL ROAD AT IL RTE 72

F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 45
CONTRACT NO. 63011				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



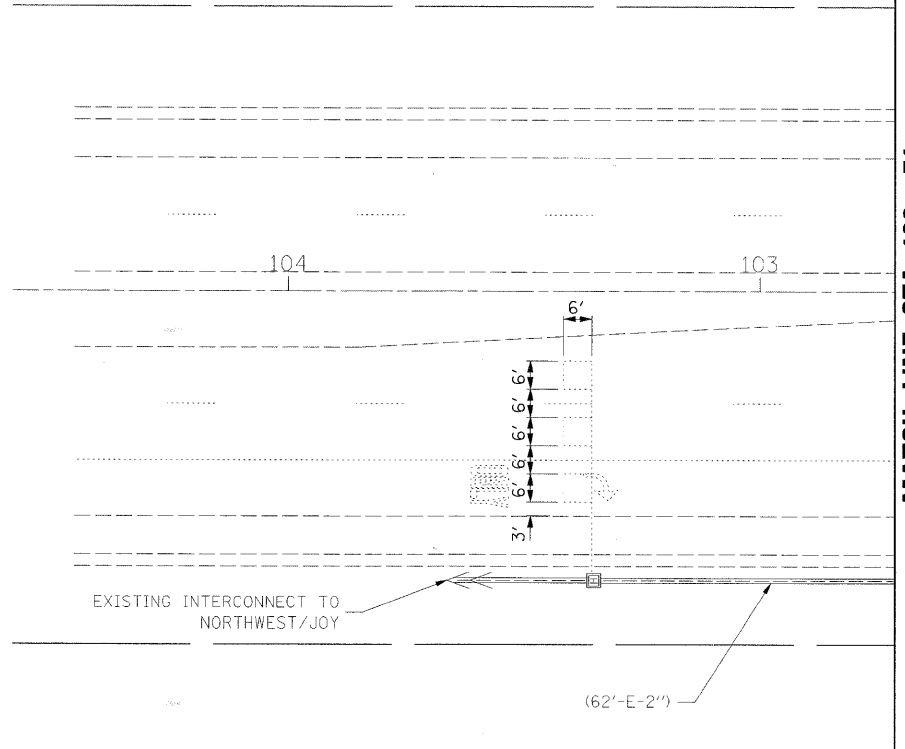
NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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



MATCH LINE STA. 312 + 18
(SEE SHEET NO. 45)

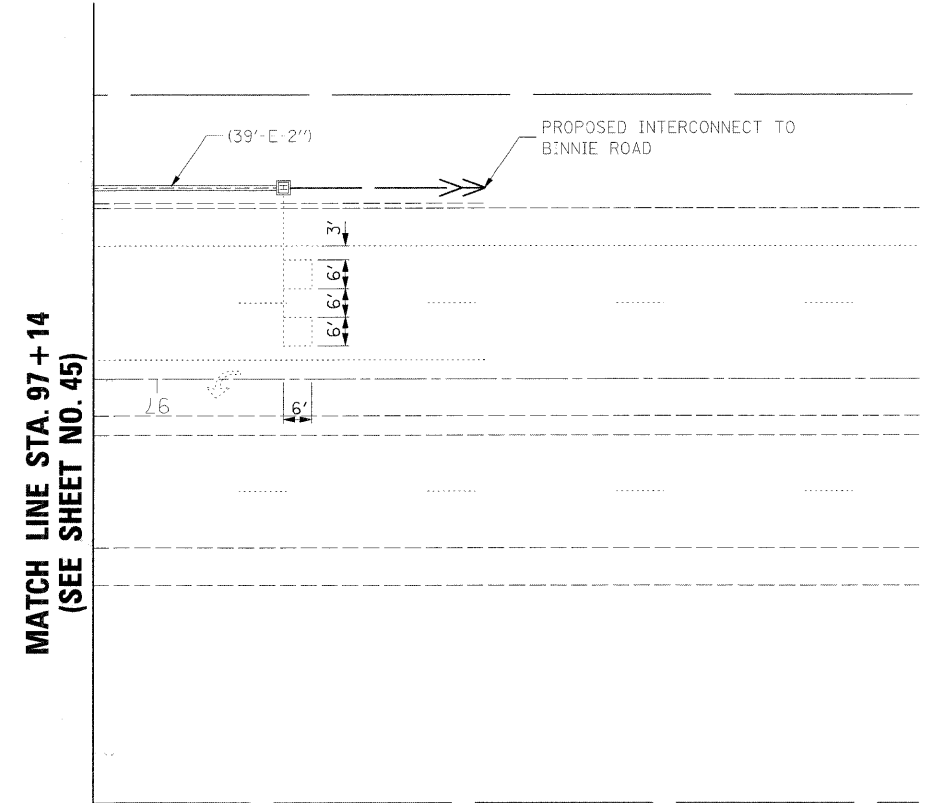
MATCH LINE STA. 315 + 67
(SEE SHEET NO. 45)



MATCH LINE STA. 102 + 71
(SEE SHEET NO. 45)

- CONSTRUCTION NOTES:
- ① REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
 - ② INSTALL ETHERNET KIT.
 - ③ RELOCATE EXISTING UPS UNIT AND UPS CABINET. SIDE MOUNT TO PROPOSED TRAFFIC SIGNAL CABINET.

		TRAFFIC SIGNAL LEGEND	
	PROPOSED	EXISTING	
CONTROLLER CABINET			PEDESTRIAN PUSHBUTTON DETECTOR
SERVICE INSTALLATION			DETECTOR LOOP
SIGNAL HEAD			CAST IRON JUNCTION BOX
SIGNAL HEAD WITH BACKPLATE			EMERGENCY VEHICLE LIGHT DETECTOR
SIGNAL HEAD, PEDESTRIAN			CONFIRMATION BEACON
SIGNAL POST			SIGNAL HEAD OPTICALLY PROGRAMMED
MAST ARM ASSEMBLY AND POLE, STEEL			CONDUIT SPLICE
MAST ARM ASSEMBLY AND POLE, ALUMINUM			WOOD POLE
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE			RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II
UNIT DUCT	UD		VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE
COMMON TRENCH	CT		RAILROAD CONTROL CABINET
HANDHOLE			TELEPHONE CONNECTION
HEAVY DUTY HANDHOLE			ILLUMINATED SIGN "NO LEFT TURN"
DOUBLE HANDHOLE			ILLUMINATED SIGN "NO RIGHT TURN"
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)			UNINTERRUPTABLE POWER SUPPLY
			DOME CAMERA (PAN/TILT/ZOOM)
			VEHICLE DETECTION CAMERA

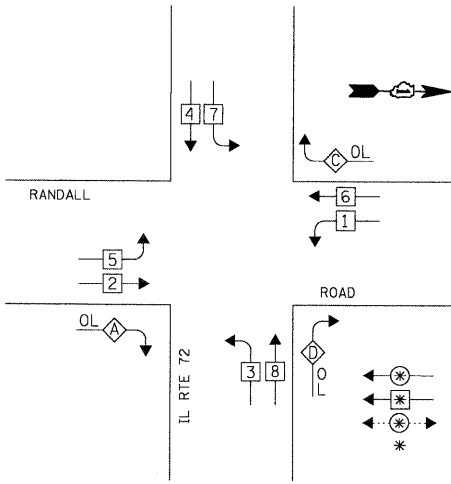


MATCH LINE STA. 97 + 14
(SEE SHEET NO. 45)

SURVEYED BY: DATE: [] [] [] []
 ALIGNED BY: DATE: [] [] [] []
 CHECKED BY: DATE: [] [] [] []
 DRAWN BY: DATE: [] [] [] []
 DATE: [] [] [] []

DATE: _____ BY: _____
 SURVEYED: _____ CHECKED: _____
 PLAN: _____ NOTE BOOK: _____
 NO. _____
CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Chicago, Illinois 60688
 (847) 823-0500
 PROFILE: _____
 SURVEYED: _____ CHECKED: _____
 GRADES: _____ NOTED: _____
 NO. _____
 PROFILE: _____

CONTROLLER SEQUENCE



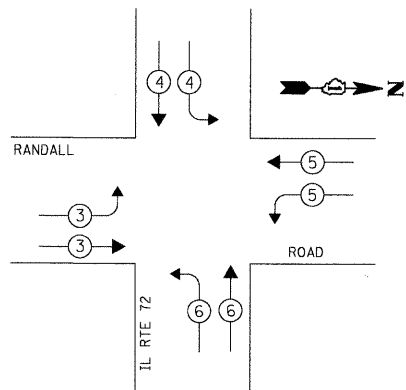
OVERLAP LETTER	PROTECTED PHASE	PERMISSIVE PHASE
A =	3 +	2
C =	7 +	6
D =	1 +	8

LEGEND

- ⊗ DUAL ENTRY PHASE
- ⊙ SINGLE ENTRY PHASE
- ⊕ PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	↓	←	↑

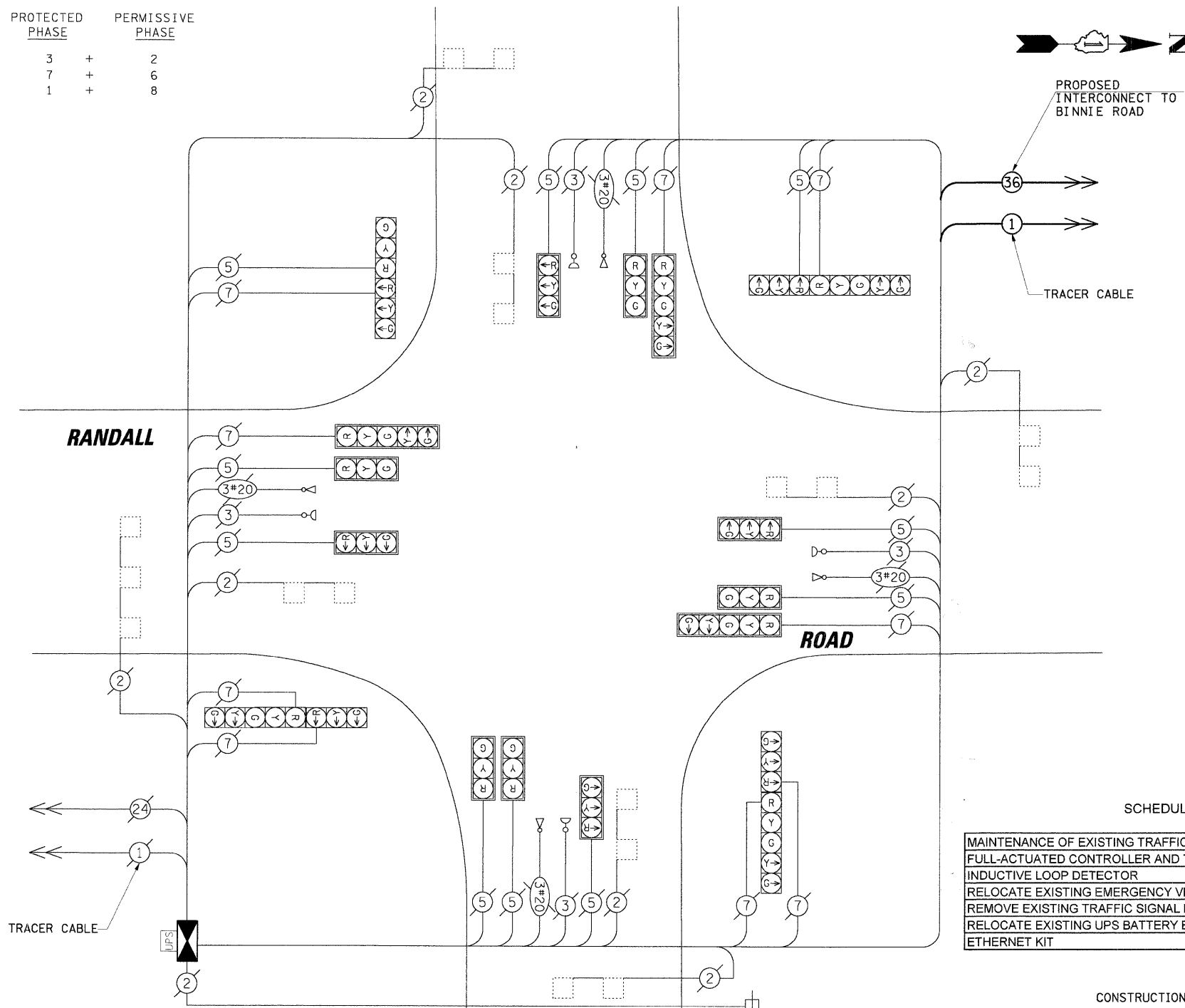
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED X % OPERATION		
SIGNAL (RED)	20	17	0.50	170.00	
(YELLOW)	20	25	0.25	125.00	
(GREEN)	20	15	0.25	75.00	
ARROW	12	12	0.10	14.40	
PED. SIGNAL	-	25	1.00	-	
CONTROLLER	1	100	1.00	100.00	
ILLUM. SIGN	-	25	0.05	-	
VIDEO SYSTEM	-	150	1.00	-	
FLASHER	-	25	0.50	-	

ENERGY COSTS TO: TOTAL = 484.40
ILLINOIS DEPARTMENT OF TRANSPORTATION
 201 WEST CENTER COURT
 SCHAUMBURG, IL 60196-1096
 ENERGY SUPPLY: CONTACT: MIKE WIDHALM
 PHONE: (847) 608-2376
 COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
E - M. ARM POLE		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)

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



CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
⊗	⊙	8" (200mm) TRAFFIC SIGNAL SECTION
⊕	⊙	12" (300mm) TRAFFIC SIGNAL SECTION
⊕	⊙	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊕	⊙	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊕	⊙	CONTROLLER CABINET SERVICE INSTALLATION
⊕	⊙	TELEPHONE INSTALLATION
⊕	⊙	VEHICLE DETECTOR, INDUCTION LOOP
⊕	⊙	MAGNETIC DETECTOR
⊕	⊙	EMERGENCY VEHICLE LIGHT DETECTOR
⊕	⊙	CONFIRMATION BEACON
⊕	⊙	PUSHBUTTON DETECTOR
⊕	⊙	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
⊕	⊙	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
⊕	⊙	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
⊕	⊙	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM24F
⊕	⊙	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
⊕	⊙	RAILROAD CONTROL CABINET
⊕	⊙	ILLUMINATED SIGN "NO LEFT TURN"
⊕	⊙	ILLUMINATED SIGN "NO RIGHT TURN"
H/C	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
UPS	UPS	UNINTERRUPTIBLE POWER SUPPLY
V	V	VENDOR SPECIFIC CABLE
DC	DC	DOME CAMERA (PAN/TILT/ZOOM)
CC	CC	VIDEO DETECTION CAMERA

SCHEDULE OF QUANTITIES

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

CONSTRUCTION NOTES:

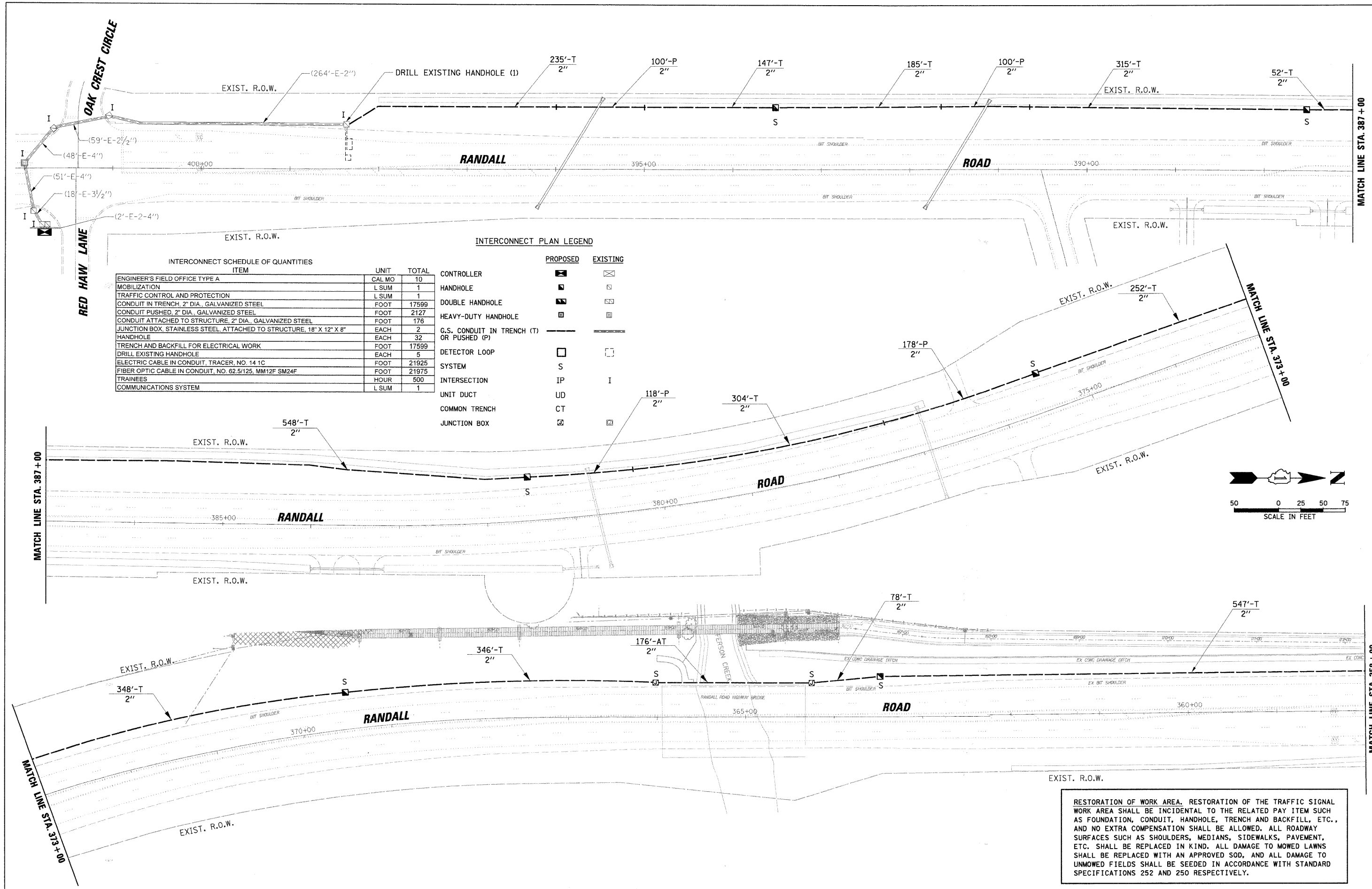
- ① REMOVE EXISTING CABINET AND CONTROLLER. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON EXISTING FOUNDATION.
- ② INSTALL ETHERNET KIT.
- ③ RELOCATE EXISTING UPS UNIT AND UPS CABINET. SIDE MOUNT TO PROPOSED TRAFFIC SIGNAL CABINET.

DATE: _____ BY: _____
 SURVEYED: _____
 ALIGNED: _____
 RT. OF WAY CHECKED: _____
 NO. _____

PLAN
 NO. _____
 FILE NAME: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 STRUCTURE NOTATIONS CHECKED: _____
 NO. _____

PROFILE
 DATE: _____ BY: _____
 SURVEYED: _____
 GRADES CHECKED: _____
 STRUCTURE NOTATIONS CHECKED: _____
 NO. _____

FILE NAME = N:\kane\county\070616\Traffic\UNT1.070616.dgn
 USER NAME = MWILLIAM
 DESIGNED -
 DRAWN -
 CHECKED -
 DATE -
 REVISED -
 REVISED -
 REVISED -
 REVISED -

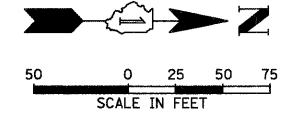


INTERCONNECT SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
ENGINEER'S FIELD OFFICE TYPE A	CAL MO	10
MOBILIZATION	L SUM	1
TRAFFIC CONTROL AND PROTECTION	L SUM	1
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	17599
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	2127
CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	176
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 18" X 12" X 8"	EACH	2
HANDHOLE	EACH	32
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	17599
DRILL EXISTING HANDHOLE	EACH	5
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	21925
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	21975
TRAINEES	HOUR	500
COMMUNICATIONS SYSTEM	L SUM	1

INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
HEAVY-DUTY HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
SYSTEM	[Symbol]	[Symbol]
INTERSECTION	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]
JUNCTION BOX	[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.

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

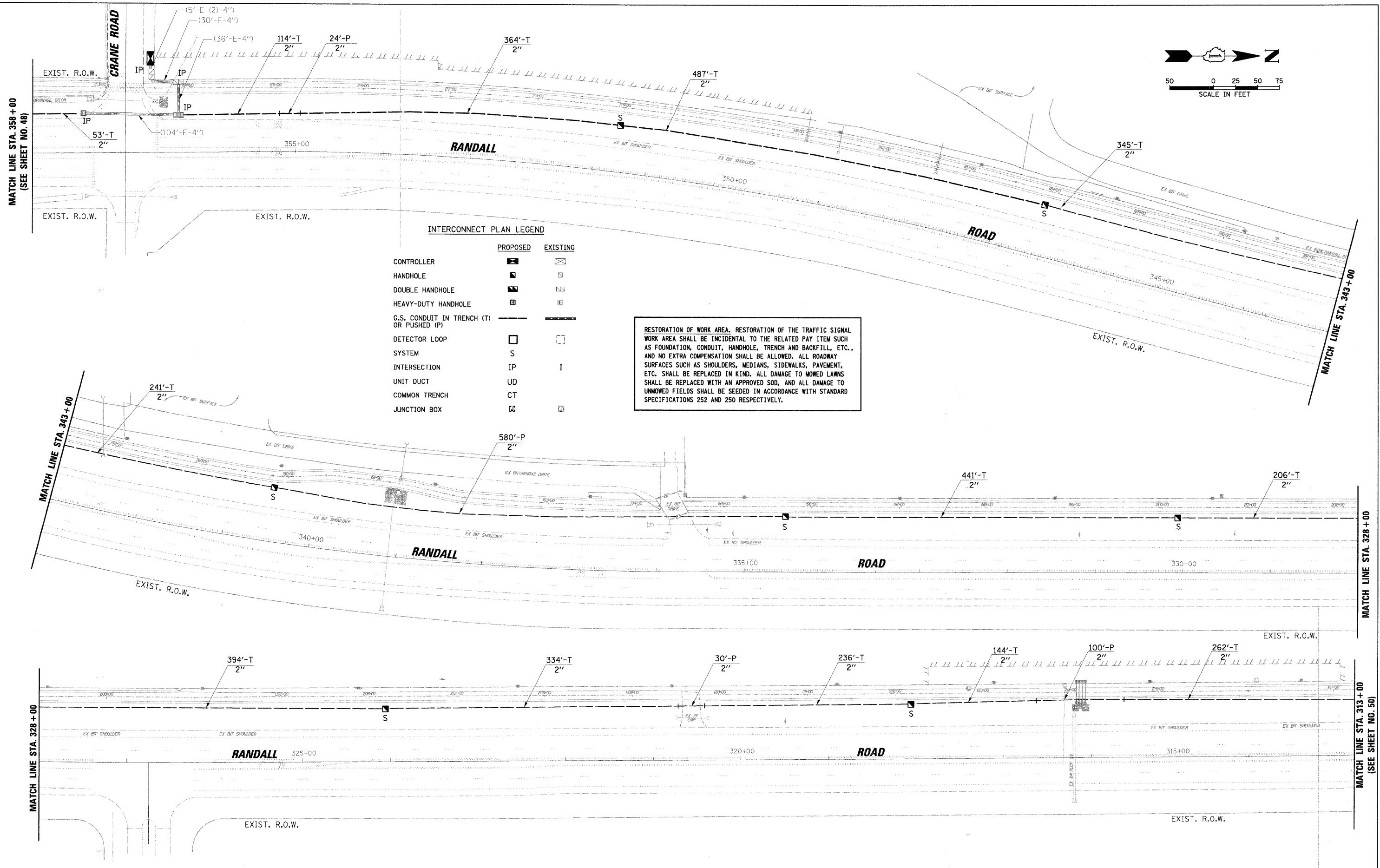
INTERCONNECT PLAN
 RANDALL ROAD
 RED HAW LANE TO SILVER GLEN ROAD

F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 48
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 63011	

SCALE: 1" = 50'

PROFILE SURVEYED BY DATE
 GRADES CHECKED
 REVISIONS
 NO. DATE
 PLAN NO. DATE
 SURVEYED BY DATE
 ALIGNED CHECKED
 RT. OF WAY CHECKED
 PAID FILE NAME
 NO.

CHRISTOPHER B. BURKE ENGINEERING LTD.
 3515 West Higgins Road, Suite 600
 Chicago, Illinois 60618
 (847) 823-0500



INTERCONNECT PLAN LEGEND

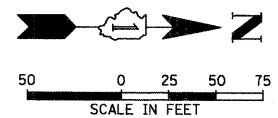
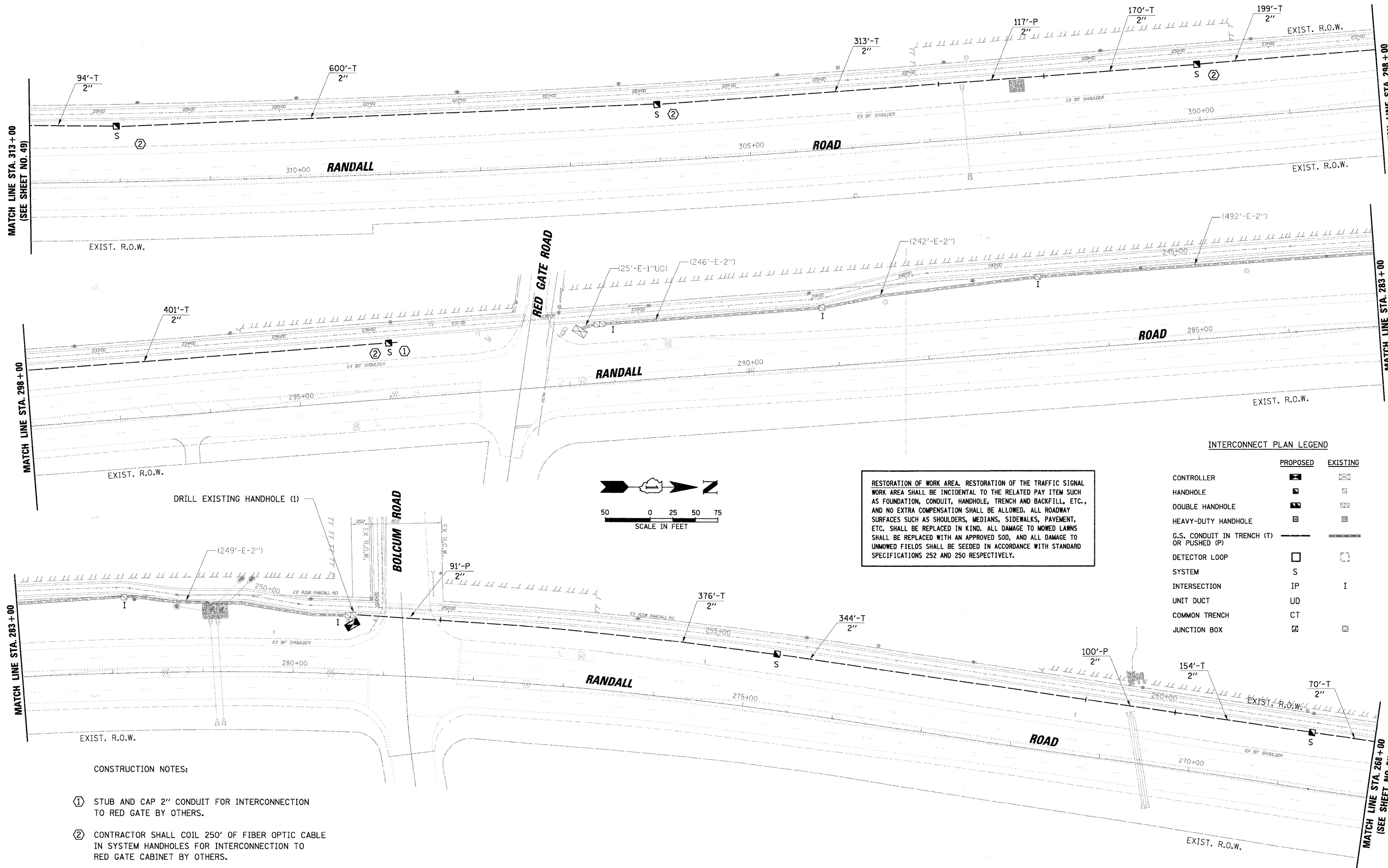
	PROPOSED	EXISTING
CONTROLLER	☒	☒
HANDHOLE	■	■
DOUBLE HANDHOLE	▣	▣
HEAVY-DUTY HANDHOLE	▣	▣
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	—	—
DETECTOR LOOP	□	□
SYSTEM	S	S
INTERSECTION	IP	I
UNIT DUCT	UD	UD
COMMON TRENCH	CT	CT
JUNCTION BOX	⊠	⊠

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.

FILE NAME = N:\kane\county\078615\Traffic\INT2_078616.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN RANDALL ROAD RED HAW LANE TO SILVER GLEN ROAD	F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 49
PLOT SCALE = 50'	CHECKED -	REVISED -	REVISED -			CONTRACT NO. 63011				
PLOT DATE = 1/28/2008	DATE -	REVISED -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
						SCALE: 1" = 50'				

PROFILE SURVEYED _____ DATE _____
 GRADES CHECKED _____
 NOTE BOOK NO. _____
 STRUCTURE NOTATIONS OK'D _____
 PLAN SURVEYED _____ DATE _____
 NOTE BOOK NO. _____
 ALIGNMENT CHECKED _____
 RT. OF WAY CHECKED _____
 ROAD FILE NAME _____

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 Bolingbrook, Illinois 60428
 (847) 823-0500



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

INTERCONNECT PLAN LEGEND

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

CONSTRUCTION NOTES:

- ① STUB AND CAP 2" CONDUIT FOR INTERCONNECTION TO RED GATE BY OTHERS.
- ② CONTRACTOR SHALL COIL 250' OF FIBER OPTIC CABLE IN SYSTEM HANDHOLES FOR INTERCONNECTION TO RED GATE CABINET BY OTHERS.

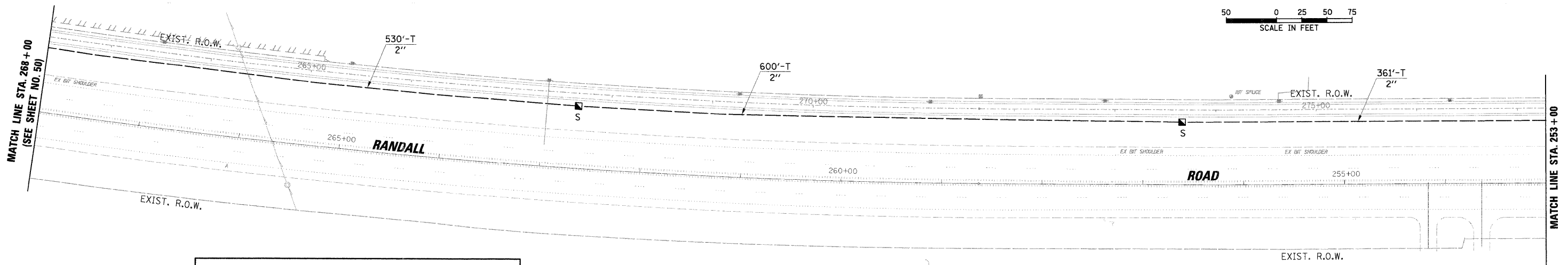
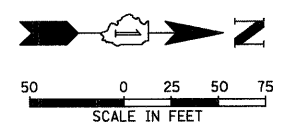
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		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

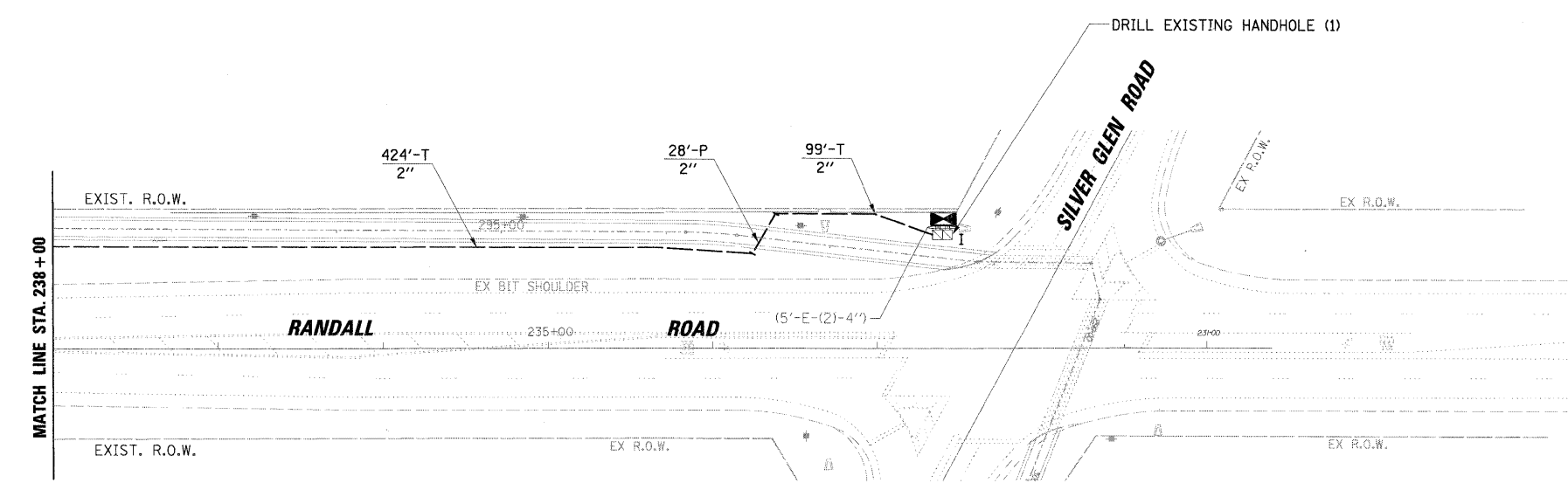
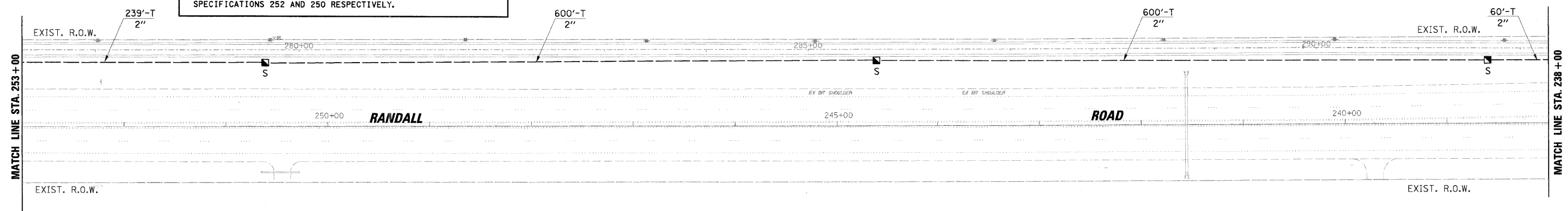
INTERCONNECT PLAN
 RANDALL ROAD
 RED HAW LANE TO SILVER GLEN ROAD

SCALE: 1" = 50'

F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 50
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 63011	



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.



INTERCONNECT PLAN LEGEND

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

DATE	BY	DATE	BY
DATE	BY	DATE	BY

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 3575 West Higgins Road, Suite 600
 Rosemead, Illinois 60018
 (847) 822-0500

FILE NAME = N:\kane\county\070616\Tr\of\ic\INT4_070616.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

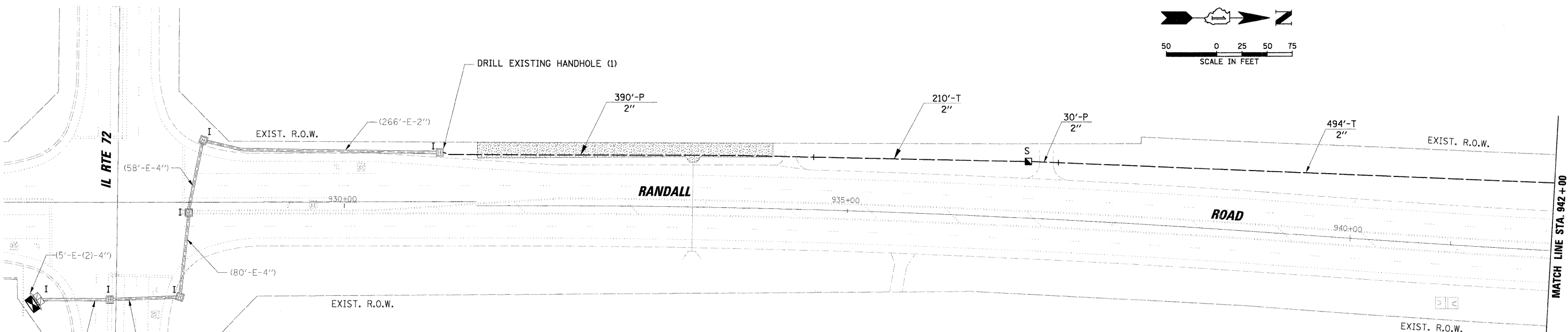
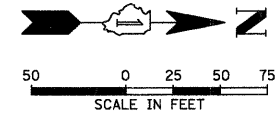
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

INTERCONNECT PLAN
 RANDALL ROAD
 RED HAW LANE TO SILVER GLEN ROAD
 SCALE: 1" = 50'

F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 51
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 63011				

SURVEYED BY DATE
 PLAN NO. DATE
 SURVEYED BY DATE
 CHECKED BY DATE
 STRUCTURE NO./DATE
 PROFILE
 NOTE BOOK NO.
 DATE
 CHECKED BY DATE
 STRUCTURE NO./DATE

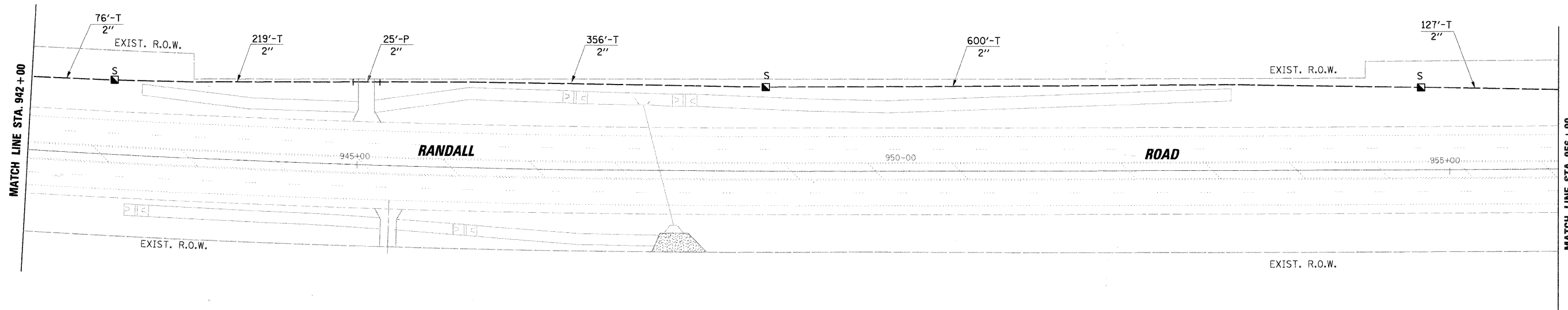
CHRISTOPHER B. BURKE
 ENGINEERING LTD.
 315 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 827-0500



INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER	☒	☒
HANDHOLE	■	■
DOUBLE HANDHOLE	▣	▣
HEAVY-DUTY HANDHOLE	▣	▣
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)	—	—
DETECTOR LOOP	□	□
SYSTEM	S	S
INTERSECTION	IP	I
UNIT DUCT	UD	UD
COMMON TRENCH	CT	CT
JUNCTION BOX	☑	☑

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.



FILE NAME = N:\kanscounty\078615\Tr\ofic\INT5_078615.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -
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		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

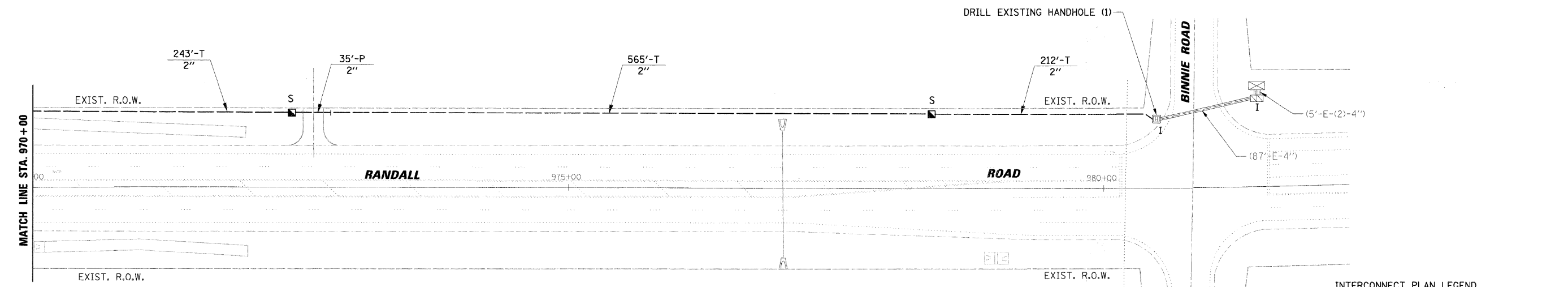
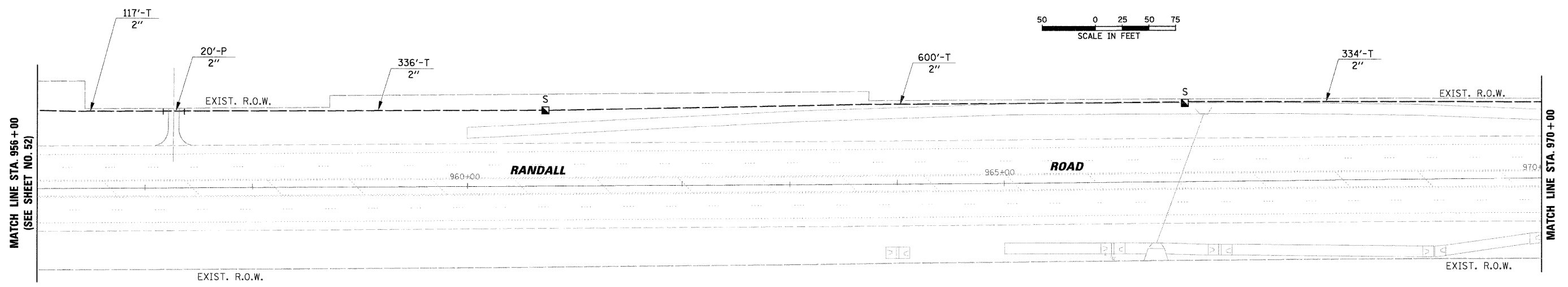
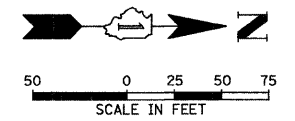
INTERCONNECT PLAN
 RANDALL ROAD
 IL RTE 72 TO BINNIE ROAD
 SCALE:

F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 52
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 63011	

PROFILE SURVEYED BY DATE
 GRADES CHECKED BY DATE
 PLAN NOTE BOOK NO.
 SURVEYED BY DATE
 ALIGNMENT CHECKED BY DATE
 RT. OF WAY CHECKED BY DATE
 P&S FILE NAME

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 Chicago, Illinois 60638
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PROFILE SURVEYED BY DATE
 GRADES CHECKED BY DATE
 PLAN NOTE BOOK NO.
 SURVEYED BY DATE
 ALIGNMENT CHECKED BY DATE
 RT. OF WAY CHECKED BY DATE
 P&S FILE NAME



INTERCONNECT PLAN LEGEND

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

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.

FILE NAME = N:\kanecounty\078616\Traffic\INT6_078616.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT PLAN RANDALL ROAD IL RTE 72 TO BINNIE ROAD	F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 53	
	PLOT SCALE = 5/8"	DRAWN -	REVISED -			CONTRACT NO. 63011					
	PLOT DATE = 1/26/2008	CHECKED -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					
		DATE -	REVISED -								

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

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 Chicago, Illinois 60638
 (847) 823-0500

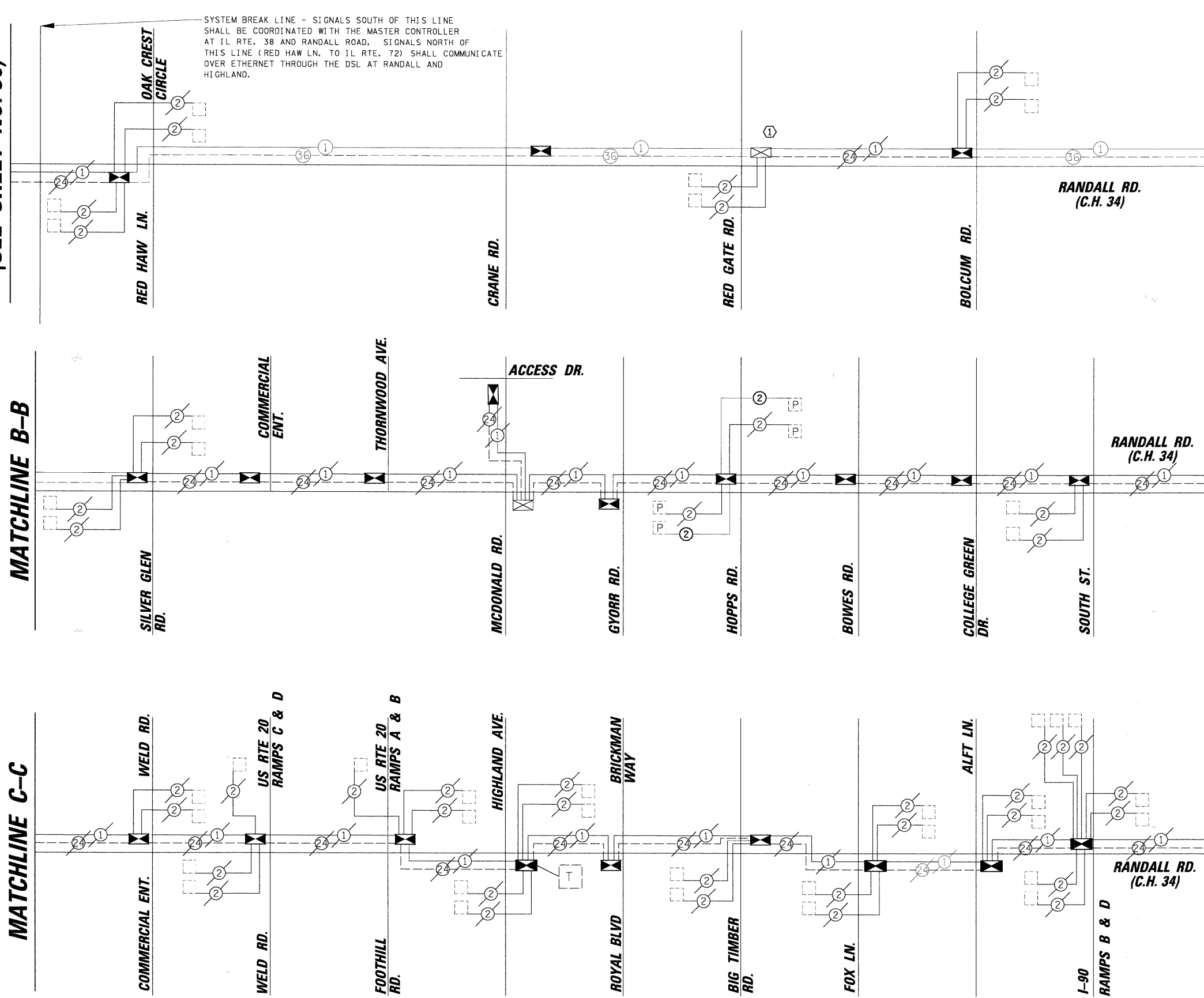
DATE	BY	DATE	BY
DATE	BY	DATE	BY
DATE	BY	DATE	BY

MATCHLINE A-A
 (SEE SHEET NO. 56)

MATCHLINE B-B

MATCHLINE C-C

MATCHLINE D-D
 (SEE SHEET NO. 55)



SYSTEM BREAK LINE - SIGNALS SOUTH OF THIS LINE SHALL BE COORDINATED WITH THE MASTER CONTROLLER AT IL RTE. 38 AND RANDALL ROAD. SIGNALS NORTH OF THIS LINE (RED HAW LN. TO IL RTE. 72) SHALL COMMUNICATE OVER ETHERNET THROUGH THE DSL AT RANDALL AND HIGHLAND.

INTERCONNECT SCHEMATIC LEGEND

- EXISTING INTERSECTION CONTROLLER
- PROPOSED INTERSECTION CONTROLLER
- EXISTING MASTER CONTROLLER
- PROPOSED MASTER CONTROLLER
- MASTER MASTER CONTROLLER
- EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- EXISTING INTERSECTION LOOP DETECTORS
- PROPOSED SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) DETECTORS
- PROPOSED SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS.
- EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
- EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS
- PROPOSED SAMPLING (SYSTEM) PREFORMED DETECTORS
- EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F
- PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F
- EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
- PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F
- EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
- PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE
- EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
- PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED
- EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
- PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED
- EXISTING ELECTRIC CABLE, 1/C (AS SPECIFIED)
- PROPOSED ELECTRIC CABLE, 1/C (AS SPECIFIED)
- EXISTING TELEPHONE CONNECTION
- PROPOSED TELEPHONE CONNECTION



CONSTRUCTION NOTES:

- INTERCONNECTION AND INSTALLATION OF FIBER OPTIC CABLE TO RED GATE CABINET BY OTHERS.

FILE NAME = N:\kane\county\070615\Tranf\10\SCH1.dgn	USER NAME = M\WILLIAM	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT SCHEMATIC RANDALL ROAD FROM RED HAW LN. TO IL ROUTE 72	F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 54
PLOT SCALE = 20'	CHECKED -	REVISED -	SCALE:			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
PLOT DATE = 1/30/2008	DATE -	REVISED -								

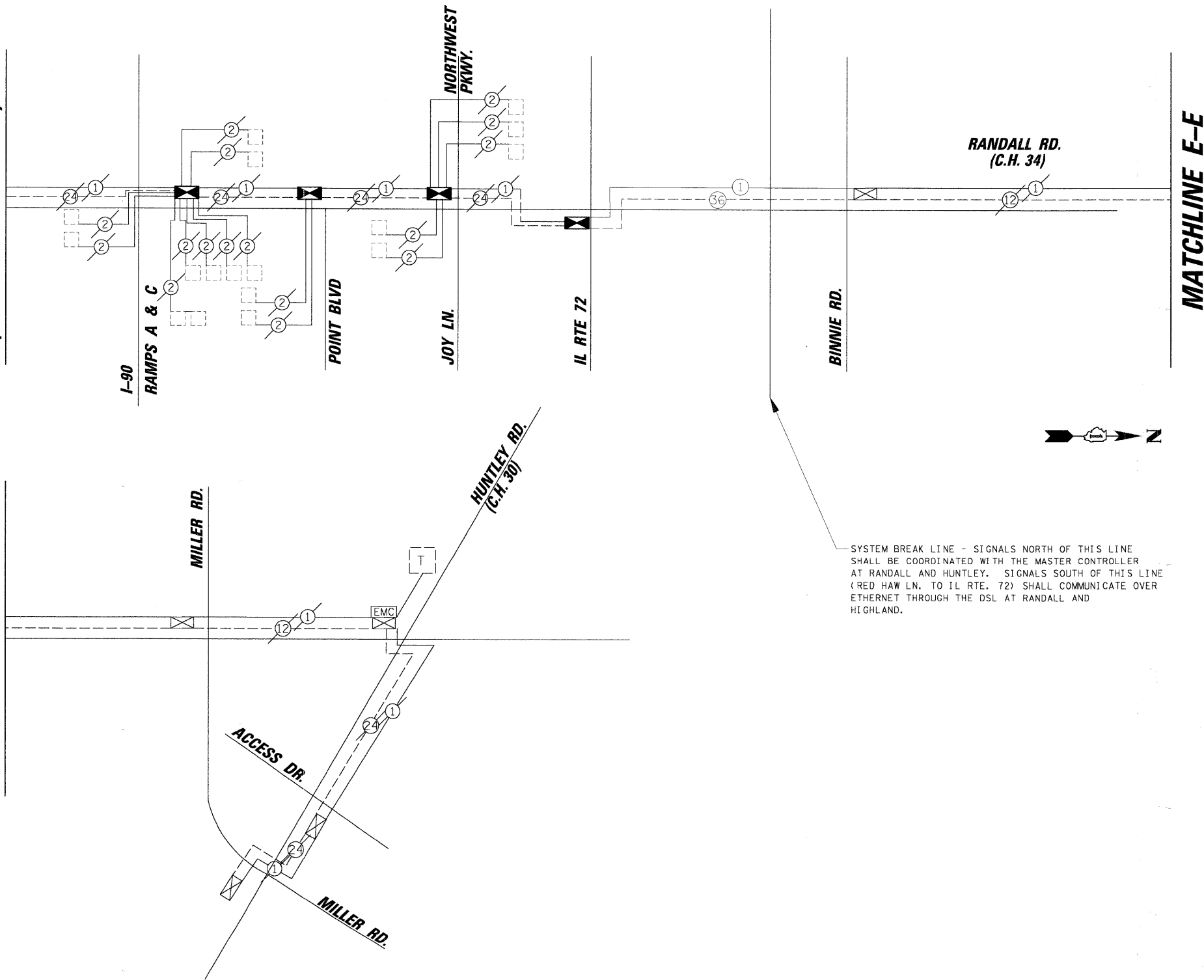
CONTRACT NO. 63011

PROFILE	SURVEYED	BY	DATE
NOTE BOOK	GRADES CHECKED		
	BEAM NOTED		
	STRUCTURE NOTATIONS CHECKED		
PLAN	SURVEYED	BY	DATE
	ALIGNMENT CHECKED		
	RT. OF WAY CHECKED		
	ROAD FILE NAME		

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 (847) 823-0500

MATCHLINE D-D
 (SEE SHEET NO. 54)

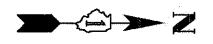
MATCHLINE E-E



INTERCONNECT SCHEMATIC LEGEND

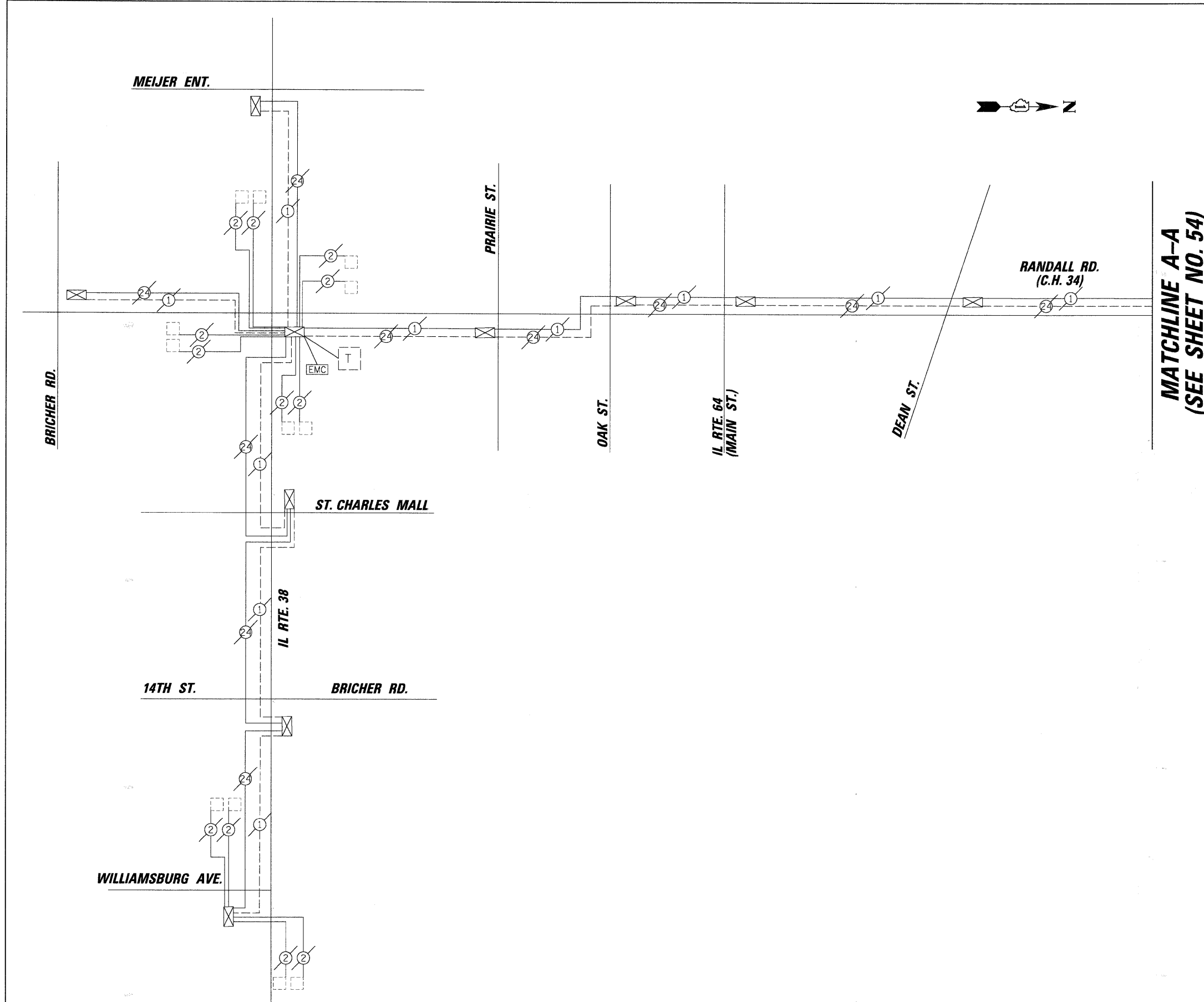
EXISTING INTERSECTION CONTROLLER	☒
PROPOSED INTERSECTION CONTROLLER	⊠
EXISTING MASTER CONTROLLER	EMC
PROPOSED MASTER CONTROLLER	MC
MASTER MASTER CONTROLLER	MMC
EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS	☐
PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS	□
EXISTING INTERSECTION LOOP DETECTORS	P
PROPOSED SAMPLING (SYSTEM) DETECTORS	PS
EXISTING SAMPLING (SYSTEM) DETECTORS	ES
PROPOSED SAMPLING (SYSTEM) DETECTORS	ESP
EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS.	ESPS
EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS	IPD
PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS	PD
EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS	ESPD
PROPOSED SAMPLING (SYSTEM) PREFORMED DETECTORS	PSPD
EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	36
PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	36
EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	24
PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	24
EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE	12
PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE	12
EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	6
PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	6
EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	2
PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	2
EXISTING ELECTRIC CABLE, 1/C (AS SPECIFIED)	1
PROPOSED ELECTRIC CABLE, 1/C (AS SPECIFIED)	1
EXISTING TELEPHONE CONNECTION	T
PROPOSED TELEPHONE CONNECTION	T

SYSTEM BREAK LINE - SIGNALS NORTH OF THIS LINE SHALL BE COORDINATED WITH THE MASTER CONTROLLER AT RANDALL AND HUNTLEY. SIGNALS SOUTH OF THIS LINE (RED HAW LN. TO IL RTE. 72) SHALL COMMUNICATE OVER ETHERNET THROUGH THE DSL AT RANDALL AND HIGHLAND.



PROFILE	DESIGNED	DATE
NOTE BOOK	CHECKED	
NO.	STRUCTURE	NOTATION
PLAN	BY	DATE
NOTE BOOK	CHECKED	
NO.	ALIGNMENT	
	RT. OF WAY	
	CHECKED	
	FILE NAME	

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 9575 West Higgins Road, Suite 600
 Elmhurst, Illinois 60120
 (815) 823-9500



MATCHLINE A-A
(SEE SHEET NO. 54)

INTERCONNECT SCHEMATIC LEGEND

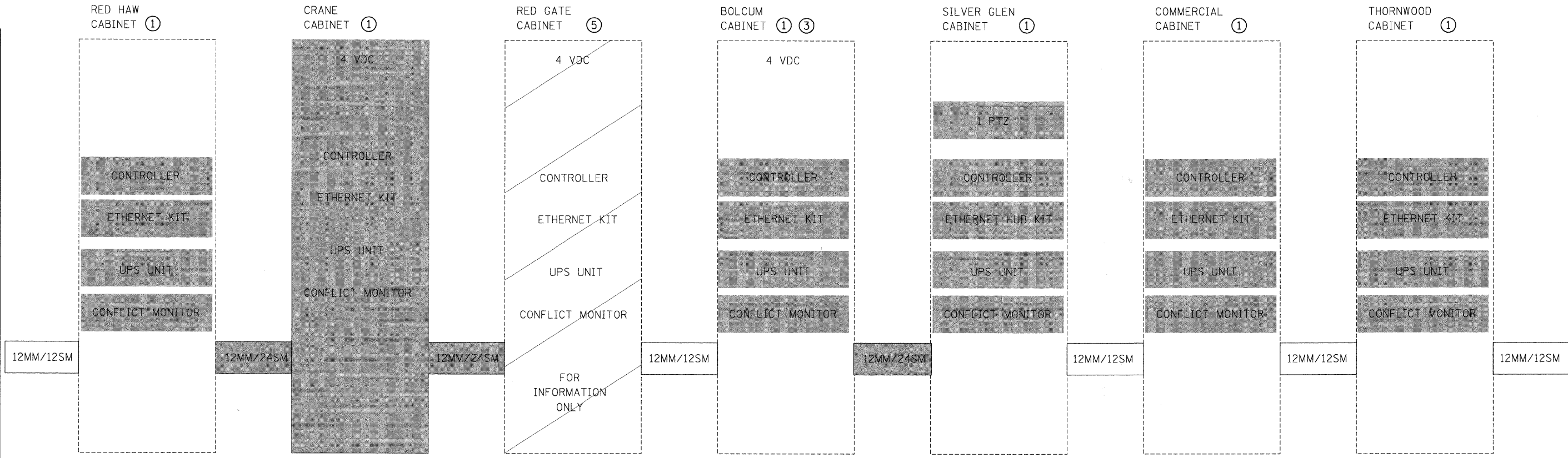
EXISTING INTERSECTION CONTROLLER	
PROPOSED INTERSECTION CONTROLLER	
EXISTING MASTER CONTROLLER	
PROPOSED MASTER CONTROLLER	
MASTER MASTER CONTROLLER	
EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS	
PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS	
EXISTING INTERSECTION LOOP DETECTORS	
PROPOSED SAMPLING (SYSTEM) DETECTORS	
EXISTING SAMPLING (SYSTEM) DETECTORS	
PROPOSED SAMPLING (SYSTEM) DETECTORS	
EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTORS.	
EXISTING SAMPLING (SYSTEM) DETECTORS, PROPOSED SAMPLING (SYSTEM) DETECTORS.	
EXISTING PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS	
PROPOSED PREFORMED INTERSECTION & SAMPLING (SYSTEM) DETECTORS	
EXISTING SAMPLING (SYSTEM) PREFORMED DETECTORS	
PROPOSED SAMPLING (SYSTEM) PREFORMED DETECTORS	
EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	
PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	
EXISTING FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	
PROPOSED FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	
EXISTING INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE	
PROPOSED INTERCONNECT CABLE - NO. 62.5/125 12F FIBER OPTIC CABLE	
EXISTING INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	
PROPOSED INTERCONNECT CABLE - NO. 18 3 PAIR TWISTED, SHIELDED	
EXISTING LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	
PROPOSED LOOP DETECTOR CABLE 2/C TWISTED, SHIELDED	
EXISTING ELECTRIC CABLE, 1/C (AS SPECIFIED)	
PROPOSED ELECTRIC CABLE, 1/C (AS SPECIFIED)	
EXISTING TELEPHONE CONNECTION	
PROPOSED TELEPHONE CONNECTION	

FOR INFORMATION ONLY

FILE NAME = N:\kanecounty\070616\Tranf\10\SCH3.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERCONNECT SCHEMATIC IL RTE. 38 AT RANDALL ROAD SYSTEM	F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 56
PLOT SCALE = 20'	CHECKED -	REVISED -	CONTRACT NO. 63011							
PLOT DATE = 1/29/2008	DATE -	REVISED -	FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT				
SCALE:										

PROFILE SURVEYED BY DATE
 NOTE BOOK NO. DATE
 B.M. NOTED
 STRUCTURE NOTATION SHOWN
 CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Chicago, Illinois 60618
 (847) 823-0500
 PLAN SURVEYED BY DATE
 NOTE BOOK NO. DATE
 ALIGNMENT CHECKED
 RT. OF WAY CHECKED
 CADD FILE NAME

SYSTEM BREAK LINE



MATCH LINE A (SEE SHEET NO. 58)

NOTES:

- ① INSTALL ITEMS SHOWN TO CREATE ETHERNET SYSTEM FOR TRANSMISSION OF CONTROLLER AND VIDEO DATA.
- ② RELOCATE EXISTING UPS UNIT AND UPS CABINET. SIDE MOUNT TO PROPOSED TRAFFIC SIGNAL CABINET.
- ③ RETURN MASTER CONTROLLER, MODEM AND ASSOCIATED HARDWARE TO KANE COUNTY.
- ④ REPLACE VIDEO PROCESSING UNIT TO COMMUNICATE OVER ETHERNET.
- ⑤ ALL ITEMS SHOWN TO BE INSTALLED BY OTHERS.

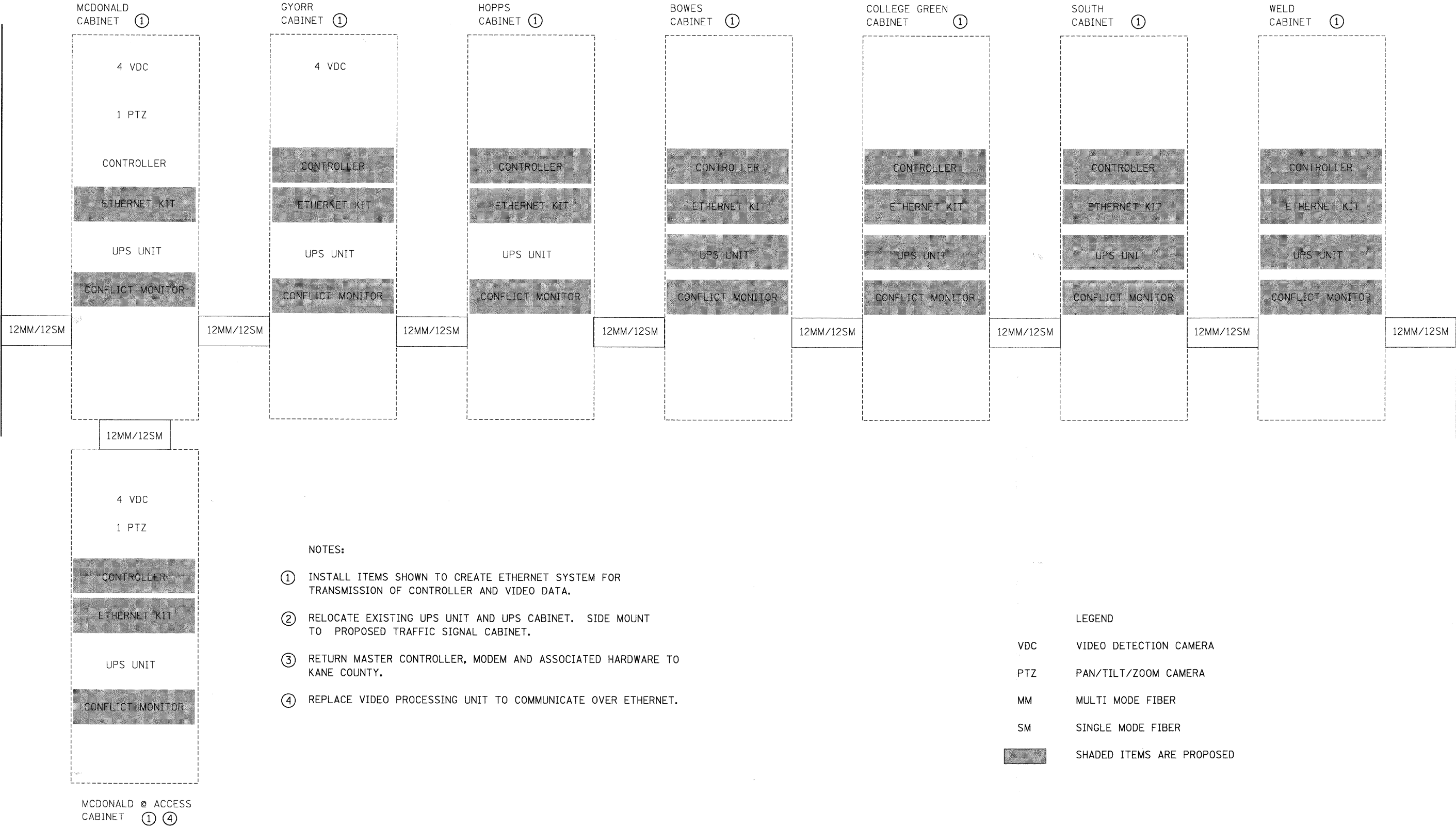
LEGEND

- VDC VIDEO DETECTION CAMERA
- PTZ PAN/TILT/ZOOM CAMERA
- MM MULTI MODE FIBER
- SM SINGLE MODE FIBER
- SHADED ITEMS ARE PROPOSED

FILE NAME = N:\kanecounty\072616\Tref\c\det1.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ETHERNET SYSTEM SCHEMATIC	F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 57
PLOT SCALE = 20'	CHECKED -	REVISED -	CONTRACT NO. 63011							
PLOT DATE = 1/30/2008	DATE -	REVISED -	SCALE:							
			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

PROFILE SURVEYED _____ DATE _____
 GRADES CHECKED _____
 PLAN NOTE BOOK _____
 NO. _____
 STRUCTURE NOTATIONS CHECKED _____
 NO. _____
 CHRISTOPHER B. BURKE ENGINEERING LTD.
 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 823-0500

MATCH LINE A
 (SEE SHEET NO. 57)



MATCH LINE B
 (SEE SHEET NO. 59)

NOTES:

- ① INSTALL ITEMS SHOWN TO CREATE ETHERNET SYSTEM FOR TRANSMISSION OF CONTROLLER AND VIDEO DATA.
- ② RELOCATE EXISTING UPS UNIT AND UPS CABINET. SIDE MOUNT TO PROPOSED TRAFFIC SIGNAL CABINET.
- ③ RETURN MASTER CONTROLLER, MODEM AND ASSOCIATED HARDWARE TO KANE COUNTY.
- ④ REPLACE VIDEO PROCESSING UNIT TO COMMUNICATE OVER ETHERNET.

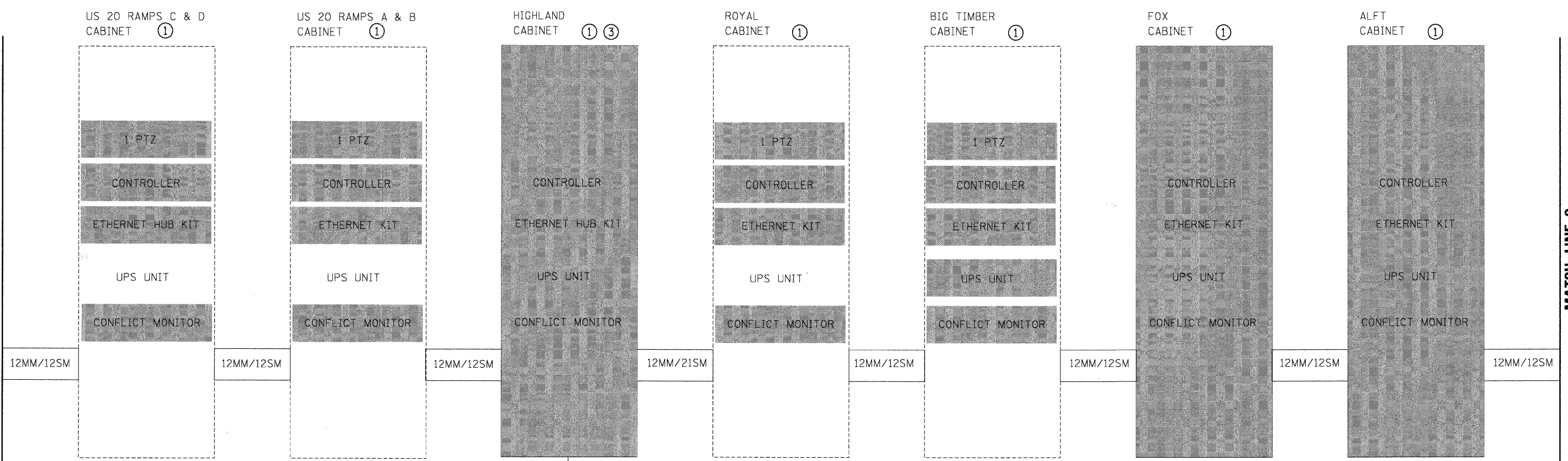
LEGEND

- VDC VIDEO DETECTION CAMERA
- PTZ PAN/TILT/ZOOM CAMERA
- MM MULTI MODE FIBER
- SM SINGLE MODE FIBER
- SHADED ITEMS ARE PROPOSED

PROFILE SURVEYED GRADES CHECKED STRUCTURE NOTATIONS SHOWN
 NOTE BOOK NO. _____
 DATE _____ BY _____
 CHECKED BY _____
 DATE _____ BY _____
 FILE NAME: N:\kanscounty\070616\Tran\Fico\de13.dgn

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 3575 West Higgins Road, Suite 600
 Chicago, Illinois 60638
 (847) 823-0500

MATCH LINE B
(SEE SHEET NO. 58)



MATCH LINE C
(SEE SHEET NO. 60)

NOTES:

- ① INSTALL ITEMS SHOWN TO CREATE ETHERNET SYSTEM FOR TRANSMISSION OF CONTROLLER AND VIDEO DATA.
- ② RELOCATE EXISTING UPS UNIT AND UPS CABINET. SIDE MOUNT TO PROPOSED TRAFFIC SIGNAL CABINET.
- ③ RETURN MASTER CONTROLLER, MODEM AND ASSOCIATED HARDWARE TO KANE COUNTY.
- ④ REPLACE VIDEO PROCESSING UNIT TO COMMUNICATE OVER ETHERNET.

DSL

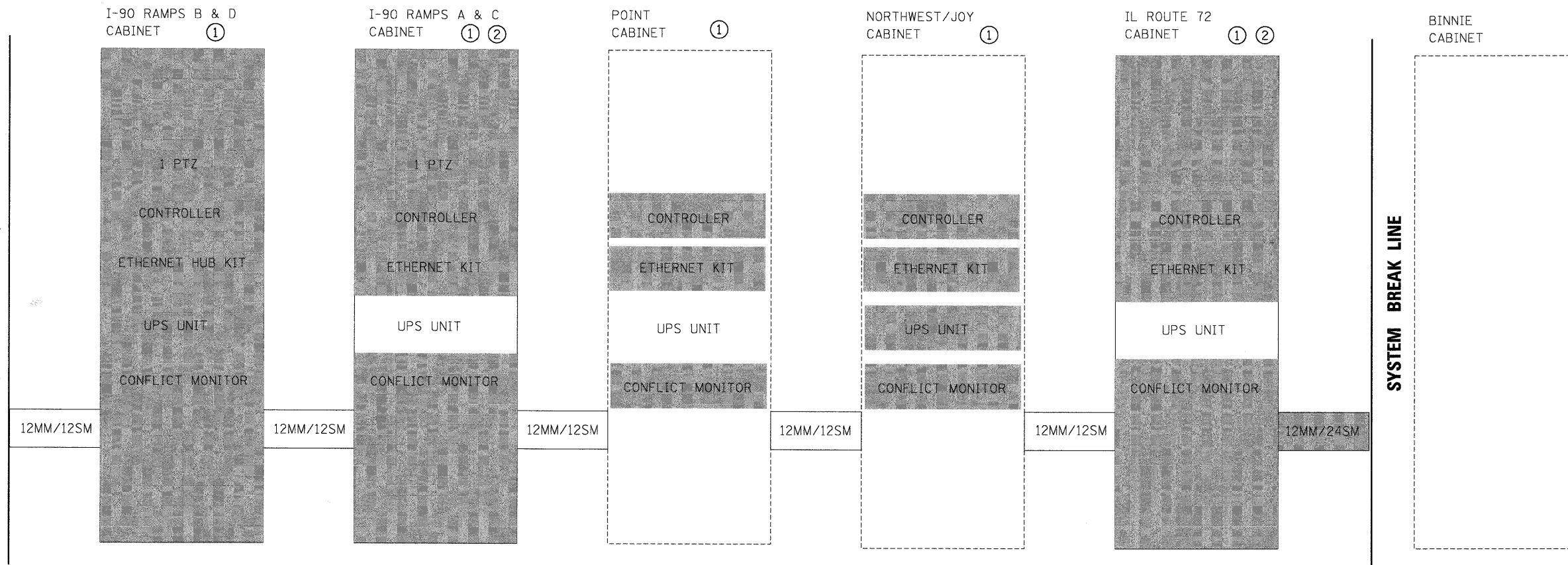
LEGEND

- VDC VIDEO DETECTION CAMERA
- PTZ PAN/TILT/ZOOM CAMERA
- MM MULTI MODE FIBER
- SM SINGLE MODE FIBER
- SHADED ITEMS ARE PROPOSED

FILE NAME = N:\kanscounty\070616\Tran\Fico\de13.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ETHERNET SYSTEM SCHEMATIC	F.A.P. R.F.E. = 336	SECTION = 06-00346-00-TL	COUNTY = KANE	TOTAL SHEETS = 69	SHEET NO. = 59
PLOT SCALE = 20'	CHECKED -	REVISED -	CONTRACT NO. 63011							
PLOT DATE = 1/26/2008	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
SCALE:										

PROFILE SURVEYED GRADES CHECKED BY: DATE: 1/28/2008
 STATUS: NOTE NOTED
 NO. 1/28/2008
 PLAN SURVEYED ALIGNMENT CHECKED BY: DATE: 1/28/2008
 NOTE BOOK NO. 1/28/2008
 CHG FILE NAME: 1/28/2008
CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Chicago, Illinois 60618
 (877) 823-0500

MATCH LINE C
(SEE SHEET NO. 59)



NOTES:

- ① INSTALL ITEMS SHOWN TO CREATE ETHERNET SYSTEM FOR TRANSMISSION OF CONTROLLER AND VIDEO DATA.
- ② RELOCATE EXISTING UPS UNIT AND UPS CABINET. SIDE MOUNT TO PROPOSED TRAFFIC SIGNAL CABINET.
- ③ RETURN MASTER CONTROLLER, MODEM AND ASSOCIATED HARDWARE TO KANE COUNTY.
- ④ REPLACE VIDEO PROCESSING UNIT TO COMMUNICATE OVER ETHERNET.

LEGEND

- VDC VIDEO DETECTION CAMERA
- PTZ PAN/TILT/ZOOM CAMERA
- MM MULTI MODE FIBER
- SM SINGLE MODE FIBER
- SHADED ITEMS ARE PROPOSED

FILE NAME = N:\kanecounty\070616\TranFtoVdet4.dgn

USER NAME = MWILLIAM	DESIGNED -	REVISED -
PLOT SCALE = 20'	DRAWN -	REVISED -
PLOT DATE = 1/28/2008	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

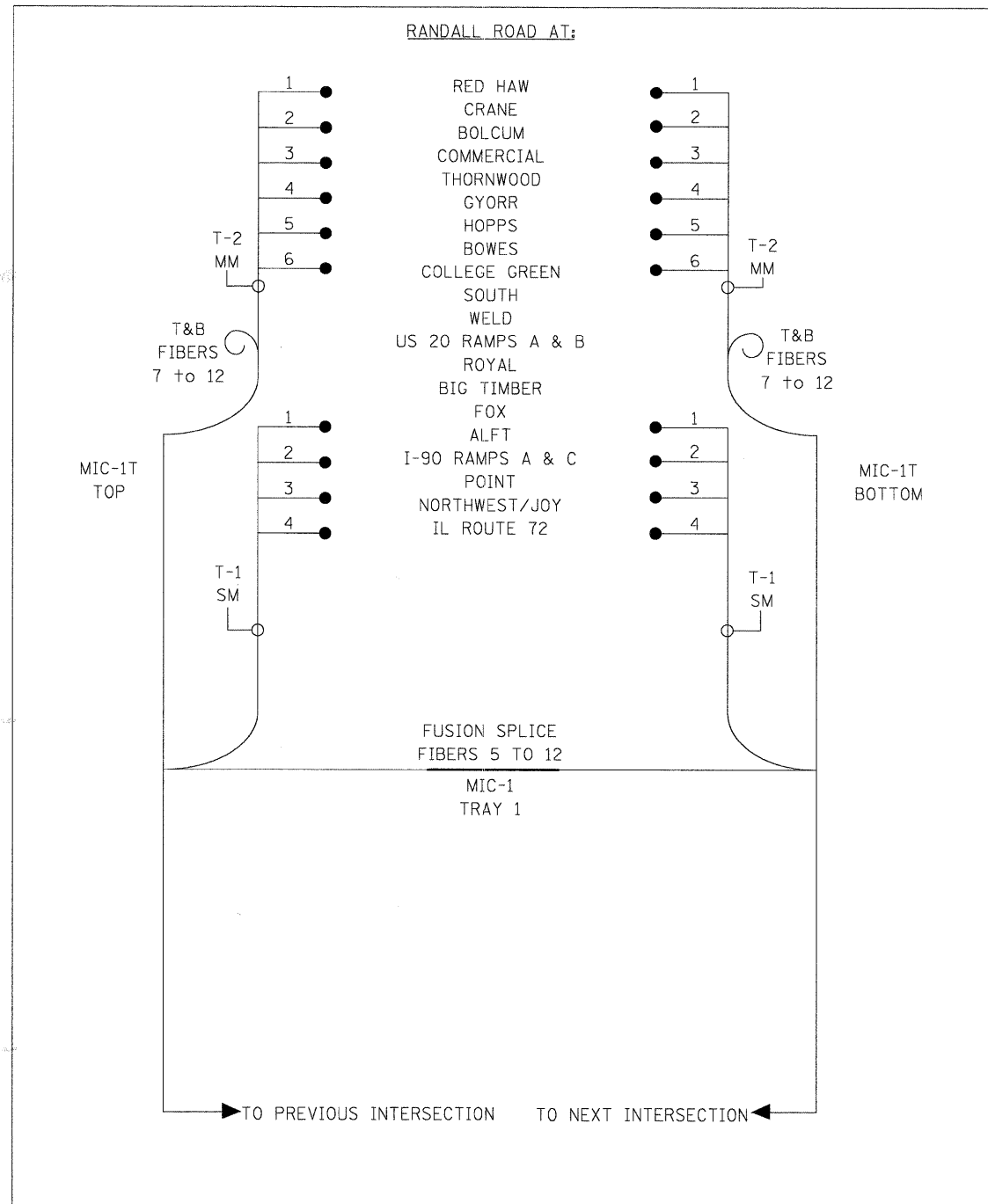
ETHERNET SYSTEM SCHEMATIC

SCALE:

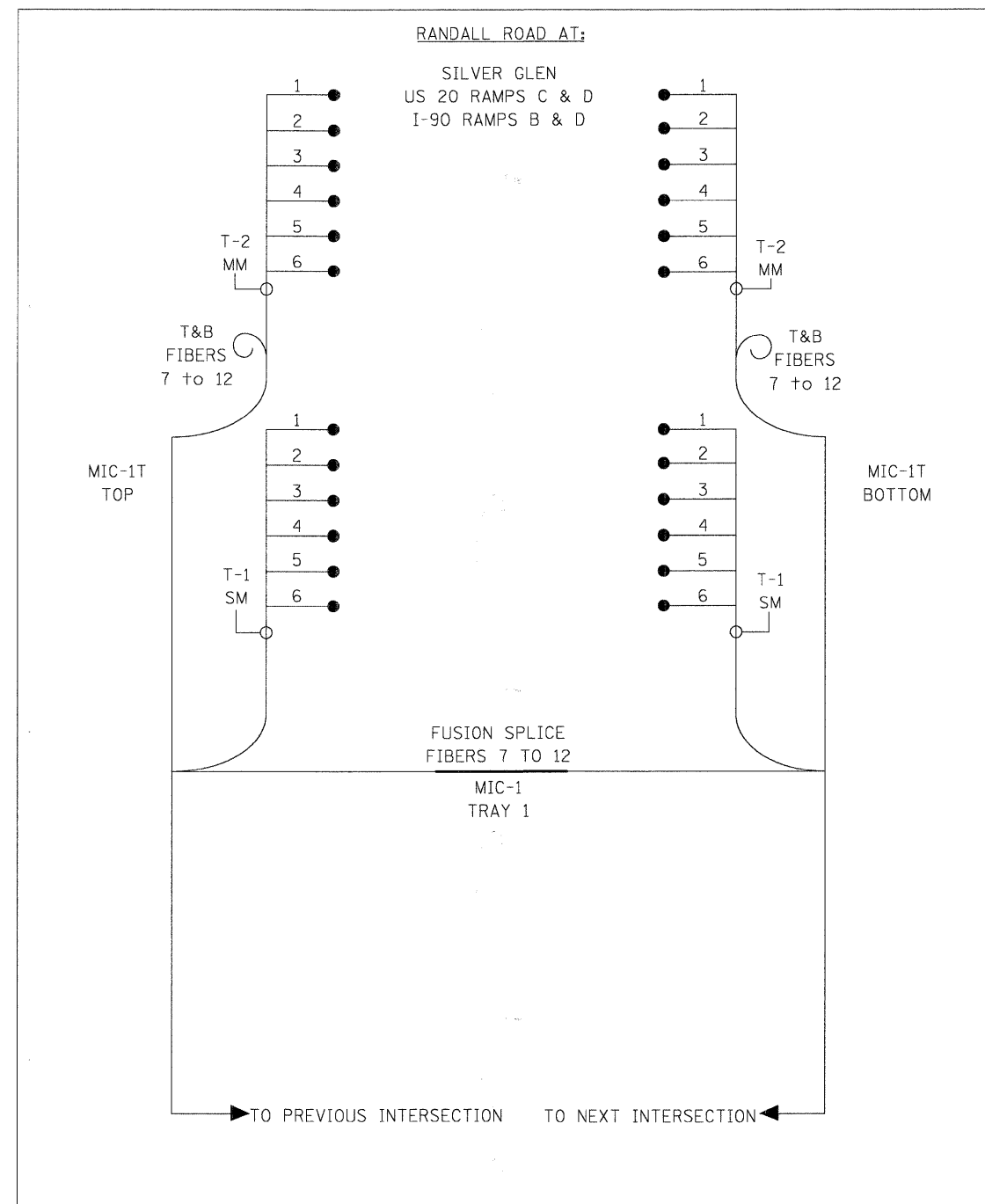
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	06-00346-00-TL	KANE	69	60
CONTRACT NO. 63011				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONSTRUCTION NOTES:

- ① THE REPLACEMENT OF THE FIBER OPTIC TERMINATION PANEL SHALL BE INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT SHALL BE MADE.
- ② EACH FIBER OPTIC TERMINATION PLAN APPLIES TO THE INTERSECTIONS LISTED.



TERMINATION PLAN 1



TERMINATION PLAN 2

PROFILE SURVEYED GRADES CHECKED STRUC. DATE, NOTATIONS (HYD) NO. DATE
 PLAN SURVEYED ALIGNMENT CHECKED (HYD. OF WAY CHECKED) NO. DATE
 CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Chicago, Illinois 60618
 (847) 823-9500

FILE NAME =	USER NAME = MWILLIAM	DESIGNED -	REVISED -
N:\kane\county\078616\T-r-off\10\det1.FibOpt.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

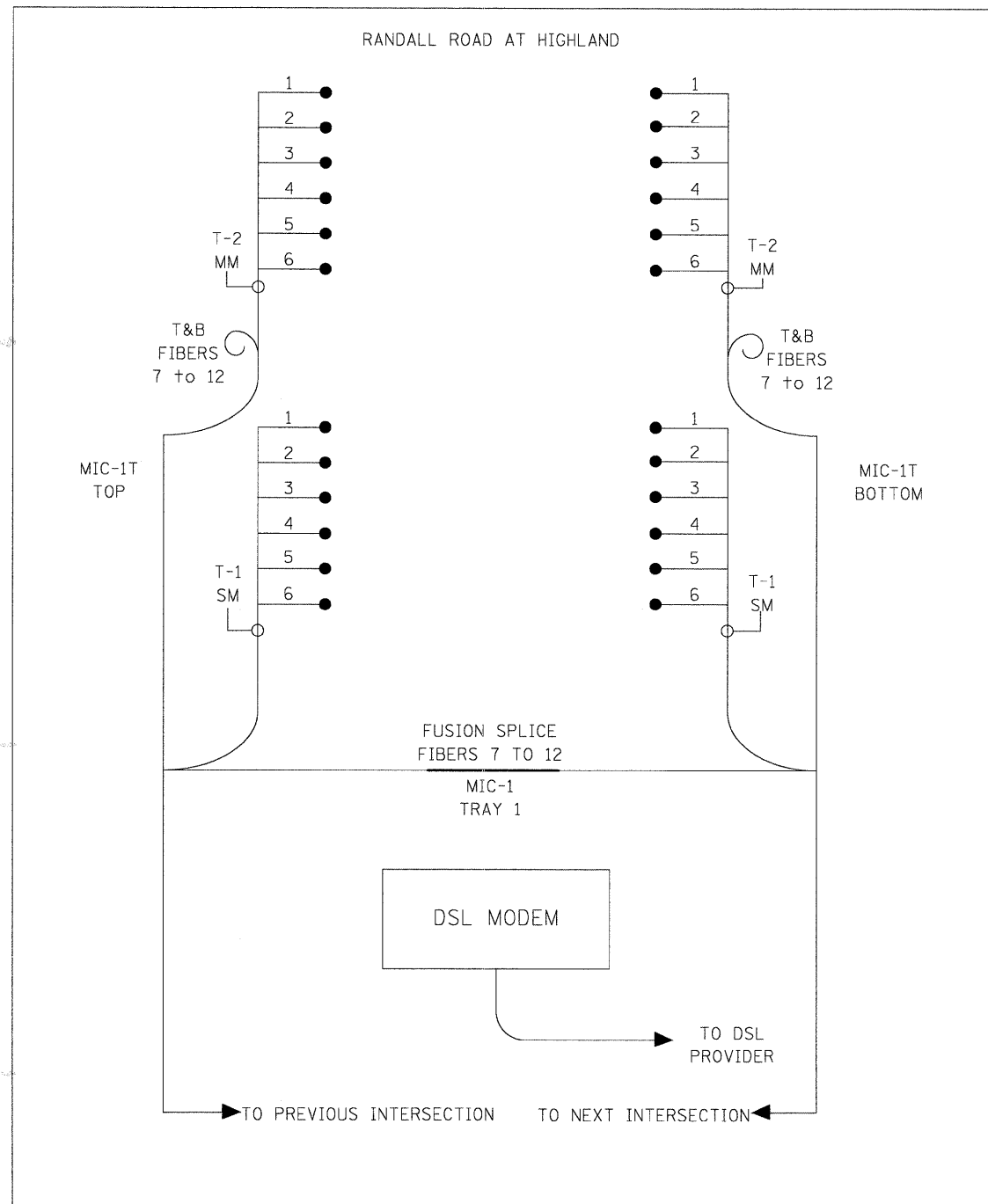
FIBER OPTIC TERMINATION SCHEMATIC

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	06-00346-00-TL	KANE	69	61
CONTRACT NO. 63011				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

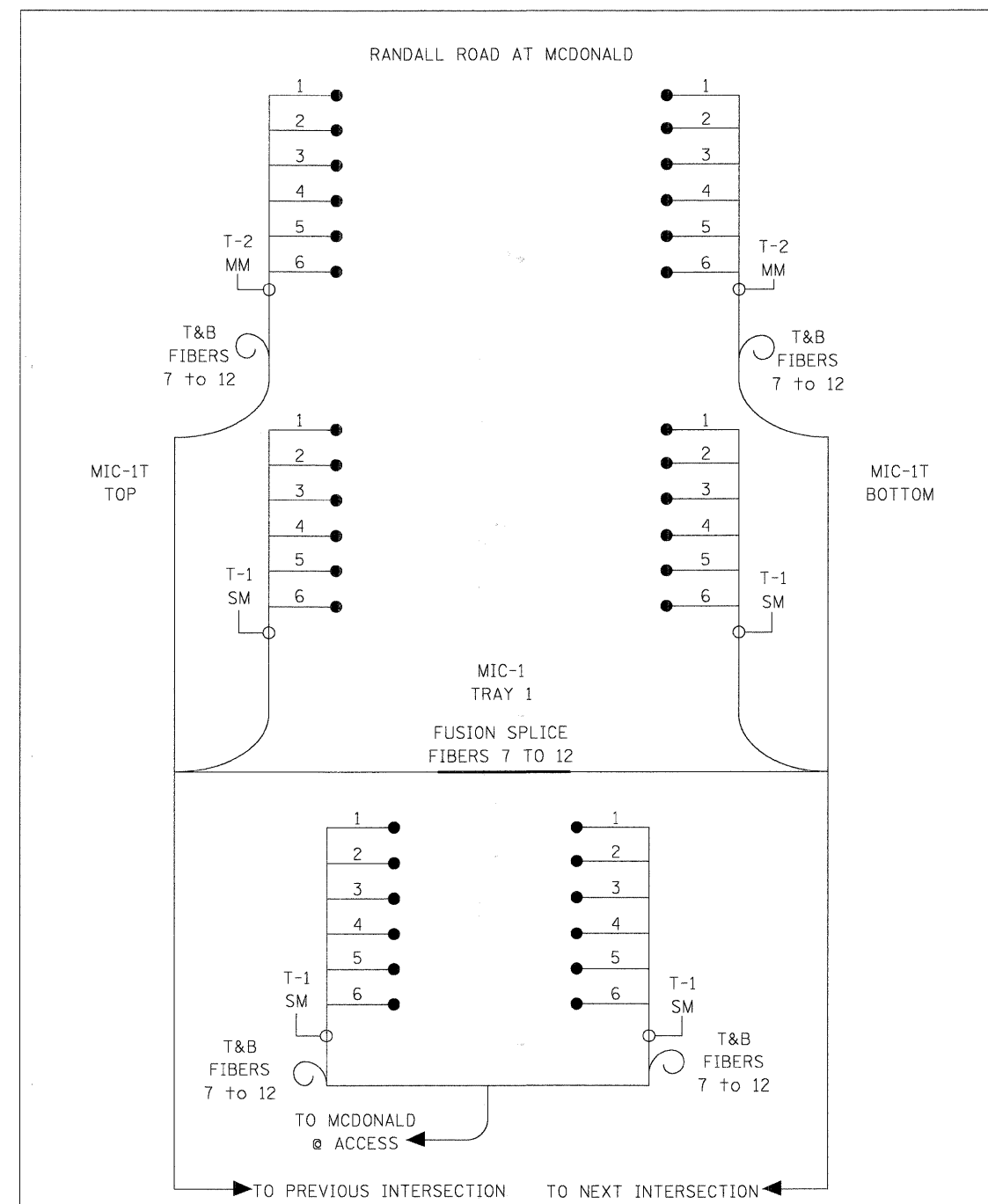
SCALE:

CONSTRUCTION NOTES:

- ① THE REPLACEMENT OF THE FIBER OPTIC TERMINATION PANEL SHALL BE INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT SHALL BE MADE.
- ② EACH FIBER OPTIC TERMINATION PLAN APPLIES TO THE INTERSECTIONS LISTED.



TERMINATION PLAN 3



TERMINATION PLAN 4

DATE	BY	SURVEYED	PLAN
DATE	BY	NOTED	NO.
DATE	BY	CHECKED	NO.
DATE	BY	APPROVED	NO.

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Chicago, Illinois 60618
 (847) 823-0580

DATE	BY	PROFILE
DATE	BY	NOTE BOOK
DATE	BY	STATUS

FILE NAME = N:\kane\county\078616\Trafic\date2\FibOpt.dgn	USER NAME = MWILLIAM	DESIGNED -	REVISED -
PLOT SCALE = 20'	DATE = 1/28/2008	DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

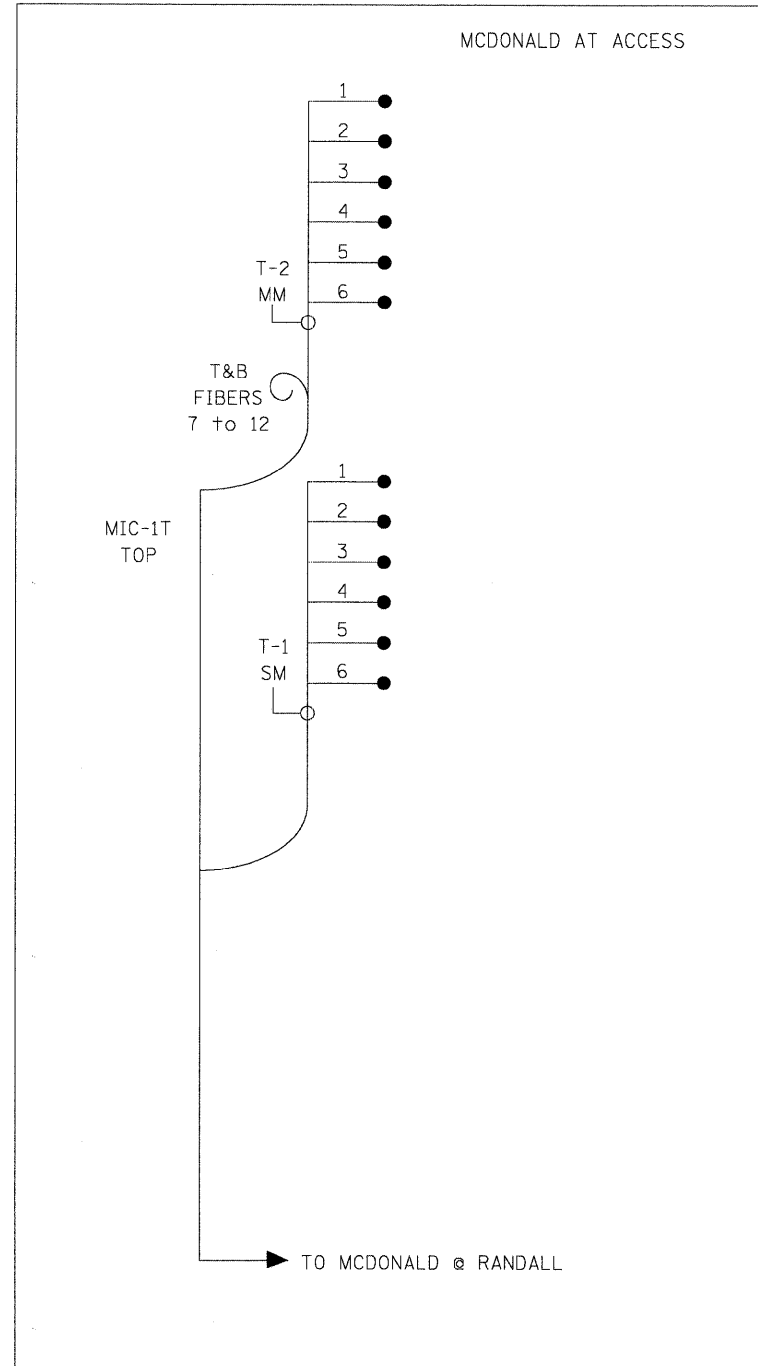
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

FIBER OPTIC TERMINATION SCHEMATIC

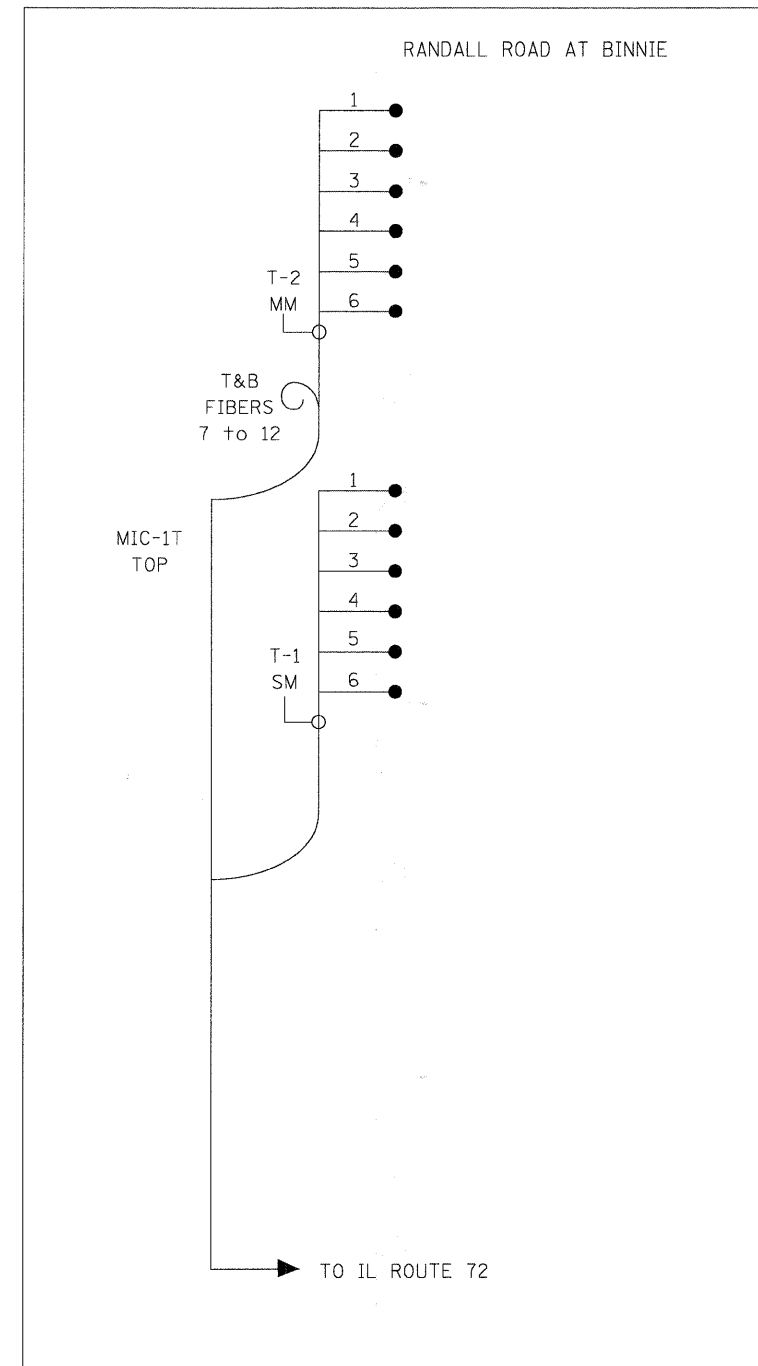
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	06-00346-00-TL	KANE	69	62
CONTRACT NO. 63011				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

CONSTRUCTION NOTES:

- ① THE REPLACEMENT OF THE FIBER OPTIC TERMINATION PANEL SHALL BE INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT SHALL BE MADE.
- ② EACH FIBER OPTIC TERMINATION PLAN APPLIES TO THE INTERSECTIONS LISTED.



TERMINATION PLAN 5



TERMINATION PLAN 6

<p>PROFILE</p> <p>SURVEYOR: _____</p> <p>GRADES CHECKED: _____</p> <p>S.M. NOTED: _____</p> <p>STRUCTURE NOTATIONS: CH70</p>	<p>PLAN</p> <p>DATE: _____</p> <p>BY: _____</p> <p>SURVEYED: _____</p> <p>ALIGNED: _____</p> <p>CHECKED: _____</p> <p>RT. OF WAY CHECKED: _____</p> <p>FIELD FILE NAME: _____</p>
---	--

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Chicago, Illinois 60638
(877) 823-6500

FILE NAME =	USER NAME = MWILLIAM	DESIGNED -	REVISED -
N:\kansascou\B70616\Tran\Fic\det3_FibOpt.dgn		DRAWN -	REVISED -
	PLOT SCALE = 20'	CHECKED -	REVISED -
	PLOT DATE = 1/28/2008	DATE -	REVISED -

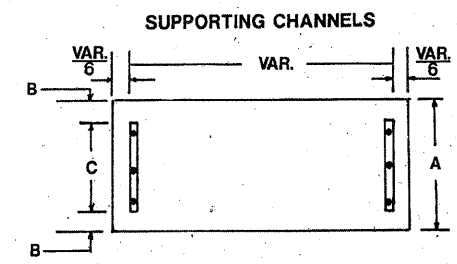
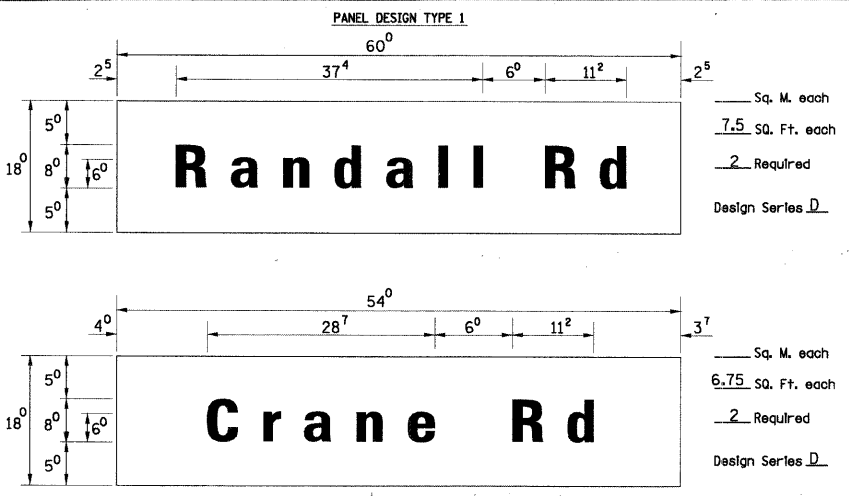
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

FIBER OPTIC TERMINATION SCHEMATIC

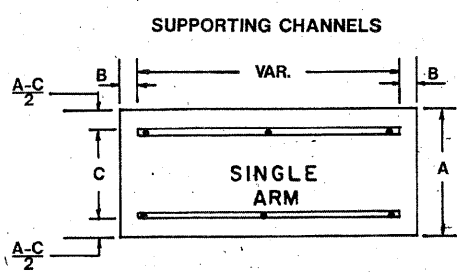
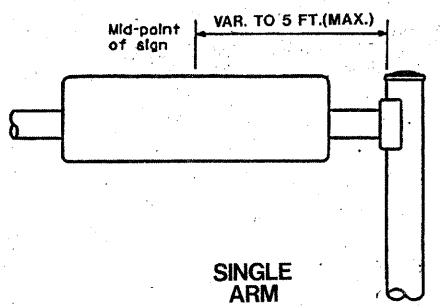
SCALE:

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
336	06-00346-00-TL	KANE	69	63
CONTRACT NO. 63011				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

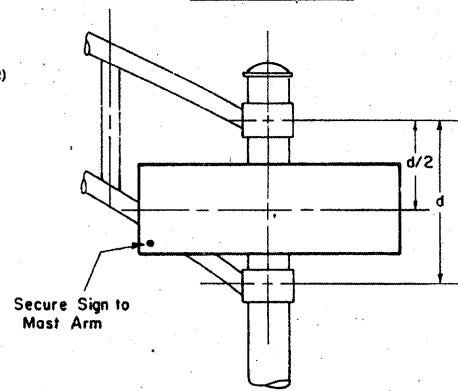
EXAMPLE, 2③ DENOTES 3/8"



A	B	C
18"	2"	14"



A	B	C
18"	2"	12"
30"	2"	22"



DUAL ARM

SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM shall be used. See Note #5.

Upper Case To Lower Case
Spacing Chart 8-6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER															
	a c d e		b h i k l		f w		j		s t		v y		x z			
	g o q	m n p r u														
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D		
A W X	12	14	14	15	12	14	06	10	11	14	06	10	11	12	12	14
B	14	15	20	21	14	15	11	12	14	15	12	14	12	14	16	17
C E G	14	15	20	21	12	14	06	10	12	14	12	14	14	15	14	15
D O Q R	14	15	20	21	14	15	06	10	12	14	12	14	14	15	14	15
F	05	06	14	15	06	10	05	06	06	10	06	10	06	10	11	12
H I M N	20	21	22	24	20	21	14	15	16	17	16	17	20	21	20	21
J U	20	21	20	21	16	17	14	15	16	17	16	17	16	17	20	21
K L	11	12	16	17	11	12	05	06	11	12	11	12	11	12	12	14
P	12	14	14	15	12	14	05	06	11	12	11	12	12	14	12	14
S	12	14	16	17	12	14	06	10	12	14	12	14	12	14	12	14
T	11	12	16	17	06	10	06	10	11	12	11	12	11	12	12	14
V	06	10	14	15	11	12	06	10	12	14	12	14	12	14	12	14
Y	05	06	14	15	06	10	05	06	05	07	05	06	06	10	11	12
Z	16	17	22	24	16	17	12	14	16	17	16	17	16	17	20	21

Lower Case To Lower Case
Spacing Chart 6 Inch Series "C & D"

FIRST LETTER	SECOND LETTER															
	a c d e		b h i k l		f w		j		s t		v y		x z			
	g o q	m n p r u														
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D		
ad h g i j	16	17	22	24	16	17	12	14	14	15	14	15	16	17	16	17
l m n q u																
bf k o p s	12	14	16	17	11	12	05	06	11	12	11	12	12	14	12	14
ce	12	14	16	17	12	14	06	10	12	14	12	14	12	14	12	14
r	06	10	12	14	06	10	03	03	05	06	05	06	06	10	06	10
t z	12	14	16	17	12	14	06	10	11	12	11	12	12	14	12	14
v y	11	12	14	15	11	12	05	06	06	10	06	10	11	12	11	12
w	11	12	14	15	11	12	05	06	11	12	11	12	11	12	12	14
x	12	14	16	17	11	12	05	06	11	12	11	12	11	12	12	14

Number To Number
Spacing Chart 8 Inch Series "C & D"

FIRST NUMBER	SECOND NUMBER																			
	0		1		2		3		4		5		6		7		8		9	
SERIES	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	16	17	16	17	14	15	12	14	14	15	14	15	16	17	12	14	16	17	16	17
1	20	21	20	21	20	21	16	17	14	15	20	21	20	21	14	15	20	21	20	21
2 3 4	14	15	14	15	14	15	12	14	12	14	14	15	14	15	11	12	16	17	14	15
5	14	15	14	15	14	15	11	12	11	12	14	15	14	15	11	12	14	15	14	15
6	16	17	14	15	14	15	12	14	14	15	14	15	14	15	11	12	14	15	14	15
7	12	14	12	14	14	15	12	14	05	06	12	14	14	15	11	12	14	15	12	14
8	16	17	16	17	14	15	12	14	12	14	14	15	16	17	12	14	16	17	14	15

- GENERAL NOTES**
- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS B34001, B34006 AND B34011, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 6'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
 - ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
 - THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6'-0".
 - ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2-1/4".
 - SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:
 - A.K.T. CORPORATION
 - SCHAUMBURG, IL
 - TUCKER COMPANY, INC.
 - WAUNATOSA, WI
 - AMERICAN FABRICATION CO.
 - CHICAGO HEIGHTS, IL
 - WESTERN TRAFFIC CONTROL INC.
 - CICERO, IL
- PARTS LISTING:**
- | | |
|--------------|---|
| SIGN CHANNEL | PART #HPN053 (MED. CHANNEL) |
| SIGN SCREWS | 1/4" X 14 X 1" H.W.H. #3 |
| BRACKETS | PART #HPN034 (UNIVERSAL) |
| | CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING |
- OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BACKET OF THE ABOVE PRODUCT.

UPPER AND LOWER CASE LETTER WIDTHS

LETTERS	6 INCH UPPER CASE LETTERS		8 INCH UPPER CASE LETTERS		LETTERS	6 INCH LOWER CASE LETTERS	
	SERIES		SERIES			SERIES	
	C	D	C	D		C	D
A	3 ⁶	5 ⁰	5 ⁰	6 ⁵	a	3 ⁵	4 ²
B	3 ²	4 ⁰	4 ³	5 ³	b	3 ⁵	4 ²
C	3 ²	4 ⁰	4 ³	5 ³	c	3 ⁵	4 ¹
D	3 ²	4 ⁰	4 ³	5 ³	d	3 ⁵	4 ²
E	3 ⁰	3 ⁵	4 ⁰	4 ⁷	e	3 ⁵	4 ²
F	3 ⁰	3 ⁵	4 ⁰	4 ⁷	f	2 ³	2 ⁶
G	3 ²	4 ⁰	4 ³	5 ³	g	3 ⁵	4 ²
H	3 ²	4 ⁰	4 ³	5 ³	h	3 ⁵	4 ²
I	0 ⁷	0 ⁷	1 ¹	1 ²	i	1 ¹	1 ¹
J	3 ⁰	3 ⁶	4 ⁰	5 ⁰	j	2 ⁰	2 ²
K	3 ²	4 ¹	4 ³	5 ⁴	k	3 ⁵	4 ²
L	3 ⁰	3 ⁵	4 ⁰	4 ⁷	l	1 ¹	1 ¹
M	3 ⁷	4 ⁵	5 ¹	6 ¹	m	6 ⁰	7 ⁰
N	3 ²	4 ⁰	4 ³	5 ³	n	3 ⁵	4 ²
O	3 ⁴	4 ²	4 ⁵	5 ⁵	o	3 ⁶	4 ³
P	3 ²	4 ⁰	4 ³	5 ³	p	3 ⁵	4 ²
Q	3 ⁴	4 ²	4 ⁵	5 ⁵	q	3 ⁵	4 ²
R	3 ²	4 ⁰	4 ³	5 ³	r	2 ⁶	3 ²
S	3 ²	4 ⁰	4 ³	5 ³	s	3 ⁶	4 ²
T	3 ⁰	3 ⁵	4 ⁰	4 ⁷	t	2 ⁷	3 ²
U	3 ²	4 ⁰	4 ³	5 ³	u	3 ⁵	4 ²
V	3 ⁵	4 ⁴	4 ⁷	6 ⁰	v	4 ²	4 ⁷
W	4 ⁴	5 ²	6 ⁰	7 ⁰	w	5 ⁵	6 ⁴
X	3 ⁴	4 ⁰	4 ⁵	5 ³	x	4 ⁴	5 ¹
Y	3 ⁶	5 ⁰	5 ⁰	6 ⁶	y	4 ⁶	5 ³
Z	3 ²	4 ⁰	4 ³	5 ³	z	3 ⁶	4 ³

NUMBER	6 INCH SERIES		8 INCH SERIES	
	C	D	C	D
1	12	14	15	20
2	3 ²	4 ⁰	4 ³	5 ³
3	3 ²	4 ⁰	4 ³	5 ³
4	3 ⁵	4 ³	4 ⁷	5 ⁷
5	3 ²	4 ⁰	4 ³	5 ³
6	3 ²	4 ⁰	4 ³	5 ³
7	3 ²	4 ⁰	4 ³	5 ³
8	3 ²	4 ⁰	4 ³	5 ³
9	3 ²	4 ⁰	4 ³	5 ³
0	3 ⁴	4 ²	4 ⁵	5 ⁵

REVISIONS	
NAME	DATE
D.A.Z./D.A.B.	11/90
	6-98

Illinois Department of Transportation
DISTRICT I

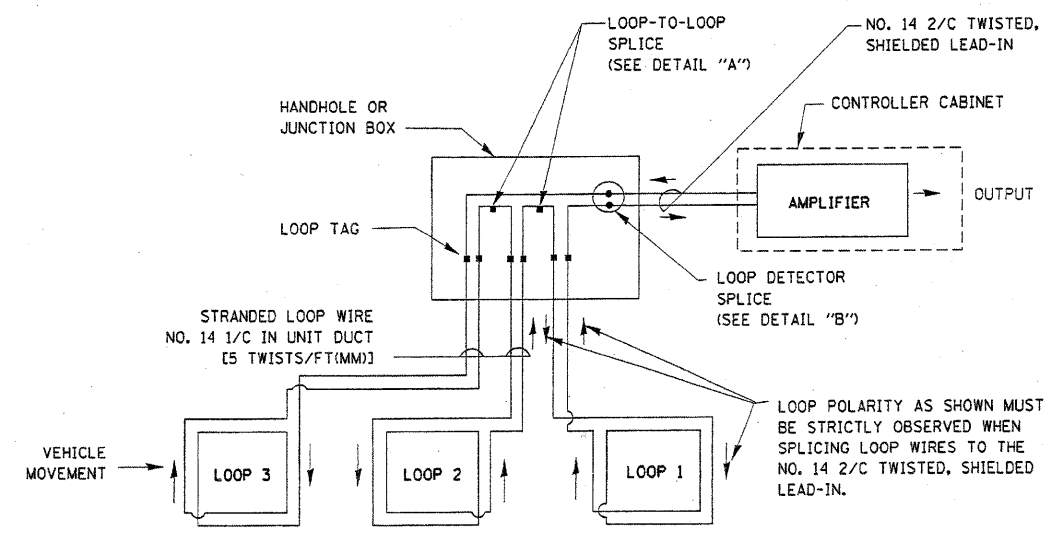
MAST ARM MOUNTED STREET NAME SIGNS

SCALE: VERT. NONE HORIZ. 2-26-79
DRAWN BY: TJR
CHECKED BY: RRF

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		KANE	69	65
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

LOOP DETECTOR NOTES

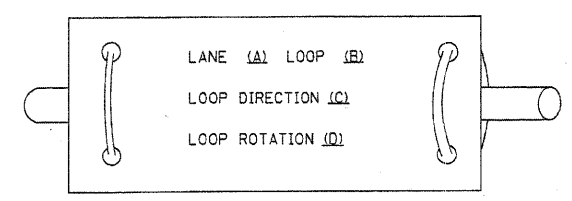
1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED 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.



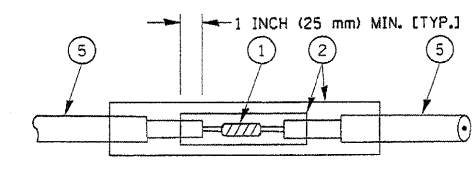
DETECTOR LOOP WIRING SCHEMATIC

- 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.

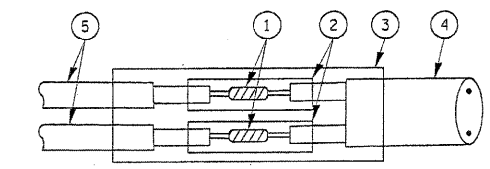
LOOP LEAD-IN CABLE TAG



- 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**

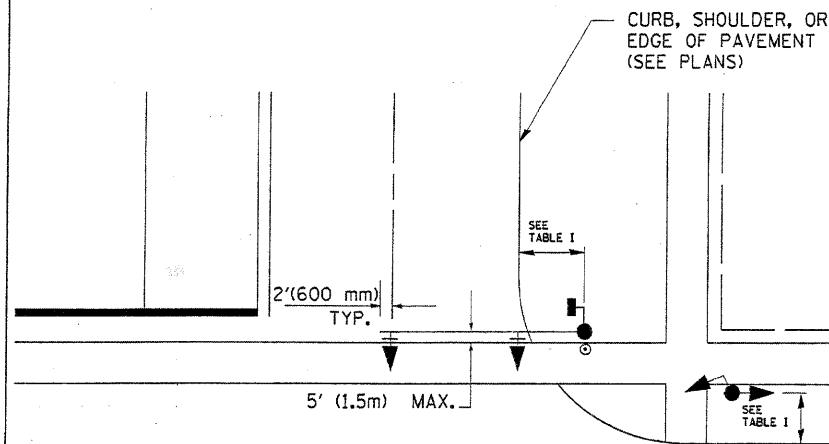
SCALE: VERT. NONE
HORIZ. NONE
DATE 1-01-02

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

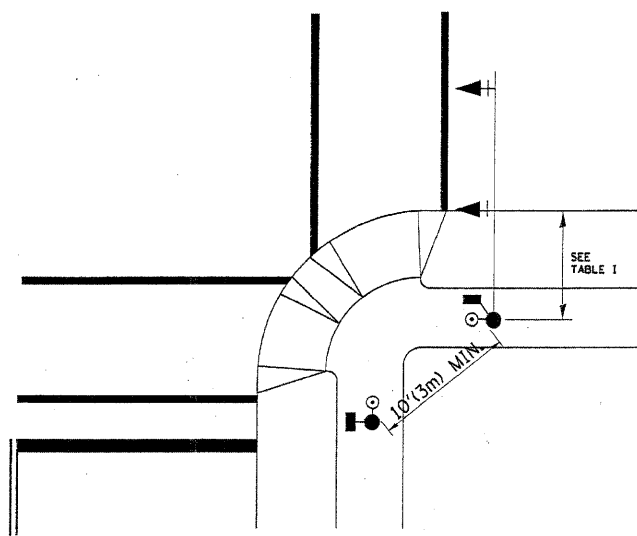
#FILES

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

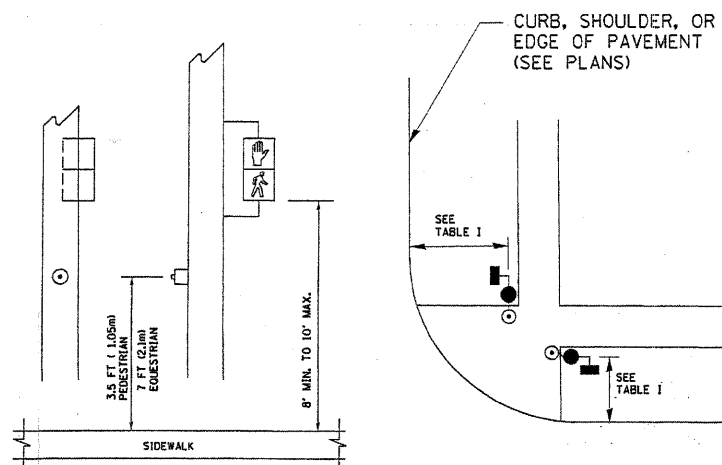
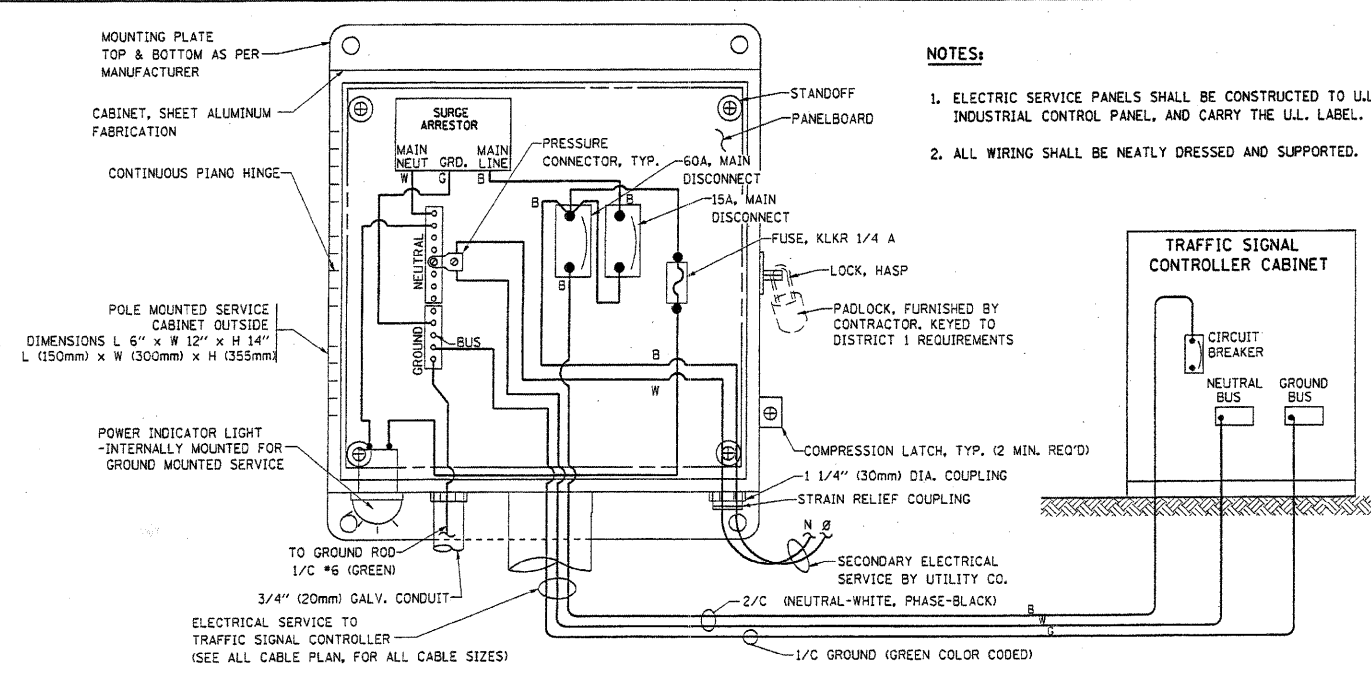


TABLE I

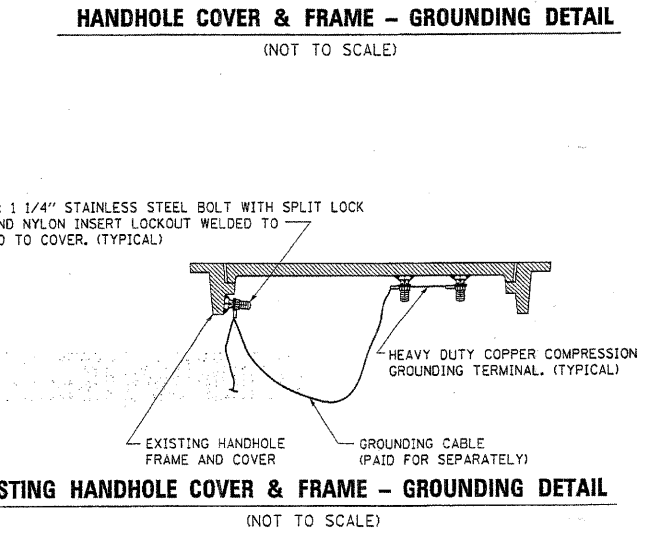
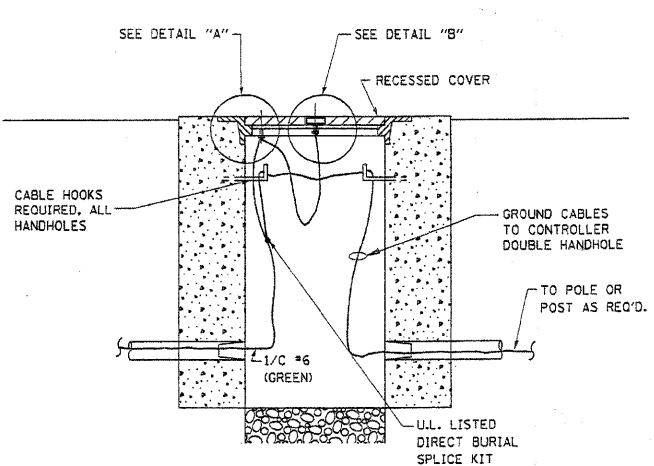
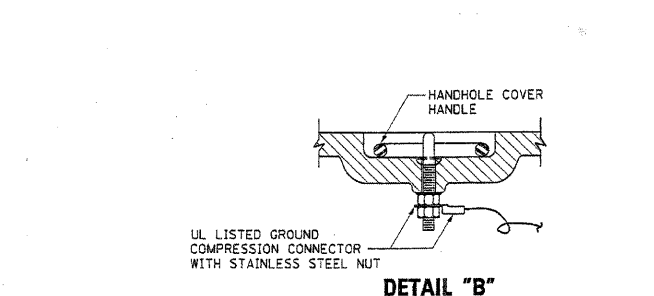
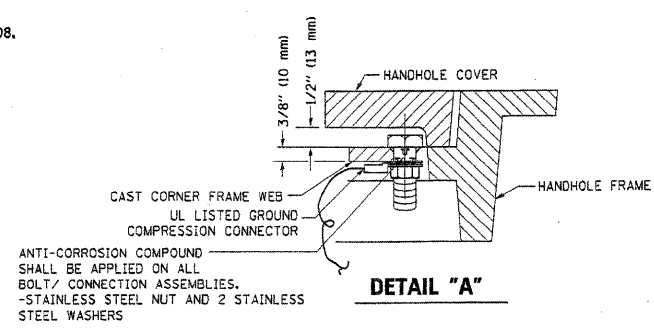
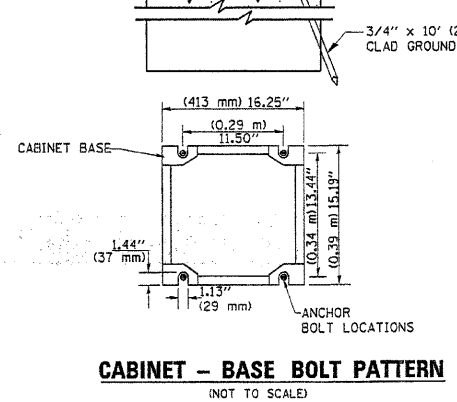
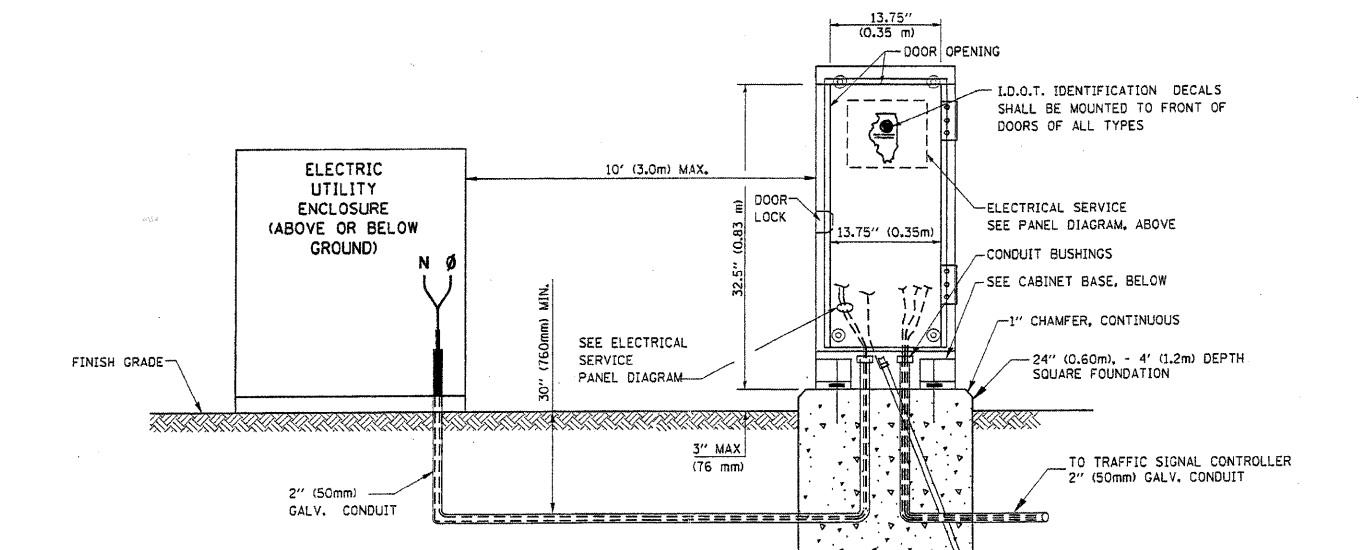
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), 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		ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS
NAME	DATE	
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.
		KANE	69	67
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

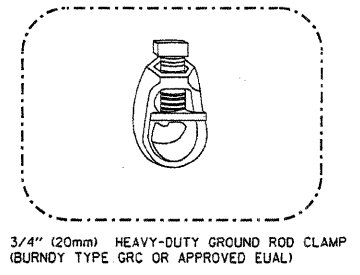
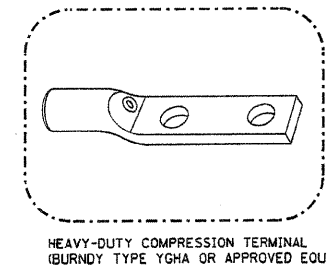


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



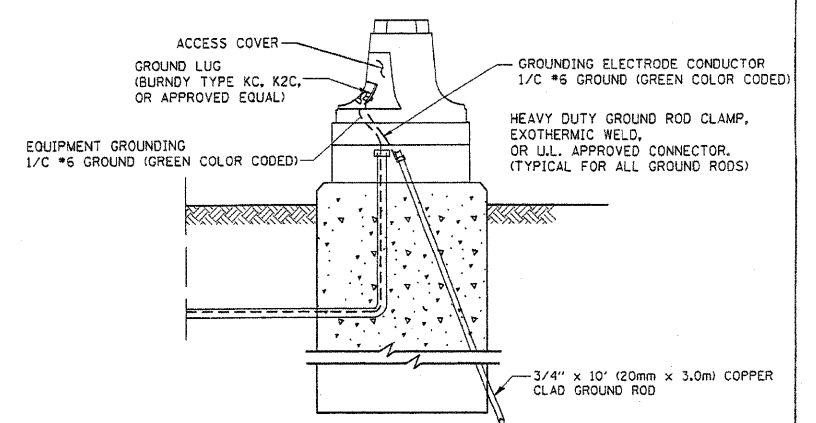
NOTES:

- 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.

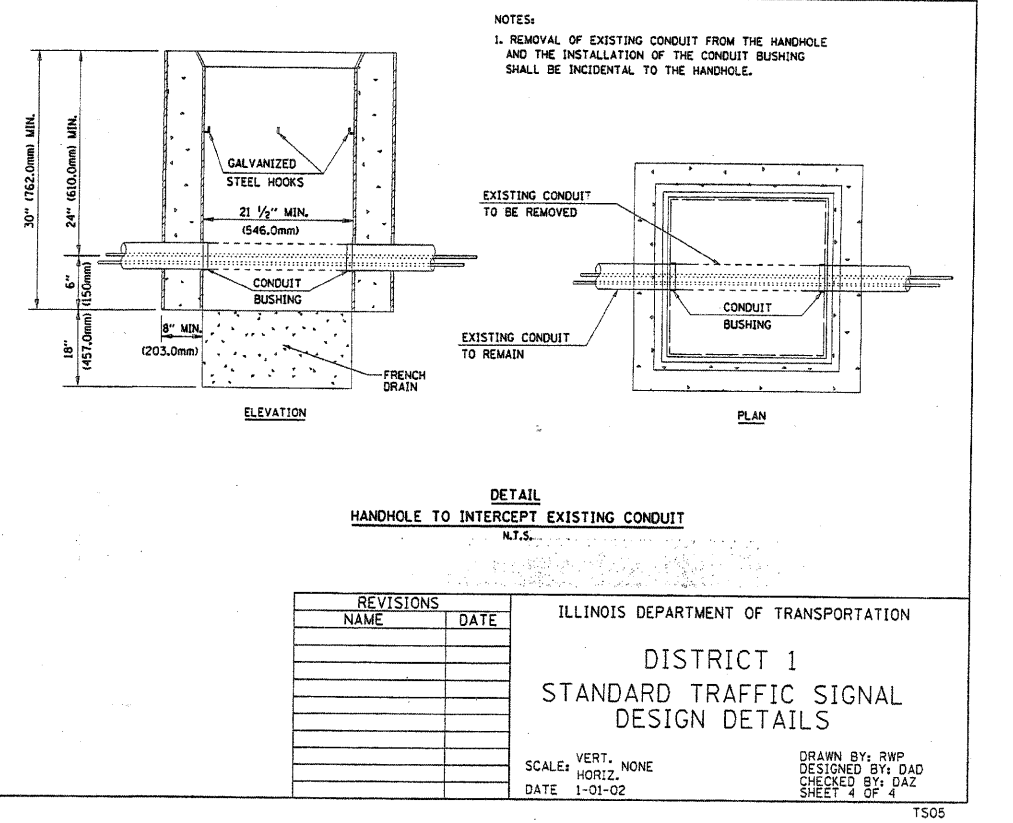
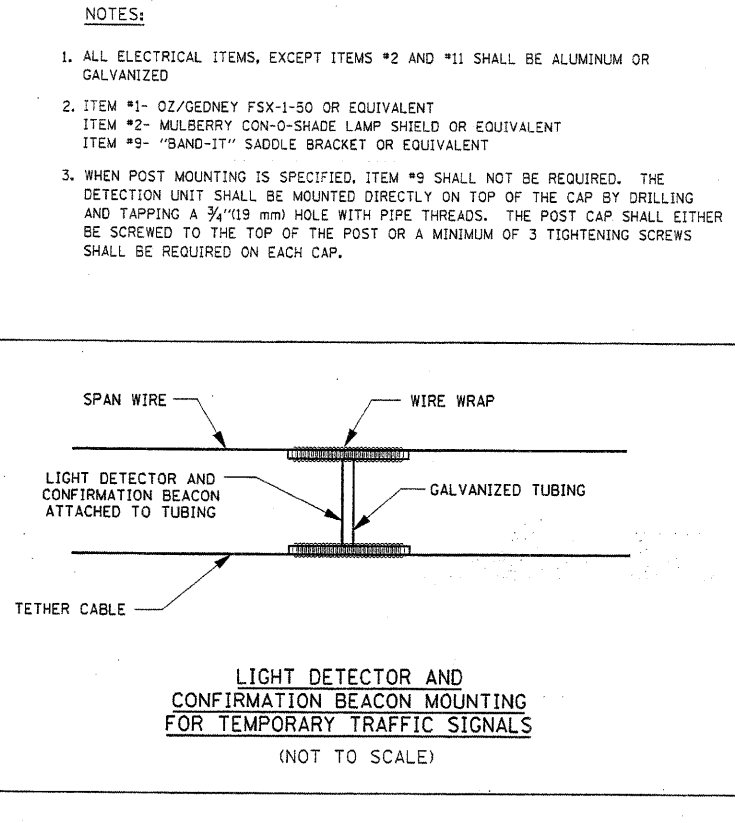
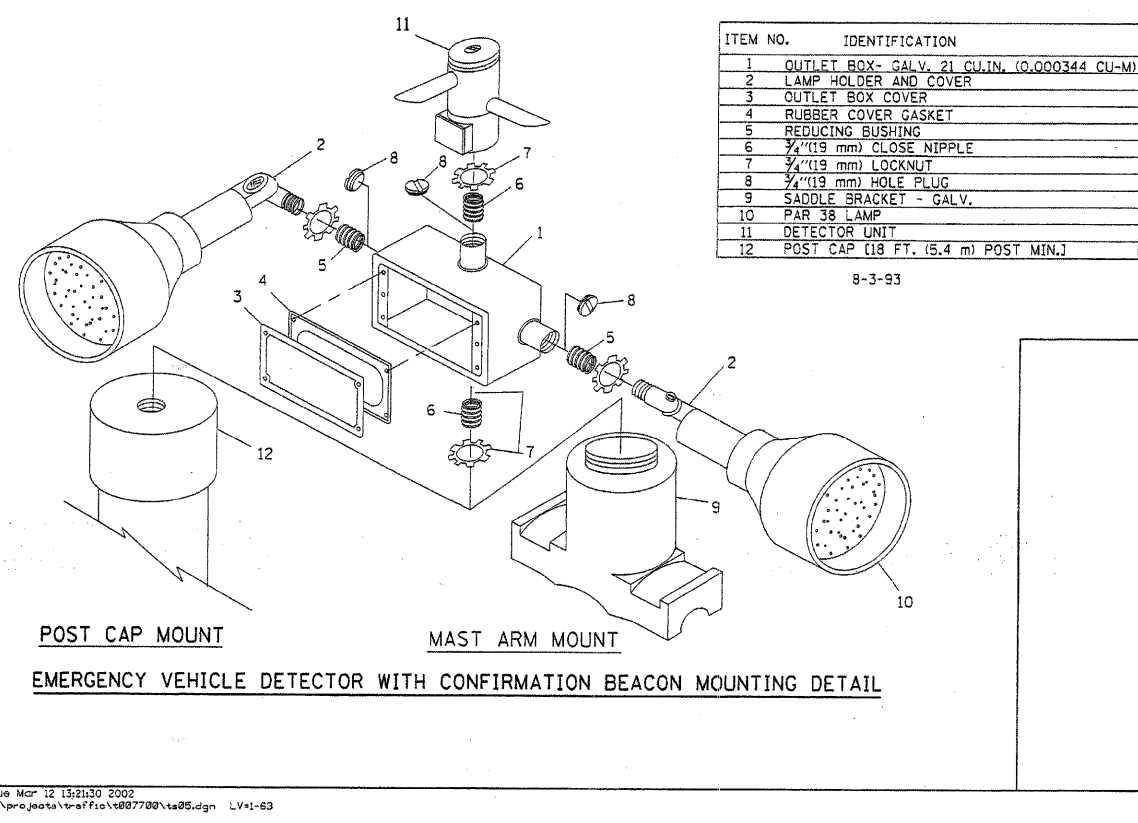
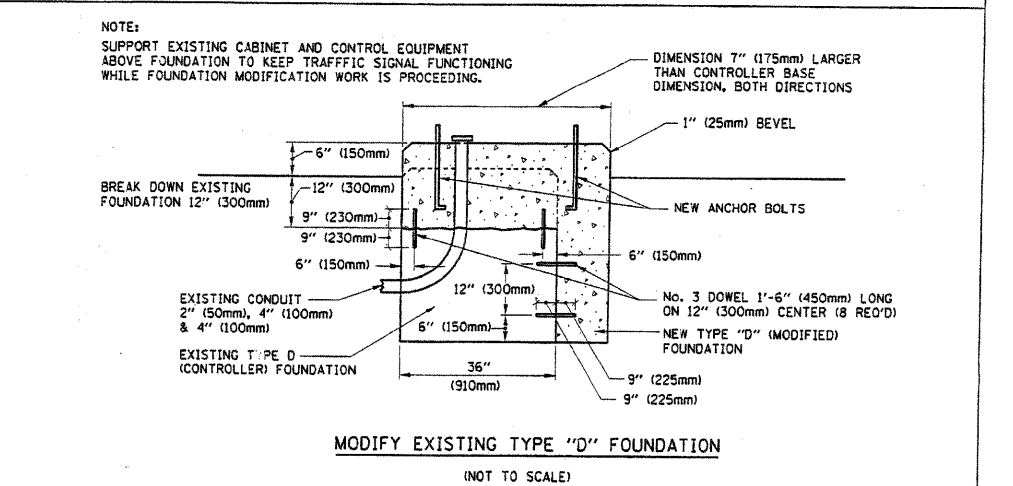
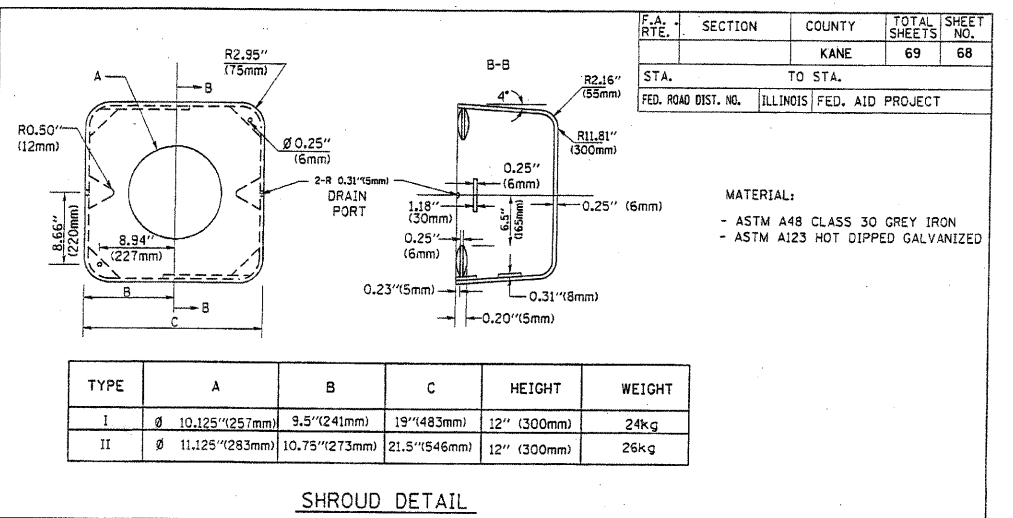
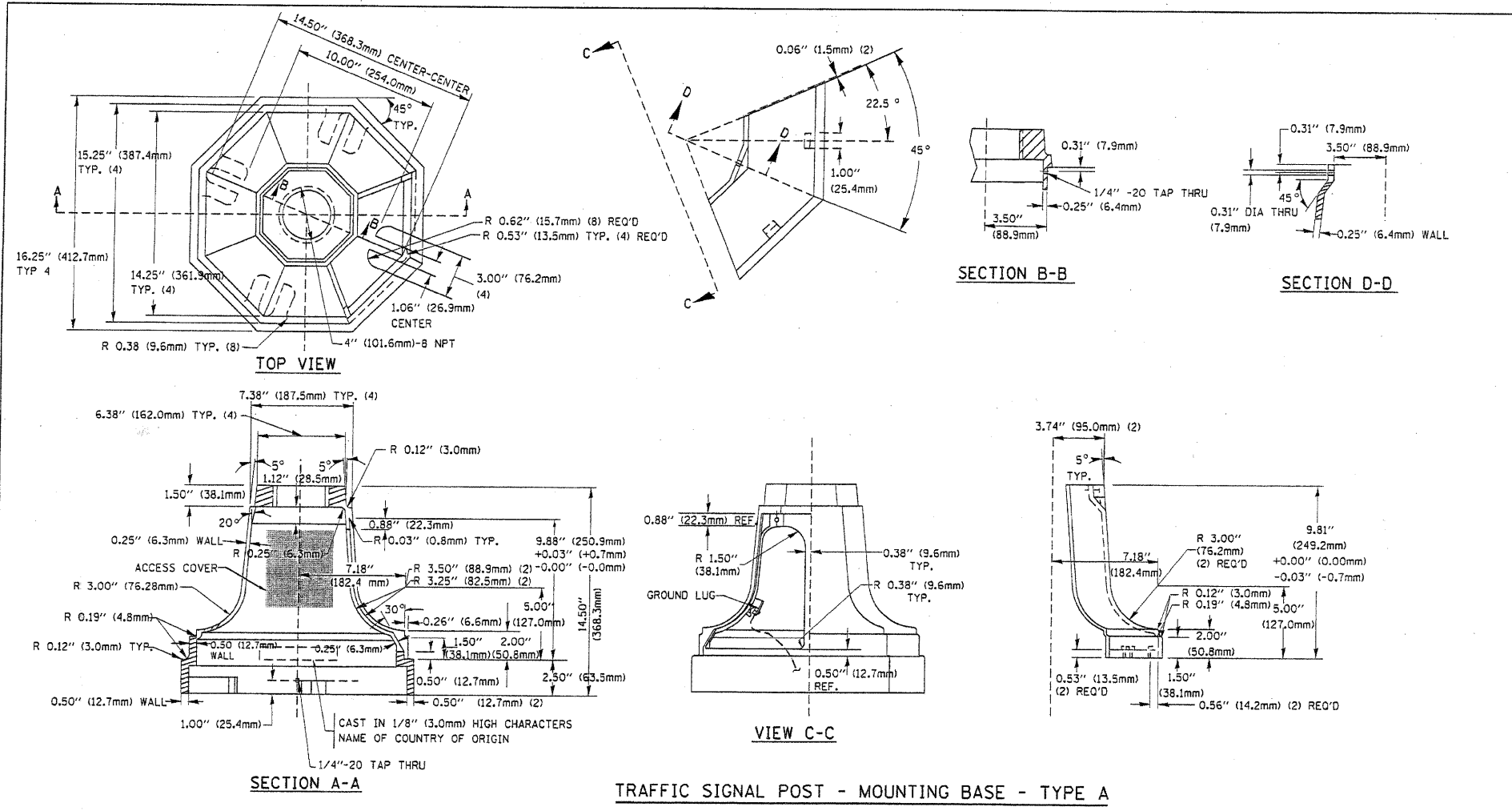


NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, U.L. 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.

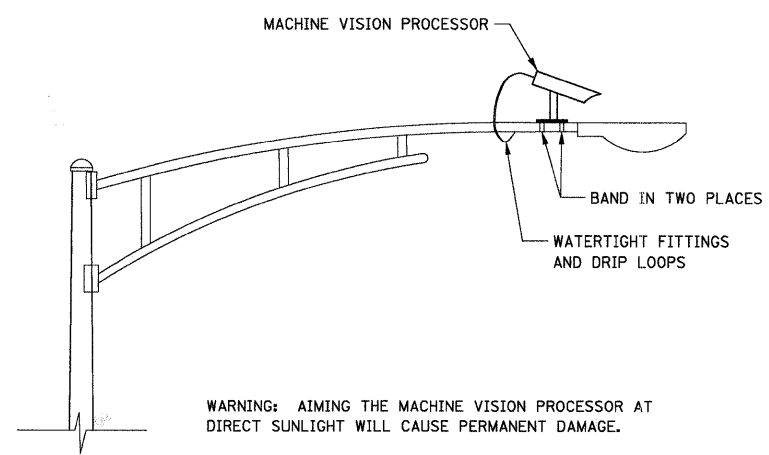


REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE		
		DISTRICT 1	
		STANDARD TRAFFIC SIGNAL	
		DESIGN DETAILS	
		VERT. NONE	DRAWN BY: RWP
		HORIZ. NONE	DESIGNED BY: DAD
		DATE: 1-01-02	CHECKED BY: DAZ
			SHEET 3 OF 4



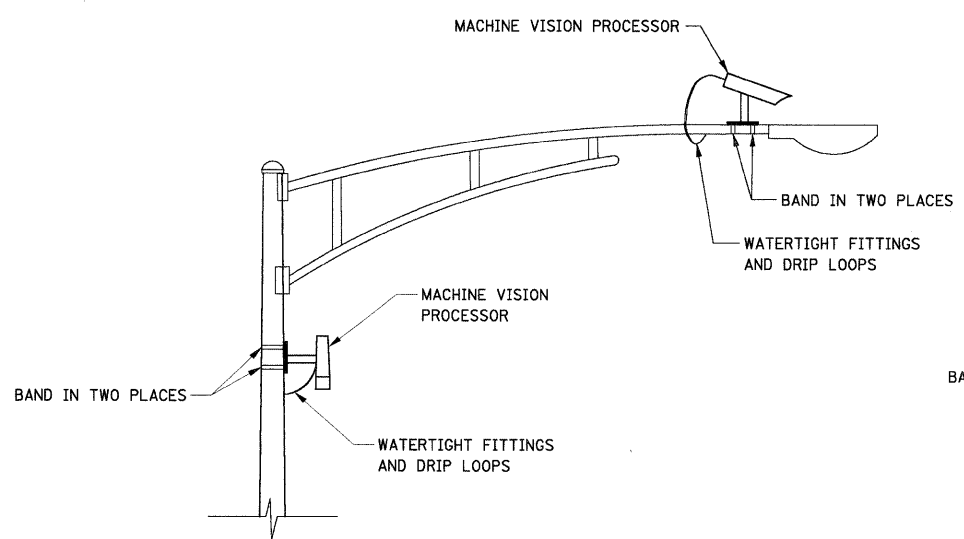
DATE: _____ BY: _____
 SURVEYED: _____
 PLAN: _____
 NOTE BOOK: _____
 NO. _____
 CHECKED: _____
 DATE: _____
 PROFILE: _____
 GRADES CHECKED: _____
 STRUCTURE NOTATION: _____
 NO. _____

CHRISTOPHER B. BURKE ENGINEERING LTD.
 9575 West Higgins Road, Suite 600
 Chicago, Illinois 60618
 (847) 823-0580

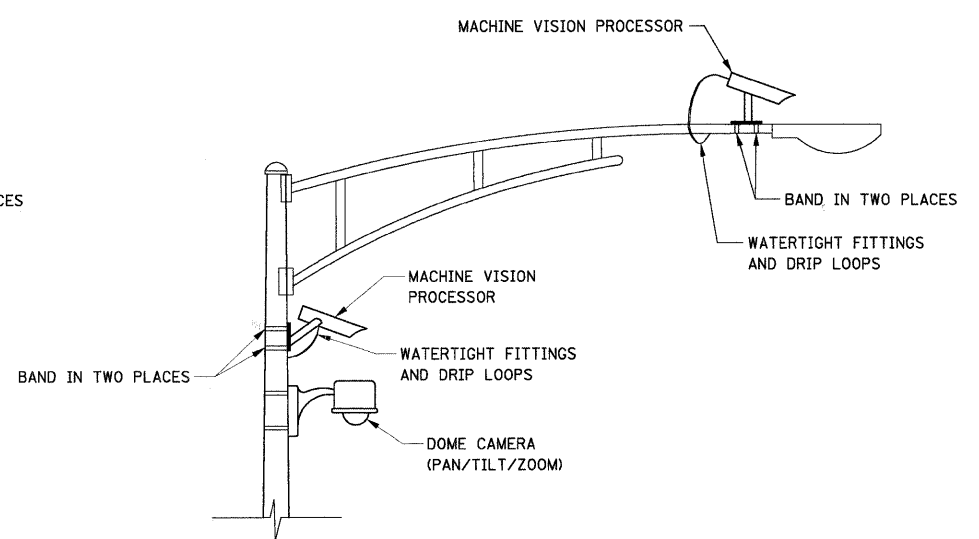


MACHINE VISION PROCESSOR MOUNTING DETAIL
 (NOT TO SCALE)

WARNING: AIMING THE MACHINE VISION PROCESSOR AT DIRECT SUNLIGHT WILL CAUSE PERMANENT DAMAGE.

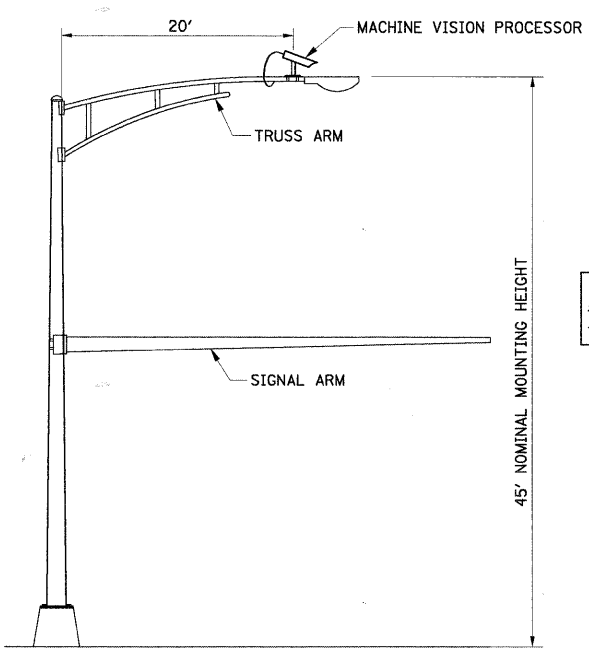


DUAL MACHINE VISION PROCESSORS MOUNTING DETAIL
 (NOT TO SCALE)



DUAL MACHINE VISION PROCESSORS AND DOME (PTZ) CAMERA MOUNTING DETAIL
 (NOT TO SCALE)

NOTES FOR SINGLE, DUAL AND MULTIPLE MVP MOUNTING:
 - MOUNT LUMINAIRE MOUNTING BRACKET AS HIGH AS POSSIBLE.
 - AIM BRACKET TOWARD DIRECTION OF TRAFFIC TO BE DETECTED.
 - MOUNT MACHINE VISION PROCESSOR AIMING DOWN AT 30 DEGREE ANGLE.



COMBINATION MAST ARM ASSEMBLY AND POLE DIMENSIONS
 (NOT TO SCALE)

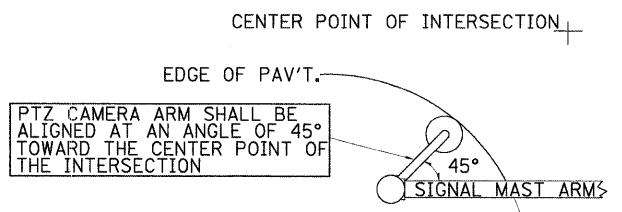
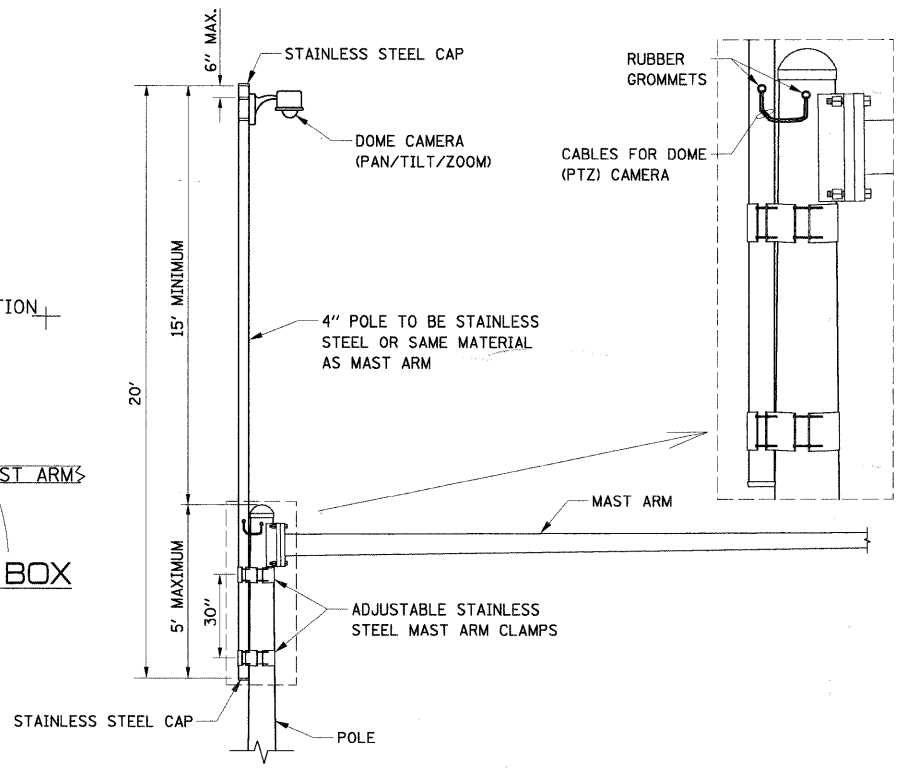


IMAGE SENSOR AND JUNCTION BOX MOUNTING DETAILS
 (NO SCALE)



CAMERA MOUNTING ASSEMBLY DETAIL
 (NOT TO SCALE)

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	PLOT DATE = 1/28/2008	CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

VIDEO DETECTION DETAILS

F.A.P. RTE. 336	SECTION 06-00346-00-TL	COUNTY KANE	TOTAL SHEETS 69	SHEET NO. 69
CONTRACT NO. 63011				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SCALE: