

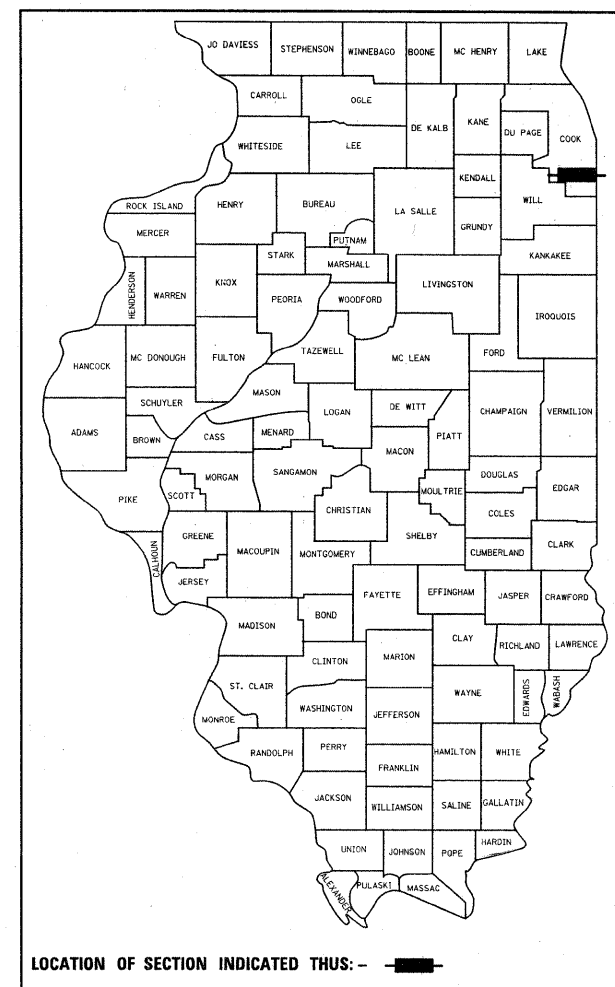
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

DISTRICT 1
HIGHWAY SAFETY IMPROVEMENT PROJECT
TRAFFIC SIGNAL MODERNIZATION
PROJECT HSIP-000S(675)
F.A.P. ROUTE 353 - U.S. ROUTE 30 (LINCOLN HIGHWAY)
FROM STATE SREET TO ILLINOIS ROUTE 1(CHICAGO ROAD)
F.A.P. 876 - ILLINOIS ROUTE 1 (CHICAGO ROAD)
FROM 16TH STREET TO DIXIE HIGHWAY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353/876	2009-033 TS	COOK	49	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 60G40		

D-91-402-09

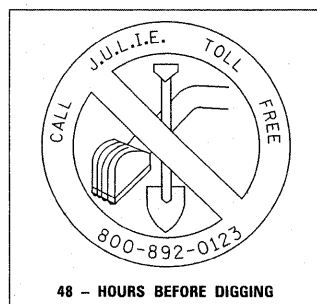


FOR INDEX OF SHEETS, SEE SHEET NO.2

PROJECT LOCATED IN THE CITY OF CHICAGO HEIGHTS

SECTION 2009-033 TS
C-91-402-09
COOK COUNTY

BLOOM TOWNSHIP

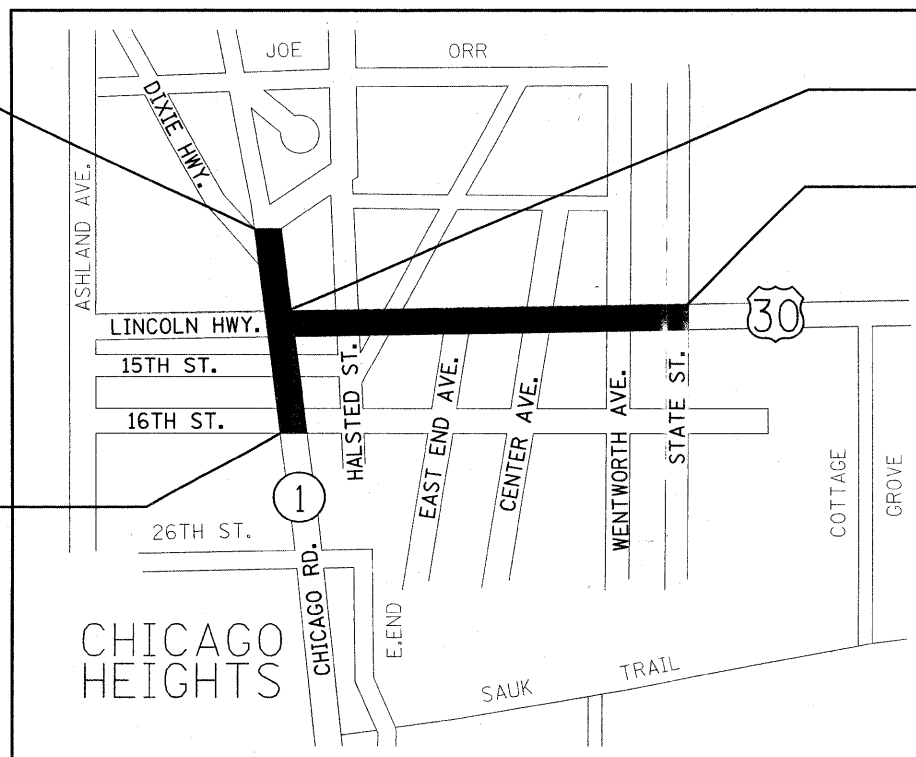


END OF PROJECT
ILL. RTE. 1 (CHICAGO RD.) @ DIXIE HWY.

END OF PROJECT
US.30 (LINCOLN HWY.) @ HALSTED ST.

BEGINNING OF PROJECT
US.30 (LINCOLN HWY.) @ STATE ST.

BEGINNING OF PROJECT
ILL. 1 (CHICAGO RD.) @ 16TH ST.



STANDARD DRAWINGS

701006-3 701011-2 701101-2 701301-3 701901-1

424001-5 720001-1 ~~813001~~ 814001-2 814006-2

857001-1 877001-4 877006-3 877011-4 878001-7

880001-1 880006-1 886001-1 805001-1

701201-3 701316-4 701321-10 701406-5 701501-5

701502-3 701601-6 701606-6 701701-6 701801-4

NOTE: STANDARD DRAWINGS REQUIRED (CIRCLED).

PREPARED BY: Steve Travia 3/20/09
TRAFFIC ENGINEER DATE

CONTRACT NO. 60G40

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED March 20 2009
Dawn M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 8, 2009
Charles J. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT

May 8, 2009
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

LOCATION MAP

DISTRICT 1 - BUREAU OF TRAFFIC: STEVE TRAVIA /DARYLE DREW (847) 705-4420

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS
3-6	SUMMARY OF QUANTITIES
7-10	STANDARD TRAFFIC SIGNAL DESIGN DETAILS
11-12	US. RTE. 30 (LINCOLN HWY.) @ STATE STREET TEMPOARY TRAFFIC SIGNAL, EXISTING REMOVAL AND CABLE PLANS
13-14	US. RTE. 30 (LINCOLN HWY.) @ STATE STREET TRAFFIC SIGNAL INSTALLATION PLAN, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
15-16	US. RTE. 30 (LINCOLN HWY.) @ WENTWORTH AVE. TEMPOARY TRAFFIC SIGNAL, EXISTING REMOVAL AND CABLE PLANS
17-18	US. RTE. 30 (LINCOLN HWY.) @ WENTWORTH AVE. TRAFFIC SIGNAL INSTALLATION PLAN, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
19-20	US. RTE. 30 (LINCOLN HWY.) @ CENTER AVE. TEMPOARY TRAFFIC SIGNAL, EXISTING REMOVAL AND CABLE PLANS
21-22	US. RTE. 30 (LINCOLN HWY.) @ CENTER AVE. TRAFFIC SIGNAL INSTALLATION PLAN, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
23-24	US. RTE. 30 (LINCOLN HWY.) @ EAST END AVE. TEMPOARY TRAFFIC SIGNAL, EXISTING REMOVAL AND CABLE PLANS
25-26	US. RTE. 30 (LINCOLN HWY.) @ EAST END AVE. TRAFFIC SIGNAL INSTALLATION PLAN, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
27-28	US. RTE. 30 (LINCOLN HWY.) @ HALSTED STREET TEMPOARY TRAFFIC SIGNAL, EXISTING REMOVAL AND CABLE PLANS
29-30	US. RTE. 30 (LINCOLN HWY.) @ HALSTED STREET TRAFFIC SIGNAL INSTALLATION PLAN, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
31-33	US. RTE. 30 (LINCOLN HWY.) @ ILLINOIS RTE. 1 (CHICAGO ROAD) TEMPOARY TRAFFIC SIGNAL, EXISTING REMOVAL AND CABLE PLANS
34-36	US. RTE. 30 (LINCOLN HWY.) @ ILLINOIS RTE. 1 (CHICAGO ROAD) TRAFFIC SIGNAL INSTALLATION PLAN, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
37-38	ILLINOIS RTE. 1 (CHICAGO ROAD) @ 16TH STREET REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT, MODERNIZATION PLAN CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
39-40	ILLINOIS RTE. 1 (CHICAGO ROAD) @ 15TH STREET REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT, MODERNIZATION PLAN CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
41-42	ILLINOIS RTE. 1 (CHICAGO ROAD) @ DIXIE HIGHWAY TEMPOARY TRAFFIC SIGNAL, EXISTING REMOVAL AND CABLE PLANS
43-44	ILLINOIS RTE. 1 (CHICAGO ROAD) @ DIXIE HIGHWAY TRAFFIC SIGNAL INSTALLATION PLAN, CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES
45	INTERCONNECT SCHEMATIC PLAN
46-47	MAST ARM MOUNTED STREET NAME SIGNS
48	DISTRICT 1 STANDARD TYPICAL PAVEMENT MARKINGS
49	ARTERIAL ROAD INFORMATION SIGN

FILE NAME =	USER NAME = nguyensm	DESIGNED - STEVEN N./JOE E./BRENDA K.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEET ILLINOIS ROUTE 1 (CHICAGO ROAD) FROM US. ROUTE 30 (LINCOLN HIGHWAY) TO 16TH STREET	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwork\pwork\nguyensm\08117709\Rob-TS.dgn	PLOT SCALE = 20.0000 / IN.	DRAWN - STEVEN N./BRENDA K.	REVISED -			353/876	2009-033 TS	COOK	49	2	
PLOT DATE = 3/19/2009	CHECKED - JOE E.	DATE - 3/15/09	REVISED -			CONTRACT NO. 60640		ILLINOIS FED. AID PROJECT			
SCALE:		SHEET NO.	OF			SHEETS	STA.	TO STA.		FED. ROAD DIST. NO.	

SUMMARY OF QUANTITIES				FED/ST CHICAGO HEIGHTS				FED/ST CHICAGO HEIGHTS				FED/ST CHICAGO HEIGHTS					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				CONSTRUCTION TYPE CODE				CONSTRUCTION TYPE CODE					
				URBAN		90/5/5		90/5/5		90/5/5		90/5/5		90/5/5		90/5/5	
				US.30 @ STATE ST.	US.30 @ WENTWORTH AVE.	90/5/5 US.30 @ CENTER AVE.	90/5/5 US.30 @ EAST END AVE.	US.30 @ HALSTED ST.	US.30 @ ILL. RTE. 1	ILL. RTE. 1 @ 16TH STREET.	ILL. RTE. 1 @ 15TH STREET	ILL. RTE. 1 @ DIXIE HIGHWAY	INTERCONNECT ILL. RTE. 1 (CHICAGO RD.)				
Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F				
87800420	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	30					15	15								
X8808120	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	2											2			
X8808180	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1											1			
X8808160	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1											1			
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	2798		720	628	210	336	448					456			
42400800	DETECTABLE WARNINGS	SQ FT	884		192	200	172	200						120			
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	93				39		24					30			
44000600	SIDEWALK REMOVAL	SQ FT	2342		720	628	210	336	448								
44003100	MEDIAN REMOVAL	SQ FT	660	120				240	300								
60624600	CORRUGATED MEDIAN	SQ FT	580	120				240	220								
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	9	1	1	1	1	1	1	1	1	1	1	1	1		
67100100	MOBILIZATION	L SUM	1	0.111	0.111	0.111	0.111	0.111	0.112	0.111	0.111	0.111	0.111	0.111	0.111		
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	0.111	0.111	0.111	0.111	0.111	0.112	0.111	0.111	0.111	0.111	0.111	0.111		
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	L SUM	1	0.111	0.111	0.111	0.111	0.111	0.112	0.111	0.111	0.111	0.111	0.111	0.111		
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	0.111	0.111	0.111	0.111	0.111	0.112	0.111	0.111	0.111	0.111	0.111	0.111		
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	0.111	0.111	0.111	0.111	0.111	0.112	0.111	0.111	0.111	0.111	0.111	0.111		
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.111	0.111	0.111	0.111	0.111	0.112	0.111	0.111	0.111	0.111	0.111	0.111		
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	0.111	0.111	0.111	0.111	0.111	0.112	0.111	0.111	0.111	0.111	0.111	0.111		
72000100	SIGN PANEL - TYPE 1	SQ FT	94.5	12	19.5	15	18	15						15			
72000200	SIGN PANEL - TYPE 2	SQ FT	205	30	30	30		30	57.5					27.5			
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	1640				80	320	840					400			
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1753		392	350	381	630									
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1965						696	440	440			389			
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	1076	152	108	84	80	164	173	92	92			131			
78300400	THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ FT	896	60	142	112	104	170		84	84			140			
78300500	PAINT PAVEMENT MARKING REMOVAL	SQ FT	302						302								
81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	1698	752		388			32					526			
81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	230	50	34	102								44			

FILE NAME =	USER NAME = ngjyem	DESIGNED - STEVEN N./JOE E./BRENDA K.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				SUMMARY OF QUANTITIES (SHEET 1 OF 4) US. ROUTE 30 (LINCOLN HIGHWAY) FROM STATE ST. TO 16TH ST. ILLINOIS RTE. 1 (CHICAGO RD.) FROM 16TH ST. TO DIXIE HWY.				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
Plot Scale = 50,000' / IN.	CHECKED - JOE E.	DRAWN - STEVEN N./BRENDA K.	REVISED -									353/876	2009-033 TS	COOK	49	3			
Plot Date = 3/20/2009	DATE - 3/15/09											SCALE: SHEET NO. OF SHEETS STA. TO STA.				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
* SPECIALTY ITEMS																CONTRACT NO. 60640			

SUMMARY OF QUANTITIES			URBAN	FED/ST/CHICAGO HEIGHTS				FED/ST		FED/ST/CHICAGO HEIGHTS		FED/ST				
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE								ILL. RTE. 1 @ 16TH STREET.	ILL. RTE. 1 @ 15TH STREET	ILL. RTE. 1 @ DIXIE HIGHWAY	INTERCONNECT ILL. RTE. 1 (CHICAGO RD.)	
				90/10	90/5/5	90/5/5 @ WENTWORTH AVE.	90/5/5 @ CENTER AVE.	90/5/5 @ EAST END AVE.	90/10	90/10	90/5/5					90/5/5
				US.30 @ STATE ST.	US.30 @ WENTWORTH AVE.	US.30 @ CENTER AVE.	US.30 @ EAST END AVE.	US.30 @ HALSTED ST.	US.30 @ ILL. RTE. 1	ILL. RTE. 1 @ 16TH STREET.	ILL. RTE. 1 @ 15TH STREET					ILL. RTE. 1 @ DIXIE HIGHWAY
81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	42						26	16						
81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	132	10		10	8	10					94			
81001100	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL	FOOT	10							10						
81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	4567	324	603	210	618	1221	1306				285			
81018600	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT	212				145						67			
81018700	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT	80										80			
81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	1669	249	152	198	134	394	326				216			
81400100	HANDHOLE	EACH	40	7	5	5	4	6	7				6			
81400200	HEAVY-DUTY HANDHOLE	EACH	18	4	2		1	4	4				3			
81400300	DOUBLE HANDHOLE	EACH	10	1	1	1	1	2	2				2			
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	2003	762	38	378	14	34	160				617			
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	3			1					1	1				
85700205	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	8	1	1	1	1	1			1	1	1			
85700305	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1						1							
86000105	MASTER CONTROLLER (SPECIAL)	EACH	1						1							
86400100	TRANSCEIVER - FIBER OPTIC	EACH	3						1	1	1					
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	3472		610	450	469	636	667				640			
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	6512	300	869	826	639	1314	1670				894			
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	10922	1438	1379	1701	1852	1434	1662				1456			
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	7094	1445	527		237	1440	895				2550			
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	12539	2089	1129	860	986	2292	3083				2100			
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C	FOOT	774		108	117	48	180	234				87			
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	4			1	3									
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	5	1	2				2							
87700150	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	4		2								2			
87700160	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1			1										

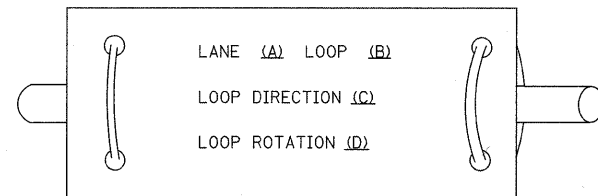
SUMMARY OF QUANTITIES			FED/ST				FED/ST/CHICAGO HEIGHTS				FED/ST				FED/ST/CHICAGO HEIGHTS				FED/ST		
			URBAN				90/10				90/5/5				90/10				90/5/5		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE																	
				US.30 @ STATE ST.	US.30 @ WENTWOTH AVE.	90/5/5 US.30 @ CENTER AVE.	90/5/5 US.30 @ EAST END AVE.	US.30 @ HALSTED ST.	US.30 @ ILL. RTE. 1	ILL. RTE. 1 @ 16TH STREET.	ILL. RTE. 1 @ 15TH STREET	ILL. RTE. 1 @ DIXIE HIGHWAY	INTERCONNECT ILL. RTE. 1 (CHICAGO RD.)								
			Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F	Y031-1F							
87700170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	2			2															
87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1				1														
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	3		2	1															
87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	2				1							1							
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	4	1					2					1							
87700240	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	3	3																	
87700260	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1					1													
87700270	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1					1													
87700280	STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH	2					1						1							
87700300	STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH	1					1													
87702316	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 24 FT. AND 44 FT.	EACH	1						1												
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	40	4	8	8	12		8												
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	28	4	4	4	4	4	4					4							
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	195		60	60	30		15					30							
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	180	60				45	30					45							
87900200	DRILL EXISTING HANDHOLE	EACH	2						2												
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	63	8	8	8	5	8	8	6	6	6		6							
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	11		2	4				2	2	1		1							
88030070	SIGNAL HEAD, LED, 1-FACE, 4 SECTION, BRACKET MOUNTED	EACH	1									1		1							
88030080	SIGNAL HEAD, LED, 1-FACE, 4 SECTION, MAST ARM MOUNTED	EACH	1									1		1							
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	17	4	2			4	2	2	2	1		1							
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	21	4	2			4	6	2	2	1		1							
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5		2		2					1		1							
88030230	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED	EACH	1									1		1							
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	6		2				4												
88030310	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1				1														

SUMMARY OF QUANTITIES			URBAN	FED/ST/CHICAGO HEIGHTS				FED/ST		FED/ST/CHICAGO HEIGHTS			FED/ST		
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	CONSTRUCTION TYPE CODE								INTERCONNECT ILL. RTE. 1 (CHICAGO RD.)			
				FED/ST 90/10	FED/ST 90/5/5	90/5/5 US.30 @ STATE ST.	90/5/5 US.30 @ WENTWORTH AVE.	90/5/5 US.30 @ CENTER AVE.	90/5/5 US.30 @ EAST END AVE.	FED/ST 90/10	FED/ST 90/10		FED/ST/CHICAGO HEIGHTS 90/5/5	FED/ST/CHICAGO HEIGHTS 90/5/5	FED/ST 90/10
				US.30 @ STATE ST.	US.30 @ WENTWORTH AVE.	90/5/5 US.30 @ CENTER AVE.	90/5/5 US.30 @ EAST END AVE.	US.30 @ HALSTED ST.	US.30 @ ILL. RTE. 1	ILL. RTE. 1 @ 16TH STREET.	ILL. RTE. 1 @ 15TH STREET		ILL. RTE. 1 @ DIXIE HIGHWAY	Y031-1F	Y031-1F
88030330	SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION BRACKET MOUNTED	EACH	1				1								
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4				2						2		
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	27		4	4	2	4	4	4	4	4	1		
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	91	12	10	8	6	12	15	8	8	8	12		
88500100	INDUCTIVE LOOP DETECTOR	EACH	67	9	6	4	5	9	10	7	8	8	9		
88600100	DETECTOR LOOP, TYPE I	FOOT	3821	660	530	366	382	588	612				683		
88800100	PEDESTRIAN PUSH-BUTTON	EACH	23		4	4	4	4	4				3		
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	6	1	1		1	1	1				1		
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	9657	1400	50	1220		1470	2177				1840	1500	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	9	1	1	1	1	1	1	1	1	1	1		
89502380	REMOVE EXISTING HANDHOLE	EACH	36	8	6	1	4	4	6				7		
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	47	9	7		7	9	9				6		
X0322256	TEMPORARY INFORMATION SIGNING	SO FT	104	26					26	26			26		
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	2305						715					1590	
X0325737	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	6	1	1		1	1	1				1		
X0325988	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 22 FT. AND 54 FT.	EACH	1						1						
X8050015	SERVICE INSTALLATION - POLE MOUNTED	EACH	5		1	1	1	1	1						
X8620020	UNINTERRUPTIBLE POWER SUPPLY	EACH	9	1	1	1	1	1	1	1	1	1	1		
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	4605	484	615	620	410	560	770				1146		
X8730250	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	913	300				288	325						
XX005877	REMOVE EXISTING WOOD UTILITY POLES	EACH	1		1										
X8710020	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	FOOT	1590											1590	
X0322925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	1590											1590	
X0325705	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	3						1	1	1				
Ø Z0076600	TRAINEES	Hour	500					500							

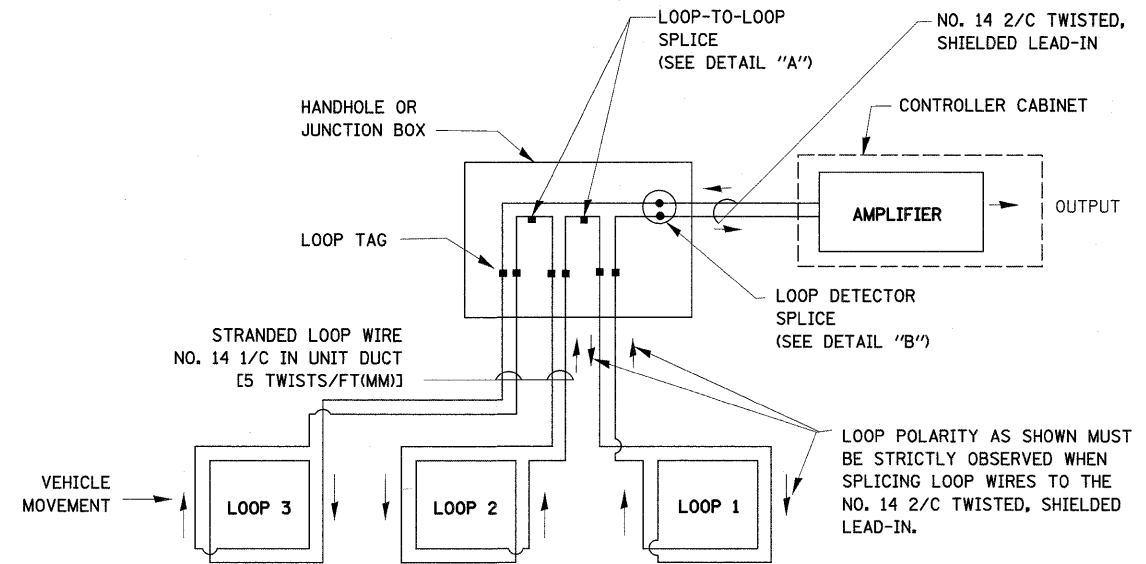
LOOP DETECTOR NOTES

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

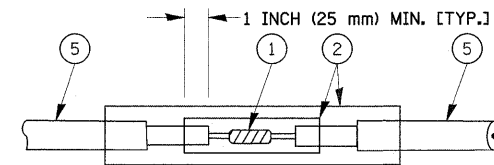


- LANE #1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

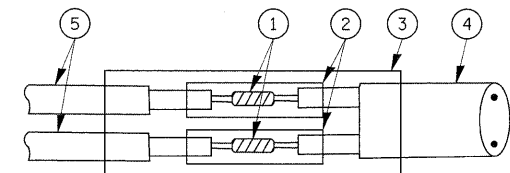


DETECTOR LOOP WIRING SCHEMATIC

- 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**



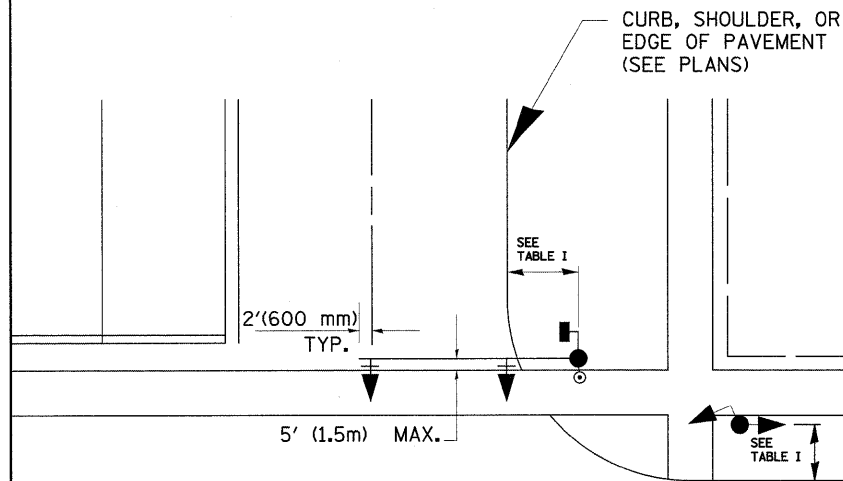
**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

LOOP DETECTOR SPLICE

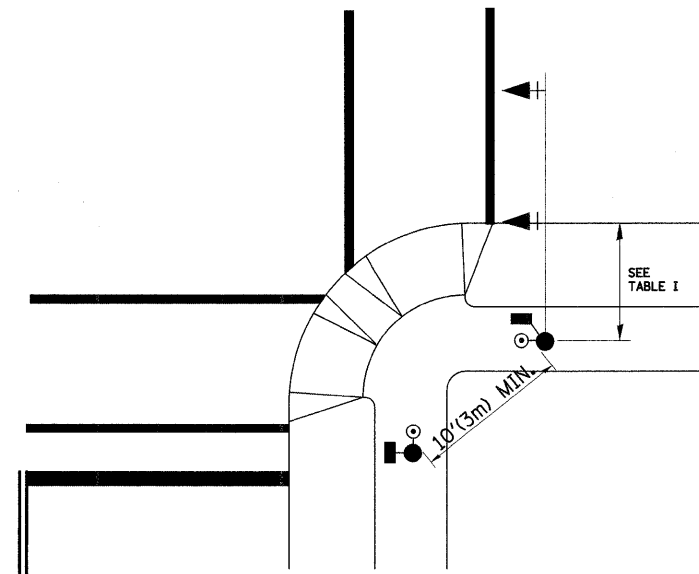
- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
-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

TRAFFIC SIGNAL MAST ARM AND POST

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



PEDESTRIAN SIGNAL PUSHBUTTON



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

NOTES:

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

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

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

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

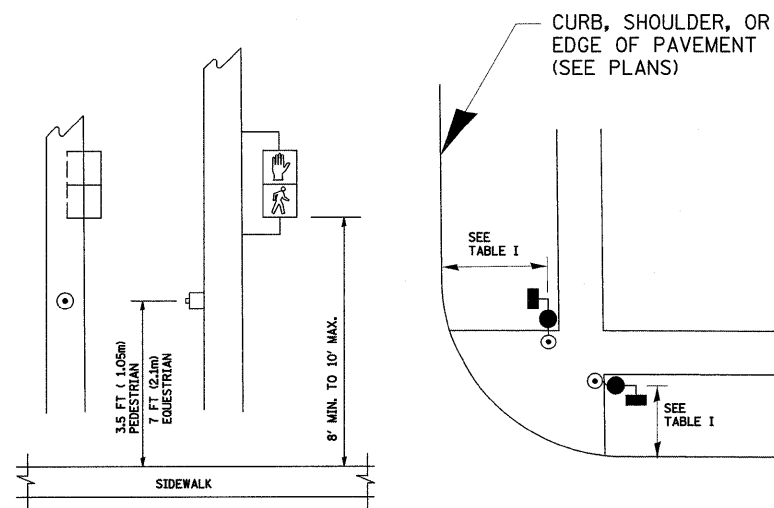
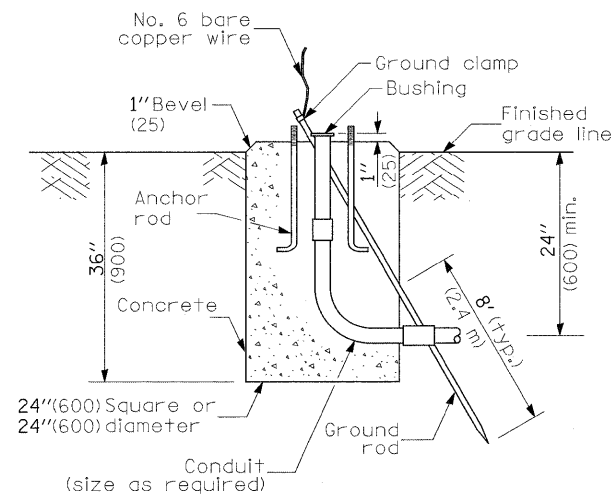
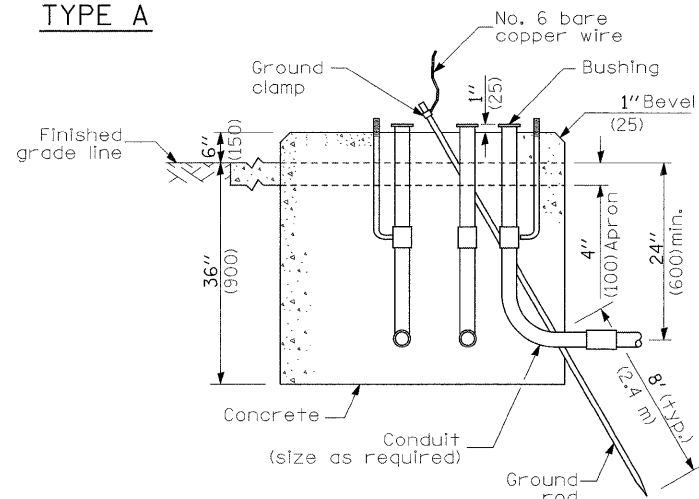


TABLE I

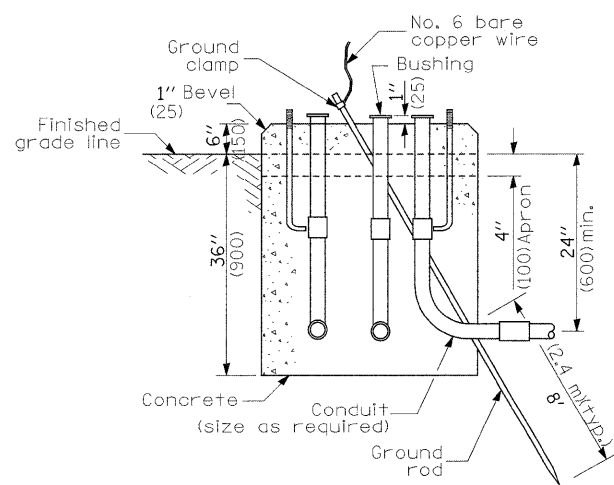
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m),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



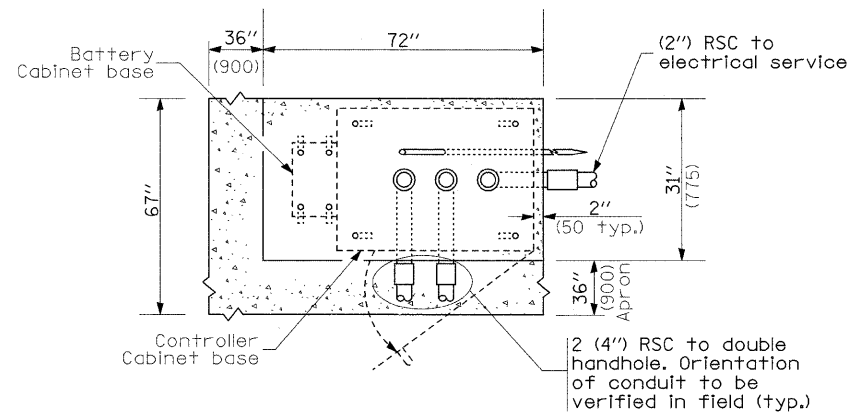
TYPE A



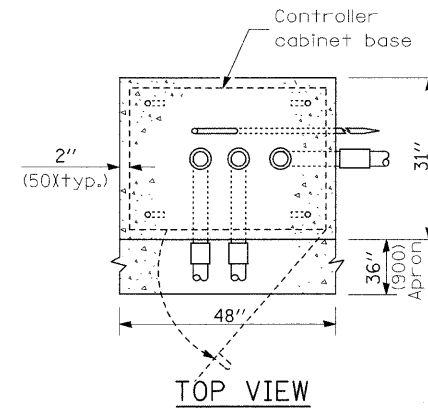
**TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET**

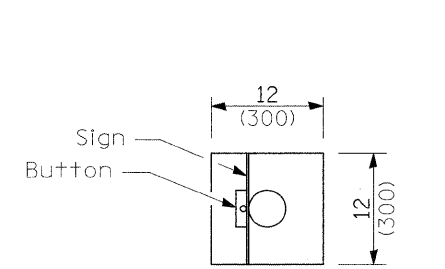


TOP VIEW

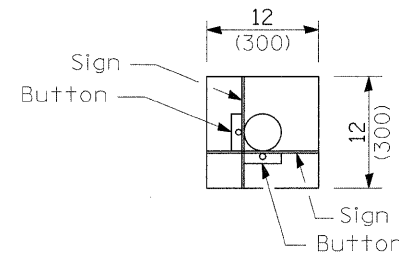


TOP VIEW

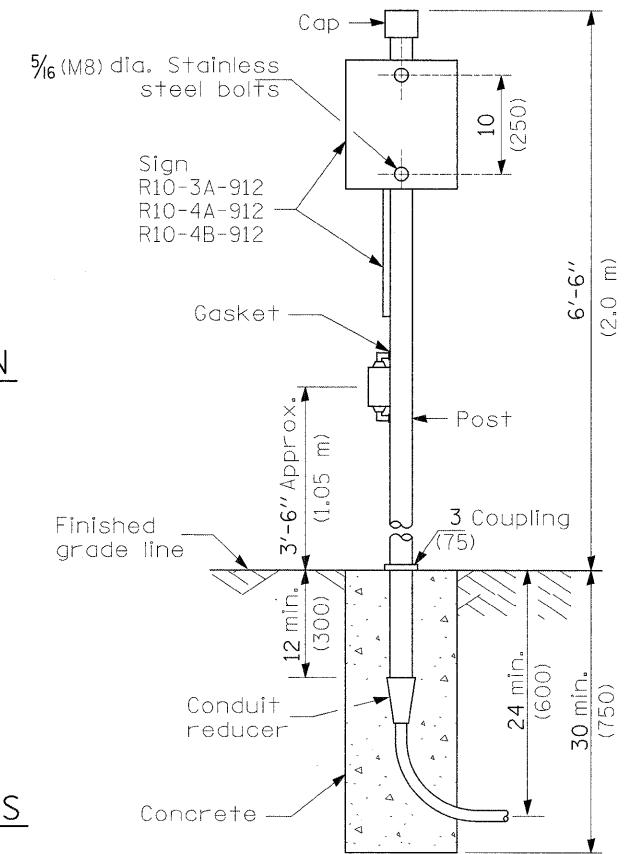
All dimensions are in millimeters (inches) unless otherwise shown.



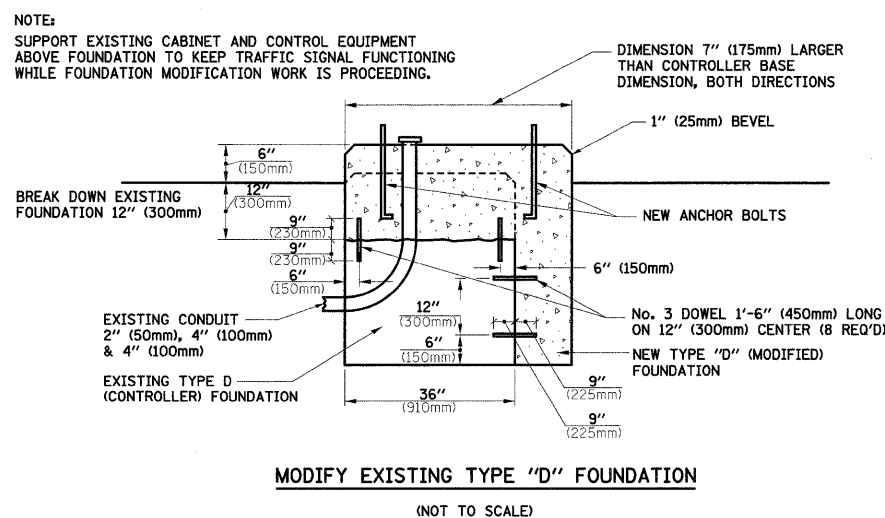
**TOP VIEW
TYPICAL ONE BUTTON**



**TOP VIEW
TYPICAL TWO BUTTONS**



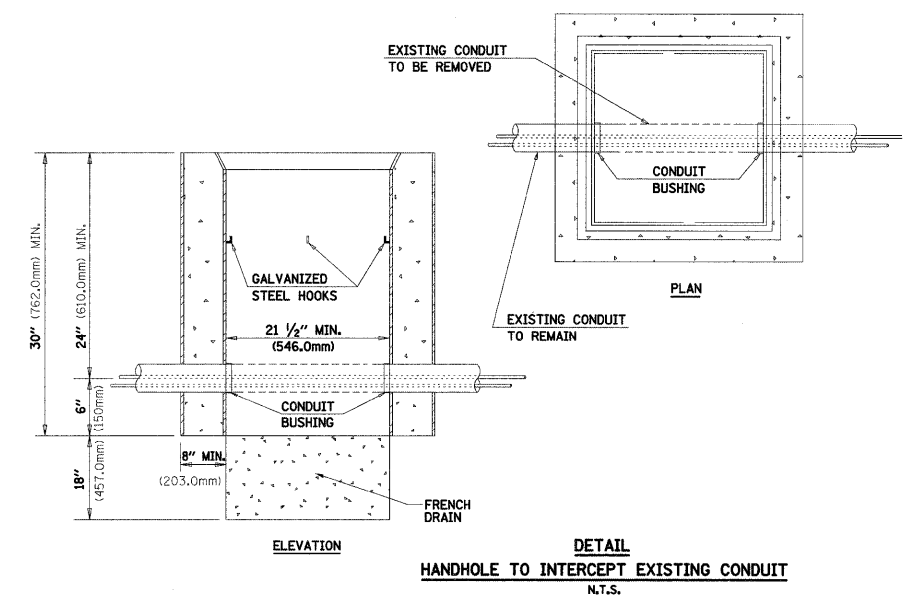
PEDESTRIAN PUSH BUTTON POST



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)

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



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

FILE NAME =	USER NAME = nguyensm	DESIGNED -	REVISED -
c:\pw_work\pwsdot\nguyensm\d0117709\Robo	TS.dgn	DRAWN -	REVISED -
	PLOT SCALE = 20.0000 "/td> <td>CHECKED -</td> <td>REVISED -</td>	CHECKED -	REVISED -
	PLOT DATE = 3/19/2009	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

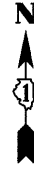
**DISTRICT 1
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353/876	2009-033 TS	COOK	49	10
CONTRACT NO. 60G40				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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

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.

- 5 EACH SIGNAL HEAD, 1-SECTION MAST ARM MNTD.
- 4 EACH SIGNAL HEAD, 2-FACE, 1 3-SECT., 1 5-SECT. BKT. MNTD.
- 3 EACH SIGNAL HEAD, 1-FACE, 3-SECT., BKT. MNTD.
- 3 EACH SIGNAL POST
- 4 EACH MAST ARM ASSEMBLY AND POLE
- 5 EACH TRAFFIC SIGNAL BACKPLATE
- 1 EACH CONTROLLER AND CABINET, COMPLETE



U.S. RTE. 30

STATE ST.

(LINCOLN HWY.)

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL (S) SHALL BE FURNISH 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 TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL CONTROLLERS USED FOR TEMPORARY SIGNALS SHALL MEET OR EXCEED THE REQUIREMENTS OF SECTION T632 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS" WITH REGARDS TO INTERNAL TIME BASE COORDINATION AND PREEMPTION.
4. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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.
5. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
6. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM HANDHOLE
- HEAVY-DUTY HANDHOLE
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP, TYPE I
- PREFORMED DETECTOR LOOP
- VIDEO DETECTOR
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- GUY WIRE

EXISTING TO BE REMOVED LEGEND

- "E" EXISTING CONTROLLER TO BE REMOVED
- "E" EXISTING SERVICE TO BE REMOVED
- "E" EXISTING SIGNAL HEAD TO BE REMOVED
- "E" EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- "E" EXISTING SIGNAL POST TO BE REMOVED
- "E" EXIST. STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" EXIST. ALUM. MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" EXISTING HAND HOLE TO BE REMOVED
- "E" EXISTING HEAVY DUTY TO BE REMOVED
- "E" EXISTING PUSHBUTTON TO BE REMOVED
- "E" EXISTING LOOP DETECTOR TO BE ABANDON
- "E" EXISTING VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" EXISTING CONFIRMATION BEACON TO BE REMOVED

MEDIAN REMOVAL = 60 SQ. FT.
CORRUGATED MEDIAN = 60 SQ. FT. (TYP.)

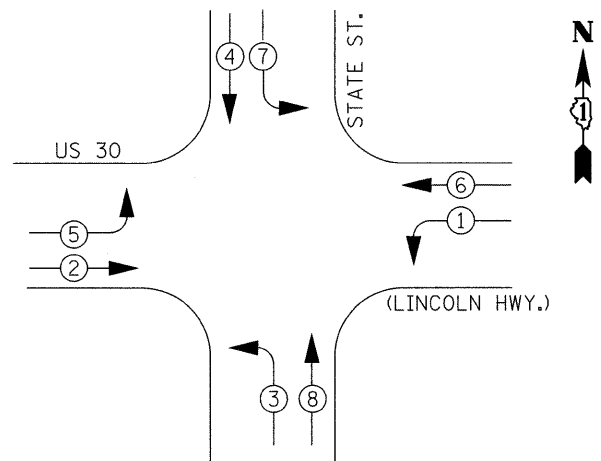
CONSTRUCTION NOTES:

1. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES AND CITY OF CHICAGO HEIGHTS FOR ALL BURIED UTILITIES. ALL UTILITIES WILL BE IDENTIFIED AND MARKED IN THE FIELD, CONTACT J.U.I.E. AT 1-800-892-0123.
2. TEMPORARY WOOD POLE LOCATIONS WILL BE VERIFIED WITH THE ENGINEER IN THE FIELD.
3. THE CONTRACTOR SHALL REMOVE THE EXISTING EMERGENCY VEHICLE PRIORITY (EVP) SYSTEM CONSISTING OF:
 - 1 EACH EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
 - 2 EACH EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT AND CONFIRMATION BEACON

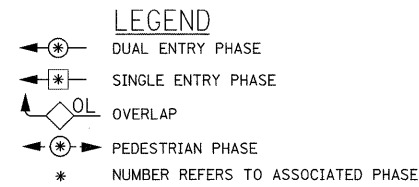
AND SHALL DELIVER IT TO THE CITY OF CHICAGO HEIGHTS FIRE DEPARTMENT FOR STORAGE. AFTER THE NEW TRAFFIC SIGNAL EQUIPMENTS IS IN PLACE, THE CONTRACTOR SHALL BE REQUIRED TO PICK UP ALL DELIVERED EQUIPMENT AND INSTALL THE PHASING UNIT IN THE CONTROLLER CABINET AND THE DETECTOR UNIT ON THE PROPOSED MAST ARM AS INDICATED ON THE PLANS. THE COST OF THE RELOCATION OF THE EVP WILL BE INCLUDED IN THE COST OF THE NEW CONTROLLER AND CABINET.

FILE NAME =	USER NAME = nguyenism	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT U.S. RTE. 30 (LINCOLN HWY.) @ STATE STREET	F.A.P. RTE. 353	SECTION 2009-033 TS	COUNTY COOK	TOTAL SHEETS 49	SHEET NO. 11		
ct:\pwork\pwork\nguyenism\08117709\Rob-TS.dgn	PLOT SCALE = 20,0000' / IN.	DRAWN -	REVISED -			SCALE:	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT	CONTRACT NO. 60G40		
	PLOT DATE = 3/19/2009	CHECKED -	REVISED -									
		DATE -	REVISED -									

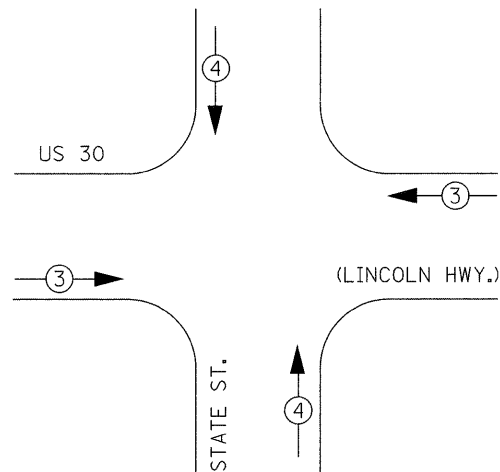
CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE

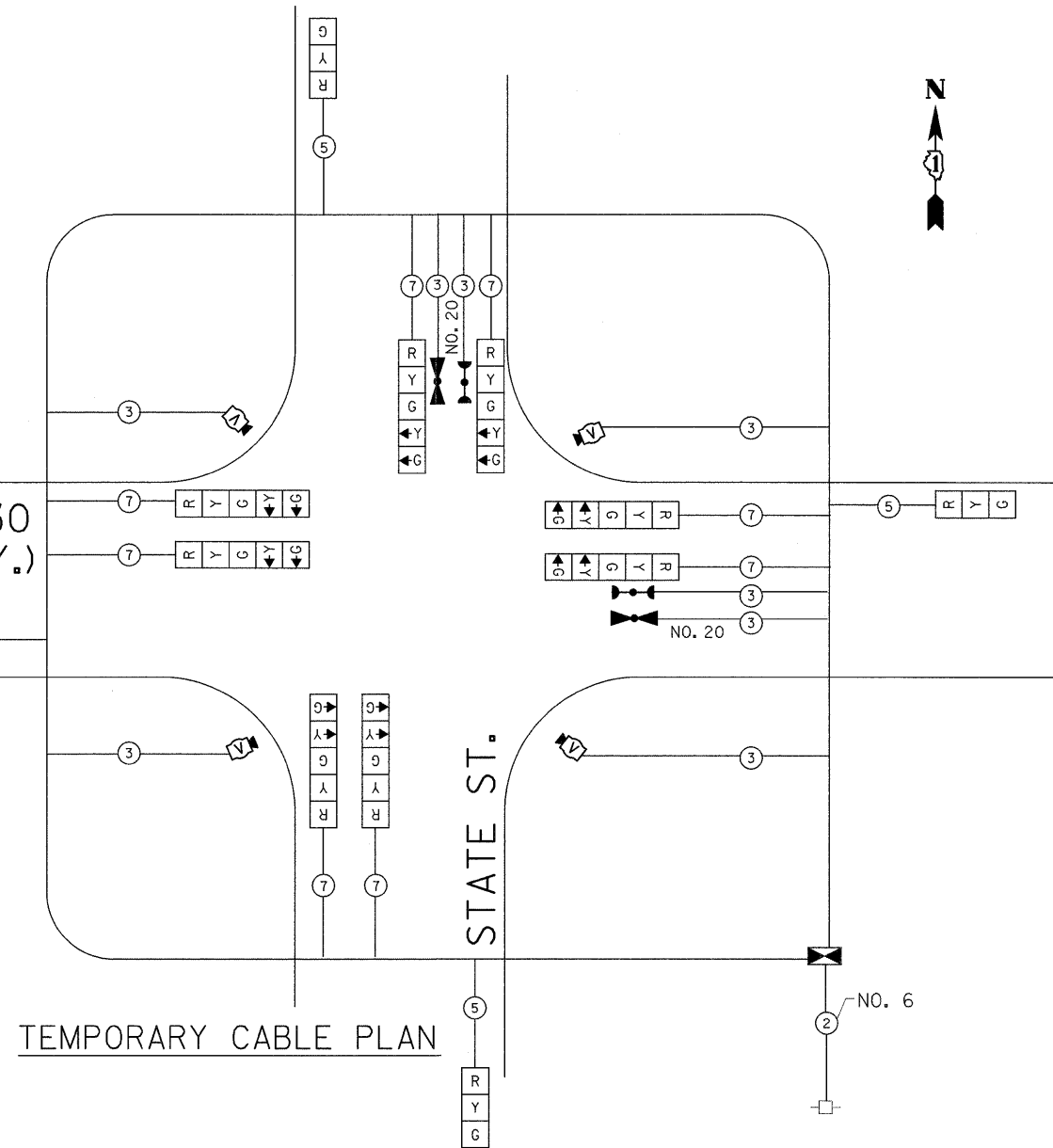


PROPOSED EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑

TEMPORARY CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET	[Symbol]	[Symbol]
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)	[Symbol]	[Symbol]
12" (300 MM) PEDESTRIAN SIGNAL SECTION	[Symbol]	[Symbol]
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
VEHICLE DETECTOR, INDUCTION LOOP	[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]

U.S. RTE. 30 (LINCOLN HWY.)



TEMPORARY CABLE PLAN

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	16	135	12	0.10	19.20
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	

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

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION TOTAL = 341.20

ENERGY SUPPLY CONTACT: PHONE: 708-410-5069 COMPANY: COM. EDISON

FILE NAME = USER NAME = nguyensm DESIGNED - REVISIONS -

PLOT SCALE = 20,000' / IN. CHECKED - REVISIONS -

PLOT DATE = 3/19/2009 DATE - REVISIONS -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN U.S. 30 (LINCOLN HWY.) @ STATE STREET

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	2009-033 TS	COOK	49	12

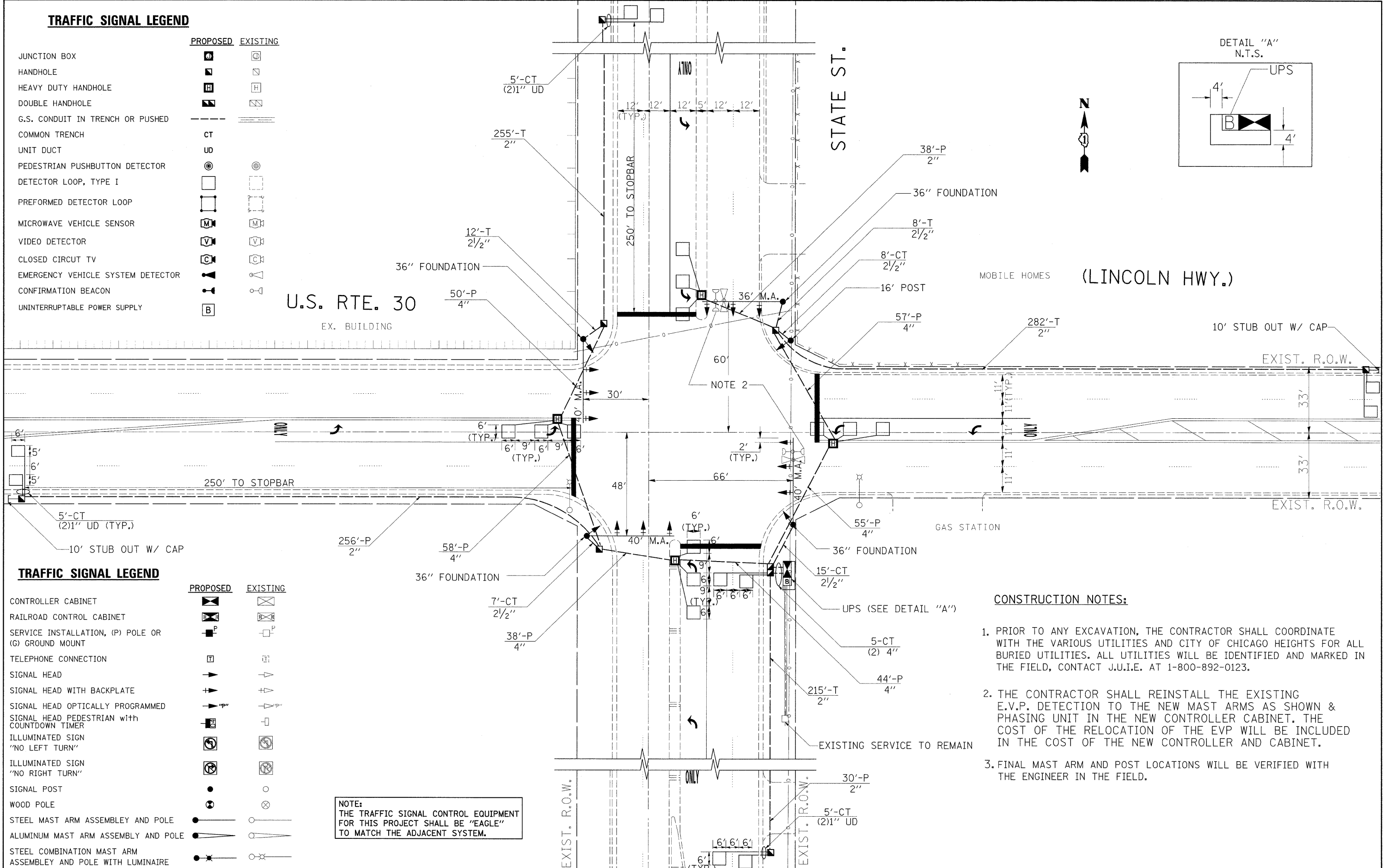
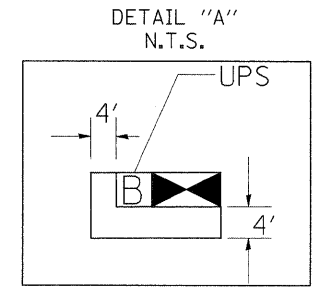
CONTRACT NO. 60G40

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

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

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
JUNCTION BOX		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
COMMON TRENCH	CT	
UNIT DUCT	UD	
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
UNINTERRUPTIBLE POWER SUPPLY	B	



TRAFFIC SIGNAL LEGEND

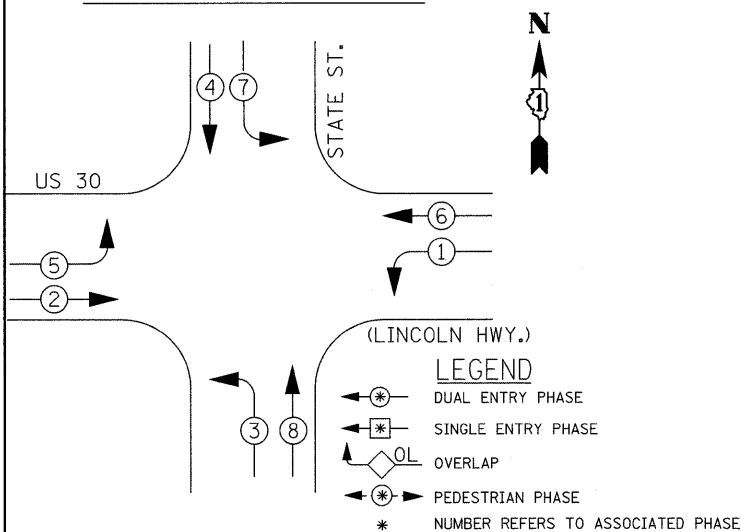
	PROPOSED	EXISTING
CONTROLLER CABINET		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		

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

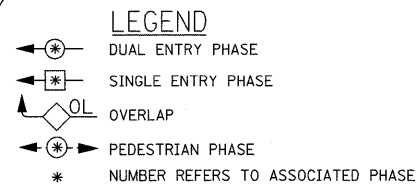
CONSTRUCTION NOTES:

1. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES AND CITY OF CHICAGO HEIGHTS FOR ALL BURIED UTILITIES. ALL UTILITIES WILL BE IDENTIFIED AND MARKED IN THE FIELD, CONTACT J.U.I.E. AT 1-800-892-0123.
2. THE CONTRACTOR SHALL REINSTALL THE EXISTING E.V.P. DETECTION TO THE NEW MAST ARMS AS SHOWN & PHASING UNIT IN THE NEW CONTROLLER CABINET. THE COST OF THE RELOCATION OF THE EVP WILL BE INCLUDED IN THE COST OF THE NEW CONTROLLER AND CABINET.
3. FINAL MAST ARM AND POST LOCATIONS WILL BE VERIFIED WITH THE ENGINEER IN THE FIELD.

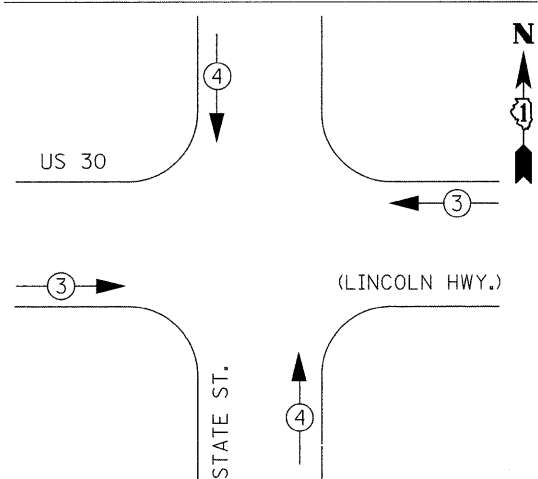
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	%OPERATION	
SIGNAL (RED)	16	135	17	0.50	136.00
(YELLOW)	16	135	25	0.25	100.00
(GREEN)	16	135	15	0.25	60.00
ARROW	16	135	12	0.10	19.20
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	

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

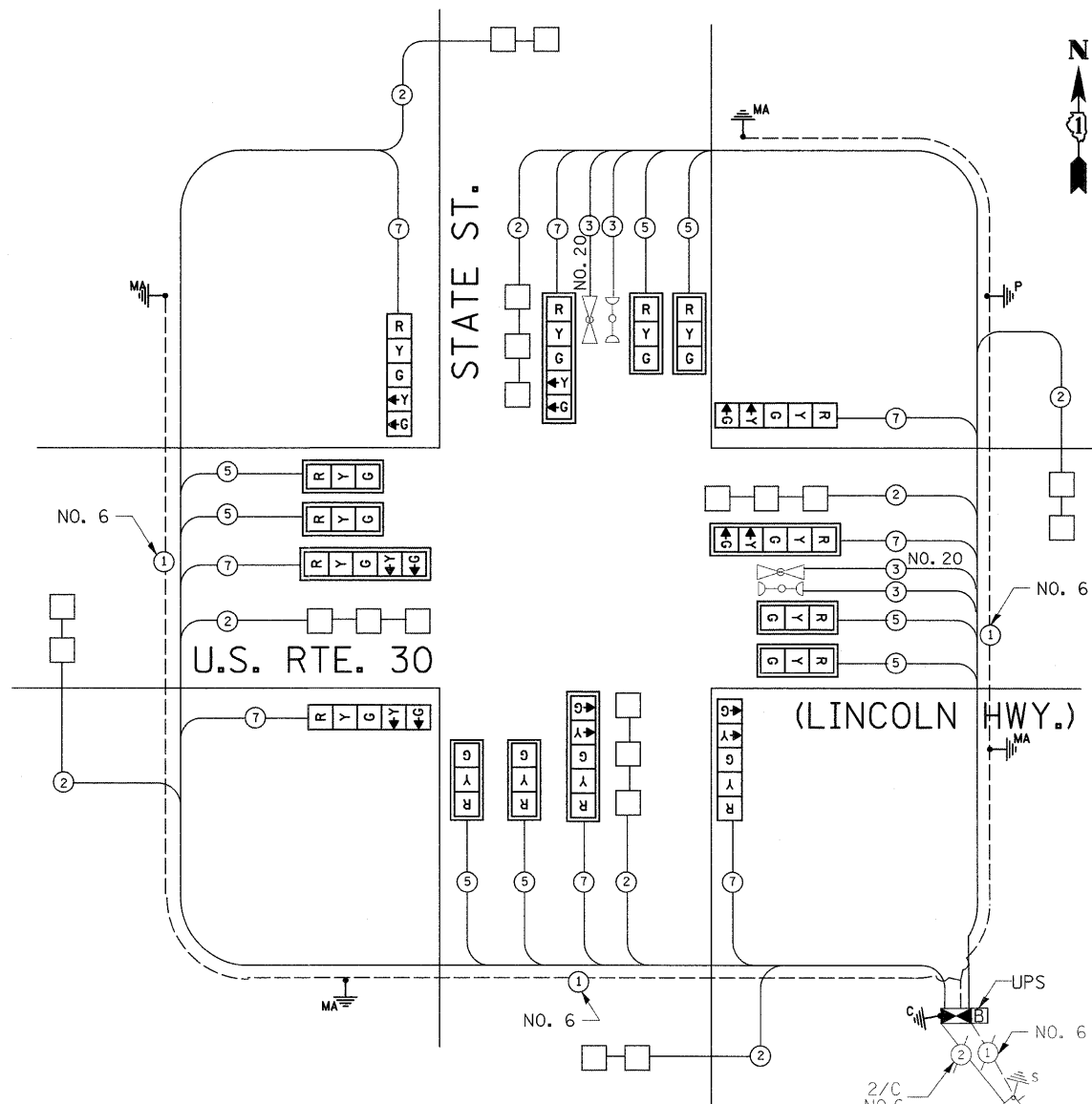
FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-L-2-=(6m-HL-0.6m)=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)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

ENERGY COSTS TO: TOTAL = 415.20

ENERGY SUPPLY CONTACT: PHONE: 708-410-5069 COMPANY: COM. EDISON

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
SIGN PANEL-TYPE I	SQ FT	12
SIGN PANEL-TYPE II	SQ FT	30
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	152
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	60
CONDUIT IN PUSH, 2" DIA., GALVANIZED STEEL	FOOT	324
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	752
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	50
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT IN PUSH, 4" DIA., GALVANIZED STEEL	FOOT	249
CORRUGATED MEDIAN	SQ FT	120
HANDHOLE	EACH	7
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	762
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET(SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	300
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1438
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1445
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2089
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	3
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIA.	FOOT	60
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	484
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	8
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, MAST ARM MNTD.	EACH	4
SIGNAL HEAD, L.E.D. 1-FACE, 1-5 SECT BRKT MNTD.	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	12
INDUCTIVE LOOP DETECTOR	EACH	9
MEDIAN REMOVAL	SQ FT	120
DETECTOR LOOP TYPE I	FOOT	660
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1400
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
REMOVE EXISTING HANDHOLE	EACH	8
TEMPORARY TRAFFIC SIGNAL TIMINGS	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	300



CABLE PLAN LEGEND

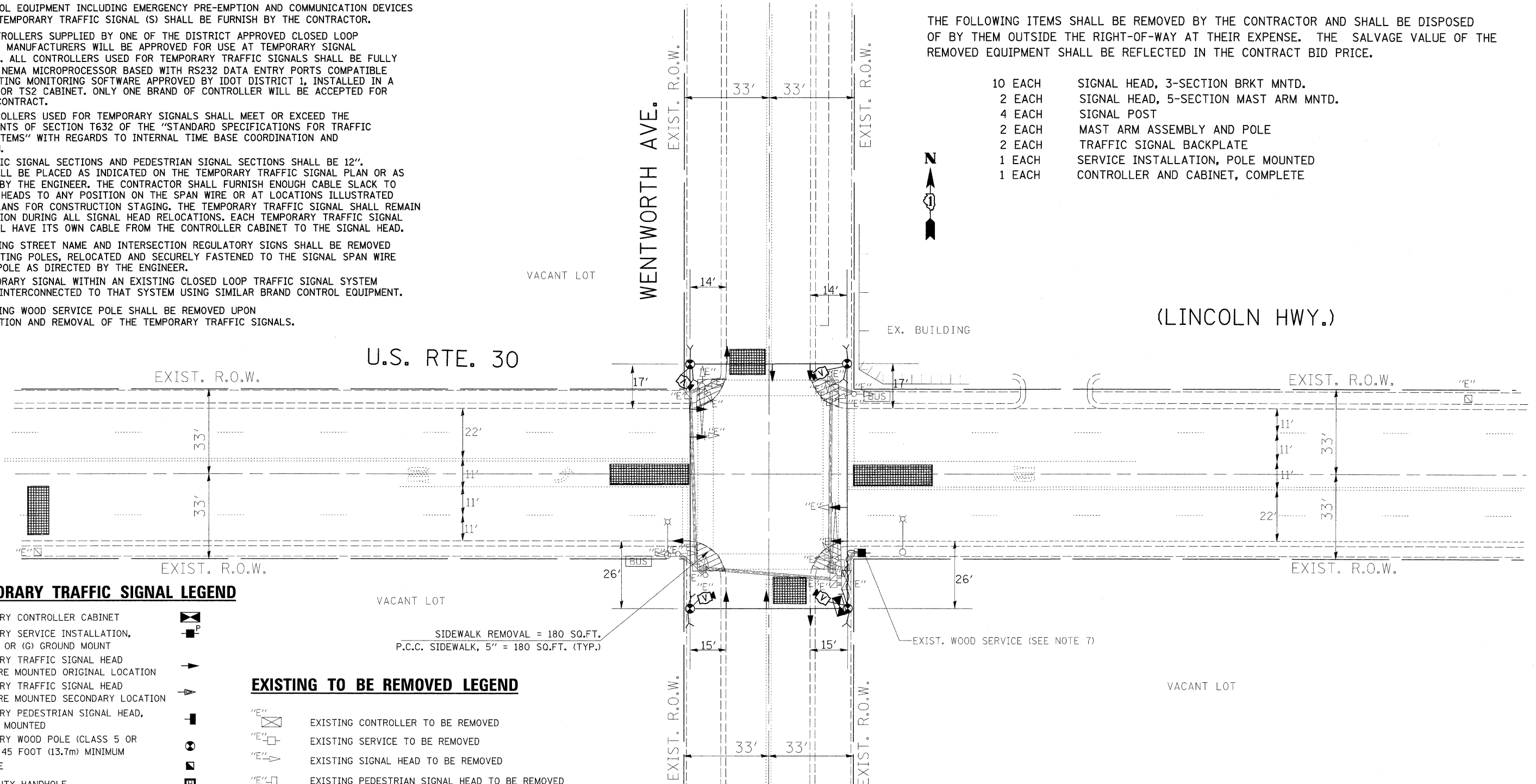
PROPOSED	EXISTING	DESCRIPTION	PROPOSED	EXISTING
[Symbol]	[Symbol]	CONTROLLER CABINET	[Symbol]	[Symbol]
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
[Symbol]	[Symbol]	SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
[Symbol]	[Symbol]	TELEPHONE CONNECTION	[Symbol]	[Symbol]
[Symbol]	[Symbol]	GROUND ROD AT (C) CONTROLLER, (H)HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE	[Symbol]	[Symbol]
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED	[Symbol]	[Symbol]
[Symbol]	[Symbol]	ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED	[Symbol]	[Symbol]
[Symbol]	[Symbol]	GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)	[Symbol]	[Symbol]
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD	[Symbol]	[Symbol]
[Symbol]	[Symbol]	12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE	[Symbol]	[Symbol]
[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION	[Symbol]	[Symbol]
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER	[Symbol]	[Symbol]
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	DETECTOR LOOP	[Symbol]	[Symbol]
[Symbol]	[Symbol]	PREFORMED DETECTOR LOOP	[Symbol]	[Symbol]
[Symbol]	[Symbol]	MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	VIDEO DETECTOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	CLOSED CIRCUIT TV	[Symbol]	[Symbol]
[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	CONFIRMATION BEACON	[Symbol]	[Symbol]
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL (S) SHALL BE FURNISH 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 TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL CONTROLLERS USED FOR TEMPORARY SIGNALS SHALL MEET OR EXCEED THE REQUIREMENTS OF SECTION T632 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS" WITH REGARDS TO INTERNAL TIME BASE COORDINATION AND PREMPTION.
4. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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.
5. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
6. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
7. THE EXISTING WOOD SERVICE POLE SHALL BE REMOVED UPON DISCONNECTION AND REMOVAL OF THE TEMPORARY TRAFFIC SIGNALS.

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.

- 10 EACH SIGNAL HEAD, 3-SECTION BRKT MNTD.
- 2 EACH SIGNAL HEAD, 5-SECTION MAST ARM MNTD.
- 4 EACH SIGNAL POST
- 2 EACH MAST ARM ASSEMBLY AND POLE
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 1 EACH SERVICE INSTALLATION, POLE MOUNTED
- 1 EACH CONTROLLER AND CABINET, COMPLETE



TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM HANDHOLE
- HEAVY-DUTY HANDHOLE
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP, TYPE I
- PREFORMED DETECTOR LOOP
- VIDEO DETECTOR
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- GUY WIRE

EXISTING TO BE REMOVED LEGEND

- "E" [Symbol] EXISTING CONTROLLER TO BE REMOVED
- "E" [Symbol] EXISTING SERVICE TO BE REMOVED
- "E" [Symbol] EXISTING SIGNAL HEAD TO BE REMOVED
- "E" [Symbol] EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- "E" [Symbol] EXISTING SIGNAL POST TO BE REMOVED
- "E" [Symbol] EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" [Symbol] EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" [Symbol] EXISTING HAND HOLE TO BE REMOVED
- "E" [Symbol] EXISTING HEAVY DUTY TO BE REMOVED
- "E" [Symbol] EXISTING PUSHBUTTON TO BE REMOVED
- "E" [Symbol] EXISTING LOOP DETECTOR TO BE ABANDON
- "E" [Symbol] EXISTING VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" [Symbol] EXISTING CONFORMATION BEACON TO BE REMOVED

SIDWALK REMOVAL = 180 SQ.FT.
P.C.C. SIDEWALK, 5" = 180 SQ.FT. (TYP.)

CONSTRUCTION NOTES:

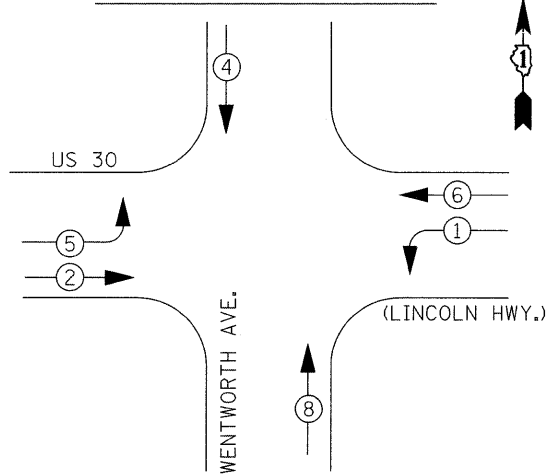
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FILE NAME =	USER NAME = nguyenism	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN ILLINOIS RTE. 30 (LINCOLN HWY.) @ WENTWORTH AVE.	F.A.P. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cd:\pwwork\pwwork\nguyenism\ad0117709\Rob-TS.dgn	PLOT SCALE = 20,000' / IN.	DRAWN -	REVISED -			353	2009-033 TS	COOK	49	15
PLOT DATE = 3/19/2009	DATE -	CHECKED -	REVISED -			CONTRACT NO. 60G40				
		DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
					SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	

TEMPORARY CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET		
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)		
12" (300 MM) PEDESTRIAN SIGNAL SECTION		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED		
PEDESTRIAN PUSHBUTTON DETECTOR		
VEHICLE DETECTOR, INDUCTION LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		

CONTROLLER SEQUENCE

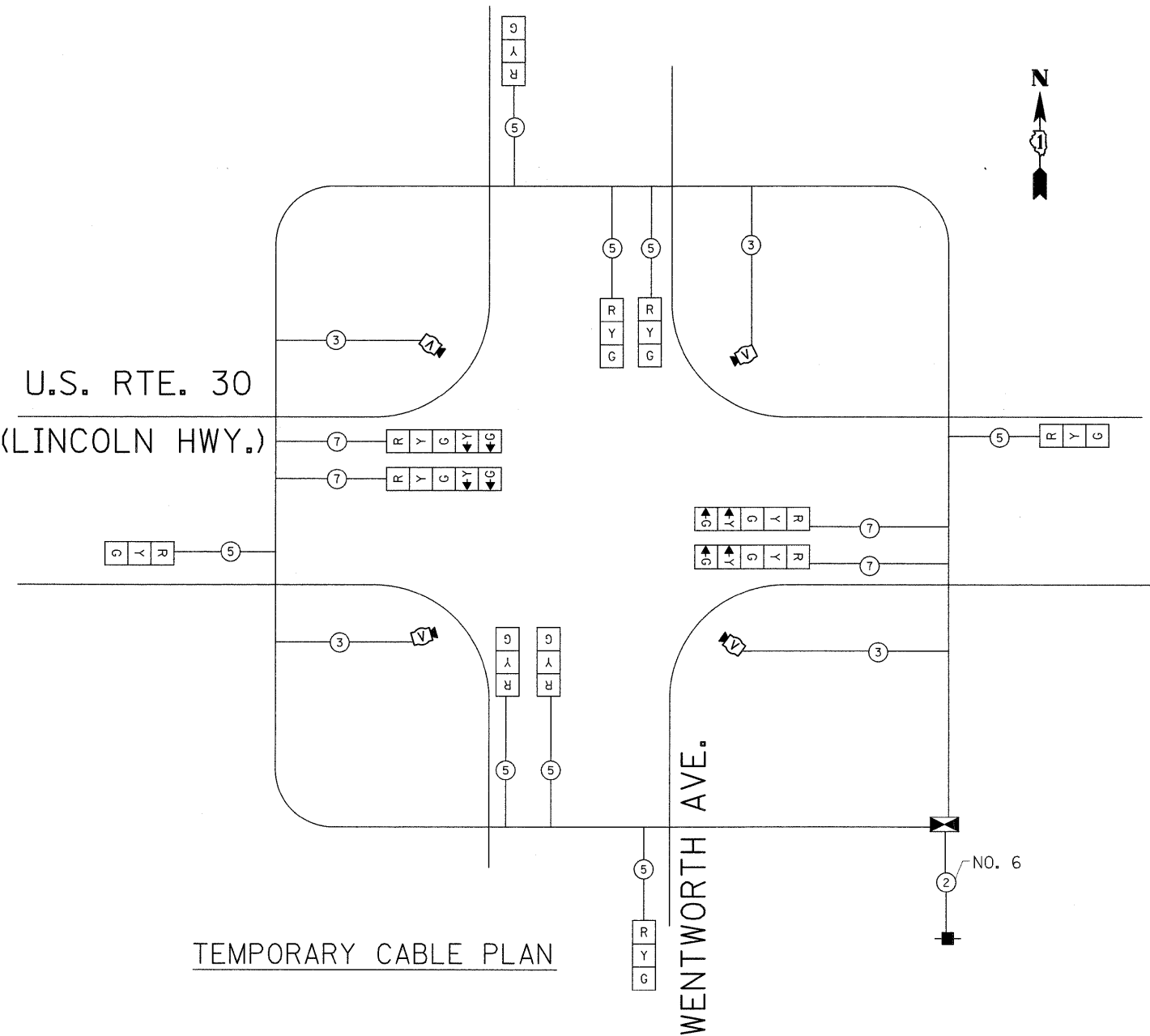


LEGEND

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

TEMPORARY PHASE DESIGNATION DIAGRAM

U.S. RTE. 30
(LINCOLN HWY.)



TEMPORARY CABLE PLAN

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	8	135	12	0.10	9.60
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION					TOTAL = 331.60
ENERGY SUPPLY CONTACT:					708-410-5069
PHONE:					COM. EDISON
COMPANY:					

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

FILE NAME =	USER NAME = nguyensm	DESIGNED -	REVISED -
c:\pw\work\pwsdot\nguyensm\d0117789\Robe	TS.dgn	DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

PLT SCALE = 20.0000' / IN.	CHECKED -	REVISED -
PLT DATE = 3/19/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

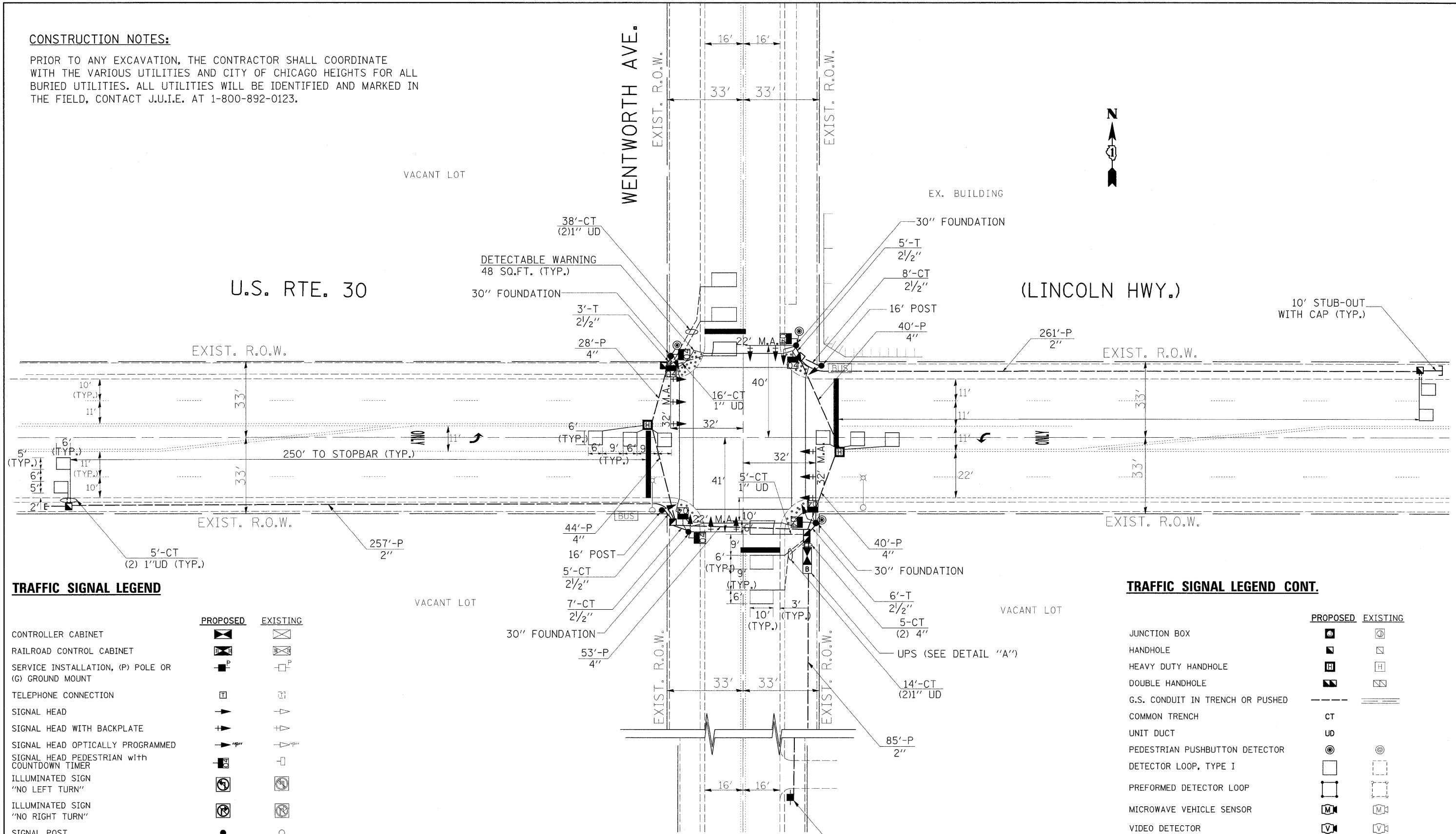
TEMPORARY CABLE PLAN
U.S. 30 (LINCOLN HWY.) @ WENTWORTH AVE.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	2009-033 TS	COOK	49	16
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60G40	

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

CONSTRUCTION NOTES:

PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES AND CITY OF CHICAGO HEIGHTS FOR ALL BURIED UTILITIES. ALL UTILITIES WILL BE IDENTIFIED AND MARKED IN THE FIELD, CONTACT J.U.I.E. AT 1-800-892-0123.



TRAFFIC SIGNAL LEGEND

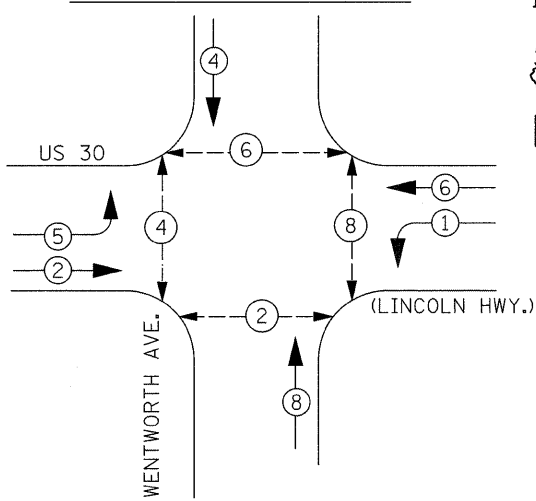
	PROPOSED	EXISTING
CONTROLLER CABINET		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		

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

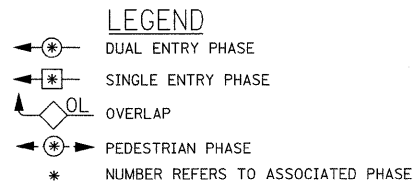
TRAFFIC SIGNAL LEGEND CONT.

	PROPOSED	EXISTING
JUNCTION BOX		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
COMMON TRENCH	CT	
UNIT DUCT	UD	
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
UNINTERRUPTABLE POWER SUPPLY		

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	720
SIDEWALK REMOVAL	SQ FT	720
DETECTABLE WARNINGS	SQ FT	192
SIGN PANEL-TYPE I	SQ FT	19.5
SIGN PANEL-TYPE II	SQ FT	30
THERMOPLASTIC PAVEMENT MARKING-LINE 6"	FOOT	392
THERMOPLASTIC PAVEMENT MARKING-LINE 24"	FOOT	108
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ FT	142
CONDUIT IN PUSH, 2" DIA., GALVANIZED STEEL	FOOT	603
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	34
CONDUIT IN PUSH, 4" DIA., GALVANIZED STEEL	FOOT	152
HANDHOLE	EACH	5
HEAVY-DUTY HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET(SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	610
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	869
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1379
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	527
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1129
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	108
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	615
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIA.	FOOT	60
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	8
SIGNAL HEAD, L.E.D. 1-FACE, 5-SECTION, MAST ARM MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION BRKT. MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 3-SECTION BRKT. MNTD.	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRKT. MNTD. with COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	10
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	38
INDUCTIVE LOOP DETECTOR	EACH	6
DETECTOR LOOP TYPE I	FOOT	530
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE ELECTRICAL CABLE FROM CONDUIT	FOOT	50
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
REMOVE EXISTING HANDHOLE	EACH	6
REMOVE EXISTING WOOD UTILITY POLE	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMINGS	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1

PUSH BUTTON NOTES:

- PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
- PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
- PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
- PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

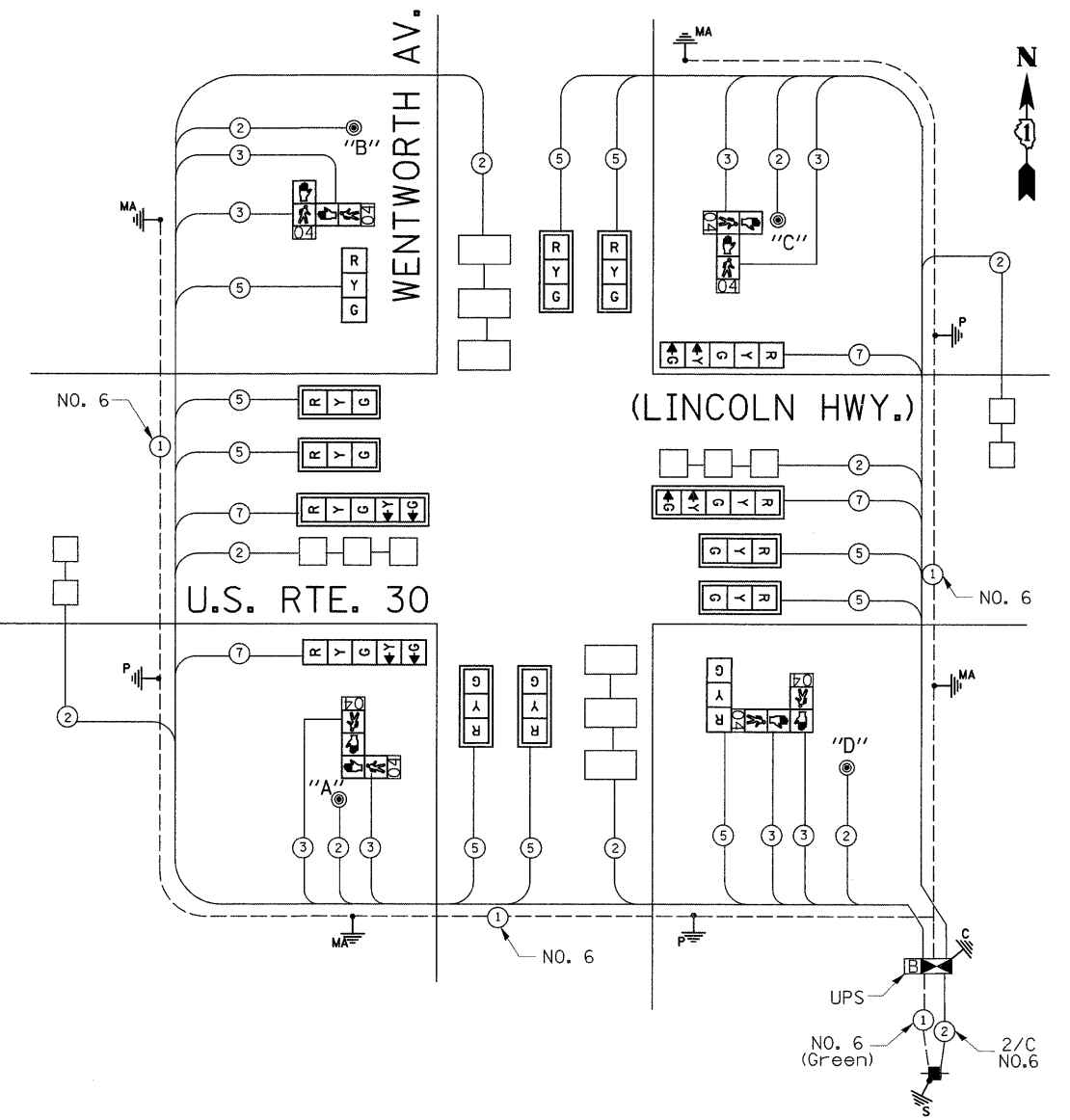
FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	(6m+L-0.6m)=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	18	135	17	0.50	153.00
(YELLOW)	18	135	25	0.25	112.50
(GREEN)	18	135	15	0.25	67.50
ARROW	8	135	12	0.10	9.60
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	642.60

ENERGY SUPPLY CONTACT: 708-410-5069
PHONE: COM. EDISON
COMPANY:

FILE NAME = USER NAME = nguyensm
DESIGNED - REVISIONS -
DRAWN - REVISIONS -
CHECKED - REVISIONS -
DATE - REVISIONS -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



CABLE PLAN LEGEND

PROPOSED	EXISTING	DESCRIPTION	PROPOSED	EXISTING
[Symbol]	[Symbol]	CONTROLLER CABINET	[Symbol]	[Symbol]
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
[Symbol]	[Symbol]	SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
[Symbol]	[Symbol]	TELEPHONE CONNECTION	[Symbol]	[Symbol]
[Symbol]	[Symbol]	GROUND ROD AT (C) CONTROLLER, (H)HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE	[Symbol]	[Symbol]
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED	[Symbol]	[Symbol]
[Symbol]	[Symbol]	ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED	[Symbol]	[Symbol]
[Symbol]	[Symbol]	GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)	[Symbol]	[Symbol]
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD	[Symbol]	[Symbol]
[Symbol]	[Symbol]	12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE	[Symbol]	[Symbol]
[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION	[Symbol]	[Symbol]
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION with COUNTDOWN TIMER	[Symbol]	[Symbol]
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	DETECTOR LOOP	[Symbol]	[Symbol]
[Symbol]	[Symbol]	PREFORMED DETECTOR LOOP	[Symbol]	[Symbol]
[Symbol]	[Symbol]	MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	VIDEO DETECTOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	CLOSED CIRCUIT TV	[Symbol]	[Symbol]
[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	CONFIRMATION BEACON	[Symbol]	[Symbol]
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]

U.S. RTE. 30

(LINCOLN HWY.)

CENTER AVE.

OVERHEAD ELECTRIC

SIDEWALK REMOVAL = 230 SQ.FT.
P.C.C. SIDEWALK, 5" = 230 SQ.FT.

SIDEWALK REMOVAL = 42 SQ.FT.
P.C.C. SIDEWALK, 5" = 42 SQ.FT.

SIDEWALK REMOVAL = 42 SQ.FT.
P.C.C. SIDEWALK, 5" = 42 SQ.FT.

SIDEWALK REMOVAL = 230 SQ.FT.
P.C.C. SIDEWALK, 5" = 230 SQ.FT.

EXISTING TEMPORARY TRAFFIC SIGNAL LEGEND

TEMPORARY CONTROLLER CABINET	
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED ORIGINAL LOCATION	
TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION	
TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED	
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM HANDHOLE	
HEAVY-DUTY HANDHOLE	
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE	
TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR	
DETECTOR LOOP, TYPE I	
PREFORMED DETECTOR LOOP	
VIDEO DETECTOR	
EMERGENCY VEHICLE SYSTEM DETECTOR CONFIRMATION BEACON	

EXISTING TO
BE REMOVED

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.

- 12 EACH TRAFFIC SIGNAL HEADS
- 8 EACH PEDESTRIAN SIGNAL HEADS
- 3 EACH WOOD POLES
- 4 EACH PEDESTRIAN PUSHBUTTONS
- 1 EACH ELECTRIC SERVICE, POLE MOUNTED
- 1 EACH CONTROLLER AND CABINET, COMPLETE

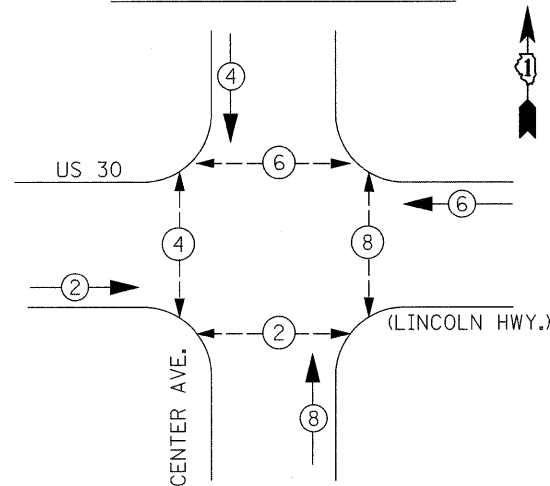
CONSTRUCTION NOTES:

1. THE EXISTING SPAN WIRE TRAFFIC SIGNALS ARE IDOT MAINTAINED. THE CONTRACTOR FOR THIS PROJECT WILL BE REQUIRED TO TAKE MAINTANANCE OF THESE SIGNALS; UPON COMPLETION OF THE PERMANENT TRAFFIC SIGNALS, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REMOVE THEM.
2. EXISTING VEHICLE DETECTION LOOPS SHALL REMAIN OPERATIONAL UNTIL PERMANENT TRAFFIC SIGNALS ARE TURNED ON OR OTHERWISE DIRECTED BY THE ENGINEER.
3. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES AND CITY OF CHICAGO HEIGHTS FOR ALL BURIED UTILITIES. ALL UTILITIES WILL BE IDENTIFIED AND MARKED IN THE FIELD, CONTACT J.U.I.E. AT 1-800-892-0123.

EXISTING TEMPORARY CABLE DIAGRAM LEGEND

- EXISTING**
- TEMPORARY CONTROLLER CABINET
 - TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT
 - TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)
 - 12" (300 MM) PEDESTRIAN SIGNAL SECTION
 - ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED
 - TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
 - DETECTOR LOOP, TYPE I
 - PREFORMED DETECTOR LOOP
 - VIDEO DETECTOR
 - EMERGENCY VEHICLE SYSTEM DETECTOR
 - CONFIRMATION BEACON

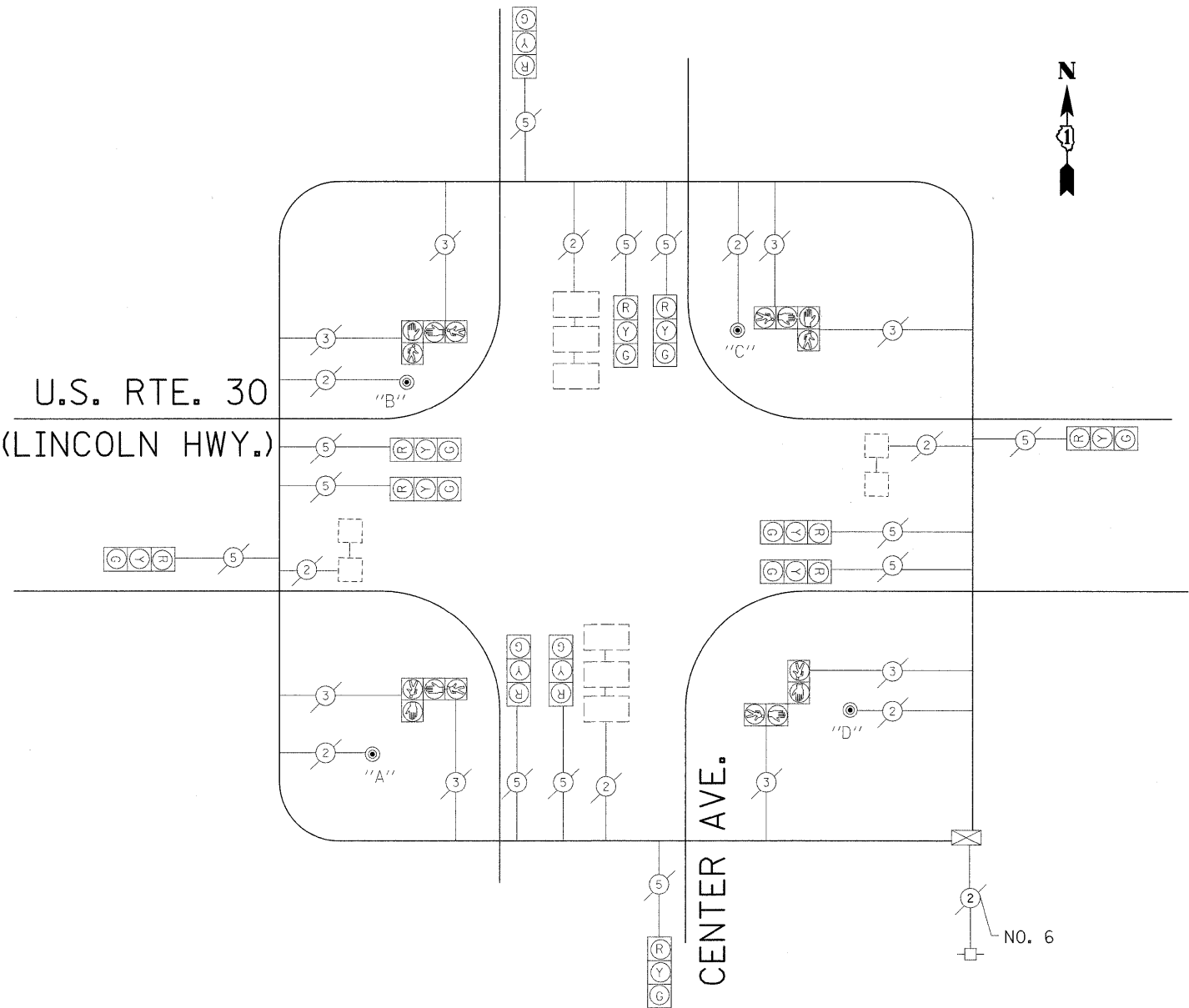
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

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

U.S. RTE. 30
(LINCOLN HWY.)



EXISTING TEMPORARY CABLE PLAN

NOTE:

- PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
- PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
- PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
- PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE (LED)	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	810.00
(YELLOW)	12	135	25	0.25	405.00
(GREEN)	12	135	15	0.25	405.00
ARROW		135	12	0.10	
PED. SIGNAL	8	90	25	1.00	720.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	

ENERGY COSTS TO: **TOTAL = 2440.00**

ILLINOIS DEPARTMENT OF TRANSPORTATION

ENERGY SUPPLY CONTACT: _____
 PHONE: 708-410-5069
 COMPANY: COM. EDISON

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

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 PLOT DATE = 3/19/2009

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
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 REVISED -
 REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

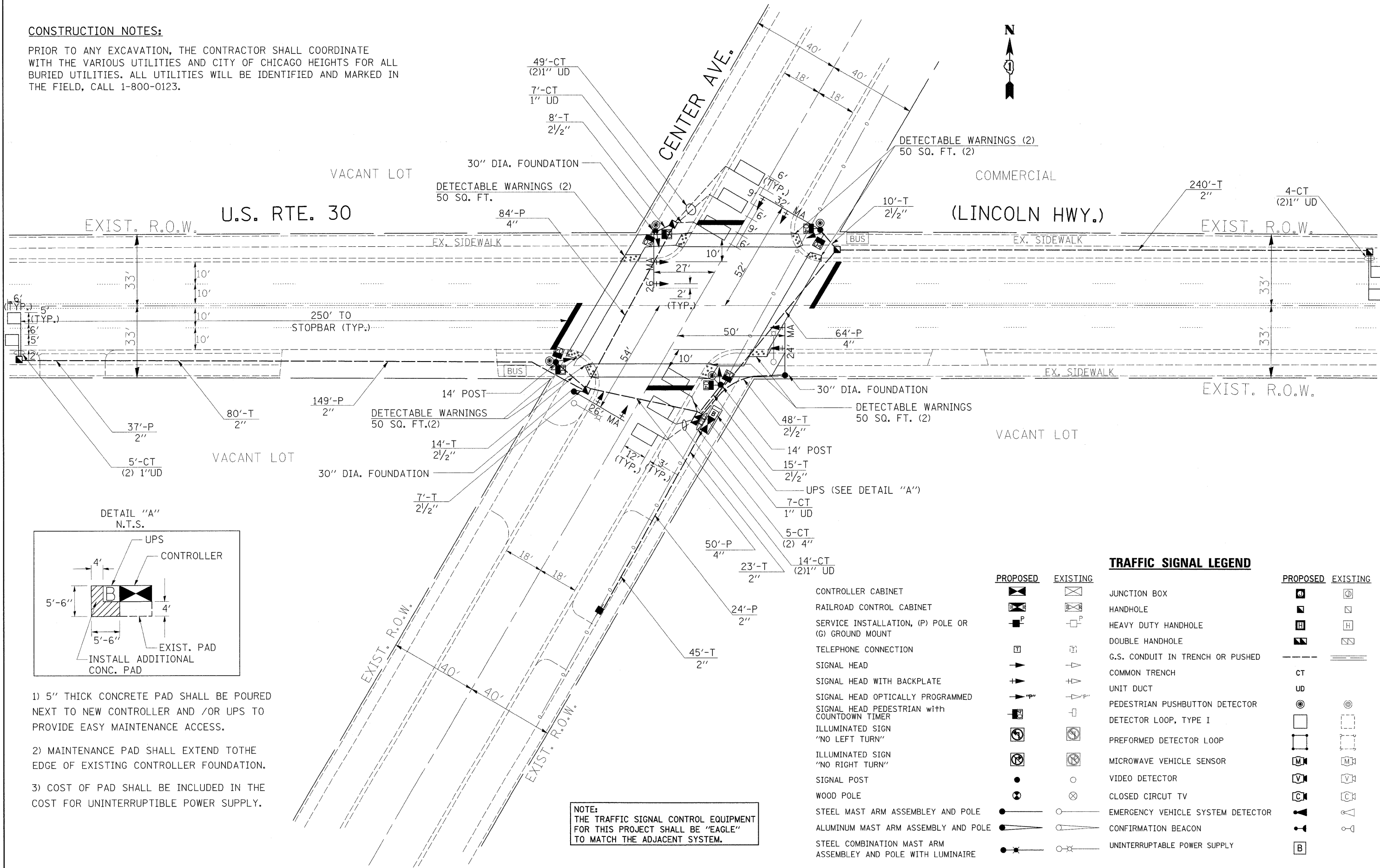
**EXISTING TEMPORARY CABLE PLAN
U.S. RTE. 30 (LINCOLN HWY.) @ CENTER STREET**

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

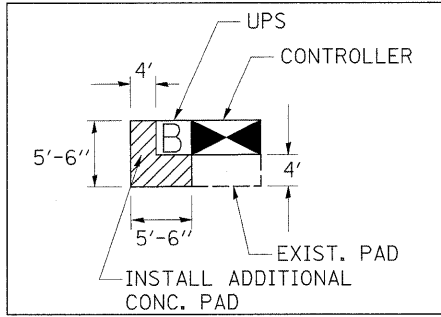
F.A.P. RTE. 353	SECTION 2009-033 TS	COUNTY COOK	TOTAL SHEETS 49	SHEET NO. 20
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		CONTRACT NO. 60G40		

CONSTRUCTION NOTES:

PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES AND CITY OF CHICAGO HEIGHTS FOR ALL BURIED UTILITIES. ALL UTILITIES WILL BE IDENTIFIED AND MARKED IN THE FIELD, CALL 1-800-0123.



DETAIL "A"
N.T.S.



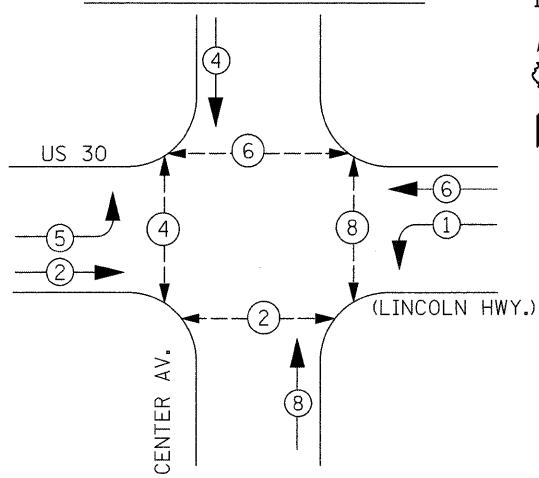
- 1) 5" THICK CONCRETE PAD SHALL BE POURED NEXT TO NEW CONTROLLER AND /OR UPS TO PROVIDE EASY MAINTENANCE ACCESS.
- 2) MAINTENANCE PAD SHALL EXTEND TO THE EDGE OF EXISTING CONTROLLER FOUNDATION.
- 3) COST OF PAD SHALL BE INCLUDED IN THE COST FOR UNINTERRUPTIBLE POWER SUPPLY.

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

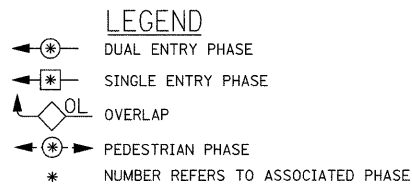
- CONTROLLER CABINET
- RAILROAD CONTROL CABINET
- SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT
- TELEPHONE CONNECTION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD OPTICALLY PROGRAMMED
- SIGNAL HEAD PEDESTRIAN WITH COUNTDOWN TIMER
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"
- SIGNAL POST
- WOOD POLE
- STEEL MAST ARM ASSEMBLY AND POLE
- ALUMINUM MAST ARM ASSEMBLY AND POLE
- STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE

TRAFFIC SIGNAL LEGEND		PROPOSED	EXISTING
JUNCTION BOX			
HANDHOLE			
HEAVY DUTY HANDHOLE			
DOUBLE HANDHOLE			
G.S. CONDUIT IN TRENCH OR PUSHED			
COMMON TRENCH			
UNIT DUCT			
PEDESTRIAN PUSHBUTTON DETECTOR			
DETECTOR LOOP, TYPE I			
PERFORMED DETECTOR LOOP			
MICROWAVE VEHICLE SENSOR			
VIDEO DETECTOR			
CLOSED CIRCUIT TV			
EMERGENCY VEHICLE SYSTEM DETECTOR			
CONFIRMATION BEACON			
UNINTERRUPTIBLE POWER SUPPLY			

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	628
SIDEWALK REMOVAL	SQ FT	628
DETECTABLE WARNINGS	SQ FT	200
SIGN PANEL-TYPE I	SQ FT	13.5
SIGN PANEL-TYPE II	SQ FT	30
THERMOPLASTIC PAVEMENT MARKING LINE 6"	FOOT	350
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	84
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	112
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	102
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	388
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT IN PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	210
CONDUIT IN PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	198
HANDHOLE	EACH	5
DOUBLE HANDHOLE	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET(SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	450
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	826
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1701
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	860
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	117
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	620
STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIA.	FOOT	60
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	8
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, BRKT. MNTD.	EACH	4
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRKT. MNTD. with COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	378
INDUCTIVE LOOP DETECTOR	EACH	4
DETECTOR LOOP TYPE I	FOOT	366
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRICAL CABLE FROM CONDUIT	FOOT	1220
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1

PUSH BUTTON NOTES:

PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	135	12	0.10		
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	522.00

ENERGY SUPPLY CONTACT: 708-410-5069
 PHONE: COM. EDISON
 COMPANY:

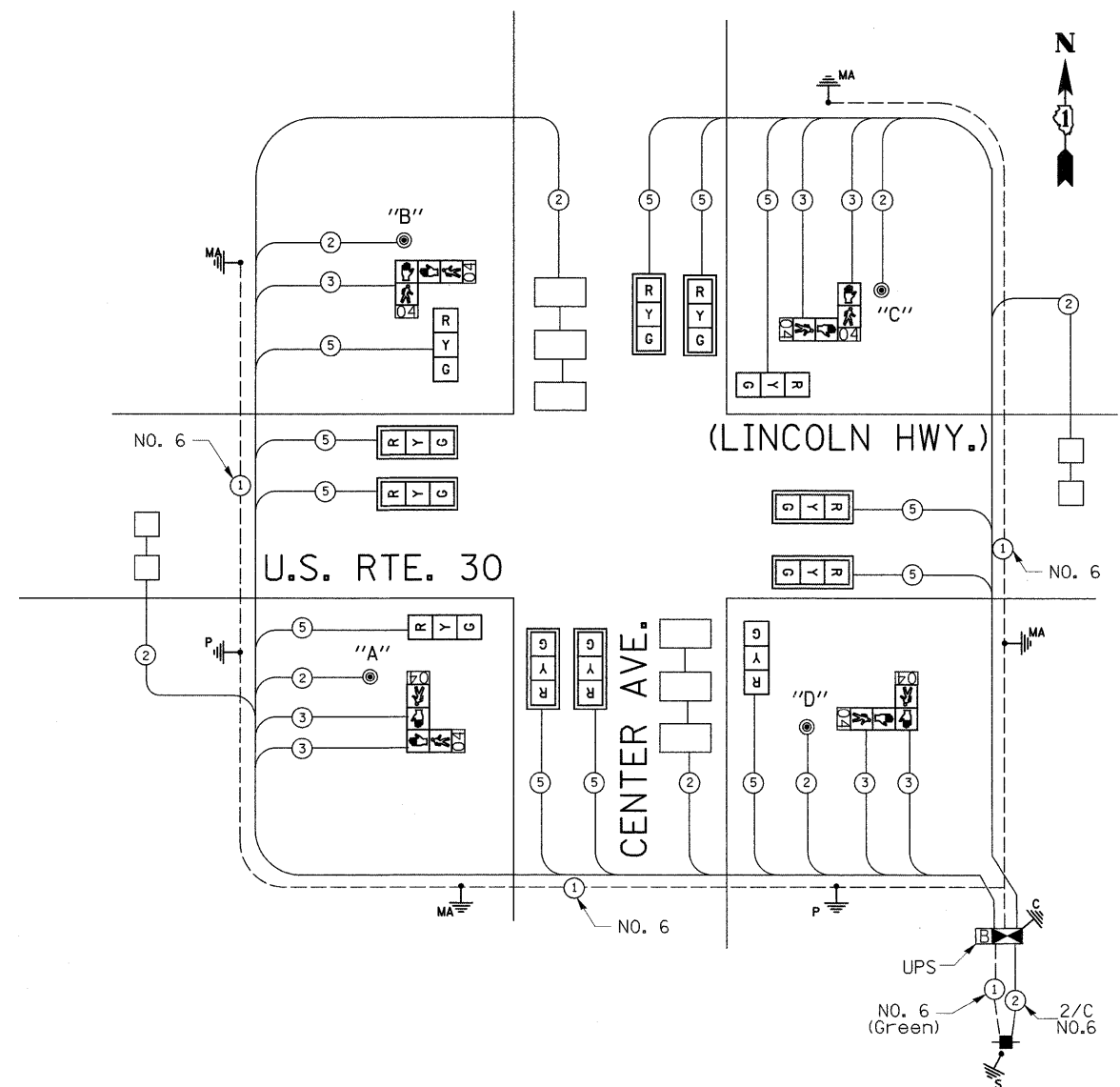
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 DATE - REVISED -
 PLOT DATE = 3/19/2009

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN ILLINOIS RTE. 30 (ILLINOIS HWY.) @ CENTER STREET

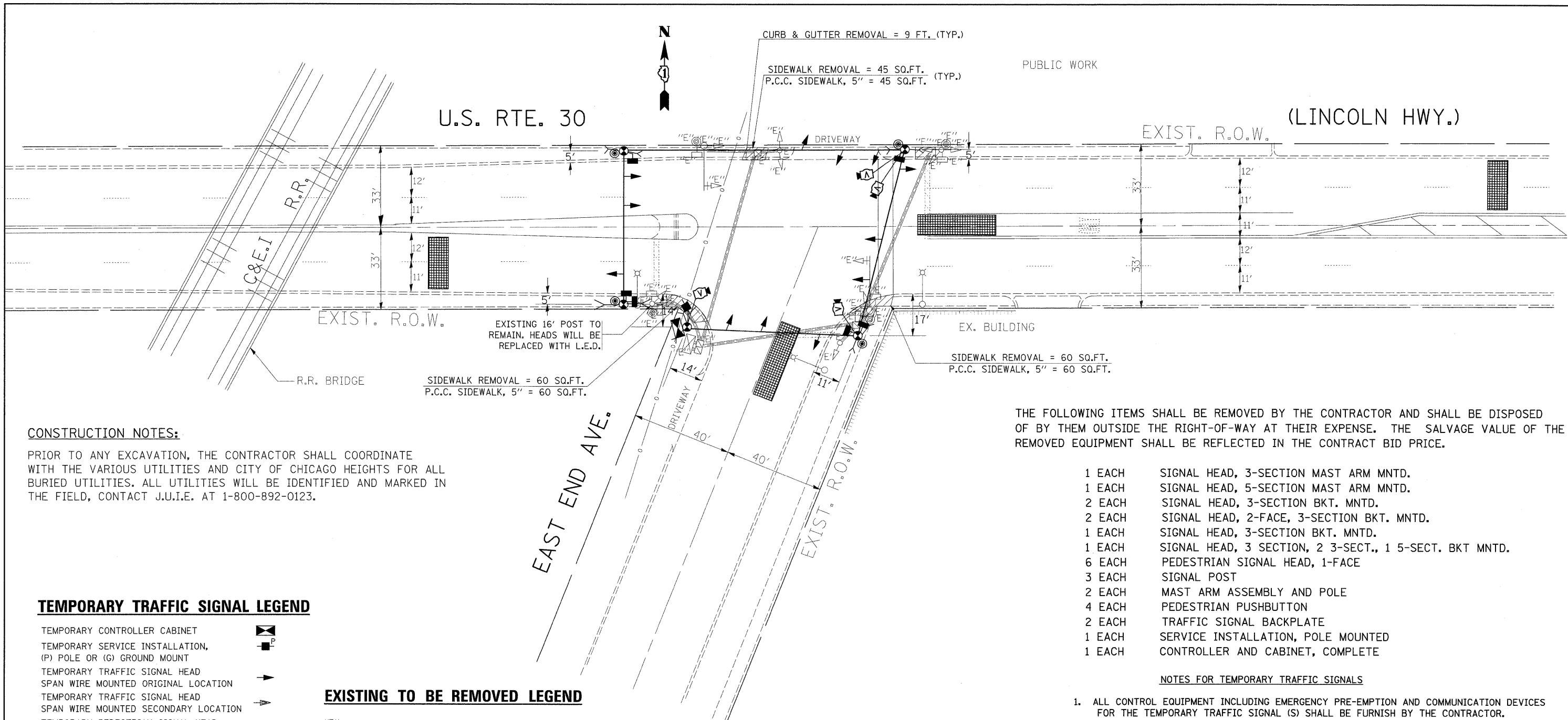
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	2009-033 TS	COOK	49	22
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60G40	



CABLE PLAN LEGEND

PROPOSED	EXISTING	DESCRIPTION	PROPOSED	EXISTING
[Symbol]	[Symbol]	12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE	[Symbol]	[Symbol]
[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION	[Symbol]	[Symbol]
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION with COUNTDOWN TIMER	[Symbol]	[Symbol]
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	DETECTOR LOOP	[Symbol]	[Symbol]
[Symbol]	[Symbol]	PREFORMED DETECTOR LOOP	[Symbol]	[Symbol]
[Symbol]	[Symbol]	MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	VIDEO DETECTOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	CLOSED CIRCUIT TV	[Symbol]	[Symbol]
[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	CONFIRMATION BEACON	[Symbol]	[Symbol]
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]



CONSTRUCTION NOTES:

PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES AND CITY OF CHICAGO HEIGHTS FOR ALL BURIED UTILITIES. ALL UTILITIES WILL BE IDENTIFIED AND MARKED IN THE FIELD, CONTACT J.U.I.E. AT 1-800-892-0123.

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 SIGNAL HEAD, 3-SECTION MAST ARM MNTD.
- 1 EACH SIGNAL HEAD, 5-SECTION MAST ARM MNTD.
- 2 EACH SIGNAL HEAD, 3-SECTION BKT. MNTD.
- 2 EACH SIGNAL HEAD, 2-FACE, 3-SECTION BKT. MNTD.
- 1 EACH SIGNAL HEAD, 3-SECTION BKT. MNTD.
- 1 EACH SIGNAL HEAD, 3 SECTION, 2 3-SECT., 1 5-SECT. BKT MNTD.
- 6 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 3 EACH SIGNAL POST
- 2 EACH MAST ARM ASSEMBLY AND POLE
- 4 EACH PEDESTRIAN PUSHBUTTON
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 1 EACH SERVICE INSTALLATION, POLE MOUNTED
- 1 EACH CONTROLLER AND CABINET, COMPLETE

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL (S) SHALL BE FURNISH 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 TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL CONTROLLERS USED FOR TEMPORARY SIGNALS SHALL MEET OR EXCEED THE REQUIREMENTS OF SECTION T632 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS" WITH REGARDS TO INTERNAL TIME BASE COORDINATION AND PREMPTION.
4. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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.
5. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
6. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM HANDHOLE
- HEAVY-DUTY HANDHOLE
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP, TYPE I
- PREFORMED DETECTOR LOOP
- VIDEO DETECTOR
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- GUY WIRE

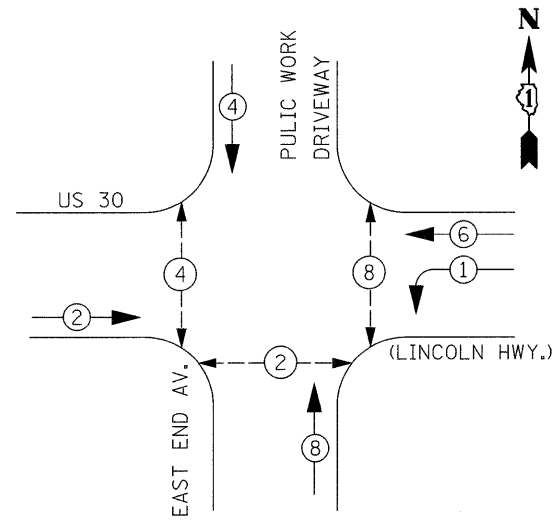
EXISTING TO BE REMOVED LEGEND

- "E" [Symbol] EXISTING CONTROLLER TO BE REMOVED
- "E" [Symbol] EXISTING SERVICE TO BE REMOVED
- "E" [Symbol] EXISTING SIGNAL HEAD TO BE REMOVED
- "E" [Symbol] EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- "E" [Symbol] EXISTING SIGNAL POST TO BE REMOVED
- "E" [Symbol] EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" [Symbol] EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" [Symbol] EXISTING HAND HOLE TO BE REMOVED
- "E" [Symbol] EXISTING HEAVY DUTY TO BE REMOVED
- "E" [Symbol] EXISTING PUSHBUTTON TO BE REMOVED
- "E" [Symbol] EXISTING LOOP DETECTOR TO BE ABANDON
- "E" [Symbol] EXISTING VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" [Symbol] EXISTING CONFIRMATION BEACON TO BE REMOVED

FILE NAME =	USER NAME = nguyenism	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN ILLINOIS RTE. 30 (LINCOLN HWY.) @ EAST END AVE.	F.A.P. RTE. 353	SECTION 2009-033 TS	COUNTY COOK	TOTAL SHEETS 49	SHEET NO. 23		
ct:\pw_work\pwwork\nguyenism\117709\Rob-TS.dgn	PLOT SCALE = 20,000' / IN.	DRAWN -	REVISED -			SCALE:	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. [ILLINOIS]	FED. AID PROJECT	CONTRACT NO. 60G40		
PLOT DATE = 3/19/2009		CHECKED -	REVISED -									
		DATE -	REVISED -									

TEMPORARY CABLE DIAGRAM LEGEND

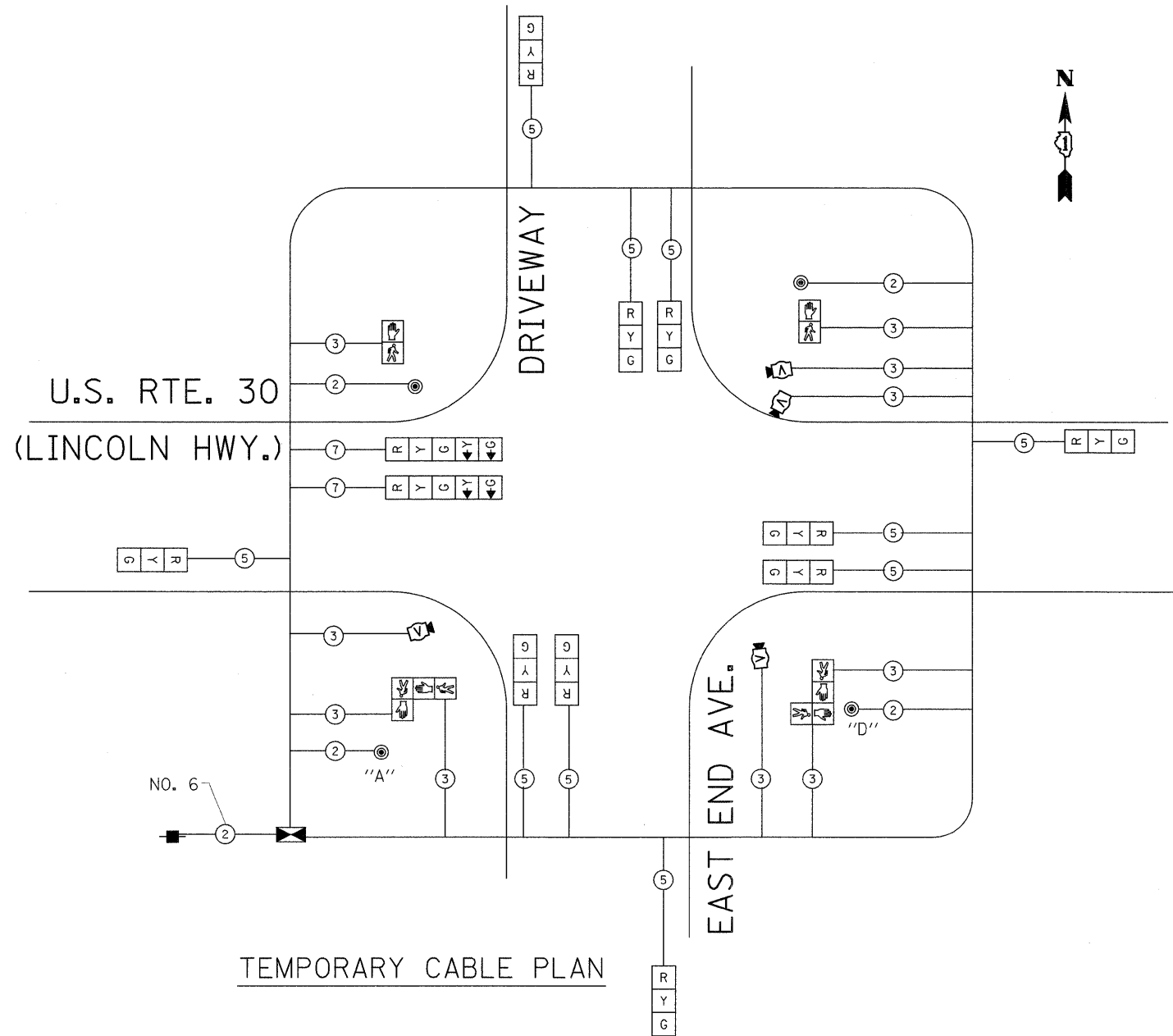
	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET		
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)		
12" (300 MM) PEDESTRIAN SIGNAL SECTION		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED		
PEDESTRIAN PUSHBUTTON DETECTOR		
VEHICLE DETECTOR, INDUCTION LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		



TEMPORARY PHASE DESIGNATION DIAGRAM

LEGEND

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



TEMPORARY CABLE PLAN

NOTE:

PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

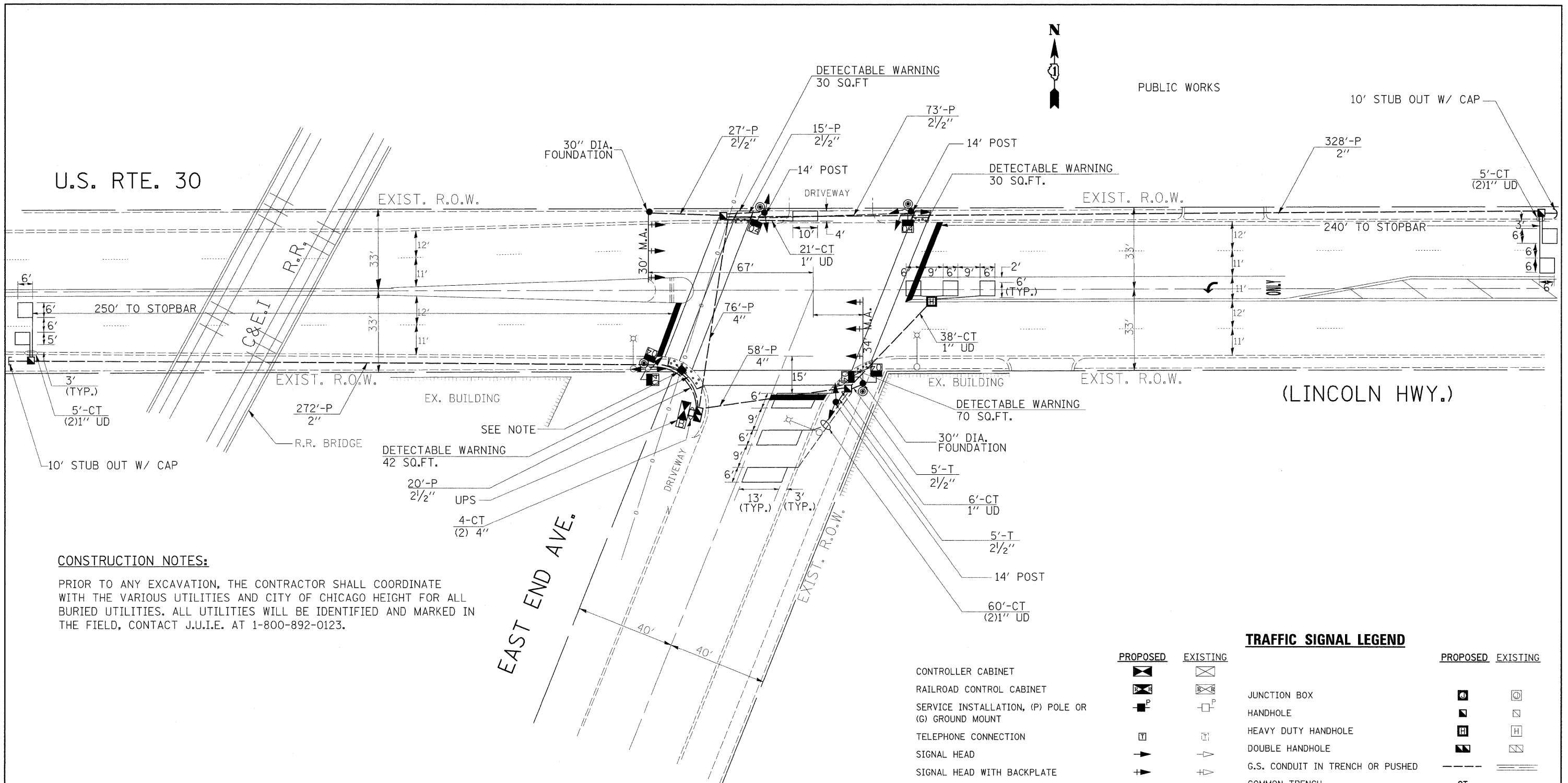
I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	4	135	12	0.10	4.80
PED. SIGNAL	6	90	25	1.00	150.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION					TOTAL = 476.80
ENERGY SUPPLY CONTACT: PHONE: 708-410-5069 COMPANY: COM. EDISON					

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN
U.S. RTE. 30 (LINCOLN HWY.) @ EAST END AVE.

F.A.P. RTE. 353	SECTION 2009-033 TS	COUNTY COOK	TOTAL SHEETS 49	SHEET NO. 24
SCALE:		SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
CONTRACT NO. 60G40				



CONSTRUCTION NOTES:

PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES AND CITY OF CHICAGO HEIGHT FOR ALL BURIED UTILITIES. ALL UTILITIES WILL BE IDENTIFIED AND MARKED IN THE FIELD, CONTACT J.U.I.E. AT 1-800-892-0123.

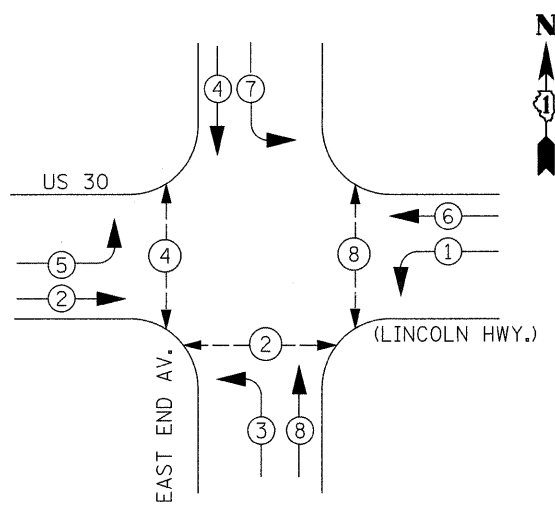
NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE ADJACENT SYSTEM.

- CONTROLLER CABINET
- RAILROAD CONTROL CABINET
- SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT
- TELEPHONE CONNECTION
- SIGNAL HEAD
- SIGNAL HEAD WITH BACKPLATE
- SIGNAL HEAD OPTICALLY PROGRAMMED
- SIGNAL HEAD PEDESTRIAN WITH COUNTDOWN TIMER
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"
- SIGNAL POST
- WOOD POLE
- STEEL MAST ARM ASSEMBLY AND POLE
- ALUMINUM MAST ARM ASSEMBLY AND POLE
- STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE

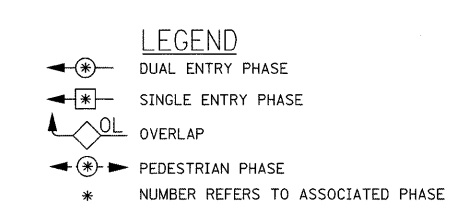
PROPOSED	EXISTING

TRAFFIC SIGNAL LEGEND

PROPOSED	EXISTING



PHASE DESIGNATION DIAGRAM



ITEM	UNIT	QUANTITY
COMBINATION CURB AND GUTTER REMOVAL	FOOT	39
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	210
SIDEWALK REMOVAL	SQ FT	210
DETECTABLE WARNINGS	SQ FT	172
SIGN PANEL-TYPE I	SQ FT	18
THERMOPLASTIC PAVEMENT MARKING LINE 6"	FOOT	381
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	80
THERMOPLASTIC PAVEMENT MARKING-LETTERS AND SYMBOLS	SQ FT	80
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	104
CONDUIT IN PUSH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	145
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	8
CONDUIT IN PUSH, 2" DIA., GALVANIZED STEEL	FOOT	618
CONDUIT IN PUSH, 4" DIA., GALVANIZED STEEL	FOOT	134
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	1
DOUBLE HANDHOLE	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET(SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	469
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	639
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1852
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	237
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	986
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	48
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	410
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIA.	FOOT	30
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	5
SIGNAL HEAD, L.E.D. 2-FACE, 3 SECTION, BRKT. MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 3-FACE, 2-3 SECT., 1-5 SECT., BRKT MNTD.	EACH	1
SIGNAL HEAD, L.E.D. 3-FACE, 3-SECTION BRKT MNTD.	EACH	1
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRKT. MNTD. with COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRKT. MNTD. with COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	6
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	14
INDUCTIVE LOOP DETECTOR	EACH	5
DETECTOR LOOP TYPE I	FOOT	382
PEDESTRIAN PUSH-BUTTON	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	7
REMOVE EXISTING HANDHOLE	EACH	4
TEMPORARY TRAFFIC SIGNAL TIMINGS	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1

NOTE:
 PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	16	135	17	0.50	136.00
(YELLOW)	16	135	25	0.25	100.00
(GREEN)	16	135	15	0.25	60.00
ARROW	4	135	12	0.10	4.80
PED. SIGNAL	6	90	25	1.00	150.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	550.80

ENERGY SUPPLY CONTACT: 708-410-5069
 PHONE: COM. EDISON
 COMPANY:

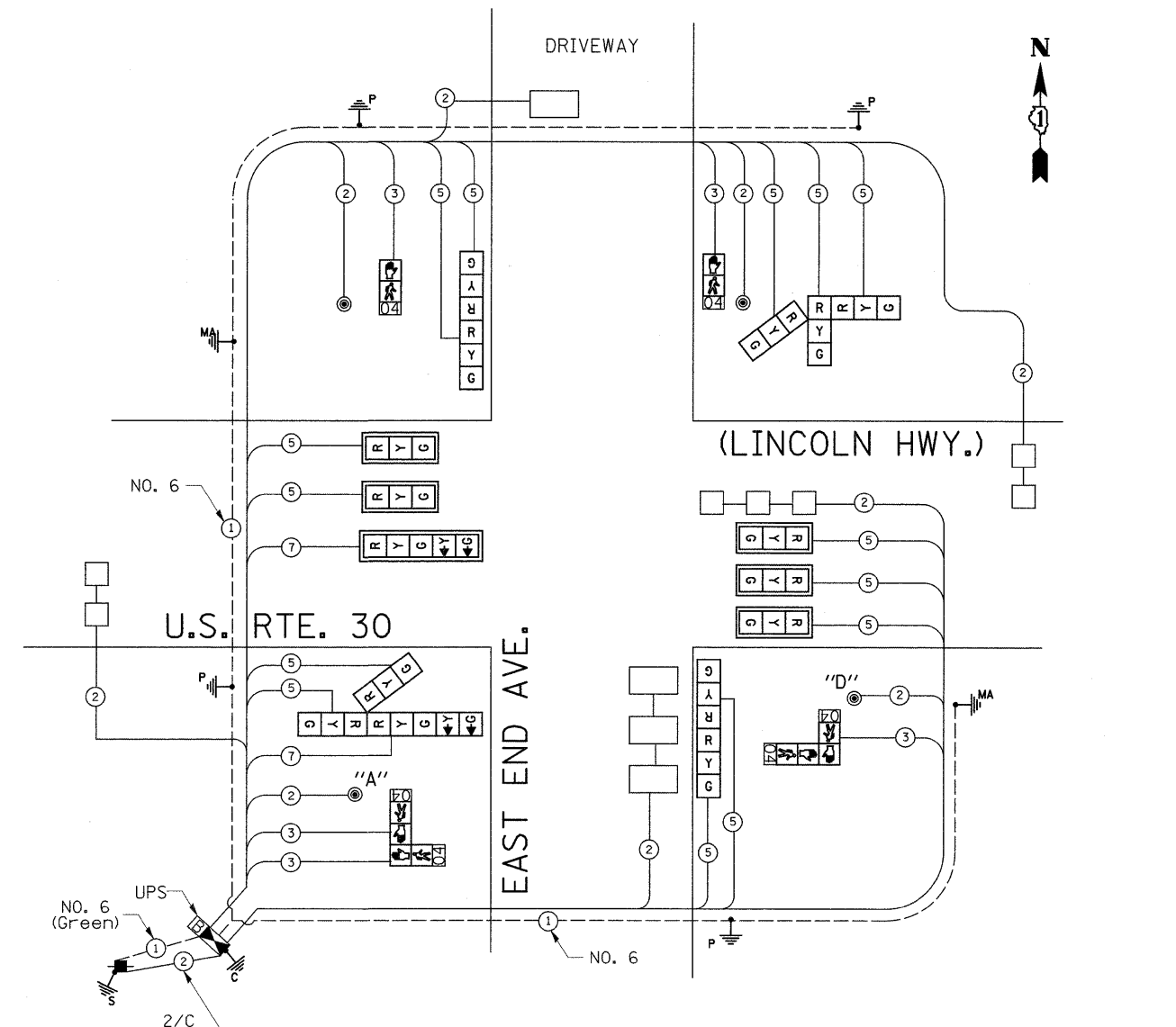
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 DESIGNED - REVISIONS -
 DRAWN - REVISIONS -
 CHECKED - REVISIONS -
 DATE - REVISIONS -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROPOSED CABLE PLAN
 ILLINOIS RTE. 30 (ILLINOIS HWY.) @ EAST END AVE.

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

F.A.P. RTE. 353 SECTION 2009-033 TS COUNTY COOK TOTAL SHEETS 49 SHEET NO. 26
 ILLINOIS FED. AID PROJECT CONTRACT NO. 60G40



CABLE PLAN LEGEND

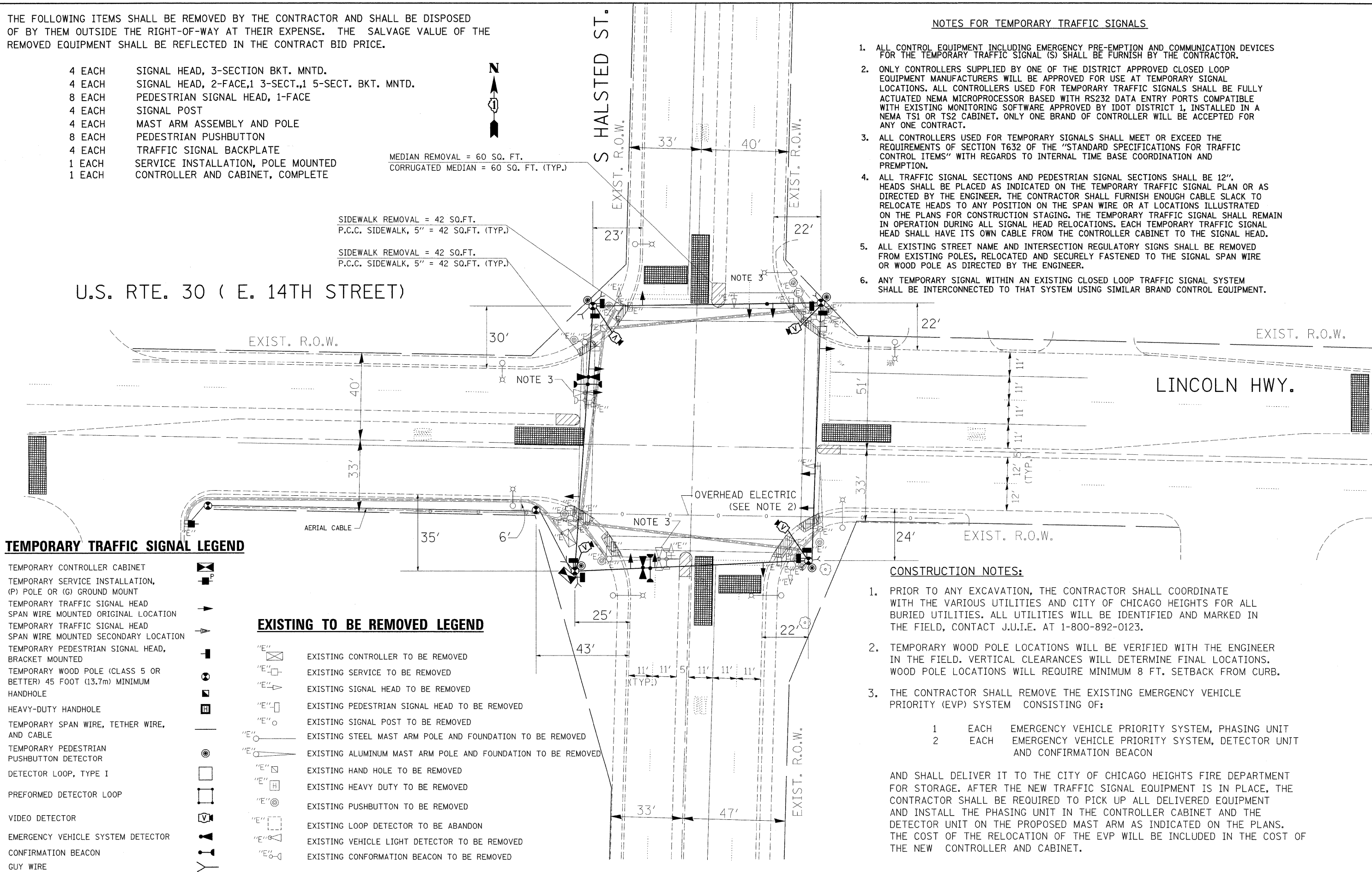
PROPOSED	EXISTING	DESCRIPTION	PROPOSED	EXISTING
[Symbol]	[Symbol]	CONTROLLER CABINET	[Symbol]	[Symbol]
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
[Symbol]	[Symbol]	SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
[Symbol]	[Symbol]	TELEPHONE CONNECTION	[Symbol]	[Symbol]
[Symbol]	[Symbol]	GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE	[Symbol]	[Symbol]
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED	[Symbol]	[Symbol]
[Symbol]	[Symbol]	ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED	[Symbol]	[Symbol]
[Symbol]	[Symbol]	GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)	[Symbol]	[Symbol]
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD	[Symbol]	[Symbol]
[Symbol]	[Symbol]	12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE	[Symbol]	[Symbol]
[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION	[Symbol]	[Symbol]
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION with COUNTDOWN TIMER	[Symbol]	[Symbol]
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	DETECTOR LOOP	[Symbol]	[Symbol]
[Symbol]	[Symbol]	PREFORMED DETECTOR LOOP	[Symbol]	[Symbol]
[Symbol]	[Symbol]	MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	VIDEO DETECTOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	CLOSED CIRCUIT TV	[Symbol]	[Symbol]
[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
[Symbol]	[Symbol]	CONFIRMATION BEACON	[Symbol]	[Symbol]
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]

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

- 4 EACH SIGNAL HEAD, 3-SECTION BKT. MNTD.
- 4 EACH SIGNAL HEAD, 2-FACE, 1 3-SECT., 1 5-SECT. BKT. MNTD.
- 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 4 EACH SIGNAL POST
- 4 EACH MAST ARM ASSEMBLY AND POLE
- 8 EACH PEDESTRIAN PUSHBUTTON
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 1 EACH SERVICE INSTALLATION, POLE MOUNTED
- 1 EACH CONTROLLER AND CABINET, COMPLETE

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL (S) SHALL BE FURNISH 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 TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL CONTROLLERS USED FOR TEMPORARY SIGNALS SHALL MEET OR EXCEED THE REQUIREMENTS OF SECTION T632 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS" WITH REGARDS TO INTERNAL TIME BASE COORDINATION AND PREMPTION.
4. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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.
5. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
6. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.



TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM HANDHOLE
- HEAVY-DUTY HANDHOLE
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP, TYPE I
- PREFORMED DETECTOR LOOP
- VIDEO DETECTOR
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- GUY WIRE

EXISTING TO BE REMOVED LEGEND

- "E" [Symbol] EXISTING CONTROLLER TO BE REMOVED
- "E" [Symbol] EXISTING SERVICE TO BE REMOVED
- "E" [Symbol] EXISTING SIGNAL HEAD TO BE REMOVED
- "E" [Symbol] EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- "E" [Symbol] EXISTING SIGNAL POST TO BE REMOVED
- "E" [Symbol] EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" [Symbol] EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" [Symbol] EXISTING HAND HOLE TO BE REMOVED
- "E" [Symbol] EXISTING HEAVY DUTY TO BE REMOVED
- "E" [Symbol] EXISTING PUSHBUTTON TO BE REMOVED
- "E" [Symbol] EXISTING LOOP DETECTOR TO BE ABANDON
- "E" [Symbol] EXISTING VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" [Symbol] EXISTING CONFIRMATION BEACON TO BE REMOVED

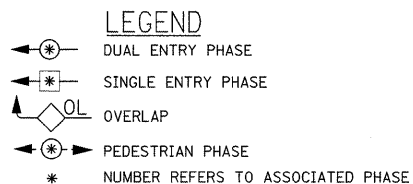
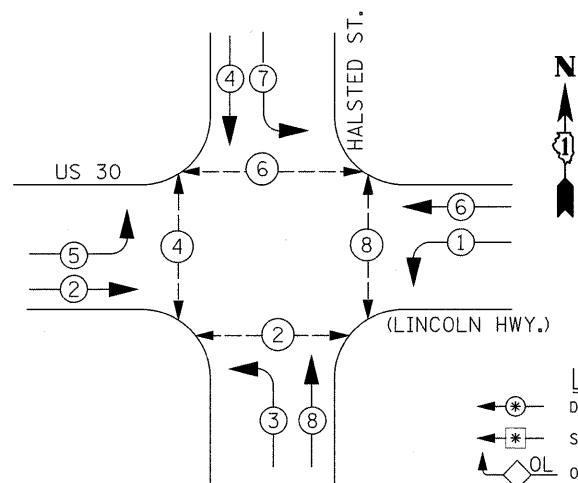
CONSTRUCTION NOTES:

1. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES AND CITY OF CHICAGO HEIGHTS FOR ALL BURIED UTILITIES. ALL UTILITIES WILL BE IDENTIFIED AND MARKED IN THE FIELD, CONTACT J.U.I.E. AT 1-800-892-0123.
2. TEMPORARY WOOD POLE LOCATIONS WILL BE VERIFIED WITH THE ENGINEER IN THE FIELD. VERTICAL CLEARANCES WILL DETERMINE FINAL LOCATIONS. WOOD POLE LOCATIONS WILL REQUIRE MINIMUM 8 FT. SETBACK FROM CURB.
3. THE CONTRACTOR SHALL REMOVE THE EXISTING EMERGENCY VEHICLE PRIORITY (EVP) SYSTEM CONSISTING OF:
 - 1 EACH EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
 - 2 EACH EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT AND CONFIRMATION BEACON

AND SHALL DELIVER IT TO THE CITY OF CHICAGO HEIGHTS FIRE DEPARTMENT FOR STORAGE. AFTER THE NEW TRAFFIC SIGNAL EQUIPMENT IS IN PLACE, THE CONTRACTOR SHALL BE REQUIRED TO PICK UP ALL DELIVERED EQUIPMENT AND INSTALL THE PHASING UNIT IN THE CONTROLLER CABINET AND THE DETECTOR UNIT ON THE PROPOSED MAST ARM AS INDICATED ON THE PLANS. THE COST OF THE RELOCATION OF THE EVP WILL BE INCLUDED IN THE COST OF THE NEW CONTROLLER AND CABINET.

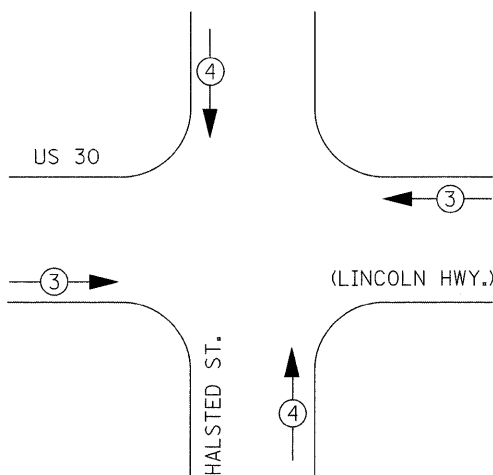
FILE NAME =	USER NAME = ngyuensm	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION AND REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT U.S. RTE. 30 (LINCOLN HWY.) @ HALSTED STREET	F.A.P. RTE. 353	SECTION 2009-033 TS	COUNTY COOK	TOTAL SHEETS 49	SHEET NO. 27
CONTRACT NO. 60G40	SCALE:	SHEET NO. OF SHEETS	STA. TO STA.			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM

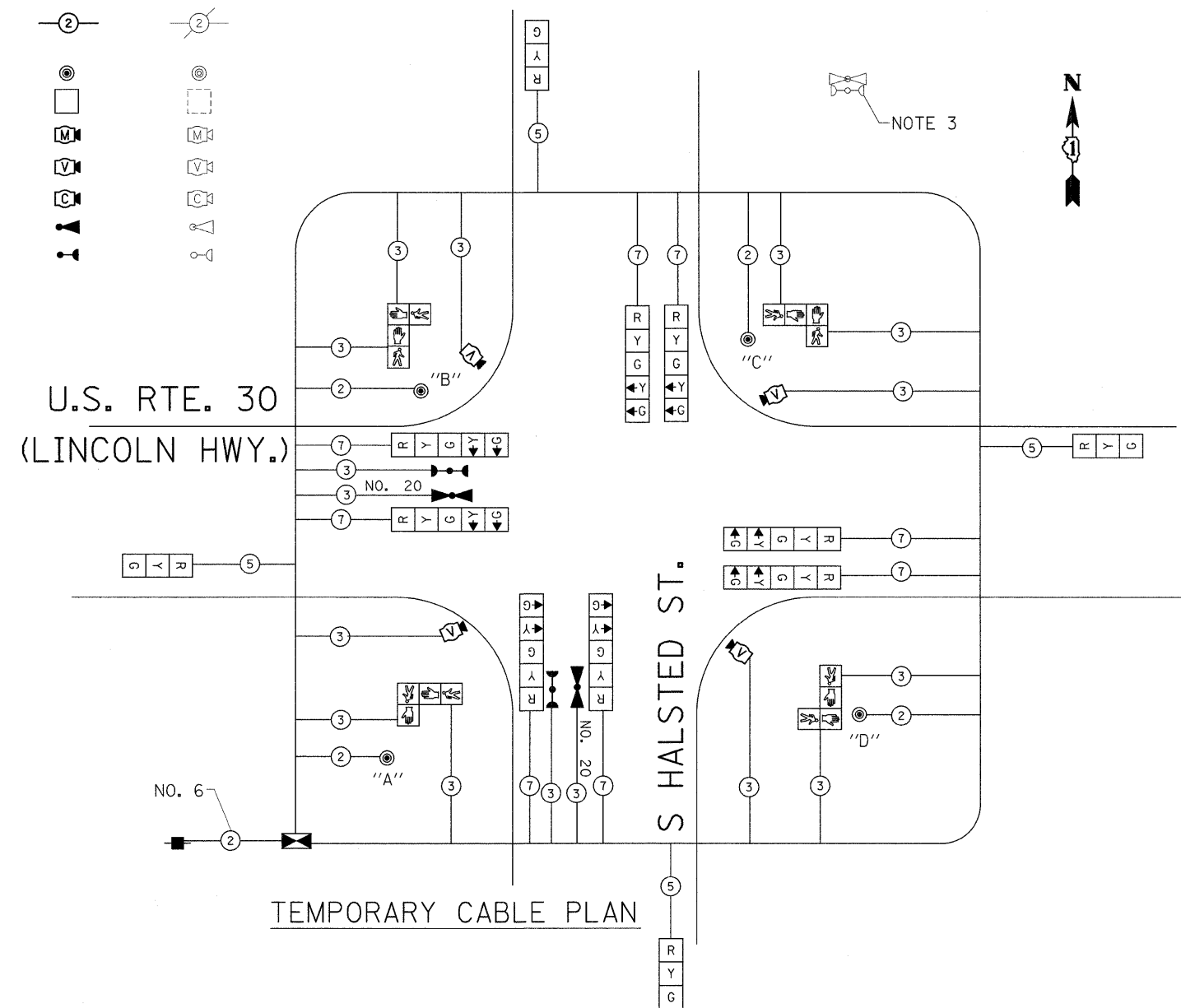
TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑ ↓

TEMPORARY CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET	⊠	⊠
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	⊠ ^P	⊠ ^P
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)	⊠ ^R	⊠ ^R
12" (300 MM) PEDESTRIAN SIGNAL SECTION	⊠ ^P	⊠ ^P
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED	⊖ ²	⊖ ²
PEDESTRIAN PUSHBUTTON DETECTOR	⊙	⊙
VEHICLE DETECTOR, INDUCTION LOOP	⊠	⊠
MICROWAVE VEHICLE SENSOR	⊠ ^M	⊠ ^M
VIDEO DETECTOR	⊠ ^V	⊠ ^V
CLOSED CIRCUIT TV	⊠ ^C	⊠ ^C
EMERGENCY VEHICLE SYSTEM DETECTOR	⊠ ^E	⊠ ^E
CONFIRMATION BEACON	⊠ ^B	⊠ ^B



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	16	135	12	0.10	19.20
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	

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

ENERGY COSTS TO: TOTAL = 541.20
ILLINOIS DEPARTMENT OF TRANSPORTATION

ENERGY SUPPLY CONTACT: 708-410-5069
PHONE: COM. EDISON
COMPANY:

FILE NAME = USER NAME = nguyenism
DESIGNED - REVISIONS -
DRAWN - REVISIONS -
CHECKED - REVISIONS -
DATE - REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN
U.S. 30 (LINCOLN HWY.) @ HALSTED STREET

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

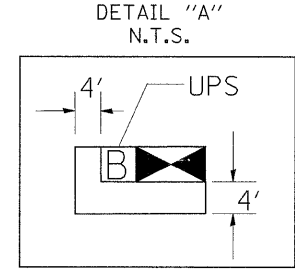
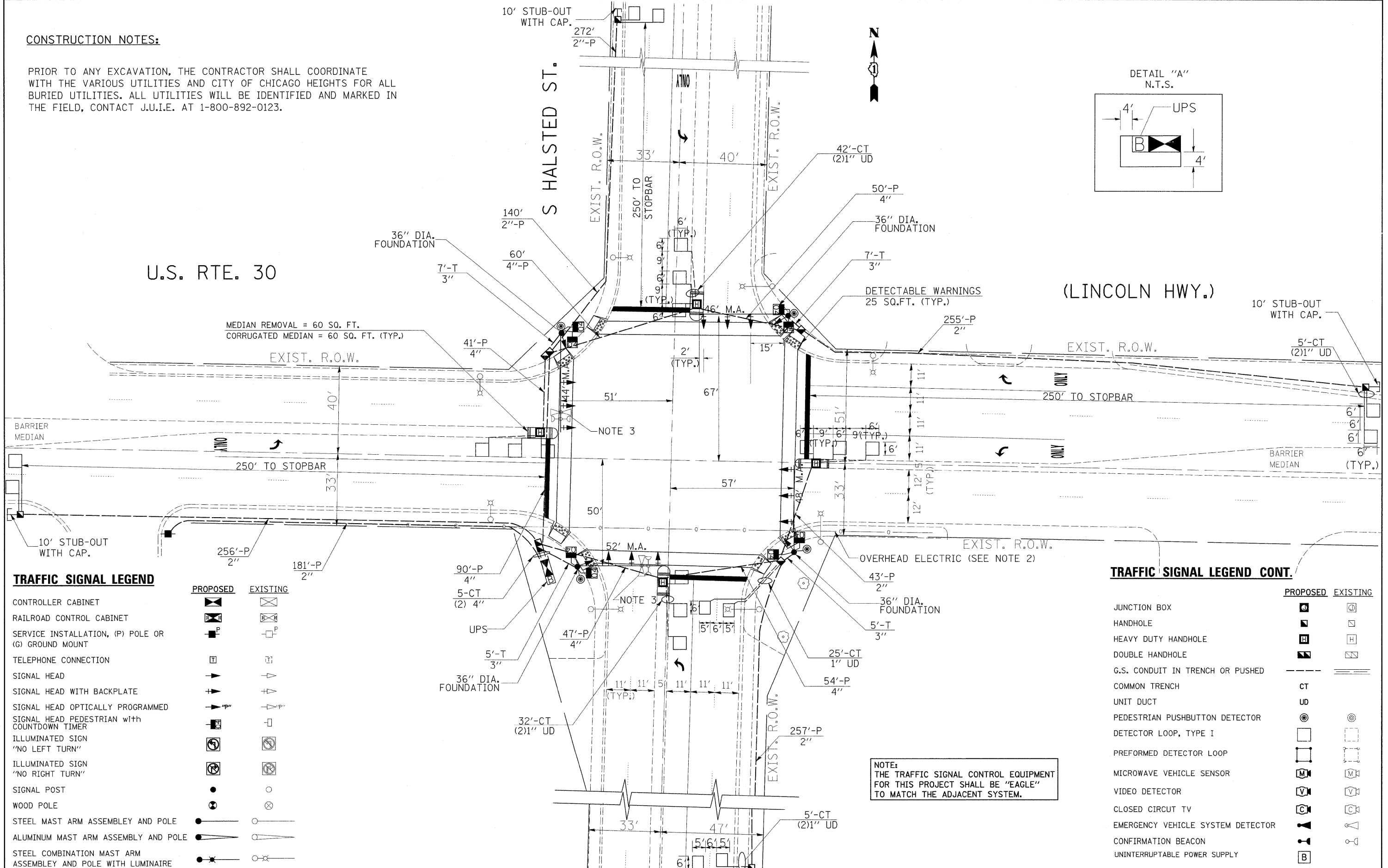
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353	2009-033 TS	COOK	49	28

CONTRACT NO. 60G40
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

NOTE:
PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

CONSTRUCTION NOTES:

PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES AND CITY OF CHICAGO HEIGHTS FOR ALL BURIED UTILITIES. ALL UTILITIES WILL BE IDENTIFIED AND MARKED IN THE FIELD, CONTACT J.U.I.E. AT 1-800-892-0123.



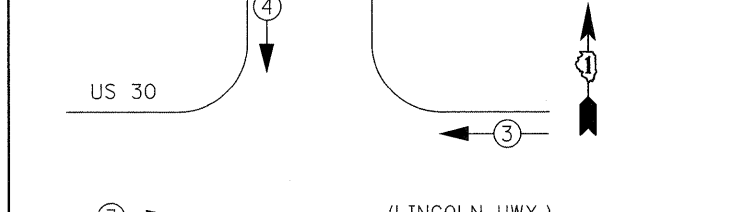
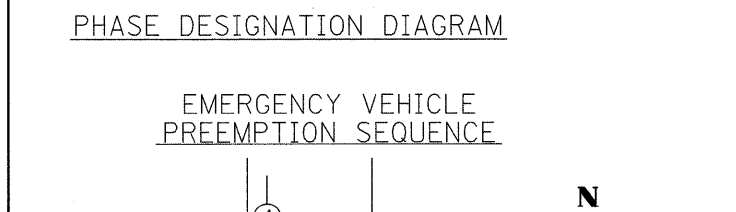
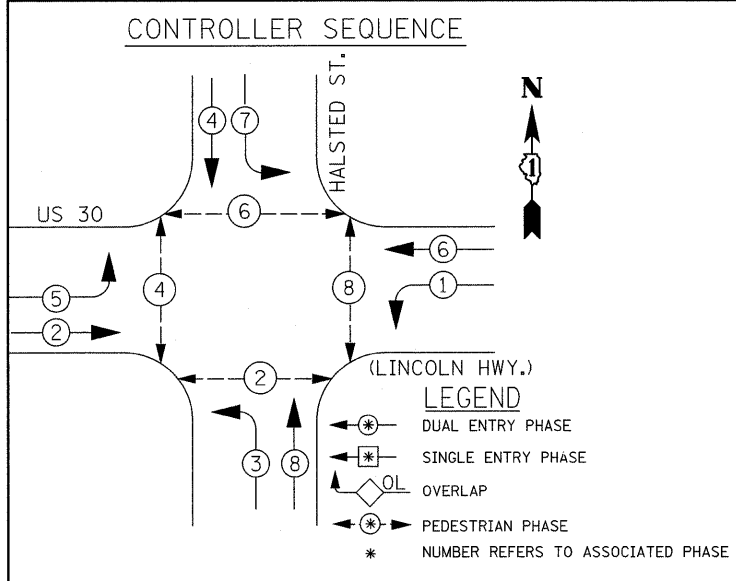
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
WOOD POLE	[Symbol]	[Symbol]
STEEL MAST ARM ASSEMBLY AND POLE	[Symbol]	[Symbol]
ALUMINUM MAST ARM ASSEMBLY AND POLE	[Symbol]	[Symbol]
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE	[Symbol]	[Symbol]

TRAFFIC SIGNAL LEGEND CONT.

	PROPOSED	EXISTING
JUNCTION BOX	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
COMMON TRENCH	CT	[Symbol]
UNIT DUCT	UD	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP, TYPE I	[Symbol]	[Symbol]
PERFORMED DETECTOR LOOP	[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
UNINTERRUPTABLE POWER SUPPLY	[Symbol]	[Symbol]

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



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

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	16	135	17	0.50	136.00
(YELLOW)	16	135	25	0.25	100.00
(GREEN)	16	135	15	0.25	60.00
ARROW	16	135	12	0.10	19.20
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 624.80

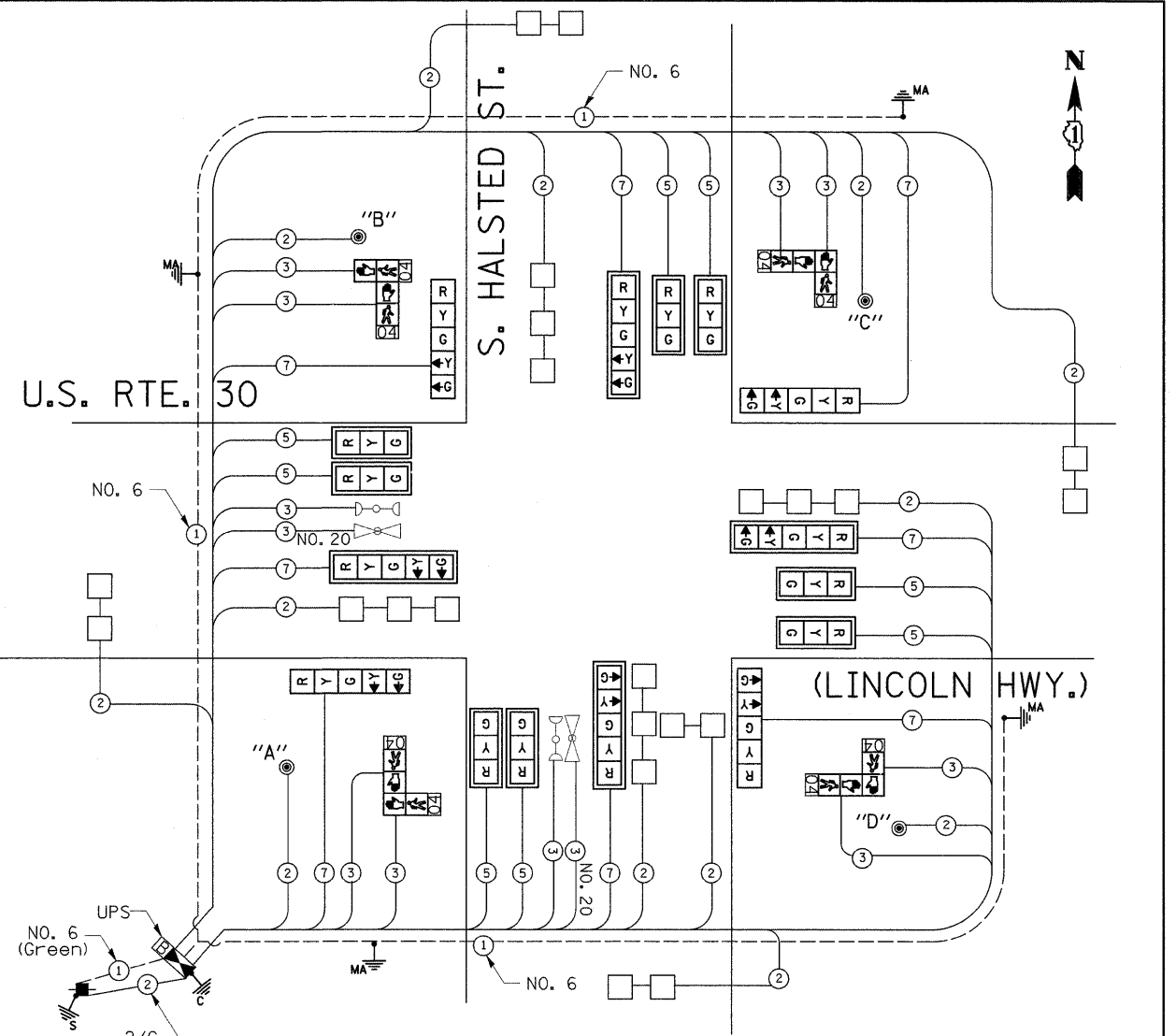
SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	336
SIDEWALK REMOVAL	SQ FT	336
DETECTABLE WARNINGS	SQ FT	200
CORRUGATED MEDIAN	SQ FT	240
SIGN PANEL-TYPE I	SQ FT	18
SIGN PANEL-TYPE II	SQ FT	30
THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	320
THERMOPLASTIC PAVEMENT MARKING LINE 6"	FOOT	630
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	164
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	170
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	26
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT IN PUSH, 2" DIA., GALVANIZED STEEL	FOOT	1221
CONDUIT IN PUSH, 4" DIA., GALVANIZED STEEL	FOOT	394
HANDHOLE	EACH	6
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	34
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET(SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	636
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1314
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1434
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1440
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2292
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	180
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	560
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH	1
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIA.	FOOT	45
CONCRETE FOUNDATION, TYPE E 42-INCH DIA.	FOOT	15
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	8
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, MAST ARM MNTD.	EACH	4
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECT BRKT MNTD.	EACH	4
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRKT. MNTD. with COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	12
INDUCTIVE LOOP DETECTOR	EACH	9
DETECTOR LOOP TYPE I	FOOT	588
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
MEDIAN REMOVAL	SQ FT	240
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1470
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
REMOVE EXISTING HANDHOLE	EACH	4
TEMPORARY TRAFFIC SIGNAL TIMINGS	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 20 3/C, TWISTED, SHIELDED	FOOT	288

PUSH BUTTON NOTES:
 PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

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

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



CABLE PLAN LEGEND		PROPOSED	EXISTING	PROPOSED	EXISTING
CONTROLLER CABINET	[Symbol]	[Symbol]	[Symbol]	12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION with COUNTDOWN TIMER	[Symbol] OR [Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]
GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE	[Symbol]	[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED	[Symbol]	[Symbol]	[Symbol]	PUSHBUTTON DETECTOR	[Symbol]
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED, NUMBER OF CONDUCTORS AS NOTED	[Symbol]	[Symbol]	[Symbol]	DETECTOR LOOP	[Symbol]
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)	[Symbol]	[Symbol]	[Symbol]	PREFORMED DETECTOR LOOP	[Symbol]
SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD	[Symbol]	[Symbol]	[Symbol]	MICROWAVE VEHICLE SENSOR	[Symbol]
				VIDEO DETECTOR	[Symbol]
				CLOSED CIRCUIT TV	[Symbol]
				EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]
				CONFIRMATION BEACON	[Symbol]
				UNINTERRUPTIBLE POWER SUPPLY	[Symbol]

TEMPORARY TRAFFIC SIGNAL LEGEND

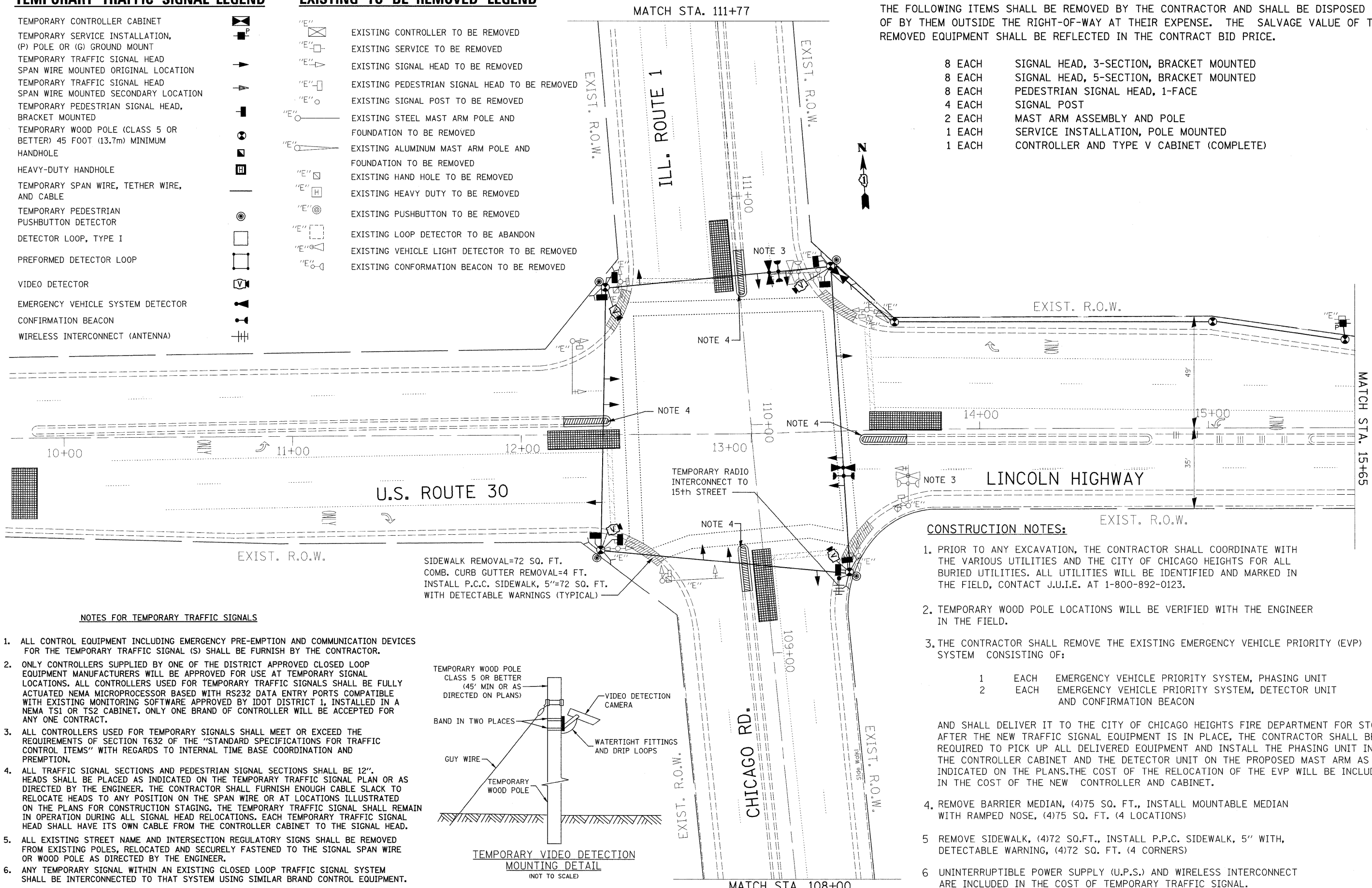
- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM HANDHOLE
- HEAVY-DUTY HANDHOLE
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP, TYPE I
- PREFORMED DETECTOR LOOP
- VIDEO DETECTOR
- EMERGENCY VEHICLE SYSTEM DETECTOR CONFIRMATION BEACON
- WIRELESS INTERCONNECT (ANTENNA)

EXISTING TO BE REMOVED LEGEND

- "E" EXISTING CONTROLLER TO BE REMOVED
- "E" EXISTING SERVICE TO BE REMOVED
- "E" EXISTING SIGNAL HEAD TO BE REMOVED
- "E" EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- "E" EXISTING SIGNAL POST TO BE REMOVED
- "E" EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E" EXISTING HAND HOLE TO BE REMOVED
- "E" EXISTING HEAVY DUTY TO BE REMOVED
- "E" EXISTING PUSHBUTTON TO BE REMOVED
- "E" EXISTING LOOP DETECTOR TO BE ABANDON
- "E" EXISTING VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E" EXISTING CONFORMATION BEACON TO BE REMOVED

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.

- 8 EACH SIGNAL HEAD, 3-SECTION, BRACKET MOUNTED
- 8 EACH SIGNAL HEAD, 5-SECTION, BRACKET MOUNTED
- 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 4 EACH SIGNAL POST
- 2 EACH MAST ARM ASSEMBLY AND POLE
- 1 EACH SERVICE INSTALLATION, POLE MOUNTED
- 1 EACH CONTROLLER AND TYPE V CABINET (COMPLETE)



CONSTRUCTION NOTES:

1. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES AND THE CITY OF CHICAGO HEIGHTS FOR ALL BURIED UTILITIES. ALL UTILITIES WILL BE IDENTIFIED AND MARKED IN THE FIELD, CONTACT J.U.I.E. AT 1-800-892-0123.
2. TEMPORARY WOOD POLE LOCATIONS WILL BE VERIFIED WITH THE ENGINEER IN THE FIELD.
3. THE CONTRACTOR SHALL REMOVE THE EXISTING EMERGENCY VEHICLE PRIORITY (EVP) SYSTEM CONSISTING OF:

- 1 EACH EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT
- 2 EACH EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT AND CONFIRMATION BEACON

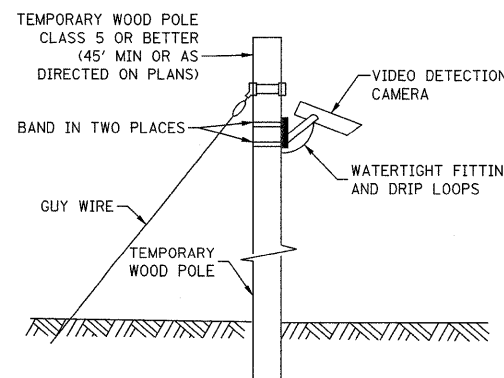
AND SHALL DELIVER IT TO THE CITY OF CHICAGO HEIGHTS FIRE DEPARTMENT FOR STORAGE. AFTER THE NEW TRAFFIC SIGNAL EQUIPMENT IS IN PLACE, THE CONTRACTOR SHALL BE REQUIRED TO PICK UP ALL DELIVERED EQUIPMENT AND INSTALL THE PHASING UNIT IN THE CONTROLLER CABINET AND THE DETECTOR UNIT ON THE PROPOSED MAST ARM AS INDICATED ON THE PLANS. THE COST OF THE RELOCATION OF THE EVP WILL BE INCLUDED IN THE COST OF THE NEW CONTROLLER AND CABINET.

4. REMOVE BARRIER MEDIAN, (4)75 SQ. FT., INSTALL MOUNTABLE MEDIAN WITH RAMPED NOSE, (4)75 SQ. FT. (4 LOCATIONS)
5. REMOVE SIDEWALK, (4)72 SQ. FT., INSTALL P.P.C. SIDEWALK, 5" WITH, DETECTABLE WARNING, (4)72 SQ. FT. (4 CORNERS)
6. UNINTERRUPTIBLE POWER SUPPLY (U.P.S.) AND WIRELESS INTERCONNECT ARE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL.

SIDEWALK REMOVAL=72 SQ. FT.
 COMB. CURB GUTTER REMOVAL=4 FT.
 INSTALL P.C.C. SIDEWALK, 5"=72 SQ. FT.
 WITH DETECTABLE WARNINGS (TYPICAL)

NOTES FOR TEMPORARY TRAFFIC SIGNALS


















1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL (S) SHALL BE FURNISH 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 TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL CONTROLLERS USED FOR TEMPORARY SIGNALS SHALL MEET OR EXCEED THE REQUIREMENTS OF SECTION T632 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS" WITH REGARDS TO INTERNAL TIME BASE COORDINATION AND PREEMPTION.
4. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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.
5. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
6. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
















TEMPORARY VIDEO DETECTION MOUNTING DETAIL (NOT TO SCALE)

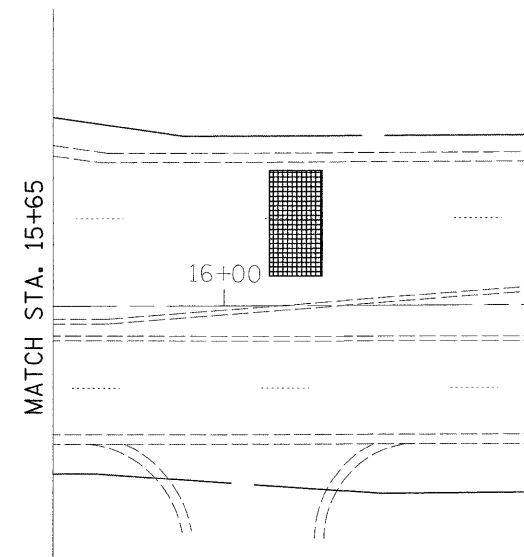
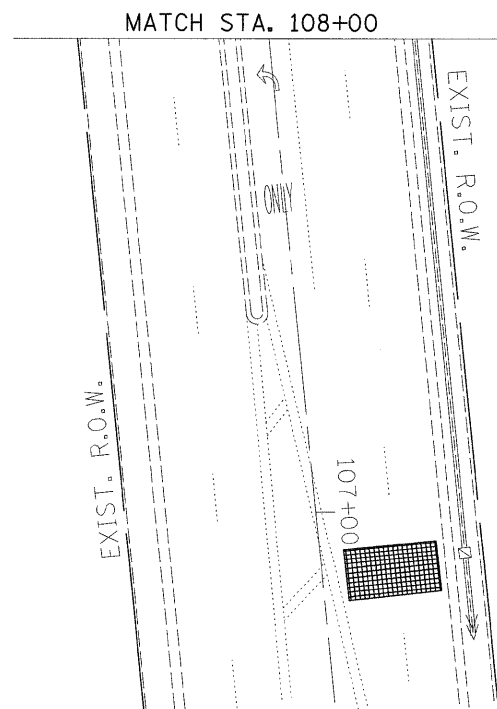
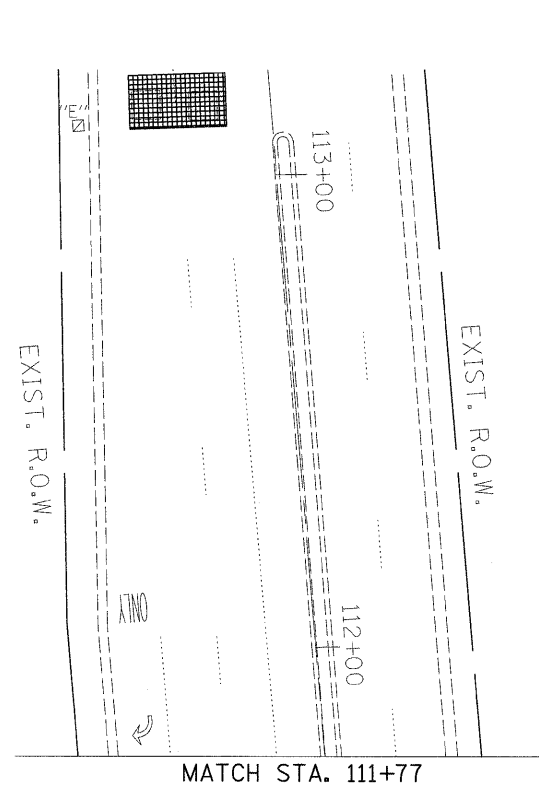
FILE NAME =	USER NAME = nguyenam	DESIGNED - STEVEN N./JOE E./BRENDA K.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN ILLINOIS RTE. 30 (LINCOLN HWY.) @ ILLINOIS RTE. 1 (CHICAGO RD.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pw_work\pwwdot\nguyenam\117709\Rob-TS.dgn	TS.dgn	DRAWN - STEVEN N./BRENDA K.	REVISED -			353/876	2009-033 TS	COOK	49	31
PLOT SCALE = 20,0000 "/> <td></td> <td>CHECKED - JOE E.</td> <td>REVISED -</td> <td colspan="2" style="text-align: center;">CONTRACT NO. 60640</td> <td colspan="4"></td>		CHECKED - JOE E.	REVISED -			CONTRACT NO. 60640				
PLOT DATE = 3/19/2009		DATE - 3/15/09	REVISED -	SCALE: SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY CONTROLLER CABINET 
- TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT 
- TEMPORARY TRAFFIC SIGNAL HEAD 
- SPAN WIRE MOUNTED ORIGINAL LOCATION 
- TEMPORARY TRAFFIC SIGNAL HEAD 
- SPAN WIRE MOUNTED SECONDARY LOCATION 
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED 
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM HANDHOLE 
- HEAVY-DUTY HANDHOLE 
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE 
- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR 
- DETECTOR LOOP, TYPE I 
- PREFORMED DETECTOR LOOP 
- VIDEO DETECTOR 
- EMERGENCY VEHICLE SYSTEM DETECTOR 
- CONFIRMATION BEACON 
- WIRELESS INTERCONNECT (ANTENNA) 

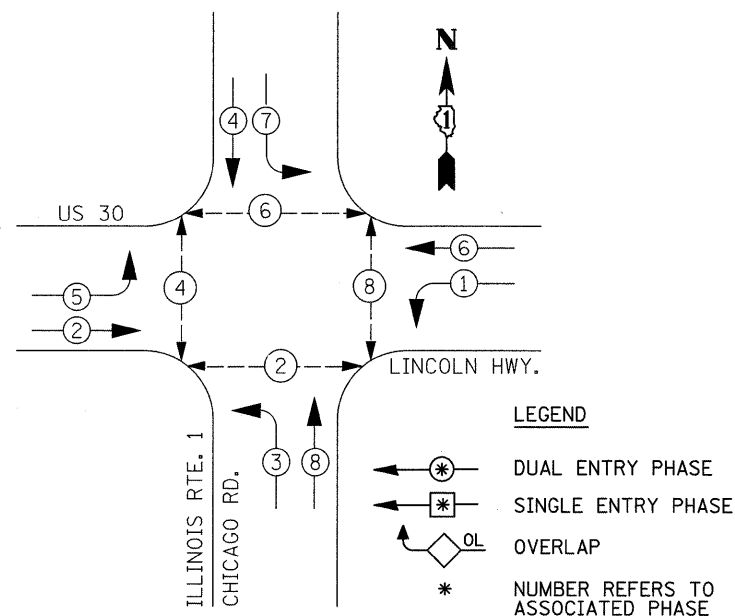
EXISTING TO BE REMOVED LEGEND

- "E"  EXISTING CONTROLLER TO BE REMOVED
- "E"  EXISTING SERVICE TO BE REMOVED
- "E"  EXISTING SIGNAL HEAD TO BE REMOVED
- "E"  EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- "E"  EXISTING SIGNAL POST TO BE REMOVED
- "E"  EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E"  EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- "E"  EXISTING HAND HOLE TO BE REMOVED
- "E"  EXISTING HEAVY DUTY TO BE REMOVED
- "E"  EXISTING PUSHBUTTON TO BE REMOVED
- "E"  EXISTING LOOP DETECTOR TO BE ABANDON
- "E"  EXISTING VEHICLE LIGHT DETECTOR TO BE REMOVED
- "E"  EXISTING CONFIRMATION BEACON TO BE REMOVED

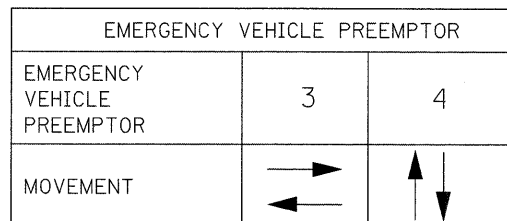
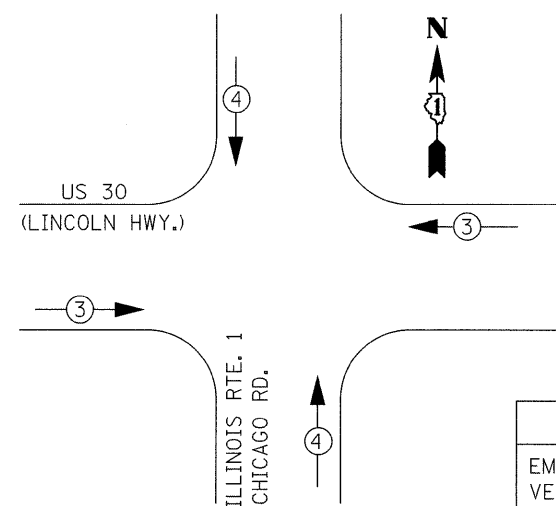


FILE NAME =	USER NAME = nguyenam	DESIGNED - STEVEN N./JOE E./BRENDA K.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN ILLINOIS RTE. 30 (LINCOLN HWY.) @ ILLINOIS RTE. 1 (CHICAGO RD.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\pwwork\pwwork\nguyenam\d0117709\Rob-TS.dgn	PLOT SCALE = 20.0000' / IN.	DRAWN - STEVEN N./BRENDA K.	REVISED -			353/876	2009-033 TS	COOK	49	32	
PLOT DATE = 3/19/2009	DATE = 3/15/09	CHECKED - JOE E.	REVISED -			CONTRACT NO. 60640					
		REVISOR -	REVISED -			SCALE: SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			

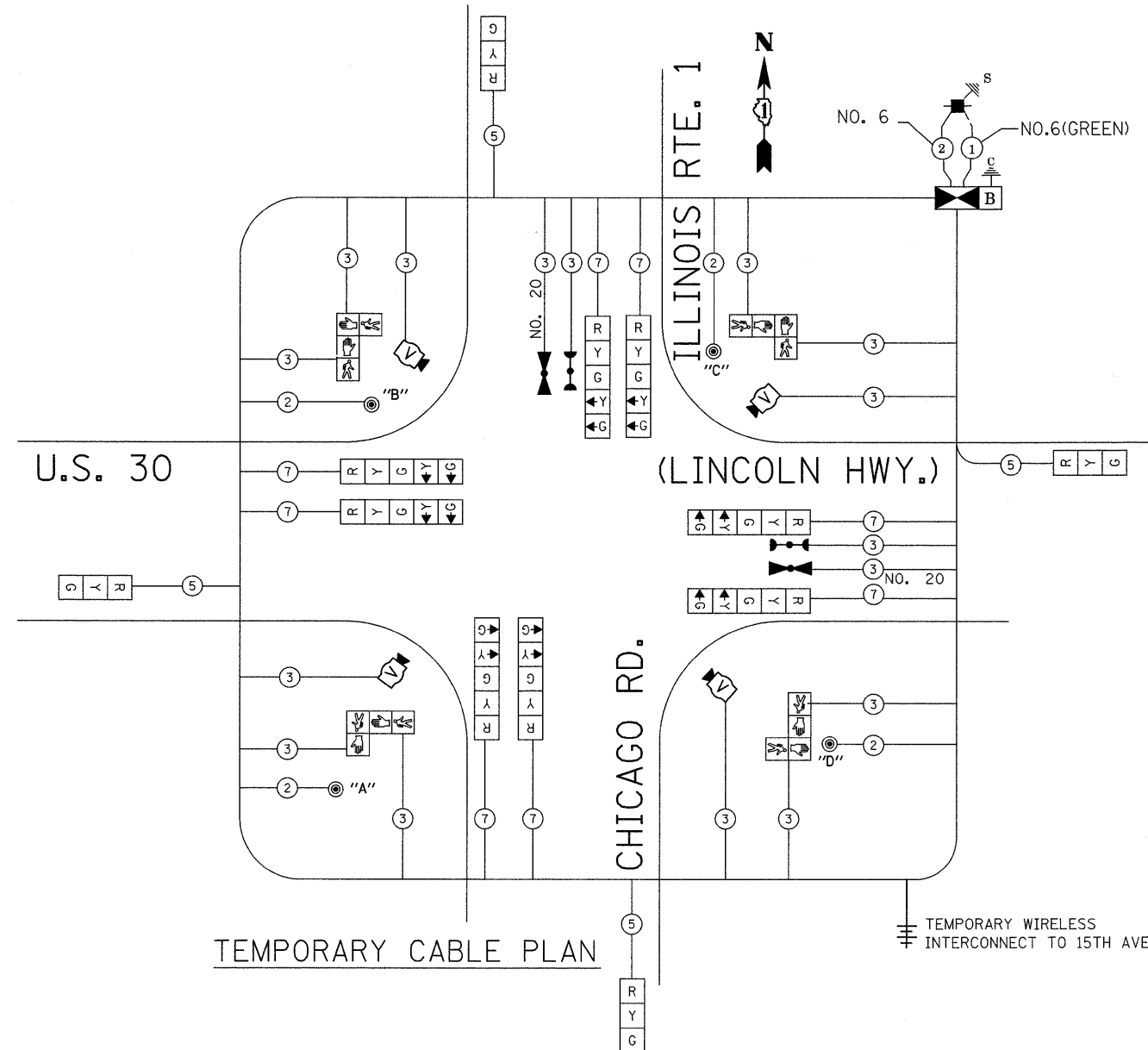
CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM
EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY CABLE PLAN



TEMPORARY CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET		
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)		
12" (300 MM) PEDESTRIAN SIGNAL SECTION		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED		
PEDESTRIAN PUSHBUTTON DETECTOR		
VEHICLE DETECTOR, INDUCTION LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
WIRELESS INTERCONNECT (ANTENNA)		
UNINTERRUPTIBLE POWER SUPPLY		

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

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	16		12	0.10	19.20
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN				0.05	

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

ENERGY COSTS TO: **TOTAL = 541.20**
ILLINOIS DEPARTMENT OF TRANSPORTATION

ENERGY SUPPLY CONTACT: 708-410-5069
PHONE: COM. EDISON
COMPANY:

FILE NAME = USER NAME = ngyujensm
DESIGNED - STEVEN N./JOE E./BRENDA K. REVISIED -
DRAWN - STEVEN N./BRENDA K. REVISIED -
CHECKED - JOE E. REVISIED -
PLOT SCALE = 20,0000 ' / IN. DATE - 3/15/09
PLOT DATE = 3/19/2009

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN
U.S. 30 (LINCOLN HWY.) @ ILLINOIS RTE. 1 (CHICAGO RD.)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353/876	2009-033 TS	COOK	49	33

CONTRACT NO. 60640

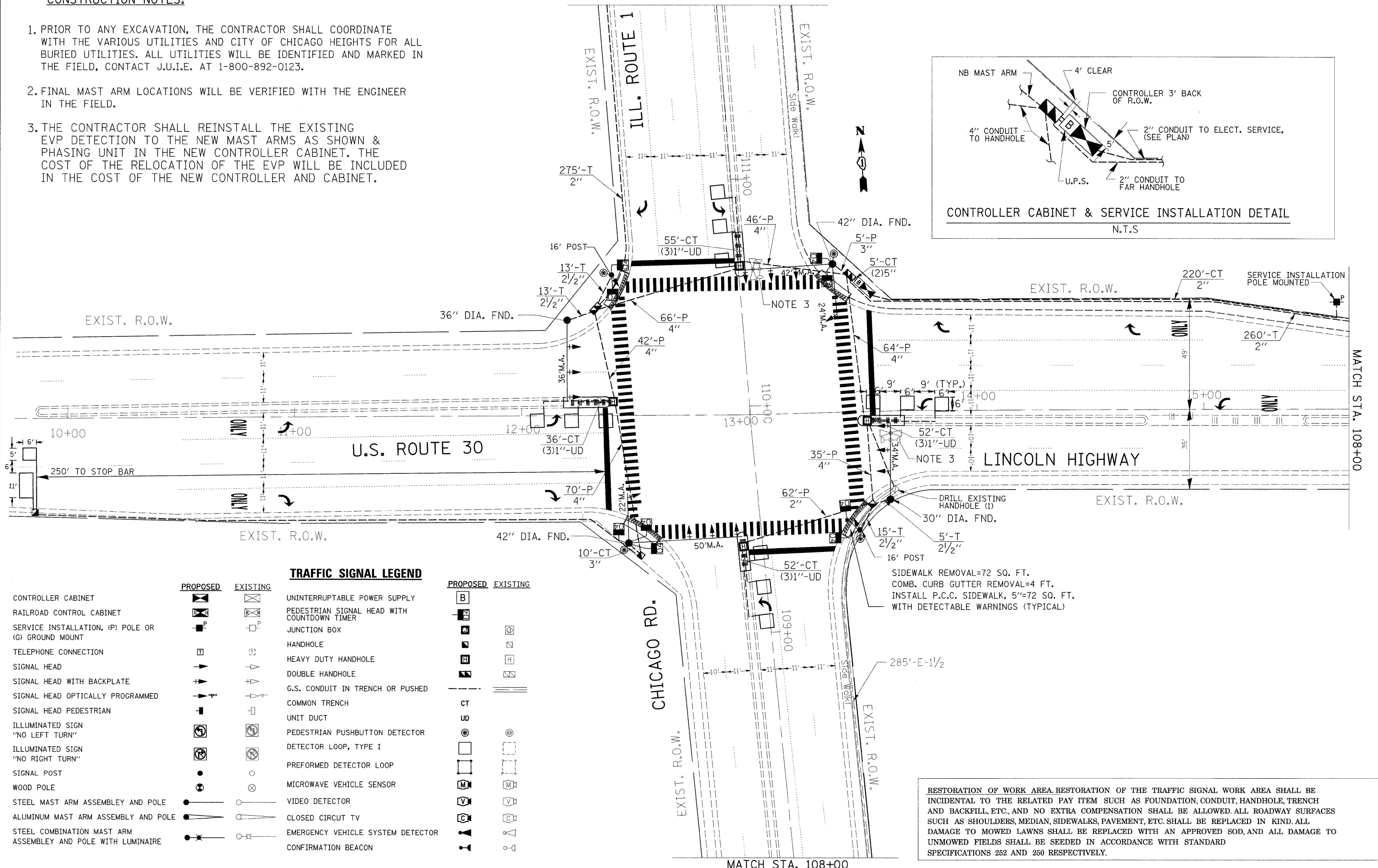
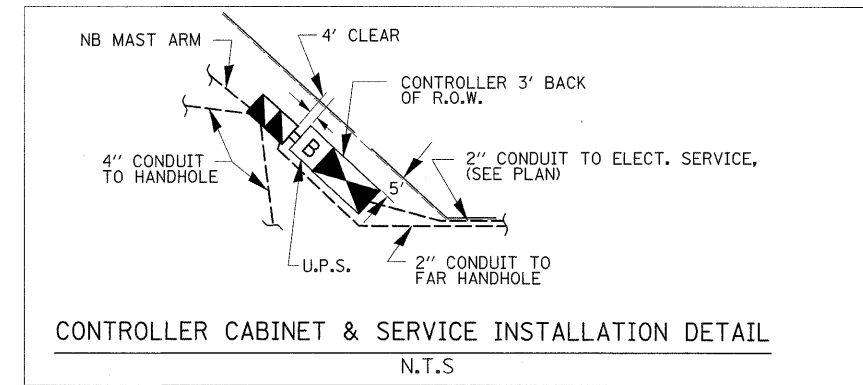
SCALE: SHEET NO. OF SHEETS STA. TO STA.

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

CONSTRUCTION NOTES:

1. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES AND CITY OF CHICAGO HEIGHTS FOR ALL BURIED UTILITIES. ALL UTILITIES WILL BE IDENTIFIED AND MARKED IN THE FIELD, CONTACT J.U.I.E. AT 1-800-892-0123.
2. FINAL MAST ARM LOCATIONS WILL BE VERIFIED WITH THE ENGINEER IN THE FIELD.
3. THE CONTRACTOR SHALL REINSTALL THE EXISTING EVP DETECTION TO THE NEW MAST ARMS AS SHOWN & PHASING UNIT IN THE NEW CONTROLLER CABINET. THE COST OF THE RELOCATION OF THE EVP WILL BE INCLUDED IN THE COST OF THE NEW CONTROLLER AND CABINET.

MATCH STA. 111+77



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER CABINET			UNINTERRUPTABLE POWER SUPPLY		
RAILROAD CONTROL CABINET			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT			JUNCTION BOX		
TELEPHONE CONNECTION			HANDHOLE		
SIGNAL HEAD			HEAVY DUTY HANDHOLE		
SIGNAL HEAD WITH BACKPLATE			DOUBLE HANDHOLE		
SIGNAL HEAD OPTICALLY PROGRAMMED			G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD PEDESTRIAN			COMMON TRENCH		
ILLUMINATED SIGN "NO LEFT TURN"			UNIT DUCT		
ILLUMINATED SIGN "NO RIGHT TURN"			PEDESTRIAN PUSHBUTTON DETECTOR		
SIGNAL POST			DETECTOR LOOP, TYPE I		
WOOD POLE			PREFORMED DETECTOR LOOP		
STEEL MAST ARM ASSEMBLY AND POLE			MICROWAVE VEHICLE SENSOR		
ALUMINUM MAST ARM ASSEMBLY AND POLE			VIDEO DETECTOR		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			CLOSED CIRCUIT TV		
			EMERGENCY VEHICLE SYSTEM DETECTOR		
			CONFIRMATION BEACON		

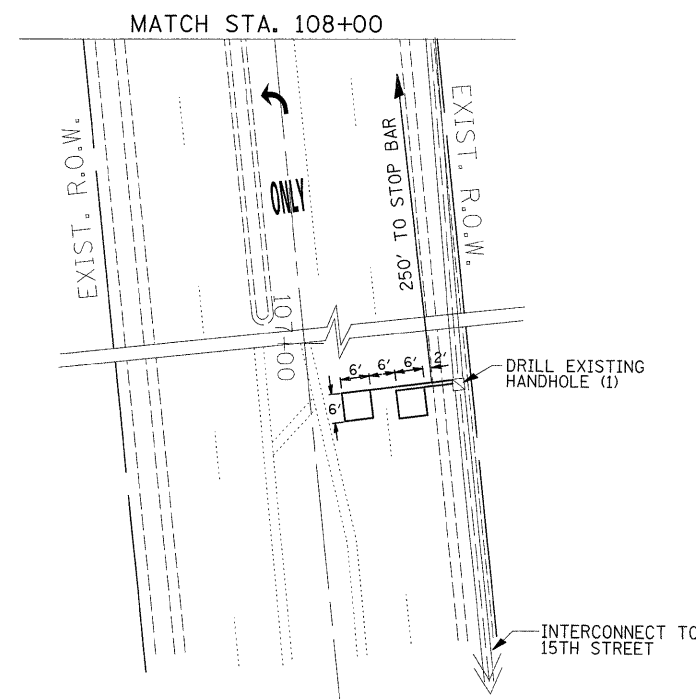
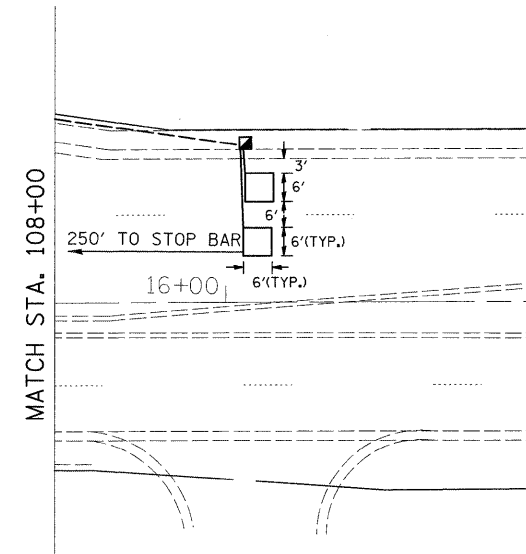
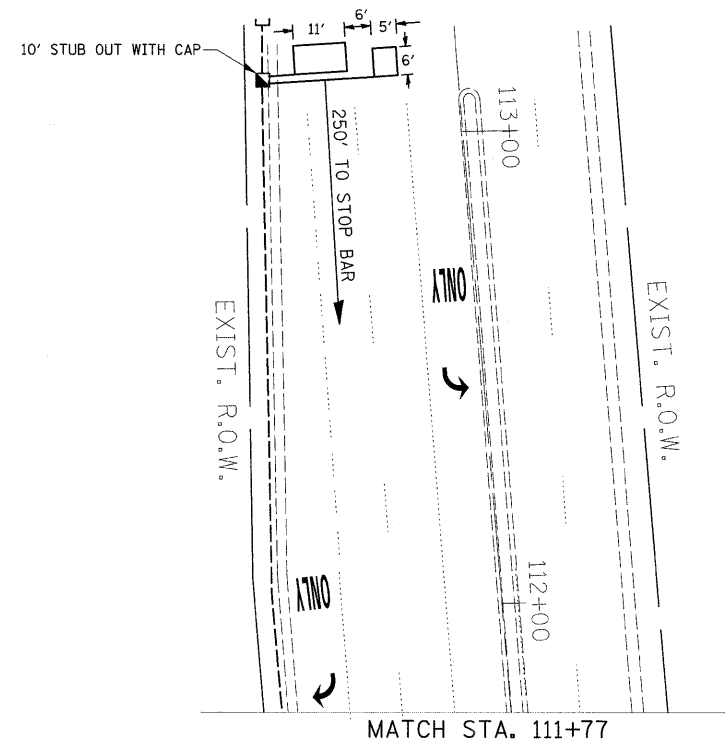
RESTORATION OF WORK AREA RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL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

MATCH STA. 108+00

FILE NAME =	USER NAME = nguyensm	DESIGNED - STEVEN N./JOE E./BRENDA K.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL INSTALLATION PLAN			F.A.P. RTE. 353/876	SECTION 2009-033 TS	COUNTY COOK	TOTAL SHEETS 49	SHEET NO. 34	
TS.dgn		DRAWN - STEVEN N./BRENDA K.	REVISED -		ILLINOIS RTE. 30 (ILLINOIS HWY.) @ ILLINOIS RTE. 1 (CHICAGO RD.)			CONTRACT NO. 60640					
		CHECKED - JOE E.	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. ILLINOIS/FED. AID PROJECT				
		DATE - 3/15/09	REVISED -										

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN		
ILLUMINATED SIGN 'NO LEFT TURN'		
ILLUMINATED SIGN 'NO RIGHT TURN'		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		
UNINTERRUPTIBLE POWER SUPPLY		
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		
JUNCTION BOX		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
COMMON TRENCH	CT	
UNIT DUCT	UD	
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		

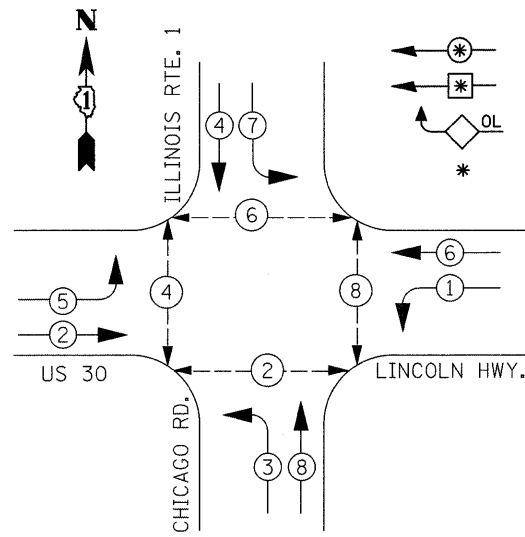


CONSTRUCTION NOTES:

PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES AND THE CITY OF CHICAGO HEIGHTS FOR ALL BURIED UTILITIES. ALL UTILITIES WILL BE IDENTIFIED AND MARKED IN THE FIELD, CONTACT J.U.I.E. 1-800-892-0123.

FILE NAME =	USER NAME = nguyensm	DESIGNED - STEVEN N./JOE E./BRENDA K.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL INSTALLATION PLAN ILLINOIS RTE. 30 (ILLINOIS HWY.) @ ILLINOIS RTE. 1 (CHICAGO RD.)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pw_work\p1\dot\nguyensm\d0117789\Rob-TS.dgn	DRAWN - STEVEN N./BRENDA K.	CHECKED - JOE E.	REVISED -			353/876	2009-033 TS	COOK48	49	35
PLOT SCALE = 20,0000' / IN.	DATE - 3/15/09					CONTRACT NO. 60640				
PLOT DATE = 3/19/2009						FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

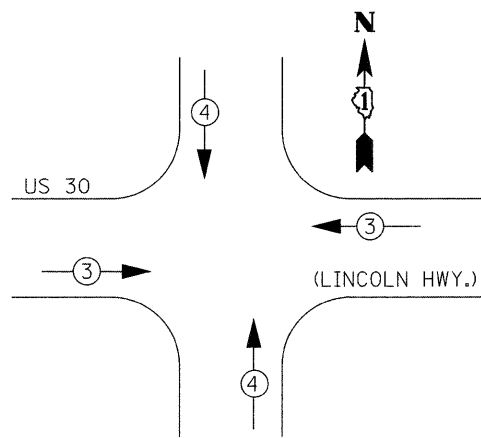
PROPOSED CONTROLLER SEQUENCE



LEGEND

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

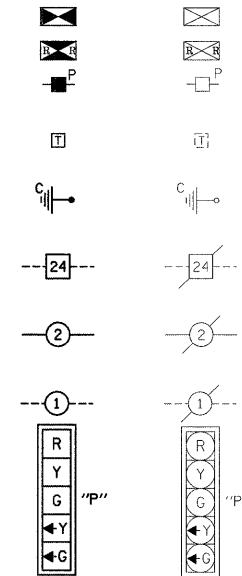
PHASE DESIGNATION DIAGRAM
EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN LEGEND

- CONTROLLER CABINET
- RAILROAD CONTROL CABINET
- SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT
- TELEPHONE CONNECTION
- GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE
- FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED
- ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED
- GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)
- SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD

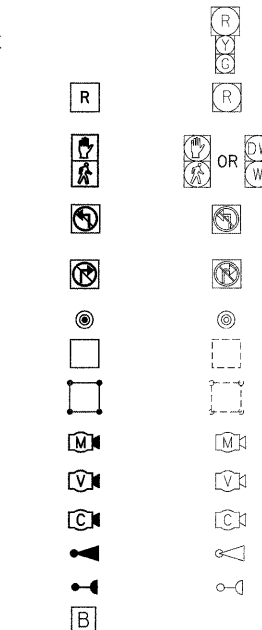
PROPOSED EXISTING



CABLE PLAN

CABLE PLAN LEGEND

- 12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE
- 12" (300mm) TRAFFIC SIGNAL SECTION
- 12" (300mm) PEDESTRIAN SIGNAL SECTION
- ILLUMINATED SIGN "NO LEFT TURN"
- ILLUMINATED SIGN "NO RIGHT TURN"
- PUSHBUTTON DETECTOR
- DETECTOR LOOP
- PREFORMED DETECTOR LOOP
- MICROWAVE VEHICLE SENSOR
- VIDEO DETECTOR
- CLOSED CIRCUIT TV
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- UNINTERRUPTIBLE POWER SUPPLY



SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	448
COMBINATION CURB AND GUTTER REMOVAL	FOOT	24
SIDEWALK REMOVAL	SQ FT	448
MEDIAN REMOVAL	SQ FT	300
CORRUGATED MEDIAN	SQ FT	220
DETECTABLE WARNINGS	SQ FT	448
SIGN PANEL-TYPE II	SQ FT	52.5
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	696
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	173
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	302
THERMOPLASTIC PAVEMENT MARKING-LETTER AND SYMBOLS	FOOT	840
CONDUIT TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	32
CONDUIT TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	16
CONDUIT TRENCH, 5" DIA., GALVANIZED STEEL	FOOT	10
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	1306
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	326
HANDHOLE	EACH	7
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	160
FULL-ACTUATED CONTROLLER AND TYPE V CABINET (SPECIAL)	EACH	1
MASTER CONTROLLER, SPECIAL	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	667
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1670
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1662
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	895
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3083
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	234
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	770
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	2
DUAL STEEL MAST ARMS ASSEMBLY AND POLE, 24 FT. & 42 FT.	EACH	1
DUAL STEEL MAST ARMS ASSEMBLY AND POLE, 22 FT. & 54 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIA.	FOOT	15
CONCRETE FOUNDATION, TYPE E 36-INCH DIA.	FOOT	30
CONCRETE FOUNDATION, TYPE E 42-INCH DIA.	FOOT	15
DRILL EXISTING HANDHOLE	FOOT	2
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MOUNTED.	EACH	8
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, MAST ARM MOUNTED.	EACH	6
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, BRACKET MOUNTED.	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED. WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	15
INDUCTIVE LOOP DETECTOR	EACH	10
DETECTOR LOOP TYPE I	FOOT	612
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2177
PEDESTRIAN PUSH-BUTTON	EACH	4
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
REMOVE EXISTING HANDHOLE	EACH	6
ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1C	FOOT	715
TEMPORARY TRAFFIC SIGNAL TIMINGS	EACH	1
SERVICE INSTALLATION, POLE MOUNT	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	325

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

NOTE:

- PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.
- PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.
- PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.
- PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. LAMPS	WATTAGE (INCAND.)	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	17	17	0.50	144.50
(YELLOW)	17	25	0.25	106.25
(GREEN)	17	15	0.25	63.75
ARROW	18	12	0.10	21.60
PED. SIGNAL	4	25	1.00	100.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN			0.05	

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

ENERGY COSTS TO: TOTAL = 536.10
ILLINOIS DEPARTMENT OF TRANSPORTATION
ENERGY SUPPLY CONTACT: 708-410-5069
PHONE: 708-410-5069
COMPANY: COM. EDISON

DESIGNED	REVISION
STEVEN N./JOE E./BRENDA K.	-
STEVEN N./BRENDA K.	-
JOE E.	-
-	-

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

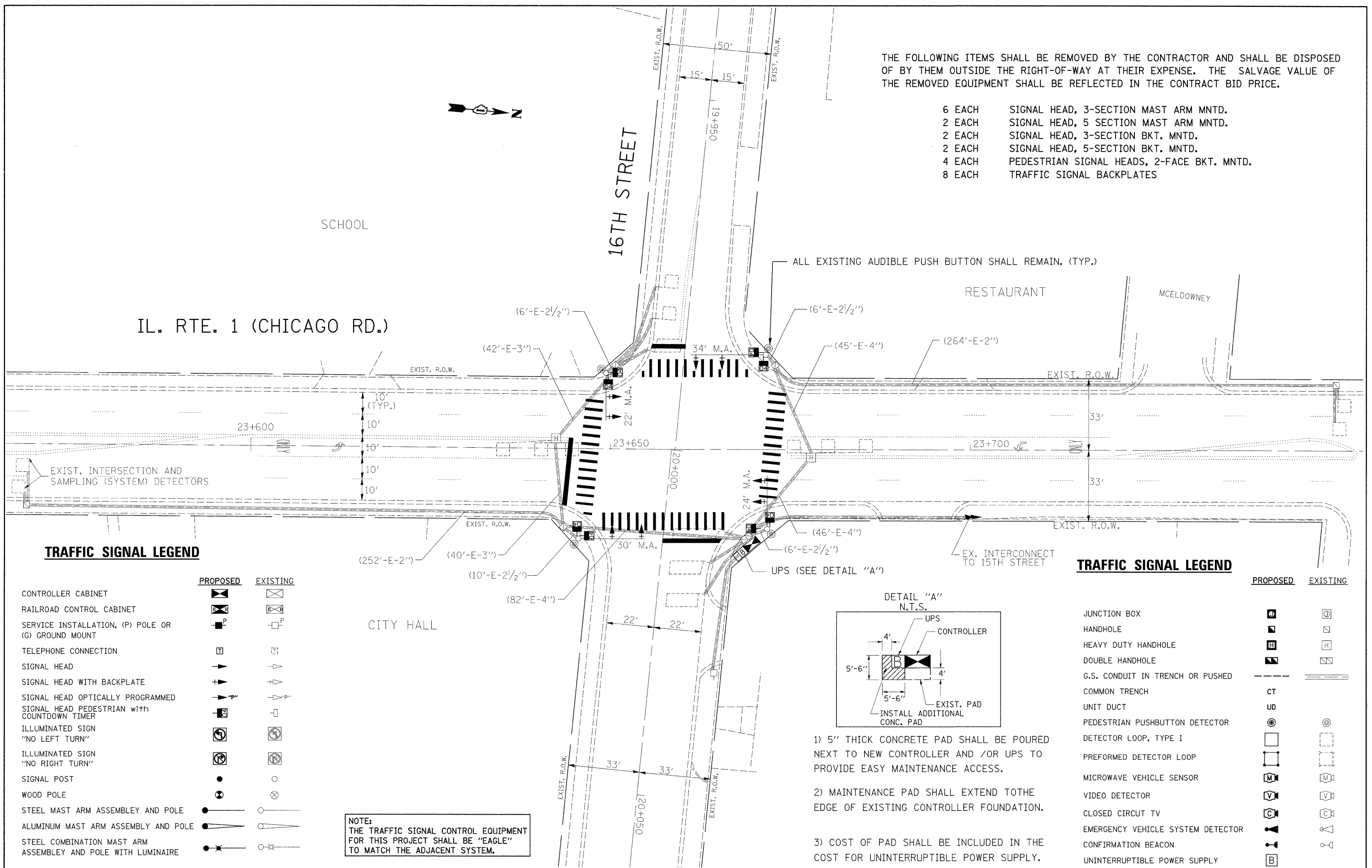
PROPOSED CABLE PLAN
ILLINOIS RTE. 30 (ILLINOIS HWY.) @ ILLINOIS RTE. 1 (CHICAGO RD.)
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
353/876	2009-033 TS	COOK	49	36

CONTRACT NO. 60G40
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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.

- 6 EACH SIGNAL HEAD, 3-SECTION MAST ARM MNTD.
- 2 EACH SIGNAL HEAD, 5 SECTION MAST ARM MNTD.
- 2 EACH SIGNAL HEAD, 3-SECTION BKT. MNTD.
- 2 EACH SIGNAL HEAD, 5-SECTION BKT. MNTD.
- 4 EACH PEDESTRIAN SIGNAL HEADS, 2-FACE BKT. MNTD.
- 8 EACH TRAFFIC SIGNAL BACKPLATES



ALL EXISTING AUDIBLE PUSH BUTTON SHALL REMAIN. (TYP.)

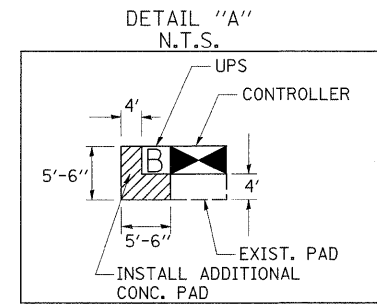
TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET		
RAILROAD CONTROL CABINET		
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TELEPHONE CONNECTION		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
SIGNAL HEAD PEDESTRIAN with COUNTDOWN TIMER		
ILLUMINATED SIGN "NO LEFT TURN"		
ILLUMINATED SIGN "NO RIGHT TURN"		
SIGNAL POST		
WOOD POLE		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		

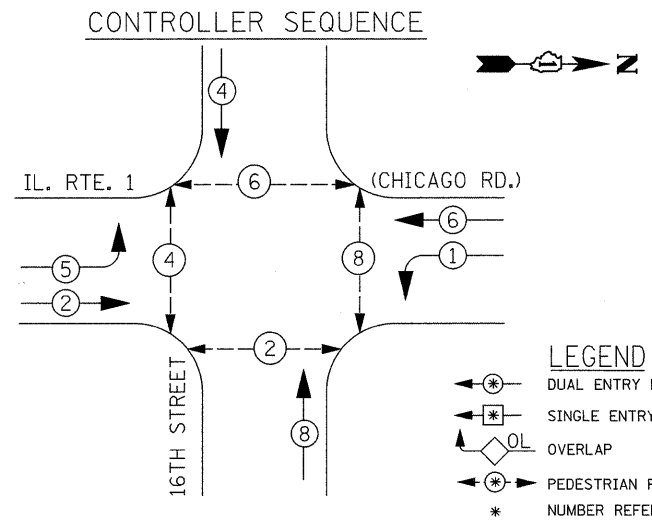
NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE ADJACENT SYSTEM.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
JUNCTION BOX		
HANDHOLE		
HEAVY DUTY HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
COMMON TRENCH	CT	
UNIT DUCT	UD	
PEDESTRIAN PUSHBUTTON DETECTOR		
DETECTOR LOOP, TYPE I		
PREFORMED DETECTOR LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
UNINTERRUPTIBLE POWER SUPPLY		



- 5" THICK CONCRETE PAD SHALL BE POURED NEXT TO NEW CONTROLLER AND /OR UPS TO PROVIDE EASY MAINTENANCE ACCESS.
- MAINTENANCE PAD SHALL EXTEND TO THE EDGE OF EXISTING CONTROLLER FOUNDATION.
- COST OF PAD SHALL BE INCLUDED IN THE COST FOR UNINTERRUPTIBLE POWER SUPPLY.



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

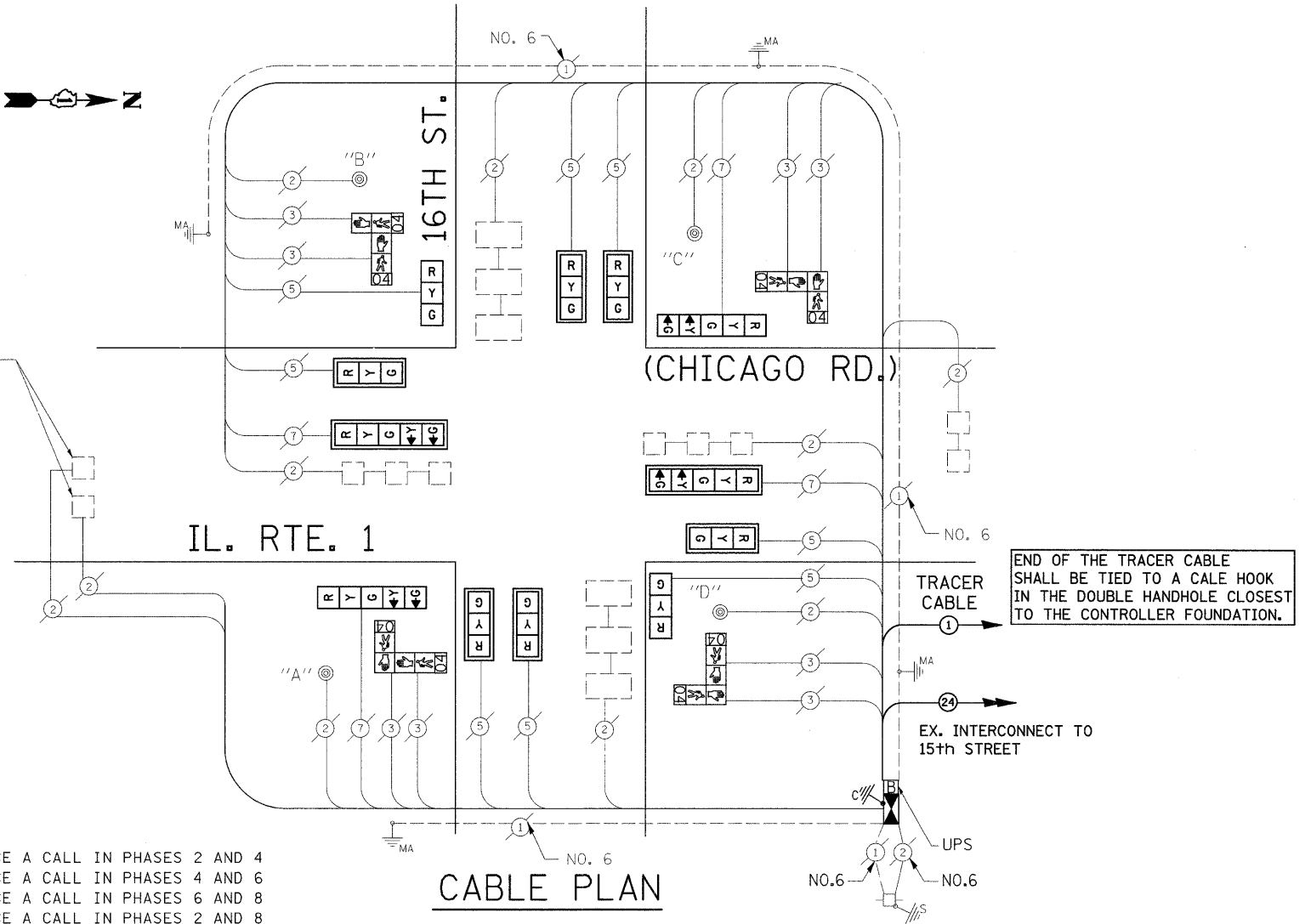
SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	440
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	92
THERMOPLASTIC PAVEMENT MARKING REMOVAL	FOOT	84
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET(SPECIAL)	EACH	1
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	6
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, BRKT. MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, MAST ARM MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 1-5 SECT BRKT MNTD.	EACH	2
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRKT. MNTD. with COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	7
TRANSCIEVER, FIBER OPTIC	EACH	1

EX. INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

PUSH BUTTON NOTES:

- PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
- PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
- PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
- PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8



CABLE PLAN LEGEND

PROPOSED	EXISTING	DESCRIPTION
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT
[Symbol]	[Symbol]	TELEPHONE CONNECTION
[Symbol]	[Symbol]	GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED
[Symbol]	[Symbol]	ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED
[Symbol]	[Symbol]	GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD
[Symbol]	[Symbol]	12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE
[Symbol]	[Symbol]	12" (300mm) TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" (300mm) PEDESTRIAN SIGNAL SECTION with COUNTDOWN TIMER
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	DETECTOR LOOP
[Symbol]	[Symbol]	PERFORMED DETECTOR LOOP
[Symbol]	[Symbol]	MICROWAVE VEHICLE SENSOR
[Symbol]	[Symbol]	VIDEO DETECTOR
[Symbol]	[Symbol]	CLOSED CIRCUIT TV
[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY

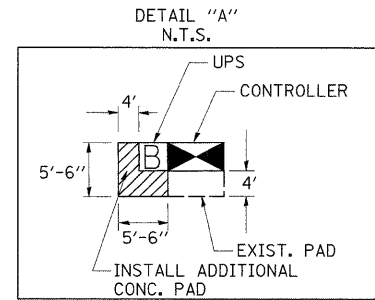
NOTE:
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	8	135	12	0.10	9.60
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 531.60

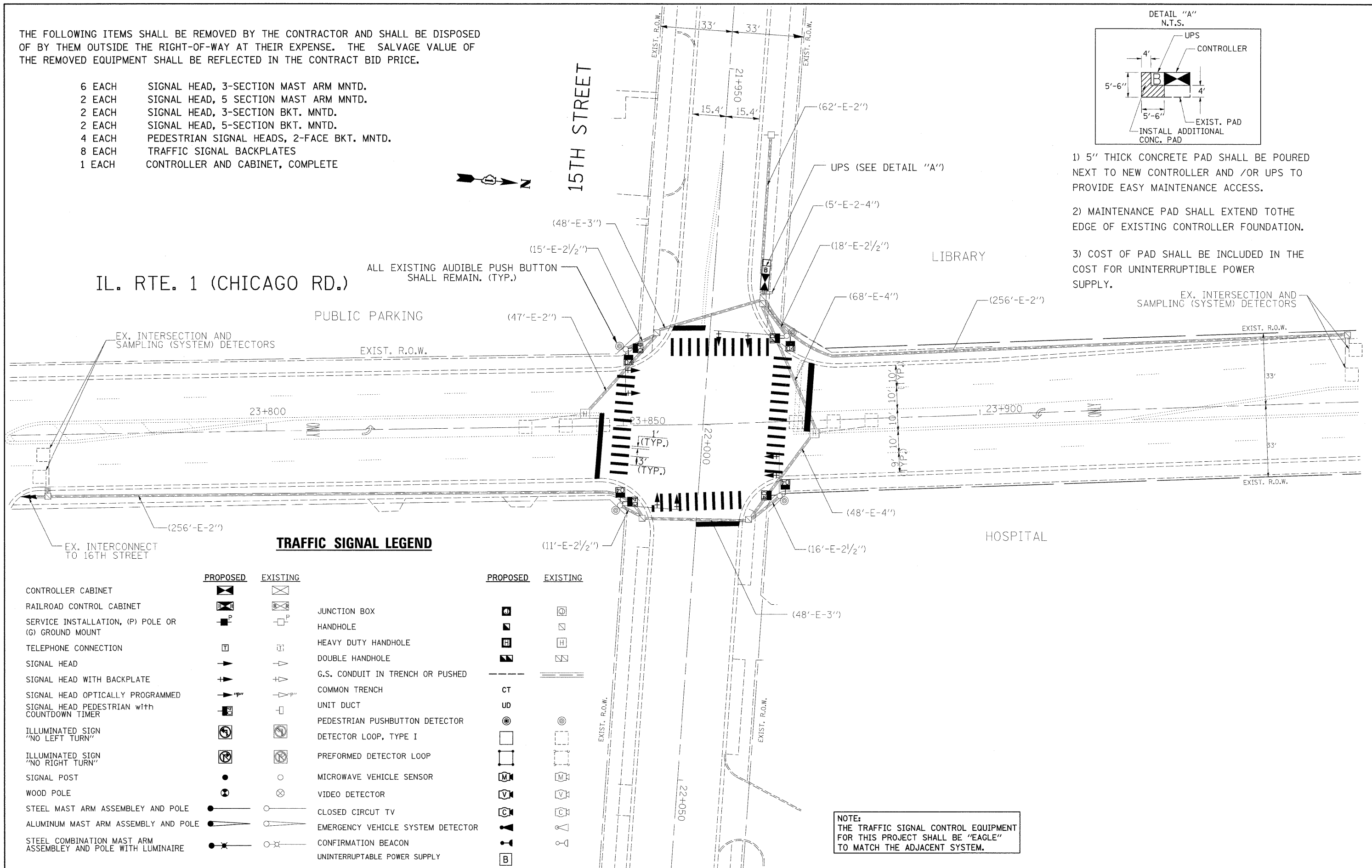
FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'=(6m+L-0.6m)=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)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

THE 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.

- 6 EACH SIGNAL HEAD, 3-SECTION MAST ARM MNTD.
- 2 EACH SIGNAL HEAD, 5 SECTION MAST ARM MNTD.
- 2 EACH SIGNAL HEAD, 3-SECTION BKT. MNTD.
- 2 EACH SIGNAL HEAD, 5-SECTION BKT. MNTD.
- 4 EACH PEDESTRIAN SIGNAL HEADS, 2-FACE BKT. MNTD.
- 8 EACH TRAFFIC SIGNAL BACKPLATES
- 1 EACH CONTROLLER AND CABINET, COMPLETE



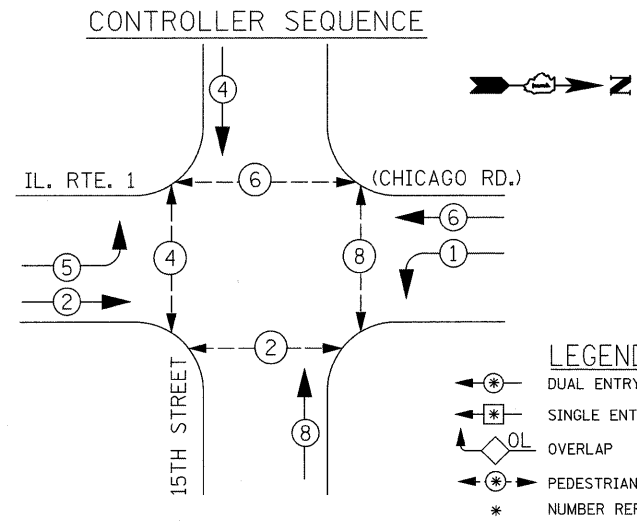
- 1) 5" THICK CONCRETE PAD SHALL BE POURED NEXT TO NEW CONTROLLER AND /OR UPS TO PROVIDE EASY MAINTENANCE ACCESS.
- 2) MAINTENANCE PAD SHALL EXTEND TO THE EDGE OF EXISTING CONTROLLER FOUNDATION.
- 3) COST OF PAD SHALL BE INCLUDED IN THE COST FOR UNINTERRUPTIBLE POWER SUPPLY.



TRAFFIC SIGNAL LEGEND

PROPOSED	EXISTING	PROPOSED	EXISTING
CONTROLLER CABINET		JUNCTION BOX	
RAILROAD CONTROL CABINET		HANDHOLE	
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		HEAVY DUTY HANDHOLE	
TELEPHONE CONNECTION		DOUBLE HANDHOLE	
SIGNAL HEAD		G.S. CONDUIT IN TRENCH OR PUSHED	
SIGNAL HEAD WITH BACKPLATE		COMMON TRENCH	
SIGNAL HEAD OPTICALLY PROGRAMMED		UNIT DUCT	
SIGNAL HEAD PEDESTRIAN WITH COUNTDOWN TIMER		PEDESTRIAN PUSHBUTTON DETECTOR	
ILLUMINATED SIGN "NO LEFT TURN"		DETECTOR LOOP, TYPE I	
ILLUMINATED SIGN "NO RIGHT TURN"		PREFORMED DETECTOR LOOP	
SIGNAL POST		MICROWAVE VEHICLE SENSOR	
WOOD POLE		VIDEO DETECTOR	
STEEL MAST ARM ASSEMBLY AND POLE		CLOSED CIRCUIT TV	
ALUMINUM MAST ARM ASSEMBLY AND POLE		EMERGENCY VEHICLE SYSTEM DETECTOR	
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		CONFIRMATION BEACON	
		UNINTERRUPTIBLE POWER SUPPLY	

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



LEGEND

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

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

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT	440
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	92
THERMOPLASTIC PAVEMENT MARKING, REMOVAL	SQ. FT.	84
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET(SPECIAL)	EACH	1
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MNTD.	EACH	6
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, BRKT. MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, MAST ARM MNTD.	EACH	2
SIGNAL HEAD, L.E.D. 1-FACE, 1-5 SECT BRKT MNTD.	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRKT. MNTD. WITH COUNTDOWN TIMER	EACH	4
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	8
TRANSCEIVER, FIBER OPTIC	EACH	1

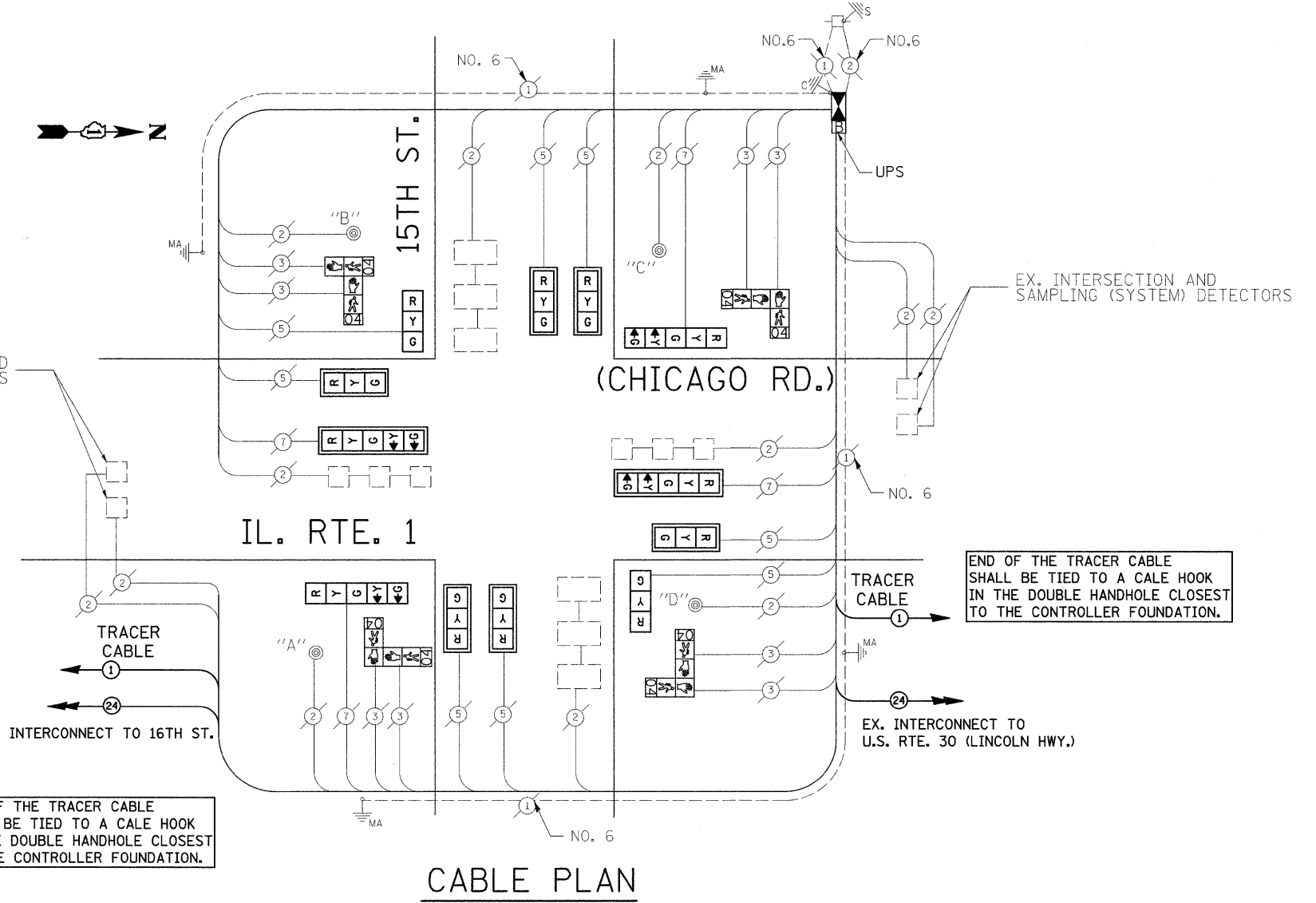
END OF THE TRACER CABLE SHALL BE TIED TO A CALE HOOK IN THE DOUBLE HANDHOLE CLOSEST TO THE CONTROLLER FOUNDATION.

PUSH BUTTON NOTES:

PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

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

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-H-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)	16m-H-0.6m=	
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)



CABLE PLAN

CABLE PLAN LEGEND

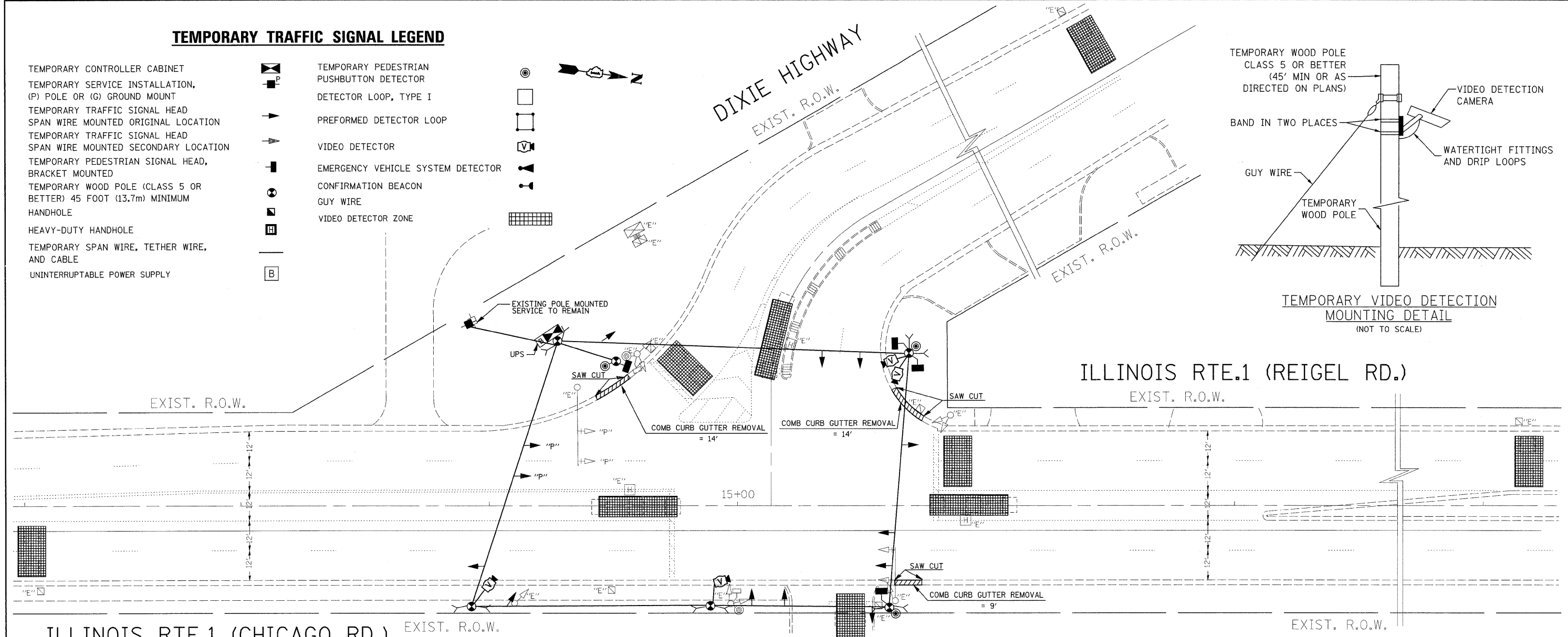
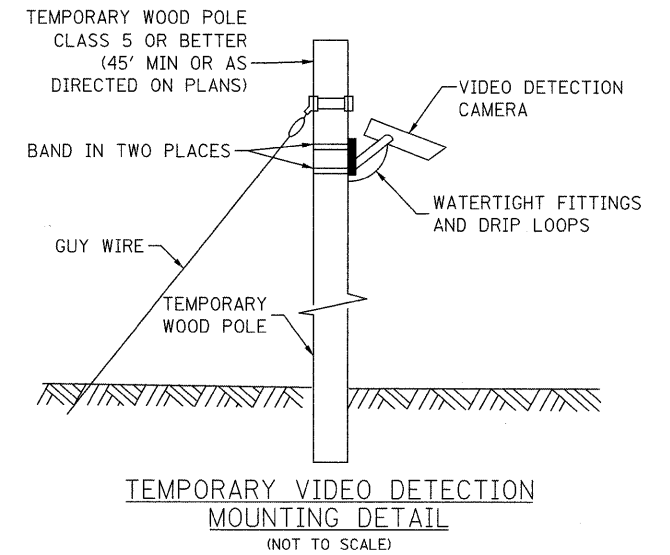
PROPOSED	EXISTING	DESCRIPTION	PROPOSED	EXISTING
⊗	⊙	CONTROLLER CABINET	⊗	⊙
⊗	⊙	RAILROAD CONTROL CABINET	⊗	⊙
⊗	⊙	SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	⊗	⊙
⊗	⊙	TELEPHONE CONNECTION	⊗	⊙
⊗	⊙	GROUND ROD AT (C) CONTROLLER, (H)HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE	⊗	⊙
⊗	⊙	FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED	⊗	⊙
⊗	⊙	ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED	⊗	⊙
⊗	⊙	GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)	⊗	⊙
⊗	⊙	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD	⊗	⊙
⊗	⊙	12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE	⊗	⊙
⊗	⊙	12" (300mm) TRAFFIC SIGNAL SECTION	⊗	⊙
⊗	⊙	12" (300mm) PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER	⊗	⊙
⊗	⊙	ILLUMINATED SIGN "NO LEFT TURN"	⊗	⊙
⊗	⊙	ILLUMINATED SIGN "NO RIGHT TURN"	⊗	⊙
⊗	⊙	PUSHBUTTON DETECTOR	⊗	⊙
⊗	⊙	DETECTOR LOOP	⊗	⊙
⊗	⊙	PREFORMED DETECTOR LOOP	⊗	⊙
⊗	⊙	MICROWAVE VEHICLE SENSOR	⊗	⊙
⊗	⊙	VIDEO DETECTOR	⊗	⊙
⊗	⊙	CLOSED CIRCUIT TV	⊗	⊙
⊗	⊙	EMERGENCY VEHICLE SYSTEM DETECTOR	⊗	⊙
⊗	⊙	CONFIRMATION BEACON	⊗	⊙
⊗	⊙	UNINTERRUPTIBLE POWER SUPPLY	⊗	⊙

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	8	135	12	0.10	9.60
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN				0.05	
FLASHER				0.50	
ENERGY COSTS TO:					TOTAL = 531.60

TEMPORARY TRAFFIC SIGNAL LEGEND

- TEMPORARY CONTROLLER CABINET
- TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED ORIGINAL LOCATION
- TEMPORARY TRAFFIC SIGNAL HEAD
- SPAN WIRE MOUNTED SECONDARY LOCATION
- TEMPORARY PEDESTRIAN SIGNAL HEAD, BRACKET MOUNTED
- TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM HANDHOLE
- HEAVY-DUTY HANDHOLE
- TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE
- UNINTERRUPTABLE POWER SUPPLY

- TEMPORARY PEDESTRIAN PUSHBUTTON DETECTOR
- DETECTOR LOOP, TYPE I
- PREFORMED DETECTOR LOOP
- VIDEO DETECTOR
- EMERGENCY VEHICLE SYSTEM DETECTOR
- CONFIRMATION BEACON
- GUY WIRE
- VIDEO DETECTOR ZONE



ILLINOIS RTE.1 (CHICAGO RD.) EXIST. R.O.W.

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL (S) SHALL BE FURNISH 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 TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL CONTROLLERS USED FOR TEMPORARY SIGNALS SHALL MEET OR EXCEED THE REQUIREMENTS OF SECTION T632 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS" WITH REGARDS TO INTERNAL TIME BASE COORDINATION AND PREEMPTION.
4. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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.
5. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
6. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.

CONSTRUCTION NOTES:

1. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL COORDINATE WITH THE VARIOUS UTILITIES AND THE CITY OF CHICAGO HEIGHTS FOR ALL BURIED UTILITIES. ALL UTILITIES WILL BE IDENTIFIED AND MARKED IN THE FIELD, CONTACT J.U.I.E. AT 1-800-892-0123
2. TEMPORARY WOOD POLE LOCATIONS WILL BE VERIFIED WITH THE ENGINEER ON LOCATION. VERTICAL CLEARANCES WILL DETERMINE FINAL LOCATIONS. WOOD POLE LOCATIONS WILL REQUIRE MINIMUM 8 FT. SETBACK FROM CURB.
3. UNINTERRUPTIBLE POWER SUPPLY (U.P.S.) IS INCLUDED IN THE COST OF THE TEMPORARY SIGNAL INSTALLATION.

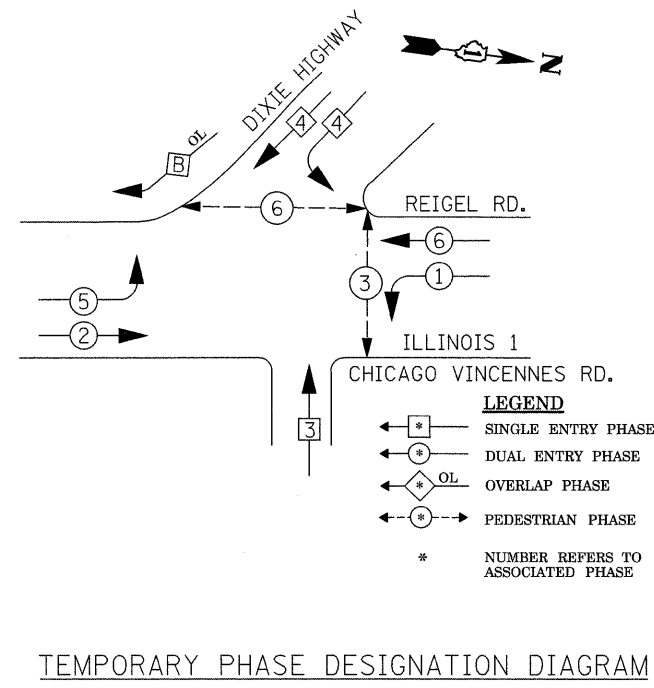
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 3 EACH SIGNAL HEAD, 3-SECTION, BRACKET MOUNTED
- 1 EACH SIGNAL HEAD, OPT. PROGRAMMED, 3-SECTION, MAST ARM MOUNTED
- 7 EACH SIGNAL HEAD, 5-SECTION, BRACKET MOUNTED
- 1 EACH SIGNAL HEAD, OPT. PROGRAMMED, 5-SECTION, MAST ARM MOUNTED
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 4 EACH SIGNAL POST
- 2 EACH MAST ARM ASSEMBLY AND POLE
- 2 EACH PEDESTRIAN PUSHBUTTON
- 1 EACH SERVICE INSTALLATION, POLE MOUNTED
- 1 EACH CONTROLLER AND TYPE IV CABINET (COMPLETE)

EXISTING TO BE REMOVED LEGEND

- EXISTING CONTROLLER TO BE REMOVED
- EXISTING SERVICE TO BE REMOVED
- EXISTING SIGNAL HEAD TO BE REMOVED
- EXISTING PEDESTRIAN SIGNAL HEAD TO BE REMOVED
- EXISTING SIGNAL POST TO BE REMOVED
- EXISTING STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED
- EXISTING HAND HOLE TO BE REMOVED
- EXISTING HEAVY DUTY TO BE REMOVED
- EXISTING PUSHBUTTON TO BE REMOVED
- EXISTING LOOP DETECTOR TO BE ABANDON
- EXISTING VEHICLE LIGHT DETECTOR TO BE REMOVED
- EXISTING CONFIRMATION BEACON TO BE REMOVED

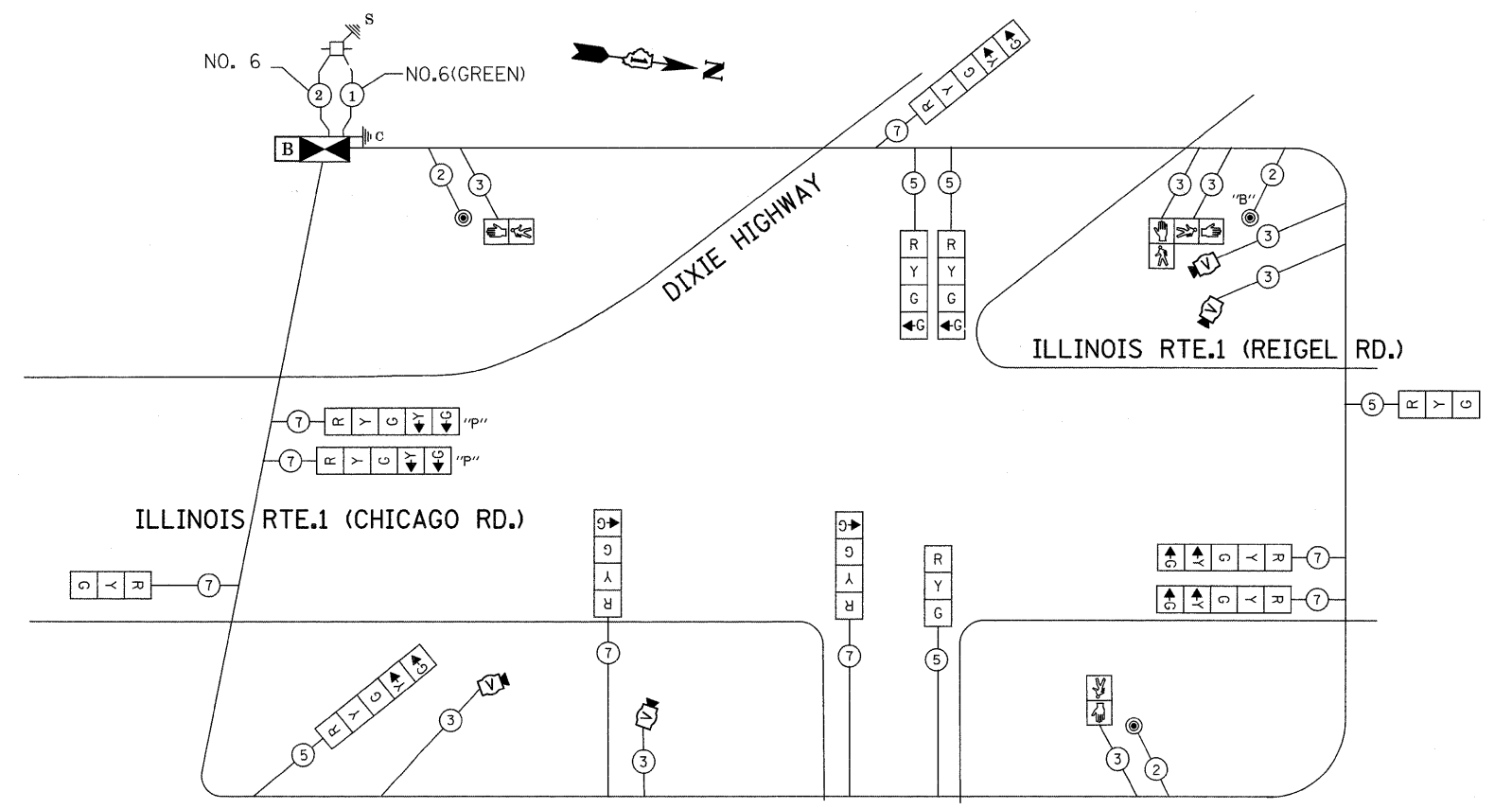
FILE NAME =	USER NAME = nguyenism	DESIGNED - STEVEN N./JOE E./BRENDA K.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN ILLINOIS RTE.1 (CHICAGO RD.) @ DIXIE HIGHWAY	F.A.P. RTE. 353/876	SECTION 2009-033 TS	COUNTY COOK	TOTAL SHEETS 49	SHEET NO. 41
CONTRACT NO. 60640	SCALE: SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							



TEMPORARY PHASE DESIGNATION DIAGRAM

NOTE:
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.

OVERLAP	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5



TEMPORARY CABLE PLAN

TEMPORARY CABLE DIAGRAM LEGEND

	PROPOSED	EXISTING
TEMPORARY CONTROLLER CABINET		
TEMPORARY SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT		
TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)		
12" (300 MM) PEDESTRIAN SIGNAL SECTION		
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED. NUMBER OF CONDUCTORS AS NOTED		
PEDESTRIAN PUSHBUTTON DETECTOR		
VEHICLE DETECTOR, INDUCTION LOOP		
MICROWAVE VEHICLE SENSOR		
VIDEO DETECTOR		
CLOSED CIRCUIT TV		
EMERGENCY VEHICLE SYSTEM DETECTOR		
CONFIRMATION BEACON		
WIRELESS INTERCONNECT (ANTENNA)		
UNINTERRUPTIBLE POWER SUPPLY		

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE (LED)	% OPERATION	
SIGNAL (RED)	12		17	0.50	102.00
(YELLOW)	12		25	0.25	75.00
(GREEN)	12		15	0.25	45.00
ARROW	16		12	0.10	19.20
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN				0.05	
FLASHER				0.50	
TOTAL =					541.20

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

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION
 ENERGY SUPPLY CONTACT: 708-410-5069
 PHONE: COM. EDISON
 COMPANY:

DESIGNED - STEVEN N./JOE E./BRENDA K.
 DRAWN - STEVEN N./BRENDA K.
 CHECKED - JOE E.
 DATE - 3/15/09

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN
 ILLINOIS RTE.1 @ DIXIE HIGHWAY

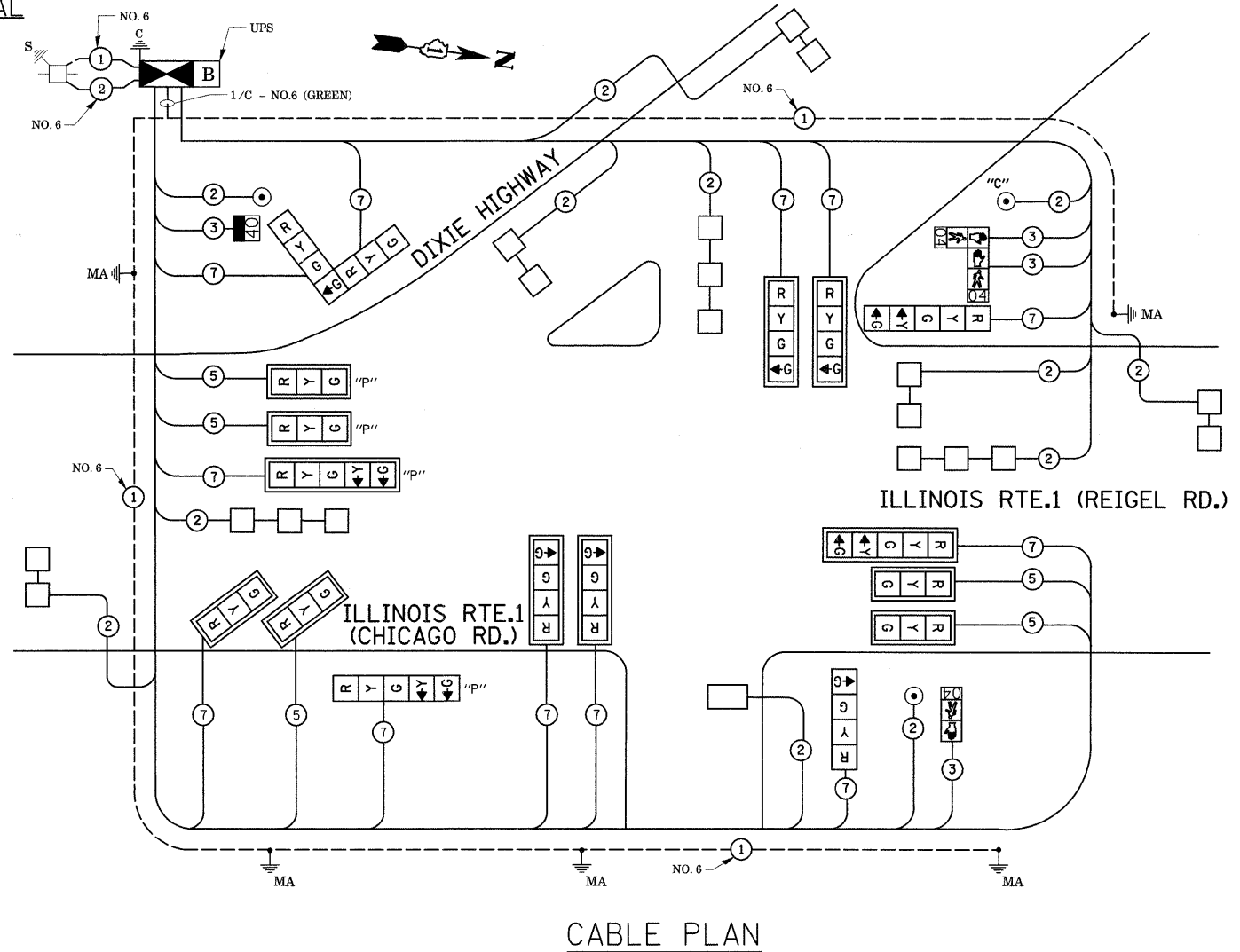
F.A.P. RTE. 353/876
 SECTION 2009-033 TS
 COUNTY COOK
 TOTAL SHEETS 49
 SHEET NO. 42
 CONTRACT NO. 60640
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

CABLE PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER CABINET	[Symbol]	[Symbol]
RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT	[Symbol]	[Symbol]
TELEPHONE CONNECTION	[Symbol]	[Symbol]
GROUND ROD AT (C) CONTROLLER, (H)HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE	[Symbol]	[Symbol]
FIBER OPTIC CABLE IN CONDUIT, NUMBER OF FIBERS AS NOTED	[Symbol]	[Symbol]
ELECTRIC CABLE IN CONDUIT, NO. 14, UNLESS OTHERWISE NOTED, NUMBER OF CONDUCTORS AS NOTED	[Symbol]	[Symbol]
GROUND CABLE IN CONDUIT NO. 6 COPPER (GREEN)	[Symbol]	[Symbol]
SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD	[Symbol]	[Symbol]
12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE	[Symbol]	[Symbol]
12" (300mm) TRAFFIC SIGNAL SECTION	[Symbol]	[Symbol]
12" (300mm) PEDESTRIAN SIGNAL SECTION	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO LEFT TURN"	[Symbol]	[Symbol]
ILLUMINATED SIGN "NO RIGHT TURN"	[Symbol]	[Symbol]
PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]
PREFORMED DETECTOR LOOP	[Symbol]	[Symbol]
MICROWAVE VEHICLE SENSOR	[Symbol]	[Symbol]
VIDEO DETECTOR	[Symbol]	[Symbol]
CLOSED CIRCUIT TV	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
CONFIRMATION BEACON	[Symbol]	[Symbol]
UNINTERRUPTIBLE POWER SUPPLY	[Symbol]	[Symbol]

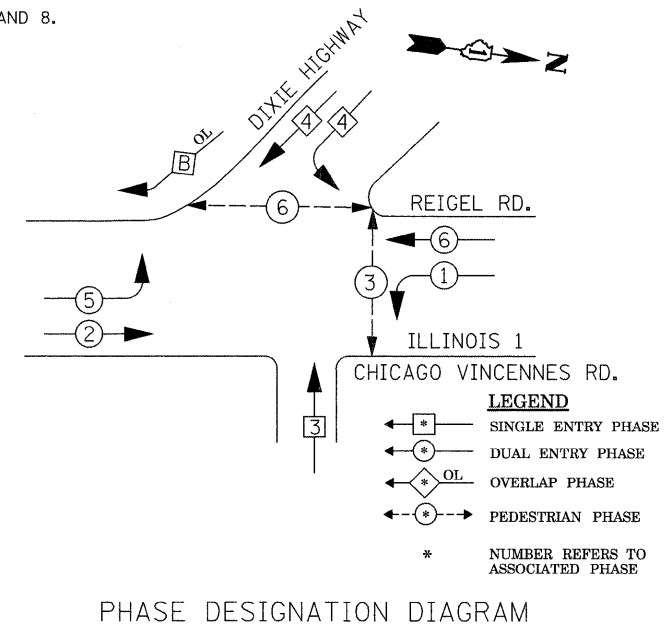
ITEM SCHEDULE OF QUANTITIES

ITEM	UNIT TOTAL
PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT 456
COMBINATION CURB AND GUTTER REMOVAL	FOOT 30
DETECTABLE WARNINGS	SQ FT 120
SIGN PANEL-TYPE I	SQ FT 15
SIGN PANEL-TYPE II	SQ FT 27.50
THERMOPLASTIC PAVEMENT MARKING LINE 12"	FOOT 389
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT 131
THERMOPLASTIC PAVEMENT MARKING REMOVAL	SQ FT 140
THERMOPLASTIC PAVEMENT MARKING-LETTERS AND SYMBOLS	SQ FT 400
CONDUIT TRENCH, 2" DIA., GALVANIZED STEEL	FOOT 526
CONDUIT TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT 44
CONDUIT TRENCH, 4" DIA., GALVANIZED STEEL	FOOT 94
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT 285
CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL	FOOT 67
CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT 80
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT 216
HANDHOLE	EACH 6
HEAVY-DUTY HANDHOLE	EACH 3
DOUBLE HANDHOLE	EACH 2
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT 617
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET(SPECIAL)	EACH 1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT 640
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT 894
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT 1456
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT 2550
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.14 1 PAIR	FOOT 2100
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT 87
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT 1146
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH 2
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH 1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH 1
STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH 1
CONCRETE FOUNDATION, TYPE C	FOOT 4
CONCRETE FOUNDATION, TYPE E 30-INCH DIA.	FOOT 30
CONCRETE FOUNDATION, TYPE E 36-INCH DIA.	FOOT 45
SIGNAL HEAD, L.E.D. 1-FACE, 3 SECTION, MAST ARM MOUNTED.	EACH 6
SIGNAL HEAD, L.E.D. 1-FACE, 4 SECTION, MAST ARM MOUNTED.	EACH 4
SIGNAL HEAD, L.E.D. 1-FACE, 5 SECTION, MAST ARM MOUNTED.	EACH 1
SIGNAL HEAD, L.E.D. 1-FACE, 1-4 SECT, BRACKET MOUNTED.	EACH 1
SIGNAL HEAD, L.E.D. 1-FACE, 1-5 SECT, BRACKET MOUNTED.	EACH 2
SIGNAL HEAD, L.E.D. 2-FACE, 1-3 SECT, 1-4 SECT BRACKET MOUNTED.	EACH 1
SIGNAL HEAD, OPTICALLY PROGRAMMED, L.E.D., 3 SECT, MAST ARM MOUNTED	EACH 2
SIGNAL HEAD, OPTICALLY PROGRAMMED, L.E.D., 5 SECT, MAST ARM MOUNTED	EACH 1
SIGNAL HEAD, OPTICALLY PROGRAMMED, L.E.D., 5 SECT, BRACKET MOUNTED	EACH 1
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET. MOUNTED. with COUNTDOWN TIMER	EACH 2
PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET. MOUNTED. with COUNTDOWN TIMER	EACH 1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH 12
INDUCTIVE LOOP DETECTOR	EACH 9
DETECTOR LOOP TYPE I	FOOT 683
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT 1840
PEDESTRIAN PUSH-BUTTON	EACH 3
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH 1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH 1
REMOVE EXISTING CONCRETE FOUNDATION	EACH 6
REMOVE EXISTING HANDHOLE	EACH 7
TEMPORARY TRAFFIC SIGNAL TIMINGS	EACH 1
UNINTERRUPTIBLE POWER SUPPLY	EACH 1

UNIT TOTAL

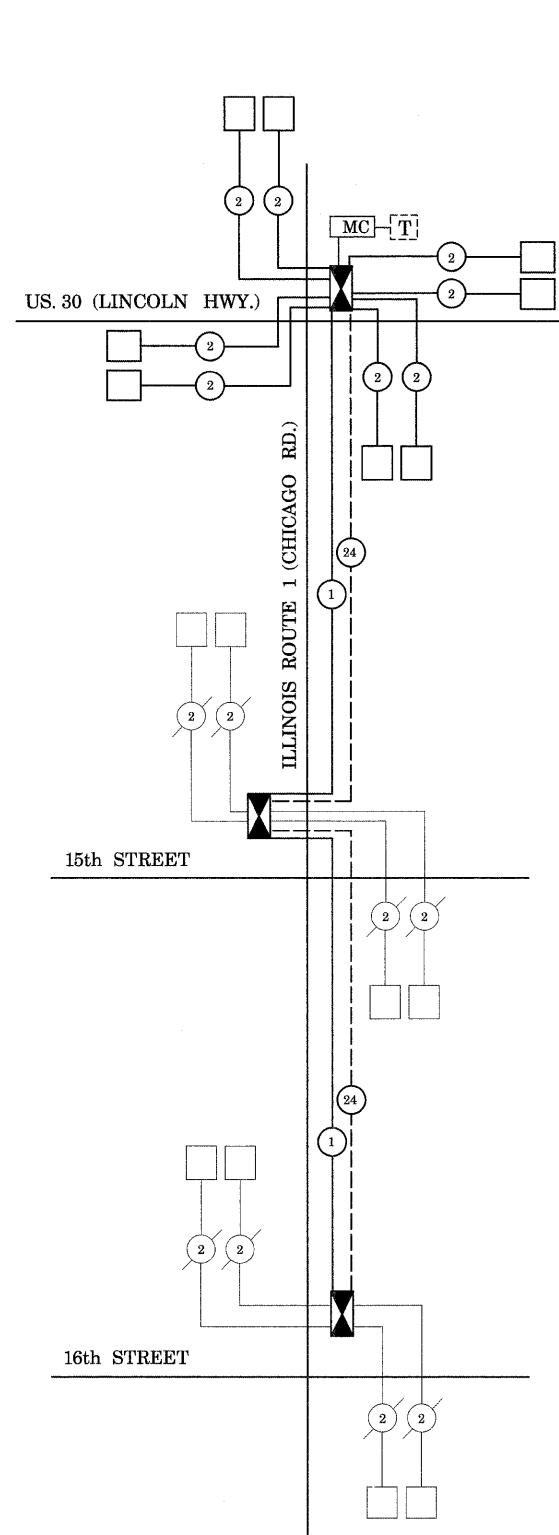
NOTE:
PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
























I.D.O.T				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	%OPERATION	
SIGNAL (RED)	17	17	0.50	144.50
(YELLOW)	17	25	0.25	106.25
(GREEN)	17	15	0.25	63.75
ARROW	18	12	0.10	21.60
PED. SIGNAL	4	25	1.00	100.00
CONTROLLER	1	100	1.00	100.00
ILLUM. SIGN			0.05	
FLASHER			0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION				TOTAL = 536.10
ENERGY SUPPLY CONTACT: PHONE: COMPANY: COM. EDISON				

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'-L-2=
E - M. ARM POLE		SIGNAL POST	2 (1.0)		16m-L-0.6m=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)

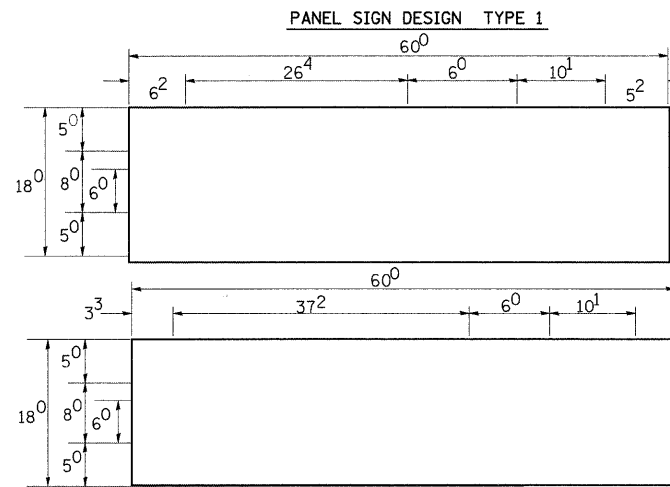


INTERCONNECT SCHEMATIC LEGEND

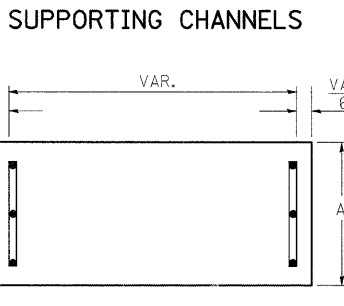
-  INTERSECTION CONTROLLER
-  EXISTING INTERSECTION CONTROLLER
-  MASTER CONTROLLER
-  EXISTING MASTER CONTROLLER
-  MASTER MASTER CONTROLLER
-  PROPOSED INTERSECTION & SAMPLING (SYSTEM) DETECTORS
-  EXISTING INTERSECTION & SAMPLING (SYSTEM) DETECTORS
-  PROPOSED FIBER OPTIC CABLE- NO.62.5/125
2-MM12F & SM12F
-  INTERCONNECT CABLE-NO.18
3 PAIR TWISTED, SHIELED
-  LOOP DETECTOR CABLE-2C TWISTED, SHIELED
-  EXISTING FIBER OPTIC CABLE-NO. 62.5/125
2-MM12F & SM12F
-  EXISTING INTERCONNECT CABLE-NO.18
3 PAIR TWISTED, SHIELED
-  EXISTING LOOP DETECTOR CABLE-2C TWISTED, SHIELED
-  TELEPHONE CONNECTION
-  PROPOSED TRACER CABLE NO.14 1C
-  EXISTING INTERSECTION LOOP DETECTORS AND
PROPOSED SAMPLING (SYSTEM) DETECTORS
-  EXISTING TELEPHONE CONNECTION
-  EXISTING TRACER CABLE 1C (AS SPECIFIED)
-  EXISTING SAMPLING (SYSTEM) DETECTORS
-  PROPOSED SAMPLING (SYSTEM) DETECTORS
-  EXISTING SAMPLING (SYSTEM) DETECTORS,
PROPOSED INTERSECTION AND
SAMPLING (SYSTEM) DETECTORS.

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QUANTITY
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 24F	FOOT	1590
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1500
ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1C	FOOT	1590
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM - LEVEL II	EACH	3



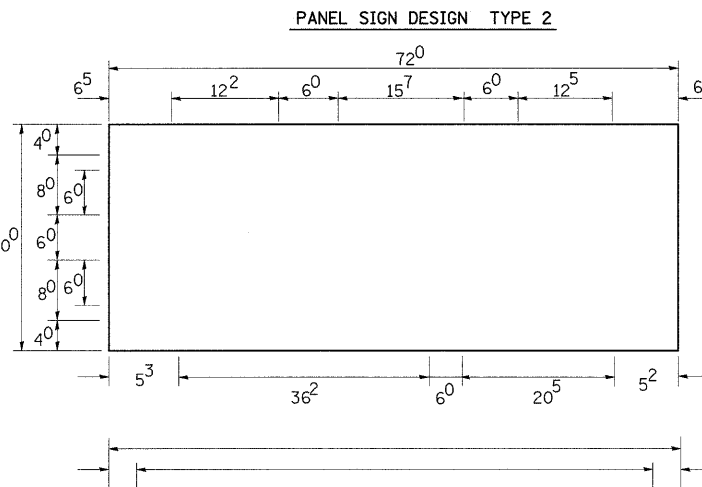
Sq. M. each
6.0 Sq. Ft. each
2 Required
Design Series D



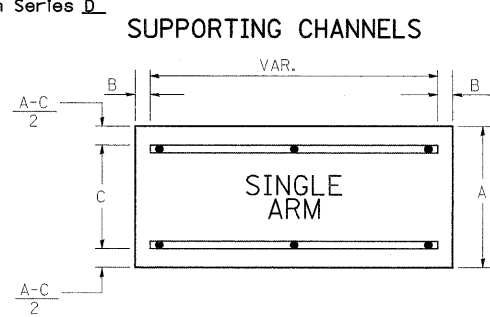
A	B	C
18"	2"	14"

Sq. M. each
9.0 Sq. Ft. each
2 Required
Design Series C

NOTE: SIGN DIMENSIONS ARE IN ENGLISH UNITS



Sq. M. each
30 Sq. Ft. each
2 Required
Design Series D



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

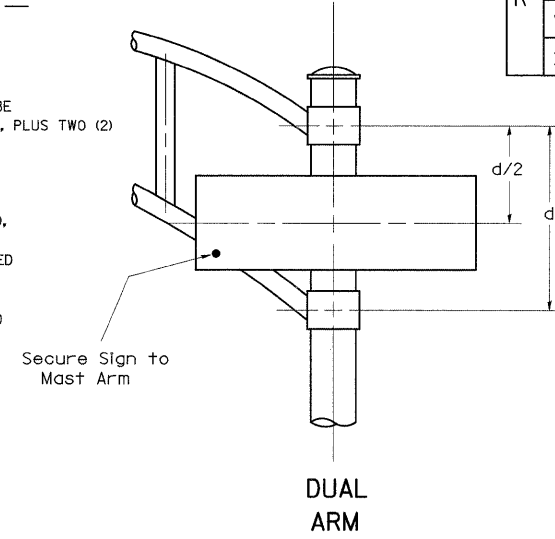
Sq. M. each
Sq. Ft. each
Required
Design Series

MAST ARM MOUNTED STREET NAME SIGNS SEE SHEET NO. 47

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 834001, 834006 AND 834011, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 6'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
- THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6'-0".
- ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2-1/4".
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:
 - * A.K.T. CORPORATION SCHAUMBURG, IL
 - * TUCKER COMPANY, INC. WAUWATOSA, WI
 - * AMERICAN FABRICATION CO. CHICAGO HEIGHTS, IL
 - * WESTERN TRAFFIC CONTROL INC. CICERO, IL

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



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

SUPPORTING CHANNELS

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

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

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

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

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

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

EXAMPLE, 2³ DENOTES 3"

UPPER AND LOWER CASE LETTER WIDTHS

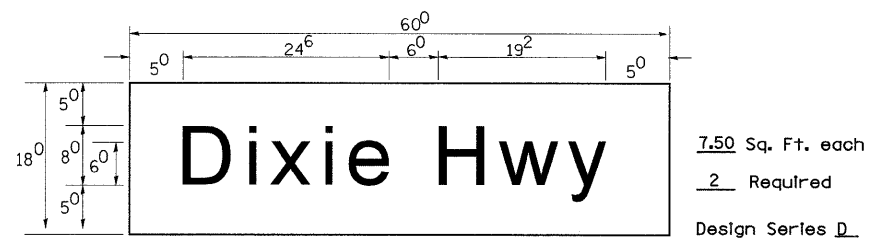
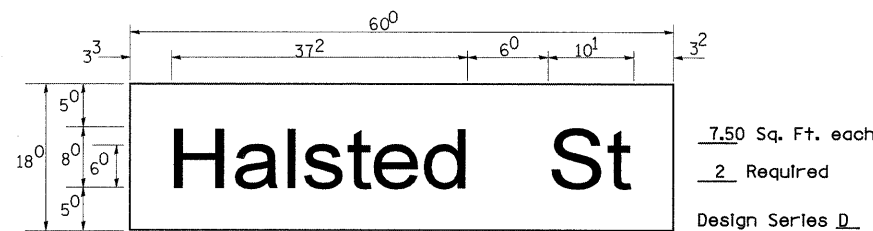
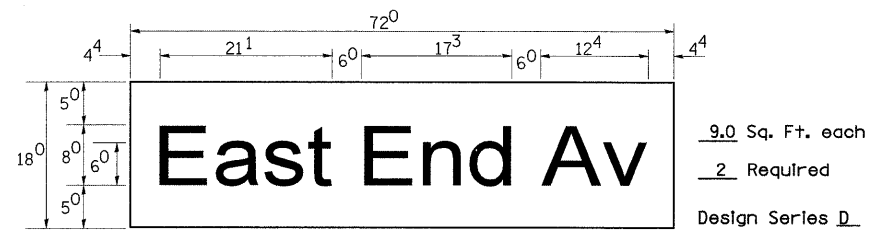
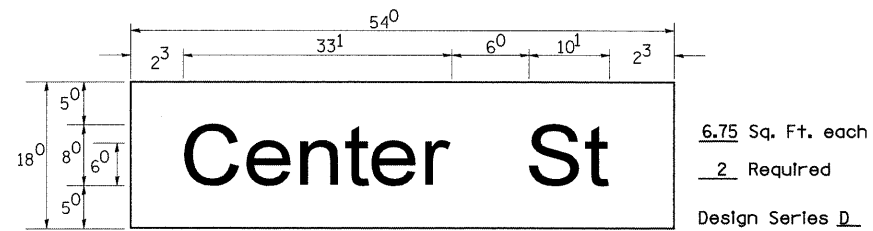
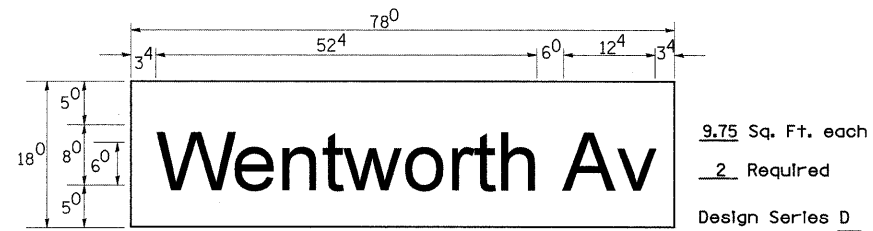
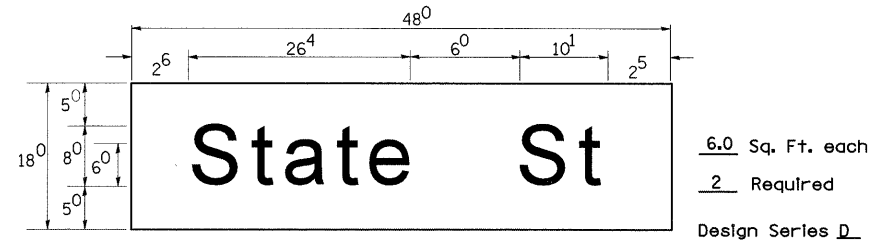
LETTERS	6 INCH UPPER CASE LETTERS		8 INCH UPPER CASE LETTERS		LETTERS	6 INCH LOWER CASE LETTERS	
	SERIES		SERIES			SERIES	
	C	D	C	D		C	D
A	3 ⁶	5 ⁰	5 ⁰	6 ⁵	a	3 ⁵	4 ²
B	3 ²	4 ⁰	4 ³	5 ³	b	3 ⁵	4 ²
C	3 ²	4 ⁰	4 ³	5 ³	c	3 ⁵	4 ¹
D	3 ²	4 ⁰	4 ³	5 ³	d	3 ⁵	4 ²
E	3 ⁰	3 ⁵	4 ⁰	4 ⁷	e	3 ⁵	4 ²
F	3 ⁰	3 ⁵	4 ⁰	4 ⁷	f	2 ³	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

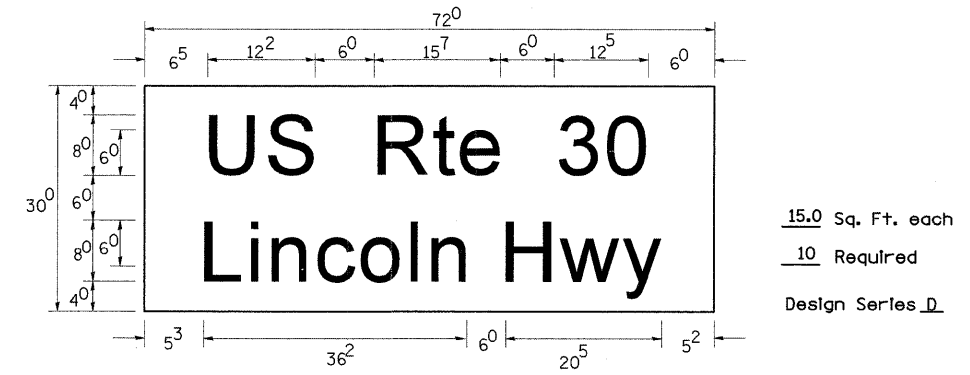
FILE NAME =	USER NAME = nguyensm	DESIGNED - STEVEN N./JOE E./BRENDA K.	REVISED -
ca:\pwork\pwork\nguyensm\ad117709\Rob-TS.dgn		DRAWN - STEVEN N./BRENDA K.	REVISED -
PLOT SCALE = 20.0000 / IN.		CHECKED - JOE E.	REVISED -
PLOT DATE = 3/19/2009		DATE - 3/15/09	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				MAST ARM MOUNTED STREET NAME SIGNS	
SCALE:		SHEET NO. OF SHEETS STA.		TO STA.	
F.A.P. RTE. 353/876		SECTION 2009-033 TS	COUNTY COOK	TOTAL SHEETS 49	SHEET NO. 46
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 60G40	

PANEL SIGN DESIGN TYPE 1

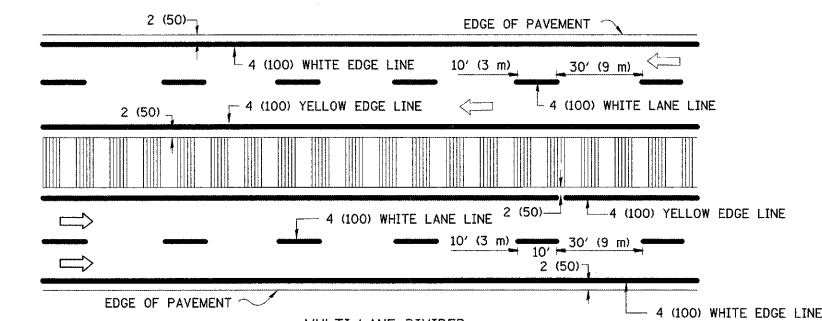
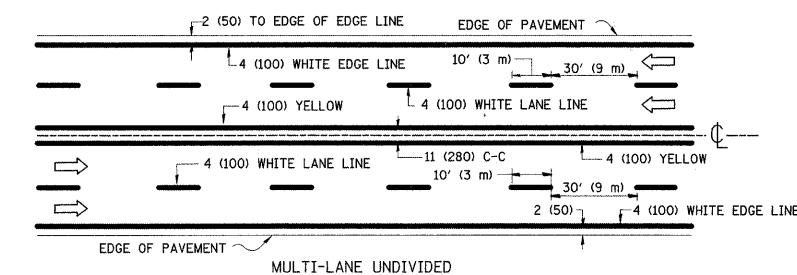
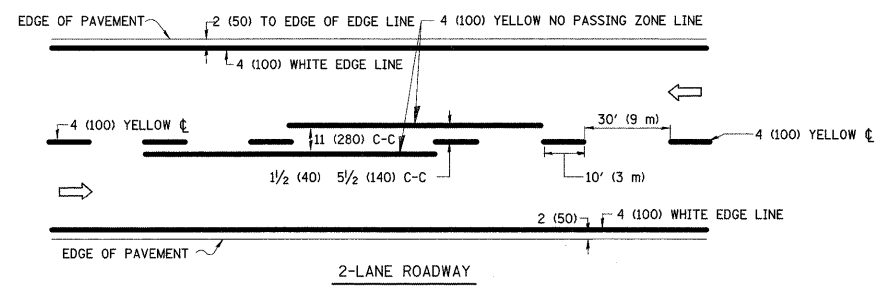


PANEL SIGN DESIGN TYPE 2



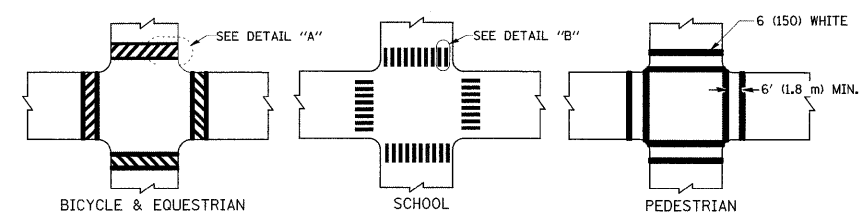
NOTE: SIGN DIMENSIONS ARE IN ENGLISH UNITS

FILE NAME =	USER NAME = nguyenm	DESIGNED - STEVEN N./JOE E./BRENDA K.	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAST ARM MOUNTED STREET NAME SIGNS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cs:\pw\work\pwwid\nguyenm\d01177091\Rob-TS.dgn	PLOT SCALE = 20.0000' / IN.	DRAWN - STEVEN N./BRENDA K.	REVISED -			353/876	2009-033 TS	COOK	49	47	
	PLOT DATE = 3/19/2009	CHECKED - JOE E.	REVISED -			SCALE: SHEET NO. OF SHEETS STA. TO STA.		CONTRACT NO. 60640			
		DATE - 3/15/09	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

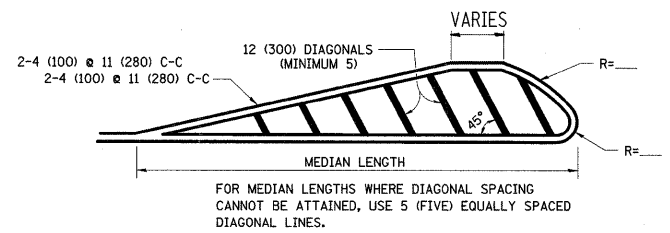
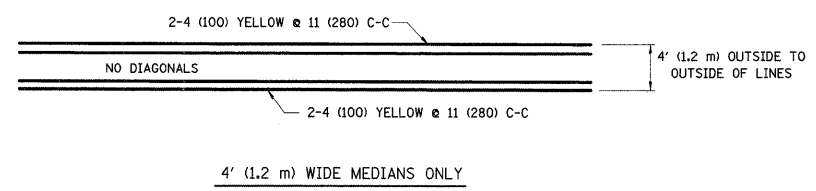


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

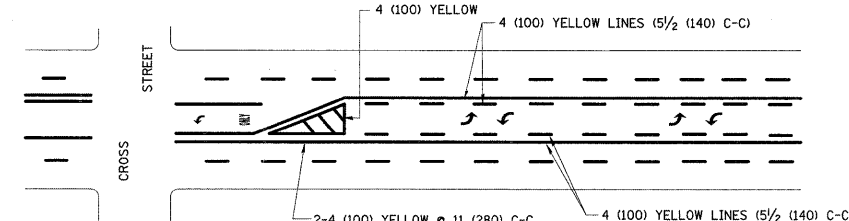
TYPICAL LANE AND EDGE LINE MARKING



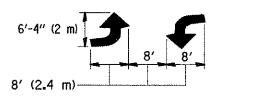
TYPICAL CROSSWALK MARKING



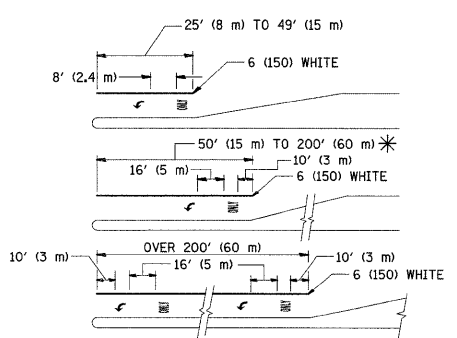
MEDIANS OVER 4' (1.2 m) WIDE



A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR, ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



TYPICAL PAINTED MEDIAN MARKING

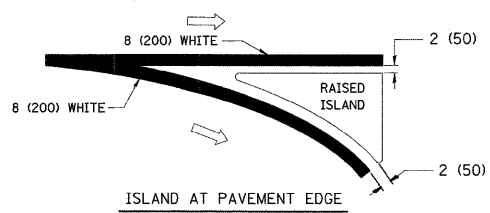
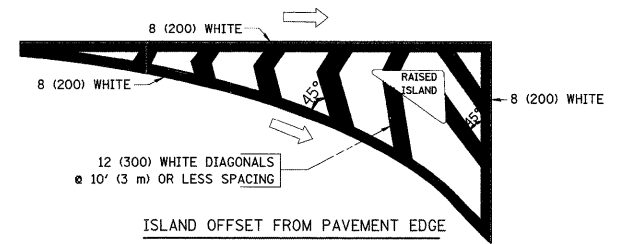


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

AREA = 15.6 SQ. FT. (1.5 m²) | AREA = 20.8 SQ. FT. (1.9 m²)

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

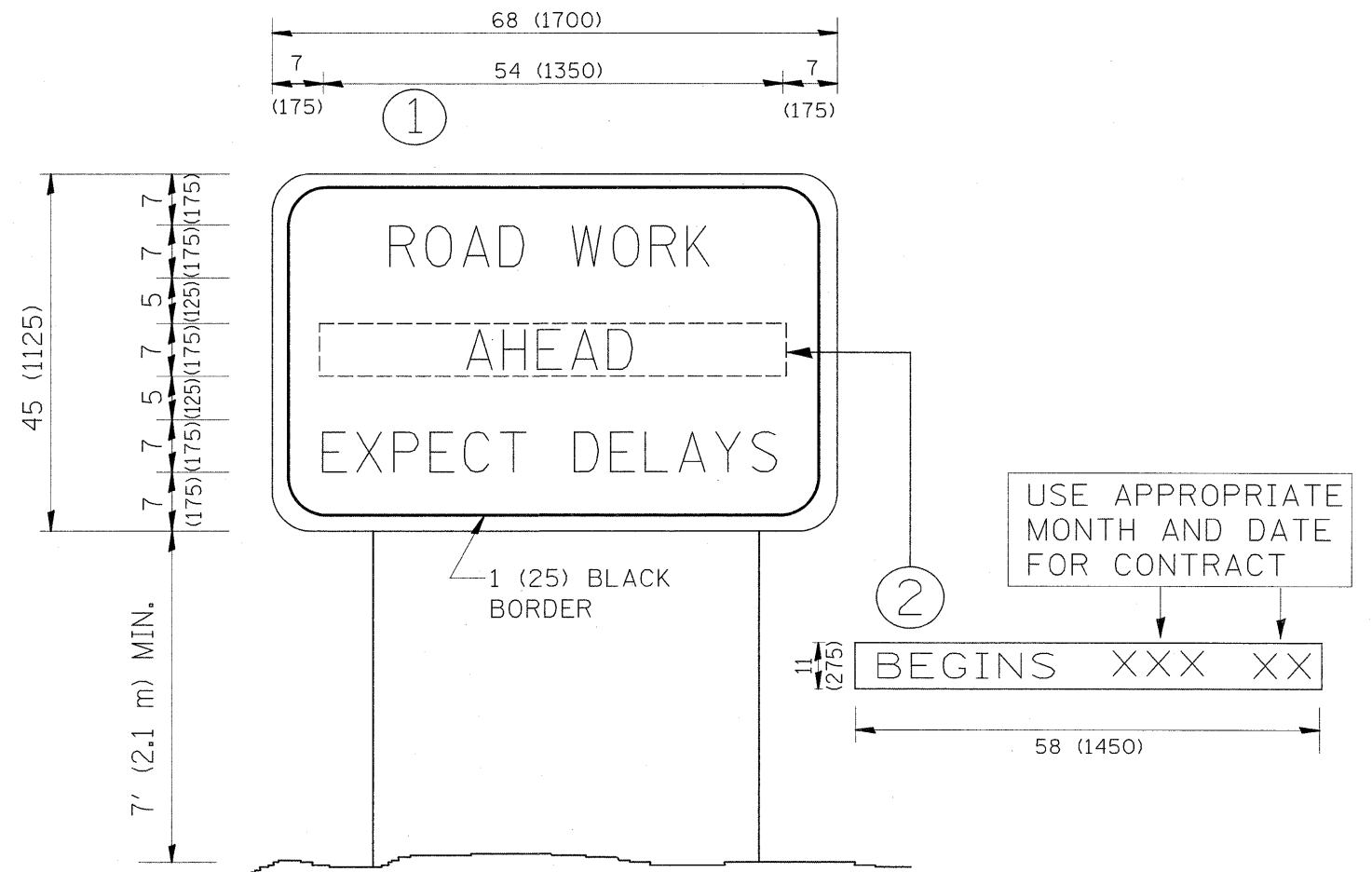


TYPICAL ISLAND MARKING

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 FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 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 5/2 (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 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 30MPH (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" IS 6' (1.8 m) LETTERS; 16 (400) 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.



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 =	USER NAME = nguyenam	DESIGNED -	REVISED - R. MIRS 09-15-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN			F.A.P. RTE. 353/ 876	SECTION 2009-033 TS	COUNTY COOK	TOTAL SHEETS 49	SHEET NO. 49
cs:\pw_work\pwsdot\nguyenam\d0117709\01st	td.dgn	DRAWN -	REVISED - R. MIRS 12-11-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TC-22		CONTRACT NO. 60G40	
		PLOT SCALE = 50,0000 / IN.	REVISED - T. RAMMACHER 02-02-99		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
		PLOT DATE = 3/19/2009	REVISED - C. JUCIUS 01-31-07									