

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00273-00-TL	KANE	30	1

CONTRACT NO. 63053

# PROPOSED PLANS FOR TRAFFIC SIGNAL INTERCONNECT

CONGESTION MITIGATION AIR QUALITY  
ROUTE: RIVER STREET  
FROM PRAIRIE STREET TO NEW YORK STREET  
SECTION: 08-00273-00-TL  
PROJECT NO.: CMM-9003(045)  
KANE COUNTY  
JOB NO.: C-91-439-08

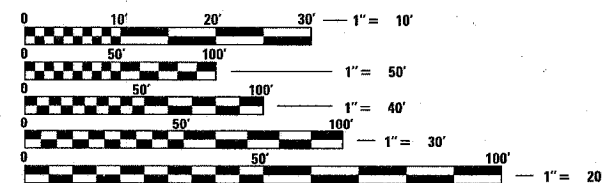
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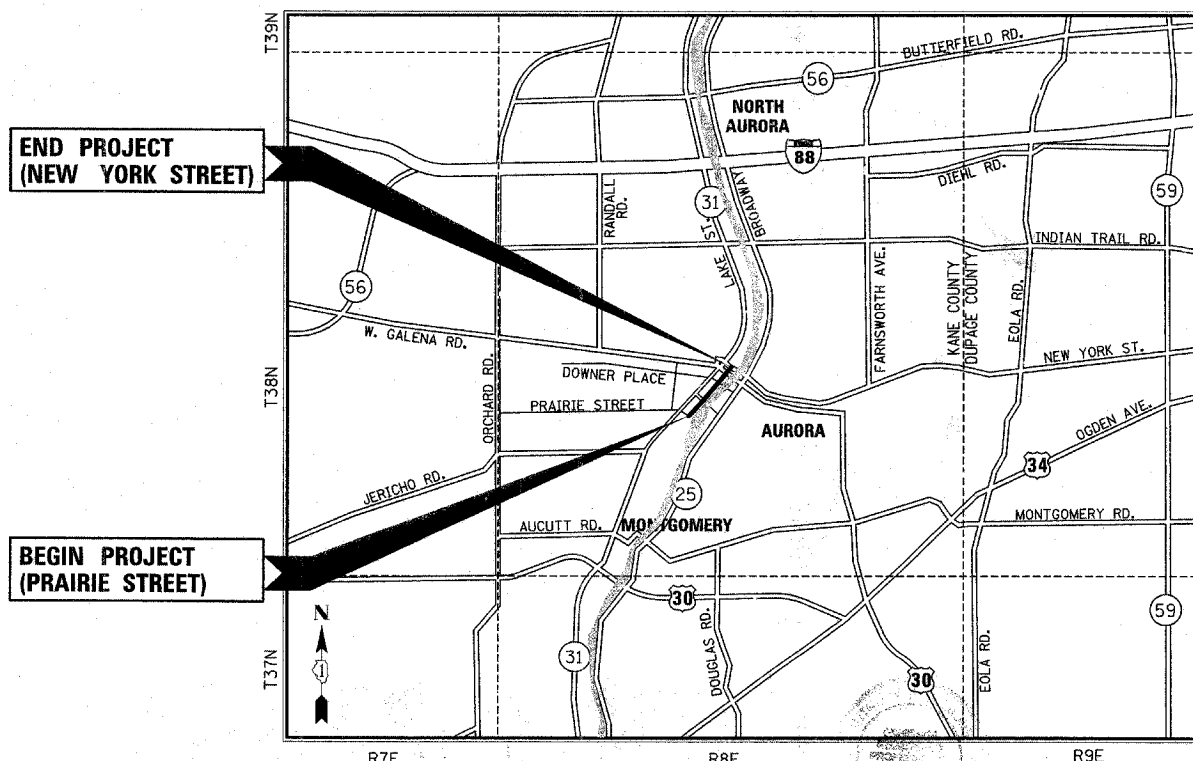
### HIGHWAY STANDARDS

- 424001-05 CURB RAMPS FOR SIDEWALKS
- 701601-05 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
- 701701-05 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701801-03 LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
- 701901 TRAFFIC CONTROL DEVICES
- 720001 SIGN PANEL MOUNTING DETAILS
- 720006-01 SIGN PANEL ERECTION DETAILS
- 805001 ELECTRICAL SERVICE INSTALLATION DETAILS
- 814001-01 HANDHOLES
- 814006-01 DOUBLE HANDHOLES
- 857001 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 862001 UNINTERRUPTIBLE POWER SUPPLY (UPS)
- 873001-01 TRAFFIC SIGNAL GROUNDING & BONDING
- 878001-06 CONCRETE FOUNDATION DETAILS
- 880006 TRAFFIC SIGNAL MOUNTING DETAILS
- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123 (CALL 48 HOURS IN ADVANCE)



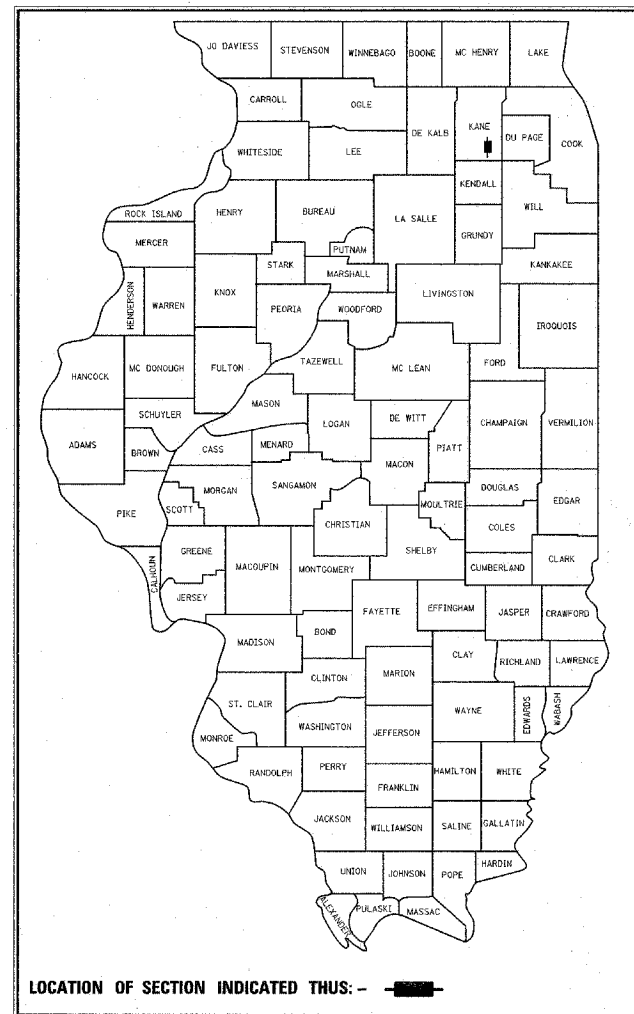
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.



LOCATION MAP  
SCALE : N.T.S

POSTED SPEED = 30 M.P.H.  
PROJECT GROSS LENGTH = 4115.00 FEET = 0.80 MILES  
PROJECT NET LENGTH = 4115.00 FEET = 0.80 MILES

THIS IMPROVEMENT IS LOCATED  
IN THE CITY OF AURORA



<b>AGENCY RESPONSIBLE FOR LETTING</b>	
APPROVED	<i>Ronald Schwab</i> June 4, 2008 City of Aurora - Director of Public Works
PASSED	<i>Christopher Holt</i> 2008 DISTRICT 1 ENGINEER OF LOCAL ROADS & STREETS
RELEASING FOR BID BASED ON LIMITED REVIEW	JUNE 6, 2008 <i>Diana M. O'Keefe</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER



*Anthony P. Simmons* 6/4/08  
ANTHONY P. SIMMONS, P.E.  
NO. 062-058414  
EXPIRES: 11/30/09  
SMITH ENGINEERING CONSULTANTS, INC.  
(EXCLUDES SHEETS 113-126)

Illinois Professional Design Firm # 184-000108  
**SEC GROUP, INC.**  
Smith Engineering Consultants • SEC Automation • SEC Planning  
651 Prairie Pointe Drive, Yorkville, IL 60560  
t. 630.553.7660 f. 630.553.7646  
www.secgroupinc.com engineering@secgroupinc.com

CONTRACT NO: 63053

DISTRICT 1 - LOCAL ROADS ENGINEER: PHILIP A. MARCYN (847)705-4189

**SUMMARY OF QUANTITIES**

CODE NUMBER	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	PRAIRIE STREET		NORTH AVENUE		BENTON STREET		DOWNER PLACE		GALENA BOULEVARD		NEW YORK STREET		INTERCONNECT Y031-F
				Y031-F	NON-PART.	Y031-F	NON-PART.	Y031-F	NON-PART.	Y031-F	NON-PART.	Y031-F	NON-PART.	Y031-F	NON-PART.	
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	3													
67100100	MOBILIZATION	L SUM	1													
70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1													
72000100	SIGN PANEL - TYPE 1	SQ FT	104					20		20		27		37		
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	261					65		105		60		31		
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	95					18		27		19		31		
81000900	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	112					30		24		32		26		
81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	74					22		32		10		10		
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	241					65		105		46		25		
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	871					211		206		223		231		
81400100	HANDHOLE	EACH	1									1				
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	542					135		188		121		98		
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	6	1		1		1		1		1		1		
85700300	FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	4					1		1		1		1		
85700505	FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	2	1		1										
85900100	TRANSCEIVER	EACH	6													6
86000100	MASTER CONTROLLER	EACH	1													1
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1983					486		511		478		518		
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	7916					1303	252	1514	412	1786	492	1786	391	
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	5101					857		1209		1828		1207		
87301615	ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 16 6 PAIR	FOOT	1663					242		398		547		476		
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	747					243		331		111		62		
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	4					1		1		1		1		
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	9					2		2		2		3		
87704070	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT. (SPECIAL)	EACH	1											1		
87704080	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. (SPECIAL)	EACH	1											1		
87704100	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. (SPECIAL)	EACH	1					1								
87704130	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 40 FT. (SPECIAL)	EACH	1							1						
87704140	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 42 FT. (SPECIAL)	EACH	2									2				
87704150	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT. (SPECIAL)	EACH	1							1						
87704160	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT. (SPECIAL)	EACH	1					1								
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	68					16		16		16		20		
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	16					4		4		4		4		
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	45					15						30		
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	75					15		30		30				
87900200	DRILL EXISTING HANDHOLE	EACH	56					14		16		10		16		
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	17					4		4		5		4		
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	8					2		2		2		2		
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2									1		1		
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	16					4		4		4		4		
88200110	TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	17					4		4		5		4		
88700200	LIGHT DETECTOR	EACH	10					2		2		3		3		
88700300	LIGHT DETECTOR AMPLIFIER	EACH	4					1		1		1		1		
88800100	PEDESTRIAN PUSH-BUTTON	EACH	16					4		4		4		4		
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	10026					1841		2221		3424		2540		
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	4					1		1		1		1		
89502380	REMOVE EXISTING HANDHOLE	EACH	1									1				

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NOTE BOOK	PLOTTED	
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PROFILE	SURVEYED	DATE
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 CHECKED APS  
 DATE

REVISED -  
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
 (SHEET 1 OF 2)**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00273-00-TL	KANE	30	2
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 63053	

**SUMMARY OF QUANTITIES**

CODE NUMBER	PAY ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	PRAIRIE STREET		NORTH AVENUE		BENTON STREET		DOWNER PLACE		GALENA BOULEVARD		NEW YORK STREET		INTERCONNECT
				Y031-F	NON-PART.	Y031-F	NON-PART.	Y031-F	NON-PART.	Y031-F	NON-PART.	Y031-F	NON-PART.	Y031-F	NON-PART.	Y031-F
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	26					6		7		5		8		
X0324007	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1													1
X0325134	WIRELESS INTERCONNECT (COMPLETE)	EACH	1													1
X8050010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	4					1		1		1		1		
X8510200	PAINT TRAFFIC SIGNAL EQUIPMENT	EACH	4						1		1		1		1	
X8510300	PAINT TRAFFIC SIGNAL POST	EACH	13						3		3		3		4	
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	1879					454		549		449		427		
XX003552	VIDEO DETECTION SYSTEM	EACH	4					1		1		1		1		
XX003954	REMOVE EXISTING LIGHT POLE AND FOUNDATION	EACH	1												1	
XX005660	ELECTRIC CABLE IN CONDUIT, NO. 20 3C TWISTED SHIELDED	FOOT	2161					276		436		774		675		
XX005937	LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	8						2		2		2		2	
XX006661	UNINTERRUPTABLE POWER SUPPLY	EACH	4					1		1		1		1		
XX006923	GROUND EXISTING HANDHOLE FRAME AND COVER	EACH	17					4		5		3		5		

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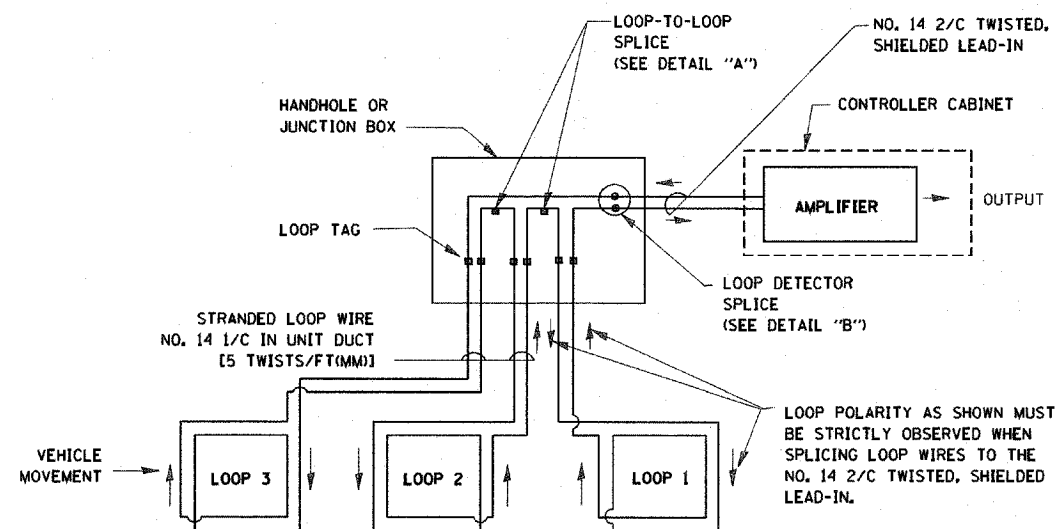
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	PLOT DATE = 6/10/2008	DATE -	REVISED -						FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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

### LOOP DETECTOR NOTES

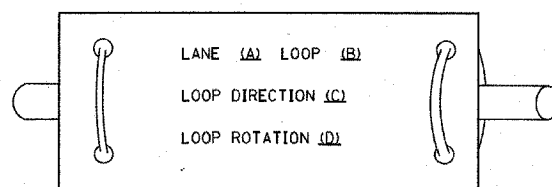
- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED 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.
- 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.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- 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.
- 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.
- PERFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PERFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.



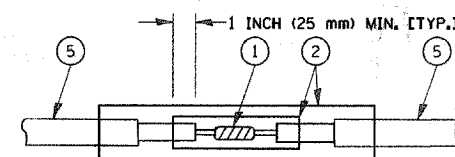
**DETECTOR LOOP WIRING SCHEMATIC**

- 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.

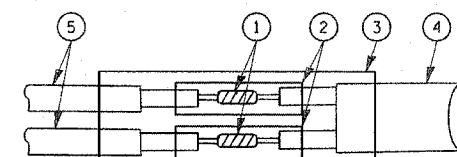
**LOOP LEAD-IN CABLE TAG**



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



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



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

**LOOP DETECTOR SPLICE**

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

REVISIONS	
NAME	DATE
CADD	5/30/00
ADD NOTE NO. 8	11/12/01
BUREAU OF TRAFFIC	1-01-02

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

SCALE: NONE  
DATE: 2/15/2006

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

TS05  
REVISION DATE: 01/01/02

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PLOT DATE = 6/4/2006

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNALS  
DESIGN DETAILS**

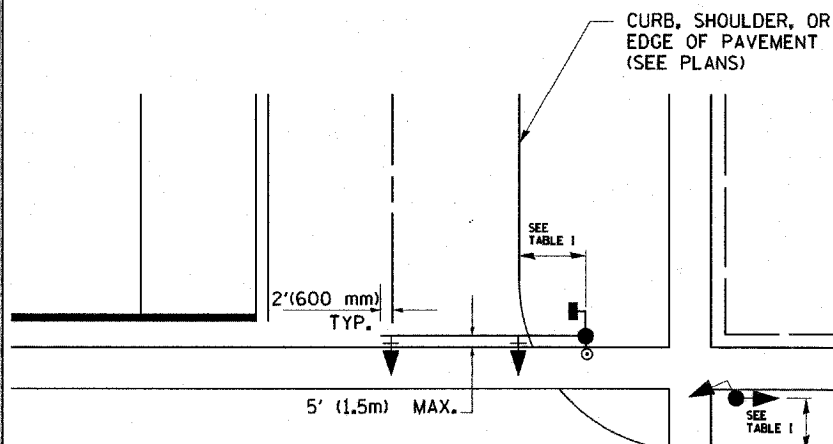
SCALE: SHEET NO. OF SHEETS STA. TO STA.

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CONTRACT NO. 63053				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

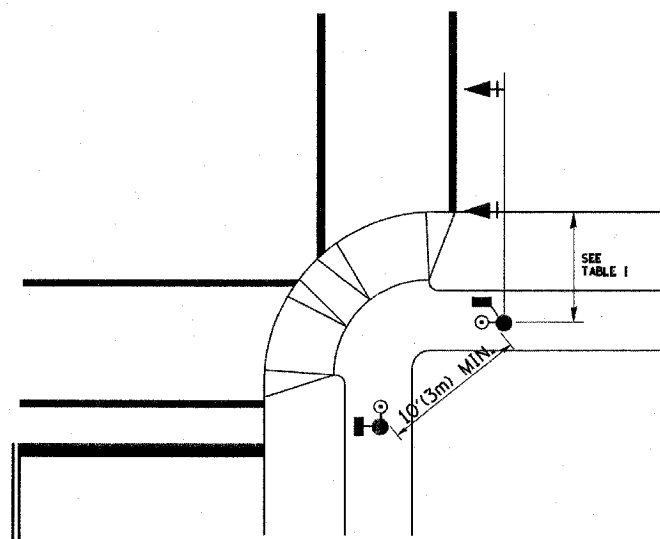
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

**TRAFFIC SIGNAL MAST ARM AND POST**

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



**PEDESTRIAN SIGNAL PUSHBUTTON**



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

**NOTES:**

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.  
  
AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.  
  
PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:  
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.  
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.  
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.  
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).  
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PLAN	SURVEYED	DATE
	BY	
	NOTED	
	PLOTTED	
	CHECKED	
	DATE	
	BY	
	NO.	

**PEDESTRIAN SIGNAL POST**

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

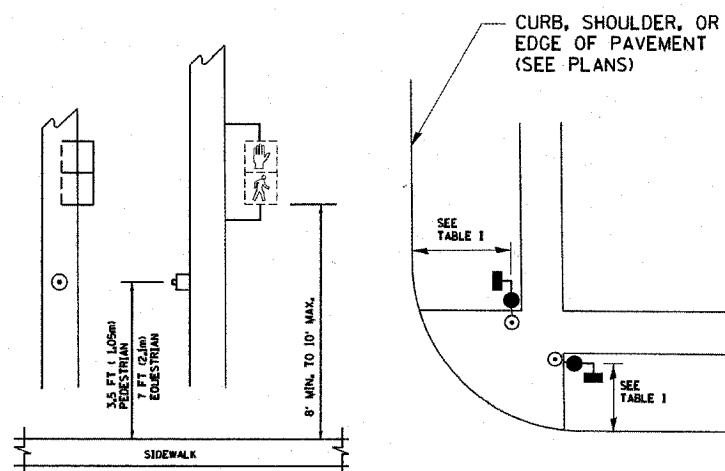


TABLE I

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

PROFILE	SURVEYED	DATE
	BY	
	NOTED	
	PLOTTED	
	CHECKED	
	DATE	
	BY	
	NO.	

REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	1/01/02

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**DISTRICT 1  
STANDARD TRAFFIC SIGNAL  
DESIGN DETAILS**

SCALE: NONE  
DATE: 1/17/2007

DRAWN BY: RWP  
DESIGNED BY: DAD  
CHECKED BY: DAZ  
SHEET 2 OF 4

TS05

REVISION DATE: 01/01/02

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PLOT SCALE = #SCALE#  
PLOT DATE = 6/4/2008

DESIGNED -  
DRAWN BAH  
CHECKED APS  
DATE -

REVISED -  
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REVISED -

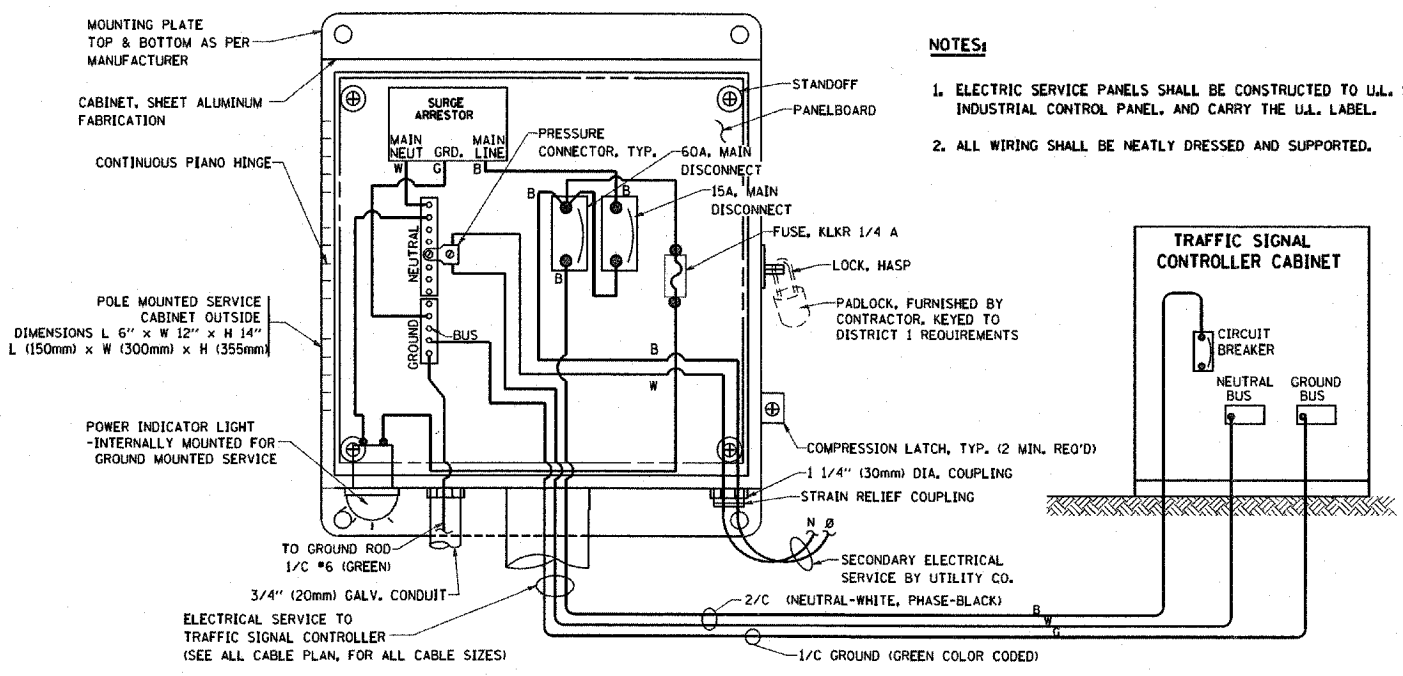
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
STANDARD TRAFFIC SIGNALS  
DESIGN DETAILS

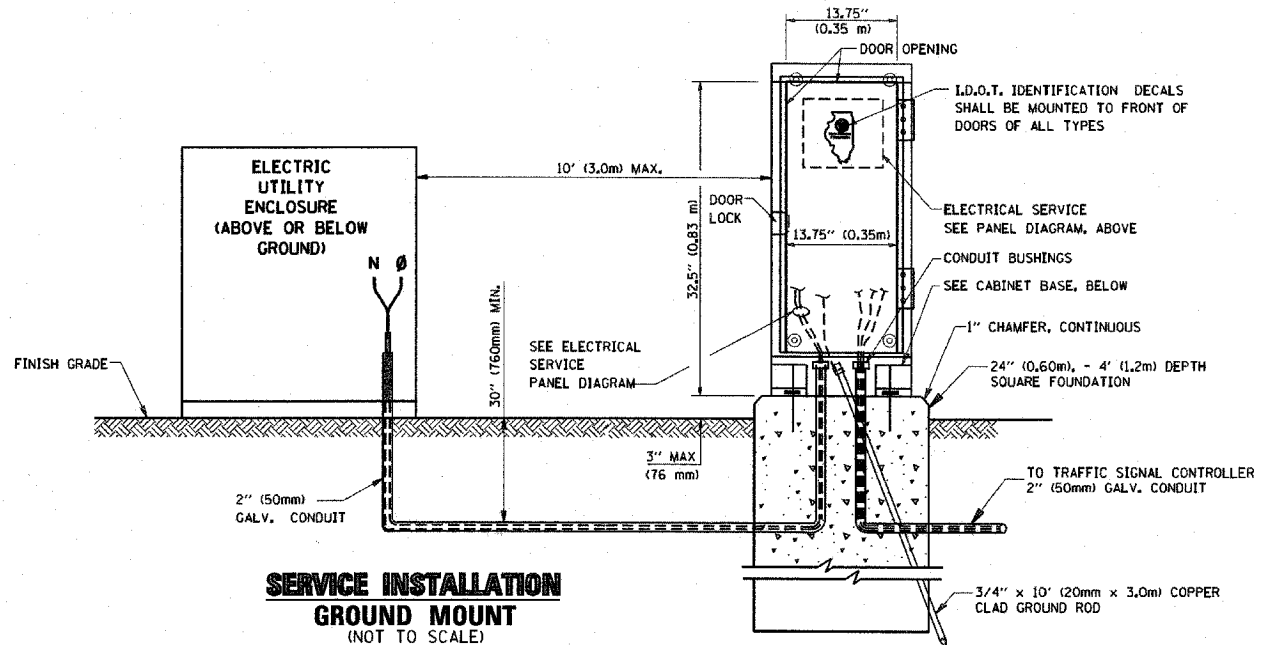
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00273-00-TL	KANE	30	5
CONTRACT NO. 63053				
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

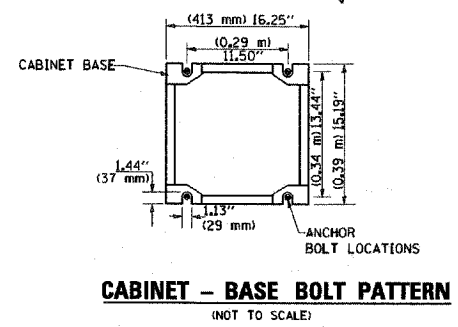
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



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

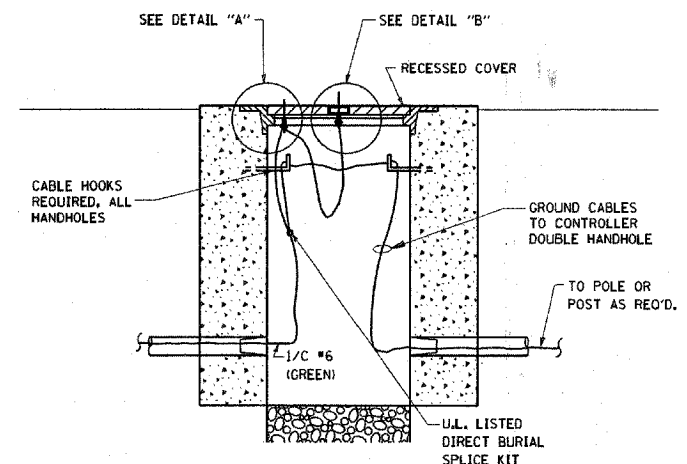
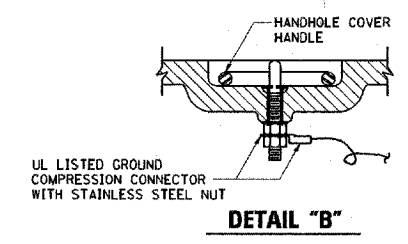
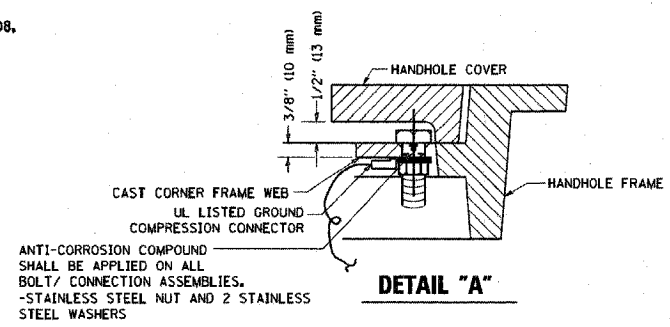


**SERVICE INSTALLATION GROUND MOUNT**  
 (NOT TO SCALE)

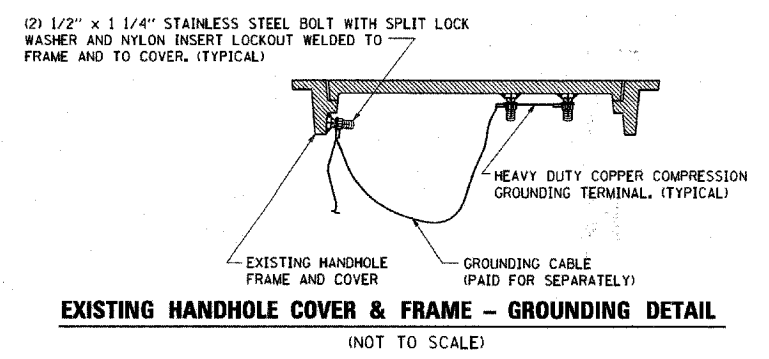


**CABINET - BASE BOLT PATTERN**  
 (NOT TO SCALE)

- NOTES:**
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
  2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.



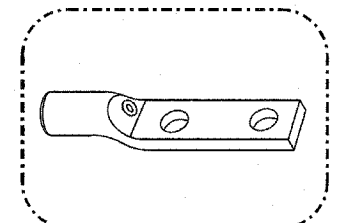
**HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
 (NOT TO SCALE)



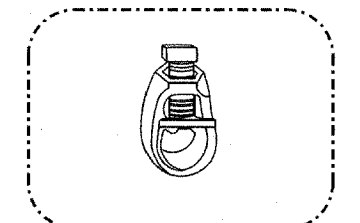
**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
 (NOT TO SCALE)

**NOTES:**  
**GROUNDING SYSTEM**

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

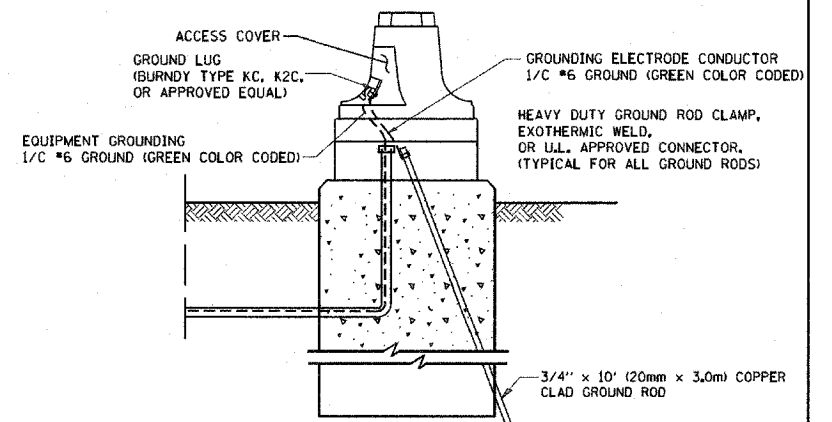


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

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



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

REVISIONS		
NAME	DATE	
CADD	5/30/00	
CADD	3/15/01	
BUREAU OF TRAFFIC	1/01/02	

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DISTRICT ONE  
 STANDARD TRAFFIC SIGNAL  
 DESIGN DETAILS

SCALE: NONE  
 DATE: 2/15/2006  
 DRAWN BY: RWP  
 DESIGNED BY: DAD  
 CHECKED BY: DAZ  
 SHEET 3 OF 4

DATE	
BY	
SURVEYED	
PLOTTED	
NOTED	
FILE NAME	

DATE	
BY	
SURVEYED	
PLOTTED	
NOTED	
FILE NAME	

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 PLOT DATE = 6/4/2006

DESIGNED -  
 DRAWN BAH  
 CHECKED APS  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

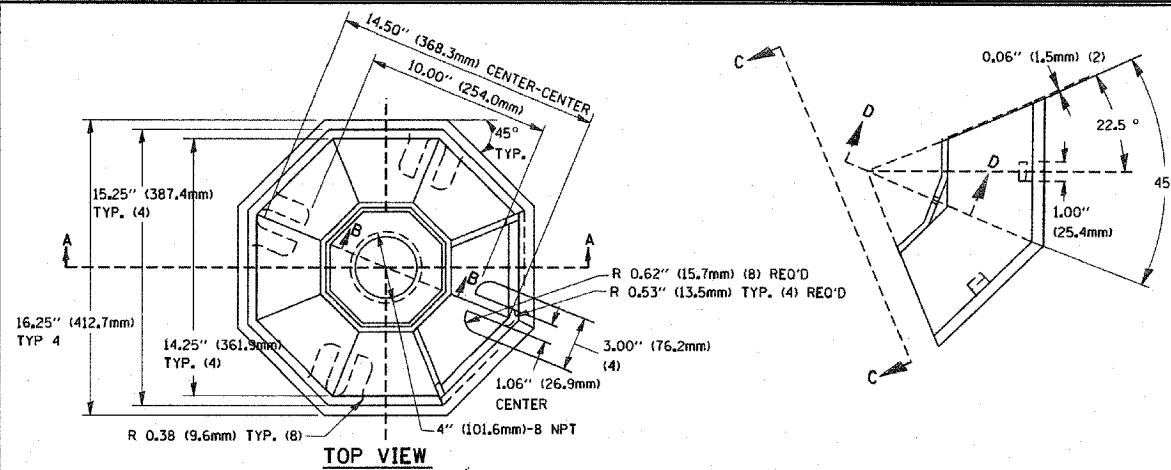
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
 STANDARD TRAFFIC SIGNALS  
 DESIGN DETAILS  
 SCALE: SHEET NO. OF SHEETS STA. TO STA.

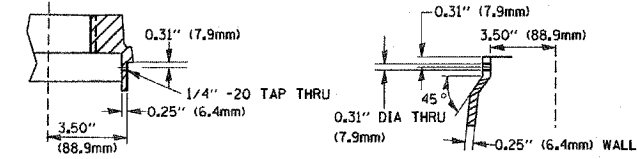
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00273-00-TL	KANE	30	6
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		CONTRACT NO. 63053	

DATE	
BY	
PLAN	
SURVEYED	
PLOTTED	
NOTE BOOK	
NO. OF SHEETS	
NO. OF SHEETS CHECKED	
NO. OF SHEETS NOT CHECKED	
CADD FILE NAME	

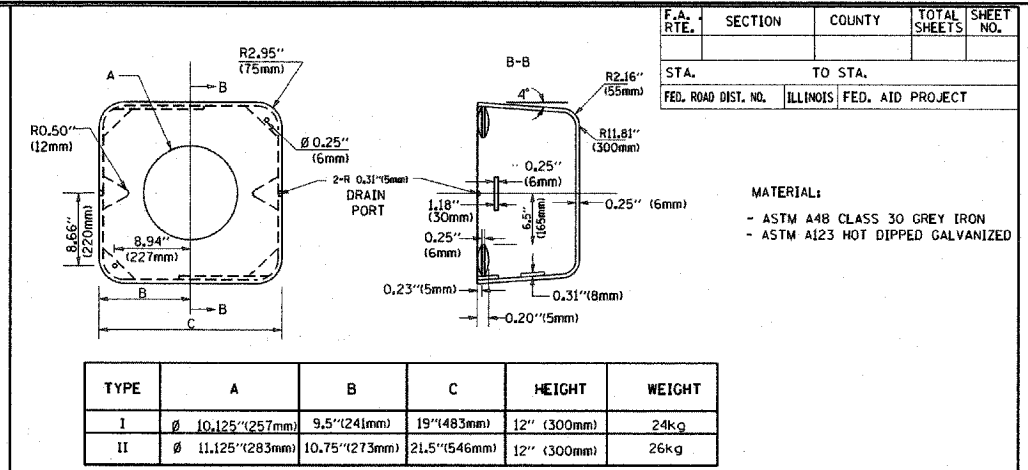
DATE	
BY	
PROFILE	
SURVEYED	
PLOTTED	
NOTE BOOK	
NO. OF SHEETS	
NO. OF SHEETS CHECKED	
NO. OF SHEETS NOT CHECKED	
STRUCTURE NOTATIONS	



SECTION B-B

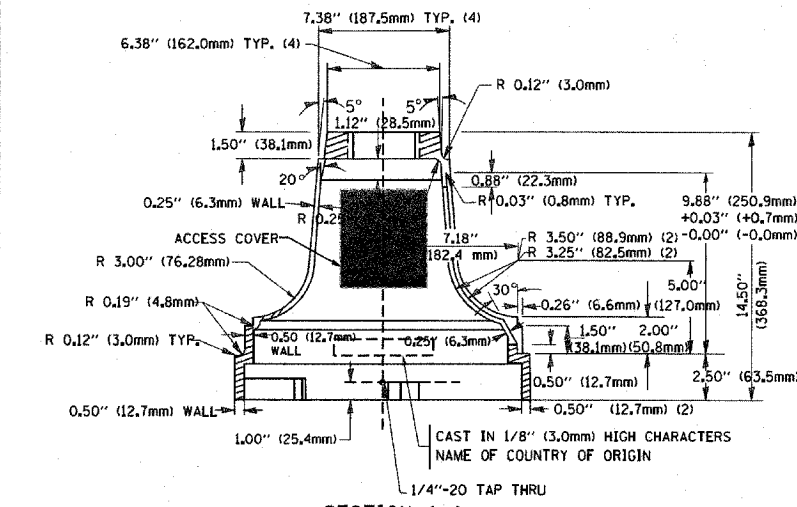


SECTION D-D

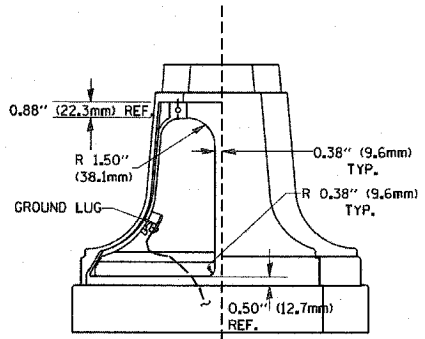


TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125\" (257mm)	9.5\" (241mm)	19\" (483mm)	12\" (300mm)	24kg
II	Ø 11.125\" (283mm)	10.75\" (273mm)	21.5\" (546mm)	12\" (300mm)	26kg

SHROUD DETAIL

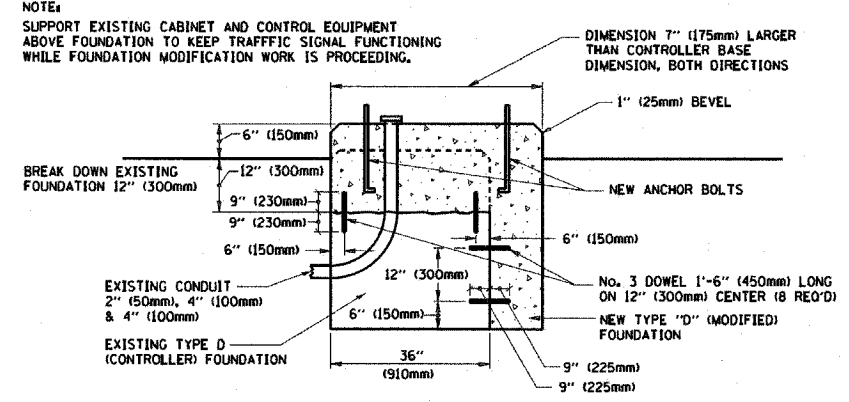
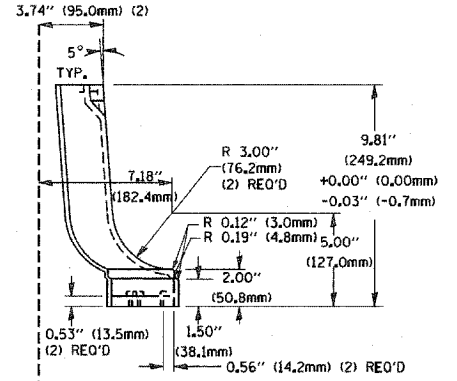


SECTION A-A



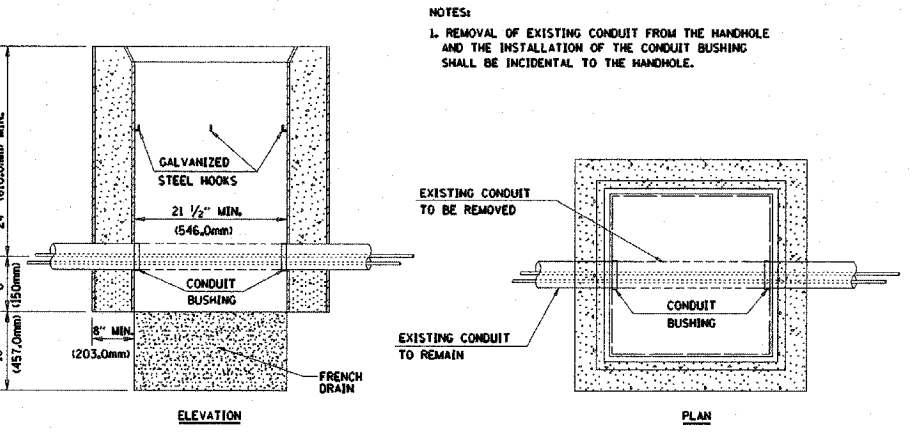
VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

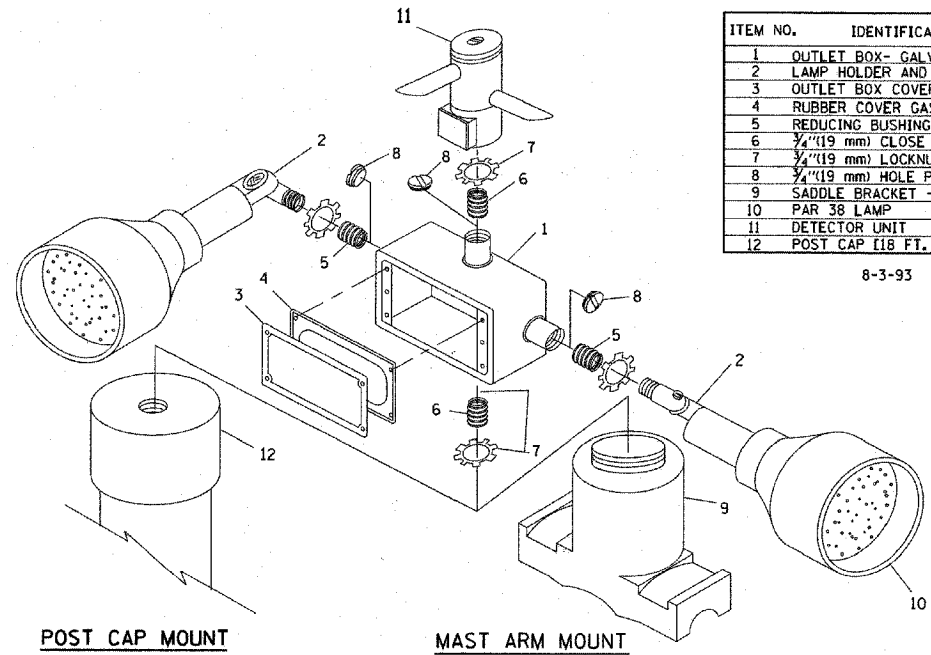


MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)



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



POST CAP MOUNT

MAST ARM MOUNT

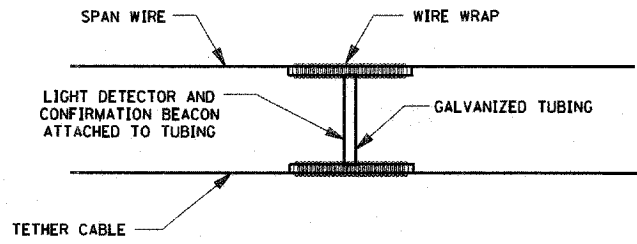
EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 21 CU. IN. (0.000344 CU.-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\" (19 mm) CLOSE NIPPLE
7	3/4\" (19 mm) LOCKNUT
8	3/4\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	PAR 38 LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

8-3-93

NOTES:

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



LIGHT DETECTOR AND CONFIRMATION BEACON MOUNTING FOR TEMPORARY TRAFFIC SIGNALS

(NOT TO SCALE)

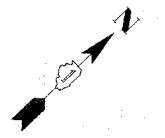
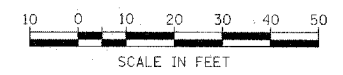
REVISIONS	
NAME	DATE
BUREAU OF TRAFFIC	5/30/00
BUREAU OF TRAFFIC	3/15/01
BUREAU OF TRAFFIC	11/12/01
BUREAU OF TRAFFIC	1-01-02

ILLINOIS DEPARTMENT OF TRANSPORTATION  
DISTRICT ONE  
STANDARD TRAFFIC SIGNAL  
DESIGN DETAILS

SCALE: NONE  
DATE: 2/15/2006

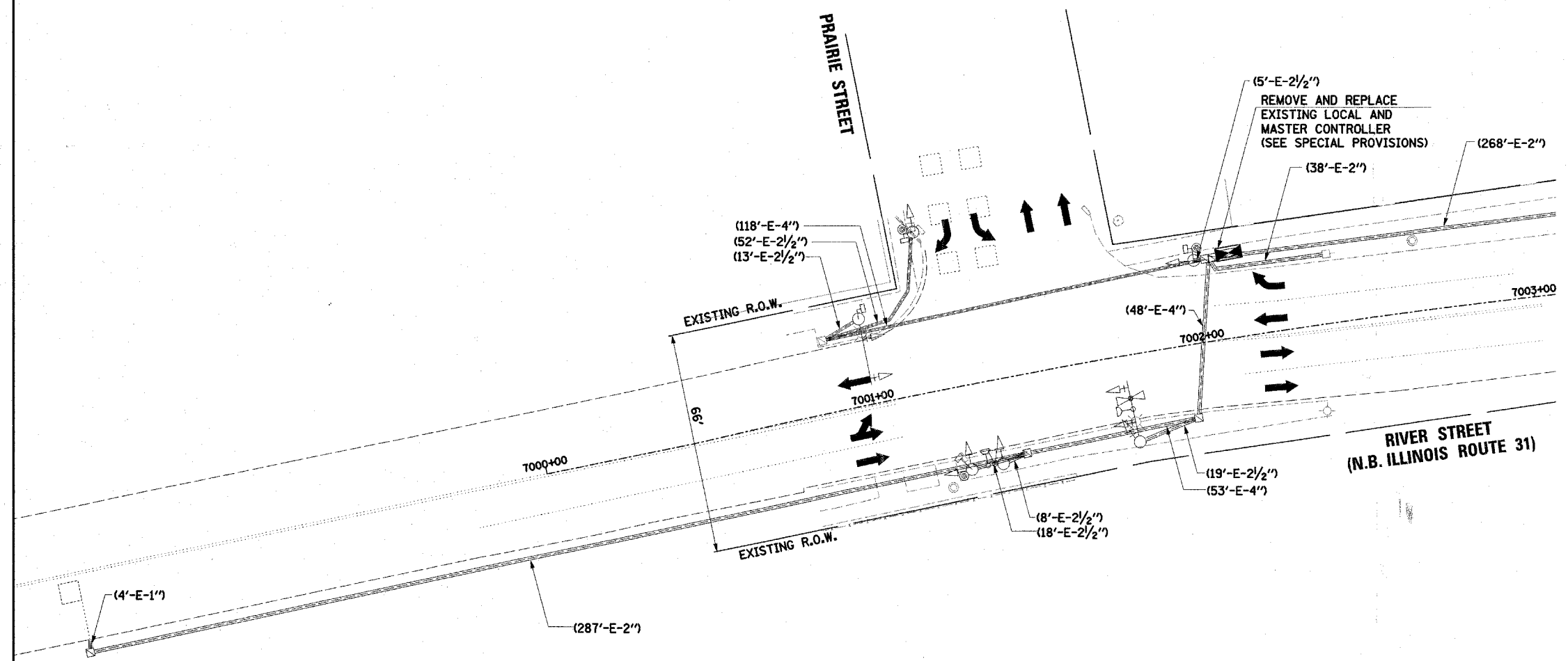
DRAWN BY: RWP  
DESIGNED BY: DAD  
CHECKED BY: DAZ  
SHEET 4 OF 4

TS05  
REVISION DATE: 01/01/02



PLAN	DATE
BY	
DESIGNED	
DRAWN	
CHECKED	
REVISIONS	
NO.	

PROFILE	DATE
BY	
DESIGNED	
DRAWN	
CHECKED	
REVISIONS	
NO.	



**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
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		
WIRELESS ANTENNA		
VIDEO DETECTION CAMERA		
VIDEO DETECTION AREA		

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY.

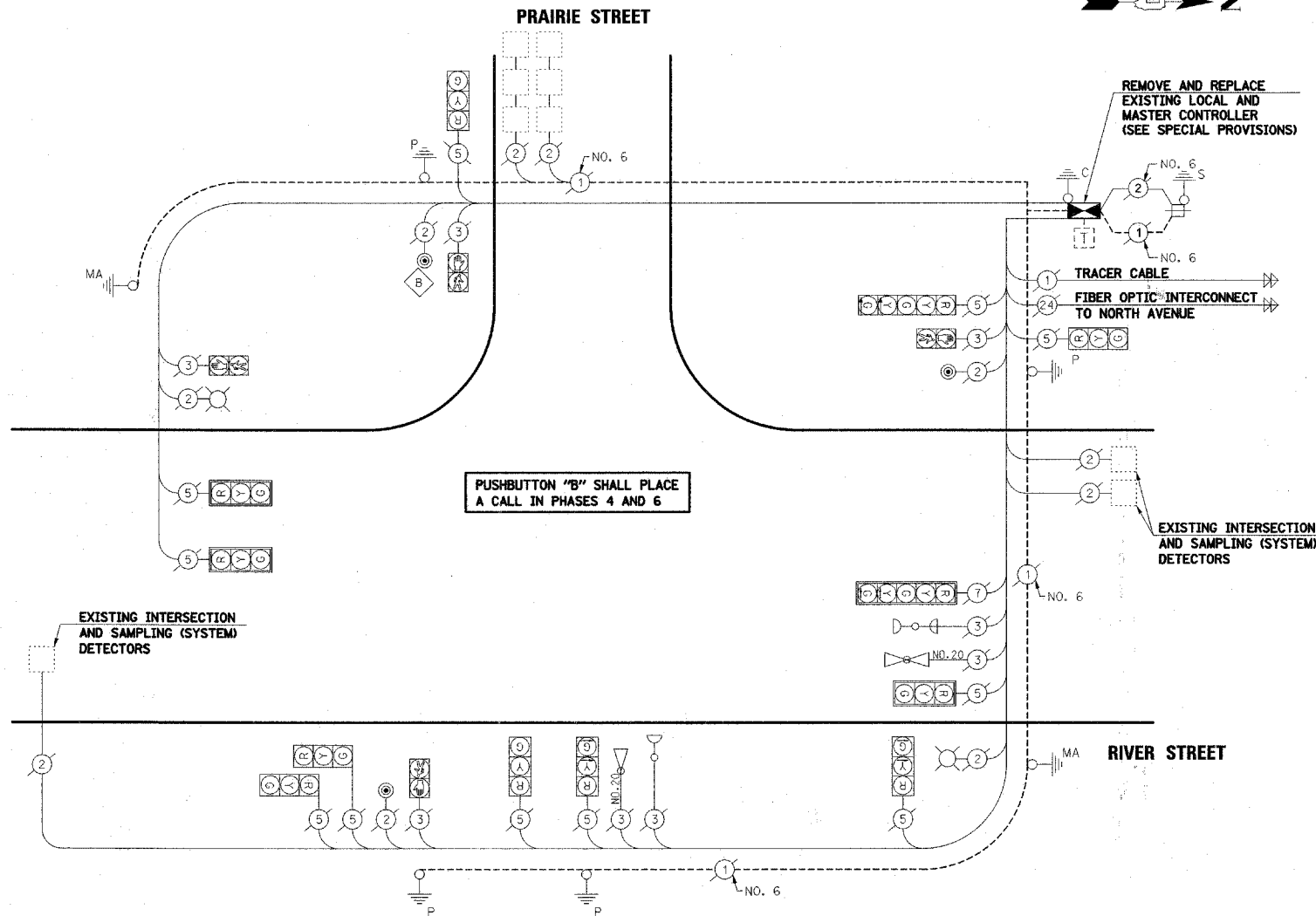
- 1 EACH TRAFFIC SIGNAL CONTROLLER (LOCAL)
- 1 EACH TRAFFIC SIGNAL CONTROLLER (MASTER)

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



**CABLE PLAN LEGEND**

- |                 |                 |   |
|-----------------|-----------------|---|
| <b>EXISTING</b> | <b>PROPOSED</b> |   |
|                 |                 | 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   |
|                 |                 | LUMINAIRE   |
|                 |                 | DENOTES NUMBER OF CONDUCTORS.<br>ALL CABLE NO. 14 EXCEPT AS INDICATED.<br>ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
|                 |                 | GROUND CABLE IN CONDUIT<br>NO. 6 SOLID COPPER (GREEN)   |
|                 |                 | FIBER OPTIC CABLE IN CONDUIT<br>NO. 62.5/125 2-MM12F SMI2F  |
|                 |                 | SIGNAL FACE WITH BACKPLATE.<br>"P" INDICATES PROGRAMMED HEAD.   |
|                 |                 | RAILROAD CONTROL CABINET  |
|                 |                 | ILLUMINATED SIGN<br>"NO LEFT TURN"  |
|                 |                 | ILLUMINATED SIGN<br>"NO RIGHT TURN"   |
|                 |                 | WIRELESS ANTENNA  |
|                 |                 | GROUND ROD AT HANDHOLE (H),<br>DOUBLE HANDHOLE (H), OR CONTROLLER (C)   |
|                 |                 | GROUND ROD AT POST (P)<br>OR MAST ARM POLE (MA)   |
|                 |                 | GROUND ROD AT ELECTRIC<br>SERVICE INSTALLATION  |
|                 |                 | UNINTERRUPTIBLE POWER SUPPLY  |
|                 |                 | LED STREET NAME SIGN  |
|                 |                 | VIDEO DETECTION CAMERA  |



**SCHEDULE OF QUANTITIES**

PAY ITEM DESCRIPTION	UNIT	PRairie STREET
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1

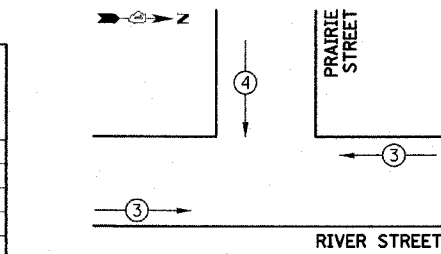
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	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	FIELD FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NO.	

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	10		25	0.25	62.5
(GREEN)	10		15	0.25	37.5
ARROW	8		12	0.10	9.6
PED. SIGNAL	4		25	1.00	100.0
CONTROLLER	2		100	1.00	200.0
UPS			25	1.00	
LED SIGN			60	0.50	
VIDEO SYSTEM			15	1.00	
LUMINAIRE	2		310	0.50	310.0
TOTAL =					821.6

ENERGY COSTS TO: CITY OF AURORA  
44 E. DOWNER PLACE  
AURORA, ILLINOIS 60507-2067

ENERGY SUPPLY CONTACT: MARK SCHERIBEL  
PHONE: (630) 723-2128  
COMPANY: COMMONWEALTH EDISON

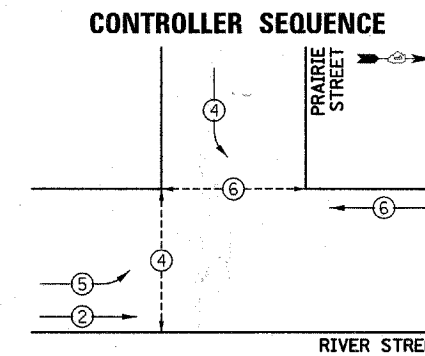


**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

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)
C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2=
D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)		(6m+L-0.6m)
E - M.A. LENGTH		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30'	30" (900mm)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40'	30" (750mm)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40'	36" (900mm)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
<50'	36" (900mm)			POST MOUNTED	6 (1.8)
≥50'	36" (900mm)				

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

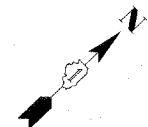
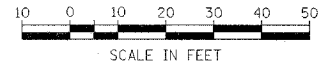
PROPOSED EMERGENCY VEHICLE PREEMPTORS		
PROPOSED EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	←	↓



**PHASE DESIGNATION DIAGRAM**

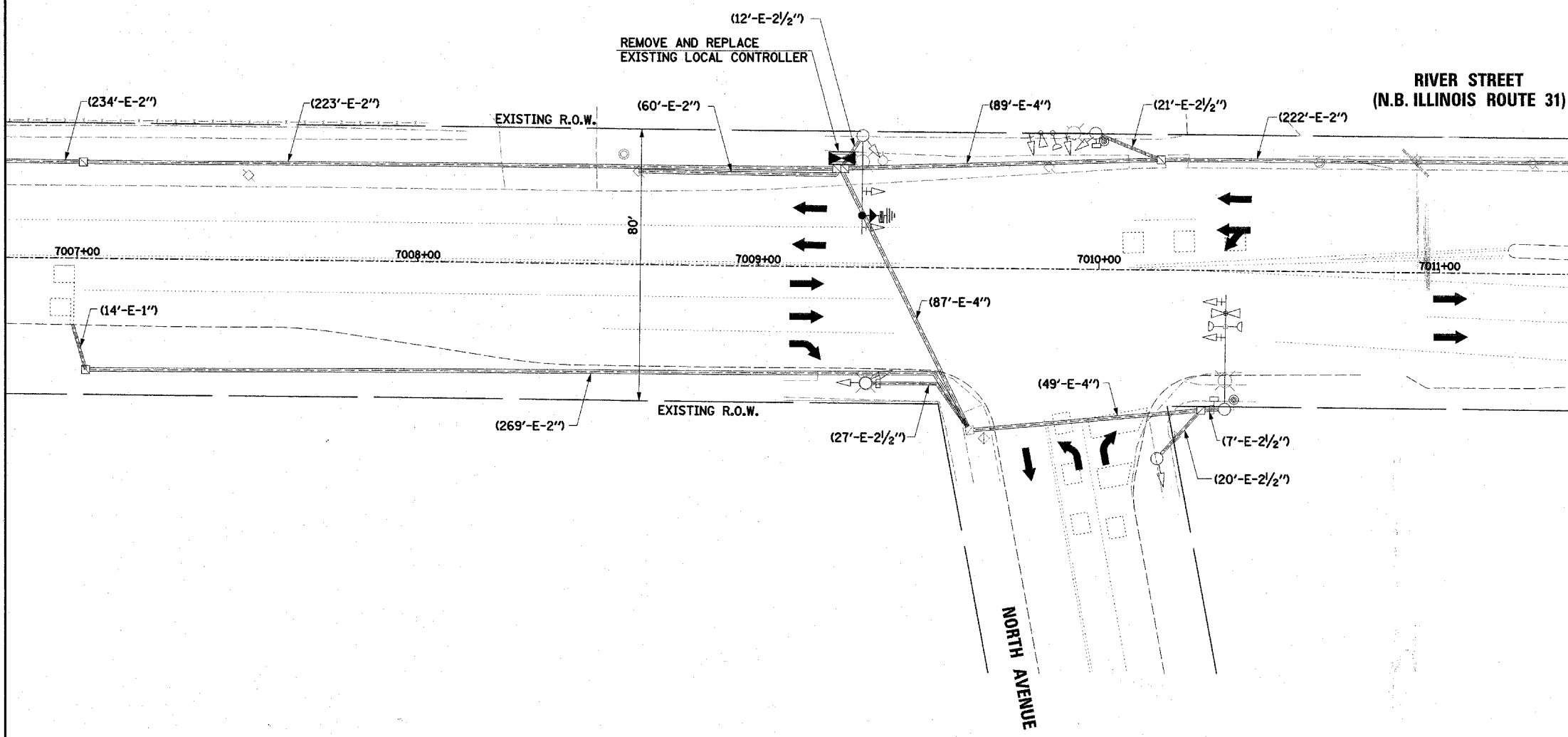
**CONTROLLER SEQUENCE LEGEND**

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



DATE	
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NOTE:  
THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE SOUTHBOUND MAST ARM, 3' WEST OF THE OUTER 5-SECTION SIGNAL HEAD OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
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	T	
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
UNINTERRUPTABLE POWER SUPPLY	UPS	
WIRELESS ANTENNA		
VIDEO DETECTION CAMERA		
VIDEO DETECTION AREA		

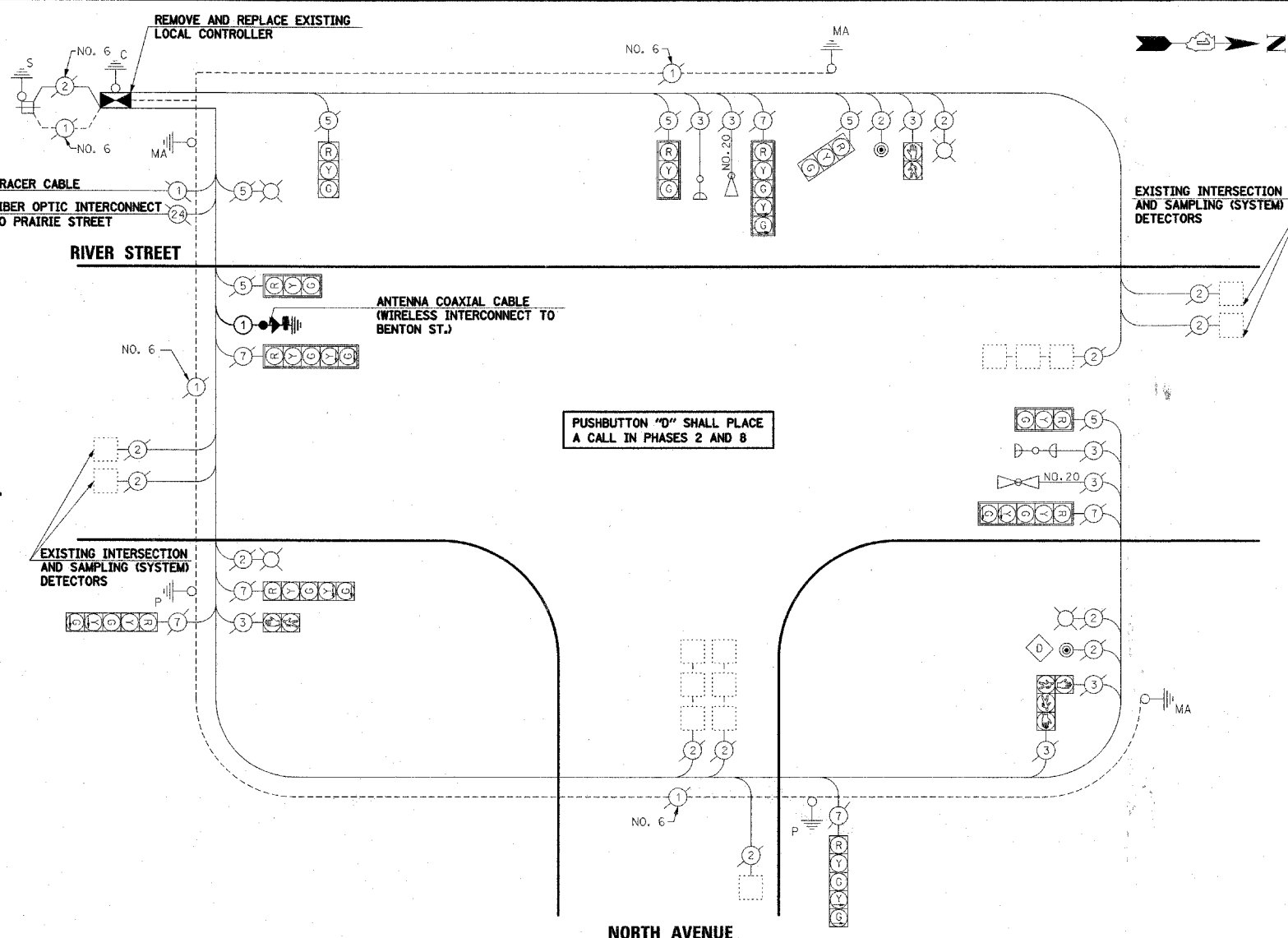
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY.

1 EACH TRAFFIC SIGNAL CONTROLLER

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

**CABLE PLAN LEGEND**

- |                 |                 |   |
|-----------------|-----------------|---|
| <b>EXISTING</b> | <b>PROPOSED</b> |   |
|                 |                 | 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   |
|                 |                 | LUMINAIRE   |
|                 |                 | DENOTES NUMBER OF CONDUCTORS.<br>ALL CABLE NO. 14 EXCEPT AS INDICATED.<br>ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
|                 |                 | GROUND CABLE IN CONDUIT<br>NO. 6 SOLID COPPER (GREEN)   |
|                 |                 | FIBER OPTIC CABLE IN CONDUIT<br>NO. 62.5/125 2-MM12F SM12F  |
|                 |                 | SIGNAL FACE WITH BACKPLATE.<br>"P" INDICATES PROGRAMMED HEAD.   |
|                 |                 | RAILROAD CONTROL CABINET  |
|                 |                 | ILLUMINATED SIGN<br>"NO LEFT TURN"  |
|                 |                 | ILLUMINATED SIGN<br>"NO RIGHT TURN"   |
|                 |                 | WIRELESS ANTENNA  |
|                 |                 | GROUND ROD AT HANDHOLE (H),<br>DOUBLE HANDHOLE (H), OR CONTROLLER (C)   |
|                 |                 | GROUND ROD AT POST (P)<br>OR MAST ARM POLE (MA)   |
|                 |                 | GROUND ROD AT ELECTRIC<br>SERVICE INSTALLATION  |
|                 |                 | UNINTERRUPTIBLE POWER SUPPLY  |
|                 |                 | LED STREET NAME SIGN  |



**SCHEDULE OF QUANTITIES**

PAY ITEM DESCRIPTION	UNIT	NORTH AVENUE
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	EACH	1

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

REVISIONS:

NO.	DATE	DESCRIPTION

DATE: \_\_\_\_\_ BY: \_\_\_\_\_

REVISIONS:

NO.	DATE	DESCRIPTION

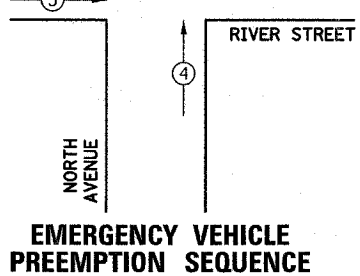
**I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	11		17	0.50	93.5
(YELLOW)	11		25	0.25	68.8
(GREEN)	11		15	0.25	41.3
ARROW	12		12	0.10	14.4
PED. SIGNAL	4		25	1.00	100.0
CONTROLLER	1		100	1.00	100.0
UPS			25	1.00	
LED SIGN			60	0.50	
LUMINAIRE	4		310	0.50	620.0
<b>TOTAL =</b>					<b>1038.0</b>

ENERGY COSTS TO: CITY OF AURORA  
44 E. DOWNER PLACE  
AURORA, ILLINOIS 60507-2067

ENERGY SUPPLY CONTACT: MARK SCHERIBEL  
PHONE: (630) 723-2128  
COMPANY: COMMONWEALTH EDISON

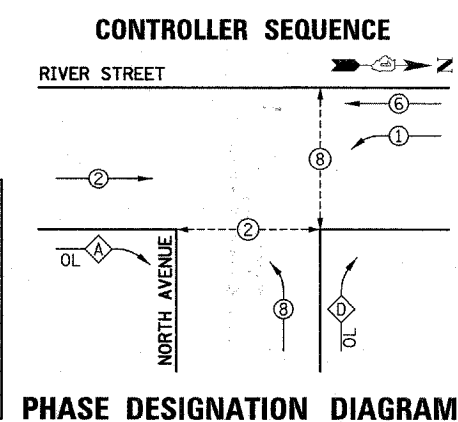
FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±L-2=
D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
E - M.A. LENGTH		CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
<30'	30" (900mm)	10 (3.0)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE
<40'	30" (750mm)	13.5 (4.1)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE
<40'	36" (900mm)	11 (3.4)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND
<50'	36" (900mm)	13 (4.0)			POST MOUNTED
>50'	36" (900mm)	15 (4.6)			



**PROPOSED EMERGENCY VEHICLE PREEMPTORS**

PROPOSED EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT		

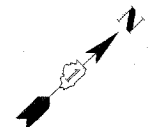
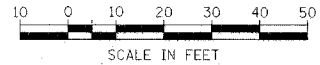
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



**CONTROLLER SEQUENCE LEGEND**

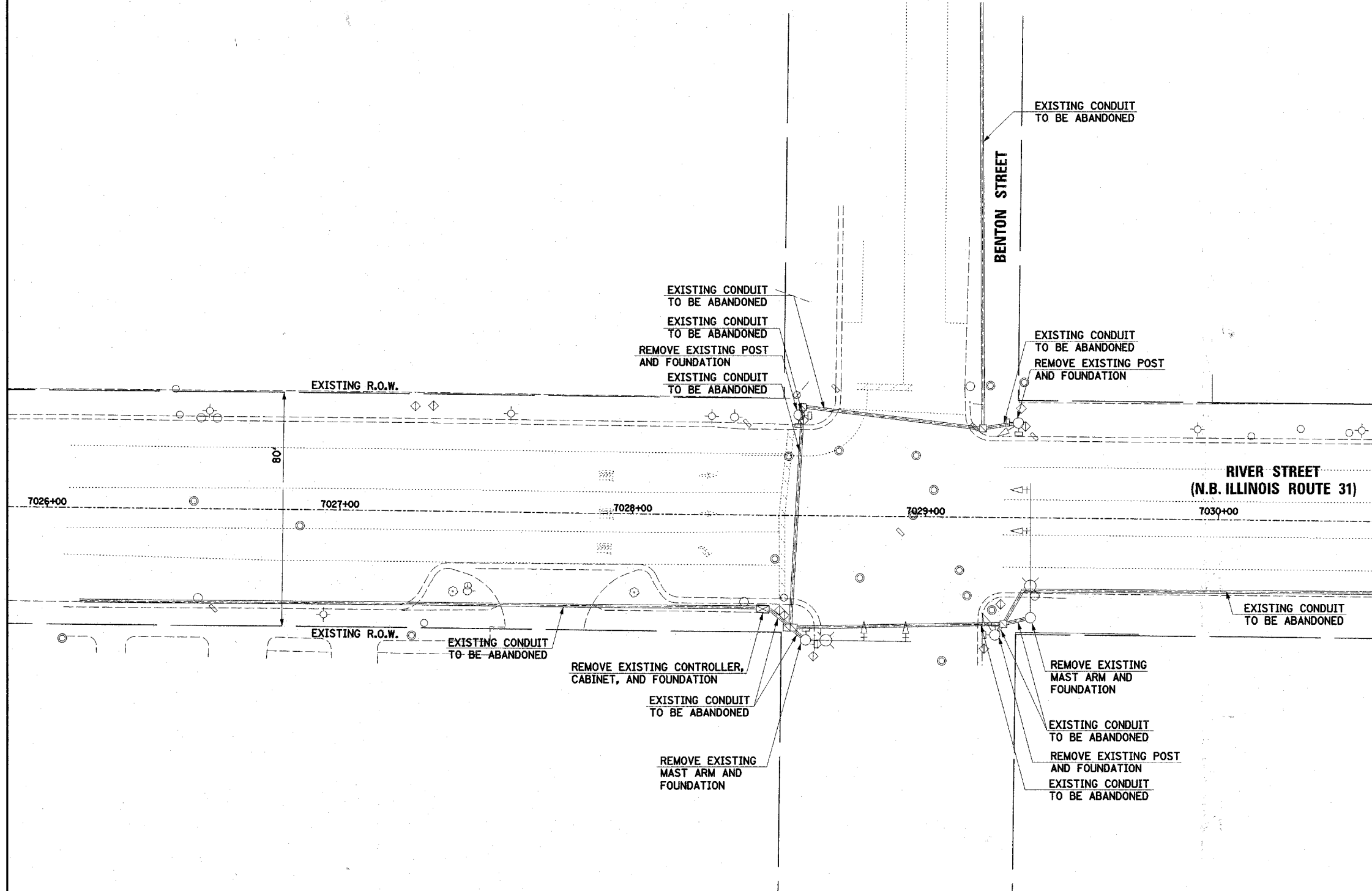
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- NUMBER REFERRING TO ASSOCIATED PHASE
- PEDESTRIAN PHASE

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



DATE	
BY	
DESIGNED	
PLOTTED	
ALIGNMENT CHECKED	
NOTE BOOK NO.	
CADD FILE NAME	

DATE	
BY	
DESIGNED	
PLOTTED	
GRADES CHECKED	
NOTE BOOK NO.	
STRUCTURE NOTATIONS CHECKED	



**NOTES:**  
 1. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE DISTRICT 1 AREA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (847) 705-4424 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.

**EXISTING EQUIPMENT TO BE REMOVED LEGEND**

- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

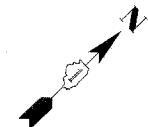
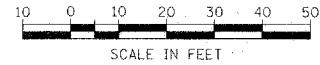
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY.

- 2 EACH LUMINAIRE

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

- 1 EACH TRAFFIC SIGNAL CONTROLLER AND CABINET (COMPLETE)
- 2 EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 6 EACH TRAFFIC SIGNAL HEADS
- 4 EACH TRAFFIC SIGNAL BACKPLATES
- 8 EACH PEDESTRIAN SIGNAL HEADS

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED BENTON STREET</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILEL#		DRAWN <i>BAH</i>	REVISED -			08-00273-00-TL	KANE	30	12	
		CHECKED <i>APS</i>	REVISED -			CONTRACT NO. 63053				
		DATE -	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
				SCALE:	SHEET NO. OF SHEETS STA. TO STA.					



- NOTES:**
1. THE VIDEO DETECTION CAMERAS SHALL BE MOUNTED AT THE END OF AND ON TOP OF THE 8' ARM FOR THE COMBINATION MAST ARM ASSEMBLIES UNLESS OTHERWISE NOTED.
  2. THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE NORTHBOUND MAST ARM, 3' EAST OF THE OUTER 3-SECTION SIGNAL HEAD OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).
  3. THE FINAL PAVEMENT MARKING WILL BE INSTALLED AS PART OF A SEPARATE CONTRACT.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
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	UPS	
WIRELESS ANTENNA		
VIDEO DETECTION CAMERA		
VIDEO DETECTION AREA		

SERVICE INSTALLATION - GROUND MOUNTED (LOCATION TO BE VERIFIED WITH COMED)

130' (65'-P, 65'-T) 2"

10' TRAFFIC SIGNAL POST 5'-T 2 1/2"

DRILL EXISTING HANDHOLE (4)

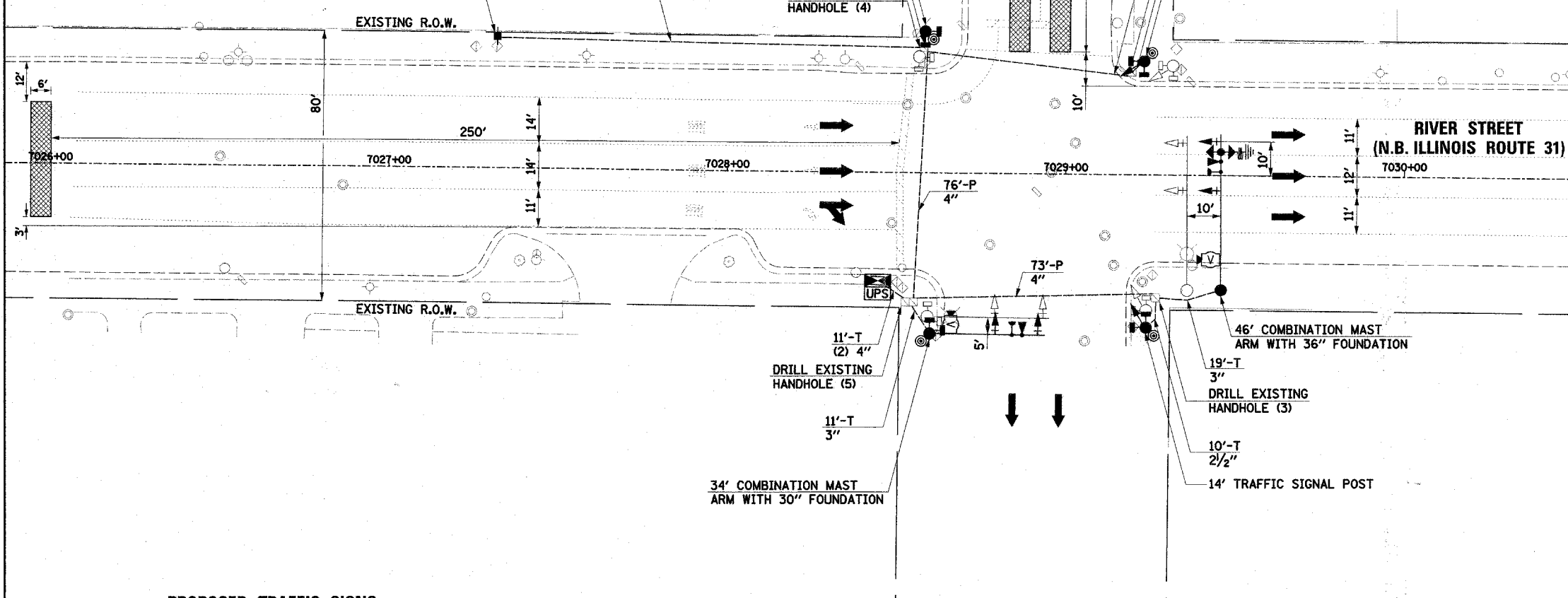
BENTON STREET

62'-P 4"

DRILL EXISTING HANDHOLE (2)

3'-T 2 1/2"

14' TRAFFIC SIGNAL POST



**PROPOSED TRAFFIC SIGNS**

- R6-2-2430 (2 EACH)
- LOCATIONS:  
1. TRAFFIC SIGNAL POST IN NORTHWEST CORNER FACING SOUTH.  
2. NORTHBOUND MAST ARM 3' EAST OF THE OUTER 3-SECTION SIGNAL HEAD.
- R6-2-2430 (2 EACH)
- LOCATIONS:  
1. TRAFFIC SIGNAL POST IN NORTHEAST CORNER FACING WEST.  
2. EASTBOUND MAST ARM 3' SOUTH OF THE OUTER 3-SECTION SIGNAL HEAD.

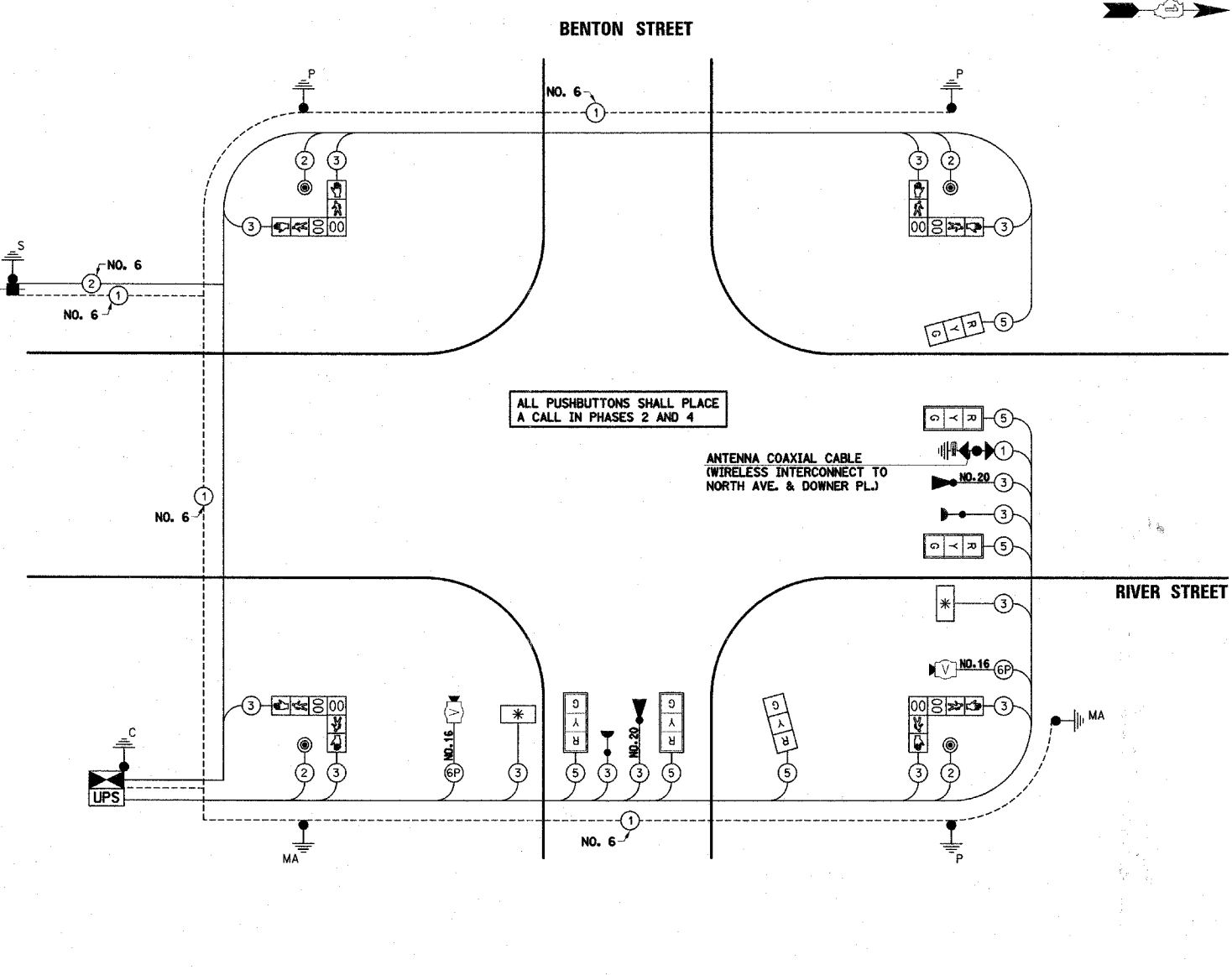
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA.

**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**

- |                 |                 |   |
|-----------------|-----------------|---|
| <b>EXISTING</b> | <b>PROPOSED</b> |   |
|                 |                 | 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   |
|                 |                 | LUMINAIRE   |
|                 |                 | 2 DENOTES NUMBER OF CONDUCTORS.<br>ALL CABLE NO. 14 EXCEPT AS INDICATED.<br>ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
|                 |                 | 1 GROUND CABLE IN CONDUIT<br>NO. 6 SOLID COPPER (GREEN)   |
|                 |                 | 24 FIBER OPTIC CABLE IN CONDUIT<br>NO. 62.5/125 2-MM12F SM12F   |
|                 |                 | SIGNAL FACE WITH BACKPLATE.<br>"P" INDICATES PROGRAMMED HEAD.   |
|                 |                 | RAILROAD CONTROL CABINET  |
|                 |                 | ILLUMINATED SIGN<br>"NO LEFT TURN"  |
|                 |                 | ILLUMINATED SIGN<br>"NO RIGHT TURN"   |
|                 |                 | WIRELESS ANTENNA  |
|                 |                 | H/C GROUND ROD AT HANDHOLE (H),<br>DOUBLE HANDHOLE (H), OR CONTROLLER (C)   |
|                 |                 | P/MA GROUND ROD AT POST (P)<br>OR MAST ARM POLE (MA)  |
|                 |                 | S GROUND ROD AT ELECTRIC<br>SERVICE INSTALLATION  |
|                 |                 | UNINTERRUPTABLE POWER SUPPLY  |
|                 |                 | LED STREET NAME SIGN  |
|                 |                 | VIDEO DETECTION CAMERA  |



**SCHEDULE OF QUANTITIES**

PAY ITEM DESCRIPTION	UNIT	BENTON STREET
SIGN PANEL - TYPE 1	SQ FT	20
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	65
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	18
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	30
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	22
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	65
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	211
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	135
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	486
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1555
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	857
ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 16 6 PAIR	FOOT	242
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	243
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. (SPECIAL)	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 46 FT. (SPECIAL)	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	15
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	15
DRILL EXISTING HANDHOLE	EACH	14
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	4
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1841
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	6
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
PAINT TRAFFIC SIGNAL EQUIPMENT	EACH	1
PAINT TRAFFIC SIGNAL POST	EACH	3
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	454
VIDEO DETECTION SYSTEM	EACH	1
ELECTRIC CABLE IN CONDUIT, NO. 20 3C TWISTED SHIELDED	FOOT	276
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	2
UNINTERRUPTABLE POWER SUPPLY	EACH	1
GROUND EXISTING HANDHOLE FRAME AND COVER	EACH	4

DATE	
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NO.	
DATE	
BY	
PROFILE	
NO.	

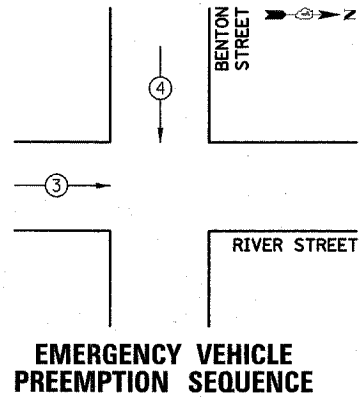
DATE	
BY	
PROFILE	
NO.	

TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	6		17	0.50	51.0
(YELLOW)	6		25	0.25	37.5
(GREEN)	6		15	0.25	22.5
ARROW			12	0.10	
PED. SIGNAL	8		25	1.00	200.0
CONTROLLER	1		100	1.00	100.0
UPS	1		25	1.00	25.0
LED SIGN	2		60	0.50	60.0
VIDEO SYSTEM	1		15	1.00	15.0
<b>TOTAL =</b>					<b>511.0</b>

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY CONTACT: MARK SCHERIBEL  
PHONE: (630) 723-2128  
COMPANY: COMMONWEALTH EDISON

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)
C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-4L-2=
D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)		(6m+L-0.6m)
E - M.A. LENGTH		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30'	30" (900mm)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40'	30" (750mm)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40'	36" (900mm)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
<50'	36" (900mm)			POST MOUNTED	6 (1.8)
>50'	36" (900mm)				

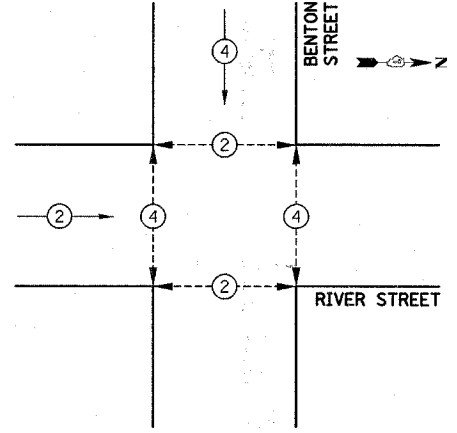


PROPOSED EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	→	↓

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

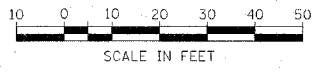
THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA.

**CONTROLLER SEQUENCE**



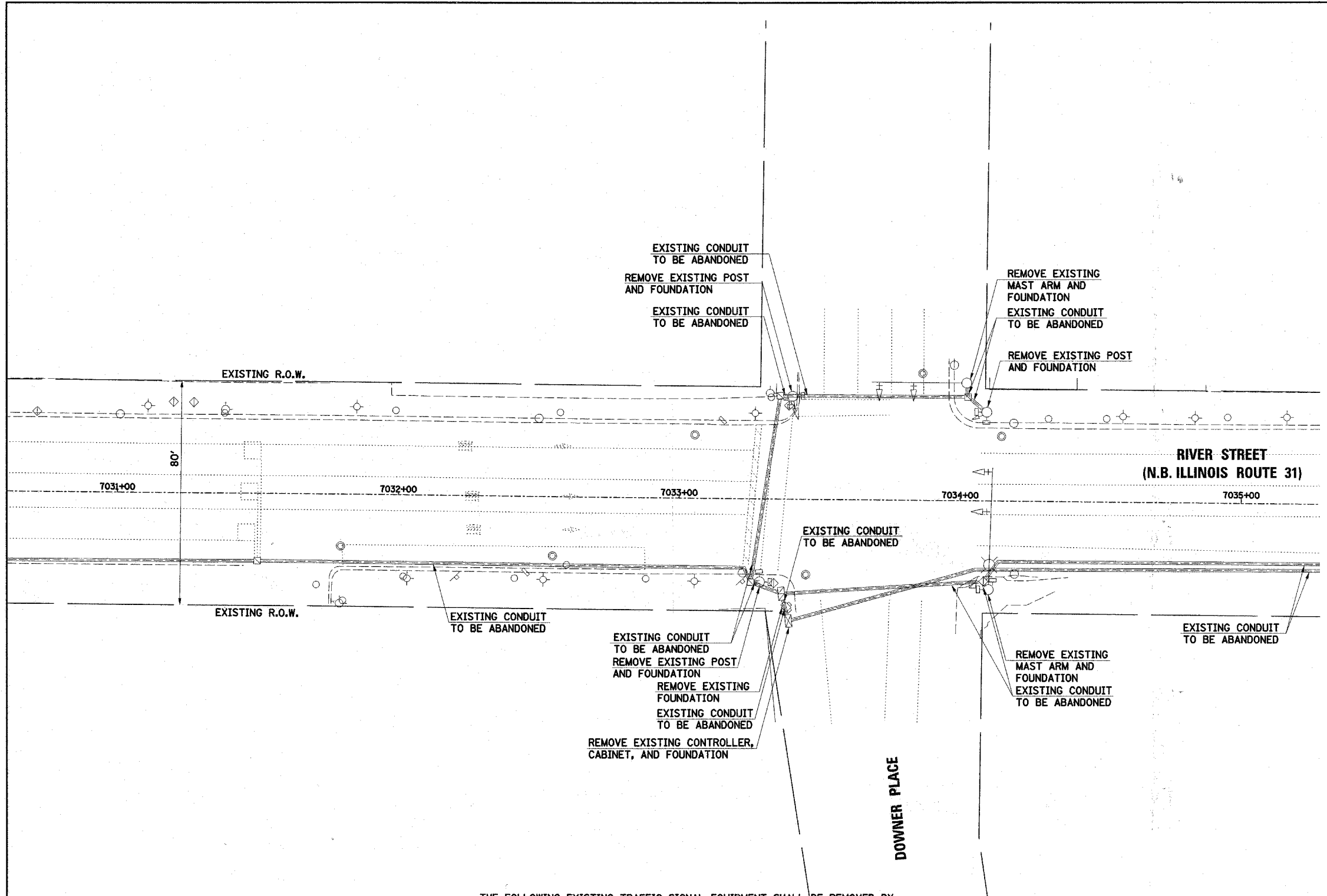
	DUAL ENTRY PHASE
	SINGLE ENTRY PHASE
	OVERLAP
	NUMBER REFERRING TO ASSOCIATED PHASE
	PEDESTRIAN PHASE

**PHASE DESIGNATION DIAGRAM**



PLAN	DATE
SURVEYED	BY
ALIGNED	BY
RT. OF WAY CHECKED	BY
NO. OF MAY CHECKED	BY
NO.	ADD FILE NAME

PROFILE	DATE
SURVEYED	BY
PLOTTED	BY
SA. NOTED	BY
STRUCTURE NOTATIONS CHK'D	BY
NO.	



**NOTES:**  
 1. ALL EXISTING TRAFFIC SIGNALS, ELECTRIC CABLE, AND RACEWAYS SHALL REMAIN IN PLACE UNTIL ALL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT HAS BEEN INSTALLED. PRIOR TO DISCONNECTION OF THE EXISTING TRAFFIC SIGNAL EQUIPMENT, THE DISTRICT 1 AREA TRAFFIC SIGNAL ENGINEER SHALL BE NOTIFIED AT (847) 705-4424 A MINIMUM OF 72 HOURS IN ADVANCE OF THE TRAFFIC SIGNAL INSPECTION AND ACTIVATION.

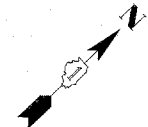
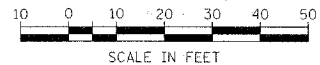
**EXISTING EQUIPMENT TO BE REMOVED LEGEND**

- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE CITY OF AURORA AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE MAINTENANCE FACILITY DESIGNATED BY THE CITY.

- 1 EACH LUMINAIRE
- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY HIM OUTSIDE THE RIGHT-OF-WAY AT HIS EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
- 1 EACH TRAFFIC SIGNAL CONTROLLER AND CABINET (COMPLETE)
- 1 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 1 EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 6 EACH TRAFFIC SIGNAL HEADS
- 4 EACH TRAFFIC SIGNAL BACKPLATES
- 8 EACH PEDESTRIAN SIGNAL HEADS

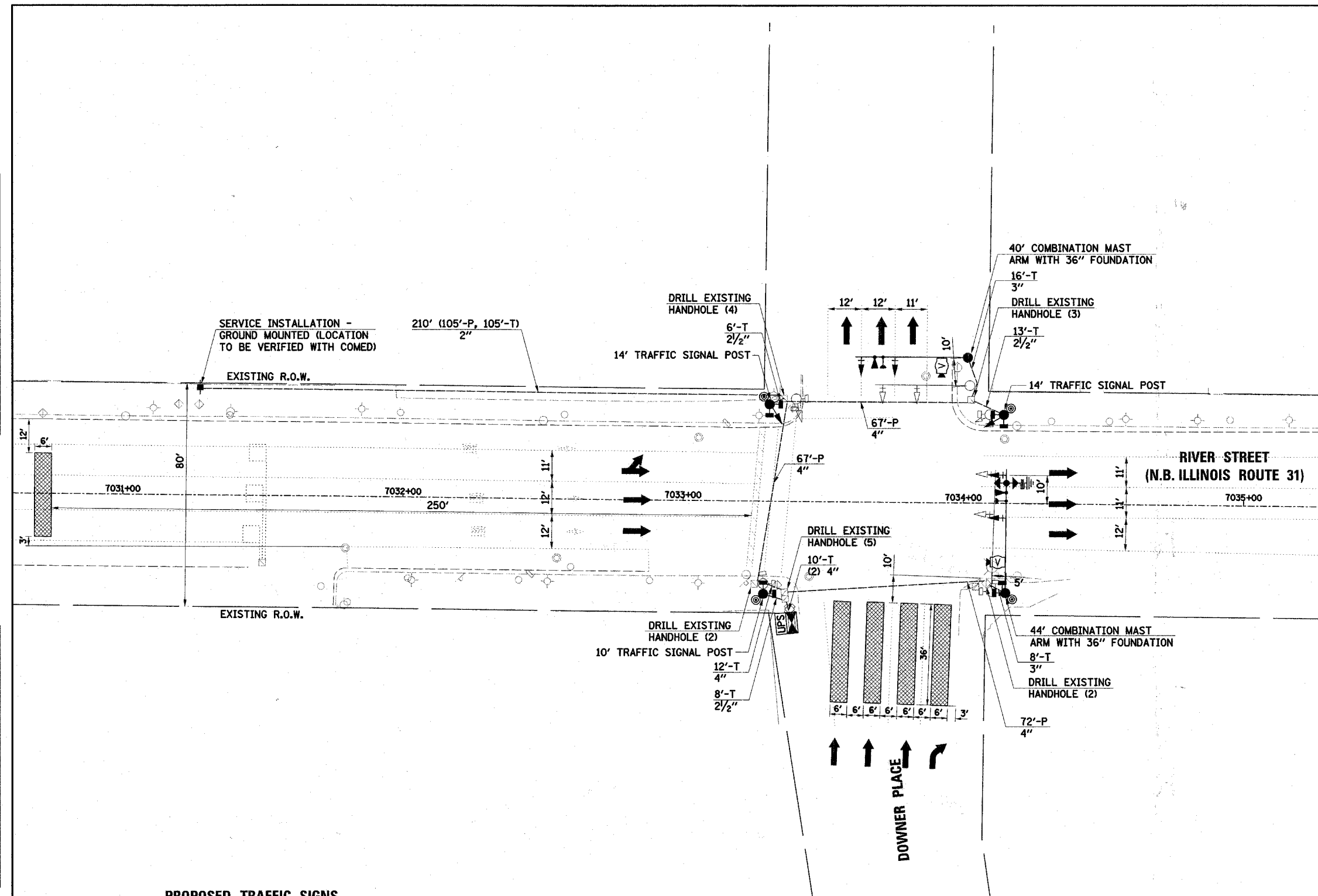
FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED DOWNER PLACE</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILEL#		DRAWN <i>BAH</i>	REVISED -				08-00273-00-TL	KANE	30	15
		CHECKED <i>APS</i>	REVISED -			CONTRACT NO. 63053				
		DATE -	REVISED -	SCALE:	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



- NOTES:**
1. THE VIDEO DETECTION CAMERAS SHALL BE MOUNTED AT THE END OF AND ON TOP OF THE 8' ARM FOR THE COMBINATION MAST ARM ASSEMBLIES UNLESS OTHERWISE NOTED.
  2. THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE NORTHBOUND MAST ARM, 3' EAST OF THE OUTER 3-SECTION SIGNAL HEAD OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).
  3. THE FINAL PAVEMENT MARKING WILL BE INSTALLED AS PART OF A SEPARATE CONTRACT.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
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	UPS	
WIRELESS ANTENNA		
VIDEO DETECTION CAMERA		
VIDEO DETECTION AREA		



**PROPOSED TRAFFIC SIGNS**

- R6-2-2430 (2 EACH)**
- ONE WAY**
- LOCATIONS:**
1. TRAFFIC SIGNAL POST IN SOUTHWEST CORNER FACING EAST.
  2. WESTBOUND MAST ARM 3' NORTH OF THE OUTER 3-SECTION SIGNAL HEAD.
- R6-2-2430 (2 EACH)**
- ONE WAY**
- LOCATIONS:**
1. TRAFFIC SIGNAL POST IN NORTHWEST CORNER FACING SOUTH.
  2. NORTHBOUND MAST ARM 3' EAST OF THE OUTER 3-SECTION SIGNAL HEAD.

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

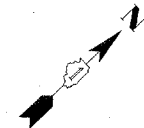
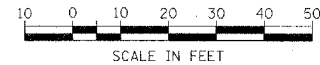
THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA.

**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.



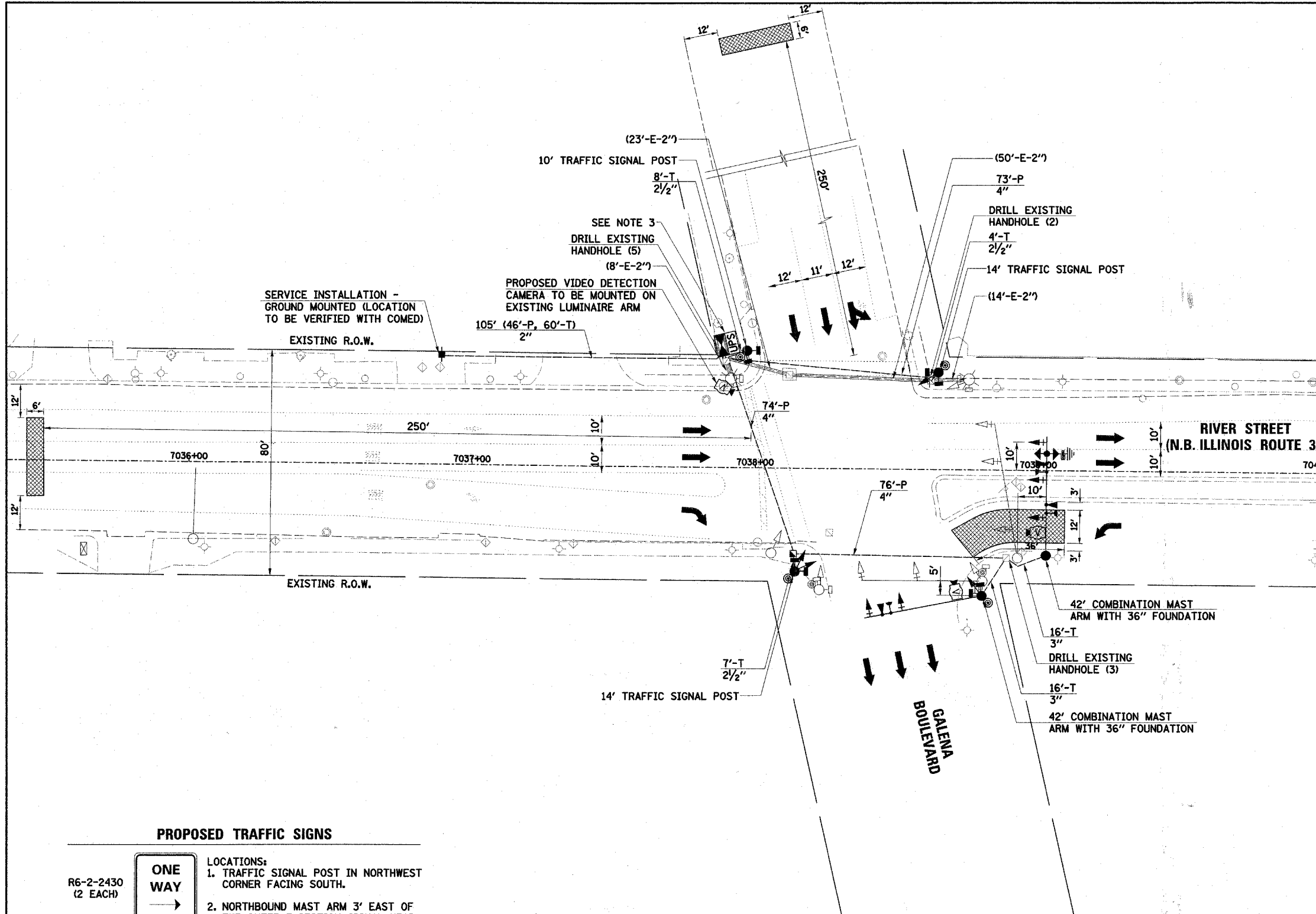






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PROFILE	DESIGNED	DATE
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	CHECKED	
	DATE	
	NOTATIONS	
	OFFERED	



- NOTES:**
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  2. THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE NORTHBOUND MAST ARM, 3' EAST OF THE OUTER 3-SECTION SIGNAL HEAD OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).
  3. PROVIDE 5' OF CONDUIT IN TRENCH, 2 AT 4".
  4. THE FINAL PAVEMENT MARKING WILL BE INSTALLED AS PART OF A SEPARATE CONTRACT.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
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	UPS	
WIRELESS ANTENNA		
VIDEO DETECTION CAMERA		
VIDEO DETECTION AREA		

**PROPOSED TRAFFIC SIGNS**

- R6-2-2430 (2 EACH)**
  - LOCATIONS:
  - 1. TRAFFIC SIGNAL POST IN NORTHWEST CORNER FACING SOUTH.
  - 2. NORTHBOUND MAST ARM 3' EAST OF THE OUTER 3-SECTION SIGNAL HEAD.
- R6-2-2430 (2 EACH)**
  - LOCATIONS:
  - 1. TRAFFIC SIGNAL POST IN SOUTHEAST CORNER FACING WEST.
  - 2. EASTBOUND MAST ARM 3' NORTH OF THE OUTER 3-SECTION SIGNAL HEAD.
- R5-1-3030 (1 EACH)**
  - LOCATION:
  - 1. NORTHBOUND MAST ARM POLE FACING SOUTH.

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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA.

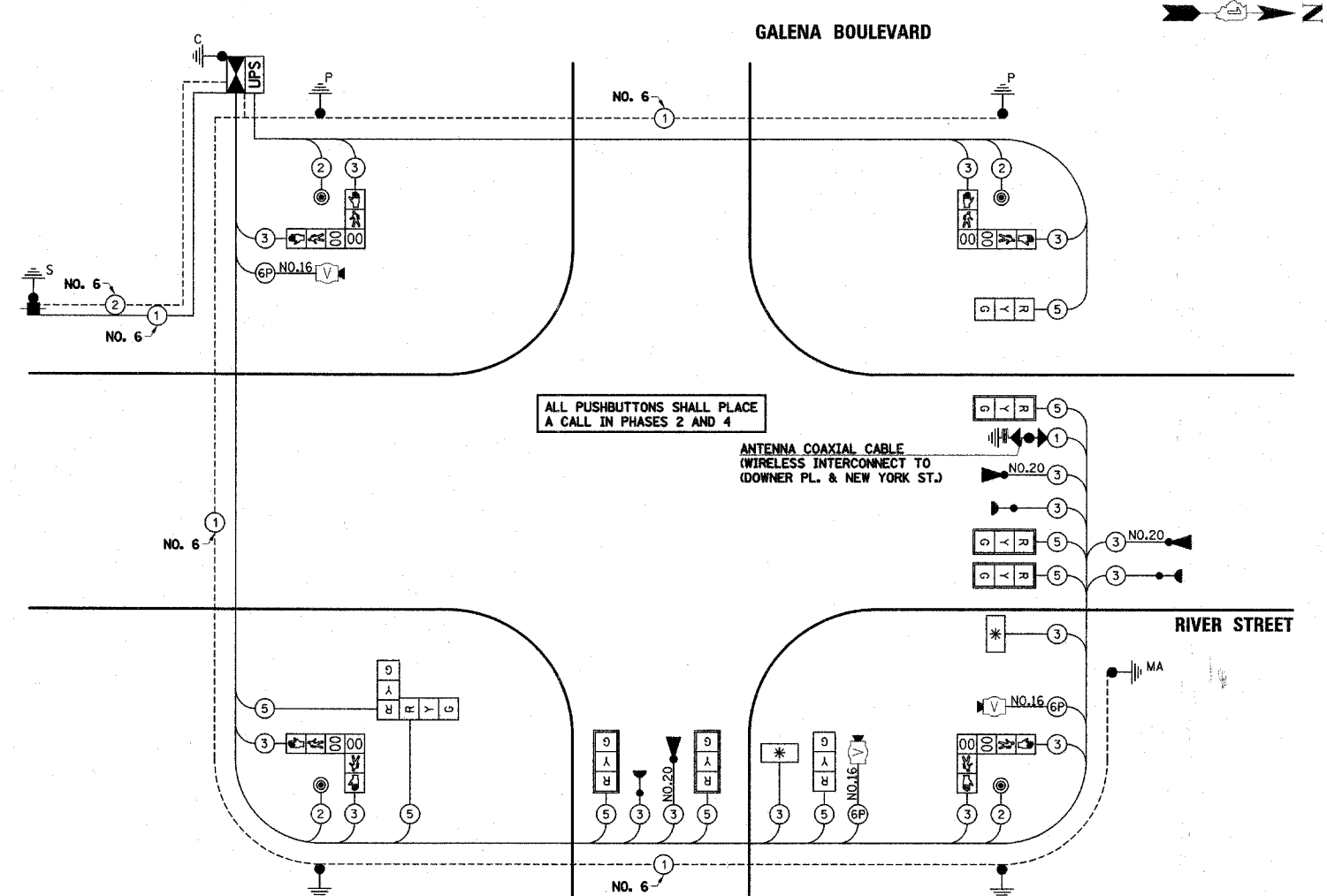
**RESTORATION OF WORK AREA:**  
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**CABLE PLAN LEGEND**

- EXISTING**    **PROPOSED**
- 8" (200mm) TRAFFIC SIGNAL SECTION
  - 12" (300mm) TRAFFIC SIGNAL SECTION
  - 12" (300mm) PEDESTRIAN SIGNAL SECTION
  - 12" (300mm) PEDESTRIAN SIGNAL SECTION
  - CONTROLLER CABINET
  - SERVICE INSTALLATION
  - TELEPHONE INSTALLATION
  - VEHICLE DETECTOR, INDUCTION LOOP
  - MAGNETIC DETECTOR
  - EMERGENCY VEHICLE LIGHT DETECTOR
  - CONFIRMATION BEACON
  - PUSHBUTTON DETECTOR
  - LUMINAIRE
  - DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
  - FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SMI2F
  - SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
  - RAILROAD CONTROL CABINET
  - ILLUMINATED SIGN "NO LEFT TURN"
  - ILLUMINATED SIGN "NO RIGHT TURN"
  - WIRELESS ANTENNA
  - 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
  - LED STREET NAME SIGN
  - VIDEO DETECTION CAMERA

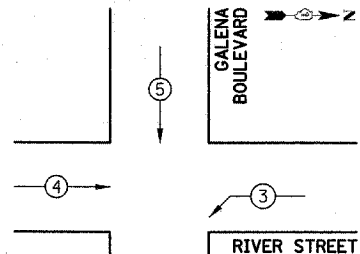
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PROFILE	SURVEYED	DATE
	PLOTTED	
	NOTE BOOK	
	BY	
	NO.	
	DATE	



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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA.



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

**PROPOSED EMERGENCY VEHICLE PREEMPTORS**

PROPOSED EMERGENCY VEHICLE PREEMPTORS	3	4	5
MOVEMENT	↔	→	↓

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)
C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2= (6m+L-0.6m)
D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)		
E - M.A. LENGTH		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30'	30" (900mm)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40'	30" (750mm)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40'	36" (900mm)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
<50'	36" (900mm)			POST MOUNTED	6 (1.8)
>50'	36" (900mm)				

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

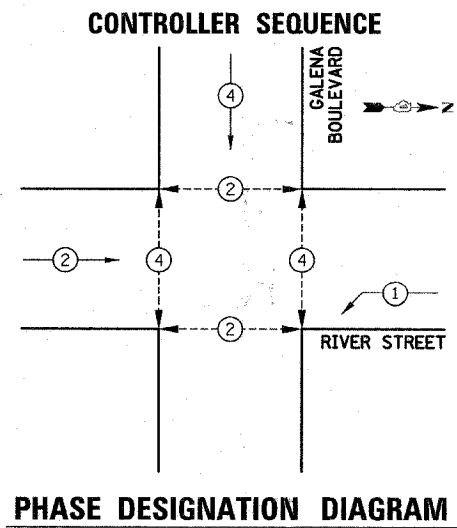
TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	9		17	0.50	76.5
(YELLOW)	9		25	0.25	56.3
(GREEN)	9		15	0.25	33.8
ARROW			12	0.10	
PED. SIGNAL	8		25	1.00	200.0
CONTROLLER	1		100	1.00	100.0
UPS	1		25	1.00	25.0
LED SIGN	2		60	0.50	60.0
VIDEO SYSTEM	1		15	1.00	15.0
<b>TOTAL =</b>					<b>566.6</b>

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY CONTACT: MARK SCHERIBEL  
PHONE: (630) 723-2128  
COMPANY: COMMONWEALTH EDISON

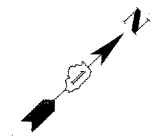
**SCHEDULE OF QUANTITIES**

PAY ITEM DESCRIPTION	UNIT	GALENA BLVD.
SIGN PANEL - TYPE 1	SQ FT	27
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	60
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	19
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	32
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	46
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	223
HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	121
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	478
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2278
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1828
ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 16 6 PAIR	FOOT	547
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	111
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 42 FT. (SPECIAL)	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	30
DRILL EXISTING HANDHOLE	EACH	10
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	5
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3424
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
PAINT TRAFFIC SIGNAL EQUIPMENT	EACH	1
PAINT TRAFFIC SIGNAL POST	EACH	3
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	449
VIDEO DETECTION SYSTEM	EACH	1
ELECTRIC CABLE IN CONDUIT, NO. 20 3C TWISTED SHIELDED	FOOT	774
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	2
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
GROUND EXISTING HANDHOLE FRAME AND COVER	EACH	3



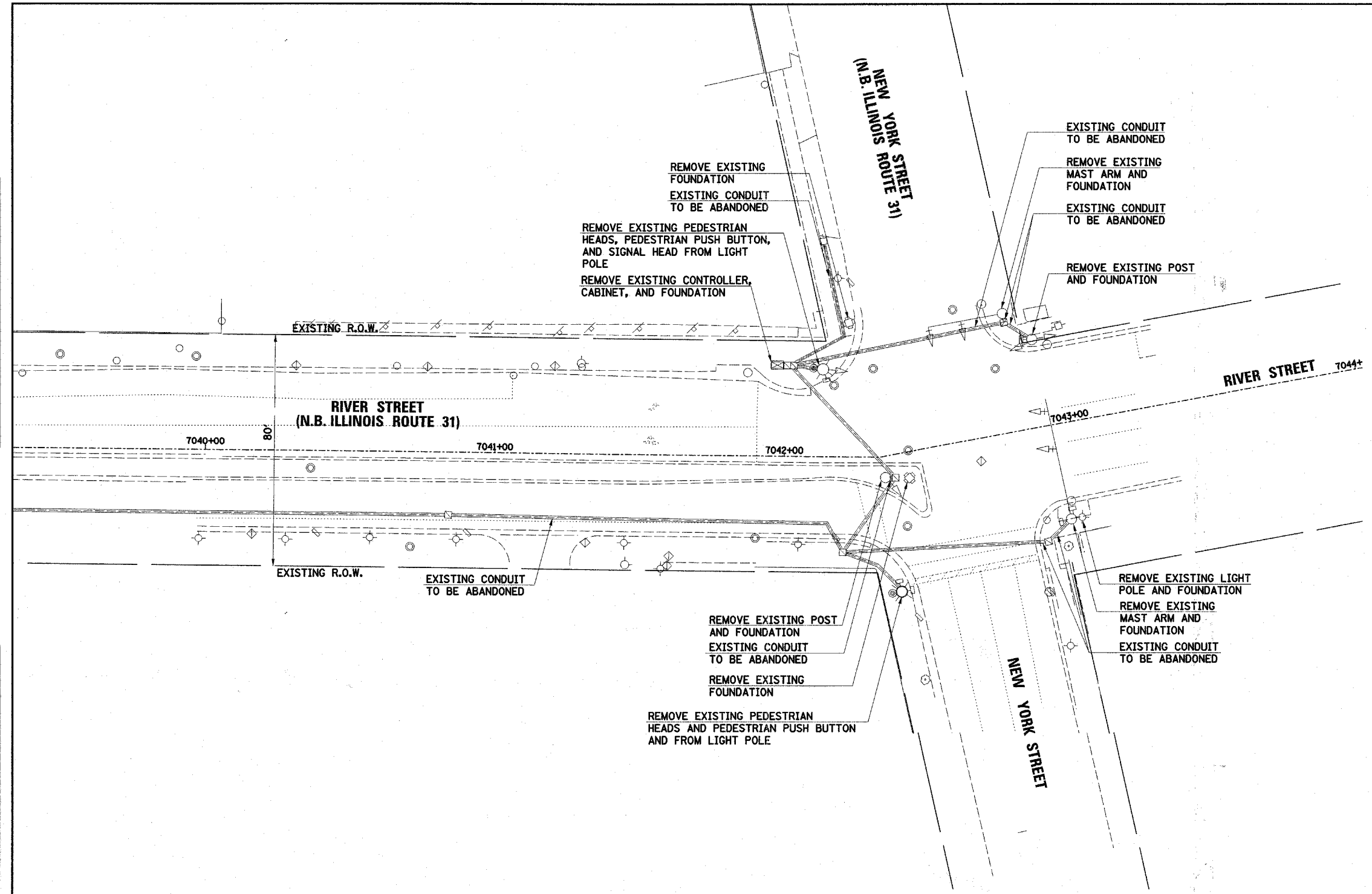
**CONTROLLER SEQUENCE LEGEND**

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- NUMBER REFERRING TO ASSOCIATED PHASE
- PEDESTRIAN PHASE



DATE	
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GRADES CHECKED	
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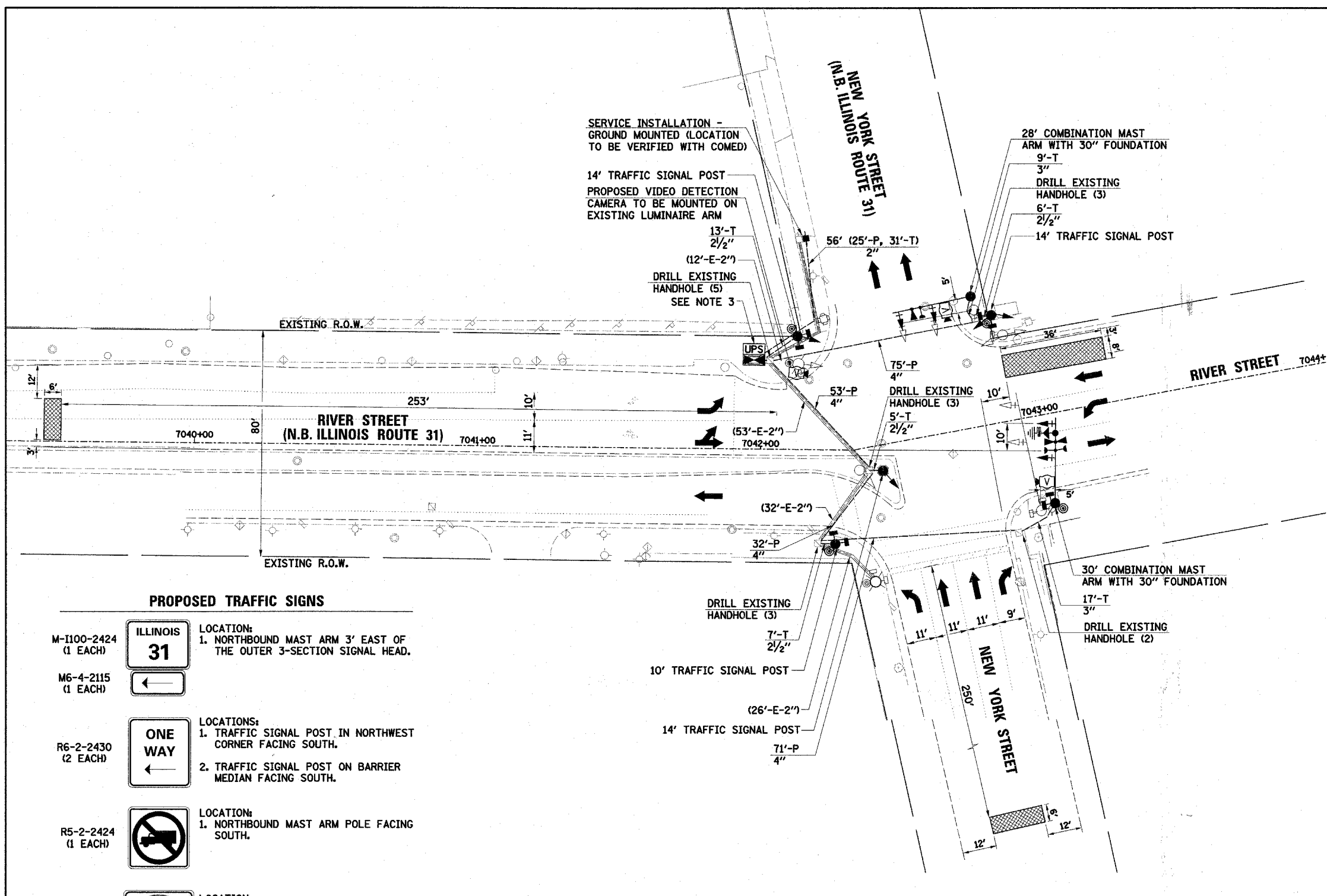
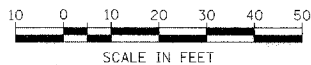
**EXISTING EQUIPMENT TO BE REMOVED LEGEND**

- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING SERVICE INSTALLATION TO BE REMOVED
- EXISTING SIGNAL POST AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING CONTROLLER AND FOUNDATION TO BE REMOVED
- EXISTING HANDHOLE TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN PUSHBUTTON TO BE REMOVED
- EMERGENCY VEHICLE LIGHT DETECTOR TO BE REMOVED
- CONFIRMATION BEACON TO BE REMOVED
- EXISTING HEAVY-DUTY HANDHOLE TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED

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

- 1 EACH TRAFFIC SIGNAL CONTROLLER AND CABINET (COMPLETE)
- 2 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 2 EACH TRAFFIC SIGNAL POST
- 8 EACH SIGNAL HEADS
- 4 EACH TRAFFIC SIGNAL BACKPLATES
- 8 EACH PEDESTRIAN SIGNAL HEADS
- 2 EACH PEDESTRIAN PUSH BUTTON

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EXISTING TRAFFIC SIGNAL EQUIPMENT TO BE REMOVED NEW YORK STREET</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN <i>BAH</i>	REVISED -				08-00273-00-TL	KANE	30	21	
		CHECKED <i>APS</i>	REVISED -			CONTRACT NO. 63053					
		DATE	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT				
		PLOT SCALE = #SCALE#		SCALE: SHEET NO. OF SHEETS STA. TO STA.							
		PLOT DATE = 6/26/2008									



- NOTES:**
1. THE VIDEO DETECTION CAMERAS SHALL BE MOUNTED AT THE END OF AND ON TOP OF THE 8' ARM FOR THE COMBINATION MAST ARM ASSEMBLIES UNLESS OTHERWISE NOTED.
  2. THE WIRELESS ANTENNA SHALL BE MOUNTED ON THE NORTHBOUND MAST ARM, 3' EAST OF THE OUTER 3-SECTION SIGNAL HEAD OR AS DIRECTED BY THE ENGINEER (SEE MOUNTING DETAIL).
  3. PROVIDE 5' OF CONDUIT IN TRENCH, 2 AT 4".
  4. THE FINAL PAVEMENT MARKING WILL BE INSTALLED AS PART OF A SEPARATE CONTRACT.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
SERVICE INSTALLATION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD, PEDESTRIAN		
SIGNAL POST		
MAST ARM ASSEMBLY AND POLE, STEEL		
MAST ARM ASSEMBLY AND POLE, ALUMINUM		
COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE		
UNIT DUCT	UD	
COMMON TRENCH	CT	
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	UPS	
WIRELESS ANTENNA		
VIDEO DETECTION CAMERA		
VIDEO DETECTION AREA		

**PROPOSED TRAFFIC SIGNS**

- M-1100-2424 (1 EACH)** LOCATION: 1. NORTHBOUND MAST ARM 3' EAST OF THE OUTER 3-SECTION SIGNAL HEAD.
- M6-4-2115 (1 EACH)** LOCATION: 1. NORTHBOUND MAST ARM 3' EAST OF THE OUTER 3-SECTION SIGNAL HEAD.
- R6-2-2430 (2 EACH)** LOCATIONS: 1. TRAFFIC SIGNAL POST IN NORTHWEST CORNER FACING SOUTH. 2. TRAFFIC SIGNAL POST ON BARRIER MEDIAN FACING SOUTH.
- R5-2-2424 (1 EACH)** LOCATION: 1. NORTHBOUND MAST ARM POLE FACING SOUTH.
- R5-1-3030 (1 EACH)** LOCATION: 1. TRAFFIC SIGNAL POST IN SOUTHWEST CORNER FACING NORTH.
- R3-5-2430 (1 EACH)** LOCATION: 1. TRAFFIC SIGNAL POST IN NORTHWEST CORNER FACING NORTH.
- R3-5-2430 (1 EACH)** LOCATION: 1. TRAFFIC SIGNAL POST IN SOUTHWEST CORNER FACING NORTH.

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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA.

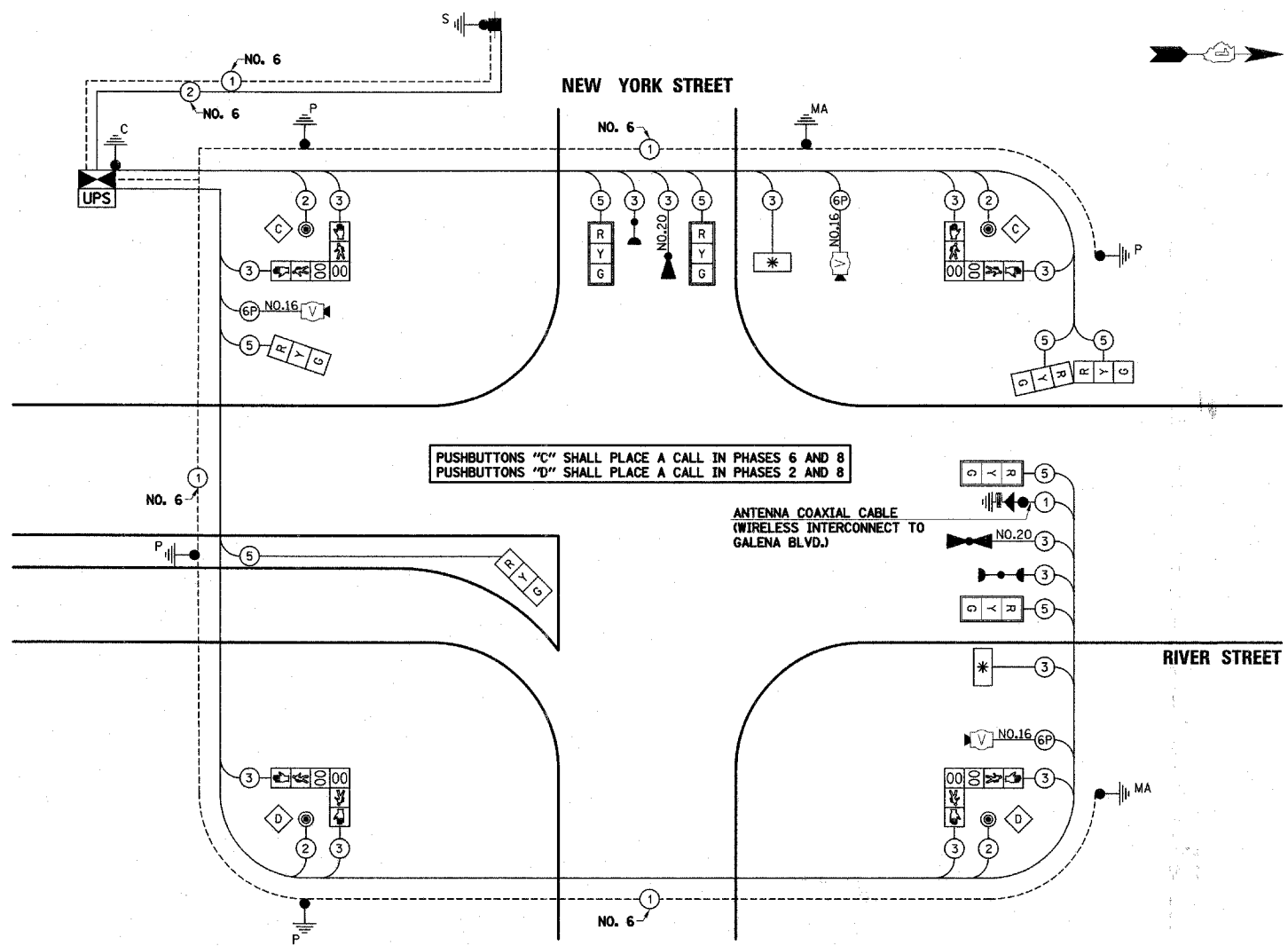
**RESTORATION OF WORK AREA:**  
 RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT,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

PLAN	DATE	BY
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**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
		LUMINAIRE
		DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
		GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
		SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"
		WIRELESS ANTENNA
		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
		LED STREET NAME SIGN

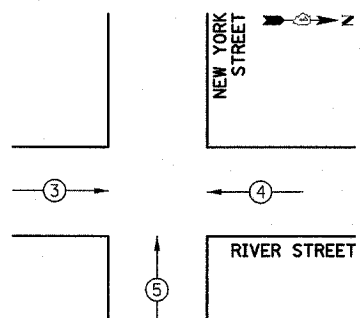


PUSHBUTTONS "C" SHALL PLACE A CALL IN PHASES 6 AND 8  
 PUSHBUTTONS "D" SHALL PLACE A CALL IN PHASES 2 AND 8

ANTENNA COAXIAL CABLE (WIRELESS INTERCONNECT TO GALENA BLVD.)

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

THE EMERGENCY VEHICLE PREEMPTION EQUIPMENT FOR THIS PROJECT SHALL BE OPTICOM AS REQUIRED BY THE CITY OF AURORA.



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

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

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)
C - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2=
D - CONTROLLER	4 (1.2)	SIGNAL POST	2 (1.0)	(6m+L-0.6m)	
E - M.A. LENGTH		CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
<30' 30" (900mm)	10 (3.0)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
<40' 30" (750mm)	13.5 (4.1)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
<40' 36" (900mm)	11 (3.4)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
<50' 36" (900mm)	13 (4.0)			POST MOUNTED	6 (1.8)
≥50' 36" (900mm)	15 (4.6)				

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	8		17	0.50	68.0
(YELLOW)	8		25	0.25	50.0
(GREEN)	8		15	0.25	30.0
ARROW			12	0.10	
PED. SIGNAL	8		25	1.00	200.0
CONTROLLER	1		100	1.00	100.0
UPS	1		25	1.00	25.0
LED SIGN	2		60	0.50	60.0
VIDEO SYSTEM	1		15	1.00	15.0
TOTAL =					548.0

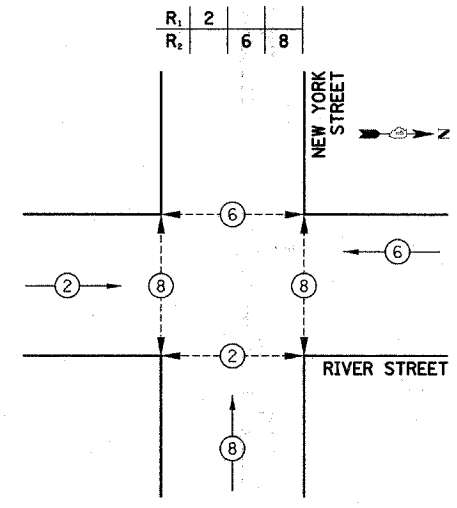
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
 201 WEST CENTER COURT  
 SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY CONTACT: MARK SCHERIBEL  
 PHONE: (630) 723-2128  
 COMPANY: COMMONWEALTH EDISON

**SCHEDULE OF QUANTITIES**

PAY ITEM DESCRIPTION	UNIT	NEW YORK STREET
SIGN PANEL - TYPE 1	SQ FT	37
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	31
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	31
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	26
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	25
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	231
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	98
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	518
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2157
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 6C	FOOT	1207
ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 16 6 PAIR	FOOT	476
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	62
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT. (SPECIAL)	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. (SPECIAL)	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	20
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30
DRILL EXISTING HANDHOLE	EACH	16
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	4
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2540
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
PAINT TRAFFIC SIGNAL EQUIPMENT	EACH	1
PAINT TRAFFIC SIGNAL POST	EACH	4
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	427
VIDEO DETECTION SYSTEM	EACH	1
REMOVE EXISTING LIGHT POLE AND FOUNDATION	EACH	1
ELECTRIC CABLE IN CONDUIT, NO. 20 3C TWISTED SHIELDED	FOOT	675
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EACH	2
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
GROUND EXISTING HANDHOLE FRAME AND COVER	EACH	5

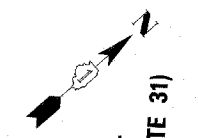
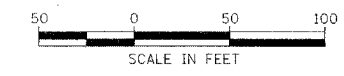
**CONTROLLER SEQUENCE**



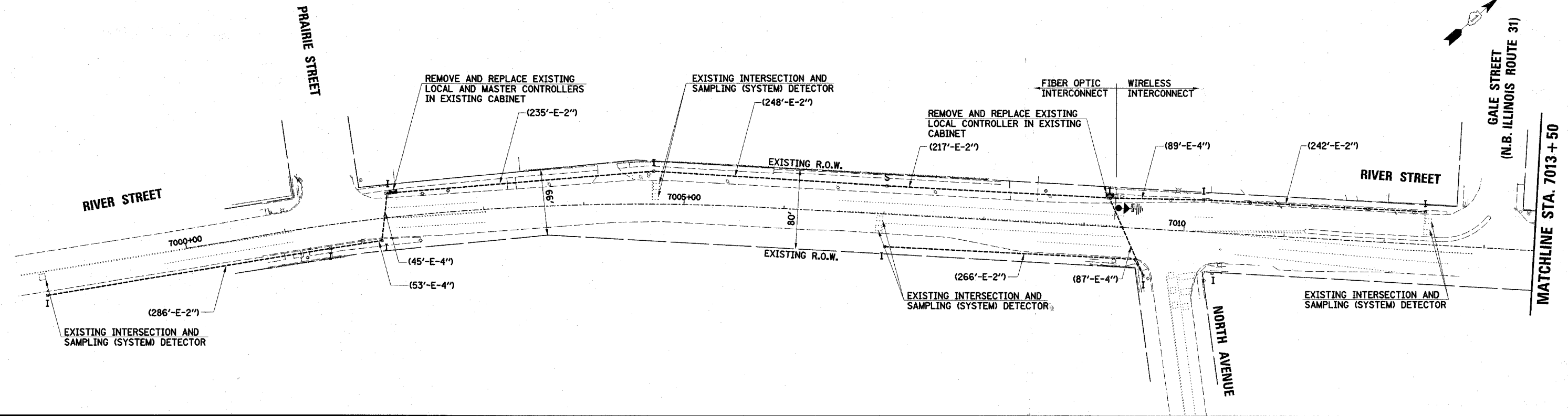
**CONTROLLER SEQUENCE LEGEND**

	DUAL ENTRY PHASE
	SINGLE ENTRY PHASE
	OVERLAP
	NUMBER REFERRING TO ASSOCIATED PHASE
	PEDESTRIAN PHASE

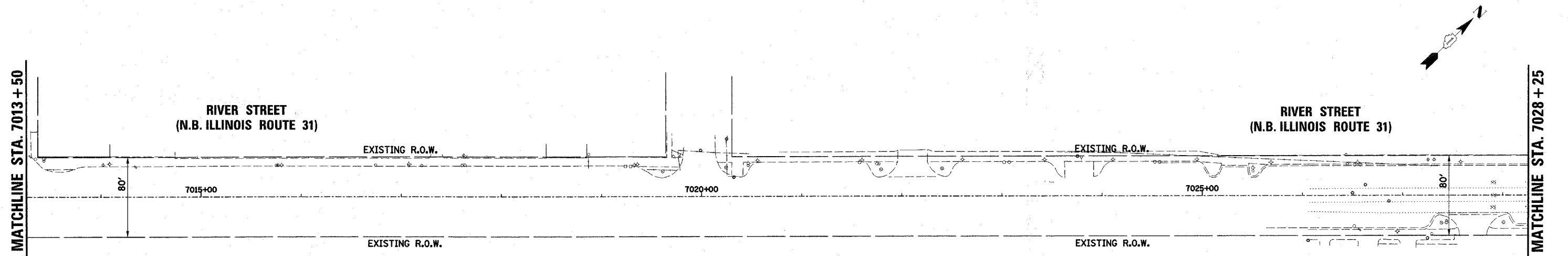
**PHASE DESIGNATION DIAGRAM**



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	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
MAST ARM ASSEMBLY AND POLE, STEEL		
WIRELESS ANTENNA		

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

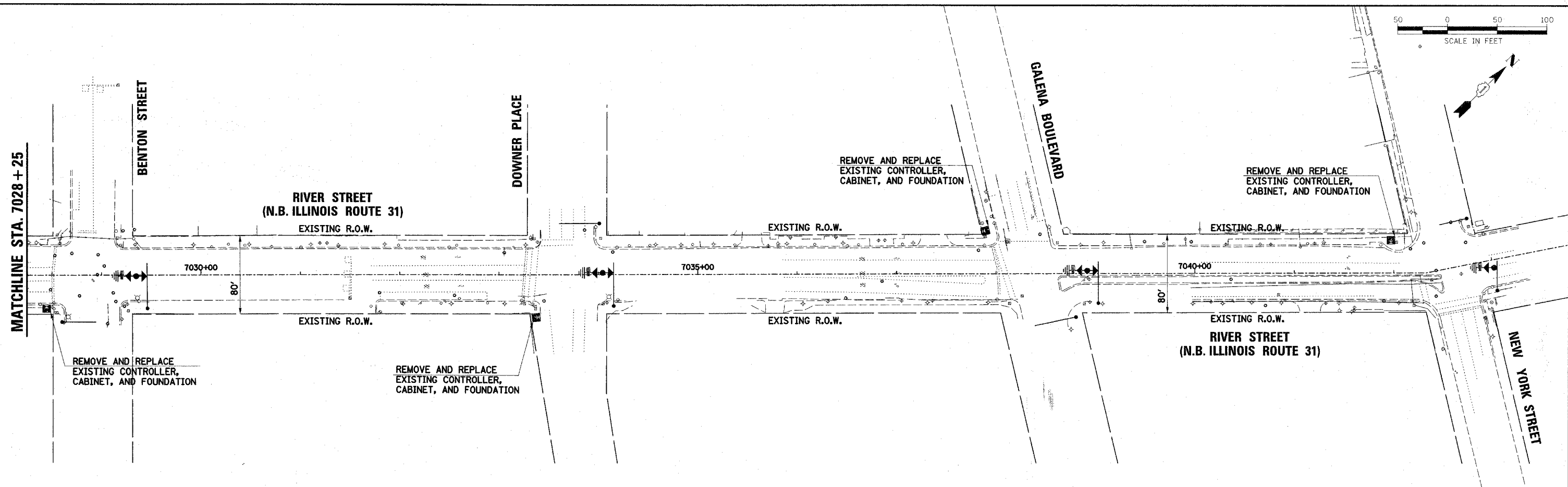
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		DRAWN BAH	REVISED -					08-00273-00-TL	KANE	30	24
		CHECKED APS	REVISED -			SCALE:	SHEET NO. OF SHEETS STA. TO STA.	CONTRACT NO. 63053			
		DATE -	REVISED -					ILLINOIS FED. AID PROJECT			



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	FILE NAME	



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

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**INTERCONNECT PLAN LEGEND**

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
HEAVY-DUTY HANDHOLE		
G.S. CONDUIT IN TRENCH (T) OR PUSHED (P)		
DETECTOR LOOP		
UNIT DUCT	UD	
SYSTEM	S	
INTERSECTION	IP	I
MAST ARM ASSEMBLY AND POLE, STEEL		
WIRELESS ANTENNA		

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 PLOT DATE = 6/4/2008

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**INTERCONNECT PLAN  
 (SHEET 2 OF 2)**

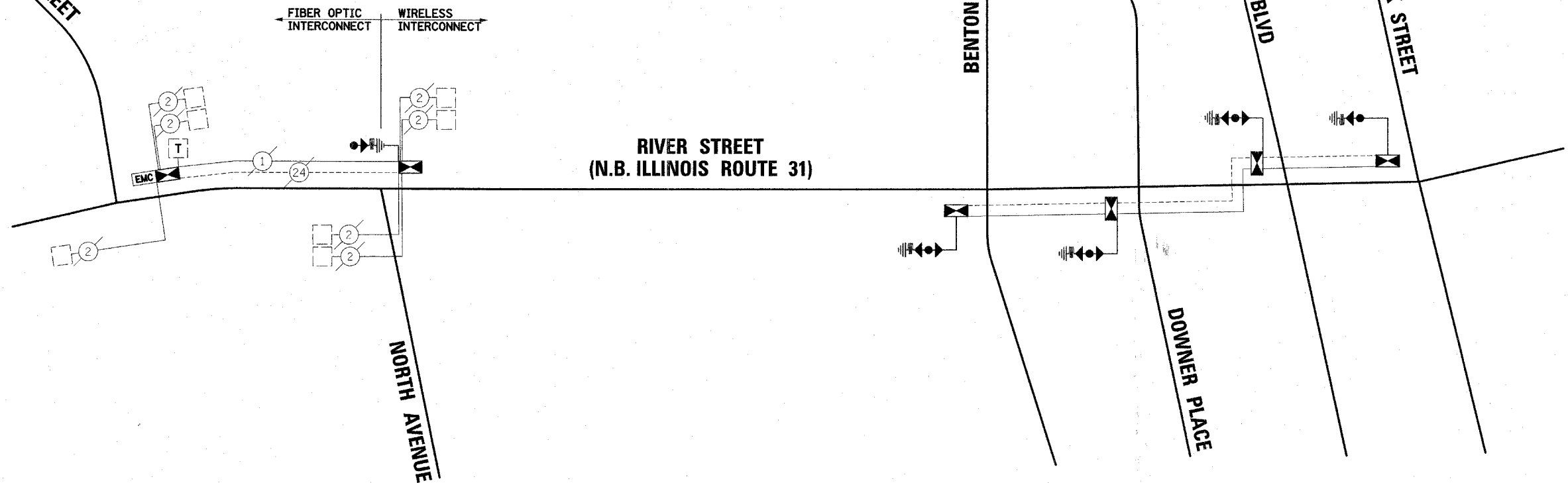
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	08-00273-00-TL	KANE	30	25
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 63053	

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PRAIRIE STREET



**INTERCONNECT SCHEMATIC LEGEND**

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

NOTE:  
SEE WIRING DETAIL FOR COMBINATION OF WIRELESS AND FIBER OPTIC INTERCONNECT SYSTEMS.

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

**INTERCONNECT SCHEDULE OF QUANTITIES:**

TRANSCEIVER	EACH	6
MASTER CONTROLLER	EACH	1
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
WIRELESS INTERCONNECT (COMPLETE)	EACH	1

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PLOT SCALE = #SCALE#

PLOT DATE = 6/4/2008

DESIGNED -

DRAWN BAH

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

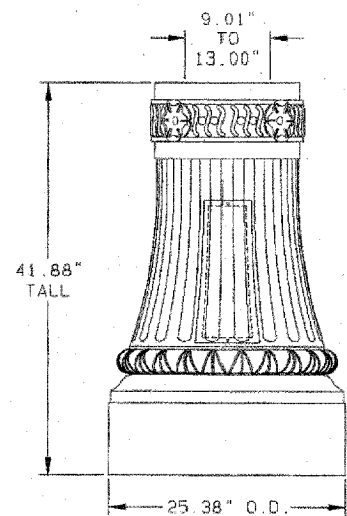
**INTERCONNECT SCHEMATIC**

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

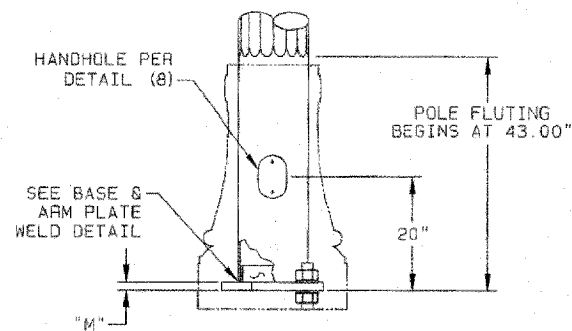
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	08-00273-00-TL	KANE	30	26
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 63053	



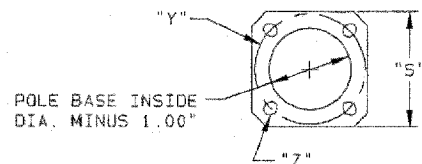
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DETAIL 9 HN25AB DECORATIVE BASE

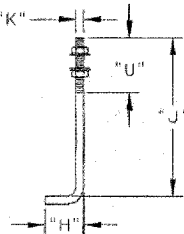


DETAIL 10 HN25AB POLE BASE



DETAIL 11 ANCHOR BOLT

(4) - ANCHOR BOLTS, GALVANIZED THE FULL LENGTH. EACH BOLT FURNISHED WITH (2) - HEX NUTS, (2) - FLAT WASHERS AND (1) - LOCKWASHER.



NOTES:

- POLE AND ARM SHAFTS 13.00" AND SMALLER-CONFORMS TO ASTM DESIGNATION: A595 GR. A WITH 55,000 P.S.I. MINIMUM YIELD STRENGTH. LINEAR TAPER-0.14"/FT. POLE AND ARM SHAFTS LARGER THAN 13.00"-CONFORMS TO ASTM DESIGNATION: M-223 A572 GR. 65 WITH A 65,000 P.S.I. MINIMUM YIELD STRENGTH. LINEAR TAPER-0.14"/FT.
- BASE PLATE AND SIMPLEX PLATES-CONFORM TO AASHTO M-183 (ASTM: A36)
- ANCHOR BOLTS-ALL STRUCTURES: ASTM F1554 GR.55 55,000 P.S.I. MINIMUM YIELD STRENGTH. (AASHTO M314)
- TRAFFIC SIGNAL ARM END CAP SECURED IN PLACE WITH 3 STAINLESS STEEL SET SCREWS. (TRAFFIC SIGNAL ARM END CAP PROVIDED WITH (2) ADDITIONAL STAINLESS STEEL HEX BOLTS)
- ALL NON-STAINLESS THREADED FASTENERS TO BE HOT DIP GALVANIZED TO ASTM DESIGNATION: A153 (AASHTO M232).
- SIMPLEX CONNECTING BOLTS-ASTM DESIGNATION: A325 (M164) GALVANIZED TO ASTM DESIGNATION: A153 LUBRICATE THREADS IN FIELD IF NECESSARY BEFORE INSTALLATION.
- ALL VEHICULAR AND/OR PEDESTRIAN SIGNAL LIGHTS AND NECESSARY HARDWARE FOR ATTACHMENT TO BE FIELD LOCATED AND FURNISHED BY OTHERS
- POLES AND ARMS TO BE GALVANIZED TO ASTM DESIGNATION: A123 (AASHTO M111). ACCESSORIES TO BE HOT DIP GALVANIZED TO ASTM DESIGNATION: A153 (AASHTO M232).
- ACCESS HOLES IN ARMS AT SIGNALS TO BE FIELD DRILLED BY CONTRACTOR-LOCATED AS SHOWN IN PLANS.
- LUMINAIRE ARM SHAFT CONFORMS TO 2" SCHEDULE 40 PIPE W/ 36,000 PSI MIN. YIELD STRENGTH.
- SHAFT GAUGE OR THICKNESS ARE AS FOLLOWS: 11 GA.= 0.1196", 7 GA.= 0.1793", 5 GA.= 0.2092", 3 GA.=0.2391", AND 2" SCHED.40 PIPE = 0.154".

LOADING AND ALLOWABLE STRESS CRITERIA: 1994 AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR SIGNS, LUMINAIRES AND TRAFFIC SIGNALS".

STATE OF ILLINOIS

GENERAL NOTES

POLE AND SIGNAL ARM DATA - OPTION 1

POLE TUBE				POLE BASE				ANCHOR BOLT				SIGNAL ARM TUBE			MAXIMUM LUMINAIRE ARM SPAN (FT)
BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	GAUGE OR THK. (IN)	SQUARE "S" (IN)	BOLT CIRCLE "Y" (IN)	THK. "M" (IN)	HOLE / SLOT "Z" (IN)	DIA. "K" (IN)	LENGTH "J" (IN)	HOOK "H" (IN)	THREAD LENGTH "U" (IN)	FIXED END DIA. (IN)	GAUGE OR THICK (IN)	SPAN (FT)	
12.50	8.65	27.50	5	17.00	17.00	1.50	1.75	1.50	54.00	6.00	8.00	9.00	7	20.00	8.00

POLE AND SIGNAL ARM DATA - OPTION 2

POLE TUBE				POLE BASE				ANCHOR BOLT				SIGNAL ARM TUBE			MAXIMUM LUMINAIRE ARM SPAN (FT)
BASE DIA. (IN)	TOP DIA. (IN)	LENGTH (FT)	GAUGE OR THK. (IN)	SQUARE "S" (IN)	BOLT CIRCLE "Y" (IN)	THK. "M" (IN)	HOLE / SLOT "Z" (IN)	DIA. "K" (IN)	LENGTH "J" (IN)	HOOK "H" (IN)	THREAD LENGTH "U" (IN)	FIXED END DIA. (IN)	GAUGE OR THICK (IN)	SPAN (FT)	
12.50	8.65	27.50	5	17.00	17.00	1.50	1.75	1.50	54.00	6.00	8.00	8.00	7	20.00	8.00

DATE \_\_\_\_\_  
 BY \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 CHECKED \_\_\_\_\_  
 REVISIONS \_\_\_\_\_  
 NO. \_\_\_\_\_  
 PROFILE \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_  
 STRUCTURE NOTATIONS OFFD \_\_\_\_\_

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 PLOT SCALE = #SCALE#  
 PLOT DATE = 6/4/2008

DESIGNED -  
 DRAWN BAH  
 CHECKED APS  
 DATE -

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

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

MISCELLANEOUS DETAILS

F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.  
 08-00273-00-TL KANE 30 28  
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

JOB \_\_\_\_\_  
 TITLE TRAFFIC SIGNAL STRUCTURES

VALMONT INDUSTRIES, INC. RESERVES THE RIGHT TO INSTALL VARIOUS, ENGINEER APPROVED, MATERIAL HANGING ACCOMMODATIONS TO FACILITATE THE MANUFACTURING PROCESS.

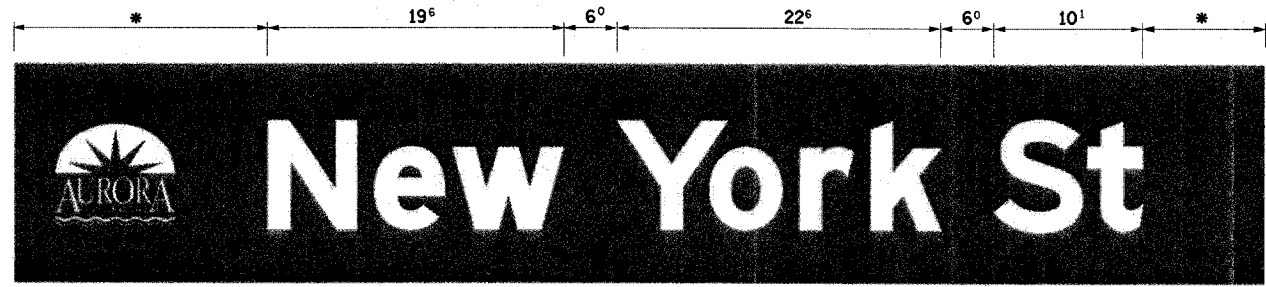
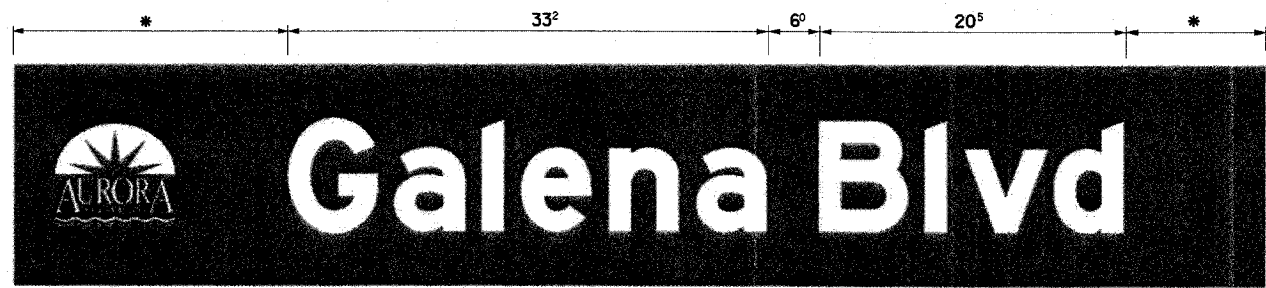
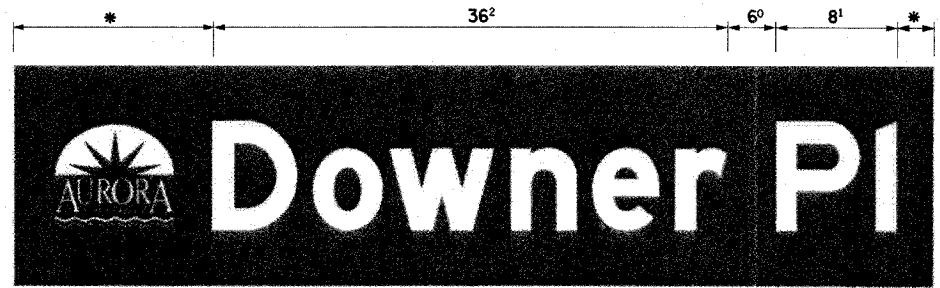
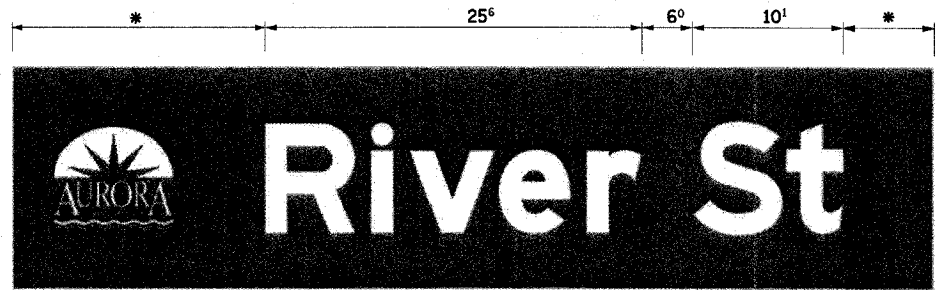
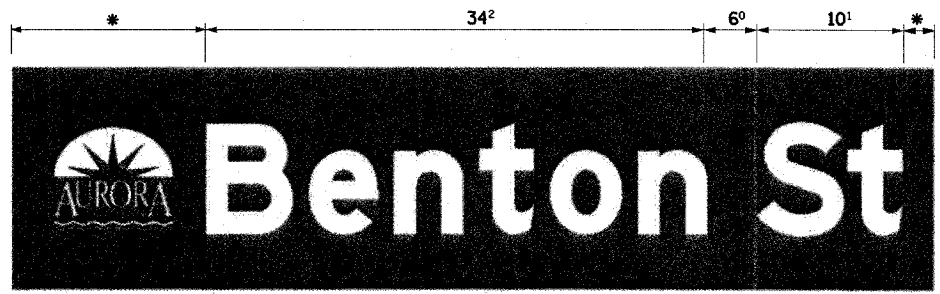
valmont  
 Valley, NE 68064  
 (402) 359-2201

ORDER NUMBER: 42203-07  
 PAGE NUMBER: 2 OF 2  
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CONTRACT NO. 63053

PLAN SURVEYED PLOTTED CHECKED  
 NOTE BOOK NO. OF MAY CHECKED  
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PROFILE SURVEYED PLOTTED CHECKED  
 NOTE BOOK NO. OF MAY CHECKED  
 STRUCTURE NOTATIONS DPRO



\* PER MANUFACTURERS SPECIFICATIONS FOR THE CITY OF AURORA.

**LED STREET NAME SIGNS (CLEARVIEW FONT - DESIGN SERIES "D")**

NOTE:  
 THESE SIGNS SHALL BE INSTALLED AT THE LOCATIONS INDICATED IN THE PLANS.  
 SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

**UPPER CASE TO LOWER CASE  
 SPACING CHART 8-6 INCH SERIES "C & D"**

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

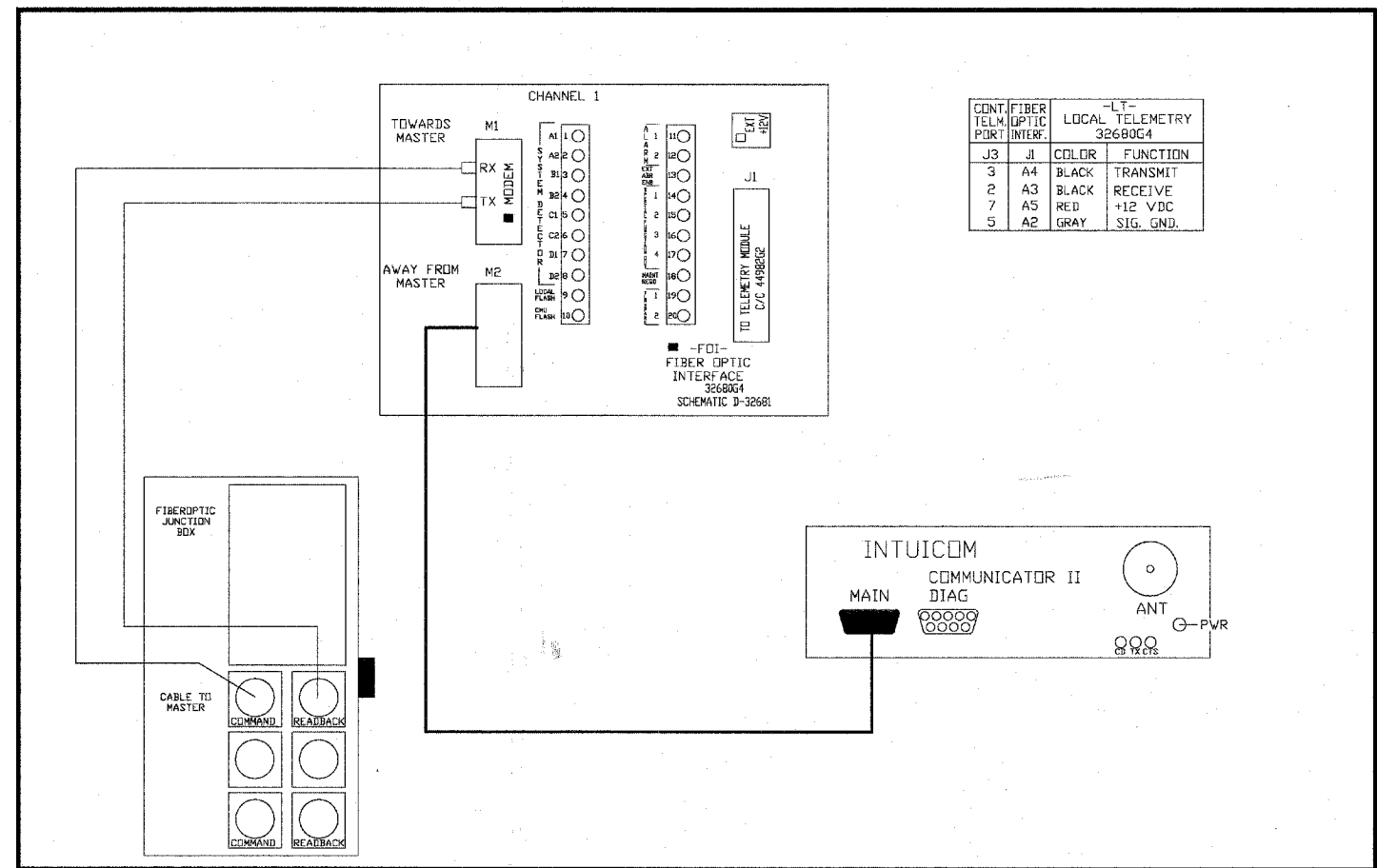
FIRST NUMBER	SERIES	SECOND LETTER																			
		0		1		2		3		4		5		6		7		8		9	
		C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	16	17	16	17	14	15	12	14	14	15	14	15	16	17	12	14	16	17	16	17	
1	20	21	20	21	20	21	16	17	14	15	20	21	20	21	14	15	20	21	20	21	
2 3 4	14	15	14	15	14	15	12	14	12	14	14	15	14	15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

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	36	50	50	65	a	35	42
B	32	40	43	53	b	35	42
C	32	40	43	53	c	35	41
D	32	40	43	53	d	35	42
E	30	35	40	47	e	35	42
F	30	35	40	47	f	23	26
G	32	40	43	53	g	35	42
H	32	40	43	53	h	35	42
I	07	07	11	12	i	11	11
J	30	36	40	50	j	20	22
K	32	41	43	54	k	35	42
L	30	35	40	47	l	11	11
M	37	45	51	61	m	60	70
N	32	40	43	53	n	35	42
O	34	42	45	55	o	36	43
P	32	40	43	53	p	35	42
Q	34	42	45	55	q	35	42
R	32	40	43	53	r	26	32
S	32	40	43	53	s	36	42
T	30	35	40	47	t	27	32
U	32	40	43	53	u	35	42
V	35	44	47	60	v	42	47
W	44	52	60	70	w	55	64
X	34	40	45	53	x	44	51
Y	36	50	50	66	y	46	53
Z	32	40	43	53	z	36	43

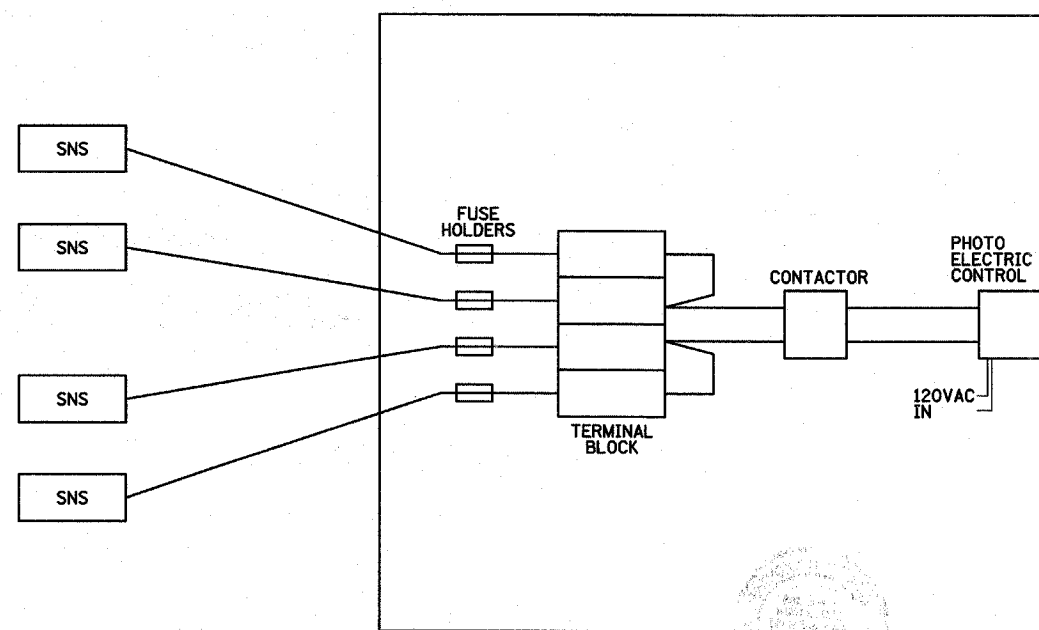
NUMBER	6 INCH SERIES		8 INCH SERIES	
	C	D	C	D
1	12	14	15	20
2	32	40	43	53
3	32	40	43	53
4	35	43	47	57
5	32	40	43	53
6	32	40	43	53
7	32	40	43	53
8	32	40	43	53
9	32	40	43	53
0	34	42	45	55

PLAN	SURVEYED	DATE
	PLOTTED	BY
	REVISIONS	
	NOTE BOOK	
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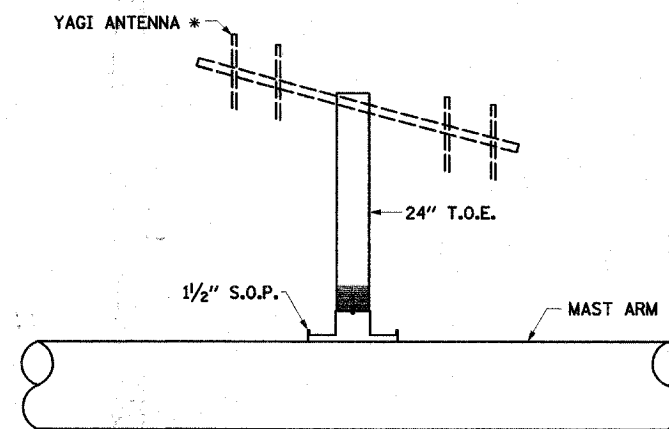
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	PLOTTED	BY
	REVISIONS	
	NOTE BOOK	
	NO. OF MAY CHECKED	
	STRUCTURE NOTATIONS QUID	



**WIRING DETAIL FOR COMBINATION OF WIRELESS AND FIBER OPTIC INTERCONNECT SYSTEMS**



**LED STREET NAME SIGNS - PHOTOCCELL WIRING DETAIL**



**WIRELESS ANTENNA MOUNTING DETAIL**

\* OR EQUAL APPROVED BY THE CITY OF AURORA.

FILE NAME = ...trans\fan.dwg\690.7...det04.dgn	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MISCELLANEOUS DETAILS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		DATE -	REVISED -									