

06-15-12 LETTING ITEM 097

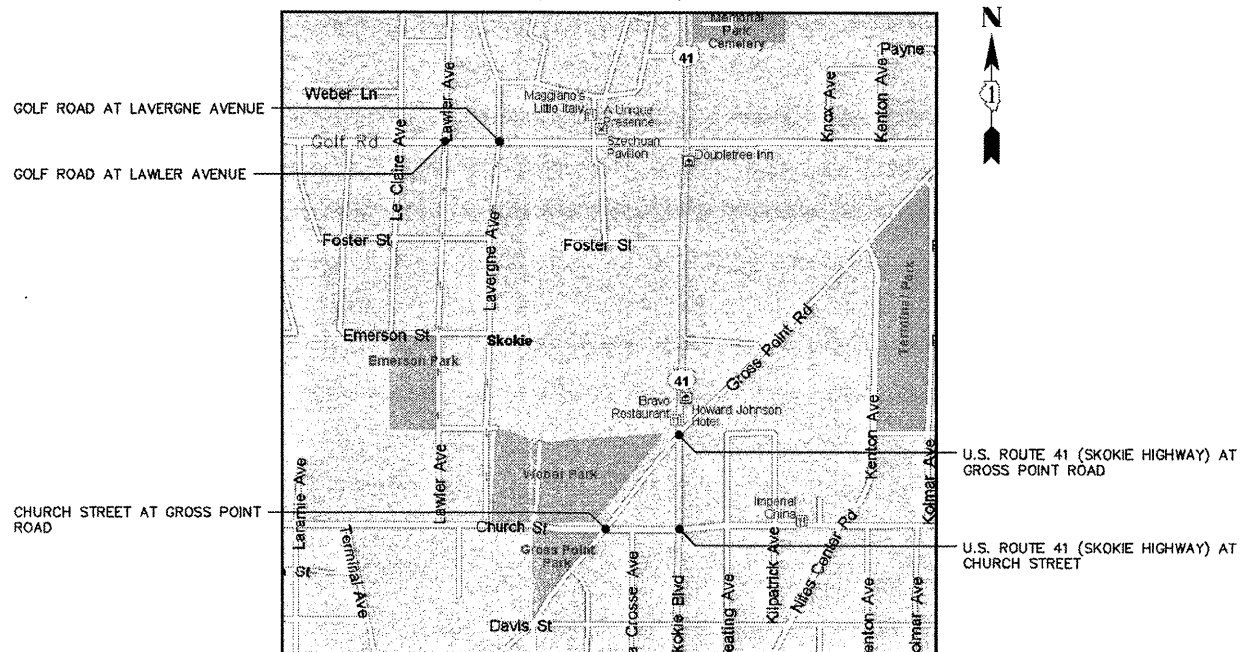
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
 FEDERAL AID HIGHWAY**

DISTRICT 1
 HIGHWAY SAFETY IMPROVEMENT PROJECT (HSIP)
 VARIOUS LOCATIONS IN
 THE VILLAGE OF SKOKIE
 SECTION: 2011-209-TS
 PROJECT: HSIP-000S(902)
 TRAFFIC SIGNAL MODERNIZATION
 COOK COUNTY
 JOB NO.: C-91-104-12

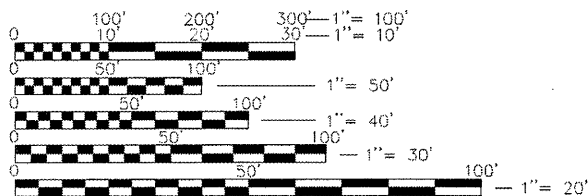
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIABLES	2011-209-TS	COOK	52	1
ILLINOIS FED. AID PROJECT			CONTRACT # 60R47	
D-91-104-12				



LOCATION MAP
(NOT TO SCALE)



PROJECT IS LOCATED IN THE VILLAGE OF SKOKIE



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 BELOW SCALES MAY BE USED.



NOTE: THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOBSITE SAFETY.

CONTRACTOR IS RESPONSIBLE FOR CONTACTING J.U.L.L.E. AT 1-800-892-0123 AND MUST ACQUIRE A DIG NUMBER A MINIMUM OF 72 HOURS PRIOR TO ANY WORK BEING DONE.

CONTRACT NO: 60R47

DISTRICT 1 - TRAFFIC OPERATIONS - SUDAD MAHMOUD (847)705-4420



SIGNED: *Kevin L. Belgrave*
 Kevin L. Belgrave
 DATE: 3/22/2012

EXPIRES: 11/30/2013

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

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED: March 23 2012
Dominic M. O'Keefe
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 11 2012
John D. Baranzelli, P.E.
 ENGINEER OF DESIGN AND ENVIRONMENT

May 11 2012
William R. Freyer
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", JANUARY 1, 2012: MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LATEST EDITION; PROJECT SPECIFICATIONS; ALL APPLICABLE REQUIREMENTS OF THE DUPAGE COUNTY DIVISION OF TRANSPORTATION; THE VILLAGE OF GLEN ELLYN; THE CITY OF WHEATON; THE VILLAGE OF CAROL STREAM; THE VILLAGE OF GLENDALE HEIGHTS; THE VILLAGE OF BLOOMINGDALE; ALL APPLICABLE REQUIREMENTS OF THE ORDINANCES OF AUTHORITIES HAVING JURISDICTION; AND ALL ADDENDA THERETO SHALL GOVERN THIS WORK.

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

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

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

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

EXISTING UTILITIES: WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OR THE ACCURACY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. THE CONTRACTOR SHALL ALSO CONTACT J.U.L.I.E. TO OBTAIN LOCATES OF THE RESPECTIVE UTILITY COMPANIES UNDERGROUND FACILITIES.

CONTRACTOR IS RESPONSIBLE FOR CONTACTING J.U.L.I.E. AT 1-800-892-0123 AND MUST ACQUIRE A DIG NUMBER A MINIMUM OF 72 HOURS PRIOR TO ANY WORK BEING DONE

RESTORATION OF WORK AREA: RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC. AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD IN ACCORDANCE TO STANDARD SPECIFICATIONS ARTICLE 252 WHICH SHALL INCLUDE THE REQUIRED WATERING PER ARTICLE 252.08. ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS ARTICLE 250 AND 251, RESPECTIVELY.

000001-04	STANDARD SYMBOLS, ABBREVIATIONS, & PATTERNS
001006	DECIMAL OF AN INCH OF A FOOT
424001-06	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424006	DIAGONAL CURB RAMPS FOR SIDEWALKS
424011	CORNER PARALLEL CURB RAMPS FOR SIDEWALKS
424021	DEPRESSED CORNER FOR SIDEWALKS
442201-03	CLASS C AND D PATCHES
606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
701001-02	OFF-ROAD OPERATIONS 2L, 2W, >15' AWAY
701006-03	OFF-ROAD OPERATIONS 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-02	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701301-04	LANE CLOSURE 2L, 2W, SHORT TIME OPERATIONS
701501-06	URBAN LANE CLOSURE 2L, 2W UNDIVIDED
701606-08	URBAN LANE CLOSURE MULTILANE 2W WITH MOUNTABLE MEDIAN
701701-08	URBAN LANE CLOSURE MULTILANE INTERSECTION
701801-05	LANE CLOSURE MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
701901-02	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAIL
720006-03	SIGN PANEL ERECTION DETAIL
780001-03	TYPICAL PAVEMENT MARKINGS
805001-01	ELECTRICAL SERVICE INSTALLATION DETAILS
814001-02	HANDHOLE
814006-02	DOUBLE HANDHOLES
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001-01	UNINTERRUPTIBLE POWER SUPPLY (UPS)
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
877001-05	STEEL MAST ARM ASSEMBLY AND POLE, 16' THROUGH 55'
877006-04	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS
877011-05	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
878001-09	CONCRETE FOUNDATION DETAILS
880001-01	SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS
886001-01	DETECTOR LOOP INSTALLATIONS

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS
PATCHING	
CLASS D PATCHES (HMA BINDER IL-19mm)	4% @ 70 GYR
THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.	
THE AC TYPE FOR POLYMERIZED HMA MIXTURES SHALL BE 11 "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.	

FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 3/22/2012	DATE - 3/22/2012	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS, GENERAL NOTES, & HIGHWAY STANDARDS

SCALE N.A.	SHEET NO. OF SHEETS	STA. TO STA.
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F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIABLES	2011-209-TS	COOK	52	2
		CONTRACT #:	60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877

LS3EL,01

LS3EL,02

LS3EL,03

LS3EL,04

SUMMARY OF QUANTITIES

CONSTRUCTION CODE

CODE NO.	ITEM	UNIT	TOTAL	GOLF ROAD AT LAWLER AVENUE	GOLF ROAD AT LAVERGNE AVENUE	GROSS POINT ROAD AT CHURCH STREET	U.S. RTE 41 (SKOKIE BOULEVARD) AT CHURCH STREET	U.S. RTE 41 (SKOKIE BOULEVARD) AT GROSS POINT ROAD	INTERCONNECT	LIGHTING - GROSS POINT ROAD AT CHURCH STREET	LIGHTING - U.S. RTE 41 (SKOKIE BOULEVARD) AT GROSS POINT ROAD
				90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% VILLAGE OF SKOKIE	90% FEDERAL 10% VILLAGE OF SKOKIE
				TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	INTERCONNECT	LIGHTING	LIGHTING
				0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN
20200100	EARTH EXCAVATION	CU YD	19	6	8	3	2				
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	46	15	17	8	6				
31101600	SUBBASE GRANULAR MATERIAL, TYPE B 8"	SQ YD	111					111			
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	8,005	905	780	1,770	1,550	3,000			
42400800	DETECTABLE WARNINGS	SQ FT	572	80	76	116	104	196			
44000100	PAVEMENT REMOVAL	SQ YD	107					107			
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	610	116		187	154	153			
44000600	SIDEWALK REMOVAL	SQ FT	5,325	655	590	1,705	1,515	860			
44003100	MEDIAN REMOVAL	SQ FT	795					795			
44201785	CLASS D PATCHES, TYPE I, 12 INCH	SQ YD	14					14			
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	7	2	2		1	2			
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	789	116	119	187	154	213			
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	135					135			
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	1,000					1,000			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8.00	1.50	1.50	1.50	1.50	1.50	0.50		
67100100	MOBILIZATION	L SUM	1.00	0.20	0.20	0.20	0.20	0.20			
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1.00	0.20	0.20	0.20	0.20	0.20			
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1.00	0.20	0.20	0.20	0.20	0.20			
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1.00	0.20	0.20	0.20	0.20	0.20			
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1.00	0.20	0.20	0.20	0.20	0.20			
** 72000100	SIGN PANEL - TYPE 1	SQ FT	87.00	27.00	30.00	15.00	15.00				

*100% OF THE COST SHALL BE PAID BY VILLAGE OF SKOKIE (07PDL,01,0021) ** SPECIALTY ITEM

FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES (SHEET 1 OF 5)			
SCALE: N.A.	SHEET NO. OF SHEETS	STA.	TO STA.

FAP RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-209-TS	COOK	52	3
CONTRACT #:			60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877

SUMMARY OF QUANTITIES

CONSTRUCTION CODE

CODE NO.	ITEM	UNIT	TOTAL	GOLF ROAD AT LAWLER AVENUE	GOLF ROAD AT LAVERGNE AVENUE	GROSS POINT ROAD AT CHURCH STREET	U.S. RTE 41 (SKOKIE BOULEVARD) AT CHURCH STREET	U.S. RTE 41 (SKOKIE BOULEVARD) AT GROSS POINT ROAD	INTERCONNECT	LIGHTING - GROSS POINT ROAD AT CHURCH STREET	LIGHTING - U.S. RTE 41 (SKOKIE BOULEVARD) AT GROSS POINT ROAD
				90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% VILLAGE OF SKOKIE	90% FEDERAL 10% VILLAGE OF SKOKIE
				TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	INTERCONNECT	LIGHTING	LIGHTING
				0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN
* * 72000200	SIGN PANEL - TYPE 2	SQ FT	110.00			27.50	27.50	55.00			
* * 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	254.80	72.80	109.20	36.40		36.40			
* * 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	80					80			
* * 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1,567			704		863			
* * 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	292					292			
* * 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1,116	320	382		414				
* * 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	785	132	122	176	107	248			
* * 78300100	PAVEMENT MARKING REMOVAL	SQ FT	3,452.80	499.80	553.20	855.40	522.00	1,022.40			
80500020	SERVICE INSTALLATION - POLE MOUNTED	EACH	3	1	1		1				
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	5,145	667	577	865	682	1,103	128	793	330
81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	383	44	41	22	49	138	89		
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	395	121	59	117	56	42			
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	2,189	349	428	462	412	538			
81400100	HANDHOLE	EACH	27	6	4	4	5	5		2	1
81400200	HEAVY-DUTY HANDHOLE	EACH	15	2	3	4	2	4			
81400300	DOUBLE HANDHOLE	EACH	10	2	2	2	2	2			
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	2,035							1,377	658
81702140	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4	FOOT	6,848							4,634	2,214
82102400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	7							4	3
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2						2		
86400100	TRANSCEIVER - FIBER OPTIC	EACH	5	1	1	1	1	1			

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STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES (SHEET 2 OF 5)			
SCALE N.A.	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 4
CONTRACT # 60R47			GHA #4085.877	
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES				CONSTRUCTION CODE								
				GOLF ROAD AT LAWLER AVENUE	GOLF ROAD AT LAVERGNE AVENUE	GROSS POINT ROAD AT CHURCH STREET	U.S. RTE 41 (SKOKIE BOULEVARD) AT CHURCH STREET	U.S. RTE 41 (SKOKIE BOULEVARD) AT GROSS POINT ROAD	INTERCONNECT	LIGHTING - GROSS POINT ROAD AT CHURCH STREET	LIGHTING - U.S. RTE 41 (SKOKIE BOULEVARD) AT GROSS POINT ROAD	
				90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% VILLAGE OF SKOKIE	90% FEDERAL 10% VILLAGE OF SKOKIE	
				TRAFFIC SIGNALS 0021 URBAN	TRAFFIC SIGNALS 0021 URBAN	TRAFFIC SIGNALS 0021 URBAN	TRAFFIC SIGNALS 0021 URBAN	TRAFFIC SIGNALS 0021 URBAN	INTERCONNECT 0021 URBAN	LIGHTING 0021 URBAN	LIGHTING 0021 URBAN	
CODE NO.	ITEM	UNIT	TOTAL									
87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	3,627							3,627		
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	5,793	803	836	1,361	1,060	1,733				
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	8,500	1,270	1,417	1,768	1,380	2,665				
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	8,658	2,016	1,568	1,750	1,602	1,722				
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	6,017	400	1,048	1,621	652	2,296				
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	12,612	1,350	2,051	2,647	2,296	4,268				
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	569	117	159	111	100	82				
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	3		1			2				
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3		1			2				
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	12	4		4	2	2				
87700150	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	2				2					
87700170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	2	1	1							
87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1	1								
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1				1					
87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	2	1			1					
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	2	1		1						
87700250	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1					1				
87700260	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	2		2							
87700270	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1					1				
87702300	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 24 FT. AND 34 FT.	EACH	1		1							
87702910	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	3			2		1				

* 100% OF THE COST SHALL BE PAID BY VILLAGE OF SKOKIE (07POL, 01, 0021) ** SPECIALTY ITEM

FILE NAME = 4085.877-TR1.dwg
 USER NAME = ZACH WALLSTEN
 PLOT SCALE = 1" = .0833'
 PLOT DATE = 3/22/2012

DESIGNED - JRD
 DRAWN - ZCW
 CHECKED - KLB
 DATE - 3/22/2012
 REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
 (SHEET 3 OF 5)**
 SCALE N.A. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.
 VARIES 2011-209-TS COOK 52 5
 CONTRACT # 60R47
 ILLINOIS FED. AID PROJECT

LS3EL, 01

LS3EL102

LS3EL103

LS3EL104

SUMMARY OF QUANTITIES				CONSTRUCTION CODE							
				GOLF ROAD AT LAWLER AVENUE	GOLF ROAD AT LAVERGNE AVENUE	GROSS POINT ROAD AT CHURCH STREET	U.S. RTE 41 (SKOKIE BOULEVARD) AT CHURCH STREET	U.S. RTE 41 (SKOKIE BOULEVARD) AT GROSS POINT ROAD	INTERCONNECT	LIGHTING - GROSS POINT ROAD AT CHURCH STREET	LIGHTING - U.S. RTE 41 (SKOKIE BOULEVARD) AT GROSS POINT ROAD
CODE NO.	ITEM	UNIT	TOTAL	90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% VILLAGE OF SKOKIE	90% FEDERAL 10% VILLAGE OF SKOKIE
				TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	TRAFFIC SIGNALS	INTERCONNECT	LIGHTING	LIGHTING
				0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021 URBAN	0021	0021	0021
87702950	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.	EACH	1			1					
87702970	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.	EACH	1					1			
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	72	16	8	16	16	16			
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	20	4	4	4	4	4			
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	40	10	10		20				
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	200	33	47	46	22	52			
87900200	DRILL EXISTING HANDHOLE	EACH	2					2			
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	38	9	5	8	8	8			
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5	1	2		2				
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	10	1		4	2	3			
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	18	1	6	4	2	5			
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2	2							
88030220	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2		1			1			
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	34	6	6	8	8	6			
88102757	PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2					2			
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	56	10	11	12	10	13			
88500100	INDUCTIVE LOOP DETECTOR	EACH	50	7	9	12	10	12			
88600100	DETECTOR LOOP, TYPE I	FOOT	4,244	635	1,000	1,174	748	687			
* 88700200	LIGHT DETECTOR	EACH	11	3	2	2	2	2			
* 88700300	LIGHT DETECTOR AMPLIFIER	EACH	5	1	1	1	1	1			
88800100	PEDESTRIAN PUSH-BUTTON	EACH	38	6	6	8	8	10			

* 100% OF THE COST SHALL BE PAID BY VILLAGE OF SKOKIE (07POL101, 0021) ** SPECIALTY ITEM

Rev.

GHA #4085.877

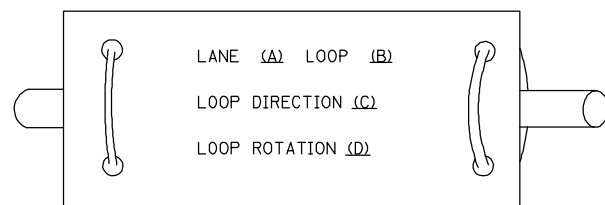
SUMMARY OF QUANTITIES				CONSTRUCTION CODE							
				GOLF ROAD AT LAWLER AVENUE	GOLF ROAD AT LAVERGNE AVENUE	GROSS POINT ROAD AT CHURCH STREET	U.S. RTE 41 (SKOKIE BOULEVARD) AT CHURCH STREET	U.S. RTE 41 (SKOKIE BOULEVARD) AT GROSS POINT ROAD	INTERCONNECT	LIGHTING - GROSS POINT ROAD AT CHURCH STREET	LIGHTING - U.S. RTE 41 (SKOKIE BOULEVARD) AT GROSS POINT ROAD
CODE NO.	ITEM	UNIT	TOTAL	90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 5% STATE 5% VILLAGE OF SKOKIE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% STATE	90% FEDERAL 10% VILLAGE OF SKOKIE	90% FEDERAL 10% VILLAGE OF SKOKIE
				TRAFFIC SIGNALS 0021 URBAN	TRAFFIC SIGNALS 0021 URBAN	TRAFFIC SIGNALS 0021 URBAN	TRAFFIC SIGNALS 0021 URBAN	TRAFFIC SIGNALS 0021 URBAN	INTERCONNECT 0021 URBAN	LIGHTING 0021 URBAN	LIGHTING 0021 URBAN
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	5	1	1	1	1	1			
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	9,306						3,990	3,400	1,916
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	5	1	1	1	1	1			
89502380	REMOVE EXISTING HANDHOLE	EACH	49	11	8	10	10	10			
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	41	9	6	8	9	9			
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	1,879	413	536	335	248	347			
X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	1,358						1,358		
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	5	1	1	1	1	1			
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	5	1	1	1	1	1			
X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	3,627						3,627		
Z0007430	TEMPORARY SIDEWALK	SQ FT	5,155	655	500	1,700	1,500	800			
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	257.00	51.40	51.40	51.40	51.40	51.40			
Z0033020	LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	7							4	3
Z0033028	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	3							1.5	1.5
Z0033040	ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL	EACH	2			1		1			
Z0033044	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	5						5		
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	5	1	1	1	1	1			
X8250505	LIGHTING CONTROLLER, SPECIAL	EACH	2							1	1
81301900	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C <i>EQUIPMENT CONDUCTOR,</i>	FOOT	3,006	525	598	680	517	686			

* 100% OF THE COST SHALL BE PAID BY VILLAGE OF SKOKIE (07POL, 01, 0021) * * SPECIALTY ITEM

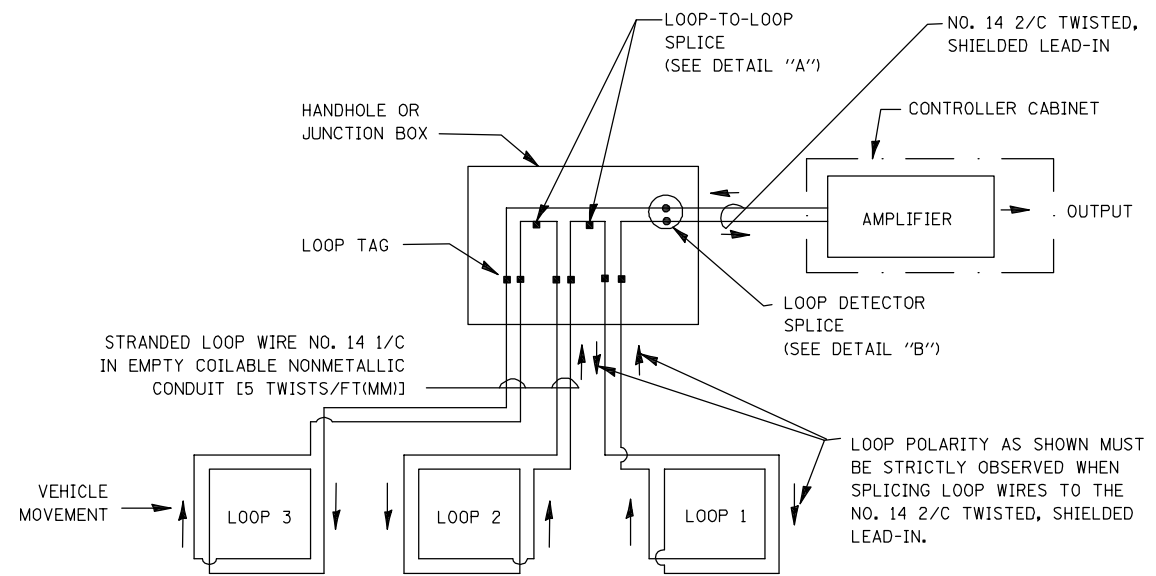
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

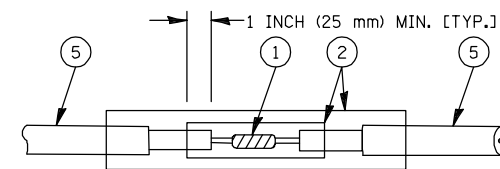


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

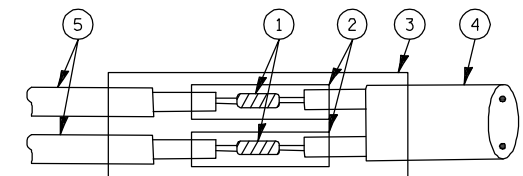


DETECTOR LOOP WIRING SCHEMATIC

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

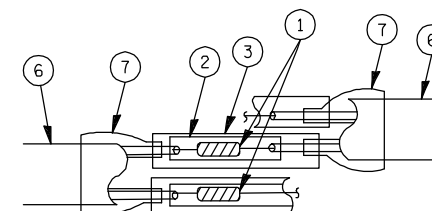


DETAIL "A"
LOOP-TO-LOOP SPLICE

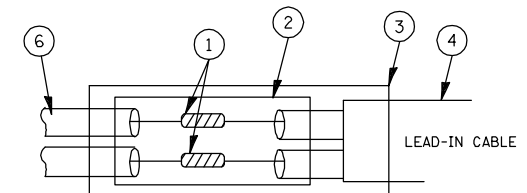


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

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

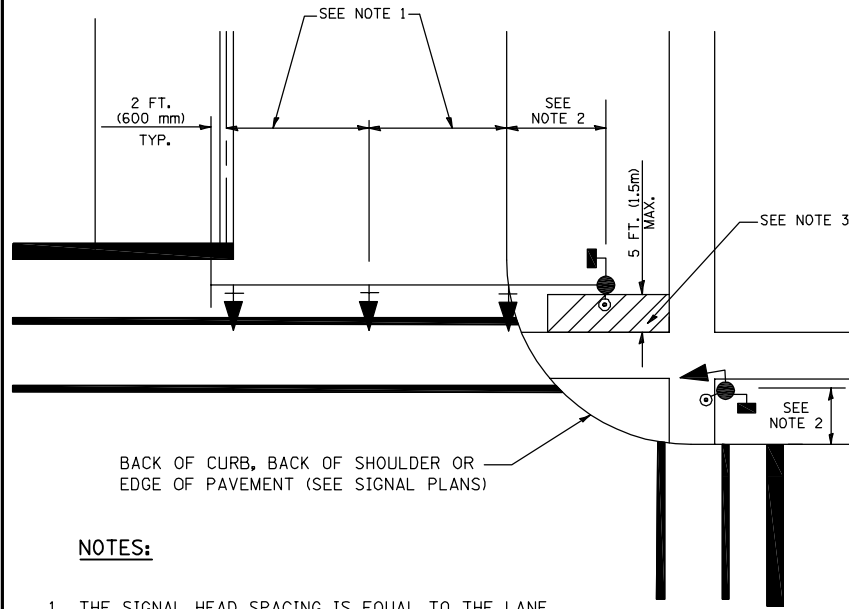
FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - DAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS			FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 1" = .0833'	DRAWN - BCK	REVISED -		SCALE: NONE	SHEET NO. 1 OF 6 SHEETS	STA. TO STA.	VARIABLES	2011-209-TS	COOK	52	8
	PLOT DATE = 3/22/2012	CHECKED - DAD	REVISED -						TS-05		CONTRACT #:	60R47

GHA #4085.877

ILLINOIS FED. AID PROJECT

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

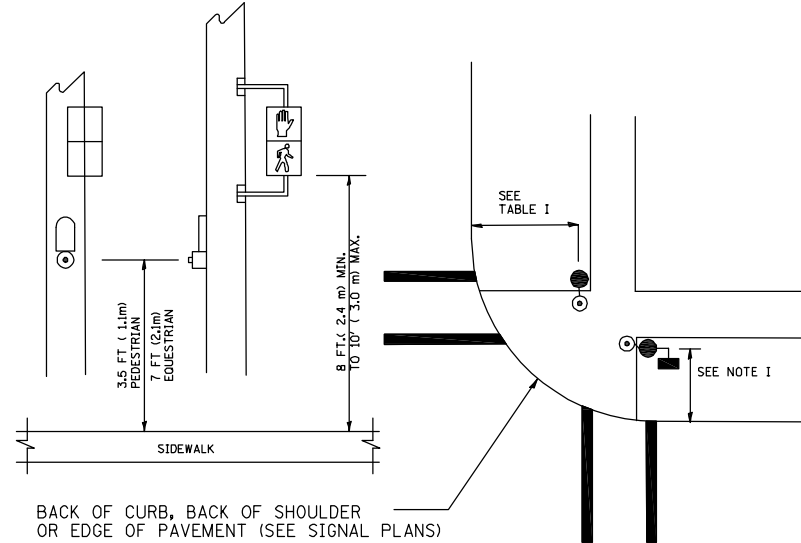
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

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

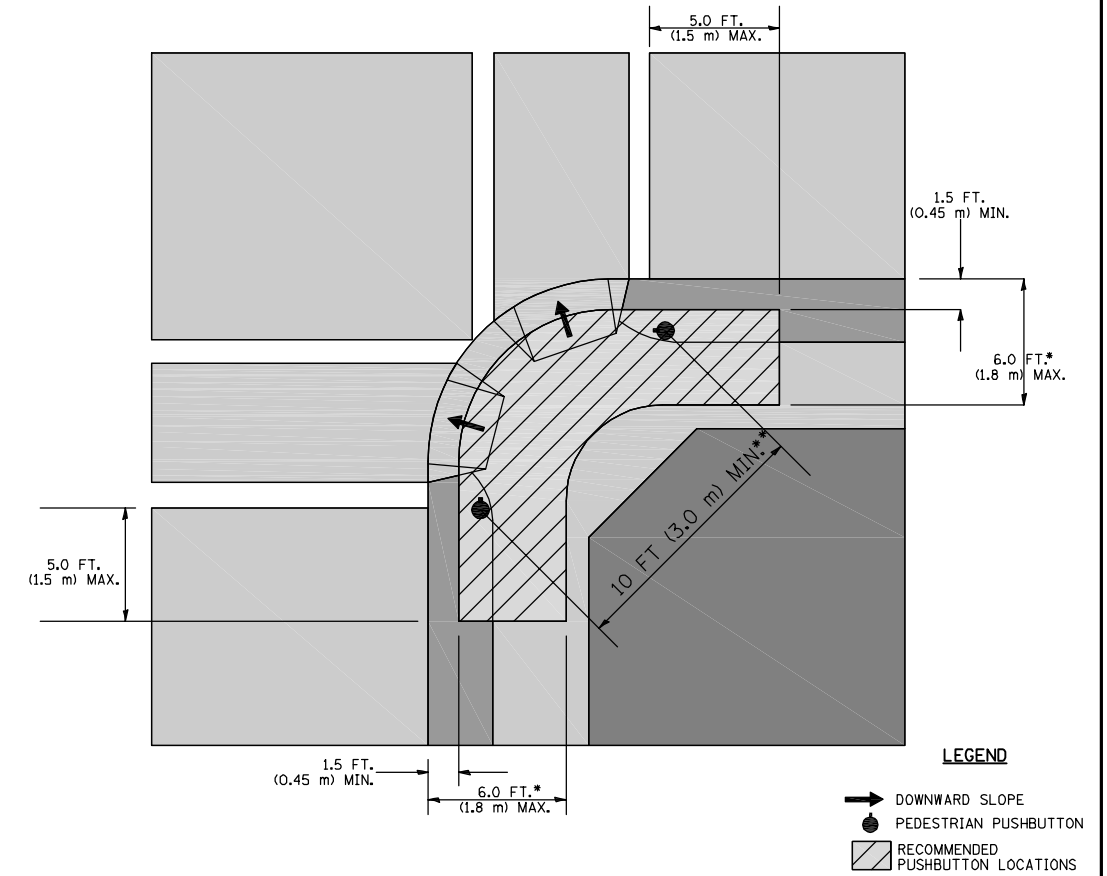
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

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

RECOMMENDED PUSHBUTTON LOCATIONS



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

NOTES:

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

THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.

THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.

THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.

THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

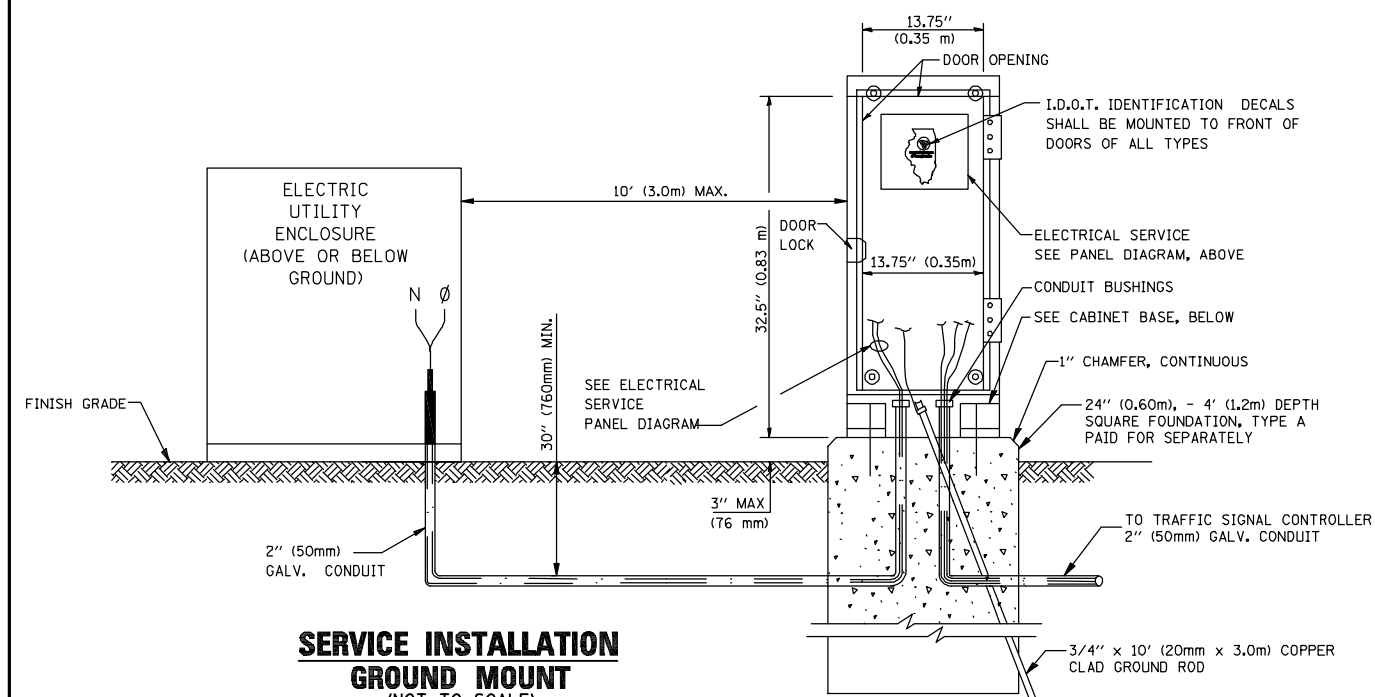
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10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

NOTES:

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

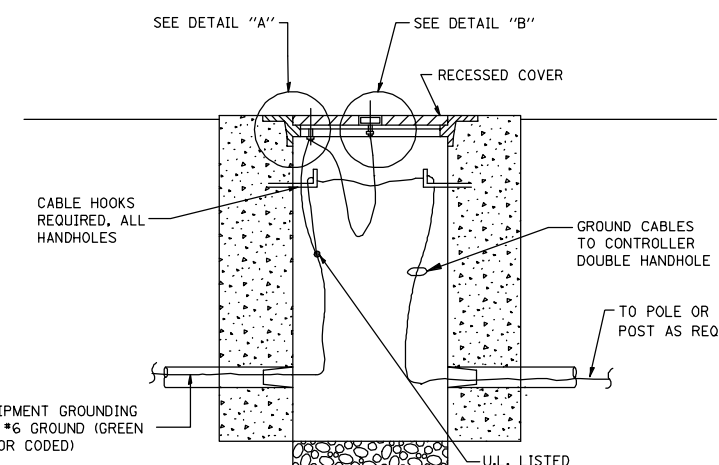
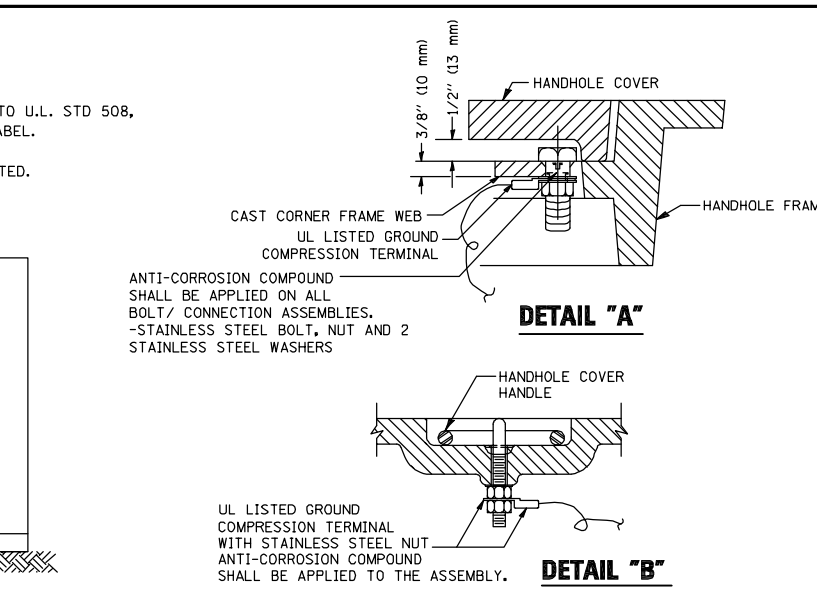
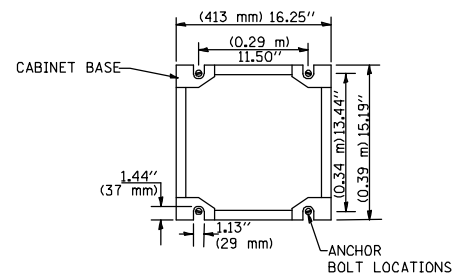


**ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
(NOT TO SCALE)**

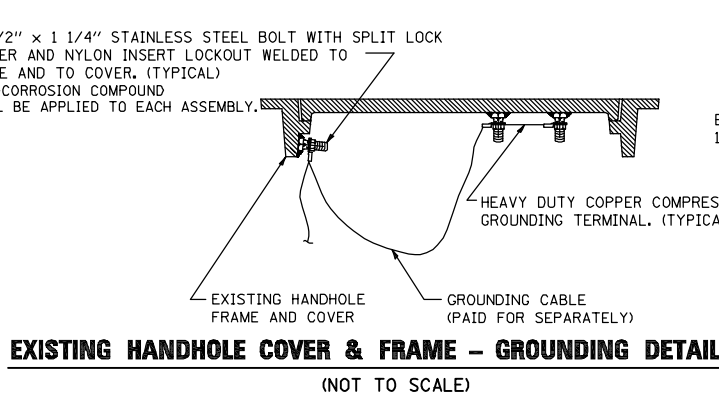


**SERVICE INSTALLATION
GROUND MOUNT
(NOT TO SCALE)**

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



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

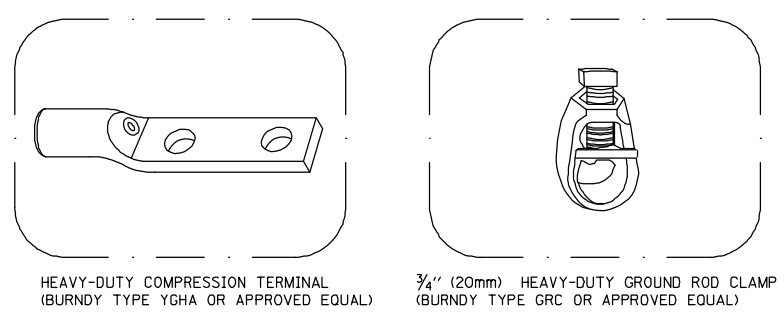


**EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL
(NOT TO SCALE)**

NOTES:

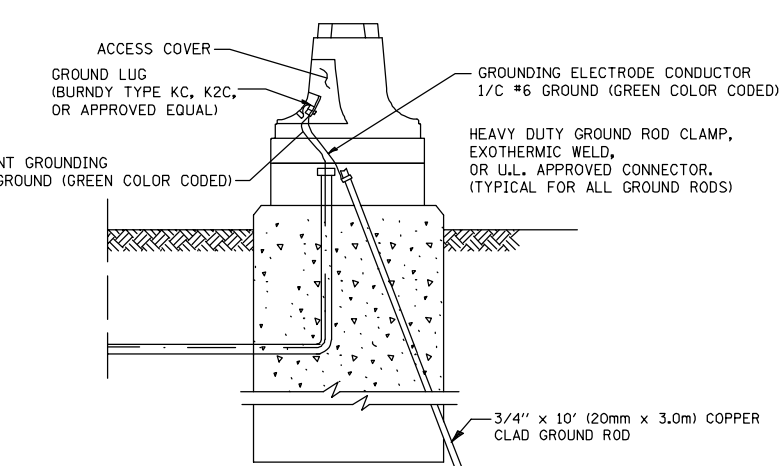
GROUNDING SYSTEM

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

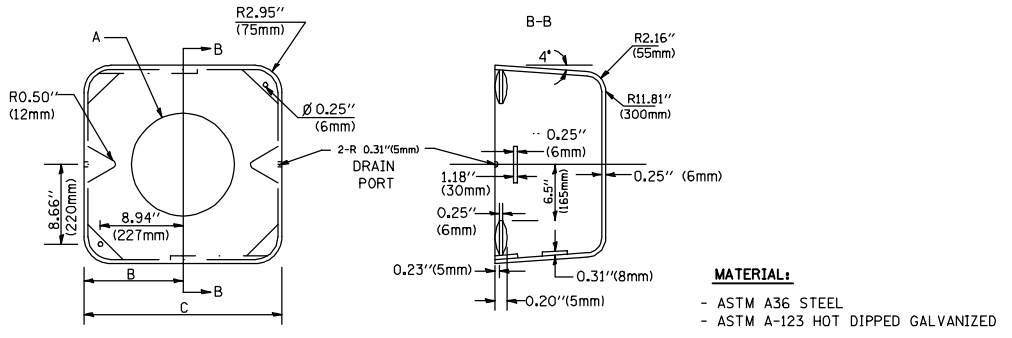
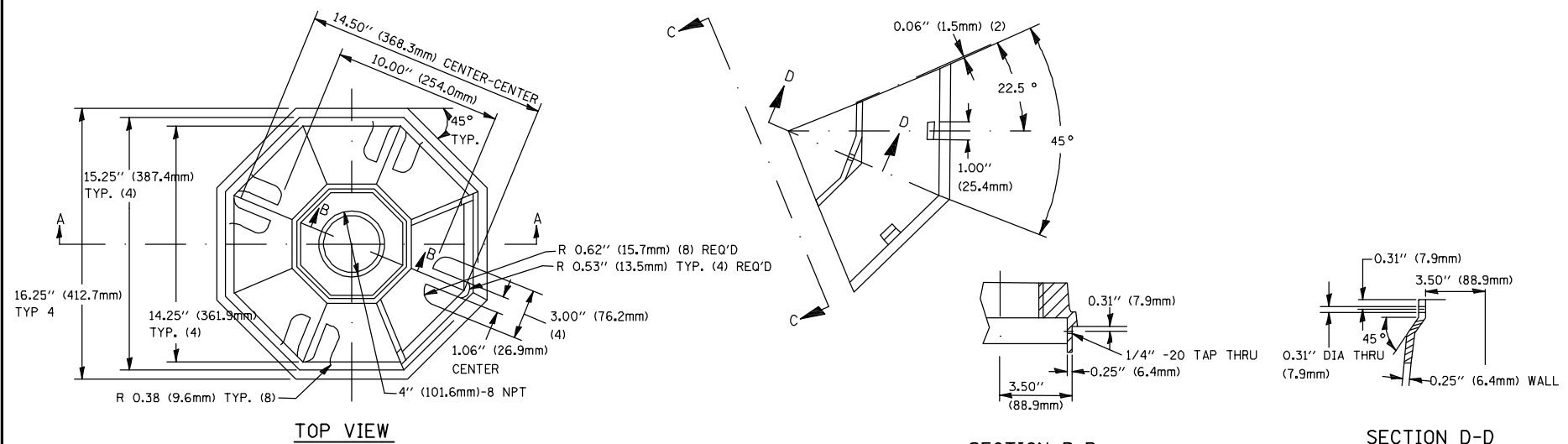


NOTES:

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



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

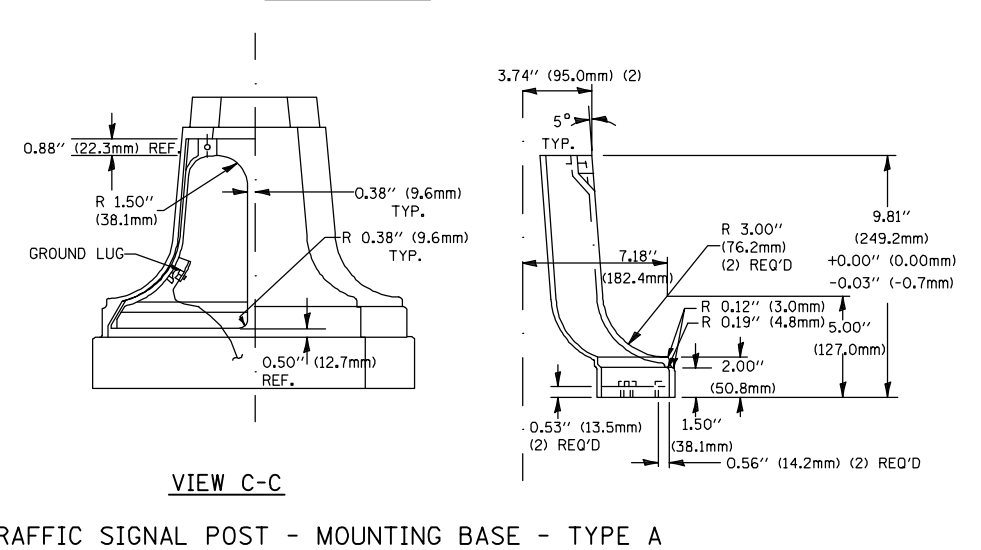
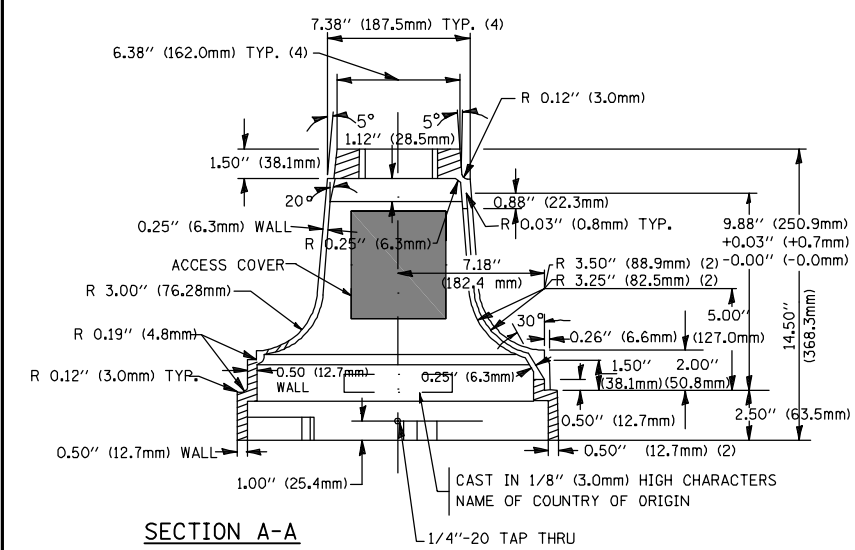


A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5\" (241mm)	19\" (483mm)	7\" (178mm) - 12\" (300mm)	53 lbs (24kg)
VARIABLES	10.75\" (273mm)	21.5\" (546mm)	7\" (178mm) - 12\" (300mm)	68 lbs (31 kg)
VARIABLES	13.0\" (330mm)	26\" (660mm)	7\" (178mm) - 12\" (300mm)	81 lbs (37 kg)
VARIABLES	18.5\" (470mm)	37\" (940mm)	7\"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

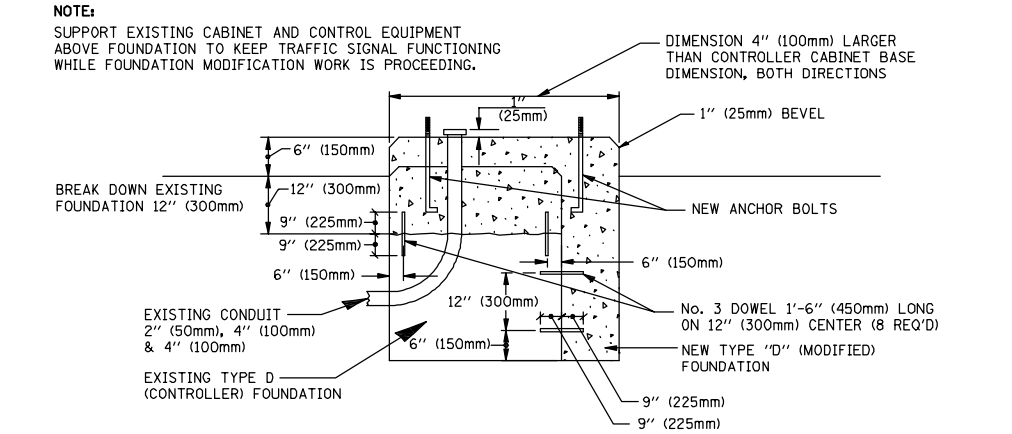
SHROUD

NOTES:

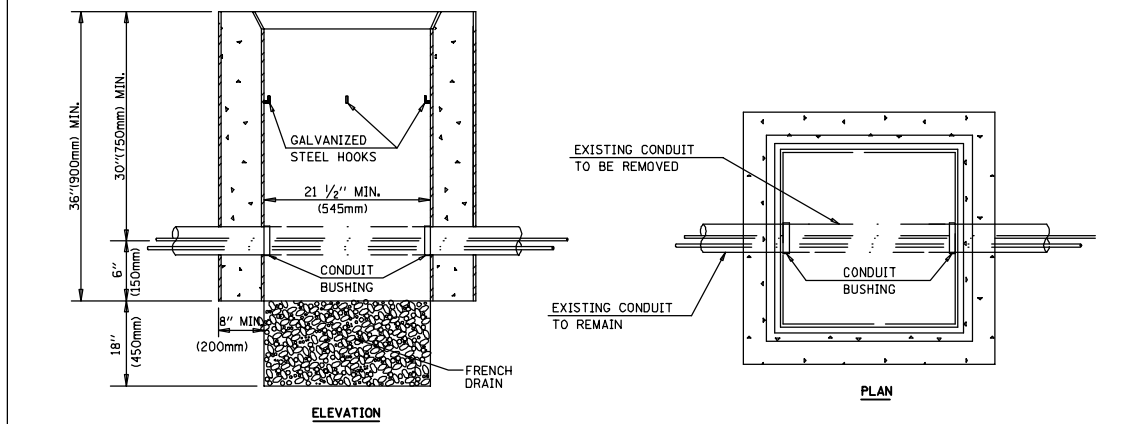
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



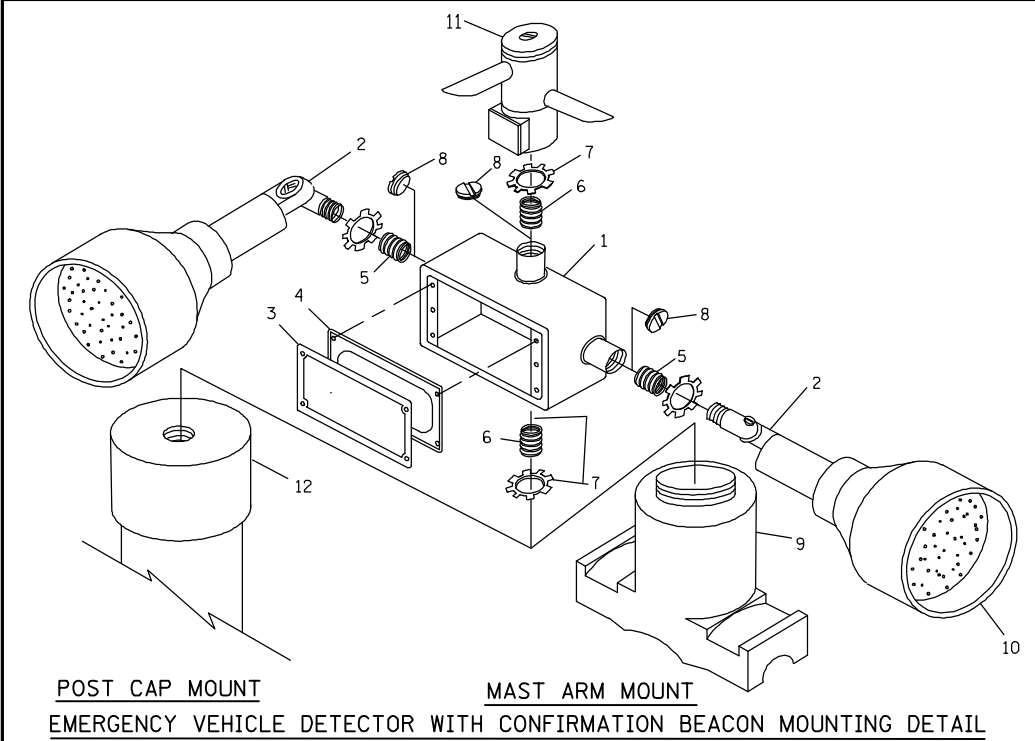
MODIFY EXISTING TYPE "D" FOUNDATION



NOTES:

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

HANDHOLE TO INTERCEPT EXISTING CONDUIT



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	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

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

FILE NAME = 4085.877-TR1.dwg

USER NAME = ZACH WALLSTEN
 DESIGNED - DAD
 DRAWN - BCK
 CHECKED - DAD
 DATE - 10-28-09

REVISED -
 REVISED -
 REVISED -
 REVISED -

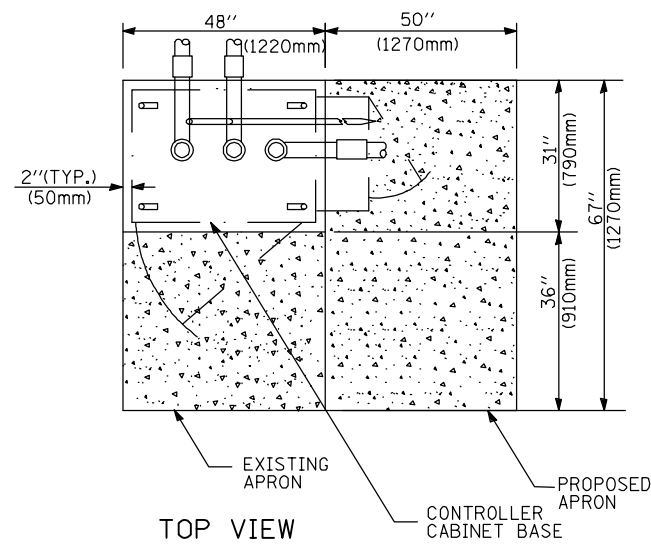
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

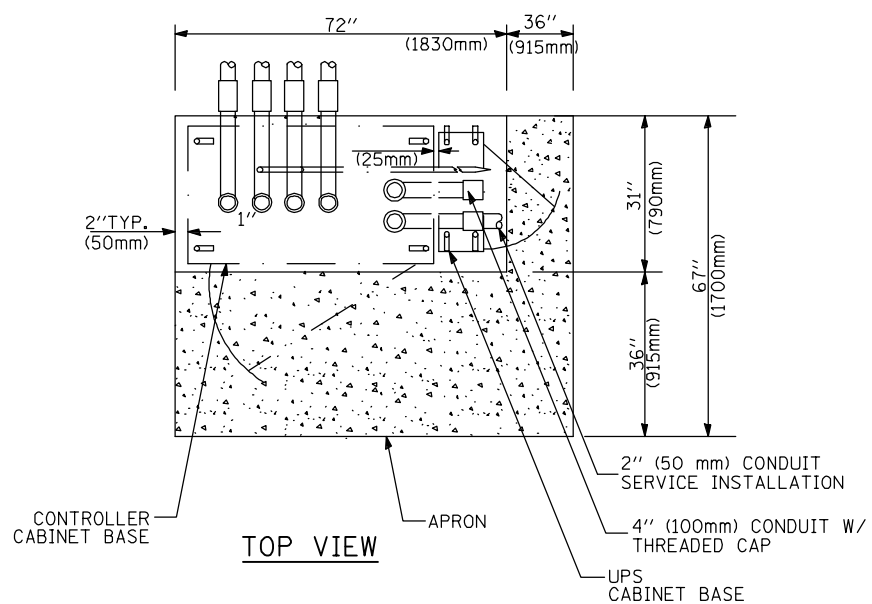
F.A.P. R.T.E. VARIES
 SECTION 2011-209-TS
 COUNTY COOK
 TOTAL SHEETS 52
 SHEET NO. 11
 CONTRACT # 60R47
 ILLINOIS FED. AID PROJECT

SCALE: NONE SHEET NO. 4 OF 6 SHEETS STA. TO STA.

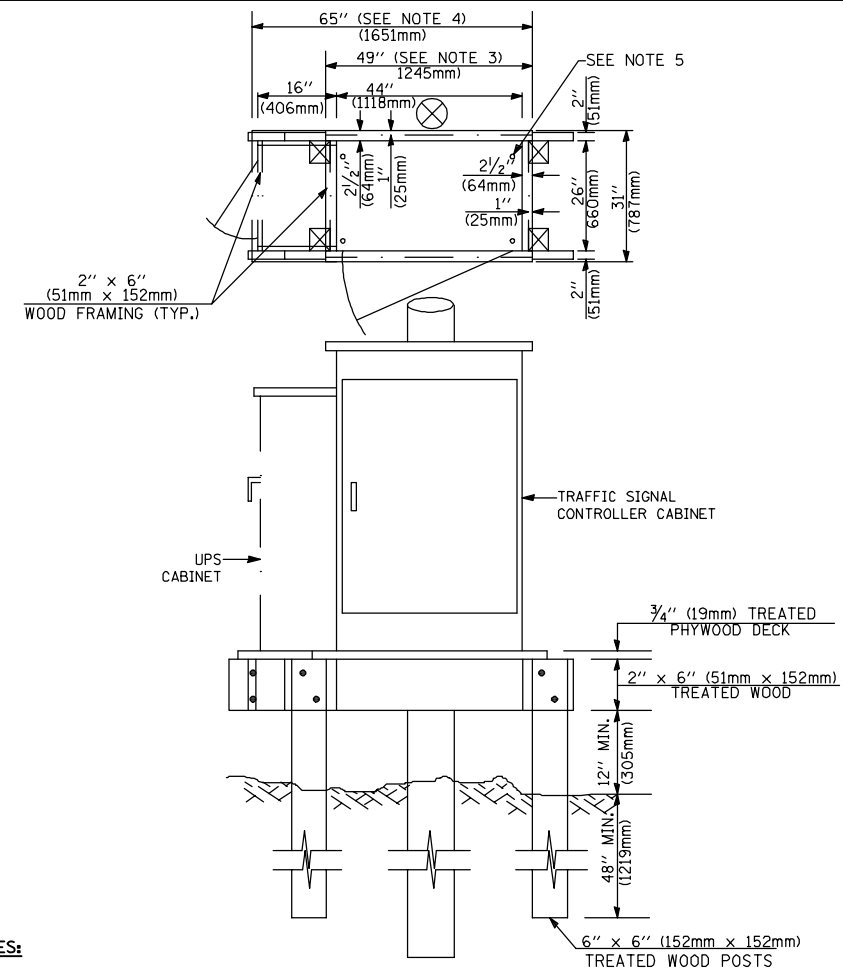
GHA #4085.877



TOP VIEW



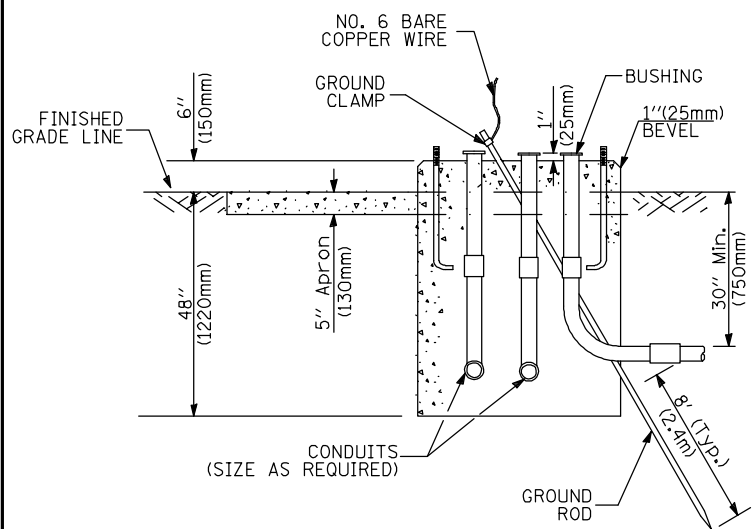
TOP VIEW



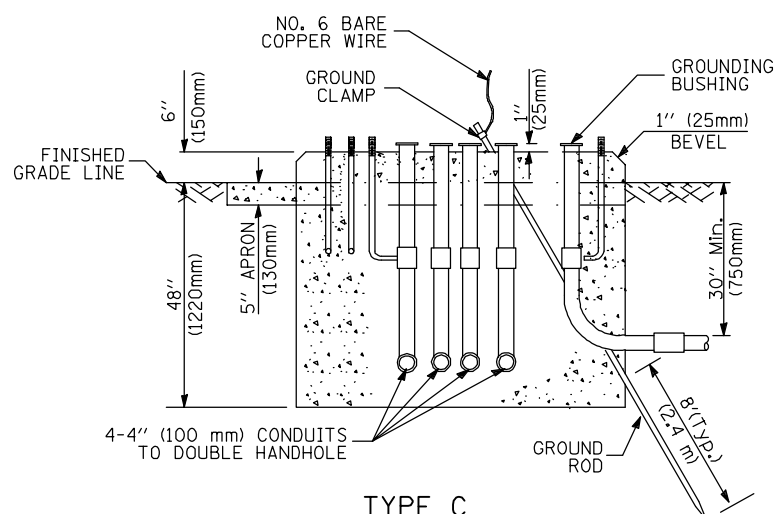
NOTES:

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

TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM



TYPE D FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET



TYPE C FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET

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

CABLE SLACK

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

VERTICAL CABLE LENGTH

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

DEPTH OF FOUNDATION

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

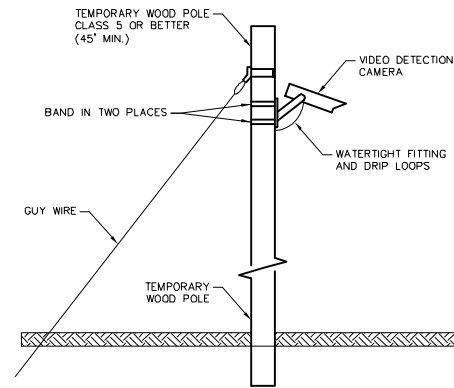
NOTES:

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

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

CONSTRUCTION NOTES:

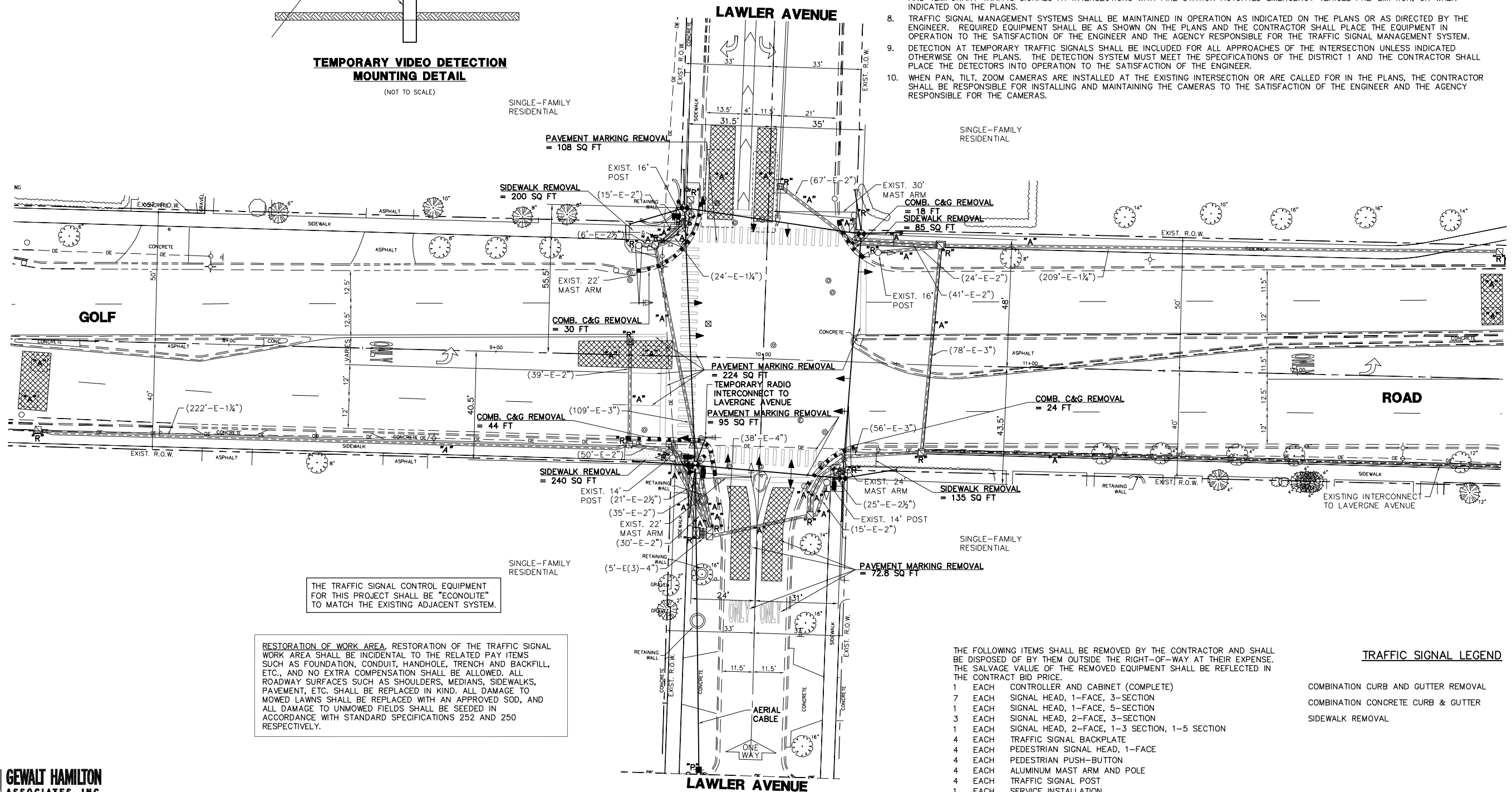
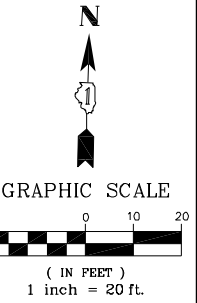
- ① THE TEMPORARY RADIO INTERCONNECT SHALL BE REMOVED AFTER THE FIBER OPTIC INTERCONNECT TO LAMON AVENUE IS INSTALLED AND OPERATIONAL.



TEMPORARY VIDEO DETECTION MOUNTING DETAIL
(NOT TO SCALE)

NOTES FOR TEMPORARY TRAFFIC SIGNALS:

- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROLLER EQUIPMENT.
- THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF THE DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



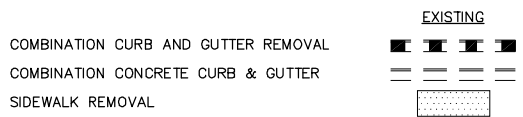
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

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

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

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 7 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 3 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 4 EACH PEDESTRIAN PUSH-BUTTON
- 4 EACH ALUMINUM MAST ARM AND POLE
- 4 EACH TRAFFIC SIGNAL POST
- 1 EACH SERVICE INSTALLATION

TRAFFIC SIGNAL LEGEND



FILE NAME = 4085.877-TR1.dwg
USER NAME = ZACH WALLSTEN
PLOT SCALE = 1" = .0833'
PLOT DATE = 3/22/2012

DESIGNED - JRD
DRAWN - ZCW
CHECKED - KLB
DATE - 3/22/2012

REVISED -
REVISED -
REVISED -
REVISED -

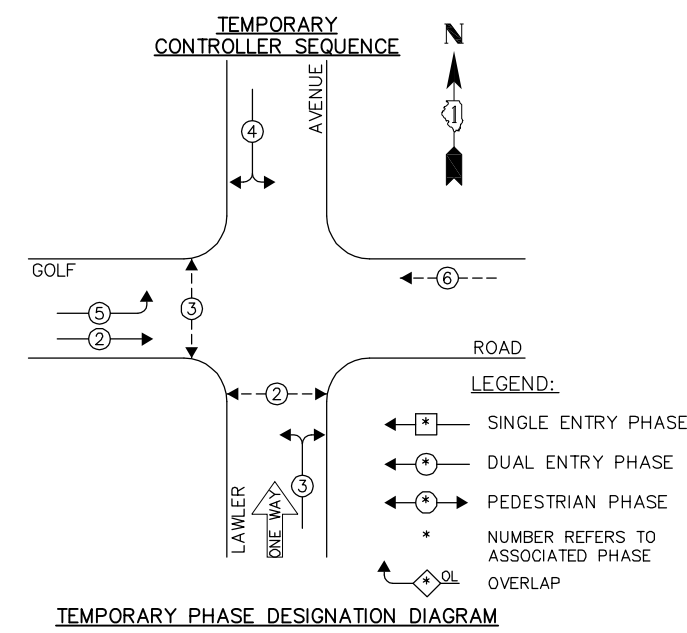
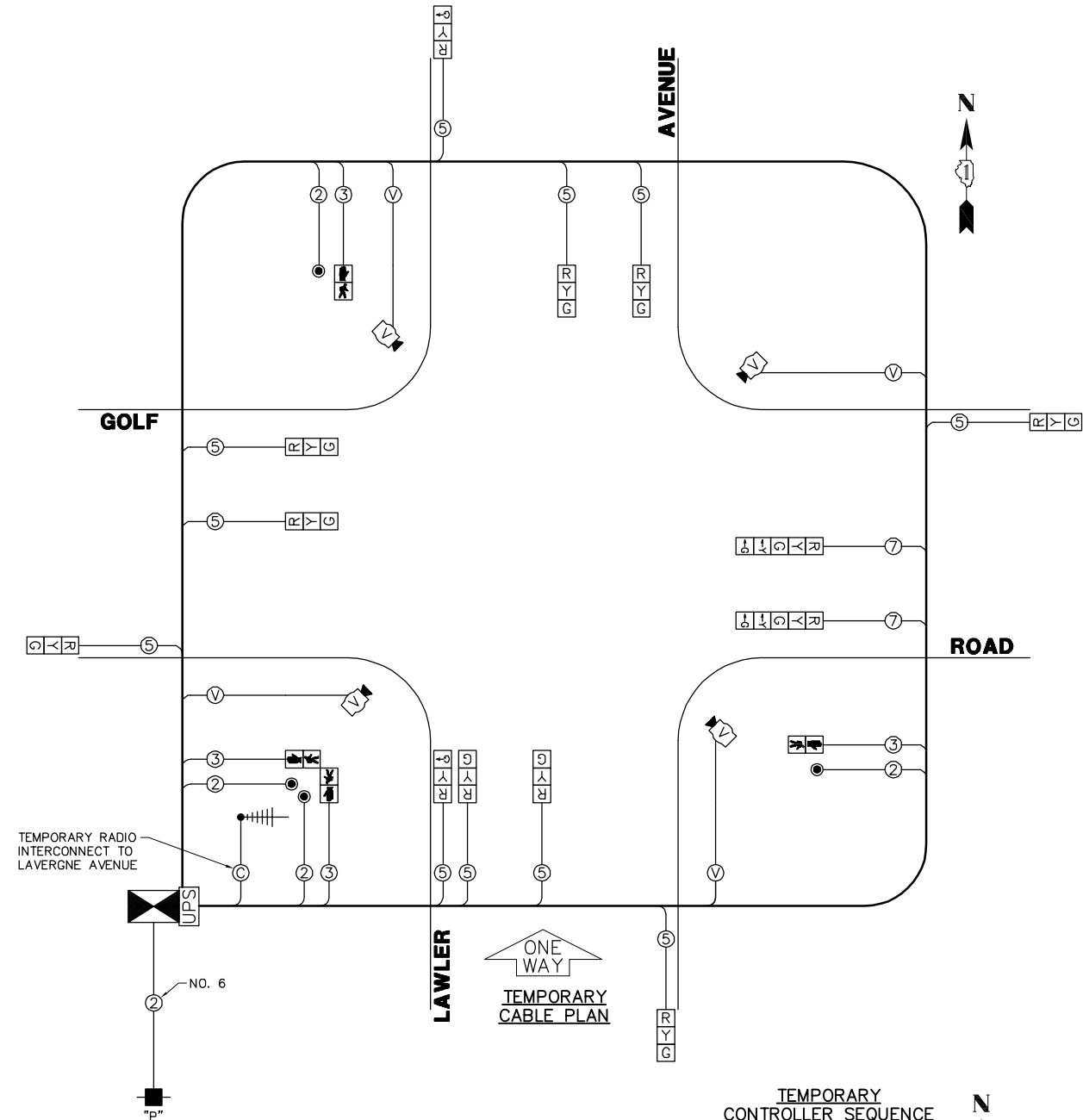
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION & REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT GOLF ROAD AT LAWLER AVENUE

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIABLES	2011-209-TS	COOK	52	14
CONTRACT #:			60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.5
SIGNAL (YELLOW)	13	135	25	0.25	81.25
SIGNAL (GREEN)	13	135	15	0.25	48.75
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	4	90	25	1.00	100.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					620.3

GHA GEWALT HAMILTON ASSOCIATES, INC.

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

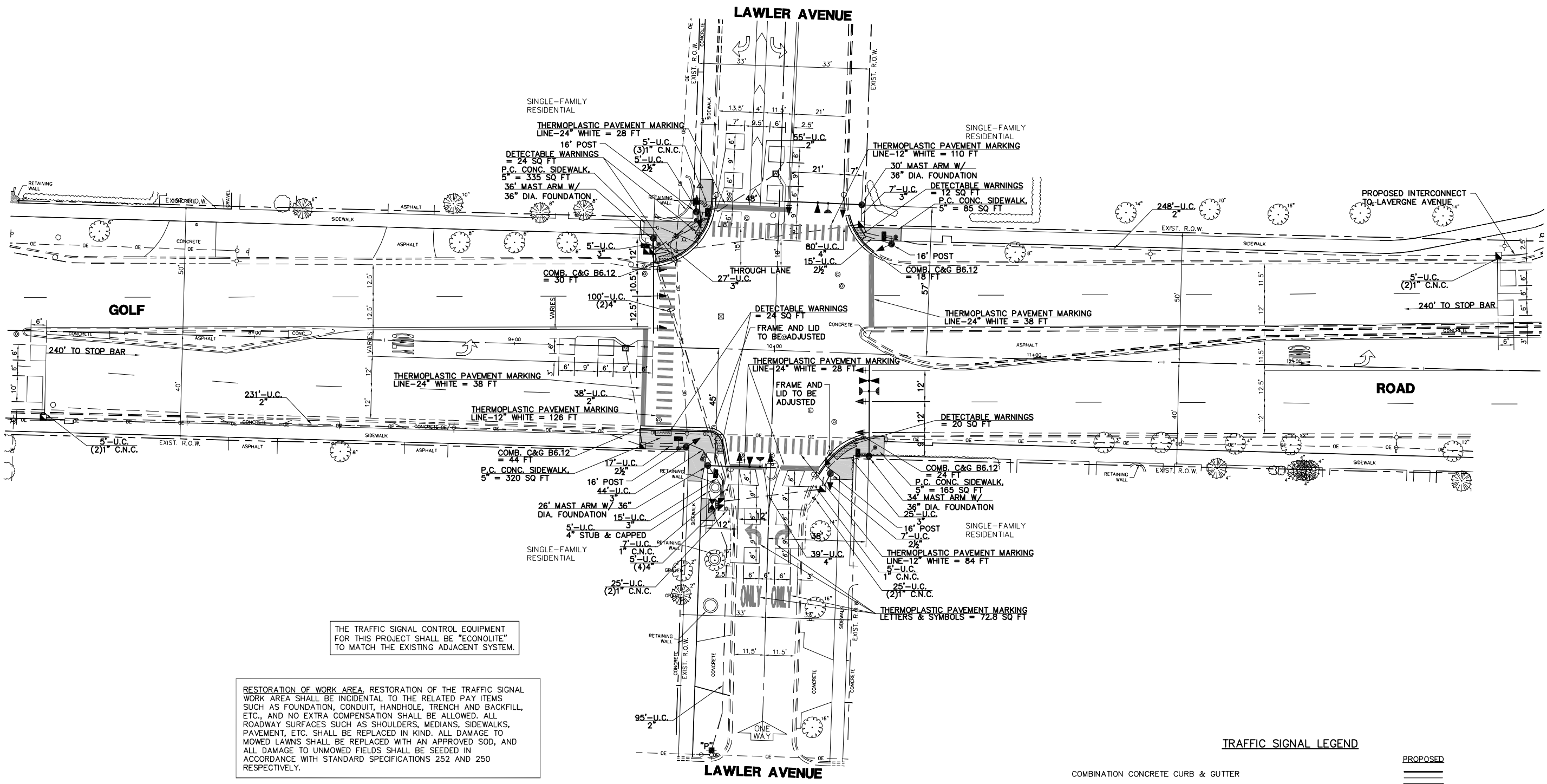
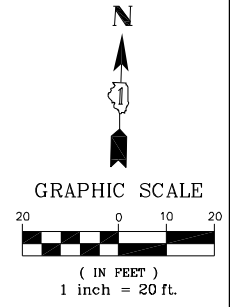
ENERGY COSTS - BILLED TO: VILLAGE OF SKOKIE
 (ADDRESS) 5127 OAKTON STREET
 (ADDRESS) SKOKIE, IL 60077
 ENERGY SUPPLY - CONTACT: MR. LARRY SHANK
 PHONE: (847) 816-5465
 COMPANY: COM-ED

FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
PLOT SCALE = 1" = .0833'	CHECKED - KLB	DRAWN - ZCW	REVISED -
PLOT DATE = 3/22/2012	DATE - 3/22/2012		REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM
GOLF ROAD AT LAWLER AVENUE**

FAP. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 15
CONTRACT # 60R47			GHA #4085.877	
ILLINOIS FED. AID PROJECT				



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

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEMS 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.

TRAFFIC SIGNAL LEGEND

- COMBINATION CONCRETE CURB & GUTTER
- PORTLAND CEMENT CONCRETE SIDEWALK, 5"
- DETECTABLE WARNING



FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
		CHECKED - KLB	REVISED -
		DATE - 3/22/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN
GOLF ROAD AT LAWLER AVENUE**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

FAP. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 16
CONTRACT # 60R47			GHA #4085.877	
ILLINOIS FED. AID PROJECT				

SCHEDULE OF QUANTITIES
GOLF ROAD AT LAWLER AVENUE

NO.	QUANT.	UNIT	DESCRIPTION
1.	6	CU YD	EARTH EXCAVATION
2.	15	SQ YD	SUBBASE GRANULAR MATERIAL, TYPE B 4"
3.	905	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
4.	80	SQ FT	DETECTABLE WARNINGS
5.	116	FOOT	COMBINATION CURB AND GUTTER REMOVAL
6.	655	SQ FT	SIDEWALK REMOVAL
7.	2	EACH	FRAMES AND LIDS TO BE ADJUSTED
8.	116	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
9.	1.50	CAL MO	ENGINEER'S FIELD OFFICE, TYPE A
10.	0.20	L SUM	MOBILIZATION
11.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501
12.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606
13.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
14.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
15.	27.00	SQ FT	SIGN PANEL - TYPE 1
16.	72.80	SQ FT	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS
17.	320	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"
18.	132	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
19.	499.80	SQ FT	PAVEMENT MARKING REMOVAL
20.	1	EACH	SERVICE INSTALLATION - POLE MOUNTED
21.	667	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
22.	44	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
23.	121	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
24.	349	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
25.	6	EACH	HANDHOLE
26.	2	EACH	HEAVY-DUTY HANDHOLE
27.	2	EACH	DOUBLE HANDHOLE
28.	1	EACH	TRANSCEIVER - FIBER OPTIC
29.	803	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
30.	1,270	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
31.	2,016	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
32.	400	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
33.	1,350	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
34.	117	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
35.	4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
36.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.
37.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.
38.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
39.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
40.	16	FOOT	CONCRETE FOUNDATION, TYPE A
41.	4	FOOT	CONCRETE FOUNDATION, TYPE C
42.	10	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
43.	33	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
44.	9	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
45.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
46.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
47.	1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
48.	2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
49.	6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
50.	10	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
51.	7	EACH	INDUCTIVE LOOP DETECTOR
52.	635	FOOT	DETECTOR LOOP, TYPE I
53.	3	EACH	LIGHT DETECTOR
54.	1	EACH	LIGHT DETECTOR AMPLIFIER
55.	6	EACH	PEDESTRIAN PUSH-BUTTON
56.	1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
57.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
58.	11	EACH	REMOVE EXISTING HANDHOLE
59.	9	EACH	REMOVE EXISTING CONCRETE FOUNDATION
60.	413	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
61.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
62.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
63.	655	SQ FT	TEMPORARY SIDEWALK
64.	51.40	SQ FT	TEMPORARY INFORMATION SIGNING
65.	1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
66.	525	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C

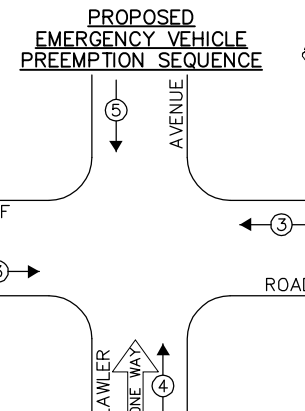
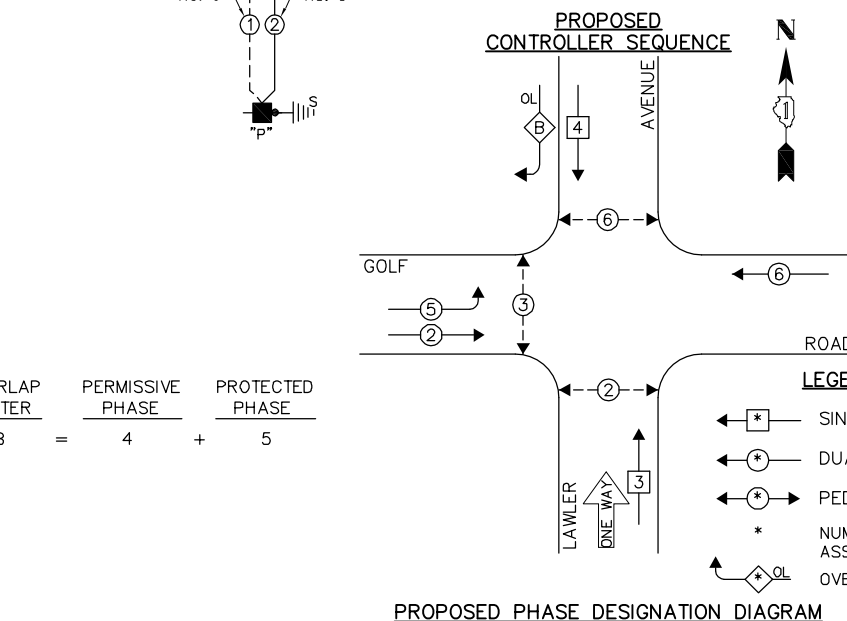
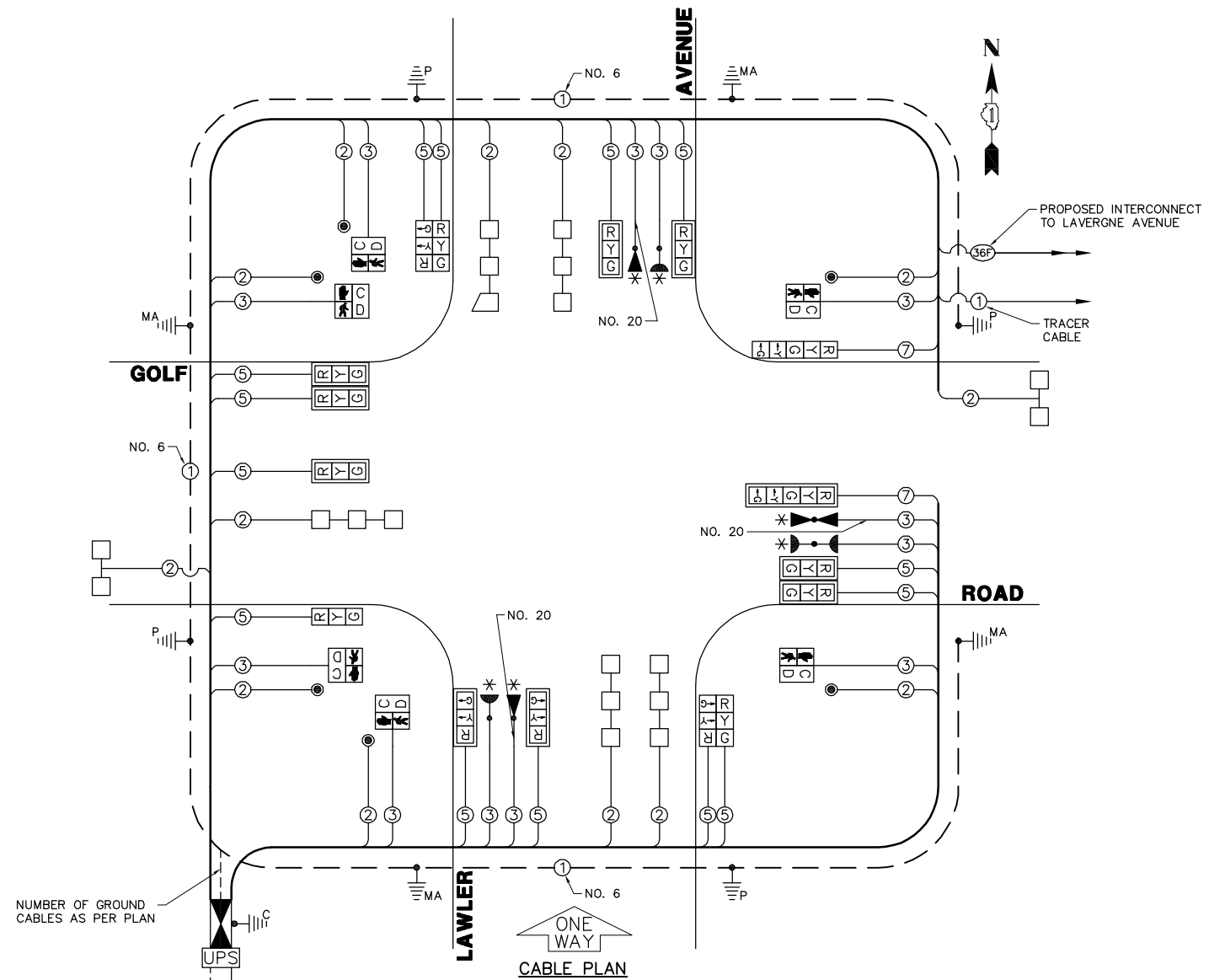
* 100% OF THE COST SHALL BE PAID FOR BY THE VILLAGE OF SKOKIE

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	L.E.D.		
SIGNAL (RED)	16	135	17	0.50	136.0
SIGNAL (YELLOW)	16	135	25	0.25	100.0
SIGNAL (GREEN)	16	135	15	0.25	60.0
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	6	90	25	1.00	150.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					575.8

ENERGY COSTS - BILLED TO: VILLAGE OF SKOKIE
(ADDRESS) 5127 OAKTON STREET
(ADDRESS) SKOKIE, IL 60077
ENERGY SUPPLY - CONTACT: MR. LARRY SHANK
PHONE: (847) 816-5465
COMPANY: COM-ED



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



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

FILE NAME = 4085.877-TR1.dwg

USER NAME = ZACH WALLSTEN
DESIGNED - JRD
DRAWN - ZCW
CHECKED - KLB
DATE - 3/22/2012

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
GOLF ROAD AT LAWLER AVENUE

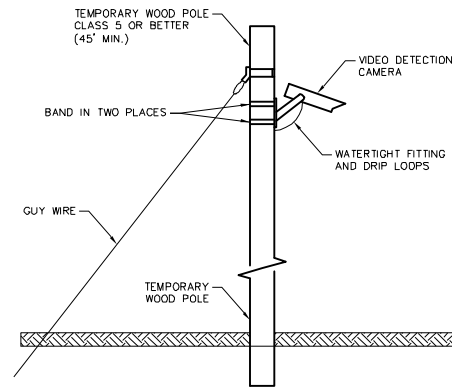
SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIABLES	2011-209-TS	COOK	52	17
CONTRACT #:			60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877

CONSTRUCTION NOTES:

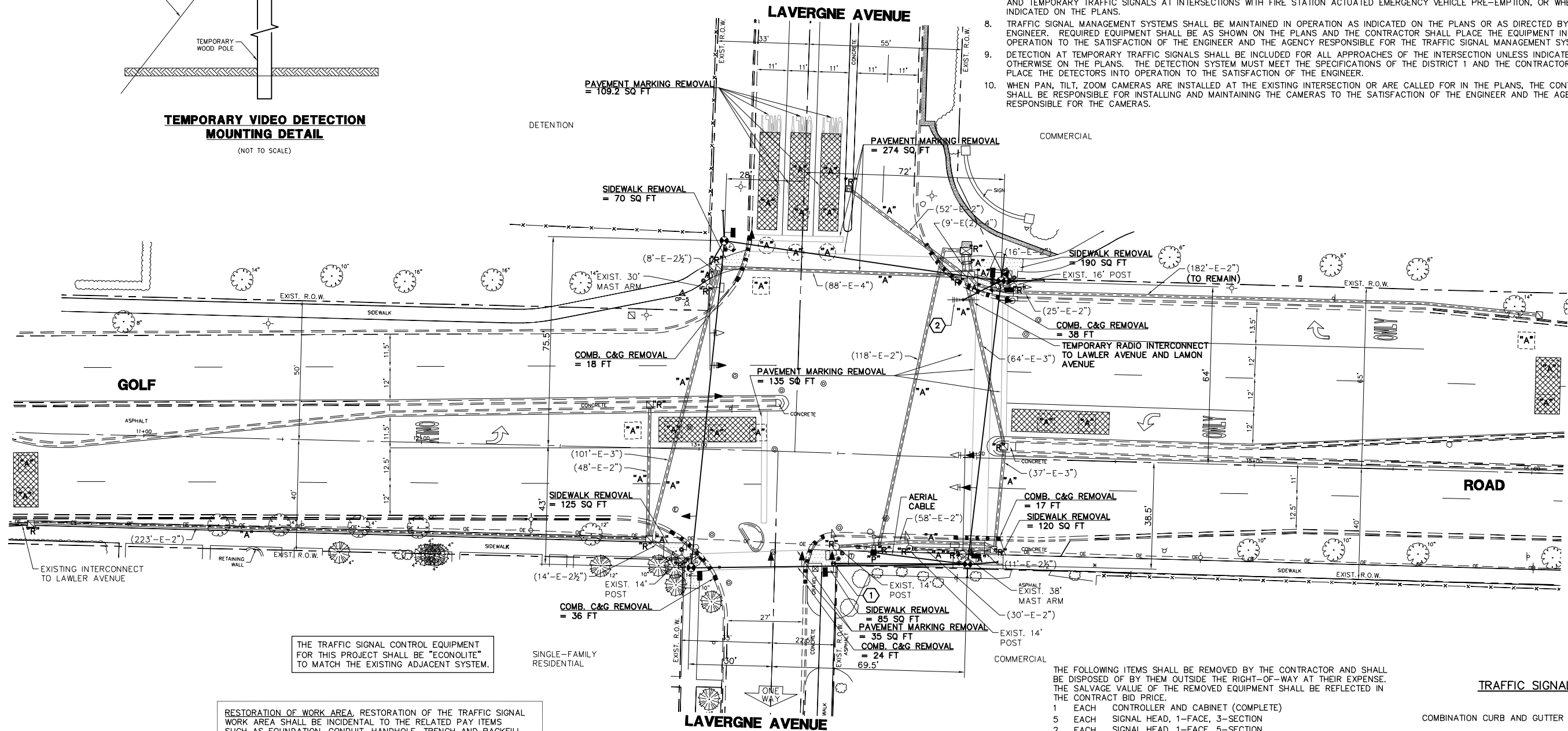
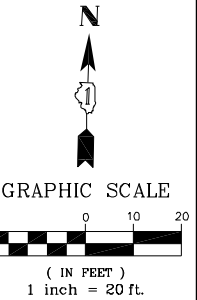
- THE CONTRACTOR SHALL INSTALL THE TEMPORARY PEDESTRIAN SIGNAL HEAD AND PUSH-BUTTON ON A 4"x4" WOOD POST WITH OVERHEAD CABLES FROM THE TEMPORARY WOOD POLE.
- THE TEMPORARY RADIO INTERCONNECT SHALL BE REMOVED AFTER THE FIBER OPTIC INTERCONNECT TO LAVERGNE AVENUE AND LAMON AVENUE IS INSTALLED AND OPERATIONAL.



TEMPORARY VIDEO DETECTION MOUNTING DETAIL
(NOT TO SCALE)

NOTES FOR TEMPORARY TRAFFIC SIGNALS:

- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROLLER EQUIPMENT.
- THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF THE DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



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

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

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

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 5 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 2 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
- 1 EACH SIGNAL HEAD, 3-FACE, 2-3 SECTION, 1-5 SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 1 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 5 EACH PEDESTRIAN PUSH-BUTTON
- 2 EACH STEEL MAST ARM AND POLE
- 4 EACH TRAFFIC SIGNAL POST
- 1 EACH SERVICE INSTALLATION

TRAFFIC SIGNAL LEGEND

EXISTING	REMOVAL
	COMBINATION CURB AND GUTTER REMOVAL
	COMBINATION CONCRETE CURB & GUTTER
	SIDEWALK REMOVAL



FILE NAME = 4085.877-TR1.dwg
USER NAME = ZACH WALLSTEN
PLOT SCALE = 1" = .0833'
PLOT DATE = 3/22/2012

DESIGNED - JRD
DRAWN - ZCW
CHECKED - KLB
DATE - 3/22/2012

REVISED -
REVISED -
REVISED -
REVISED -

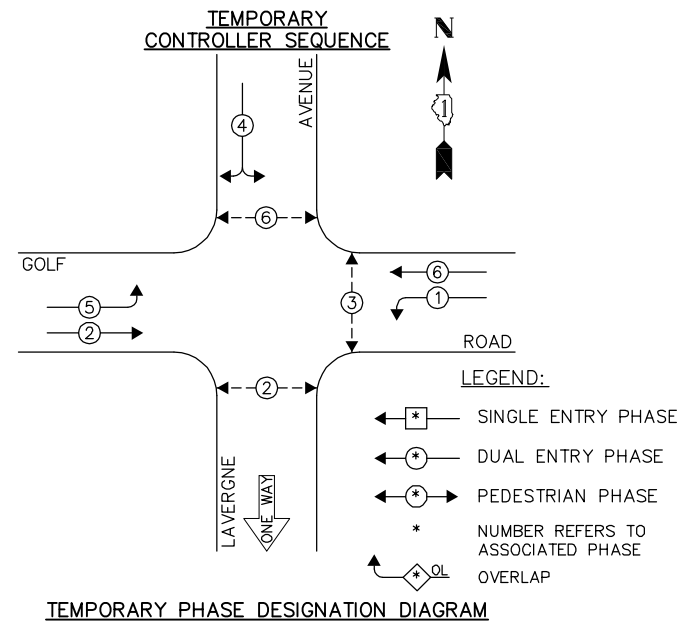
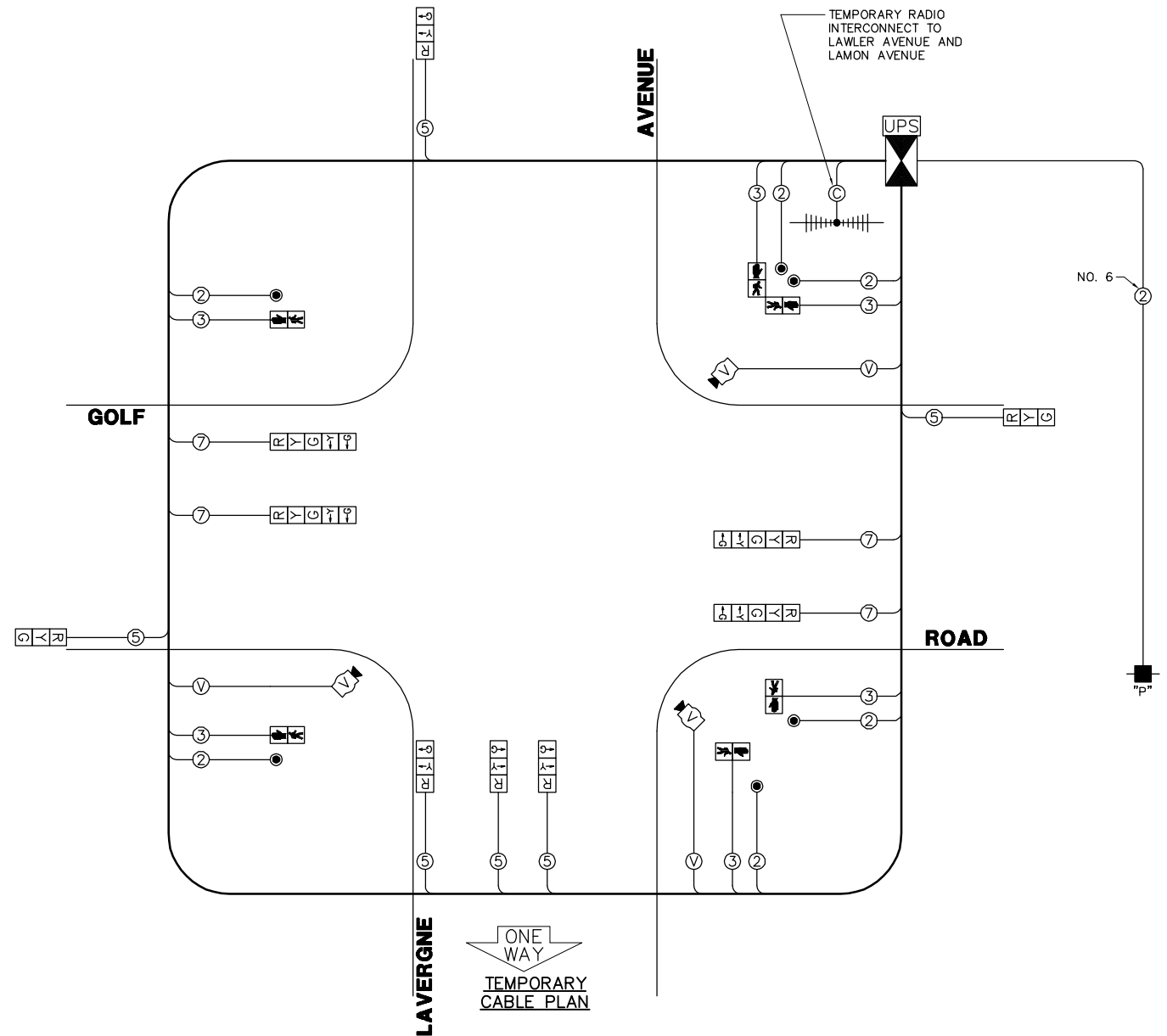
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION & REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT GOLF ROAD AT LAVERGNE AVENUE

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIABLES	2011-209-TS	COOK	52	18
CONTRACT #:			60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)	10	135	17	0.50	85.0
SIGNAL (YELLOW)	10	135	25	0.25	62.5
SIGNAL (GREEN)	10	135	15	0.25	37.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	6	90	25	1.00	150.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					619.6

GHA GEWALT HAMILTON ASSOCIATES, INC.

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

ENERGY COSTS - BILLED TO: VILLAGE OF SKOKIE
 (ADDRESS) 5127 OAKTON STREET
 (ADDRESS) SKOKIE, IL 60077
 ENERGY SUPPLY - CONTACT: MR. LARRY SHANK
 PHONE: (847) 816-5465
 COMPANY: COM-ED

FILE NAME = 4085.877-TR1.dwg

USER NAME = ZACH WALLSTEN
 PLOT SCALE = 1" = .0833'
 PLOT DATE = 3/22/2012

DESIGNED - JRD
 DRAWN - ZCW
 CHECKED - KLB
 DATE - 3/22/2012

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM
 GOLF ROAD AT LAVERGNE AVENUE**
 SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.

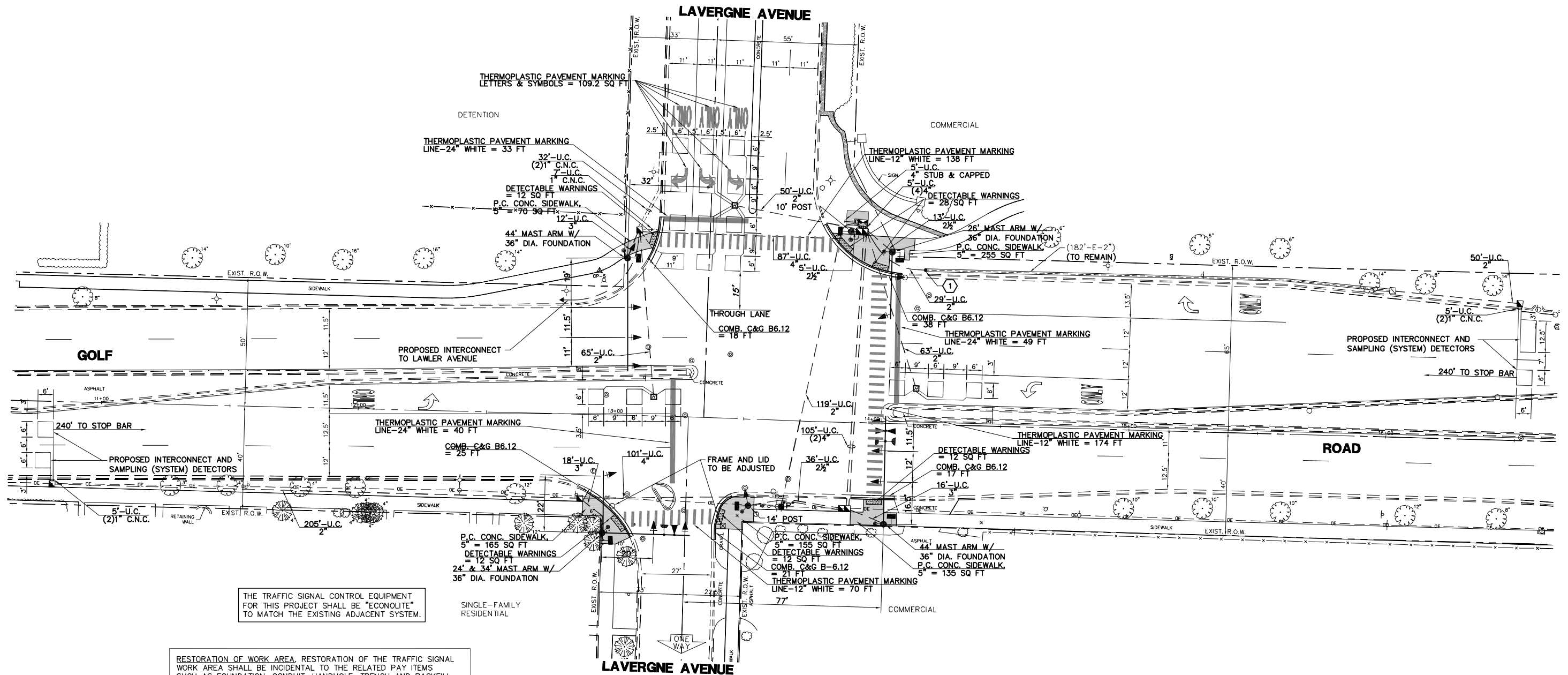
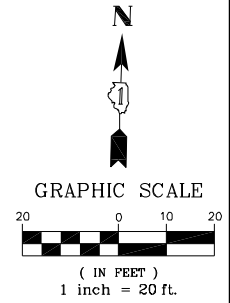
FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-209-TS	COOK	52	19
CONTRACT #:			60R47	

ILINOIS FED. AID PROJECT

GHA #4085.877

CONSTRUCTION NOTES:

- ① THE CONTRACTOR SHALL LOCATE AND INTERCEPT THE COUPLING OF THE EXISTING 2" CONDUIT AND SPLICE A NEW 2" GALVANIZED STEEL CONDUIT TO RE-ESTABLISH THE FIBER OPTIC INTERCONNECT. THIS WORK SHALL BE INCLUDED IN THE COST OF THE CONDUIT.



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

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



FILE NAME = 4085.877-TR1.dwg
 USER NAME = ZACH WALLSTEN
 PLOT SCALE = 1" = .0833'
 PLOT DATE = 3/22/2012

DESIGNED - JRD
 DRAWN - ZCW
 CHECKED - KLB
 DATE - 3/22/2012

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN
 GOLF ROAD AT LAVERGNE AVENUE**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F&P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-209-TS	COOK	52	20
CONTRACT #:			60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877

SCHEDULE OF QUANTITIES
GOLF ROAD AT LAVERGNE AVENUE

NO.	QUANT.	UNIT	DESCRIPTION
1.	8	CU YD	EARTH EXCAVATION
2.	17	SQ YD	SUBBASE GRANULAR MATERIAL, TYPE B 4"
3.	780	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
4.	76	SQ FT	DETECTABLE WARNINGS
5.	590	SQ FT	SIDEWALK REMOVAL
6.	2	EACH	FRAMES AND LIDS TO BE ADJUSTED
7.	119	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
8.	1.50	CAL MO	ENGINEER'S FIELD OFFICE, TYPE A
9.	0.20	L SUM	MOBILIZATION
10.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501
11.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606
12.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
13.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
14.	30.00	SQ FT	SIGN PANEL - TYPE 1
15.	109.20	SQ FT	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS
16.	382	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"
17.	122	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
18.	553.20	SQ FT	PAVEMENT MARKING REMOVAL
19.	1	EACH	SERVICE INSTALLATION - POLE MOUNTED
20.	577	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
21.	41	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
22.	59	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
23.	428	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
24.	4	EACH	HANDHOLE
25.	3	EACH	HEAVY-DUTY HANDHOLE
26.	2	EACH	DOUBLE HANDHOLE
27.	1	EACH	TRANSCEIVER - FIBER OPTIC
28.	836	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
29.	1,417	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
30.	1,568	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
31.	1,048	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
32.	2,051	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
33.	159	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
34.	1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
35.	1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
36.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.
37.	2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.
38.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 24 FT. AND 34 FT.
39.	8	FOOT	CONCRETE FOUNDATION, TYPE A
40.	4	FOOT	CONCRETE FOUNDATION, TYPE C
41.	10	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
42.	47	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
43.	5	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
44.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
45.	6	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
46.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED
47.	6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
48.	11	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
49.	9	EACH	INDUCTIVE LOOP DETECTOR
50.	1,000	FOOT	DETECTOR LOOP, TYPE I
*51.	2	EACH	LIGHT DETECTOR
*52.	1	EACH	LIGHT DETECTOR AMPLIFIER
53.	6	EACH	PEDESTRIAN PUSH-BUTTON
54.	1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
55.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
56.	8	EACH	REMOVE EXISTING HANDHOLE
57.	6	EACH	REMOVE EXISTING CONCRETE FOUNDATION
*58.	536	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
59.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
60.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
61.	500	SQ FT	TEMPORARY SIDEWALK
62.	51.40	SQ FT	TEMPORARY INFORMATION SIGNING
63.	1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
64.	598	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C

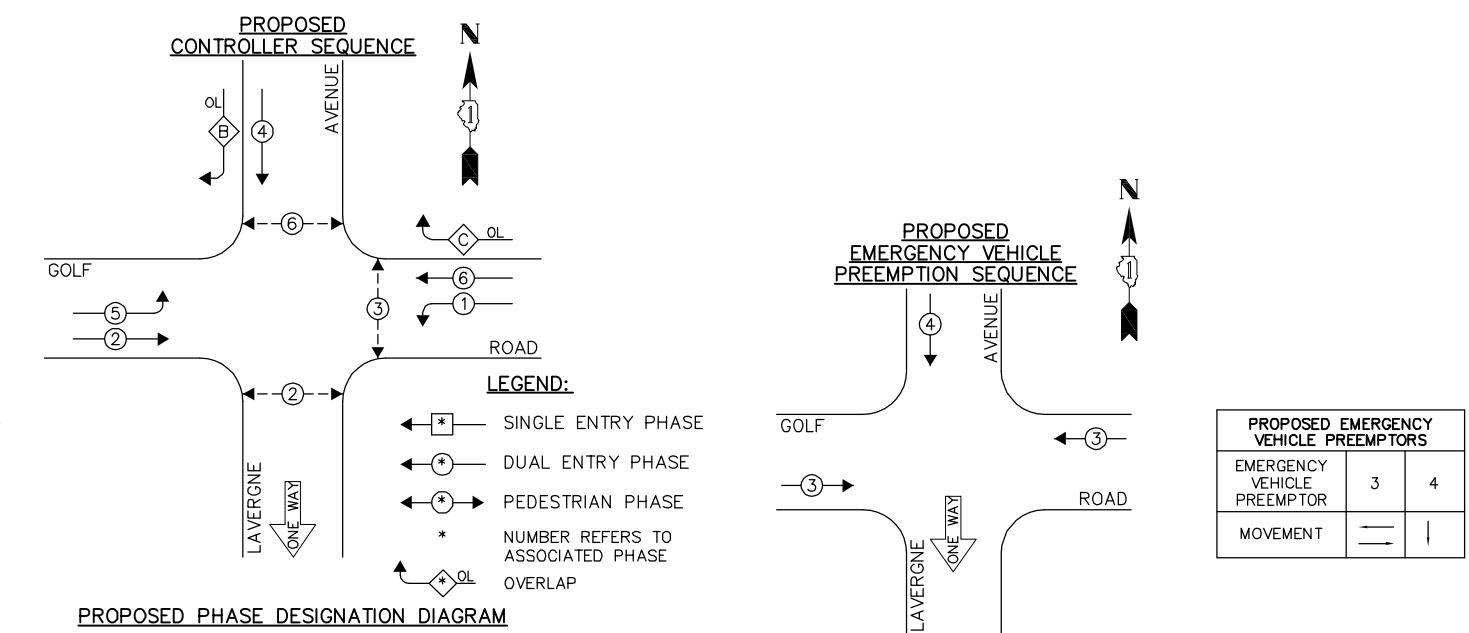
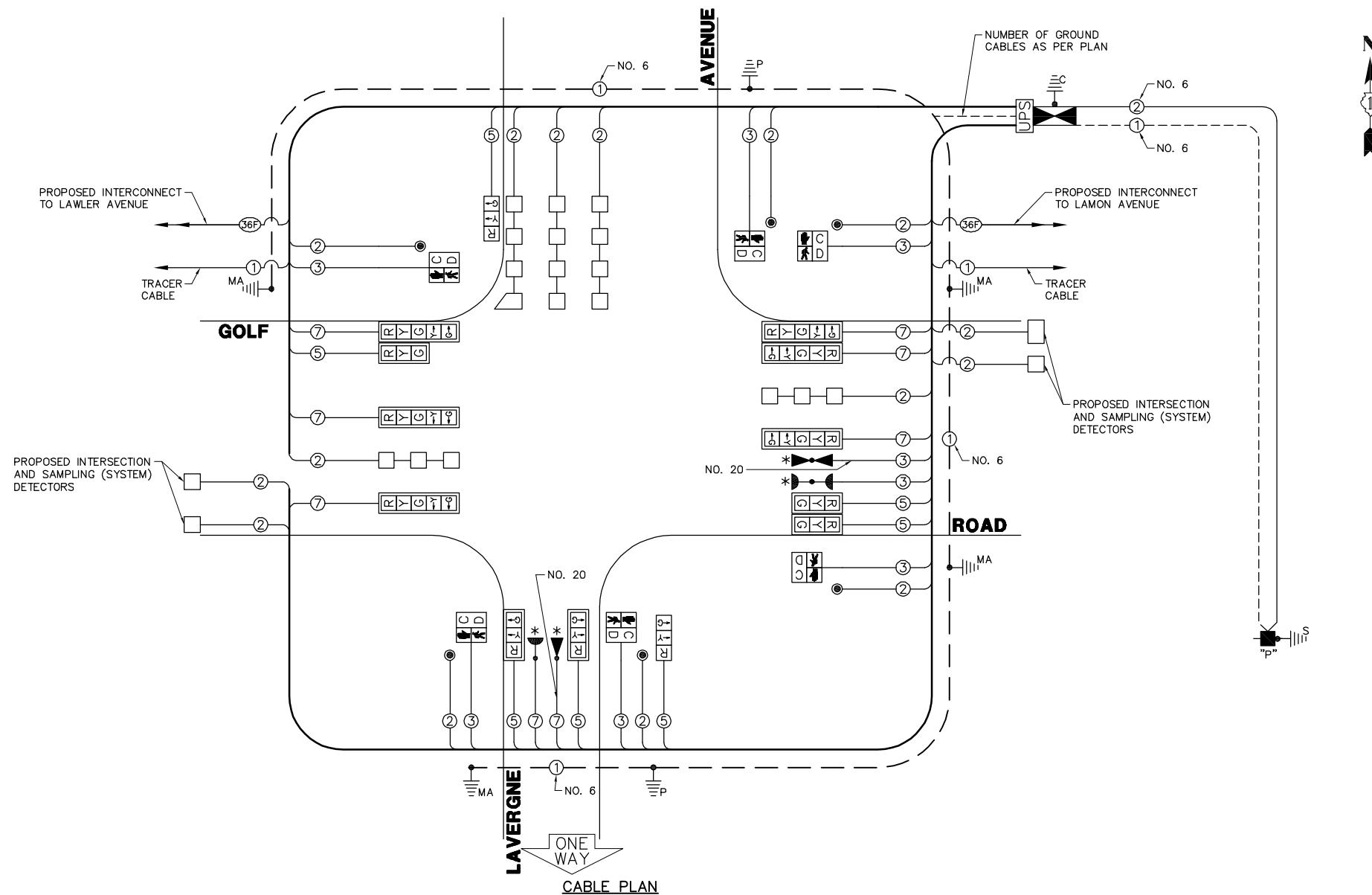
*100% OF THE COST SHALL BE PAID FOR BY THE VILLAGE OF SKOKIE

TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.5
SIGNAL (YELLOW)	13	135	25	0.25	81.25
SIGNAL (GREEN)	13	135	15	0.25	48.75
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	6	90	25	1.00	150.0
CONTROLLER	1	-	100	1.00	-
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					434.7

ENERGY COSTS - BILLED TO: VILLAGE OF SKOKIE
(ADDRESS) 5127 OAKTON STREET
(ADDRESS) SKOKIE, IL 60077
ENERGY SUPPLY - CONTACT: MR. LARRY SHANK
PHONE: (847)816-5465
COMPANY: COM-ED



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



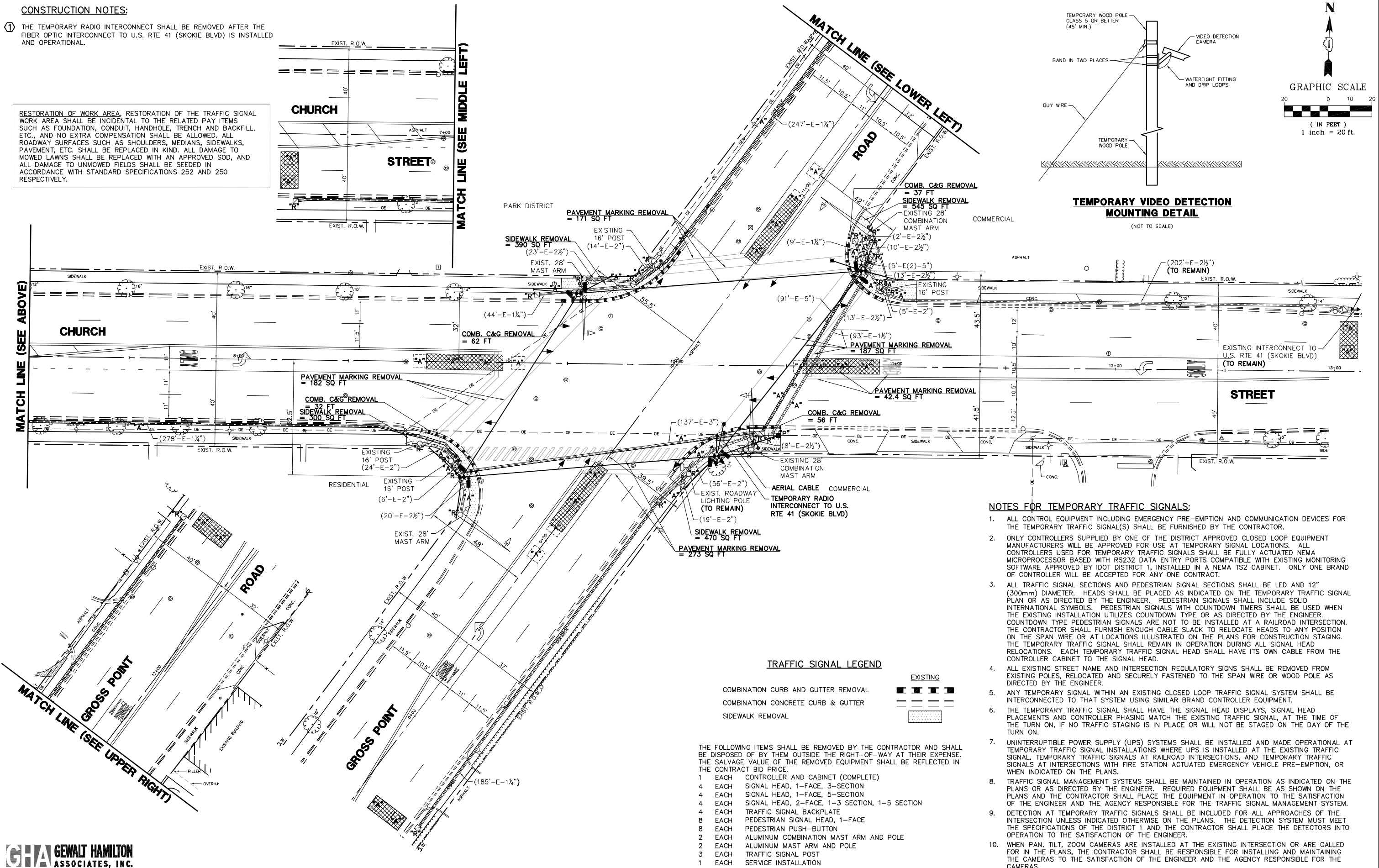
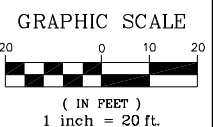
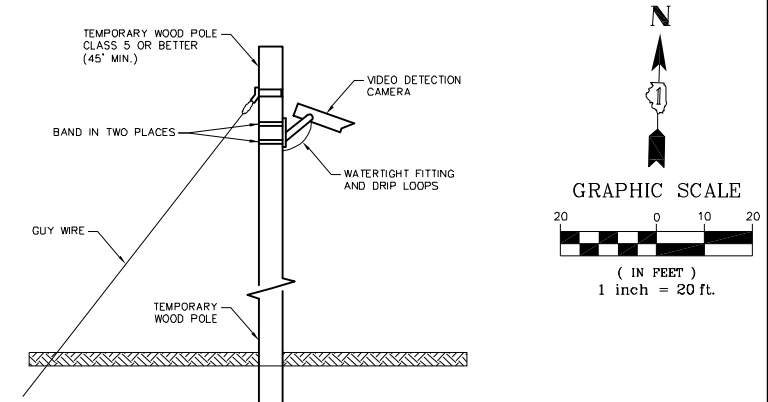
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
C	= 6	+ 4

PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	—

CONSTRUCTION NOTES:

① THE TEMPORARY RADIO INTERCONNECT SHALL BE REMOVED AFTER THE FIBER OPTIC INTERCONNECT TO U.S. RTE 41 (SKOKIE BLVD) IS INSTALLED AND OPERATIONAL.

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



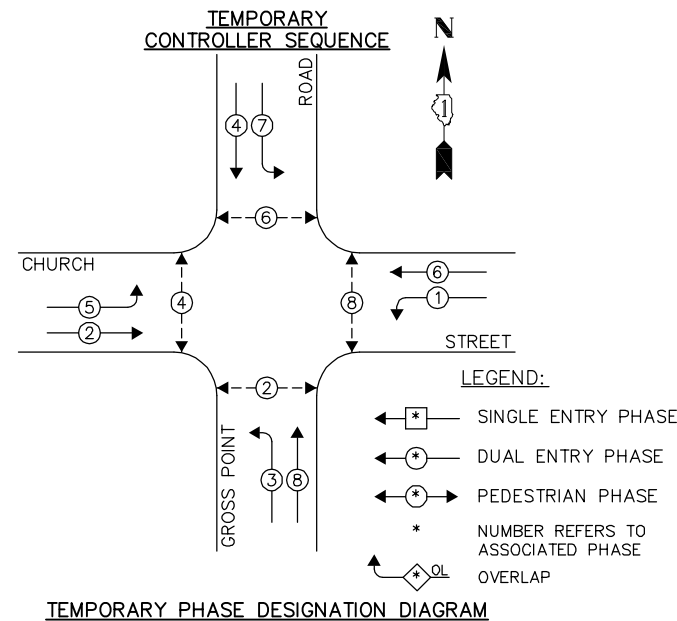
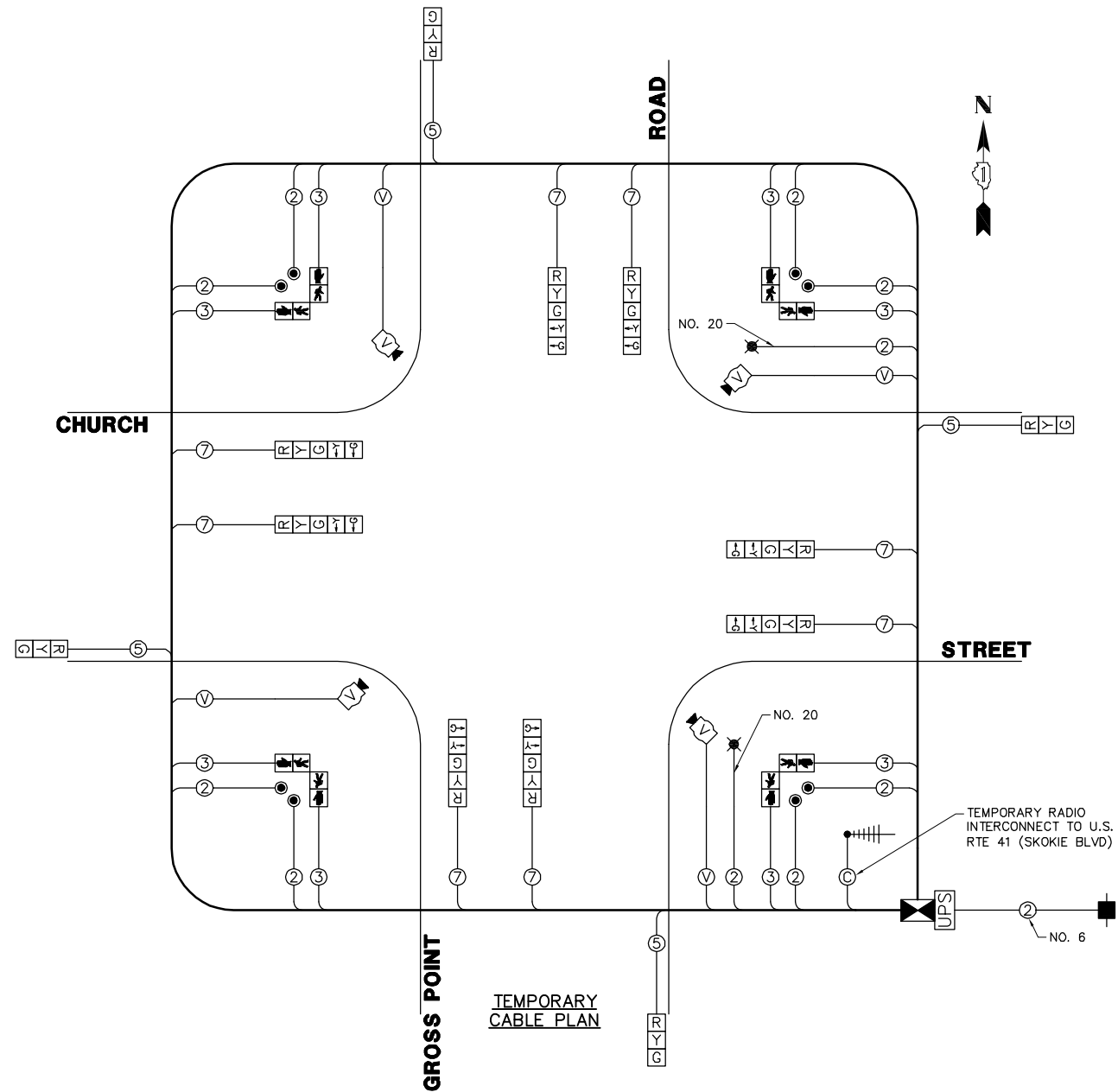
- NOTES FOR TEMPORARY TRAFFIC SIGNALS:**
- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
 - ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
 - ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
 - ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
 - ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROLLER EQUIPMENT.
 - THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
 - UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
 - TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
 - DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF THE DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
 - WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
- 1 EACH CONTROLLER AND CABINET (COMPLETE)
 - 1 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
 - 4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
 - 4 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
 - 4 EACH TRAFFIC SIGNAL BACKPLATE
 - 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
 - 8 EACH PEDESTRIAN PUSH-BUTTON
 - 2 EACH ALUMINUM COMBINATION MAST ARM AND POLE
 - 2 EACH ALUMINUM MAST ARM AND POLE
 - 3 EACH TRAFFIC SIGNAL POST
 - 1 EACH SERVICE INSTALLATION



FILE NAME = 4085.877 - TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION & REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT GROSS POINT ROAD AT CHURCH STREET	F.A.P. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 22	CONTRACT # 60R47	IL/INOIS FED. AID PROJECT	
PLOT SCALE = 1" = .0833'	CHECKED - KLB	DATE - 3/22/2012	REVISED -			SCALE 1" = 20'	SHEET NO. OF SHEETS	STA. TO STA.					
PLOT DATE = 3/22/2012	DATE - 3/22/2012	REVISED -	REVISED -										

GHA #4085.877



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					716.2

GHA GEWALT HAMILTON ASSOCIATES, INC.

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

ENERGY COSTS - BILLED TO: VILLAGE OF SKOKIE
 (ADDRESS) 5127 OAKTON STREET
 (ADDRESS) SKOKIE, IL 60077
 ENERGY SUPPLY - CONTACT: MR. LARRY SHANK
 PHONE: (847) 816-5465
 COMPANY: COM-ED

FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
		CHECKED - KLB	REVISED -
		DATE - 3/22/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM
GROSS POINT ROAD AT CHURCH STREET**

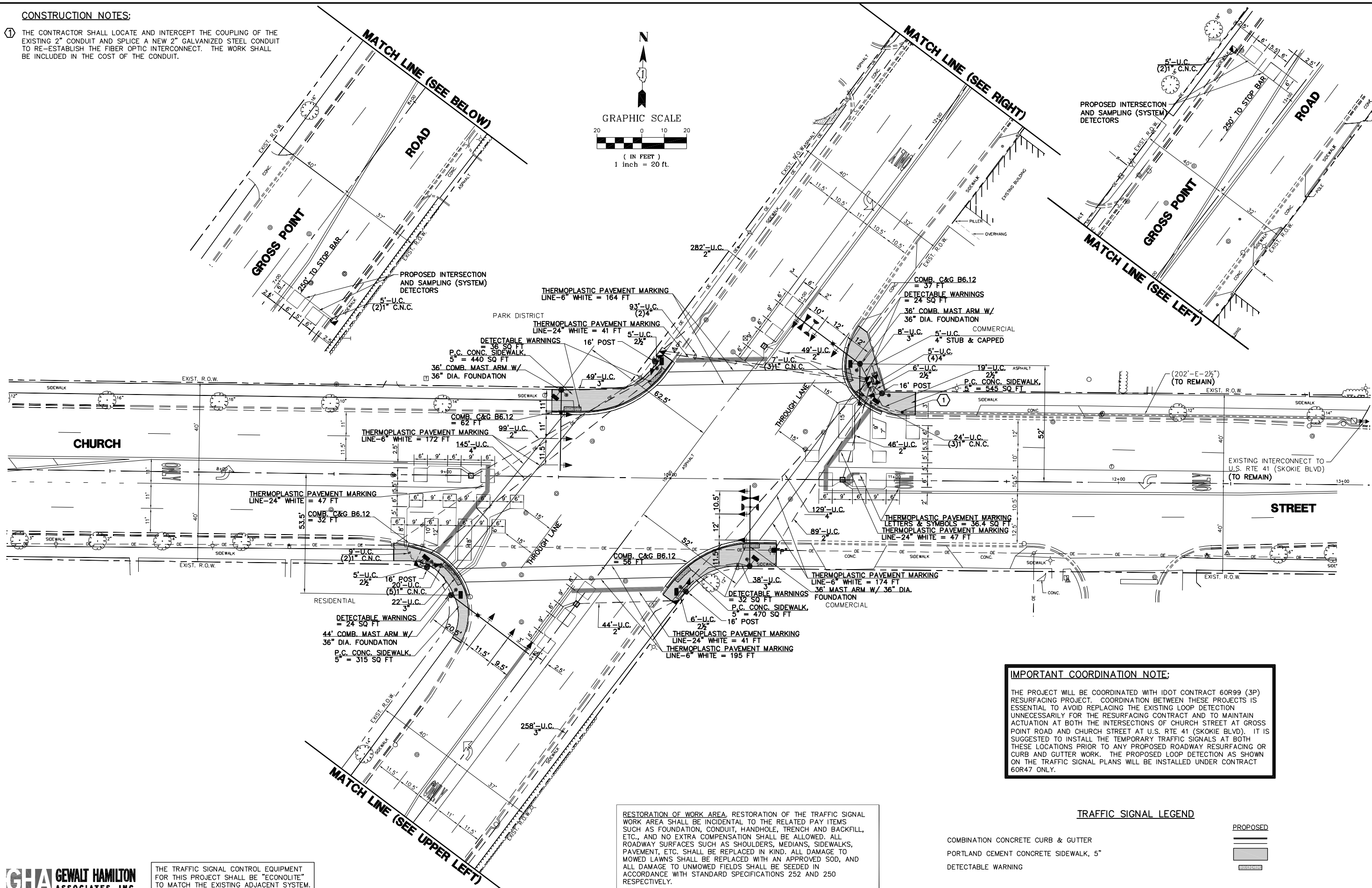
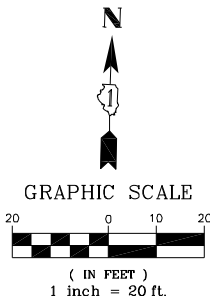
SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.

FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-209-TS	COOK	52	23
CONTRACT #:			60R47	
ILINOIS FED. AID PROJECT				

GHA #4085.877

CONSTRUCTION NOTES:

① THE CONTRACTOR SHALL LOCATE AND INTERCEPT THE COUPLING OF THE EXISTING 2" CONDUIT AND SPLICE A NEW 2" GALVANIZED STEEL CONDUIT TO RE-ESTABLISH THE FIBER OPTIC INTERCONNECT. THE WORK SHALL BE INCLUDED IN THE COST OF THE CONDUIT.

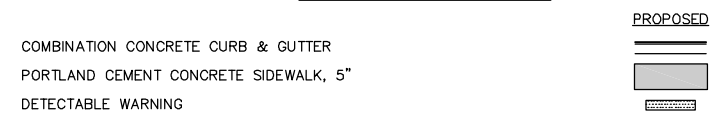


IMPORTANT COORDINATION NOTE:

THE PROJECT WILL BE COORDINATED WITH IDOT CONTRACT 60R99 (3P) RESURFACING PROJECT. COORDINATION BETWEEN THESE PROJECTS IS ESSENTIAL TO AVOID REPLACING THE EXISTING LOOP DETECTION UNNECESSARILY FOR THE RESURFACING CONTRACT AND TO MAINTAIN ACTUATION AT BOTH THE INTERSECTIONS OF CHURCH STREET AT GROSS POINT ROAD AND CHURCH STREET AT U.S. RTE 41 (SKOKIE BLVD). IT IS SUGGESTED TO INSTALL THE TEMPORARY TRAFFIC SIGNALS AT BOTH THESE LOCATIONS PRIOR TO ANY PROPOSED ROADWAY RESURFACING OR CURB AND GUTTER WORK. THE PROPOSED LOOP DETECTION AS SHOWN ON THE TRAFFIC SIGNAL PLANS WILL BE INSTALLED UNDER CONTRACT 60R47 ONLY.

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

TRAFFIC SIGNAL LEGEND



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

FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
		CHECKED - KLB	REVISED -
		DATE - 3/22/2012	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN GROSS POINT ROAD AT CHURCH STREET

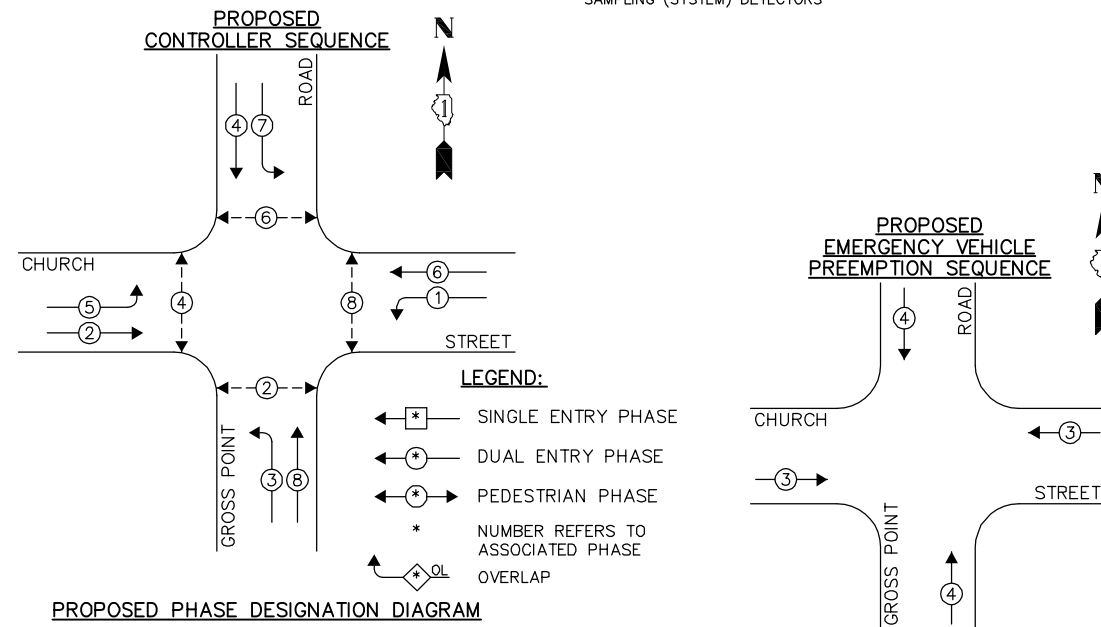
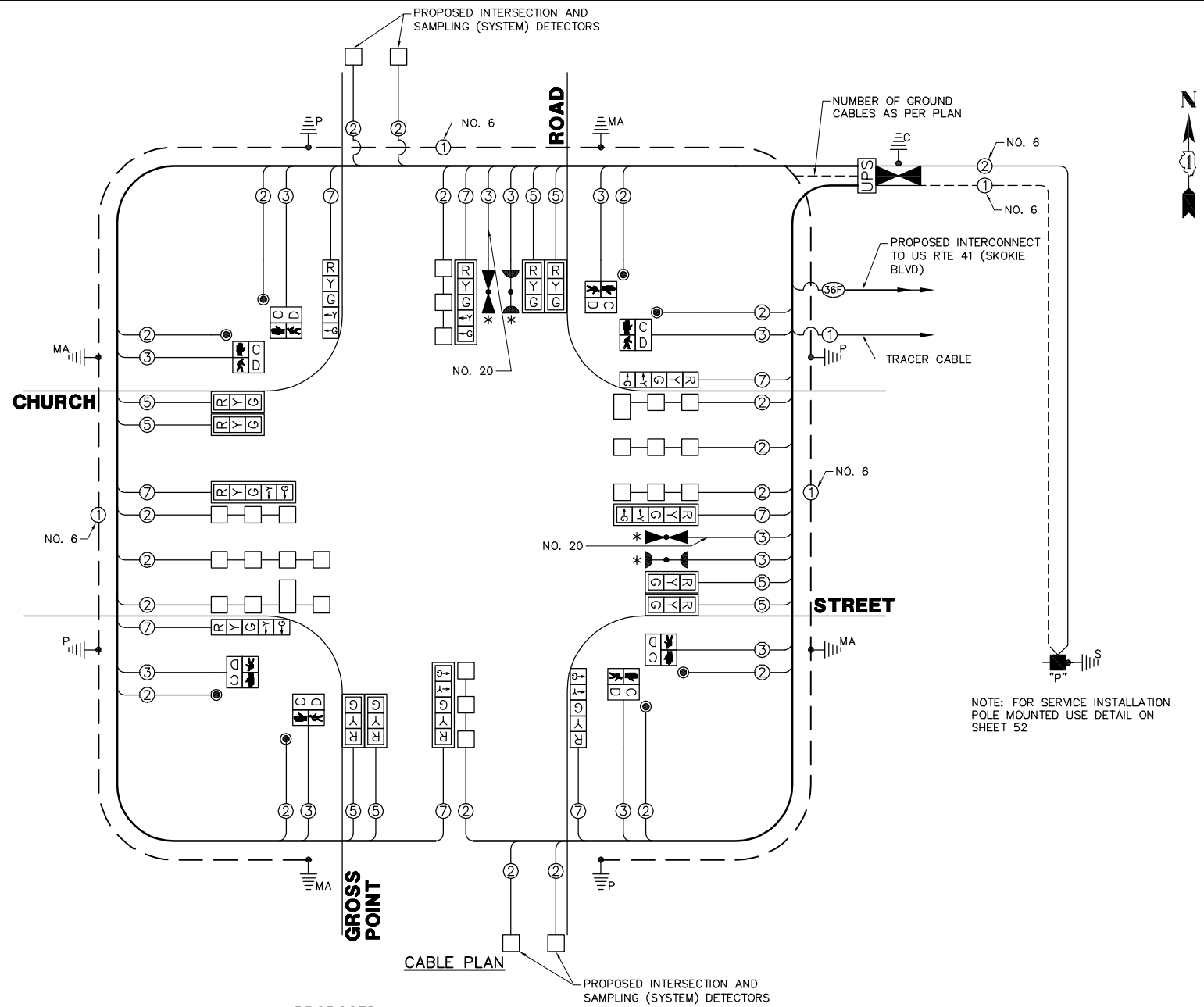
SCALE 1"=20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 24
			CONTRACT # 60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877

SCHEDULE OF QUANTITIES
GROSS POINT ROAD AT CHURCH STREET

NO.	QUANT.	UNIT	DESCRIPTION
1.	3	CU YD	EARTH EXCAVATION
2.	8	SQ YD	SUBBASE GRANULAR MATERIAL, TYPE B 4"
3.	1,770	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
4.	116	SQ FT	DETECTABLE WARNINGS
5.	187	FOOT	COMBINATION CURB AND GUTTER REMOVAL
6.	1,705	SQ FT	SIDEWALK REMOVAL
7.	187	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
8.	1.50	CAL MO	ENGINEER'S FIELD OFFICE, TYPE A
9.	0.20	L SUM	MOBILIZATION
10.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501
11.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606
12.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
13.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
14.	15.00	SQ FT	SIGN PANEL - TYPE 1
15.	27.50	SQ FT	SIGN PANEL - TYPE 2
16.	36.40	SQ FT	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS
17.	704	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 6"
18.	176	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
19.	855.40	SQ FT	PAVEMENT MARKING REMOVAL
20.	865	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
21.	22	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
22.	117	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
23.	462	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
24.	4	EACH	HANDHOLE
25.	4	EACH	HEAVY-DUTY HANDHOLE
26.	2	EACH	DOUBLE HANDHOLE
27.	1	EACH	TRANSCEIVER - FIBER OPTIC
28.	1,361	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
29.	1,768	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
30.	1,750	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
31.	1,621	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
32.	2,647	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
33.	111	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
34.	4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
35.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
36.	2	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.
37.	1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.
38.	16	FOOT	CONCRETE FOUNDATION, TYPE A
39.	4	FOOT	CONCRETE FOUNDATION, TYPE C
40.	46	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
41.	8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
42.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
43.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
44.	8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
45.	12	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
46.	12	EACH	INDUCTIVE LOOP DETECTOR
47.	1,174	FOOT	DETECTOR LOOP, TYPE I
* 48.	2	EACH	LIGHT DETECTOR
* 49.	1	EACH	LIGHT DETECTOR AMPLIFIER
50.	8	EACH	PEDESTRIAN PUSH-BUTTON
51.	1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
52.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
53.	10	EACH	REMOVE EXISTING HANDHOLE
54.	8	EACH	REMOVE EXISTING CONCRETE FOUNDATION
* 55.	335	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
56.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
57.	1	EACH	UNINTERRUPTABLE POWER SUPPLY, SPECIAL
58.	1,700	SQ FT	TEMPORARY SIDEWALK
59.	51.40	SQ FT	TEMPORARY INFORMATION SIGNING
60.	1	EACH	ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL
61.	1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
62.	680	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C



* 100% OF THE COST SHALL BE PAID FOR BY THE VILLAGE OF SKOKIE

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



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

ENERGY COSTS - BILLED TO: VILLAGE OF SKOKIE
(ADDRESS) 5127 OAKTON STREET
(ADDRESS) SKOKIE, IL 60077
ENERGY SUPPLY - CONTACT: MR. LARRY SHANK
PHONE: (847) 816-5465
COMPANY: COM-ED

FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
		CHECKED - KLB	REVISED -
		DATE - 3/22/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
GROSS POINT ROAD AT CHURCH STREET

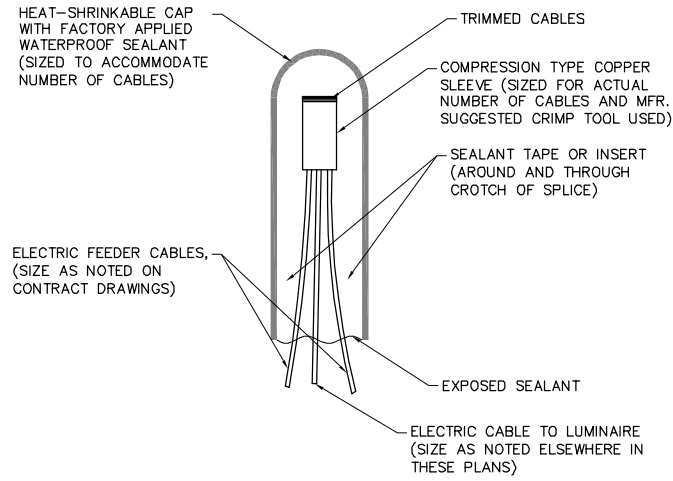
SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 25
CONTRACT # 60R47			GHA #4085.877	
ILLINOIS FED. AID PROJECT				

PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3
MOVEMENT	4

NOTES:

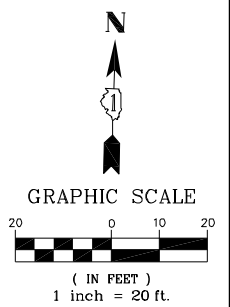
- REFER TO THE TRAFFIC SIGNAL PLAN FOR THE LOCATION OF COMBINATION POLES.
- THE CONTRACTOR SHALL VERIFY CONNECTIVITY OF THE EXISTING LIGHTS ALONG GROSS POINT ROAD AND CHURCH STREET PRIOR TO BEGINNING CONSTRUCTION.
- STREET LIGHTING WORK SHALL BE STAGED TO PREVENT AN OVERNIGHT LAPSE IN LIGHTING.
- TO SPLICE THE CONDUIT, THE CONTRACTOR SHALL LOCATE AND INTERCEPT THE COUPLING OF THE EXISTING 2" CONDUIT AND SPLICE A NEW 2" GALVANIZED STEEL CONDUIT TO RE-CONNECT THE EXISTING STREET LIGHTING SYSTEM. THE WORK SHALL BE INCLUDED IN THE COST OF THE CONDUIT.
- WHERE THE CONDUIT IS TO BE SPLICED, THE EXISTING CABLE SHALL BE REMOVED TO THE NEAREST JUNCTION POINT AND A NEW CONTINUOUS SPAN OF CABLE SHALL BE INSTALLED.
- UNDERGROUND SPLICING OF PHASE AND NEUTRAL CABLES SHALL NOT BE PERMITTED. THESE CABLE SPLICES SHALL OCCUR ONLY IN ABOVE GROUND JUNCTION BOXES OR POLE HANDHOLES.
- FOR THE PROPOSED LIGHTING CONTROLLER 'XO', CIRCUIT 'A' SHALL USE CABLE COLOR RED-RED AND CIRCUIT 'B' SHALL USE CABLE COLOR BLACK-BLACK.
- THE GROUND WIRE SHALL BE SPLICED AND BONDED TO EACH HANDHOLE'S COVER AND FRAME.
- ALL EXISTING STREET LIGHTS ARE ON CIRCUIT 'A' IN THE EXISTING VILLAGE OF SKOKIE LIGHTING CONTROLLER 'C1'.
- THE EXISTING STREET LIGHTING IS A SINGLE PHASE, 240/480V, 3 WIRE, AC SYSTEM.
- THE EXISTING VILLAGE OF SKOKIE LIGHTING CONTROLLER 'C1' IS LOCATED AT THE SOUTHEAST CORNER OF U.S. ROUTE 41 (SKOKIE BOULEVARD) AT GROSS POINT ROAD.



**SPLICING ELECTRICAL CABLES
BASIC MATERIALS AND METHODS**

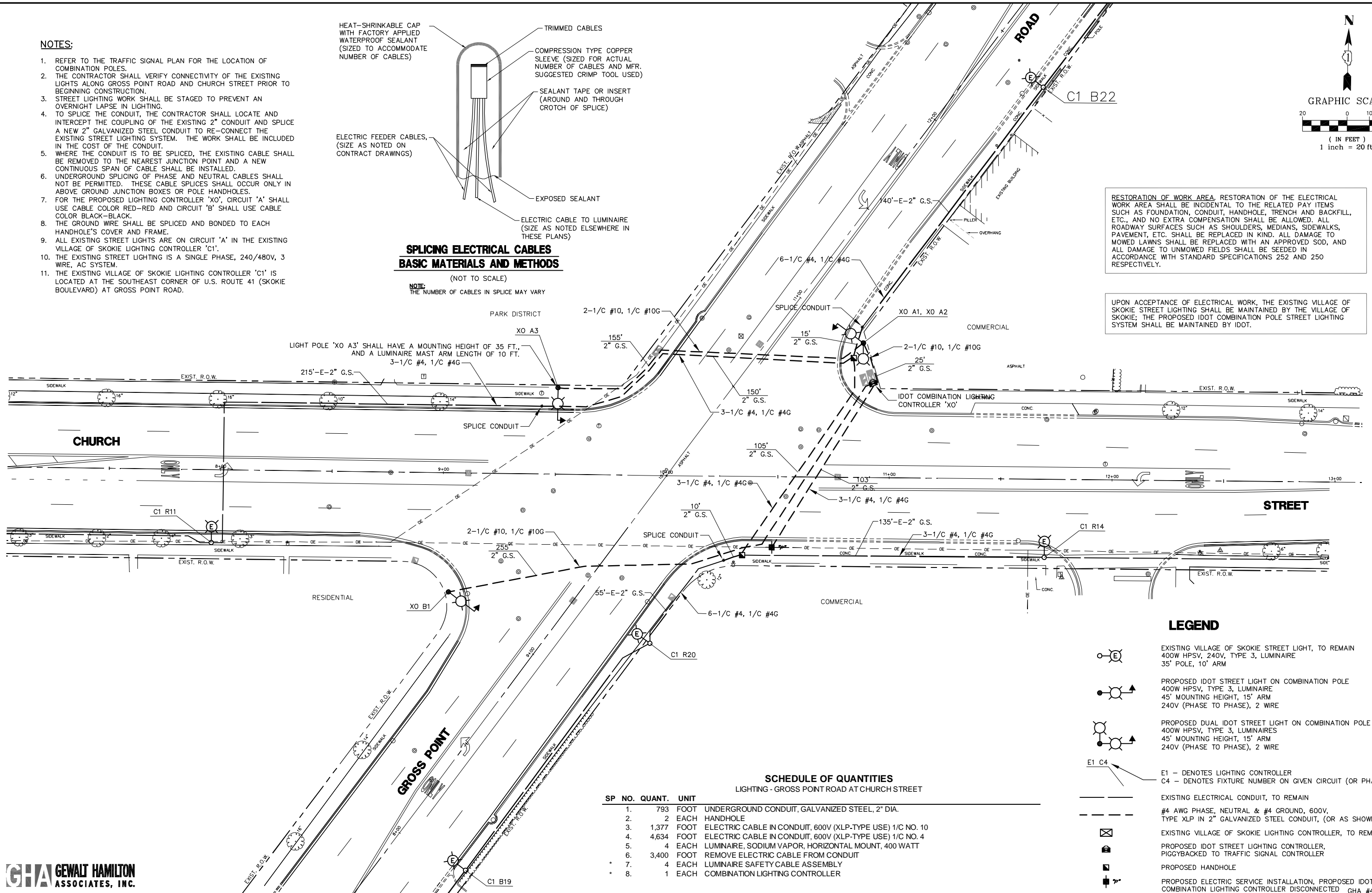
(NOT TO SCALE)

NOTE:
THE NUMBER OF CABLES IN SPLICE MAY VARY



RESTORATION OF WORK AREA, RESTORATION OF THE ELECTRICAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEMS 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.

UPON ACCEPTANCE OF ELECTRICAL WORK, THE EXISTING VILLAGE OF SKOKIE STREET LIGHTING SHALL BE MAINTAINED BY THE VILLAGE OF SKOKIE; THE PROPOSED IDOT COMBINATION POLE STREET LIGHTING SYSTEM SHALL BE MAINTAINED BY IDOT.



SCHEDULE OF QUANTITIES
LIGHTING - GROSS POINT ROAD AT CHURCH STREET

SP NO.	QUANT.	UNIT
1.	793	FOOT UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
2.	2	EACH HANDHOLE
3.	1,377	FOOT ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10
4.	4,634	FOOT ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4
5.	4	EACH LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT
6.	3,400	FOOT REMOVE ELECTRIC CABLE FROM CONDUIT
7.	4	EACH LUMINAIRE SAFETY CABLE ASSEMBLY
8.	1	EACH COMBINATION LIGHTING CONTROLLER

LEGEND

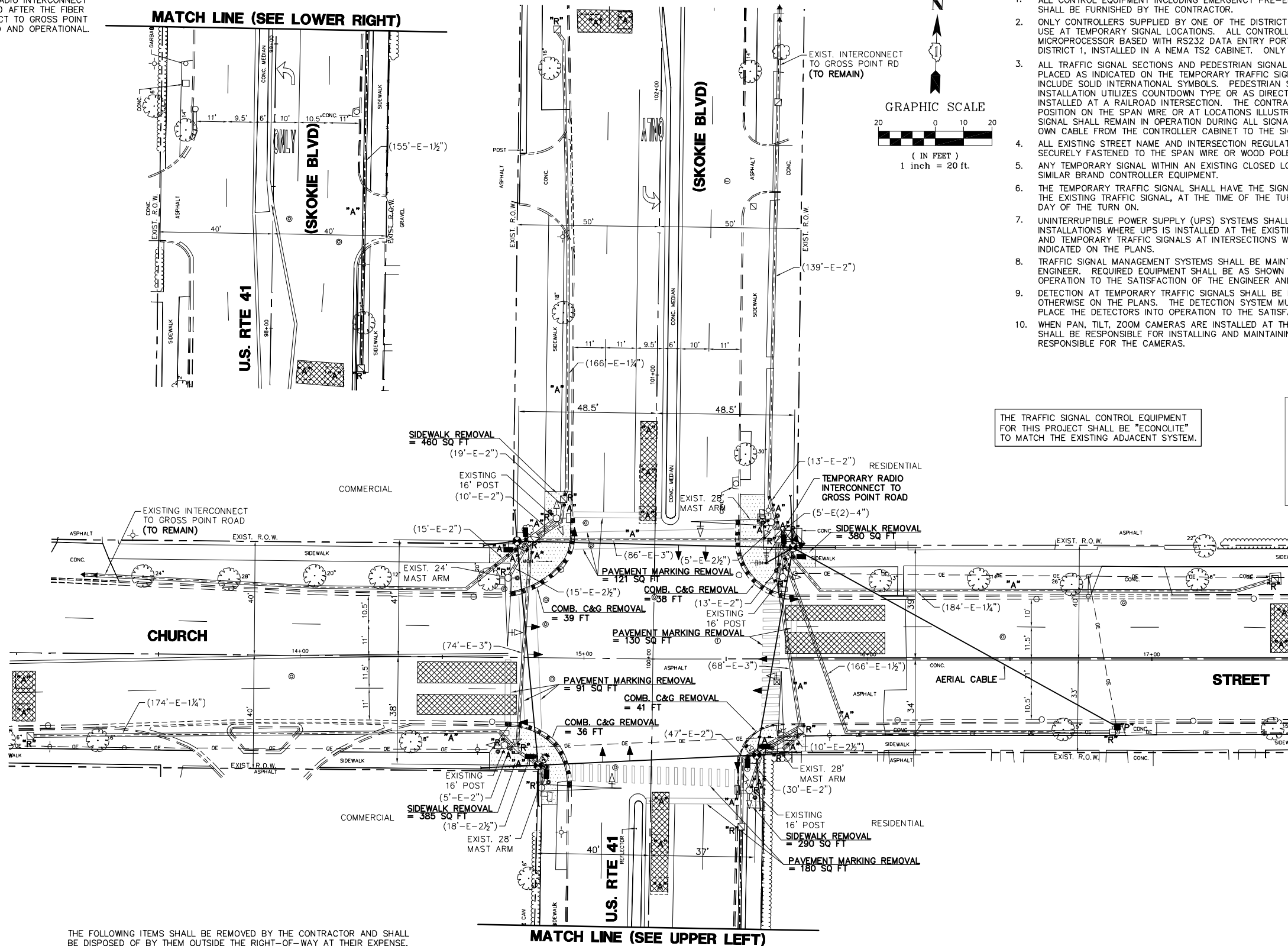
- EXISTING VILLAGE OF SKOKIE STREET LIGHT, TO REMAIN
400W HPSV, 240V, TYPE 3, LUMINAIRE
35' POLE, 10' ARM
- PROPOSED IDOT STREET LIGHT ON COMBINATION POLE
400W HPSV, TYPE 3, LUMINAIRE
45' MOUNTING HEIGHT, 15' ARM
240V (PHASE TO PHASE), 2 WIRE
- PROPOSED DUAL IDOT STREET LIGHT ON COMBINATION POLE
400W HPSV, TYPE 3, LUMINAIRES
45' MOUNTING HEIGHT, 15' ARM
240V (PHASE TO PHASE), 2 WIRE
- E1 - DENOTES LIGHTING CONTROLLER
C4 - DENOTES FIXTURE NUMBER ON GIVEN CIRCUIT (OR PHASE)
- EXISTING ELECTRICAL CONDUIT, TO REMAIN
- #4 AWG PHASE, NEUTRAL & #4 GROUND, 600V, TYPE XLP IN 2" GALVANIZED STEEL CONDUIT, (OR AS SHOWN)
- EXISTING VILLAGE OF SKOKIE LIGHTING CONTROLLER, TO REMAIN
- PROPOSED IDOT STREET LIGHTING CONTROLLER, PIGGYBACKED TO TRAFFIC SIGNAL CONTROLLER
- PROPOSED HANDHOLE
- PROPOSED ELECTRIC SERVICE INSTALLATION, PROPOSED IDOT COMBINATION LIGHTING CONTROLLER DISCONNECTED

GHA GEWALT HAMILTON ASSOCIATES, INC.

FILE NAME = 4085.877-EL1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INTERSECTION LIGHTING PLAN GROSS POINT ROAD AT CHURCH STREET			FAP. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 26
PLOT SCALE = 1" = .0833'	CHECKED - AJP	DATE - 3/22/2012	REVISED -		SCALE 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT # 60R47		
PLOT DATE = 3/22/2012	DATE - 3/22/2012	REVISED -	REVISED -		ILLINOIS FED. AID PROJECT							

CONSTRUCTION NOTES:

- ① THE TEMPORARY RADIO INTERCONNECT SHALL BE REMOVED AFTER THE FIBER OPTIC INTERCONNECT TO GROSS POINT ROAD IS INSTALLED AND OPERATIONAL.

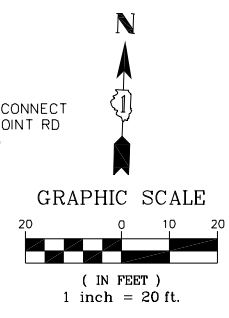


THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEMS 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.

NOTES FOR TEMPORARY TRAFFIC SIGNALS:

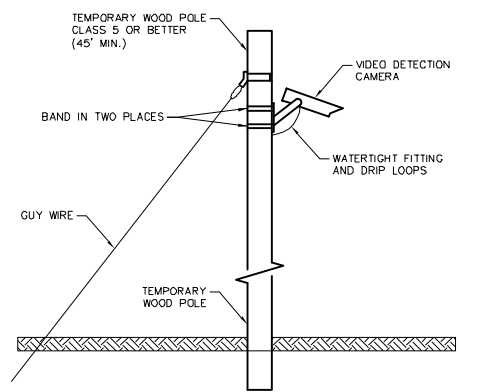
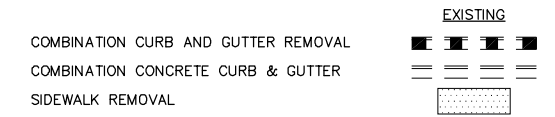
- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROLLER EQUIPMENT.
- THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF THE DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



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

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 2 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 2 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 2 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 8 EACH PEDESTRIAN PUSH-BUTTON
- 4 EACH ALUMINUM MAST ARM AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 1 EACH SERVICE INSTALLATION

TRAFFIC SIGNAL LEGEND



TEMPORARY VIDEO DETECTION MOUNTING DETAIL
(NOT TO SCALE)



FILE NAME = 4085.877-TR1.dwg

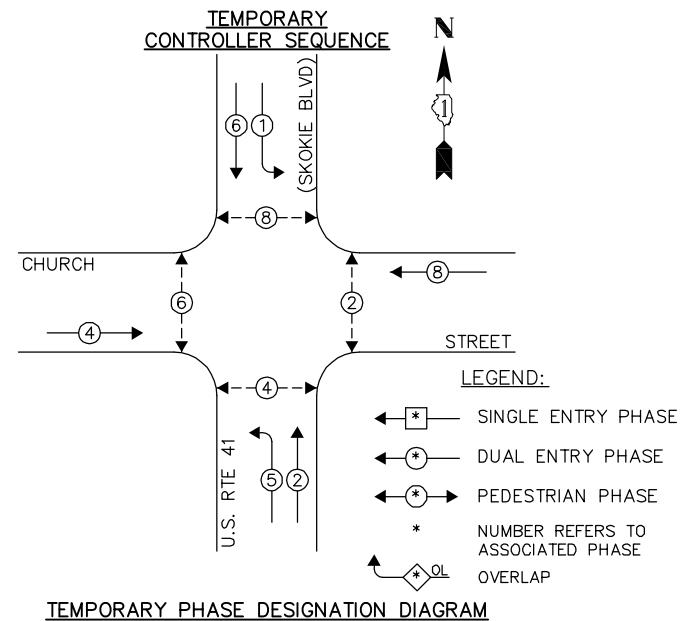
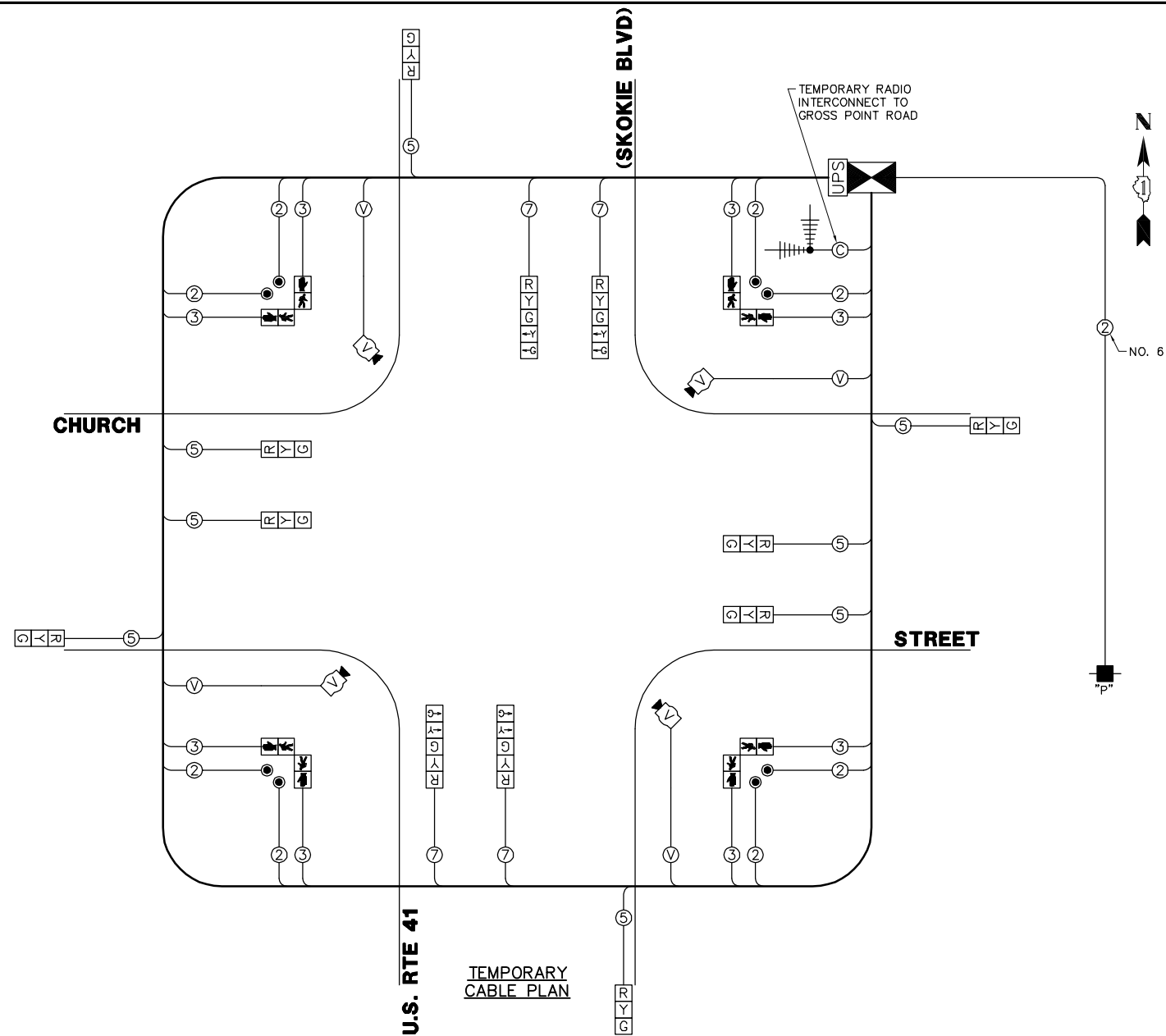
USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
PLOT SCALE = 1" = .0833'	DRAWN - ZCW	REVISED -
PLOT DATE = 3/22/2012	CHECKED - KLB	REVISED -
	DATE - 3/22/2012	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION & REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT U.S. RTE 41 (SKOKIE BLVD) AT CHURCH STREET

SCALE 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.
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F.A.P. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 27
CONTRACT # 60R47			GHA #4085.877	
ILLINOIS FED. AID PROJECT				



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND. L.E.D.	% OPERATION		
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					706.6

GHA GEWALT HAMILTON ASSOCIATES, INC.

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

ENERGY COSTS - BILLED TO: VILLAGE OF SKOKIE
 (ADDRESS) 5127 OAKTON STREET
 (ADDRESS) SKOKIE, IL 60077
 ENERGY SUPPLY - CONTACT: MR. LARRY SHANK
 PHONE: (847) 816-5465
 COMPANY: COM-ED

FILE NAME = 4085.877-TR1.dwg

USER NAME = ZACH WALLSTEN
 PLOT SCALE = 1" = .0833'
 PLOT DATE = 3/22/2012

DESIGNED - JRD
 DRAWN - ZCW
 CHECKED - KLB
 DATE - 3/22/2012

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

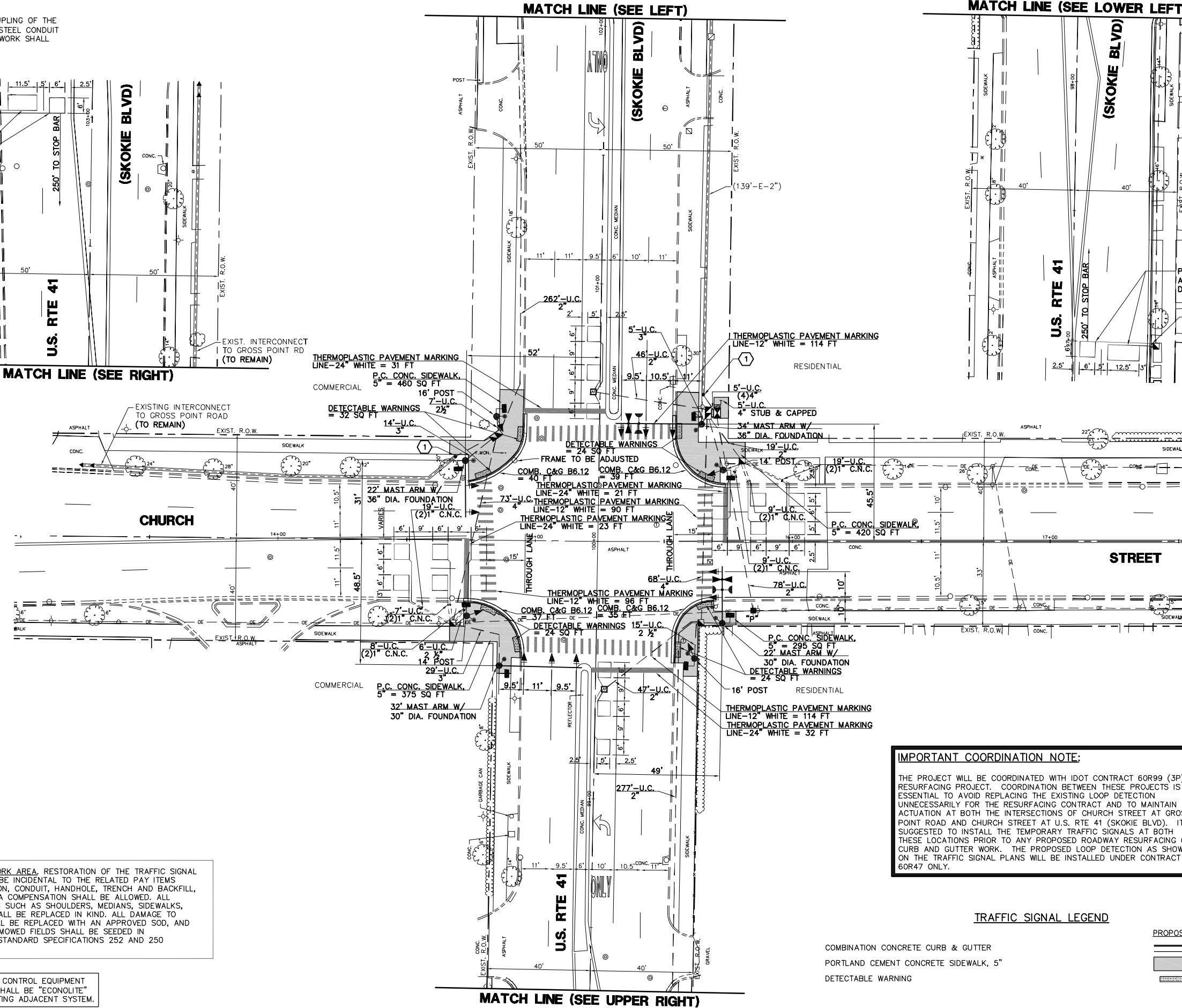
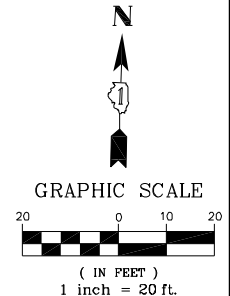
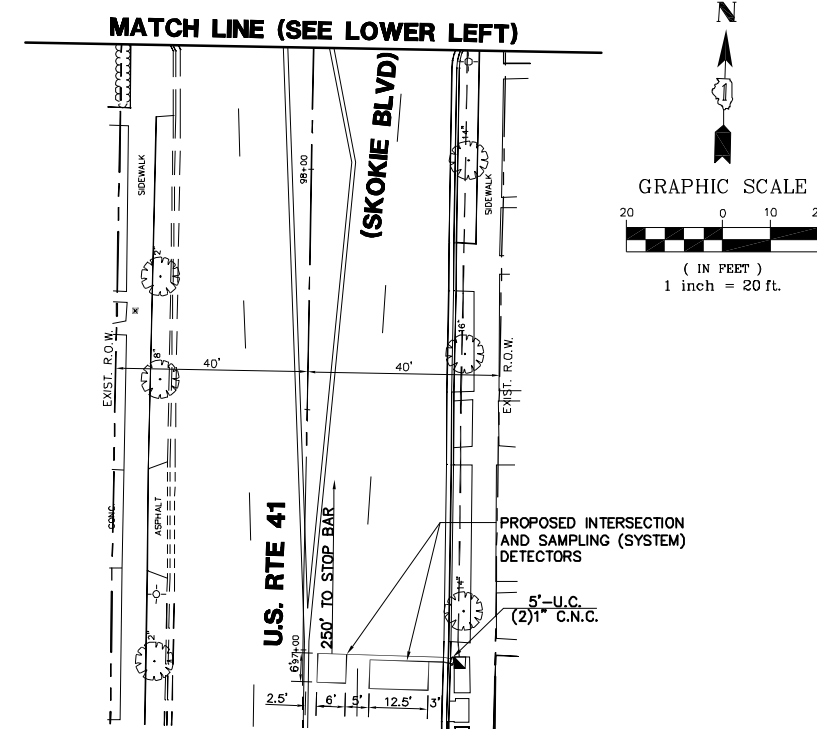
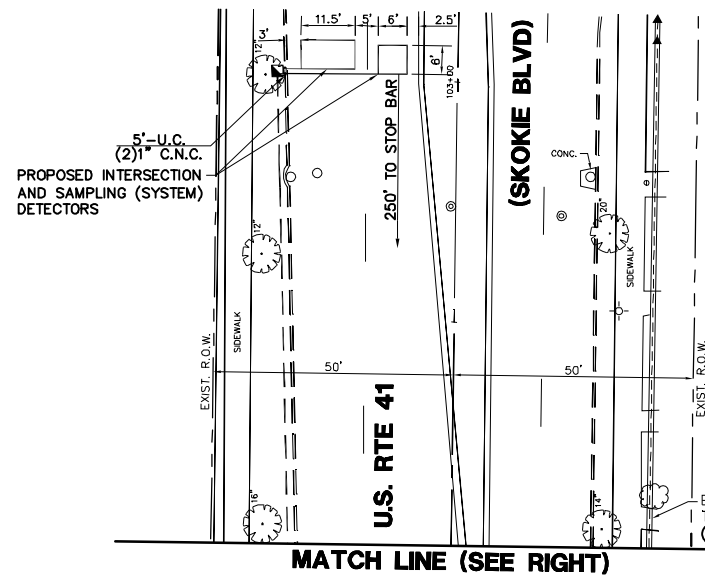
**TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM
 U.S. RTE 41 (SKOKIE BLVD) AT CHURCH STREET**

FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-209-TS	COOK	52	28
CONTRACT #:			60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877

CONSTRUCTION NOTES:

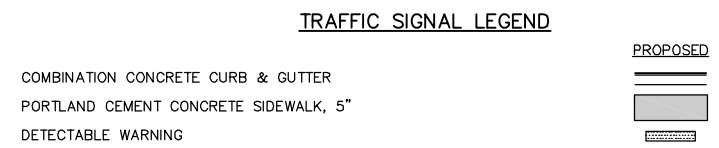
① THE CONTRACTOR SHALL LOCATE AND INTERCEPT THE COUPLING OF THE EXISTING 2" CONDUIT AND SPLICE A NEW 2" GALVANIZED STEEL CONDUIT TO RE-ESTABLISH THE FIBER OPTIC INTERCONNECT. THE WORK SHALL BE INCLUDED IN THE COST OF THE CONDUIT.



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

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

IMPORTANT COORDINATION NOTE:
 THE PROJECT WILL BE COORDINATED WITH IDOT CONTRACT 60R99 (3P) RESURFACING PROJECT. COORDINATION BETWEEN THESE PROJECTS IS ESSENTIAL TO AVOID REPLACING THE EXISTING LOOP DETECTION UNNECESSARILY FOR THE RESURFACING CONTRACT AND TO MAINTAIN ACTUATION AT BOTH THE INTERSECTIONS OF CHURCH STREET AT GROSS POINT ROAD AND CHURCH STREET AT U.S. RTE 41 (SKOKIE BLVD). IT IS SUGGESTED TO INSTALL THE TEMPORARY TRAFFIC SIGNALS AT BOTH THESE LOCATIONS PRIOR TO ANY PROPOSED ROADWAY RESURFACING OR CURB AND GUTTER WORK. THE PROPOSED LOOP DETECTION AS SHOWN ON THE TRAFFIC SIGNAL PLANS WILL BE INSTALLED UNDER CONTRACT 60R47 ONLY.



FILE NAME = 4085.877-TR1.dwg

USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
PLOT SCALE = 1" = .0833'	DRAWN - ZCW	REVISED -
PLOT DATE = 3/22/2012	CHECKED - KLB	REVISED -
	DATE - 3/22/2012	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN
 U.S. RTE 41 (SKOKIE BLVD) AT CHURCH STREET**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 29
CONTRACT # 60R47			ILLINOIS FED. AID PROJECT	

GHA #4085.877

SCHEDULE OF QUANTITIES

U.S. RTE 41 (SKOKIE BOULEVARD) AT CHURCH STREET

NO.	QUANT.	UNIT	DESCRIPTION
1.	2	CU YD	EARTH EXCAVATION
2.	6	SQ YD	SUBBASE GRANULAR MATERIAL, TYPE B 4"
3.	1,550	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
4.	104	SQ FT	DETECTABLE WARNINGS
5.	154	FOOT	COMBINATION CURB AND GUTTER REMOVAL
6.	1,515	SQ FT	SIDEWALK REMOVAL
7.	1	EACH	FRAMES AND LIDS TO BE ADJUSTED
8.	154	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
9.	1.50	CAL MO	ENGINEER'S FIELD OFFICE, TYPE A
10.	0.20	L SUM	MOBILIZATION
11.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501
12.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606
13.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
14.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
15.	15.00	SQ FT	SIGN PANEL - TYPE 1
16.	27.50	SQ FT	SIGN PANEL - TYPE 2
17.	414	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"
18.	107	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
19.	522.00	SQ FT	PAVEMENT MARKING REMOVAL
20.	1	EACH	SERVICE INSTALLATION - POLE MOUNTED
21.	682	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
22.	49	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
23.	56	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
24.	412	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
25.	5	EACH	HANDHOLE
26.	2	EACH	HEAVY-DUTY HANDHOLE
27.	2	EACH	DOUBLE HANDHOLE
28.	1	EACH	TRANSCIVER - FIBER OPTIC
29.	1,060	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
30.	1,380	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
31.	1,602	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
32.	652	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
33.	2,296	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
34.	100	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
35.	2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
36.	2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
37.	2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.
38.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.
39.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
40.	16	FOOT	CONCRETE FOUNDATION, TYPE A
41.	4	FOOT	CONCRETE FOUNDATION, TYPE C
42.	20	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
43.	22	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
44.	8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
45.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
46.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
47.	2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
48.	8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
49.	10	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
50.	10	EACH	INDUCTIVE LOOP DETECTOR
51.	748	FOOT	DETECTOR LOOP, TYPE I
* 52.	2	EACH	LIGHT DETECTOR
* 53.	1	EACH	LIGHT DETECTOR AMPLIFIER
54.	8	EACH	PEDESTRIAN PUSH-BUTTON
55.	1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
56.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
57.	10	EACH	REMOVE EXISTING HANDHOLE
58.	9	EACH	REMOVE EXISTING CONCRETE FOUNDATION
* 59.	248	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
60.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
61.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
62.	1,500	SQ FT	TEMPORARY SIDEWALK
63.	51.40	SQ FT	TEMPORARY INFORMATION SIGNING
64.	1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
65.	517	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C

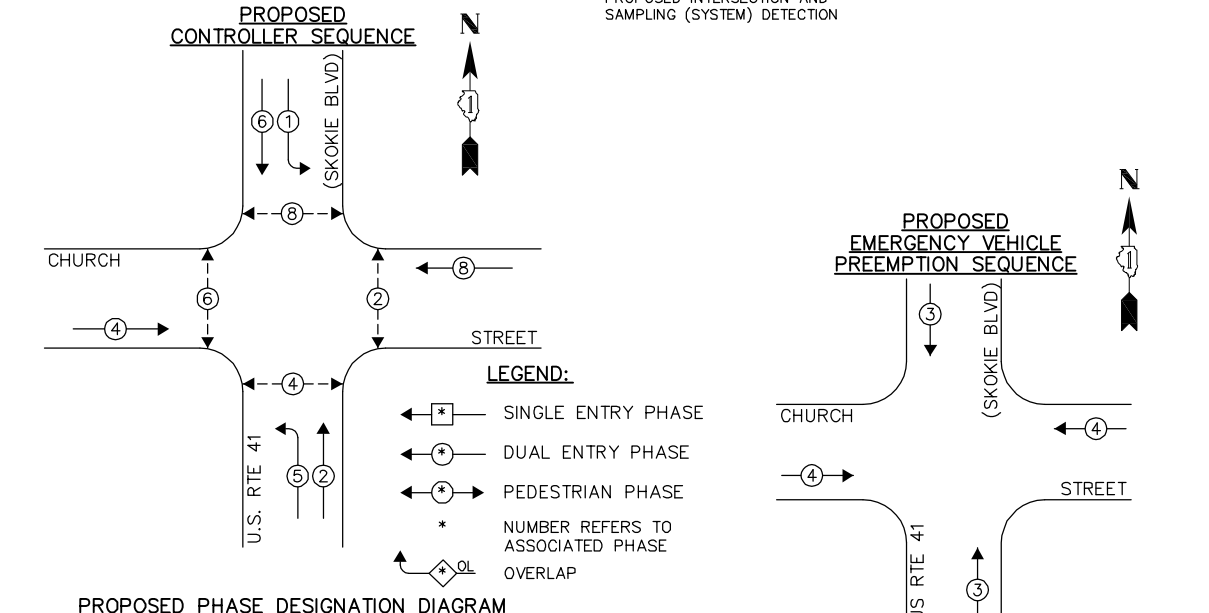
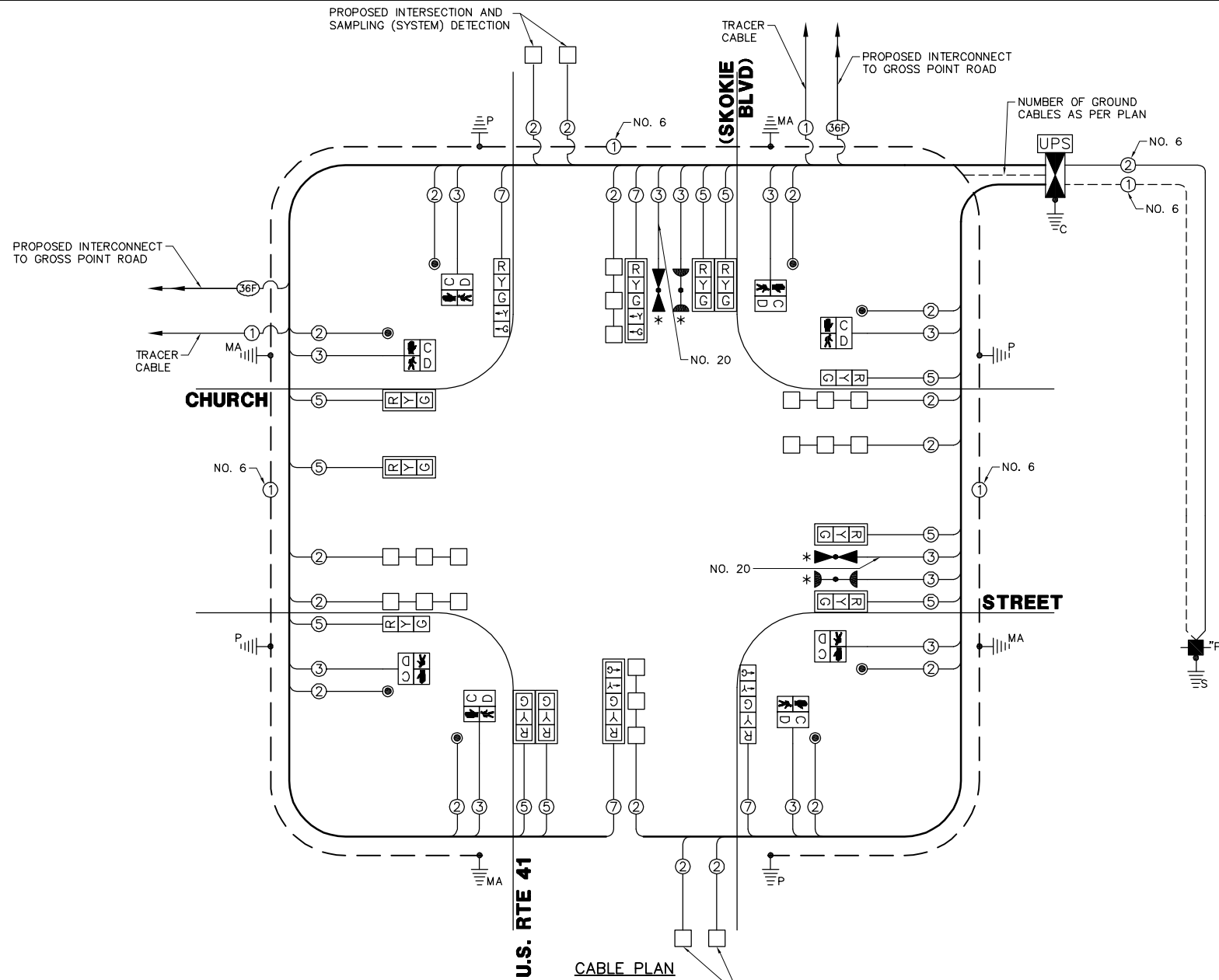
* 100% OF THE COST SHALL BE PAID FOR BY THE VILLAGE OF SKOKIE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)	14	135	17	0.50	119.0
SIGNAL (YELLOW)	14	135	25	0.25	87.5
SIGNAL (GREEN)	14	135	15	0.25	52.5
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					593.6

ENERGY COSTS - BILLED TO: VILLAGE OF SKOKIE
 (ADDRESS) 5122 OAKTON STREET
 (ADDRESS) SKOKIE, IL 60077
 ENERGY SUPPLY - CONTACT: MR. LARRY SHANK
 PHONE: (847) 816-5465
 COMPANY: COM-ED



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



FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
	PLOT SCALE = 1" = .0833'	DRAWN - ZCW	REVISED -
	PLOT DATE = 3/22/2012	CHECKED - KLB	REVISED -
		DATE - 3/22/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION
DIAGRAM, & EMERGENCY VEHICLE PREEMPTION SEQUENCE
U.S. RTE 41 (SKOKIE BLVD) AT CHURCH STREET**

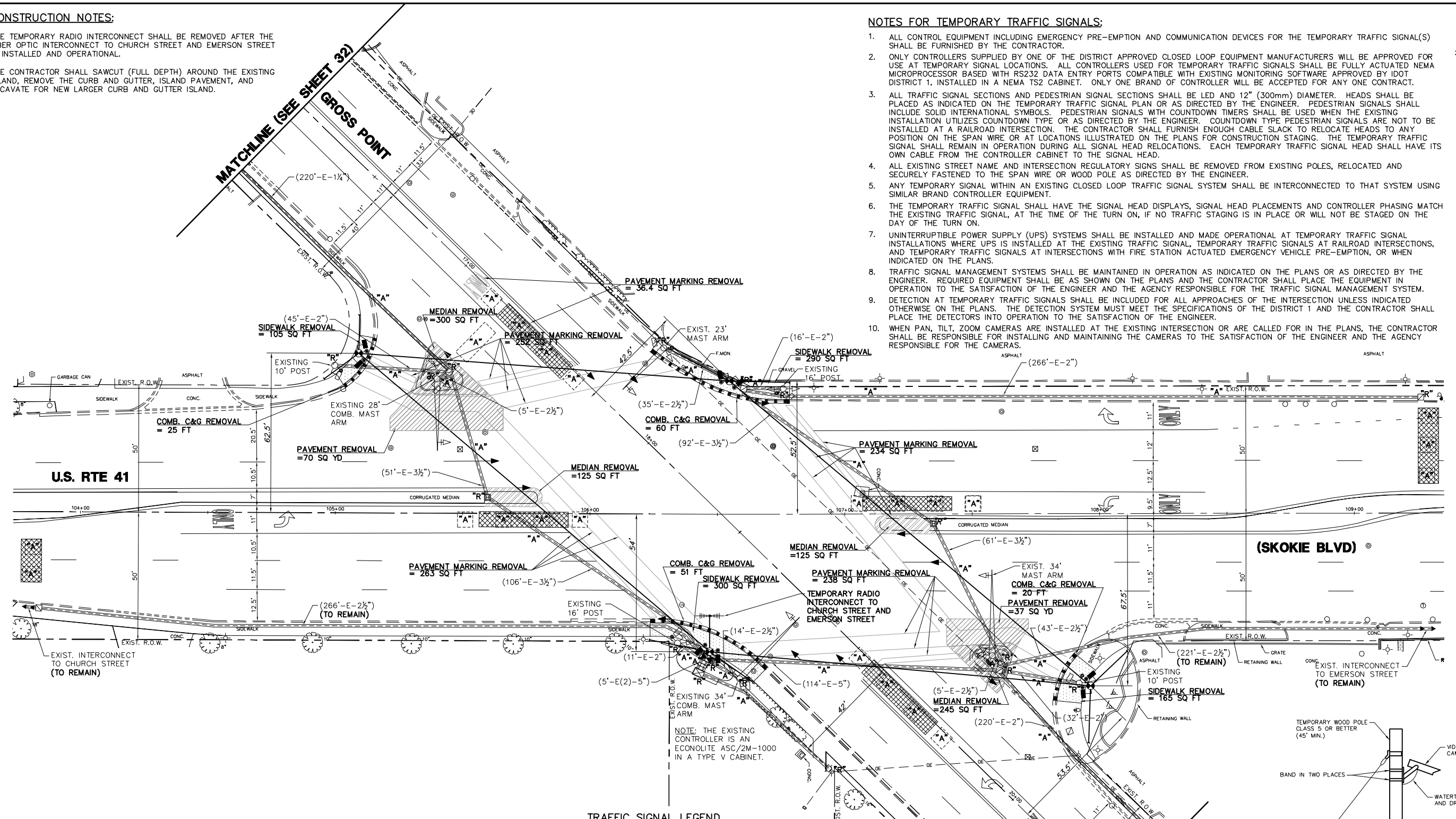
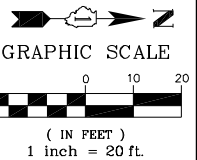
F.A.P. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 30
CONTRACT # 60R47			GHA #4085.877	
ILLINOIS FED. AID PROJECT				

CONSTRUCTION NOTES:

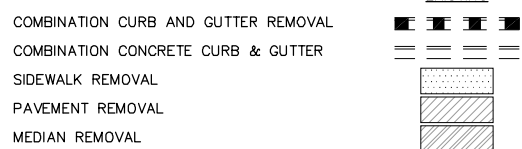
- THE TEMPORARY RADIO INTERCONNECT SHALL BE REMOVED AFTER THE FIBER OPTIC INTERCONNECT TO CHURCH STREET AND EMERSON STREET IS INSTALLED AND OPERATIONAL.
- THE CONTRACTOR SHALL SAWCUT (FULL DEPTH) AROUND THE EXISTING ISLAND, REMOVE THE CURB AND GUTTER, ISLAND PAVEMENT, AND EXCAVATE FOR NEW LARGER CURB AND GUTTER ISLAND.

NOTES FOR TEMPORARY TRAFFIC SIGNALS:

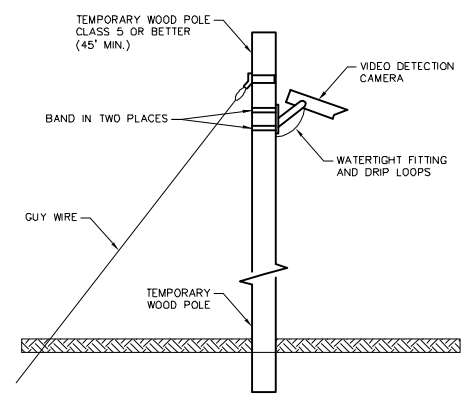
- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROLLER EQUIPMENT.
- THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF THE DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



TRAFFIC SIGNAL LEGEND



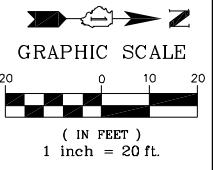
- THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.
- 1 EACH CONTROLLER AND CABINET (COMPLETE)
 - 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
 - 4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
 - 2 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
 - 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
 - 1 EACH SIGNAL HEAD, 3-FACE, 2-3 SECTION, 1-5 SECTION
 - 4 EACH SIGNAL HEAD, 3-FACE, 1-3 SECTION, 2-5 SECTION
 - 8 EACH TRAFFIC SIGNAL BACKPLATE
 - 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
 - 6 EACH PEDESTRIAN PUSH-BUTTON
 - 2 EACH ALUMINUM MAST ARM AND POLE
 - 4 EACH TRAFFIC SIGNAL POST
 - 1 EACH SERVICE INSTALLATION



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

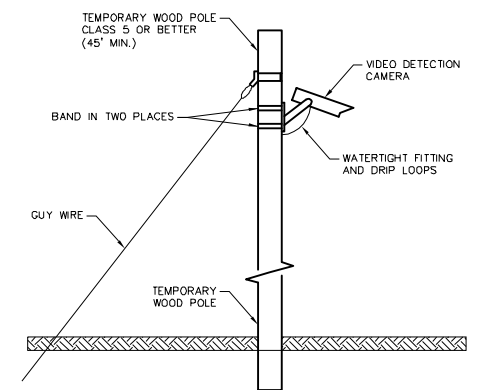
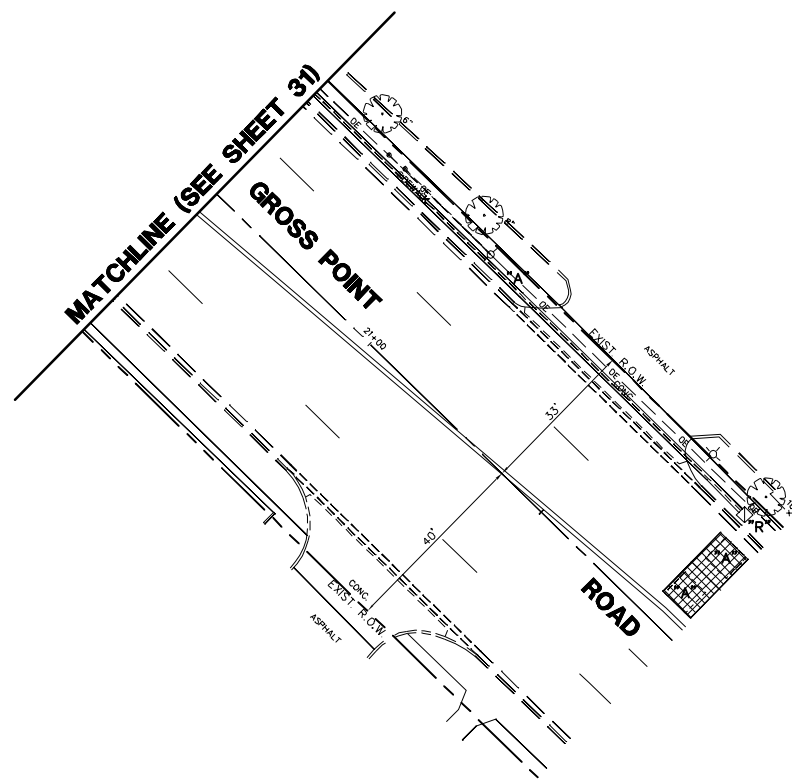
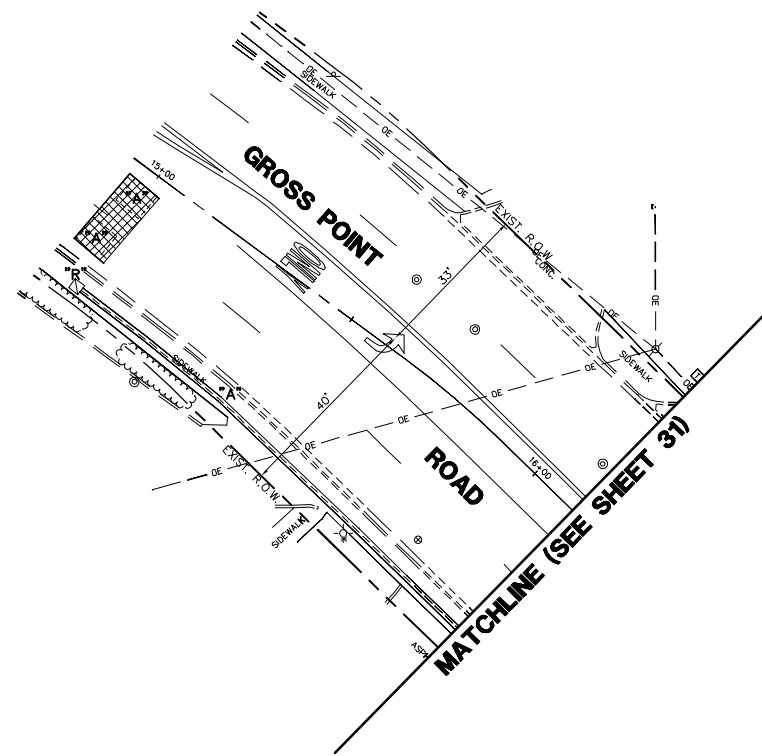


FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION & REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT U.S. RTE 41 (SKOKIE BLVD) AT GROSS POINT ROAD			F.A.P. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	CONTRACT # 60R47	GHA #4085.877
	PLOT SCALE = 1" = .0833'	DRAWN - ZCW	REVISED -		SCALE 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.	TOTAL SHEETS 52	SHEET NO. 31	ILLINOIS FED. AID PROJECT		
	PLOT DATE = 3/22/2012	CHECKED - KLB	REVISED -									



NOTES FOR TEMPORARY TRAFFIC SIGNALS:

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROLLER EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF THE DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.

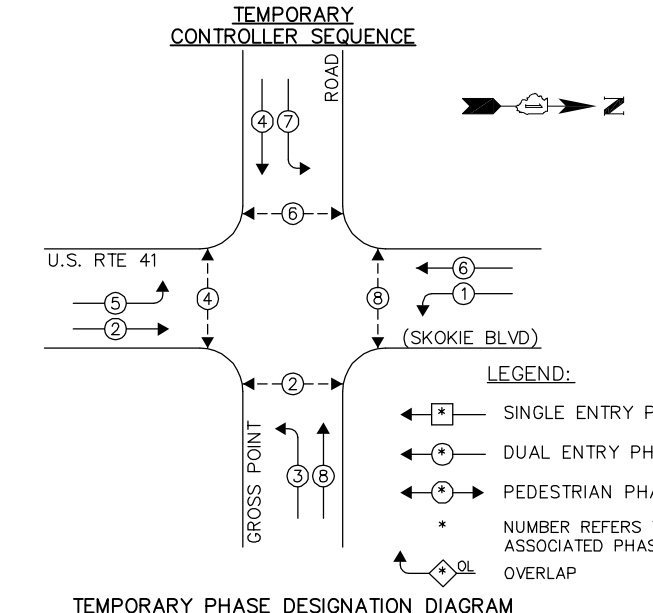
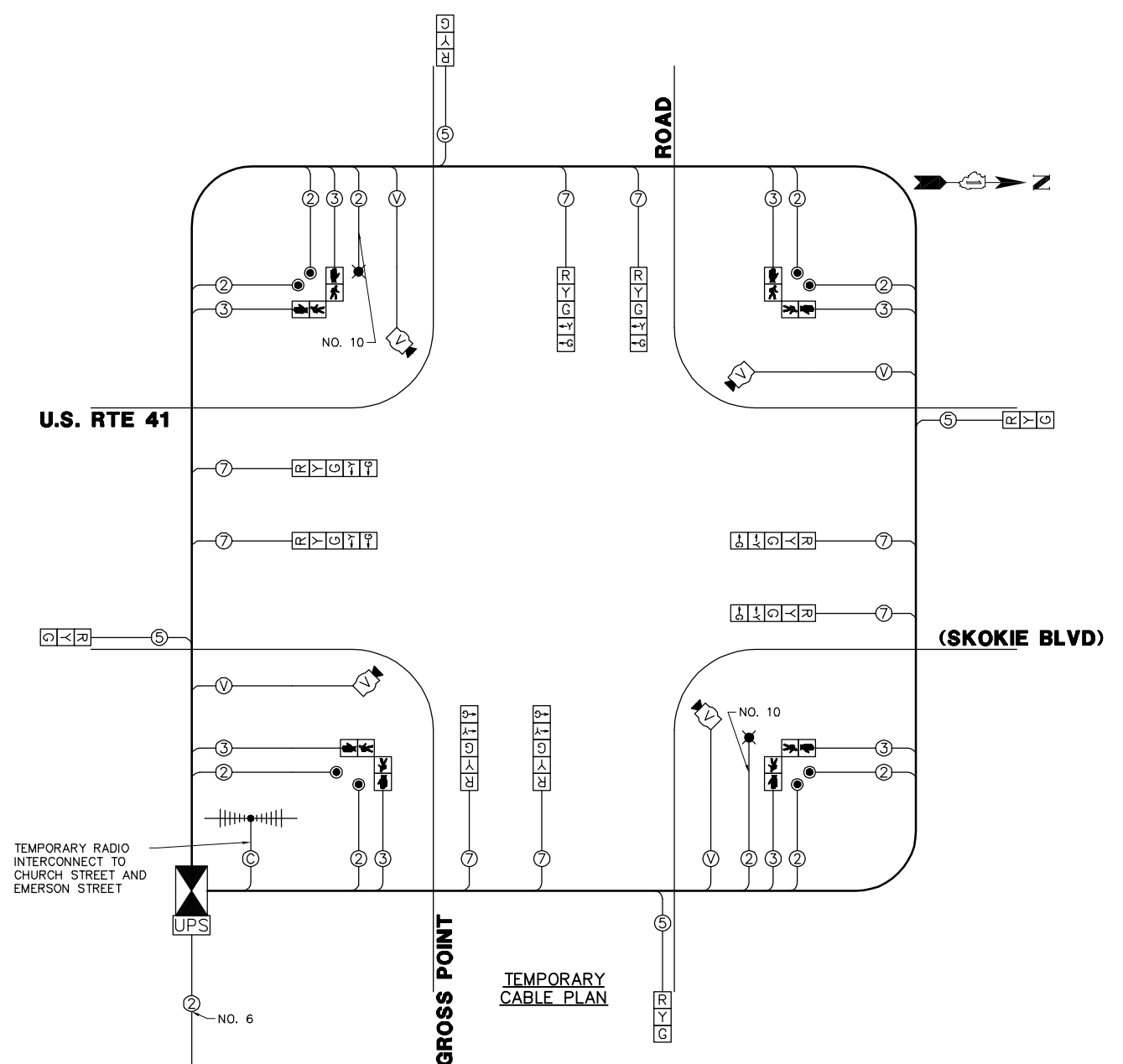


TEMPORARY VIDEO DETECTION MOUNTING DETAIL
(NOT TO SCALE)

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



FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION & REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT U.S. RTE 41 (SKOKIE BLVD) AT GROSS POINT ROAD	F.A.P. RTE. VARIES	SECTION 201-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 32	CONTRACT # 60R47	ILINOIS FED. AID PROJECT	
PLOT SCALE = 1" = .0833'	CHECKED - KLB	DATE - 3/22/2012	REVISED -			SCALE 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.					
PLOT DATE = 3/22/2012	DATE - 3/22/2012	REVISED -	REVISED -										
<p style="text-align: right;">GHA #4085.877</p>													



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					716.2



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

ENERGY COSTS - BILLED TO: VILLAGE OF SKOKIE
 (ADDRESS) 5127 OAKTON STREET
 (ADDRESS) SKOKIE, IL 60077
 ENERGY SUPPLY - CONTACT: MR. LARRY SHANK
 PHONE: (847) 816-5465
 COMPANY: COM-ED

FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED - KLB	REVISED -
	PLOT DATE = 3/22/2012	DATE - 3/22/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN AND TEMPORARY PHASE DESIGNATION DIAGRAM
U.S. RTE 41 (SKOKIE BLVD) AT GROSS POINT ROAD**

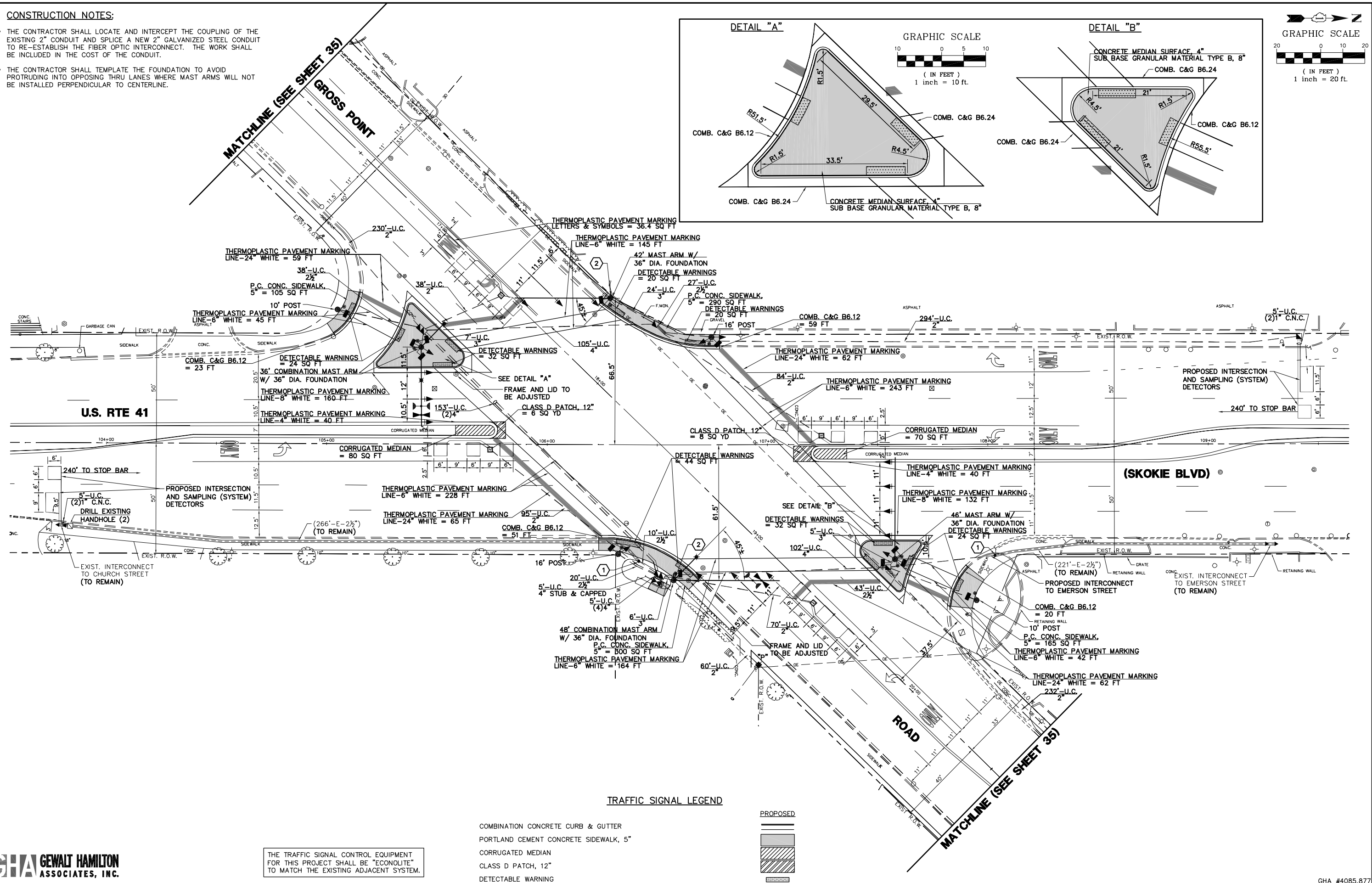
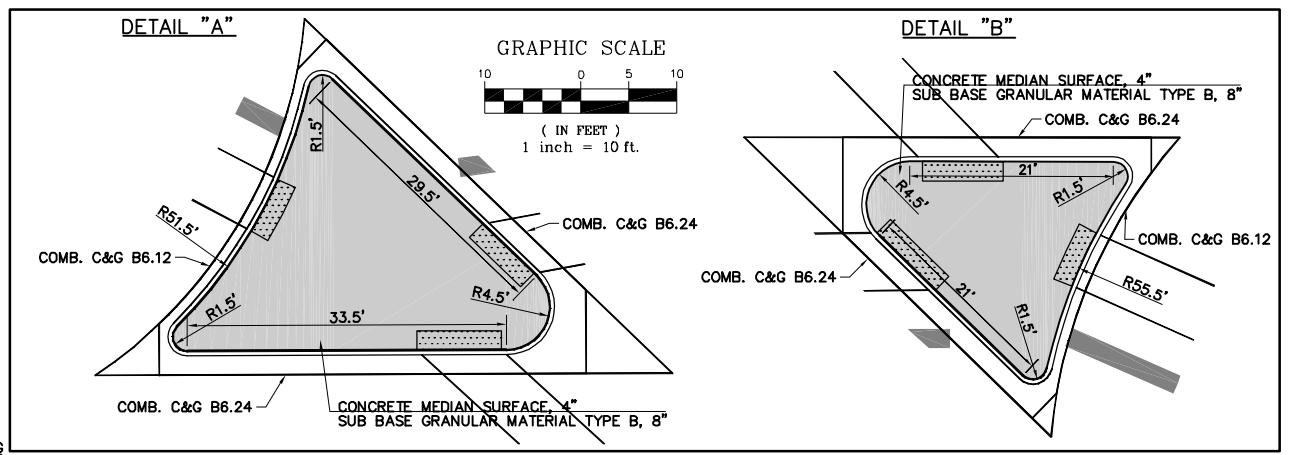
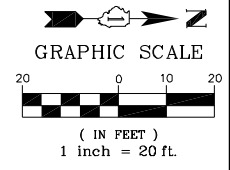
SCALE: N.A. SHEET NO. OF SHEETS STA. TO STA.

FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-209-TS	COOK	52	33
CONTRACT #:			60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877

CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL LOCATE AND INTERCEPT THE COUPLING OF THE EXISTING 2" CONDUIT AND SPLICE A NEW 2" GALVANIZED STEEL CONDUIT TO RE-ESTABLISH THE FIBER OPTIC INTERCONNECT. THE WORK SHALL BE INCLUDED IN THE COST OF THE CONDUIT.
- THE CONTRACTOR SHALL TEMPLATE THE FOUNDATION TO AVOID PROTRUDING INTO OPPOSING THRU LANES WHERE MAST ARMS WILL NOT BE INSTALLED PERPENDICULAR TO CENTERLINE.



GHA GEWALT HAMILTON ASSOCIATES, INC.

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

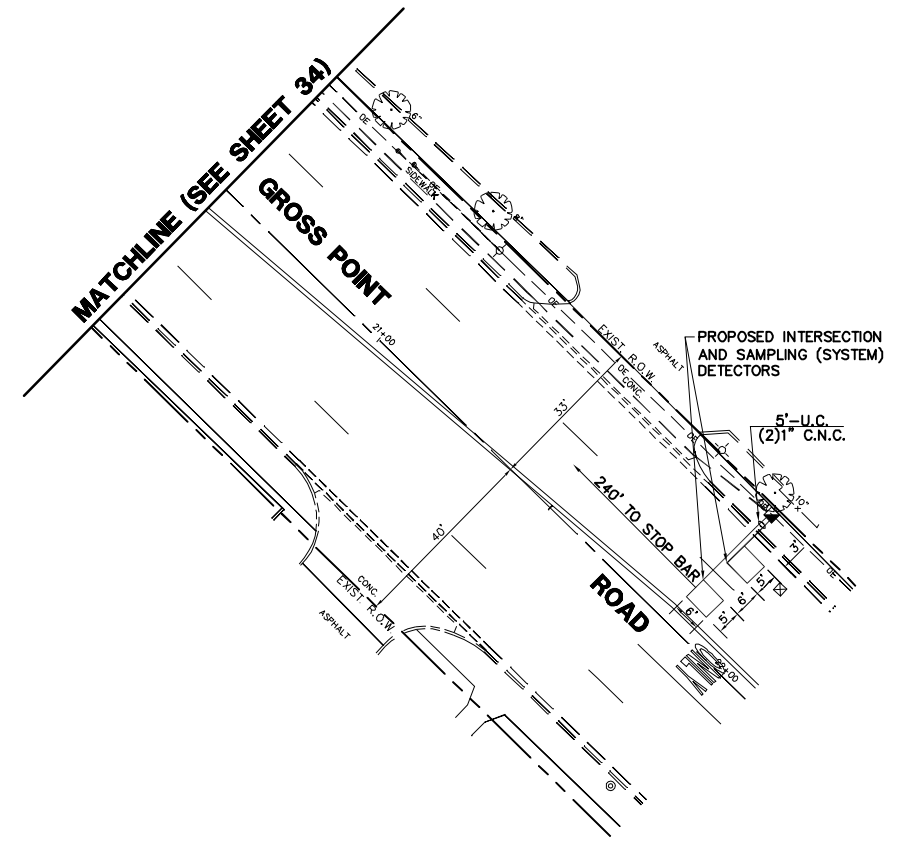
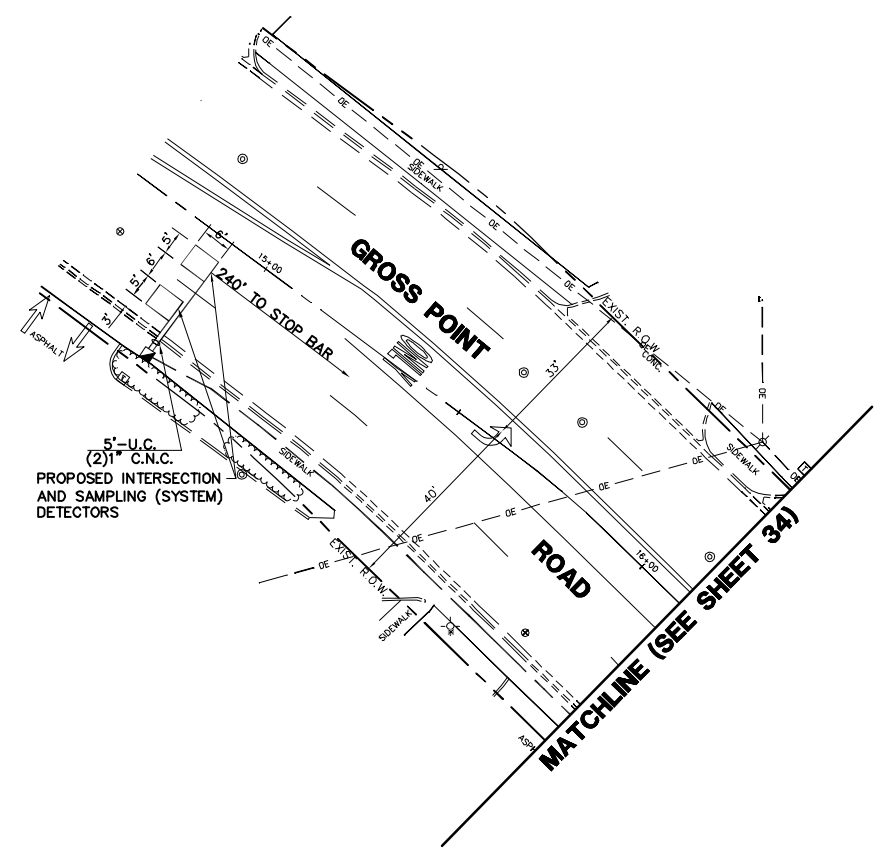
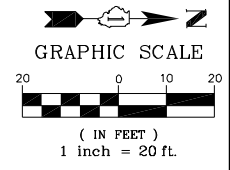
FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
		CHECKED - KLB	REVISED -
		DATE - 3/22/2012	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN U.S. RTE 41 (SKOKIE BLVD) AT GROSS POINT ROAD

SCALE: 1"=20' SHEET NO. OF SHEETS STA. TO STA.

FAP. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 34
CONTRACT # 60R47			GHA #4085.877	
ILLINOIS FED. AID PROJECT				



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

GHA GEWALT HAMILTON ASSOCIATES, INC.

FILE NAME = 4085.877-TR1.dwg
 USER NAME = ZACH WALLSTEN
 PLOT SCALE = 1" = .0833'
 PLOT DATE = 3/22/2012

DESIGNED - JRD
 DRAWN - ZCW
 CHECKED - KLB
 DATE - 3/22/2012

REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN
 U.S. RTE 41 (SKOKIE BLVD) AT GROSS POINT ROAD**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-209-TS	COOK	52	35
CONTRACT #:			60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877

SCHEDULE OF QUANTITIES
U.S. RTE 41 (SKOKIE BOULEVARD) AT GROSS POINT ROAD

NO.	QUANT.	UNIT	DESCRIPTION
1.	111	SQ YD	SUBBASE GRANULAR MATERIAL, TYPE B 8"
2.	3,000	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
3.	196	SQ FT	DETECTABLE WARNINGS
4.	107	SQ YD	PAVEMENT REMOVAL
5.	153	FOOT	COMBINATION CURB AND GUTTER REMOVAL
6.	860	SQ FT	SIDEWALK REMOVAL
7.	795	SQ FT	MEDIAN REMOVAL
8.	14	SQ YD	CLASS D PATCHES, TYPE I, 12 INCH
9.	2	EACH	FRAMES AND LIDS TO BE ADJUSTED
10.	213	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
11.	135	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
12.	1,000	SQ FT	CONCRETE MEDIAN SURFACE, 4 INCH
13.	1.50	CAL MO	ENGINEER'S FIELD OFFICE, TYPE A
14.	0.20	L SUM	MOBILIZATION
15.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501
16.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606
17.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
18.	0.20	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
19.	55.00	SQ FT	SIGN PANEL - TYPE 2
20.	36.40	SQ FT	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS
21.	80	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 4"
22.	863	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 6"
23.	292	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 8"
24.	248	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
25.	1,022.40	SQ FT	PAVEMENT MARKING REMOVAL
26.	1,103	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
27.	138	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
28.	42	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
29.	538	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.
30.	5	EACH	HANDHOLE
31.	4	EACH	HEAVY-DUTY HANDHOLE
32.	2	EACH	DOUBLE HANDHOLE
33.	1	EACH	TRANSCIVER - FIBER OPTIC
34.	1,733	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
35.	2,665	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
36.	1,722	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
37.	2,296	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
38.	4,268	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
39.	82	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
40.	2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
41.	2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
42.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.
43.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.
44.	1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.
45.	1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT.
46.	16	FOOT	CONCRETE FOUNDATION, TYPE A
47.	4	FOOT	CONCRETE FOUNDATION, TYPE C
48.	52	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
49.	2	EACH	DRILL EXISTING HANDHOLE
50.	8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
51.	3	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
52.	5	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
53.	1	EACH	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED
54.	6	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
55.	2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
56.	13	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
57.	12	EACH	INDUCTIVE LOOP DETECTOR
58.	687	FOOT	DETECTOR LOOP, TYPE I
59.	2	EACH	LIGHT DETECTOR
60.	1	EACH	LIGHT DETECTOR AMPLIFIER
61.	10	EACH	PEDESTRIAN PUSH-BUTTON
62.	1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
63.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
64.	10	EACH	REMOVE EXISTING HANDHOLE
65.	9	EACH	REMOVE EXISTING CONCRETE FOUNDATION
66.	347	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
67.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
68.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY, SPECIAL
69.	800	SQ FT	TEMPORARY SIDEWALK
70.	51.40	SQ FT	TEMPORARY INFORMATION SIGNING
71.	1	EACH	ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL
72.	1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING
73.	686	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C

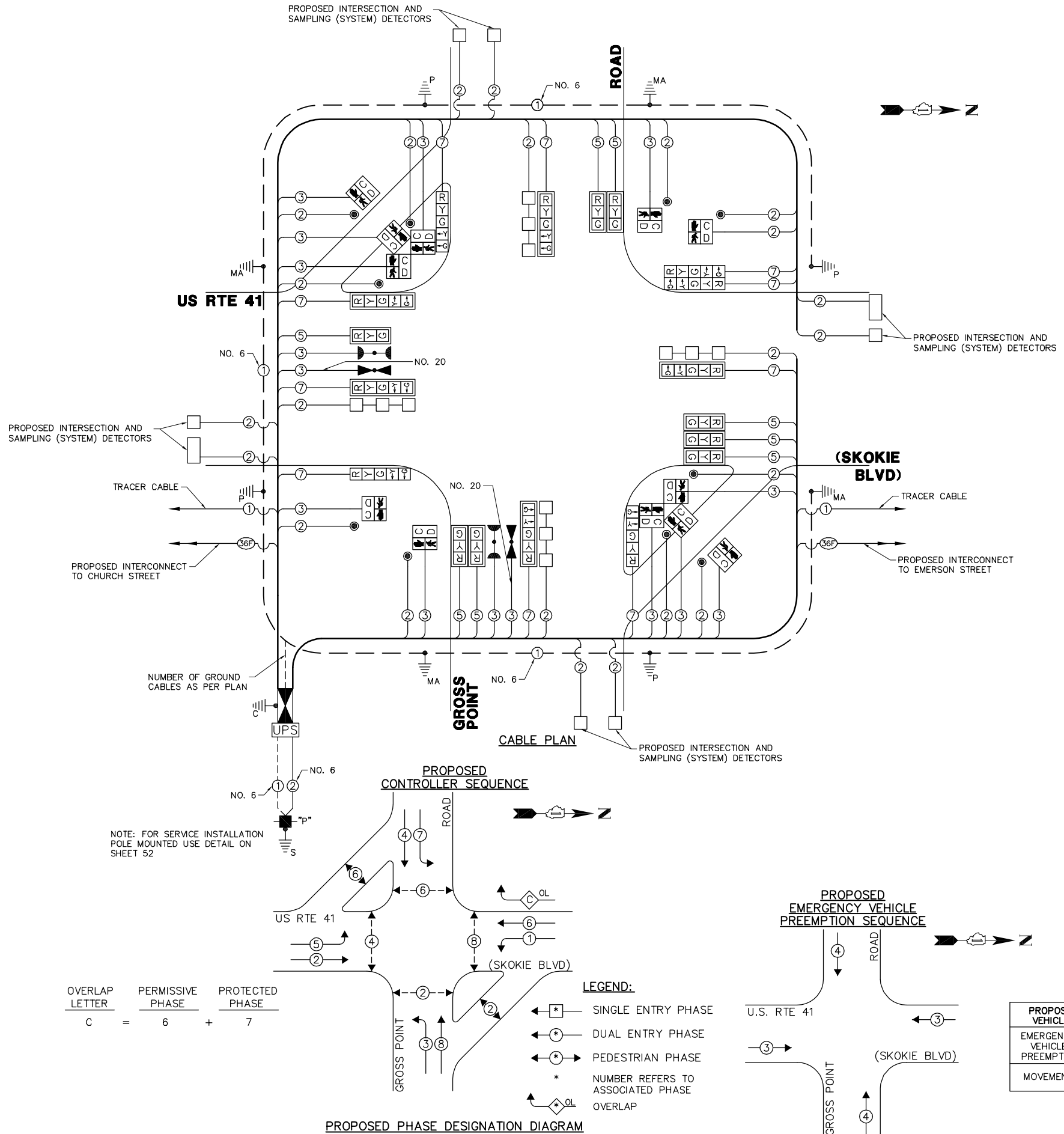
* 100% OF THE COST SHALL BE PAID FOR BY THE VILLAGE OF SKOKIE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	19	135	17	0.50	161.5
SIGNAL (YELLOW)	19	135	25	0.25	118.75
SIGNAL (GREEN)	19	135	15	0.25	71.25
ARROW	20	135	12	0.10	24.0
PED. SIGNAL	12	90	25	1.00	300.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					800.5

ENERGY COSTS - BILLED TO: VILLAGE OF SKOKIE
(ADDRESS) 5127 OAKTON STREET
(ADDRESS) SKOKIE, IL 60077
ENERGY SUPPLY - CONTACT: MR. LARRY SHANK
PHONE: (847) 816-5465
COMPANY: COM-ED



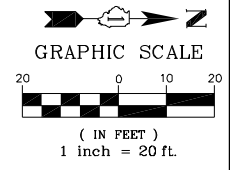
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
C	= 6	+ 7

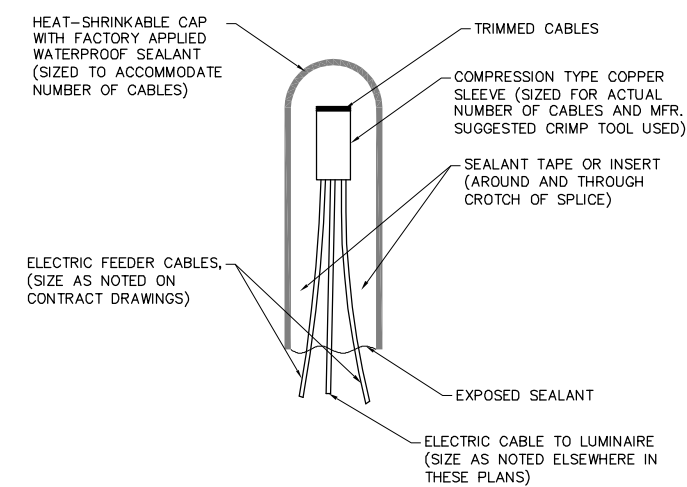
- LEGEND:**
- ← * → SINGLE ENTRY PHASE
 - ← * → DUAL ENTRY PHASE
 - ← * → PEDESTRIAN PHASE
 - * NUMBER REFERS TO ASSOCIATED PHASE
 - ← * → OVERLAP

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



NOTES:

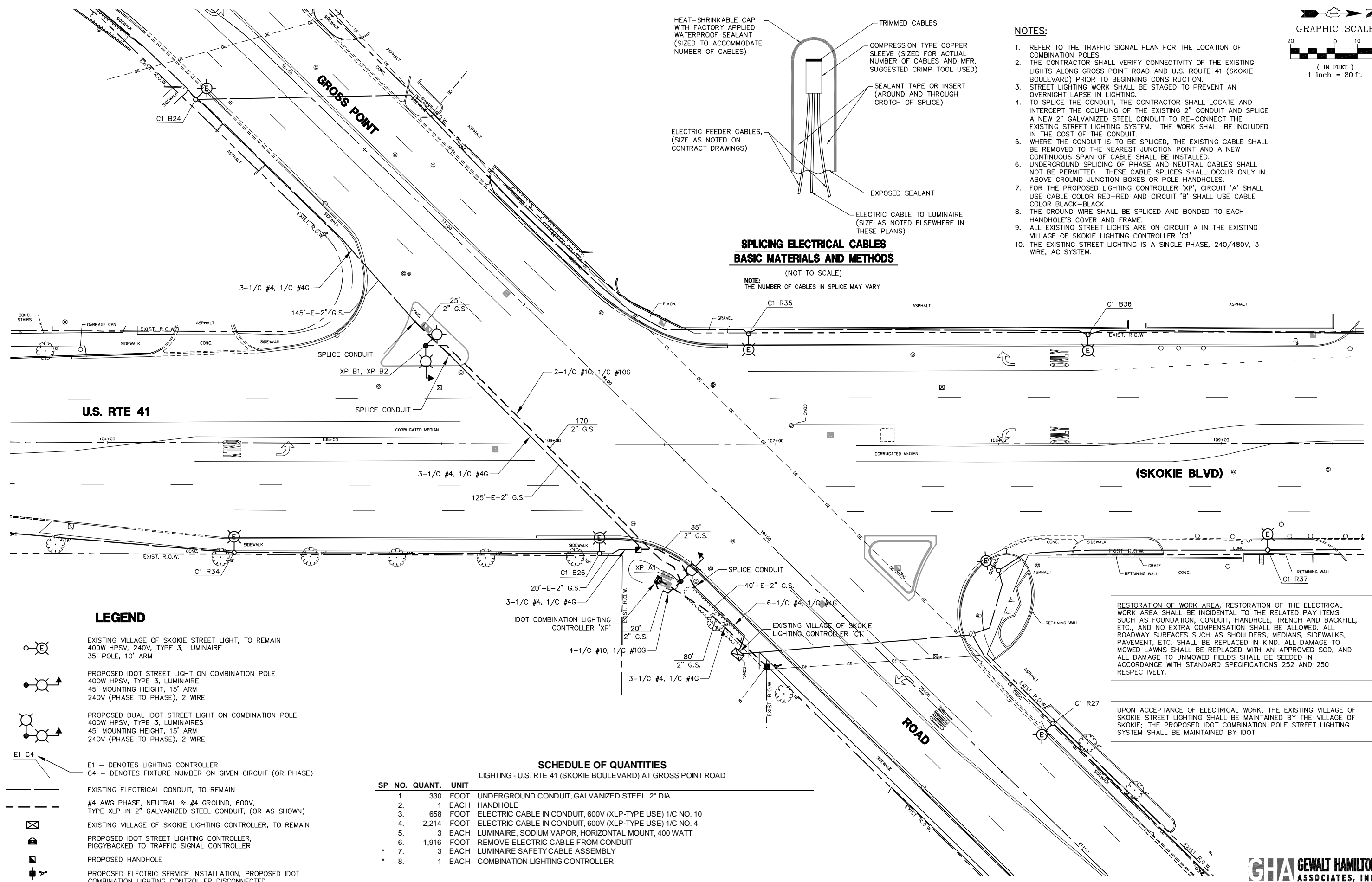
- REFER TO THE TRAFFIC SIGNAL PLAN FOR THE LOCATION OF COMBINATION POLES.
- THE CONTRACTOR SHALL VERIFY CONNECTIVITY OF THE EXISTING LIGHTS ALONG GROSS POINT ROAD AND U.S. ROUTE 41 (SKOKIE BOULEVARD) PRIOR TO BEGINNING CONSTRUCTION.
- STREET LIGHTING WORK SHALL BE STAGED TO PREVENT AN OVERNIGHT LAPSE IN LIGHTING.
- TO SPLICE THE CONDUIT, THE CONTRACTOR SHALL LOCATE AND INTERCEPT THE COUPLING OF THE EXISTING 2" CONDUIT AND SPLICE A NEW 2" GALVANIZED STEEL CONDUIT TO RE-CONNECT THE EXISTING STREET LIGHTING SYSTEM. THE WORK SHALL BE INCLUDED IN THE COST OF THE CONDUIT.
- WHERE THE CONDUIT IS TO BE SPLICED, THE EXISTING CABLE SHALL BE REMOVED TO THE NEAREST JUNCTION POINT AND A NEW CONTINUOUS SPAN OF CABLE SHALL BE INSTALLED.
- UNDERGROUND SPLICING OF PHASE AND NEUTRAL CABLES SHALL NOT BE PERMITTED. THESE CABLE SPLICES SHALL OCCUR ONLY IN ABOVE GROUND JUNCTION BOXES OR POLE HANDHOLES.
- FOR THE PROPOSED LIGHTING CONTROLLER 'XP', CIRCUIT 'A' SHALL USE CABLE COLOR RED-RED AND CIRCUIT 'B' SHALL USE CABLE COLOR BLACK-BLACK.
- THE GROUND WIRE SHALL BE SPLICED AND BONDED TO EACH HANDHOLE'S COVER AND FRAME.
- ALL EXISTING STREET LIGHTS ARE ON CIRCUIT 'A' IN THE EXISTING VILLAGE OF SKOKIE LIGHTING CONTROLLER 'C1'.
- THE EXISTING STREET LIGHTING IS A SINGLE PHASE, 240/480V, 3 WIRE, AC SYSTEM.



**SPLICING ELECTRICAL CABLES
BASIC MATERIALS AND METHODS**

(NOT TO SCALE)

NOTE:
THE NUMBER OF CABLES IN SPLICE MAY VARY



LEGEND

- EXISTING VILLAGE OF SKOKIE STREET LIGHT, TO REMAIN
400W HPSV, 240V, TYPE 3, LUMINAIRE
35' POLE, 10' ARM
- PROPOSED IDOT STREET LIGHT ON COMBINATION POLE
400W HPSV, TYPE 3, LUMINAIRE
45' MOUNTING HEIGHT, 15' ARM
240V (PHASE TO PHASE), 2 WIRE
- PROPOSED DUAL IDOT STREET LIGHT ON COMBINATION POLE
400W HPSV, TYPE 3, LUMINAIRE
45' MOUNTING HEIGHT, 15' ARM
240V (PHASE TO PHASE), 2 WIRE
- E1 - DENOTES LIGHTING CONTROLLER
C4 - DENOTES FIXTURE NUMBER ON GIVEN CIRCUIT (OR PHASE)
- EXISTING ELECTRICAL CONDUIT, TO REMAIN
- #4 AWG PHASE, NEUTRAL & #4 GROUND, 600V,
TYPE XLP IN 2" GALVANIZED STEEL CONDUIT, (OR AS SHOWN)
- EXISTING VILLAGE OF SKOKIE LIGHTING CONTROLLER, TO REMAIN
- PROPOSED IDOT STREET LIGHTING CONTROLLER,
PIGGYBACKED TO TRAFFIC SIGNAL CONTROLLER
- PROPOSED HANDHOLE
- PROPOSED ELECTRIC SERVICE INSTALLATION, PROPOSED IDOT
COMBINATION LIGHTING CONTROLLER DISCONNECTED

SCHEDULE OF QUANTITIES

LIGHTING - U.S. RTE 41 (SKOKIE BOULEVARD) AT GROSS POINT ROAD

SP NO.	QUANT.	UNIT	DESCRIPTION
1.	330	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
2.	1	EACH	HANDHOLE
3.	658	FOOT	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10
4.	2,214	FOOT	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 4
5.	3	EACH	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT
6.	1,916	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
7.	3	EACH	LUMINAIRE SAFETY CABLE ASSEMBLY
8.	1	EACH	COMBINATION LIGHTING CONTROLLER

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

UPON ACCEPTANCE OF ELECTRICAL WORK, THE EXISTING VILLAGE OF SKOKIE STREET LIGHTING SHALL BE MAINTAINED BY THE VILLAGE OF SKOKIE; THE PROPOSED IDOT COMBINATION POLE STREET LIGHTING SYSTEM SHALL BE MAINTAINED BY IDOT.

FILE NAME = 4085.877-EL1.dwg

USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
PLOT SCALE = 1" = .0833'	DRAWN - JZ	REVISED -
PLOT DATE = 3/22/2012	CHECKED - AJP	REVISED -
	DATE - 3/22/2012	REVISED -

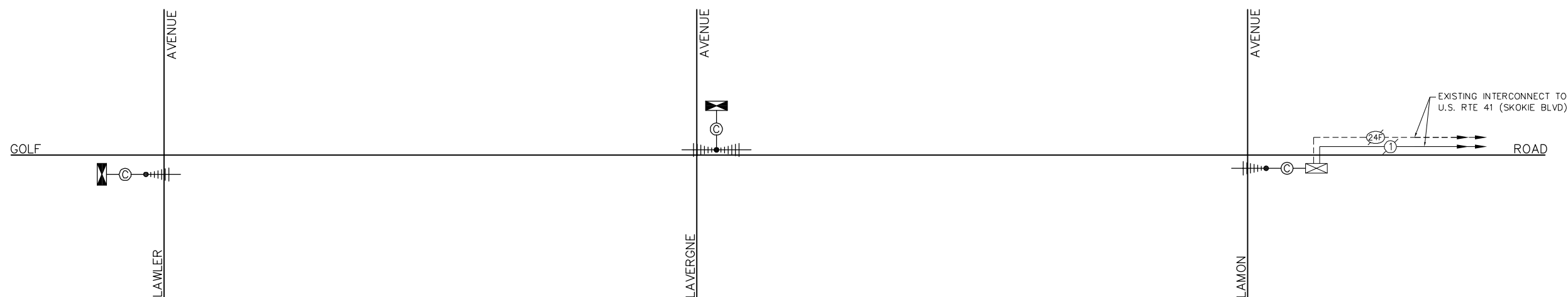
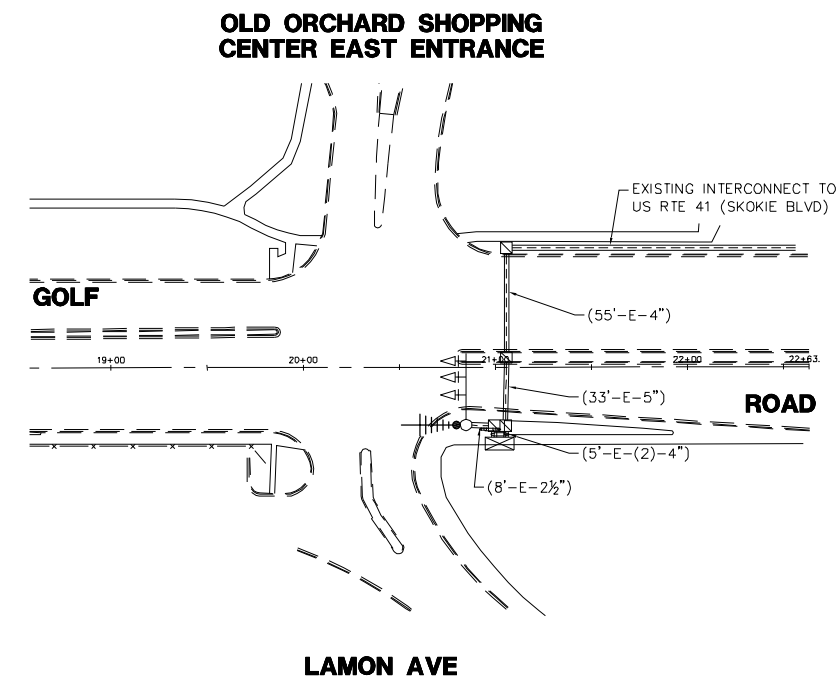
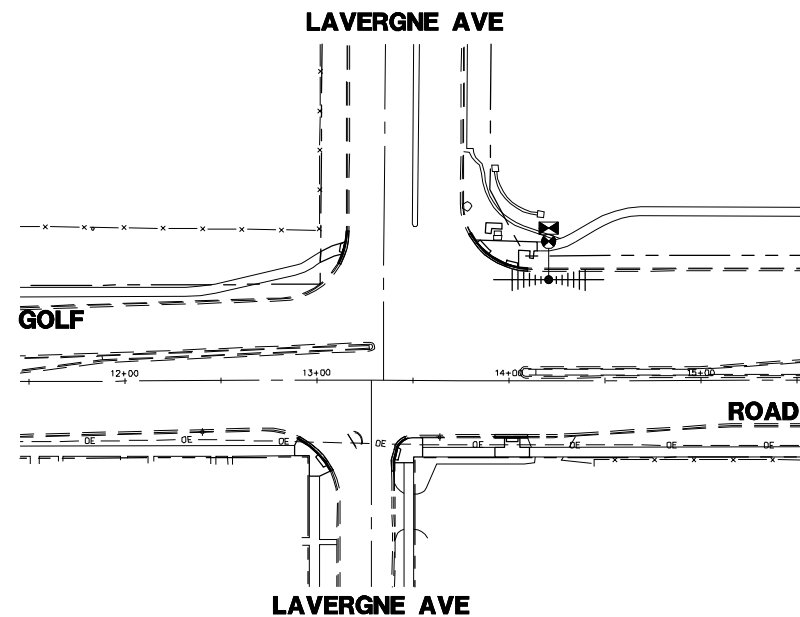
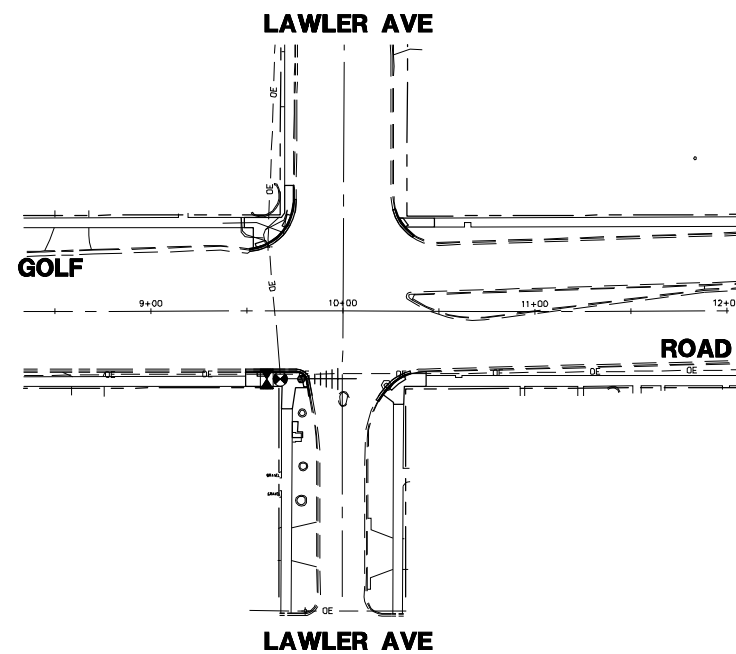
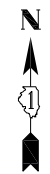
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INTERSECTION LIGHTING PLAN
U.S. RTE 41 AT GROSS POINT ROAD**

SCALE: 1" = 20'	SHEET NO. OF SHEETS	STA. TO STA.
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FAP. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 37
CONTRACT # 60R47			ILLINOIS FED. AID PROJECT	

GHA GEWALT HAMILTON ASSOCIATES, INC.
GHA #4085.877



GHA GEWALT HAMILTON
ASSOCIATES, INC.

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

FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
		CHECKED - KLB	REVISED -
		DATE - 3/22/2012	REVISED -

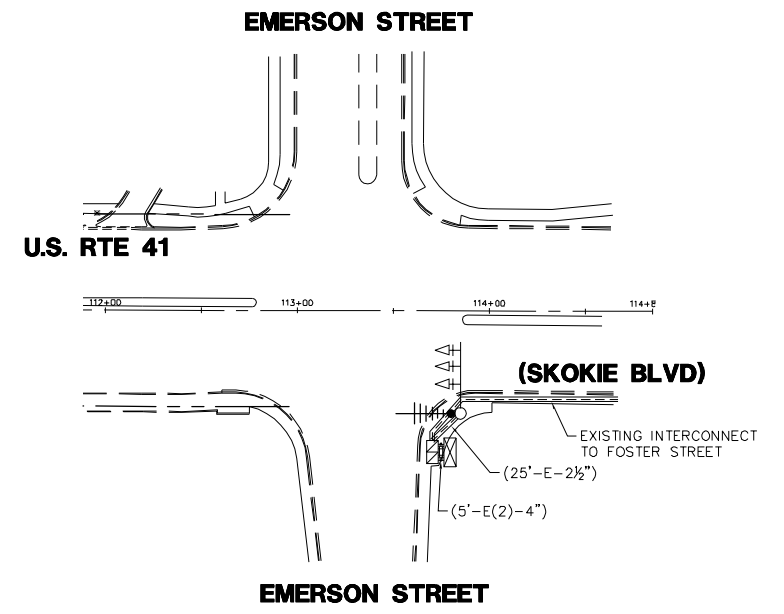
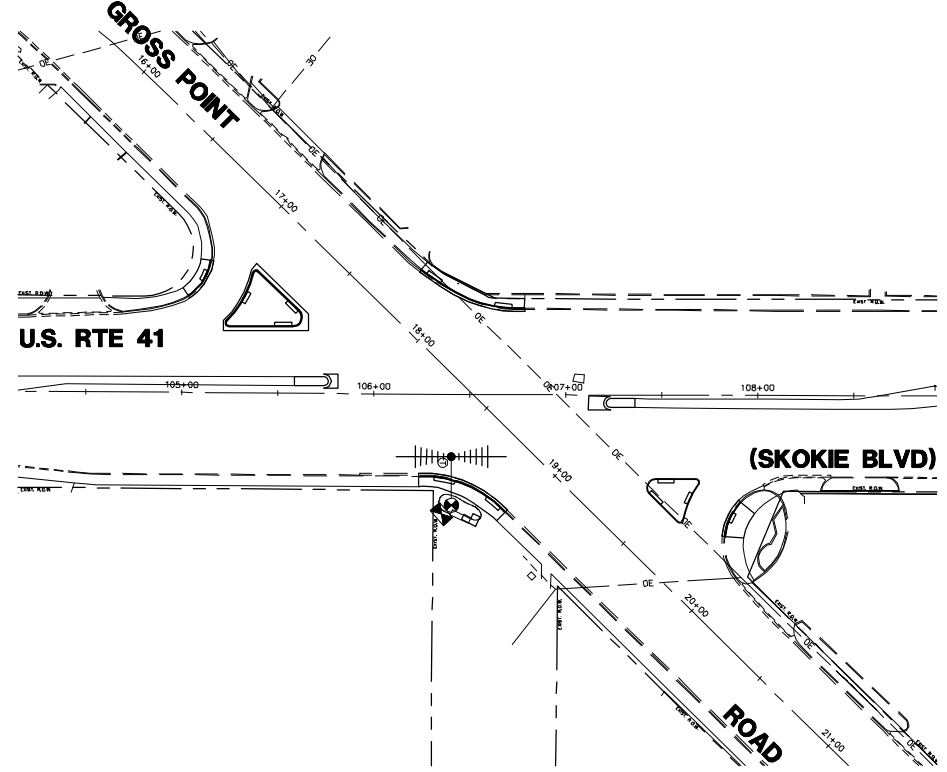
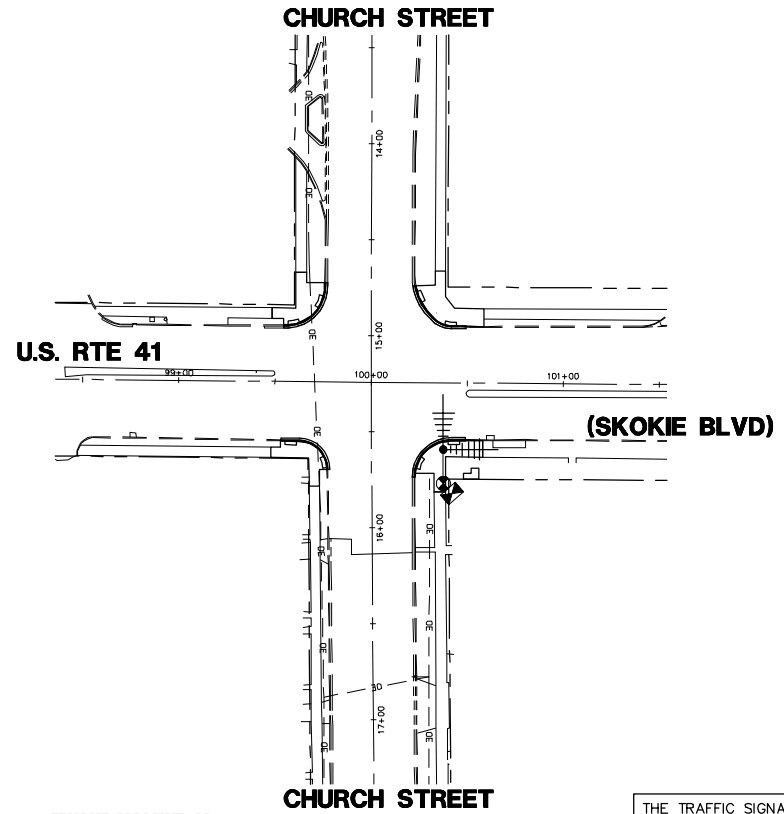
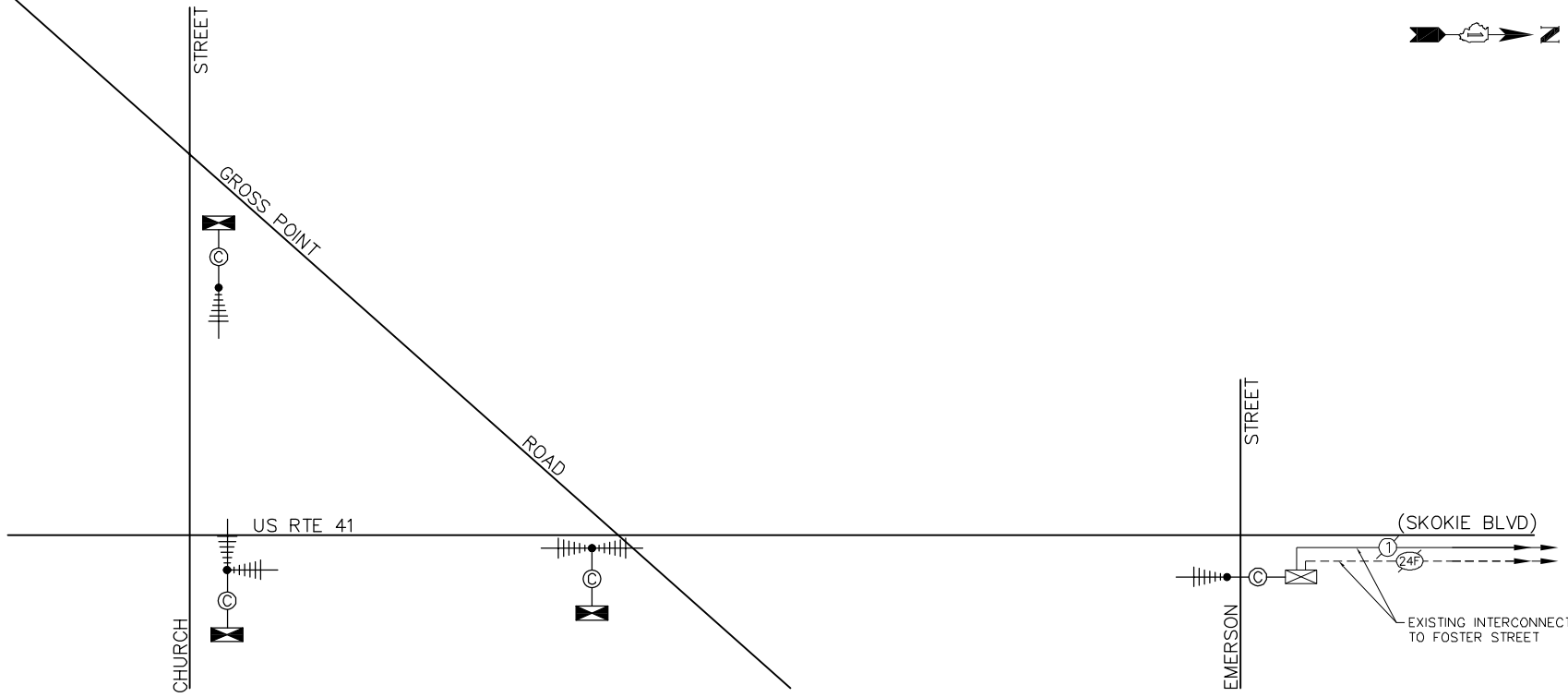
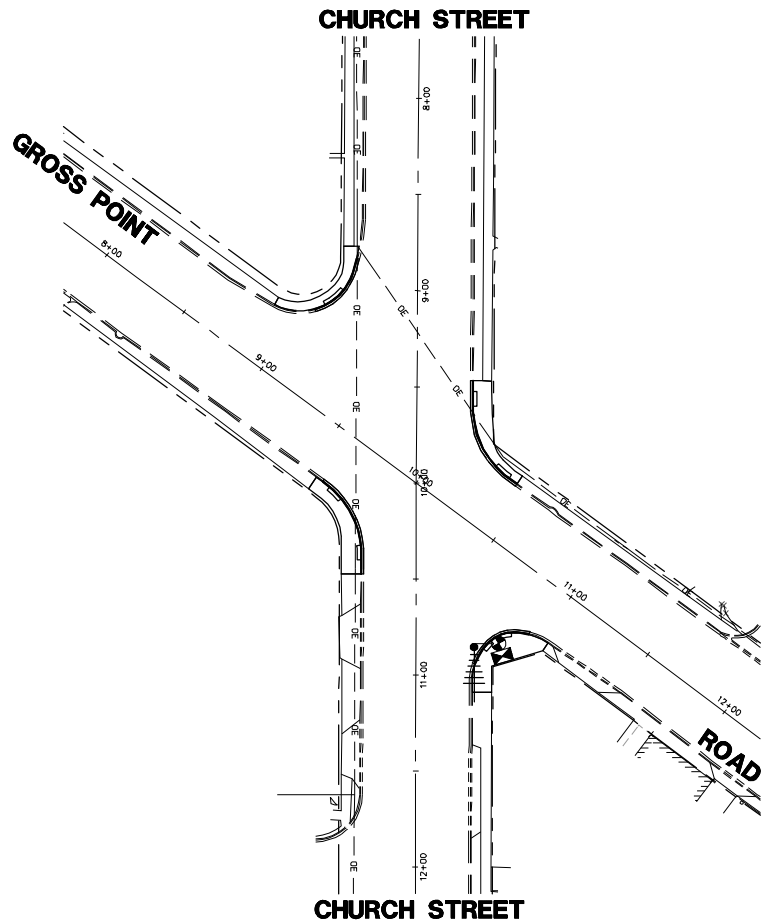
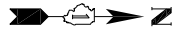
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT AND SCHEMATIC PLAN
GOLF ROAD FROM LAWLER AVENUE TO LAMON AVENUE**

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

FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-209-TS	COOK	52	38
CONTRACT #:			60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877



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



FILE NAME = 4085.877-TR1.dwg

USER NAME = ZACH WALLSTEN
 PLOT SCALE = 1" = .0833'
 PLOT DATE = 3/22/2012

DESIGNED - JRD
 DRAWN - ZCW
 CHECKED - KLB
 DATE - 3/22/2012

REVISED -
 REVISED -
 REVISED -
 REVISED -

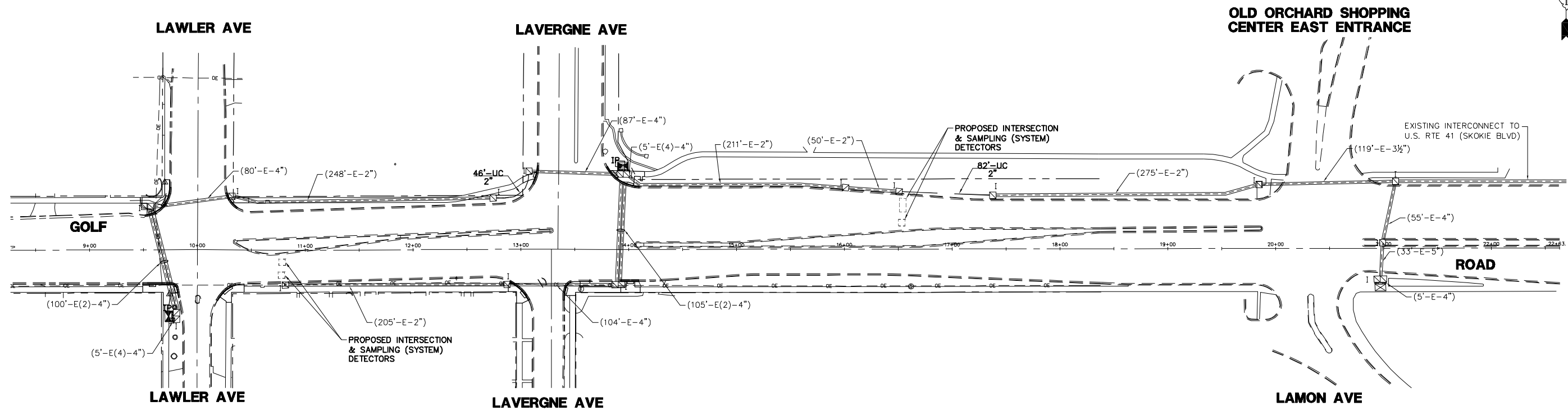
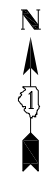
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY INTERCONNECT AND SCHEMATIC PLAN
 U.S. RTE 41 (SKOKIE BLVD) FROM
 CHURCH STREET TO EMERSON STREET**

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

FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIABLES	2011-209-TS	COOK	52	39
CONTRACT #:			60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877



CONSTRUCTION NOTES:

① THE SIGNAL COORDINATION AND TIMING (SCAT) CONSULTANT WILL BE RESPONSIBLE FOR RE-ADDRESSING THE REMAINING SYSTEM DETECTORS PER IDOT-DISTRICT ONE CONVENTION AND TO RETURN THE SYSTEM TO TRAFFIC RESPONSIVE OPERATION FOLLOWING CONSTRUCTION.



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

FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
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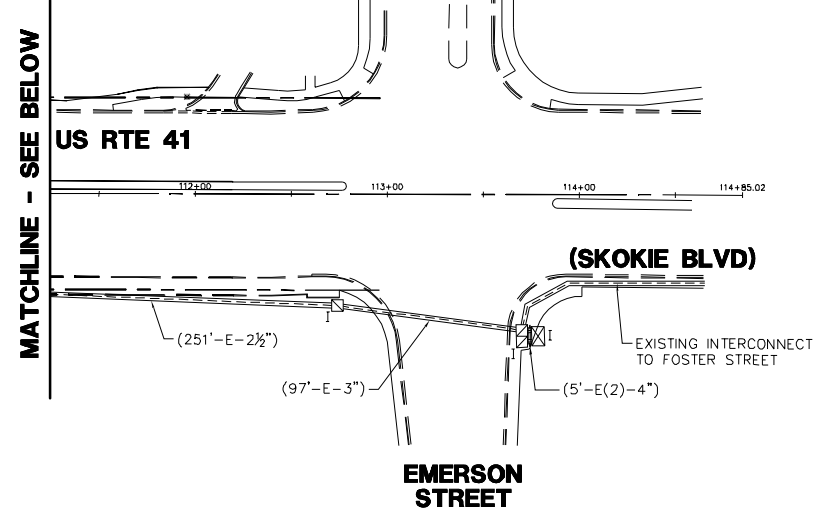
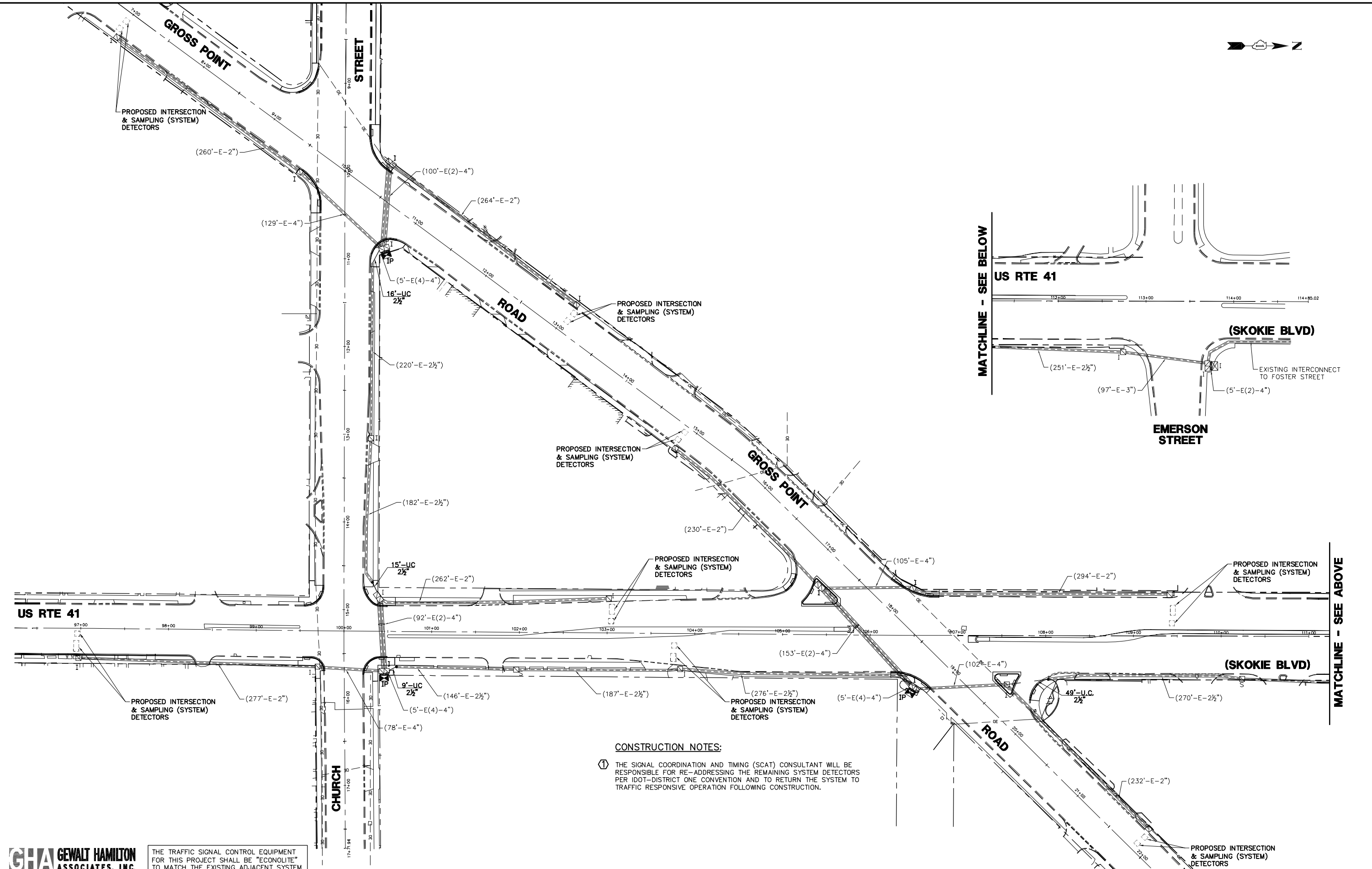
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**INTERCONNECT PLAN
GOLF ROAD FROM LAWLER AVENUE TO LAMON AVENUE**

SCALE: N.A.	SHEET NO. OF SHEETS	STA. TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-209-TS	COOK	52	40
CONTRACT #:			60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877



CONSTRUCTION NOTES:

① THE SIGNAL COORDINATION AND TIMING (SCAT) CONSULTANT WILL BE RESPONSIBLE FOR RE-ADDRESSING THE REMAINING SYSTEM DETECTORS PER IDOT-DISTRICT ONE CONVENTION AND TO RETURN THE SYSTEM TO TRAFFIC RESPONSIVE OPERATION FOLLOWING CONSTRUCTION.

GHA GEWALT HAMILTON ASSOCIATES, INC.

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

FILE NAME = 4085.877-TR1.dwg

USER NAME = ZACH WALLSTEN
 PLOT SCALE = 1" = .0833'
 PLOT DATE = 3/22/2012

DESIGNED - JRD
 DRAWN - ZCW
 CHECKED - KLB
 DATE - 3/22/2012

REVISED -
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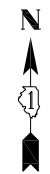
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN - US RTE 41 (SKOKIE BLVD) FROM CHURCH STREET TO EMERSON STREET

SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

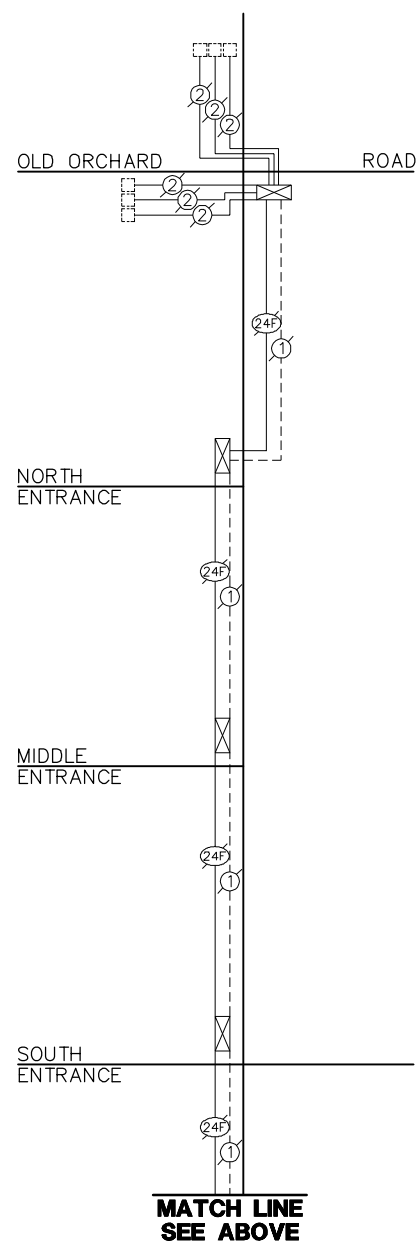
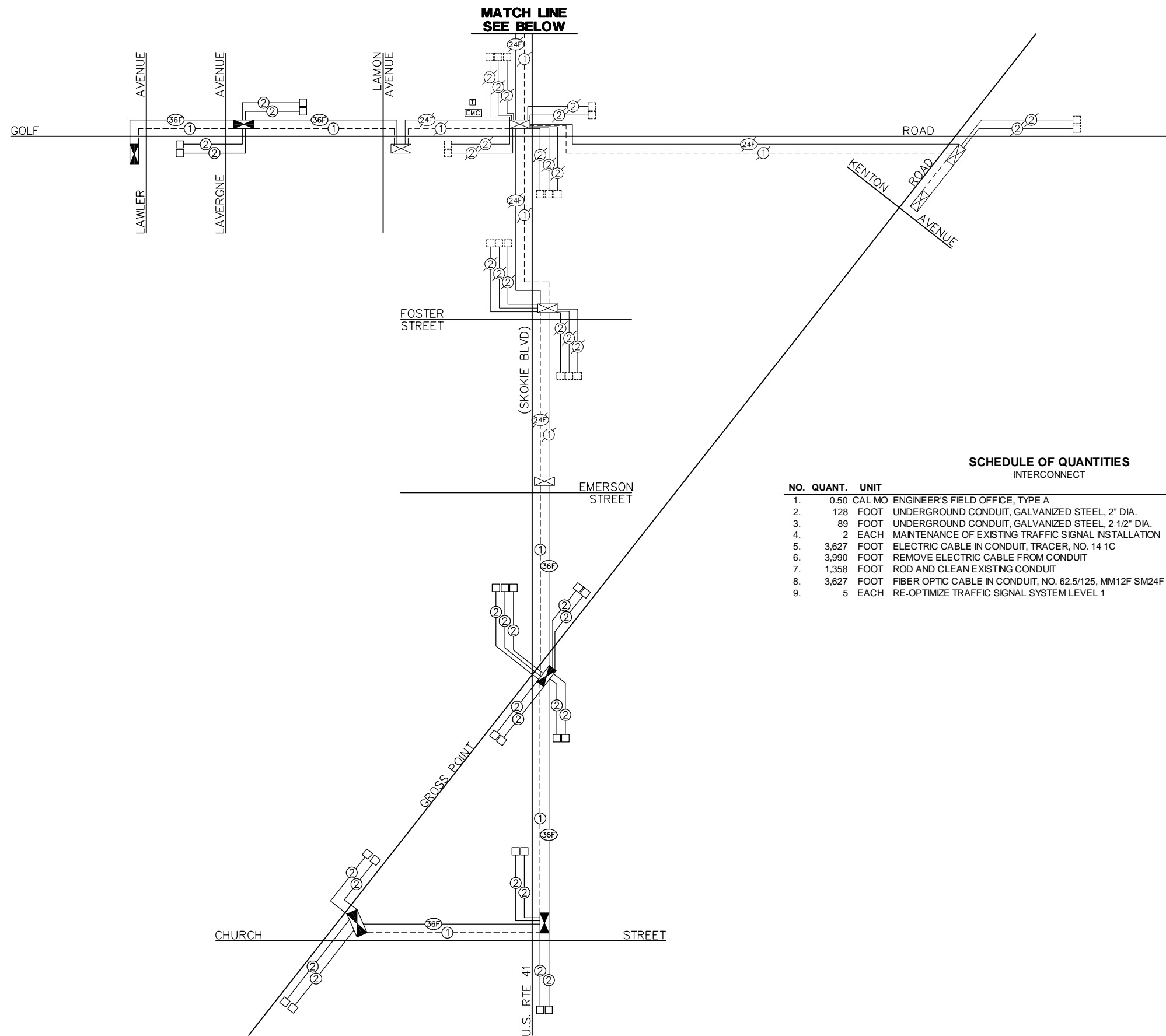
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIABLES	2011-209-TS	COOK	52	41
CONTRACT #:			60R47	
ILLINOIS FED. AID PROJECT				

GHA #4085.877



CONSTRUCTION NOTES:

- ① THE SIGNAL COORDINATION AND TIMING (SCAT) CONSULTANT WILL BE RESPONSIBLE FOR RE-ADDRESSING THE REMAINING SYSTEM DETECTORS PER IDOT-DISTRICT ONE CONVENTION AND TO RETURN THE SYSTEM TO TRAFFIC RESPONSIVE OPERATION FOLLOWING CONSTRUCTION.



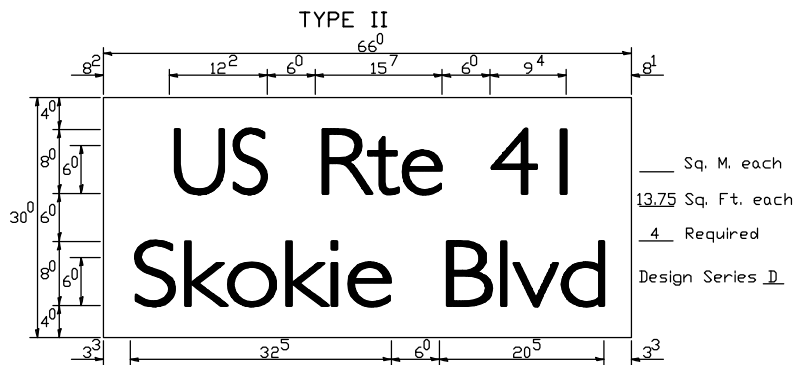
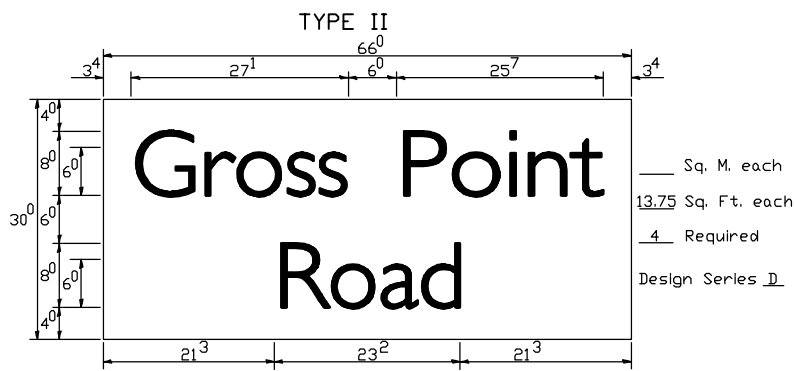
SCHEDULE OF QUANTITIES
INTERCONNECT

NO.	QUANT.	UNIT	DESCRIPTION
1.	0.50	CAL MO	ENGINEER'S FIELD OFFICE, TYPE A
2.	128	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
3.	89	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.
4.	2	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
5.	3,627	FOOT	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C
6.	3,990	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
7.	1,358	FOOT	ROD AND CLEAN EXISTING CONDUIT
8.	3,627	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F
9.	5	EACH	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1

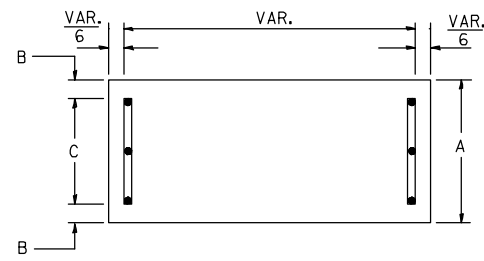


THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

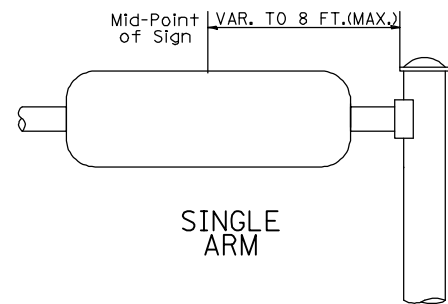
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	PLOT DATE = 3/22/2012	CHECKED - KLB	REVISED -									CONTRACT #:	60R47	
											GHA #4085.877			
											ILLINOIS FED. AID PROJECT			



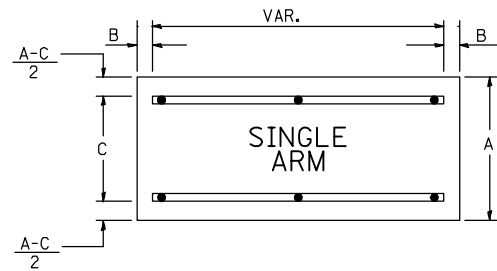
SUPPORTING CHANNELS



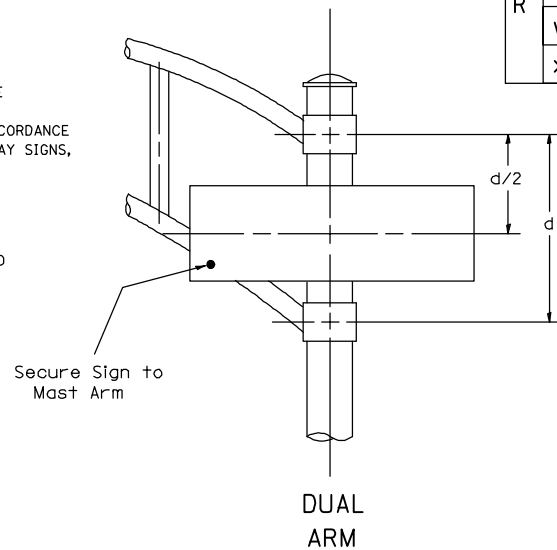
A	B	C
18"	2"	14"



SUPPORTING CHANNELS



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



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

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

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

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

SERIES	SECOND LETTER															
	a c d e		b h i k l		f w		J		s t		v y		x		z	
	g o q	m n p r u	C	D	C	D	C	D	C	D	C	D	C	D	C	D
ad h g i j	1 ⁶	1 ⁷	2 ²	2 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ⁶	1 ⁷
l m n q u																
b f k o p s	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴	1 ²	1 ⁴
c e	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴
r	0 ⁶	1 ⁰	1 ²	1 ⁴	0 ⁶	1 ⁰	0 ³	0 ³	0 ⁵	0 ⁶	0 ⁵	0 ⁶	0 ⁶	1 ⁰	0 ⁶	1 ⁰
t z	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴	1 ²	1 ⁴
v y	1 ¹	1 ²	1 ⁴	1 ⁵	1 ¹	1 ²	0 ⁵	0 ⁶	0 ⁶	1 ⁰	0 ⁶	1 ⁰	1 ¹	1 ²	1 ¹	1 ²
w	1 ¹	1 ²	1 ⁴	1 ⁵	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴
x	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴

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

SERIES	SECOND NUMBER																			
	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	1 ⁶	1 ⁷	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ⁶	1 ⁷
1	2 ⁰	2 ¹	2 ⁰	2 ¹	2 ⁰	2 ¹	1 ⁶	1 ⁷	1 ⁴	1 ⁵	2 ⁰	2 ¹	2 ⁰	2 ¹	1 ⁴	1 ⁵	2 ⁰	2 ¹	2 ⁰	2 ¹
2 3 4	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ²	1 ⁴	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁶	1 ⁷	1 ⁴	1 ⁵
5	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ¹	1 ²	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ⁴	1 ⁵
6	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ²	1 ⁵	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ⁴	1 ⁵
7	1 ²	1 ⁴	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ²	1 ⁵	0 ⁵	0 ⁶	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ²	1 ⁴
8	1 ⁶	1 ⁷	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ²	1 ⁵	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ⁴	1 ⁵

EXAMPLE, 2³ DENOTES 3"

UPPER AND LOWER CASE LETTER WIDTHS

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

NUMBER	6 INCH SERIES		8 INCH SERIES	
	C	D	C	D
1	1 ²	1 ⁴	1 ⁵	2 ⁰
2	3 ²	4 ⁰	4 ³	5 ³
3	3 ²	4 ⁰	4 ³	5 ³
4	3 ⁵	4 ³	4 ⁷	5 ⁷
5	3 ²	4 ⁰	4 ³	5 ³
6	3 ²	4 ⁰	4 ³	5 ³
7	3 ²	4 ⁰	4 ³	5 ³
8	3 ²	4 ⁰	4 ³	5 ³
9	3 ²	4 ⁰	4 ³	5 ³
0	3 ⁴	4 ²	4 ⁵	5 ⁵

NOTE: SIGN DIMENSIONS ARE IN ENGLISH UNITS

GENERAL NOTES

- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
- THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 8'-0".
- ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2-1/4".
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:

- * J.O. HERBERT CO. MIDLOTHIAN, VA.
- * WESTERN REMAC INC. WOODRIDGE, IL.

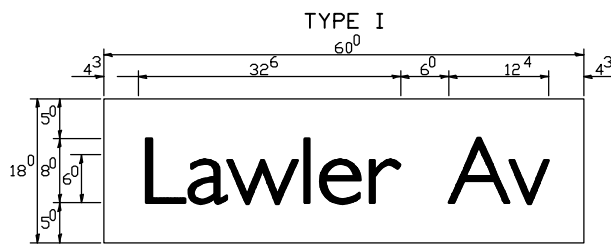
PARTS LISTING:

- SIGN CHANNEL PART #HPN053 (MED. CHANNEL)
- SIGN SCREWS 1/4" x 14 x 1" H.W.H. #3
- BRACKETS PART #HPN034 (UNIVERSAL)
- CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

OTHER BRANDS OF MOUNTING HARD

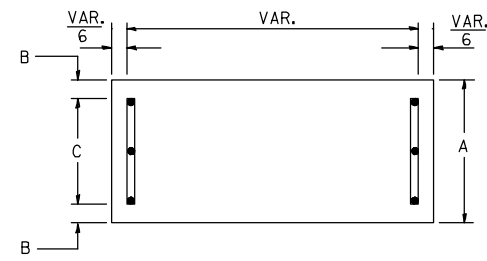
Upper Case To Lower Case
Spacing Chart 8-6 Inch Series "C & D"

EXAMPLE, 2³ DENOTES $\frac{3}{8}$

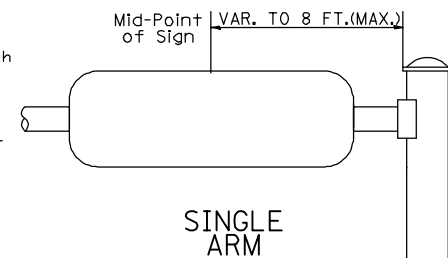


___ Sq. M. each
7.5 Sq. Ft. each
2 Required
Design Series D

SUPPORTING CHANNELS

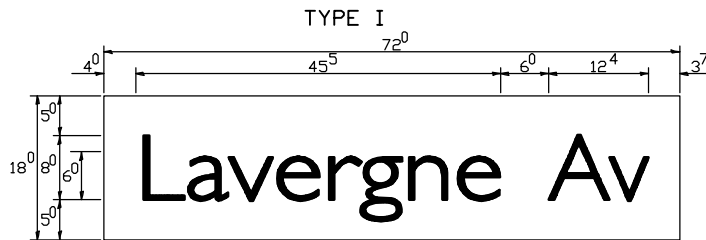


A	B	C
18"	2"	14"



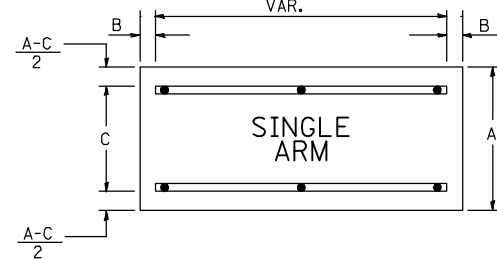
SINGLE ARM

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



___ Sq. M. each
9.0 Sq. Ft. each
2 Required
Design Series D

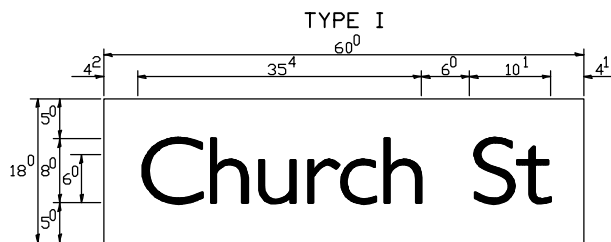
SUPPORTING CHANNELS



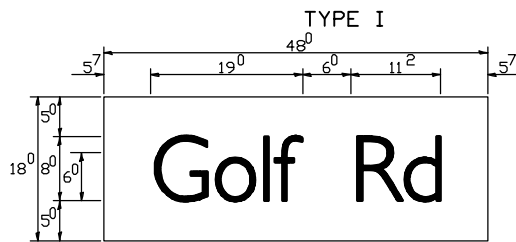
A	B	C
18"	2"	12"
30"	2"	22"

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

SERIES	SECOND LETTER															
	a c d e		b h i k l		f w		j		s t		v y		x		z	
	g o q	m n p r u														
ad h g i j	1 ⁶	1 ⁷	2 ²	2 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ⁶	1 ⁷
l m n q u																
b f k o p s	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴	1 ²	1 ⁴
c e	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴	1 ²	1 ⁴
r	0 ⁶	1 ⁰	1 ²	1 ⁴	0 ⁶	1 ⁰	0 ³	0 ³	0 ⁵	0 ⁶	0 ⁵	0 ⁶	0 ⁶	1 ⁰	0 ⁶	1 ⁰
t z	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ²	1 ⁴	0 ⁶	1 ⁰	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴	1 ²	1 ⁴
v y	1 ¹	1 ²	1 ⁴	1 ⁵	1 ¹	1 ²	0 ⁵	0 ⁶	0 ⁶	1 ⁰	0 ⁶	1 ⁰	1 ¹	1 ²	1 ¹	1 ²
w	1 ¹	1 ²	1 ⁴	1 ⁵	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴
x	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ¹	1 ²	0 ⁵	0 ⁶	1 ¹	1 ²	1 ¹	1 ²	1 ¹	1 ²	1 ²	1 ⁴



___ Sq. M. each
7.5 Sq. Ft. each
4 Required
Design Series D



___ Sq. M. each
6.0 Sq. Ft. each
2 Required
Design Series D

GENERAL NOTES

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* J.O. HERBERT CO.
MIDLOTHIAN, VA.

* WESTERN REMAC INC.
WOODRIDGE, IL.

PARTS LISTING:

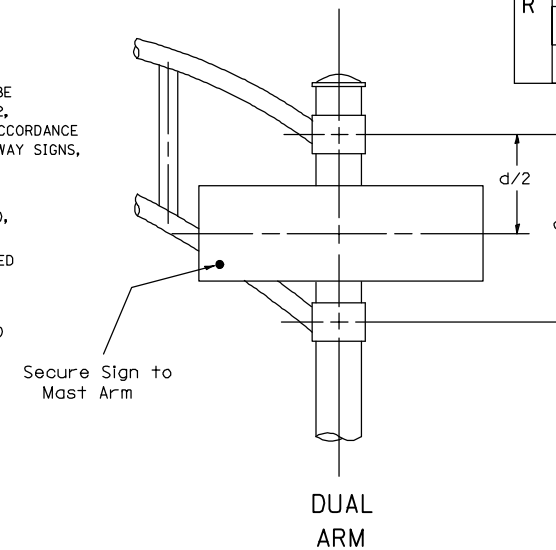
SIGN CHANNEL
SIGN SCREWS

PART #HPN053 (MED. CHANNEL)
1/4" x 14 x 1" H.W.H. #3
SELF TAPPING WITH NEOPRENE WASHER

BRACKETS

PART #HPN034 (UNIVERSAL)
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.



DUAL ARM

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

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

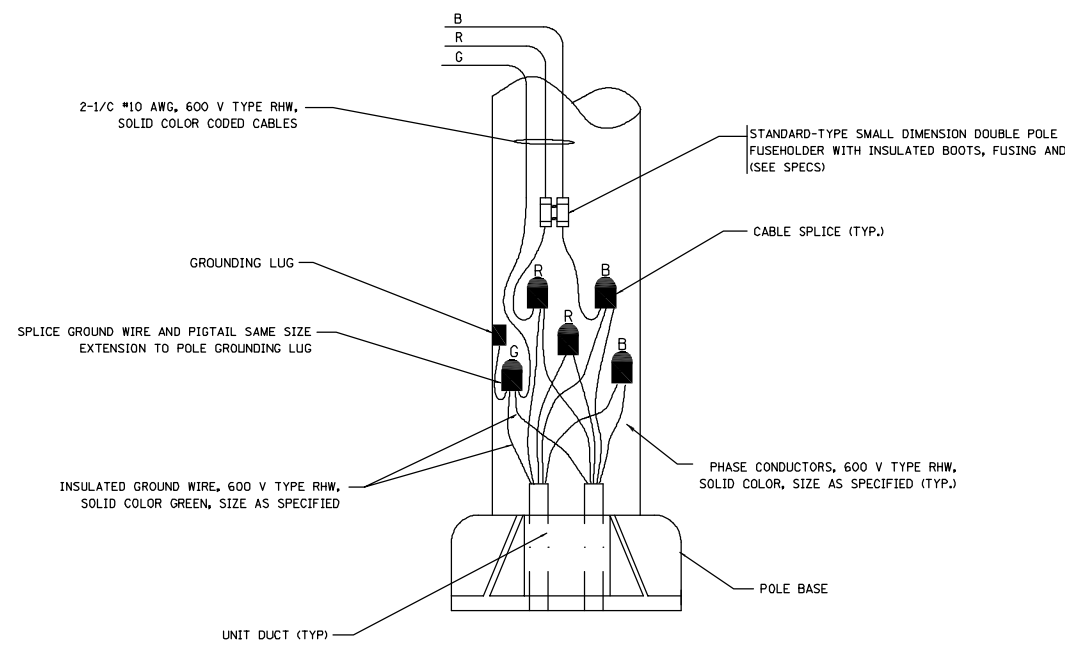
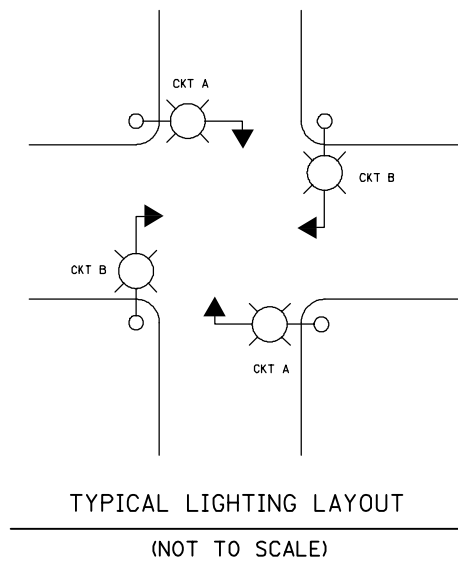
SERIES	SECOND NUMBER																			
	0		1		2		3		4		5		6		7		8		9	
	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D	C	D
0 9	1 ⁶	1 ⁷	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ⁶	1 ⁷
1	2 ⁰	2 ¹	2 ⁰	2 ¹	2 ⁰	2 ¹	1 ⁶	1 ⁷	1 ⁴	1 ⁵	2 ⁰	2 ¹	2 ⁰	2 ¹	1 ⁴	1 ⁵	2 ⁰	2 ¹	2 ⁰	2 ¹
2 3 4	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ²	1 ⁴	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁶	1 ⁷	1 ⁴	1 ⁵
5	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ¹	1 ²	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ⁴	1 ⁵
6	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ⁴	1 ⁵	1 ⁴	1 ⁵
7	1 ²	1 ⁴	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ²	1 ⁵	0 ⁵	0 ⁶	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ¹	1 ²	1 ⁴	1 ⁵	1 ²	1 ⁴
8	1 ⁶	1 ⁷	1 ⁶	1 ⁷	1 ⁴	1 ⁵	1 ²	1 ⁵	1 ²	1 ⁴	1 ⁴	1 ⁵	1 ⁶	1 ⁷	1 ²	1 ⁴	1 ⁶	1 ⁷	1 ⁴	1 ⁵

NUMBER	6 INCH SERIES		8 INCH SERIES	
	C	D	C	D
1	1 ²	1 ⁴	1 ⁵	2 ⁰
2	3 ²	4 ⁰	4 ³	5 ³
3	3 ²	4 ⁰	4 ³	5 ³
4	3 ⁵	4 ³	4 ⁷	5 ⁷
5	3 ²	4 ⁰	4 ³	5 ³
6	3 ²	4 ⁰	4 ³	5 ³
7	3 ²	4 ⁰	4 ³	5 ³
8	3 ²	4 ⁰	4 ³	5 ³
9	3 ²	4 ⁰	4 ³	5 ³
0	3 ⁴	4 ²	4 ⁵	5 ⁵

NOTE: SIGN DIMENSIONS ARE IN ENGLISH UNITS

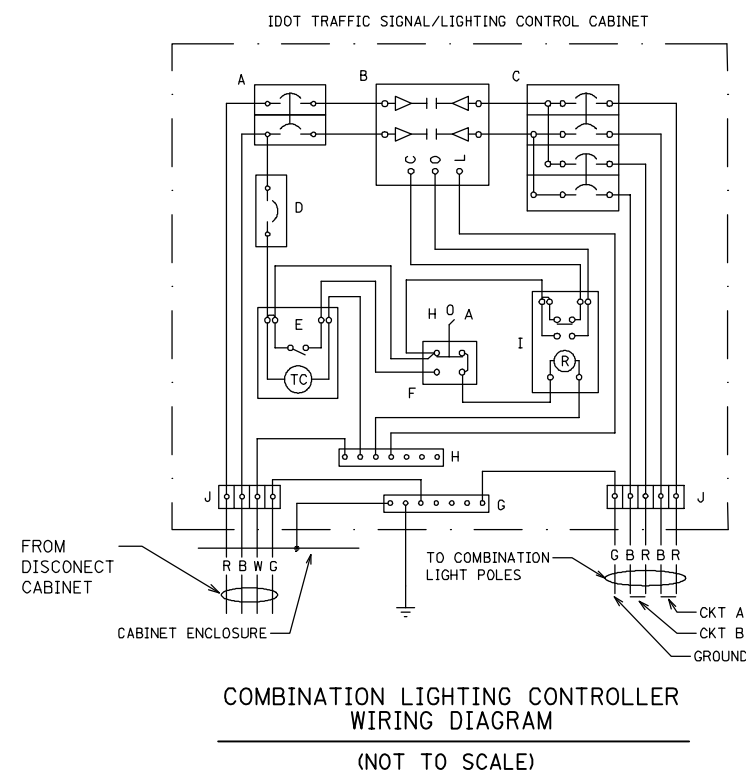
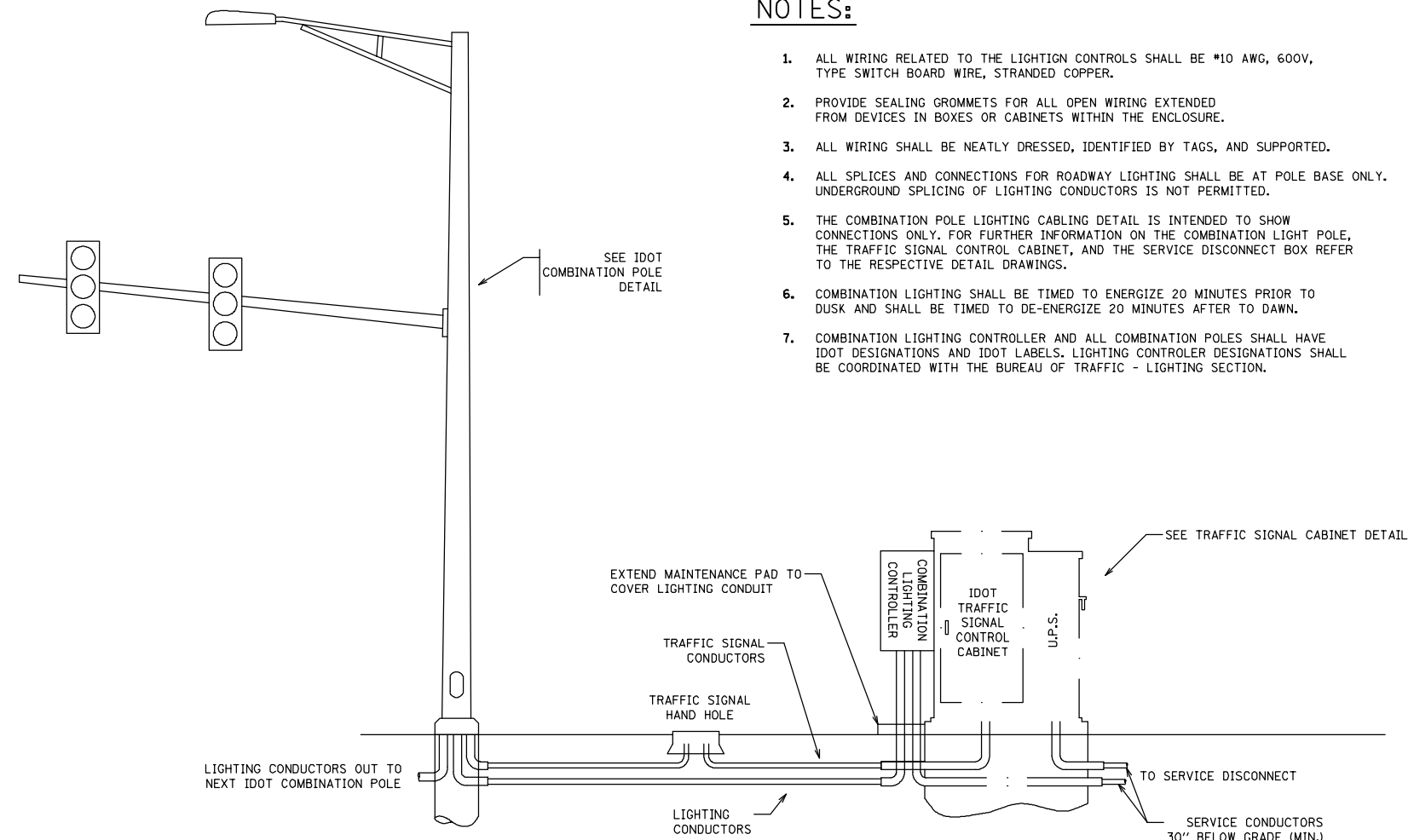
PANEL EQUIPMENT

BILL OF MATERIALS		
ITEM	QUANTITY	DESCRIPTION
A	1	CIRCUIT BREAKER, THERMAL MAGNETIC MOLDED CASE, 2 POLE, 240 VOLT 100 AMP FRAME, 30 AMP TRIP, INTERRUPTING RATING 22K RMS SYMETRICALL AMP
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 30 AMP., 600 VOLTS CONTROL CIRCUIT 120 VOLT.
C	2	CIRCUIT BREAKERS, 2 POLE, 100 AMP. FRAME 20 AMP. NON-INTERCHANGABLE TRIP INTERRUPTING RATING NEMA 10,000 AMP AT 240 V.
D	1	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 100 AMP FRAME, 15 AMP NON-INTERCHANGABLE TRIP, INTERRUPTING RATING 22K RMS SYMETRICAL AMP AT 240V.
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER [TIME SWITCH]
F	1	H-O-A SWITCH
G	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
H	1	COPPER NEUTRAL BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
I	1	RELAY, 2 POLE, SINGLE THROW, 120 VOLT COIL, CURRENT RATING TO BE COORDINATED WITH CONTACTOR
J	2	TERMINAL BLOCK



NOTES:

1. ALL WIRING RELATED TO THE LIGHTING CONTROLS SHALL BE #10 AWG, 600V, TYPE SWITCH BOARD WIRE, STRANDED COPPER.
2. PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE ENCLOSURE.
3. ALL WIRING SHALL BE NEATLY DRESSED, IDENTIFIED BY TAGS, AND SUPPORTED.
4. ALL SPLICES AND CONNECTIONS FOR ROADWAY LIGHTING SHALL BE AT POLE BASE ONLY. UNDERGROUND SPLICING OF LIGHTING CONDUCTORS IS NOT PERMITTED.
5. THE COMBINATION POLE LIGHTING CABLING DETAIL IS INTENDED TO SHOW CONNECTIONS ONLY. FOR FURTHER INFORMATION ON THE COMBINATION LIGHT POLE, THE TRAFFIC SIGNAL CONTROL CABINET, AND THE SERVICE DISCONNECT BOX REFER TO THE RESPECTIVE DETAIL DRAWINGS.
6. COMBINATION LIGHTING SHALL BE TIMED TO ENERGIZE 20 MINUTES PRIOR TO DUSK AND SHALL BE TIMED TO DE-ENERGIZE 20 MINUTES AFTER TO DAWN.
7. COMBINATION LIGHTING CONTROLLER AND ALL COMBINATION POLES SHALL HAVE IDOT DESIGNATIONS AND IDOT LABELS. LIGHTING CONTROLLER DESIGNATIONS SHALL BE COORDINATED WITH THE BUREAU OF TRAFFIC - LIGHTING SECTION.



FILE NAME = 4085.877-TR1.dwg

USER NAME = ZACH WALLSTEN
PLOT SCALE = 1" = .0833'
PLOT DATE = 3/22/2012

DESIGNED - MP
DRAWN - MP
CHECKED -
DATE - 8/24/11

REVISED - MAP 9/20/11
REVISED -
REVISED -
REVISED -

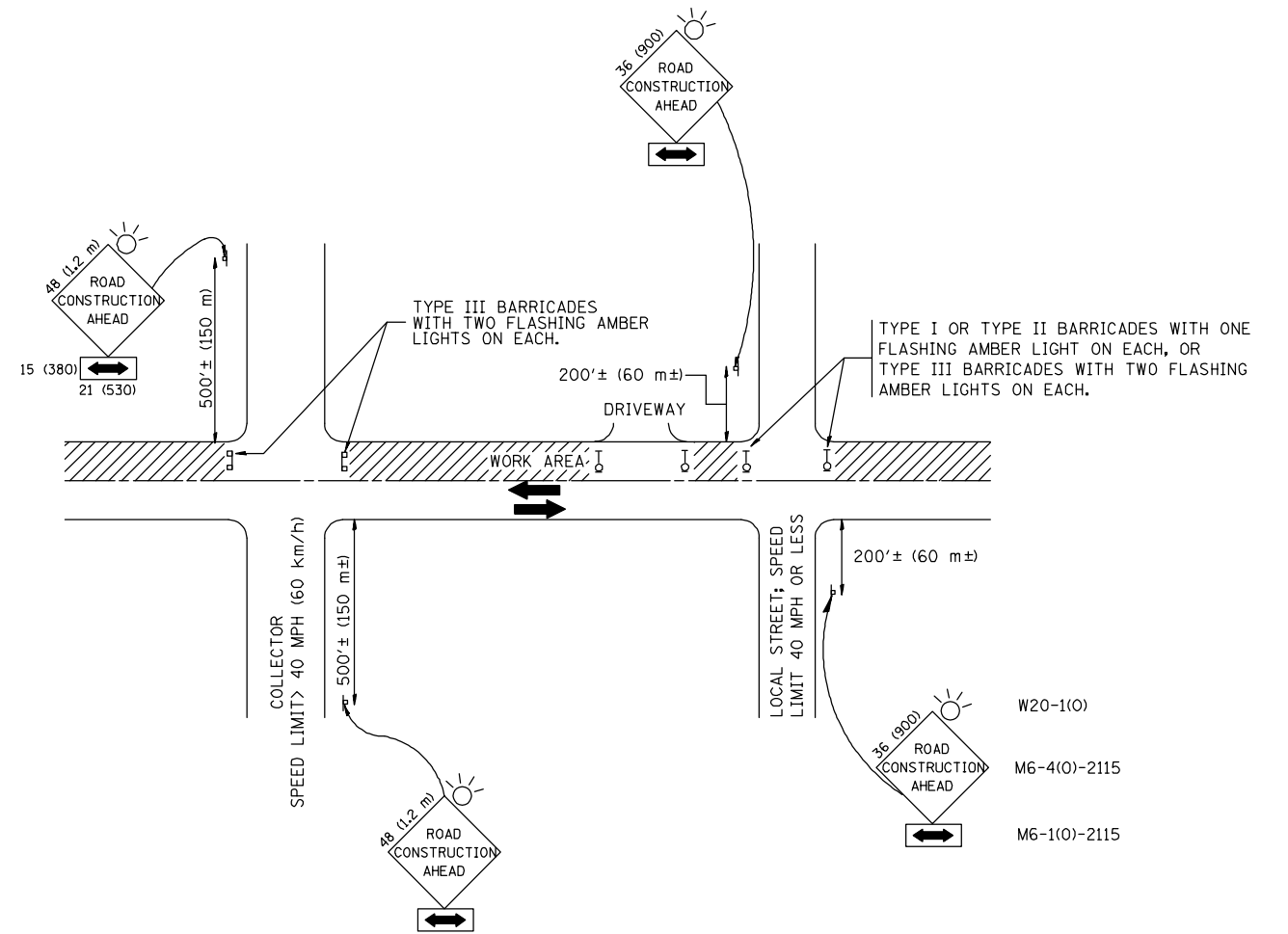
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COMBINATION LIGHTING CONTROLLER

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

FAP. RTE. VARIES SECTION 2011-209-TS COUNTY COOK TOTAL SHEETS 52 SHEET NO. 45 CONTRACT # 60R47 ILLINOIS FED. AID PROJECT

GHA #4085.877



NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 1" = .0833'	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 3/22/2012	DATE - 06-89	REVISED - T. RAMMACH 01-06-00

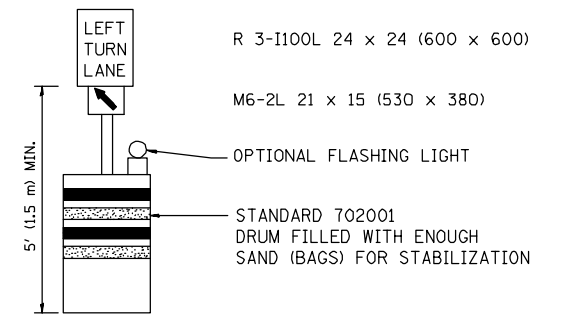
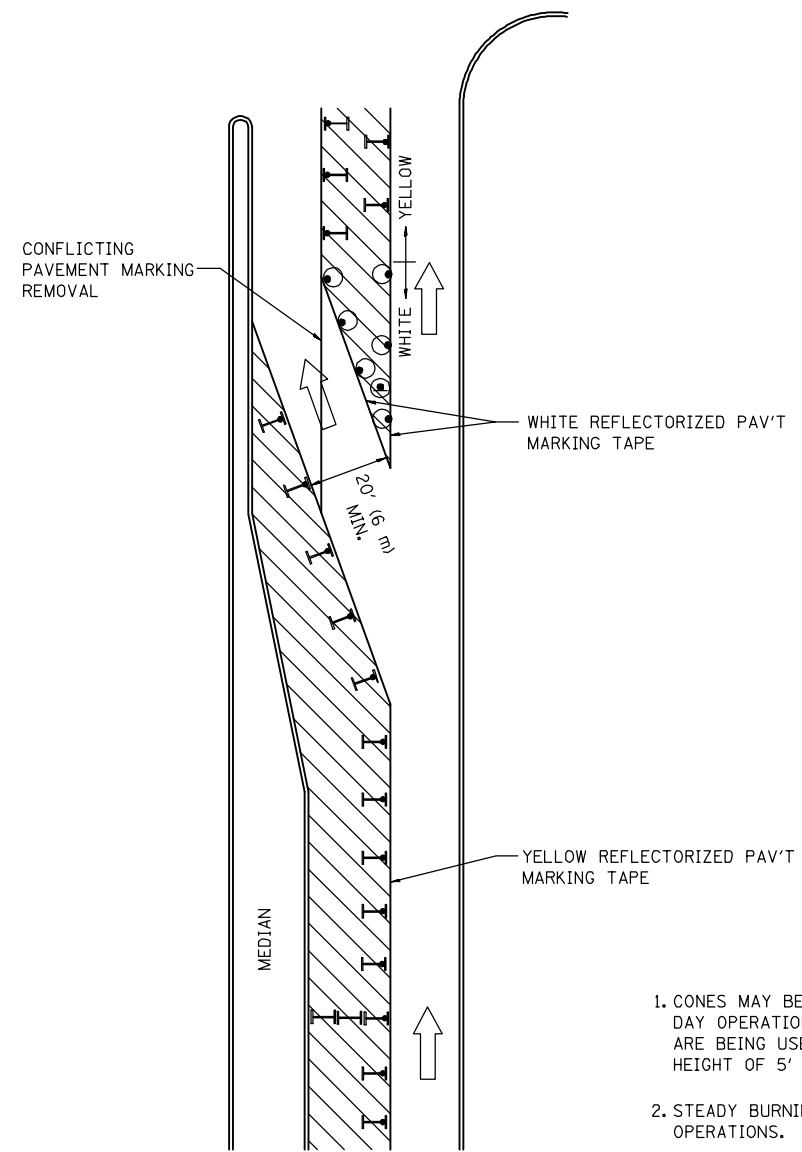
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-209-TS	COOK	52	46
TC-10			CONTRACT #: 60R47	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

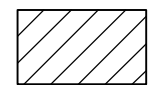





GHA #4085.877



GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

LEGEND

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

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

FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	REVISED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
		REVISED - A. HOUSEH 11-07-95	REVISED -
	PLOT SCALE = 1" = .0833'	REVISED - A. HOUSEH 10-12-96	REVISED -
	PLOT DATE = 3/22/2012	REVISED - T. RAMMACHER 01-06-00	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)**

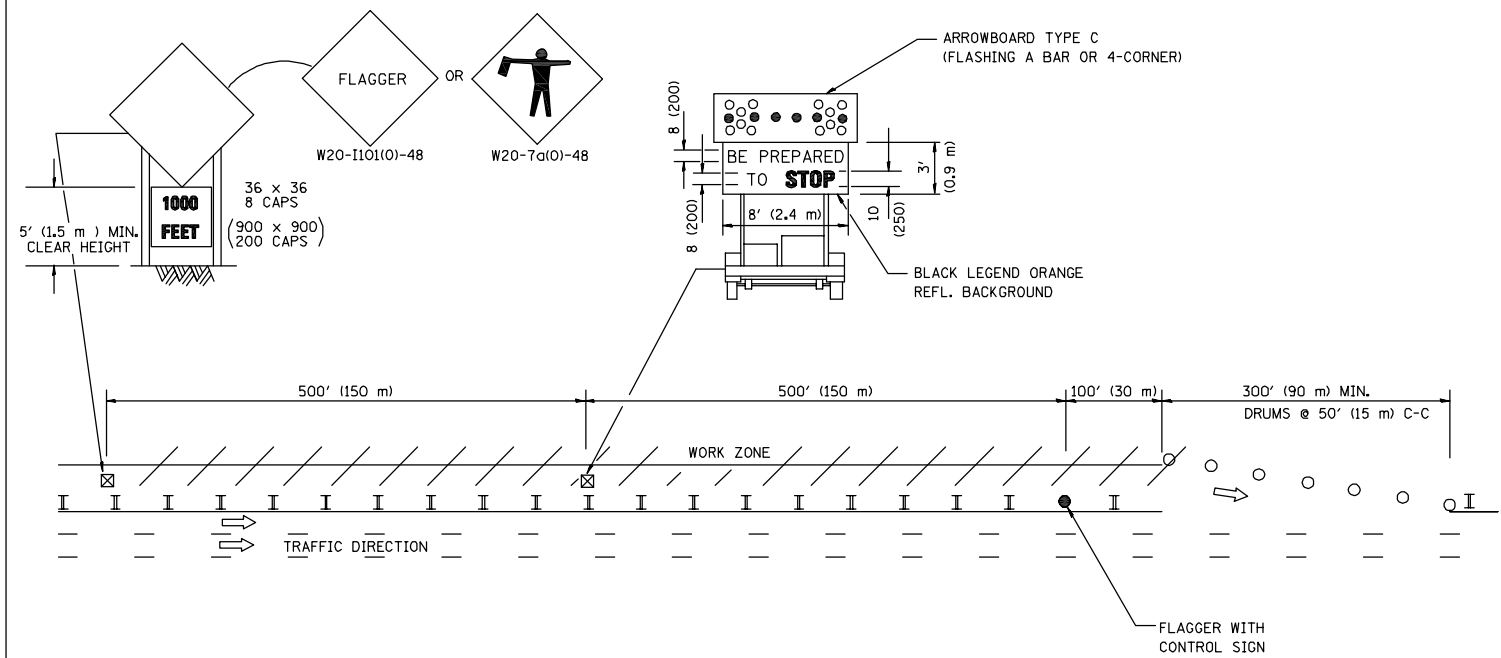
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FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-209-TS	COOK	52	47
TC-14		CONTRACT #: 60R47		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

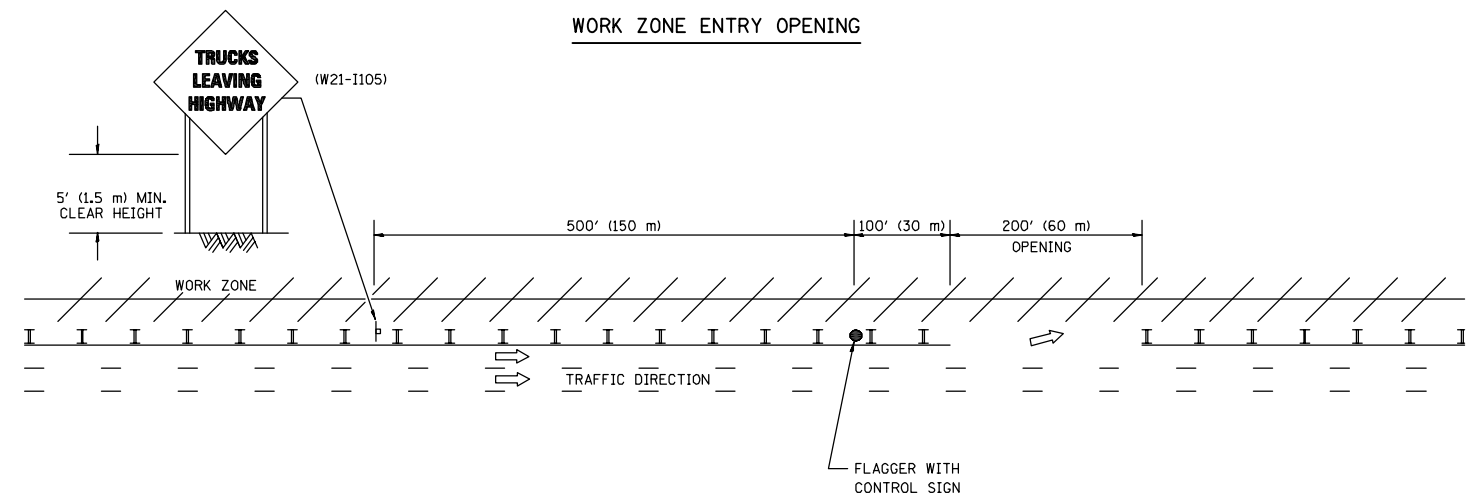
GHA #4085.877

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. THE ARROWBOARD, THE FLAGGER AHEAD SIGN AND THE TRUCKS LEAVING HIGHWAY SIGN SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
2. WORK ZONE EXIT OPENINGS SHOULD BE A MINIMUM OF ONE HALF MILE APART.
3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

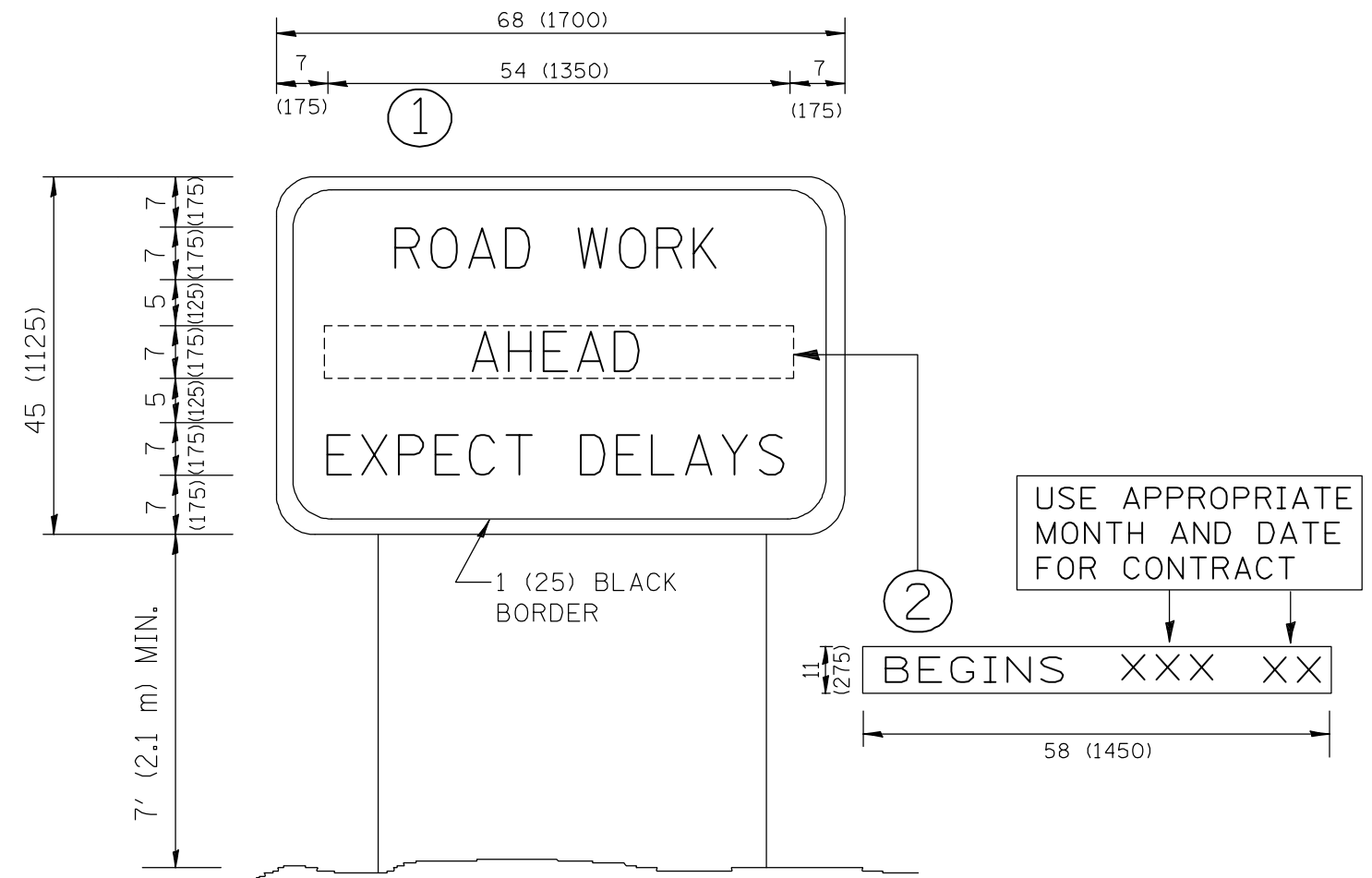
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		DRAWN -	REVISED - JAF 02-06
	PLOT SCALE = 1" = .0833'	CHECKED -	REVISED - SPB 01-07
	PLOT DATE = 3/22/2012	DATE -	REVISED - SPB 12-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNING FOR FLAGGING OPERATIONS
AT WORK ZONE OPENINGS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIES	2011-209-TS	COOK	52	48
TC-18		CONTRACT #:	60R47	
ILLINOIS FED. AID PROJECT				



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 1" = .0833'	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 3/22/2012	DATE -	REVISED - C. JUCIUS 03-31-07

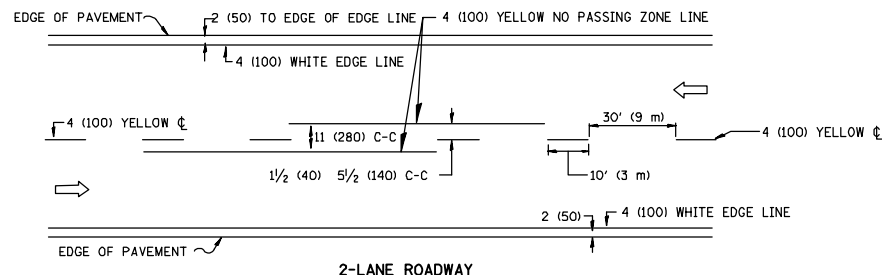
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

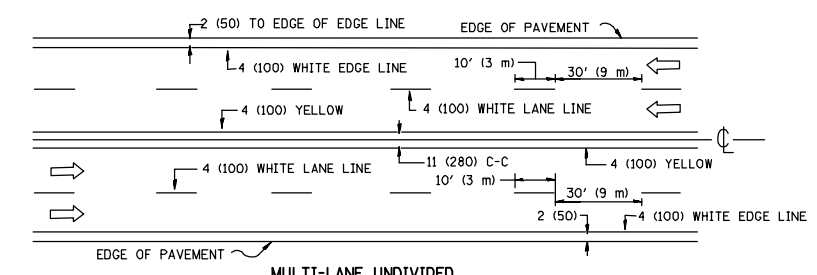
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VARIABLES	2011-209-TS	COOK	52	49
TC-22			CONTRACT #:	60R47
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

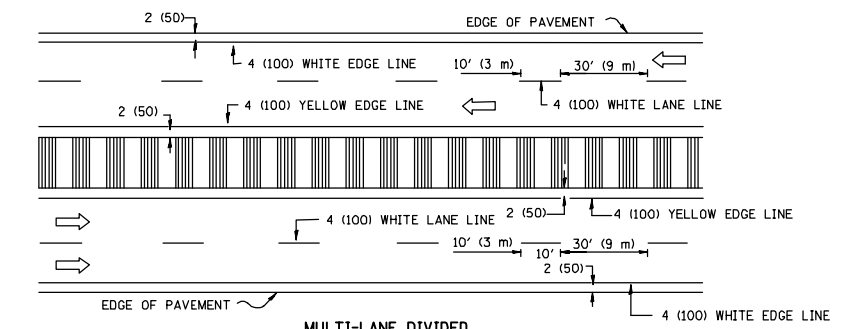
GHA #4085.877



2-LANE ROADWAY



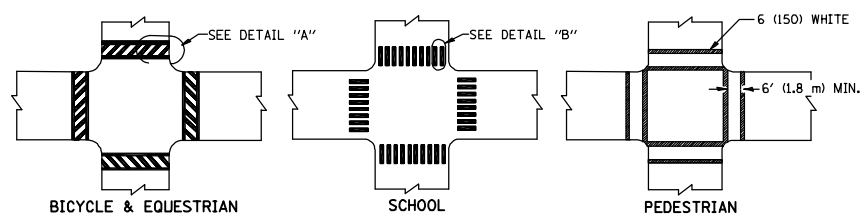
MULTI-LANE UNDIVIDED



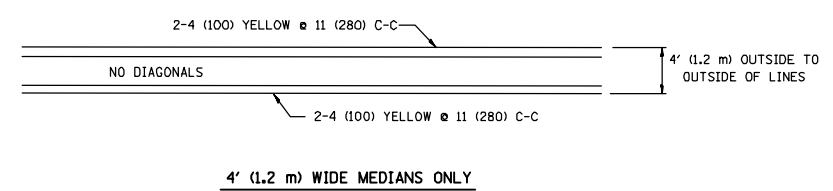
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

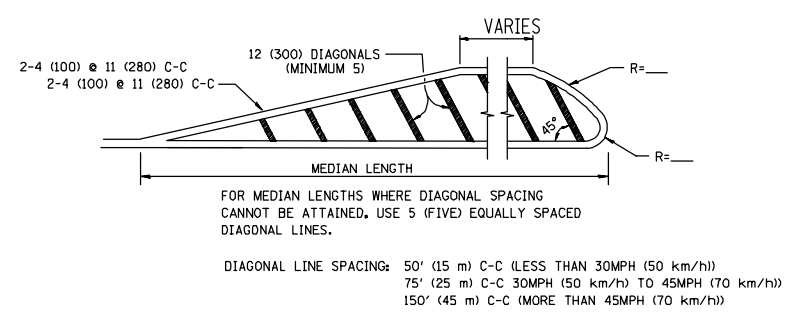
TYPICAL LANE AND EDGE LINE MARKING



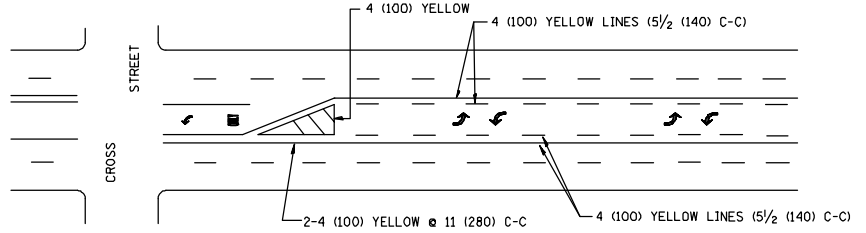
TYPICAL CROSSWALK MARKING



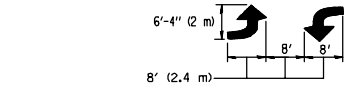
4' (1.2 m) WIDE MEDIANS ONLY



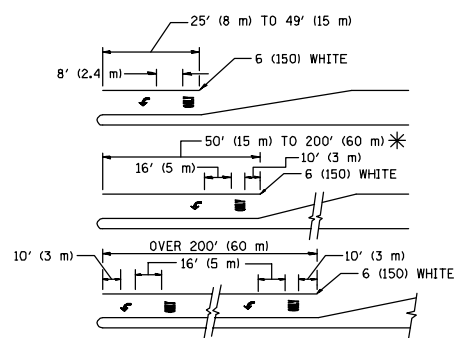
MEDIANS OVER 4' (1.2 m) WIDE



TYPICAL PAINTED MEDIAN MARKING



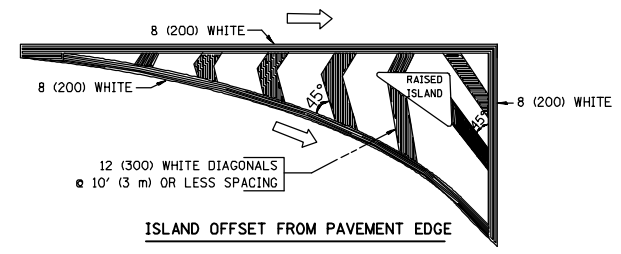
MEDIAN WITH TWO-WAY LEFT TURN LANE



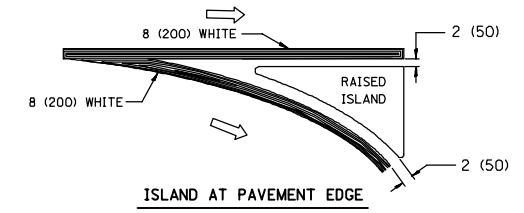
TYPICAL LEFT (OR RIGHT) TURN LANE

FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES: FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15' (4.5 m) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

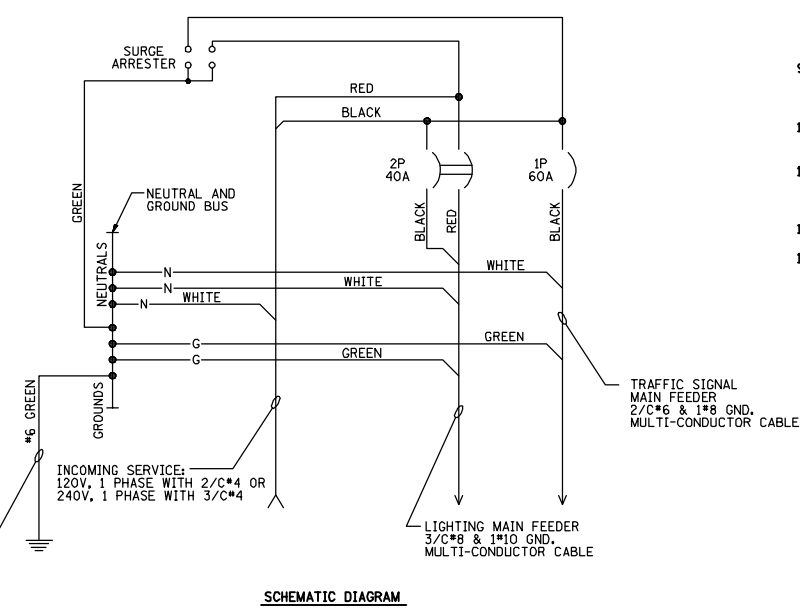
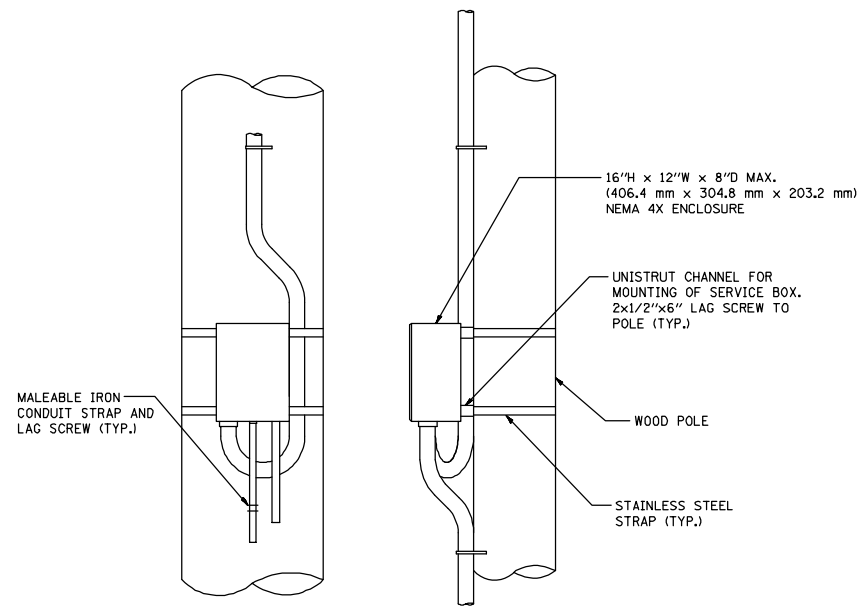
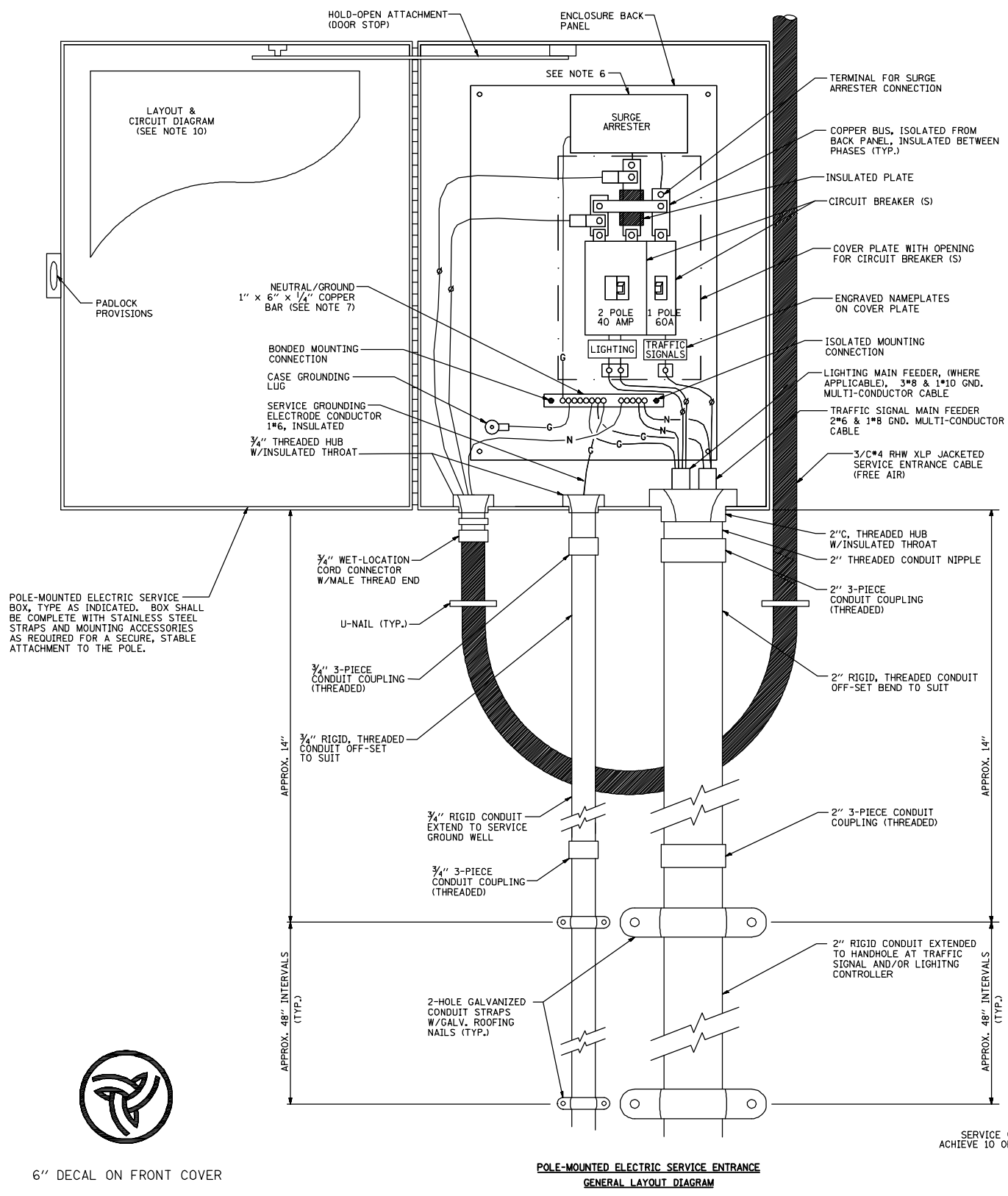
TYPICAL PAVEMENT MARKINGS

FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED - EVERS	REVISED - T. RAMMACH 10-27-94
		DRAWN -	REVISED - C. JUCIUS 09-09-09
	PLOT SCALE = 1" = .0833'	CHECKED -	REVISED -
	PLOT DATE = 3/22/2012	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE		FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		VARIABLES	2011-209-TS	COOK	52	50
SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		CONTRACT #: 60R47

GHA #4085.877						
ILLINOIS FED. AID PROJECT						



- NOTES:**
- ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED BY THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY. SOME INSTALLATIONS MAY CALL FOR SERVICE ENTRANCE EQUIPMENT SUITABLE FOR 3-WIRE SERVICE EVEN THOUGH INITIALLY WIRED FOR 2-WIRE SERVICE.
 - THE POLE-MOUNTED ELECTRIC SERVICE BOX DETAIL DEPICTS THE BASIC CONSTRUCTION OF THE EQUIPMENT. SLIGHT MODIFICATIONS APPLY FOR DIFFERING SERVICES AND APPLICATIONS AS FOLLOWS:
 - TYPE A FULLY EQUIPPED FOR 240/120V, 3W SERVICE, COMPLETE WITH LIGHTING MAIN BREAKER
 - TYPE A1 FULLY EQUIPPED FOR 240/120V, 3W SERVICE, BLANK COVER IN LIEU OF LIGHTING MAIN BREAKER
 - TYPE B EQUIPPED FOR 120V, SERVICE, COMPLETE WITH 1P, 60A, TRAFFIC SIGNALS MAIN BREAKER
 - TYPE B1 EQUIPPED FOR 120V, SERVICE, COMPLETE WITH 1P, 40A, TRAFFIC SURVEILLANCE MAIN BREAKER
 - THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
 - THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12\"/>

POLE-MOUNTED ELECTRIC SERVICE BOX, TYPE AS INDICATED. BOX SHALL BE COMPLETE WITH STAINLESS STEEL STRAPS AND MOUNTING ACCESSORIES AS REQUIRED FOR A SECURE, STABLE ATTACHMENT TO THE POLE.



6\"/>

COMBINATION LIGHTING & TRAFFIC POLE MOUNTED ELECTRIC SERVICE BOX DETAIL

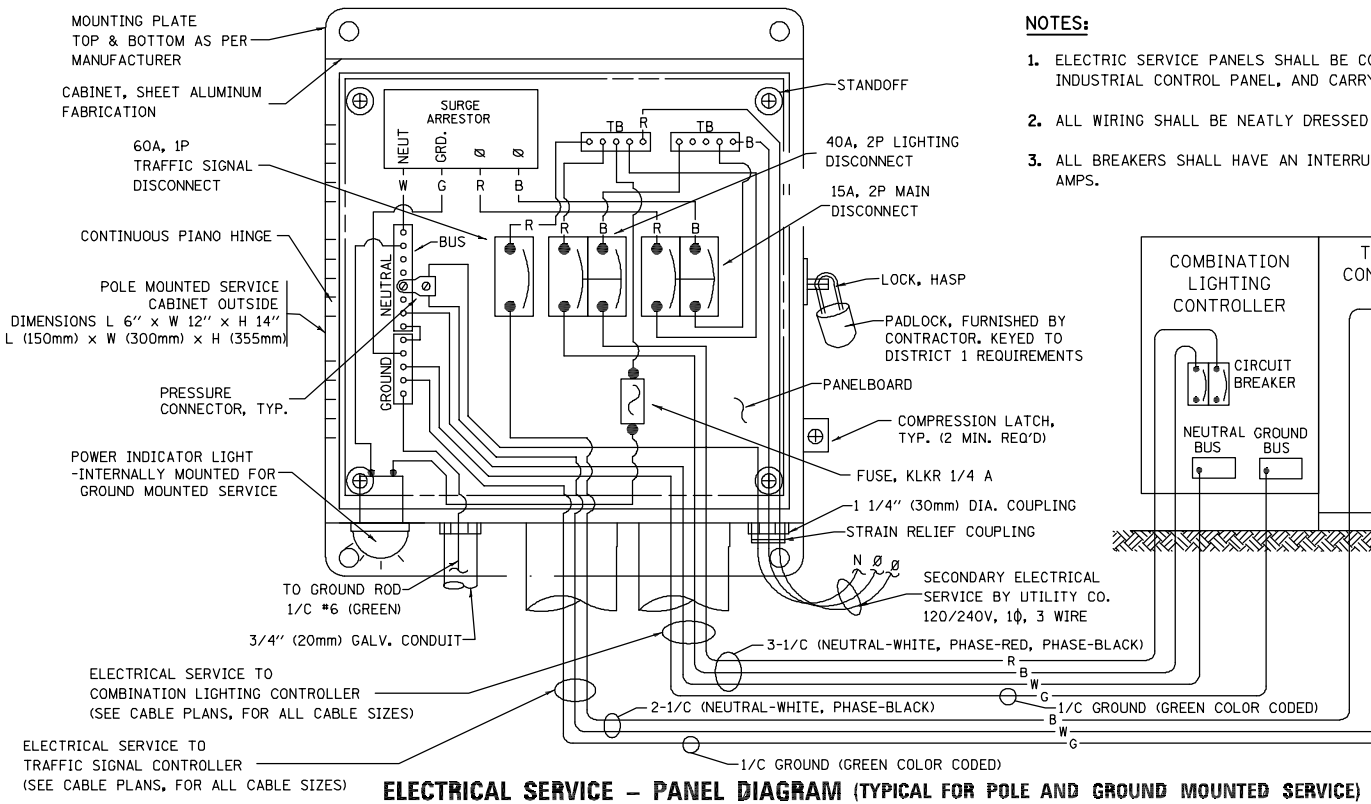
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

COMBINATION LIGHTING & TRAFFIC POLE MOUNTED ELECTRIC SERVICE BOX DETAIL

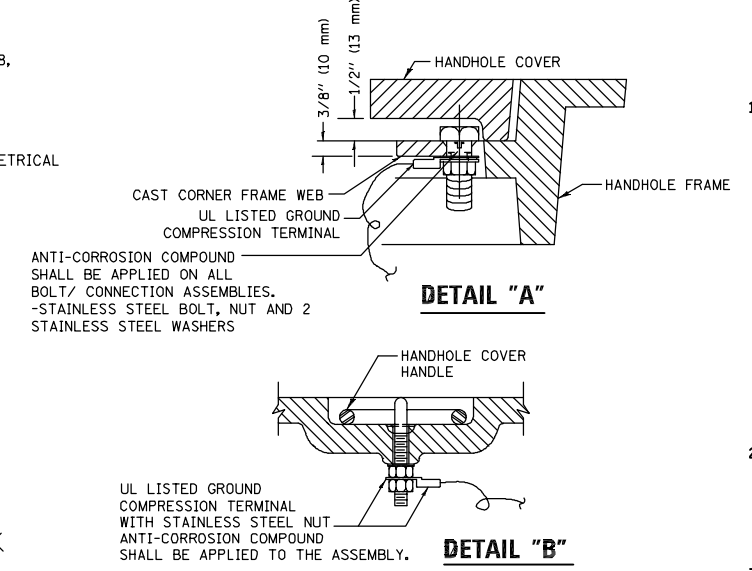
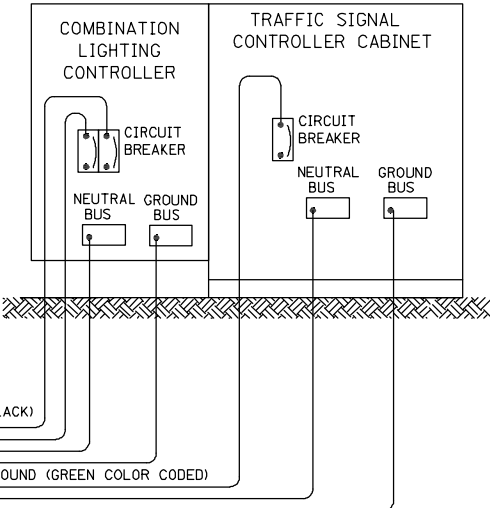
FILE NAME = 4085.877-TR1.dwg	USER NAME = ZACH WALLSTEN	DESIGNED -	REVISED - R. TOMSONS 08-13-04
		DRAWN -	REVISED -
	PLOT SCALE = 1" = .0833'	CHECKED -	REVISED -
	PLOT DATE = 3/22/2012	DATE -	REVISED -

SCALE: N.A.	SHEET NO. OF SHEETS	STA. TO STA.	FAP. RTE. VARIES	SECTION 2011-209-TS	COUNTY COOK	TOTAL SHEETS 52	SHEET NO. 51
			BE-230		CONTRACT # 60R47		
ILLINOIS FED. AID PROJECT							

GHA #4085.877

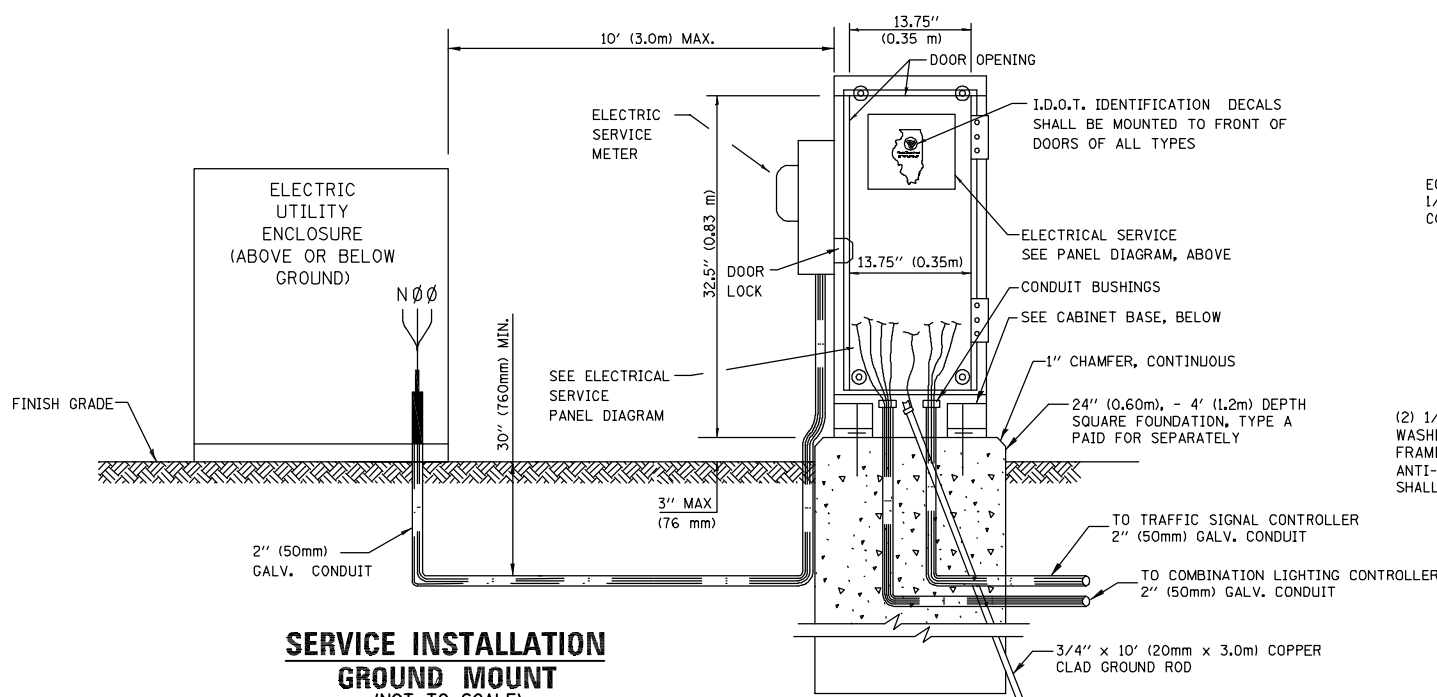


- NOTES:**
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
 2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
 3. ALL BREAKERS SHALL HAVE AN INTERRUPT RATING OF 22K RMS SYMMETRICAL AMPS.



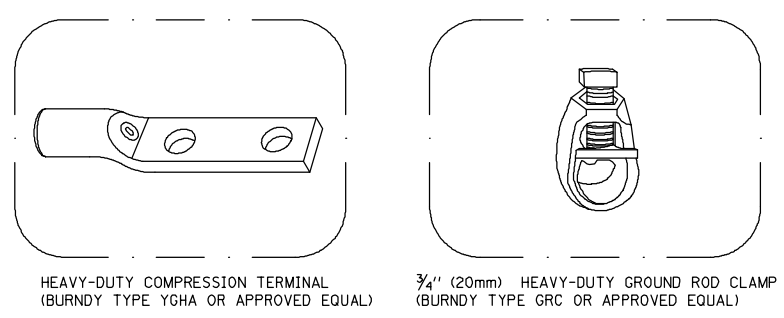
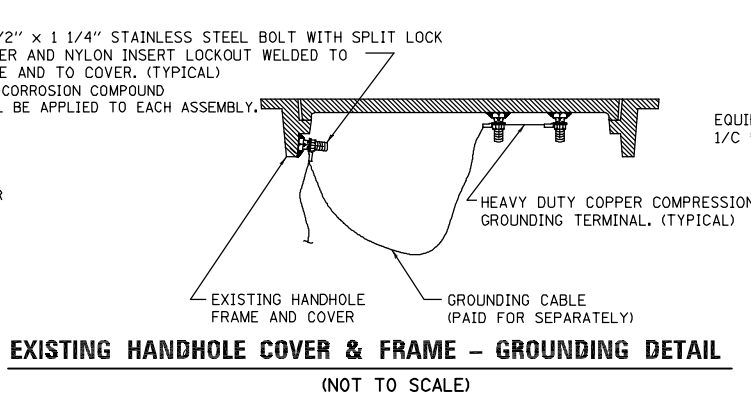
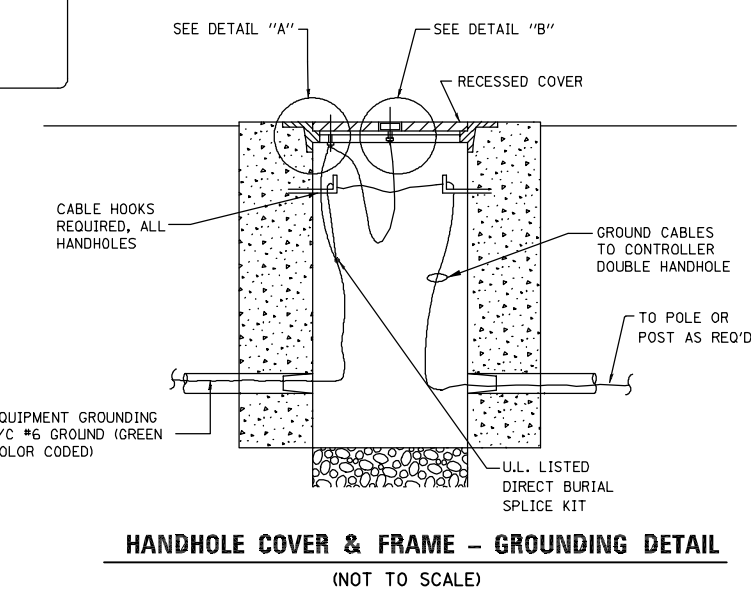
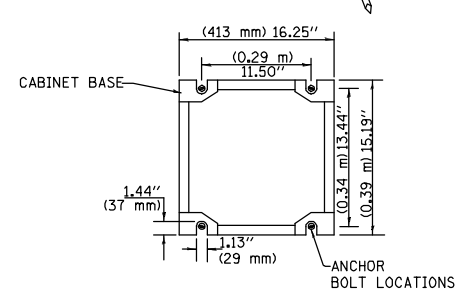
- NOTES:**
- GROUNDING SYSTEM**
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED 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.

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:**
- 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.

