

FOR INDEX OF SHEETS, SEE SHEET NO. 2

**LOCATION D**

IL RTE 7 - 7TH ST TO GOUGAR RD

**TRAFFIC DATA**

IL RTE 7 (LOCATION D)  
 ADT (2019) = 18000 VPD  
 POSTED SPEED = 35, 45 MPH

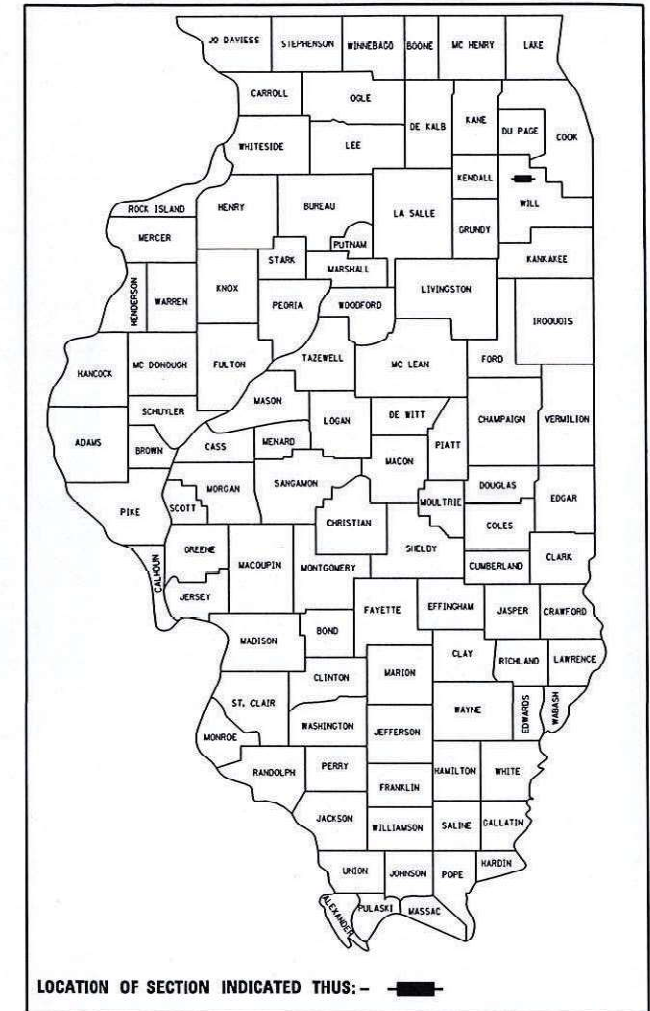
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

**PROPOSED  
 HIGHWAY PLANS**

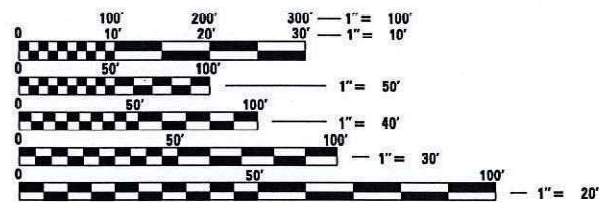
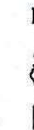
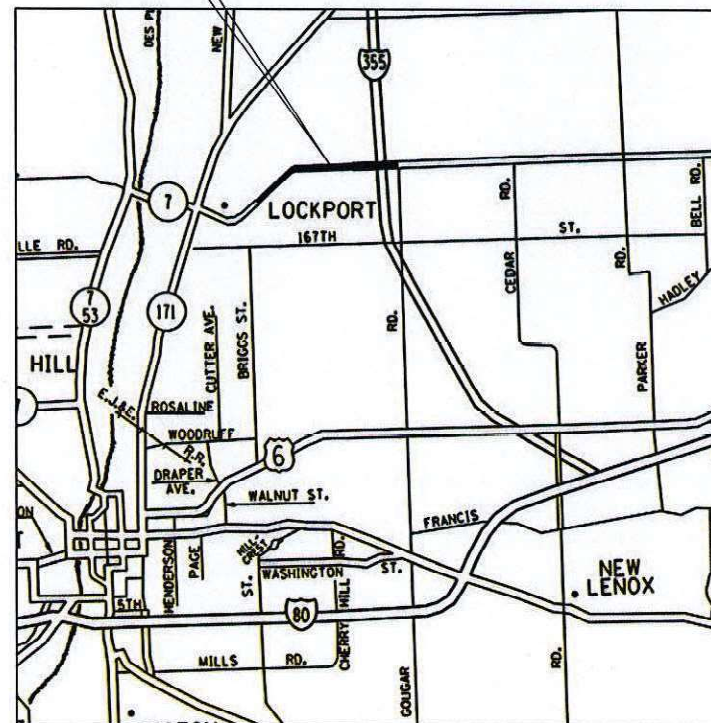
FAP ROUTE 351 (IL ROUTE 7 / 159TH ST.)  
 SECTION: 2023 SIGNALS 04  
 PROJECT NO: CMAQ-6PLV(203)  
 CMAQ TRAFFIC SIGNAL INTERCONNECT  
 WILL COUNTY  
 C-91-248-22

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 62R85		

D-91-191-22



PROJECT LOCATION



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

J.U.L.I.E.  
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
 1-800-892-0123  
 OR 811

PROJECT ENGINEER: KAMIL A. KOBYLKA, (847) 705-4734  
 PROJECT MANAGER: NICHOLAS BUTLER, (847) 705-4420  
 CONTRACT NO. 62R85



SIGNED DATE: 05-05-2023  
 EXPIRATION DATE: 11-30-2023



SIGNED DATE: 05-05-2023  
 EXPIRATION DATE: 11-30-2023

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUBMITTED May 3 2024  
Joan Riosler REGIONAL ENGINEER

June 28, 2024 [Signature]  
 ENGINEER OF DESIGN AND ENVIRONMENT

June 28, 2024 [Signature]  
 DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
 OF THE STATE OF ILLINOIS

## INDEX OF SHEETS

SHT NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES
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8-14	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS (TS-05)
15	DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS (TS-02)

SHT NO.	LOCATION NO.	TS NO.	INTERSECTION NAME
16-17	1	7521	IL RTE 7 (9TH ST) AT 7TH ST
18-19	2	7524	IL RTE 7 (9TH ST) AT LOCH LN/READ ST
20-21	3	7543	IL RTE 7 (9TH ST) AT THORNTON ST
22-23	4	7526	IL RTE 7 (159TH ST) AT FARRELL RD
24-25	5	7529	IL RTE 7 (159TH ST) AT ADELMANN DR
26-27	6	75111	IL RTE 7 (159TH ST) AT WEST RAMP A & C
28-29	7	75112	IL RTE 7 (159TH ST) AT EAST RAMP B & D
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42			TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TC-14)
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## IDOT HIGHWAY STANDARDS

STD. NO.	TITLE
000001-08	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
701001-02	OFF-RD OPERATIONS, 2L, 2W MORE THAN 15' (4.5m) AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5m) AWAY
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701502-09	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701602-10	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-09	TRAFFIC CONTROL DEVICES
814001-03	HANDHOLES
814006-03	DOUBLE HANDHOLES
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING

## GENERAL NOTES

BEFORE STARTING ANY EXCAVATION. THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV, 72 HOURS IN ADVANCE OF BEGINNING WORK.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARMS LENGTHS.

THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES. LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES. CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811, IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).

IF THIS CONTRACT REQUIRES THE SERVICES OF AN ELECTRICAL CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS/HER OWN EXPENSE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES PRIOR TO PERFORMING ANY WORK. IF THIS CONTRACT DOES NOT REQUIRE THE SERVICES OF AN ELECTRICAL CONTRACTOR. THE CONTRACTOR MAY REQUEST ONE FREE LOCATE FOR EXISTING IDOT ELECTRICAL FACILITIES FROM THE DISTRICT ONE ELECTRICAL MAINTENANCE CONTRACTOR PRIOR TO THE START OF ANY WORK. ADDITIONAL REQUESTS MAY BE AT THE EXPENSE OF THE CONTRACTOR. THE LOCATION OF UNDERGROUND TRAFFIC FACILITIES DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO REPAIR ANY FACILITIES DAMAGED DURING CONSTRUCTION AT THEIR EXPENSE.

THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND RESIDENT ENGINEER BEFORE ORDERING MATERIALS.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, 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 DAMAGED TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION EQUAL TO THAT EXISTING BEFORE THE DAMAGE INCURRED. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

PARTIAL PAYMENT AS DESCRIBED IN ARTICLE 109.07(b) OF THE STANDARD SPECIFICATIONS WILL NOT BE ALLOWED FOR ITEMS INCLUDED IN THIS CONTRACT.

ALL EXISTING R.O.W. SHOWN IS APPROXIMATE AND MAY NEED TO BE VERIFIED IN THE FIELD. ANY R.O.W. CONFLICTS SHALL BE COORDINATED WITH THE RESIDENT ENGINEER. ALL PROPOSED WORK SHALL TAKE PLACE WITHIN EXISTING ROW WITHIN EXISTING FACILITIES INCLUDING HANDHOLES, CONDUITS, OR TRAFFIC SIGNAL CABINETS.

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

## GENERAL NOTES CONTINUED

THE CONTRACTOR SHALL COORDINATE WITH IDOT, WILL COUNTY, AND EQUIPMENT VENDORS FOR THE BEST LOCATION AND ORIENTATION OF EACH PROPOSED PTZ CAMERA PRIOR TO CAMERA INSTALLATION.

THE CONTRACTOR SHALL MARK THE RECORD DRAWINGS TO REFLECT ANY CHANGES TO THE PLANS. THE RECORD DRAWINGS REQUIREMENTS ARE IDENTIFIED IN SECTION 801.16 OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

THE QUANTITY FOR THE ROD AND CLEAN EXISTING CONDUIT IS FOR USE WITH EXISTING CONDUITS WHICH HAVE ALL EXISTING CABLES REMOVED. THE QUANTITY PROVIDED IS A NOMINAL QUANTITY AND SHALL BE USED AS NEEDED OR AS DETERMINED BY THE ENGINEER BASED ON FIELD CONDITIONS.

THE QUANTITY FOR TEMPORARY INFORMATION SIGNING JS FOR USE WITH DISTRICT DETAIL ARTERIAL ROAD INFORMATION SIGN (TC 22). ONE SIGN IS TO BE USED FOR EACH END OF EACH INTERCONNECT CORRIDOR, MAIN ROUTE, OR ZONE.

\* THESE PLANS USE EXISTING RECORD DRAWINGS AS A BACKGROUND FOR PROPOSED PLAN. CONTRACTOR SHALL USE CARE IN CORRECTLY DISTINGUISHING PROPOSED WORK. CERTAIN RECORD DRAWINGS SHEETS HAVE BEEN INCLUDED FOR INFORMATION ONLY FOR BETTER UNDERSTANDING OF THE ENTIRE SYSTEM WHICH UTILIZES BOTH EXISTING AND PROPOSED FIBER INFRASTRUCTURE.

THE WORK IN THIS CONTRACT IS LIMITED TO THE INSTALLATION OF THE HANDHOLES, CONDUITS, TRACER CABLE, PTZ CAMERAS, SWITCHES, CONTROLLERS, AND FIBER OPTIC CABLE AS WELL AS ANY OTHER COMPONENTS AS SPECIFIED IN THE SCHEDULE OF QUANTITIES. THERE ARE NO PHASE CHANGES. PLANS USE EXISTING RECORD DRAWINGS WHICH SHOW PROPOSED EQUIPMENT FROM PREVIOUS CONTRACTS. WORK SHALL ONLY INCLUDE WHAT IS SPECIFIED IN THE SCHEDULE OF QUANTITIES. PHASING FOR THE NEW CONTROLLERS SHALL BE REPLICATED FROM EXISTING CONTROLLERS.

THE CONTRACTOR SHALL TAKE CARE TO PROTECT ALL SIGNS ALONG THE ROUTE OF CONSTRUCTION. SIGNS SHALL BE REMOVED IF THEY ARE IN CONFLICT WITH PROPOSED WORK, AND APPROVED BY THE ENGINEER. ALL LABOR NECESSARY TO COMPLY WITH THE RELOCATION OF SIGNS SHALL BE INCLUDED IN THE CONTRACT WITHOUT ANY COMPENSATION ALLOWED TO THE CONTRACTOR ACCORDING TO ART. 107.25, UNLESS MARKED ON THE PLANS.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

LOCATION OF ALL UTILITIES AND PRIVATELY OWNED FACILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF ANY COMPONENTS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES AT HIS/HER OWN EXPENSE IF REQUIRED. THE CONTRACTOR SHALL ALSO BE LIABLE FOR ANY DAMAGE TO IDOT FACILITIES RESULTING FROM INACCURATE LOCATING.

THE EXISTING TRAFFIC SIGNALS SHALL REMAIN IN OPERATION DURING THE CONSTRUCTION OF THE PROPOSED CONDUIT AND FIBER OPTIC CABLE.

POTHOLING TO LOCATE EXISTING UNDERGROUND UTILITIES SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE CONDUIT PAY ITEMS.

REMOVAL AND REPLACEMENT OF EXISTING SIDEWALK, PAVEMENT, AND ISLANDS FOR UTILITY LOCATING PURPOSES SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE BID UNIT PRICE FOR THE CONDUIT PAY ITEMS.

NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN THE REQUIRED MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.

THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THE COST OF THIS WORK SHALL BE INCLUDED IN THE BID UNIT PRICE FOR THE CONDUITS.

THE LOCATION OF THE PROPOSED CONDUIT AS SHOWN ON THE PLAN SHEETS IS APPROXIMATE AND NOT DRAWN TO SCALE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MOWING AND BRUSH/SHRUB REMOVAL REQUIRED TO INSTALL THE PROPOSED CONDUIT AND HANDHOLES.

THE CONTRACTOR SHALL PLAN AND CONDUCT CONDUIT AND FIBER INSTALLATION OPERATIONS TO MINIMIZE THE NUMBER OF ROADWAY LANE CLOSURES AND TO MINIMIZE TRAFFIC DISRUPTIONS AND DELAYS FOR THE MOTORING PUBLIC. THE CONTRACTOR SHALL OBTAIN ALL PERMITS ALONG STATE, COUNTY, AND TOWNSHIP ROADWAYS.

MAINTENANCE OF TRAFFIC SHALL CONFORM TO THE APPLICABLE HIGHWAY AND DISTRICT STANDARDS.

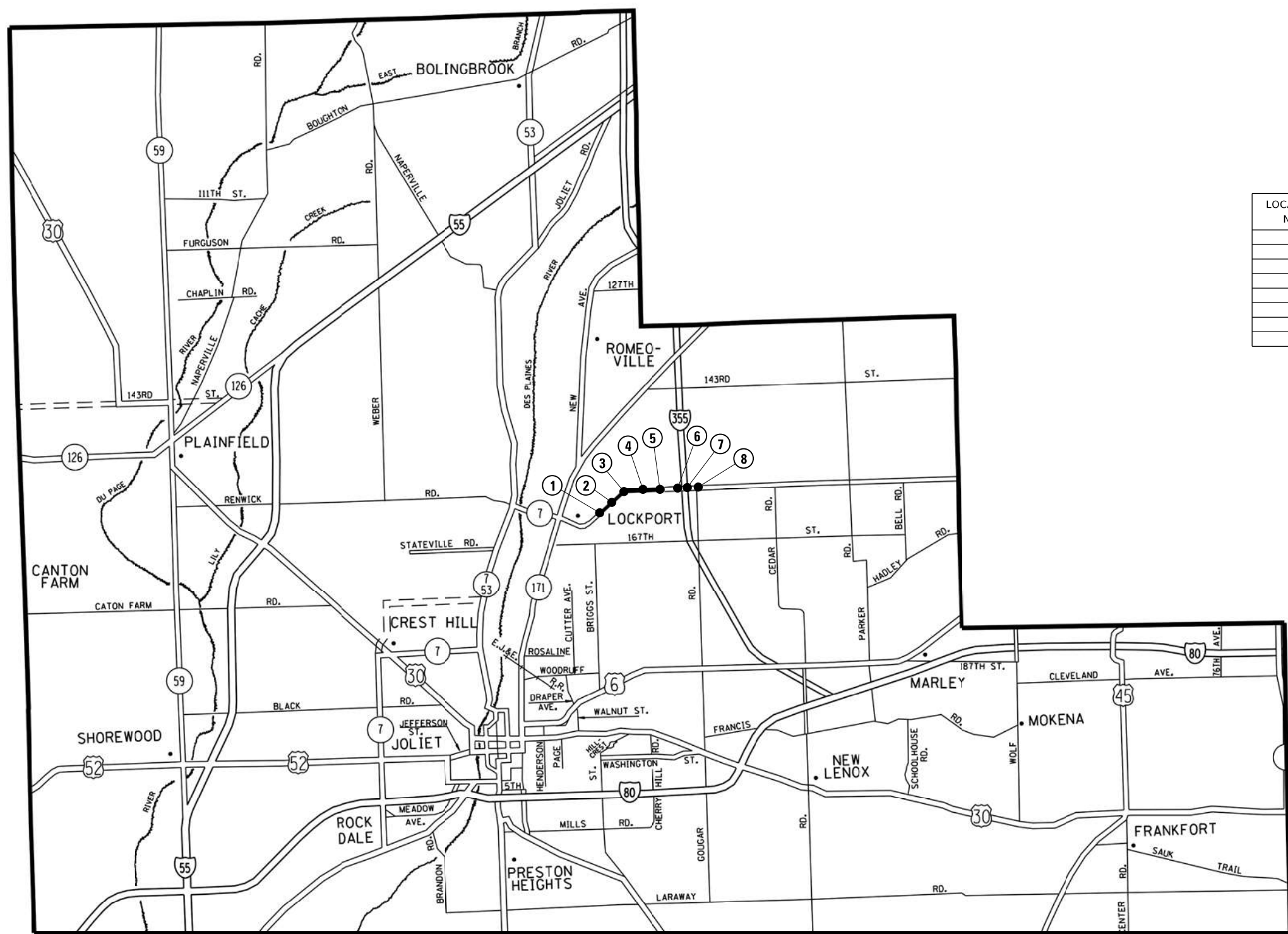
THE CONTRACTOR SHALL MINIMIZE THE IMPACT OF THE WORK BY UTILIZING OFF-ROAD OPERATIONS WHERE POSSIBLE.

AT WORK AREAS THAT IMPACT PEDESTRIANS AND/OR SIDEWALK, STANDARD 701801 SHALL BE USED. CONTRACTOR SHALL MINIMIZE WORK AREAS AND DISRUPTION TO SIDEWALK WHENEVER POSSIBLE.

K:\PROJECTS\Projects\2022\22-ESR-498-IDOT-IL\_Rte\_7 (7th St & Adeline) D:\PTB 194-19\ACADD\_Sheets\02\_Standards\_Lt.dgn

 <b>GANDHI AND ASSOCIATES, INC.</b> ENGINEERS AND PLANNERS 5015 N. NORTHWEST HIGHWAY SUITE 205 CHICAGO, ILLINOIS 60631 TEL: (773) 774-6590	USER NAME = #USER#	DESIGNED - EA	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, HIGHWAY STANDARDS &amp; GENERAL NOTES</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - EA, AV	RECHECKED - MS	REVISED -					351	2023 SIGNALS 04	WILL	43	2
	PLOT SCALE = 48.0000' / 1" IN.	CHECKED - MS	RECHECKED -		REVISED -	CONTRACT NO. 62R85						
	PLOT DATE = #DATE#	DATE - 2/23/2024	RECHECKED -		REVISED -	SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT	





LOCATION NO.	TS NO.	INTERSECTION NAME
1	7521	IL RTE 7 (9TH ST) AT 7TH ST
2	7524	IL RTE 7 (9TH ST) AT LOCH LN/READ ST
3	7543	IL RTE 7 (9TH ST) AT THORNTON ST
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8	7511	IL RTE 7 (159TH ST) AT GOUGAR RD

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-1001.ILL\_Rte\_7 (7th St & Adelmann Dr) PTB 194-191\CADD\_Sheets\03\_Location\_Map.dgn



**GANDHI AND ASSOCIATES, INC.**  
 ENGINEERS AND PLANNERS  
 5035 N. NORTHWEST HIGHWAY  
 SUITE 200  
 CHICAGO, ILLINOIS 60630 TEL: 773-774-5900

USER NAME = *\$USER*	DESIGNED - EA	REVISED -
PLOT SCALE = 40.0000' / 1" =	CHECKED - MS	REVISED -
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**LOCATION MAP**

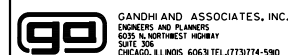
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	3
<b>CONTRACT NO. 62R85</b>				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

K:\PROJECTS\Projects\2022\22-ESR-498-1DDT-IL-Rte 7 (7th St & Addlmann Dr) PTB 194-19\CADD\_Sheets\04\_SDC-01.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FED 20% STATE WILL COUNTY	
				INTERCONNECT	
				0021	URBAN
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	21	21	
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1	
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1	
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1	
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DA	1	1	
67100100	MOBILIZATION	L SUM	1	1	
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1	
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502	L SUM	1	1	
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1	
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1	
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1	
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1	
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1	
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	5,738	5,738	

**\* SPECIALTY ITEM**



GANDHI AND ASSOCIATES, INC.  
ENGINEERS AND PLANNERS  
5035 N. NORTHWEST HIGHWAY  
SUITE 205  
CHICAGO, ILLINOIS 60630 TEL: (773) 774-590

USER NAME = \$USER*	DESIGNED - EA	REVISED -
	DRAWN - EA, AV	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - MS	REVISED -
PLOT DATE = \$DATE*	DATE - 2/23/2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
(SHEET 1 OF 4)**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	4
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 62R85	



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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FED 20% STATE WILL COUNTY	
				INTERCONNECT	
				0021 URBAN	
81400100	HANDHOLE	EACH	8	8	
81400200	HEAVY-DUTY HANDHOLE	EACH	2	2	
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	8	8	
87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	11,978	11,978	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,015	1,015	
87900200	DRILL EXISTING HANDHOLE	EACH	7	7	
88500100	INDUCTIVE LOOP DETECTOR	EACH	9	9	
88600100	DETECTOR LOOP, TYPE I	FOOT	107	107	
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1	1	
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	11,180	11,180	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	7	7	
X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	3,033	3,033	
X0325922	CELLULAR MODEM	EACH	1	1	
X1400102	OUTDOOR RATED NETWORK CABLE	FOOT	403	403	

USER NAME = \$USER*	DESIGNED - EA	REVISED -
	DRAWN - EA, AV	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - MS	REVISED -
PLOT DATE = \$DATE*	DATE - 2/23/2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
(SHEET 2 OF 4)**

SCALE: N.T.S.    SHEET NO.    OF    SHEETS    STA.    TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	5
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 62R85	

FILE NAME: K:\PROJECTS\Projects\2022\22-ESR-498-IDD1\_IL\_Rte\_7 (7th St. & Addison Dr) PTB 194-19\CA00\_Sheets\06\_S00-03.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				80% FED 20% STATE WILL COUNTY
				INTERCONNECT
				0021 URBAN
X1400215	REMOTE CONTROLLED VIDEO SYSTEM	EACH	2	2
X1400216	LAYER II (DATALINK) SWITCH	EACH	7	7
X1400217	TERMINATE FIBER IN CABINET	EACH	120	120
X1400219	SPLICE FIBER IN CABINET	EACH	30	30
X1400221	UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	2	2
X1400460	LAYER III (NETWORK) SWITCH	EACH	1	1
X8710070	FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	8	8
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	12
X8570215	FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	4	4
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1	1
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1	1
X8620310	REMOVE AND REPLACE BATTERIES FOR UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	6	6
Z0010688	CAMERA MOUNTING ASSEMBLY	EACH	2	2
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	52	52



USER NAME = *USER*	DESIGNED - EA	REVISED -
PLOT SCALE = 40.0000' / 1" =	DRAWN - EA, AV	REVISED -
PLOT DATE = *DATE*	CHECKED - MS	REVISED -
	DATE - 2/23/2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
(SHEET 3 OF 4)**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	6
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 62R85	





# TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

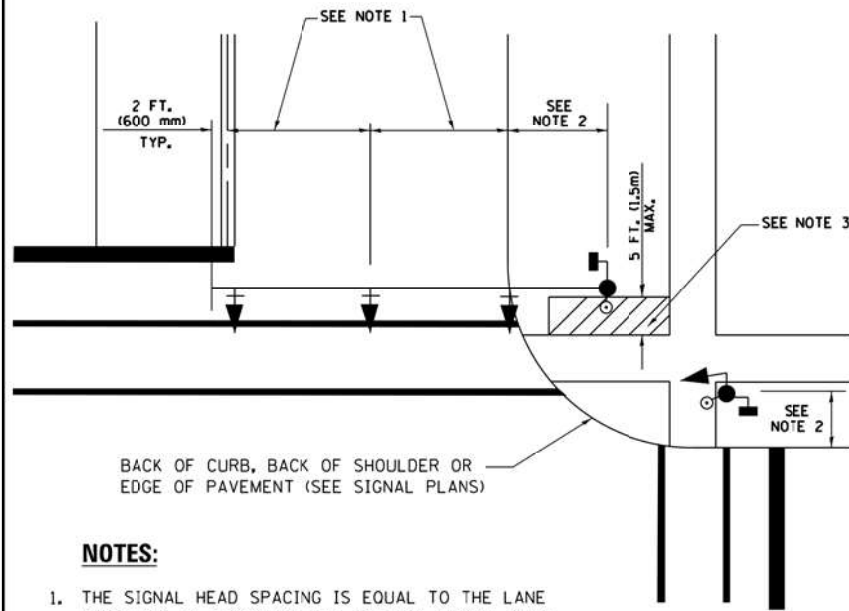
ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET			HANDHOLE -SQUARE -ROUND	 	 	SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD		
COMMUNICATION CABINET			HEAVY DUTY HANDHOLE -SQUARE -ROUND	 	 	SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE	 	 
MASTER CONTROLLER			DOUBLE HANDHOLE			PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
MASTER MASTER CONTROLLER			JUNCTION BOX			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		
UNINTERRUPTABLE POWER SUPPLY			RAILROAD CANTILEVER MAST ARM			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"	 	 
SERVICE INSTALLATION -(P) POLE MOUNTED			RAILROAD FLASHING SIGNAL			NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED		
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	 	 	RAILROAD CROSSING GATE			GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)		
TELEPHONE CONNECTION			RAILROAD CROSSBUCK			ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		
STEEL MAST ARM ASSEMBLY AND POLE			RAILROAD CONTROLLER CABINET			COAXIAL CABLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL			VENDOR CABLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY			SYSTEM ITEM			FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F	  	  
WOOD POLE			INTERSECTION ITEM			GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE	   	   
GUY WIRE			REMOVE ITEM					
SIGNAL HEAD			RELOCATE ITEM					
SIGNAL HEAD WITH BACKPLATE			ABANDON ITEM					
SIGNAL HEAD OPTICALLY PROGRAMMED			CONTROLLER CABINET AND FOUNDATION TO BE REMOVED					
FLASHER INSTALLATION -(FS) SOLAR POWERED	 	 	MAST ARM POLE AND FOUNDATION TO BE REMOVED					
PEDESTRIAN SIGNAL HEAD			SIGNAL POST AND FOUNDATION TO BE REMOVED					
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON			DETECTOR LOOP, TYPE I					
RADAR DETECTION SENSOR			PREFORMED DETECTOR LOOP					
VIDEO DETECTION CAMERA			SAMPLING (SYSTEM) DETECTOR					
RADAR/VIDEO DETECTION ZONE			INTERSECTION AND SAMPLING (SYSTEM) DETECTOR					
PAN, TILT, ZOOM (PTZ) CAMERA			QUEUE AND SAMPLING (SYSTEM) DETECTOR					
EMERGENCY VEHICLE LIGHT DETECTOR			WIRELESS DETECTOR SENSOR					
CONFIRMATION BEACON			WIRELESS ACCESS POINT					
WIRELESS INTERCONNECT								
WIRELESS INTERCONNECT RADIO REPEATER								

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	GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 5035 N. NORTHWEST HIGHWAY SUITE 205 CHICAGO, ILLINOIS 60630 TEL: (773) 774-590	USER NAME = \$USER\$	DESIGNED - IP	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE</b> <b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			F.A.P. RTE. 351	SECTION 2023 SIGNALS 04	COUNTY WILL	TOTAL SHEETS 43	SHEET NO. 8
		PLOT SCALE = 40.0000' / 1" =	CHECKED - IP	REVISED -		DATE - 6/8/2016	REVISED -	SCALE: 1"=20'	SHEET NO. OF SHEETS	STA. TO STA.	TS-05 CONTRACT NO. 62R85 ILLINOIS FED. AID PROJECT		



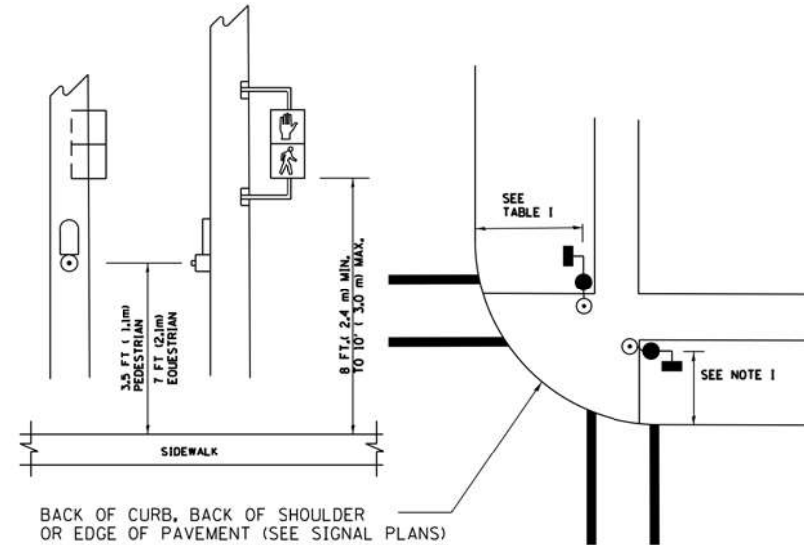
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST  
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR  
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN  
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



**NOTES:**

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

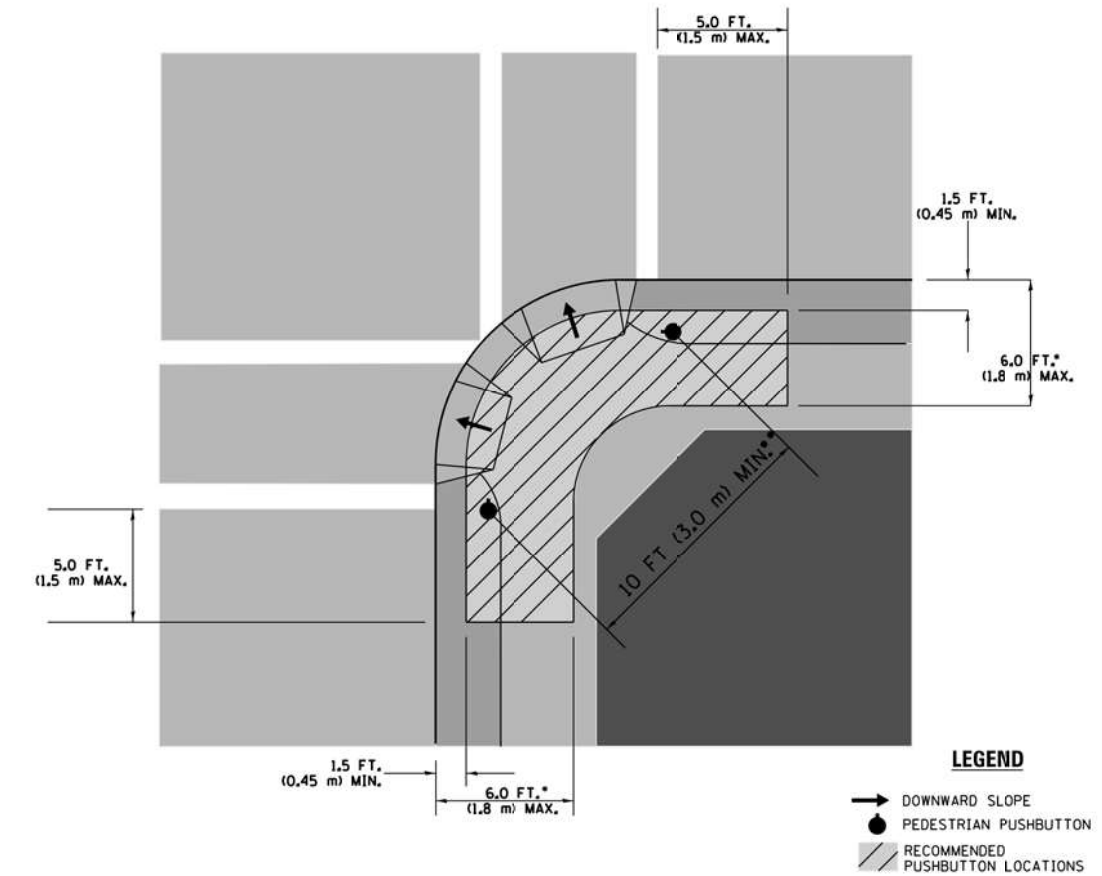
**PEDESTRIAN SIGNAL POST  
AND  
PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

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

**RECOMMENDED PUSHBUTTON LOCATIONS**



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

**NOTES:**

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

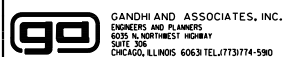
**TRAFFIC SIGNAL EQUIPMENT OFFSET**

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

**NOTES:**

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

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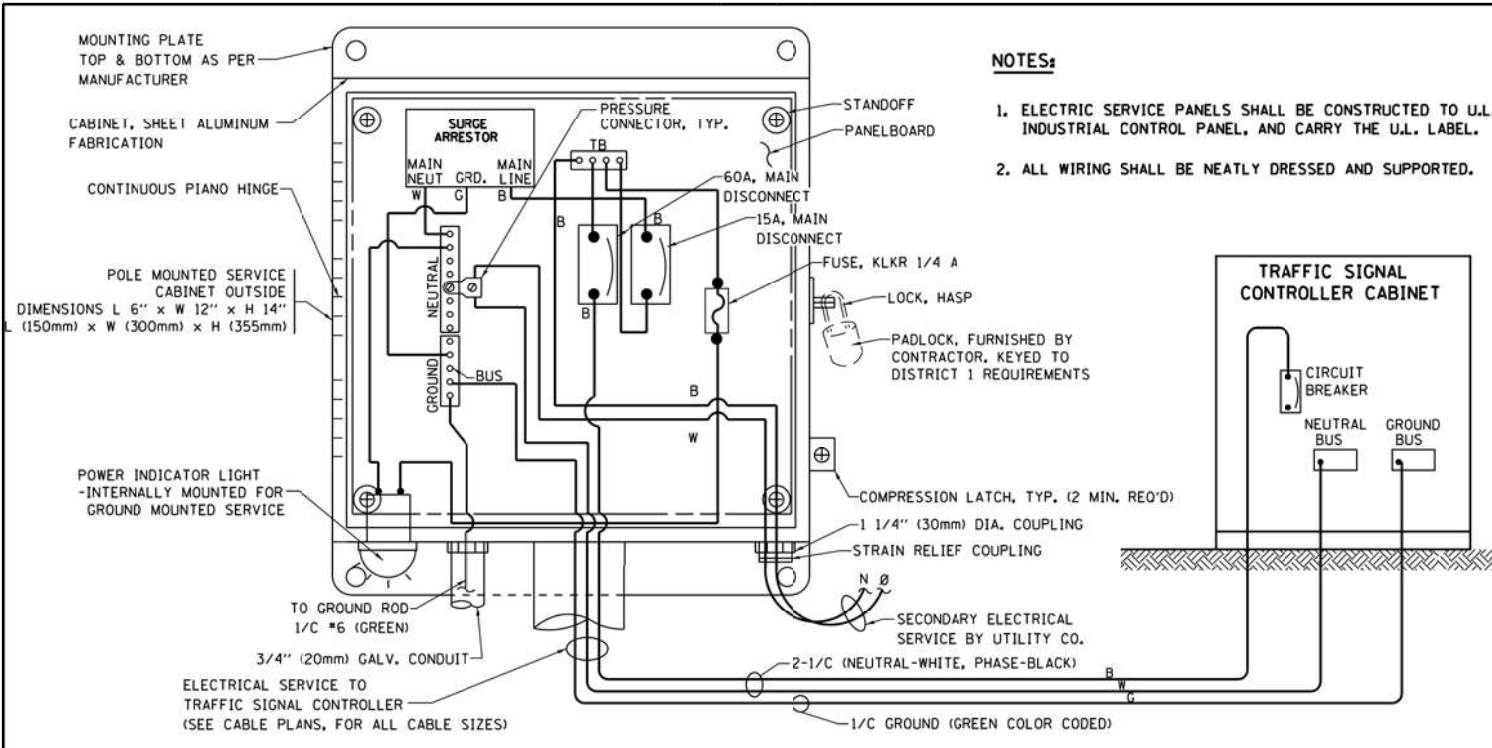
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

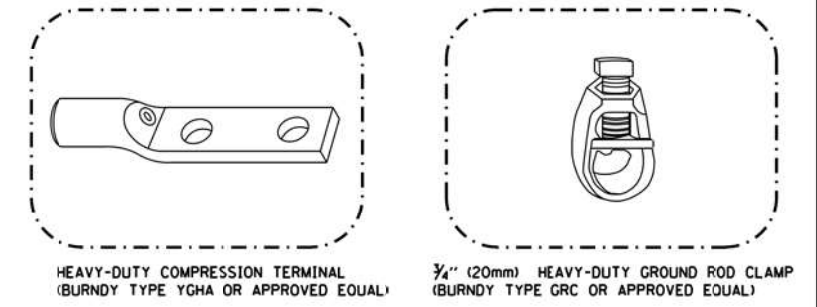
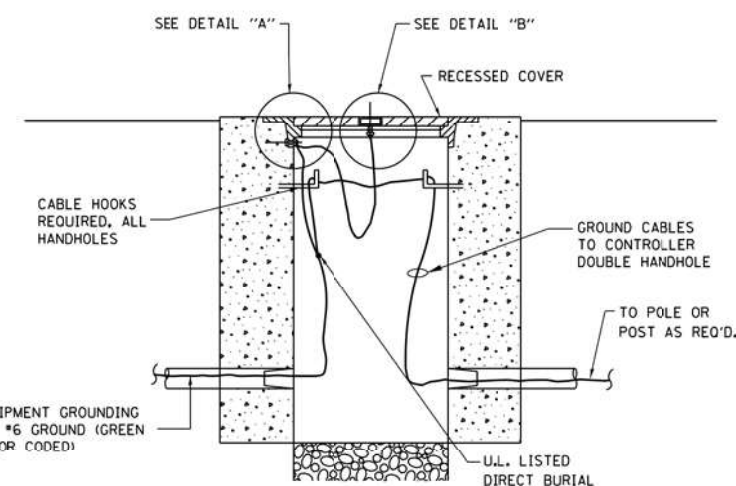
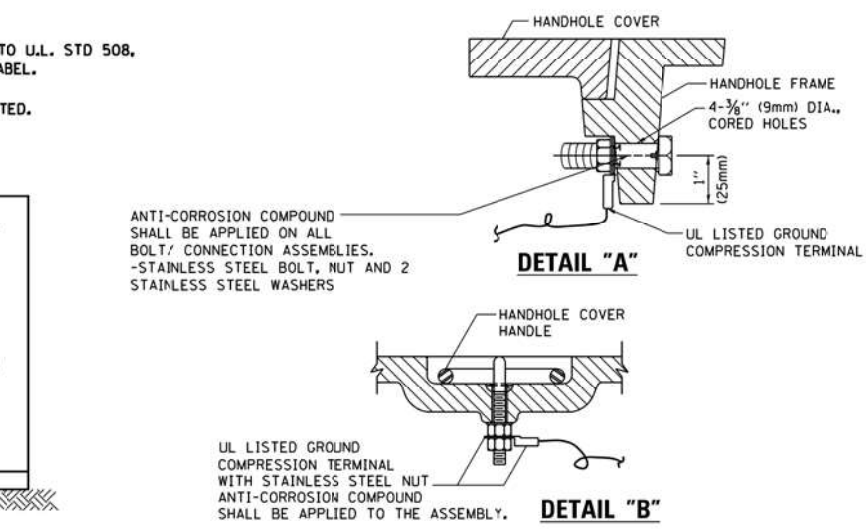
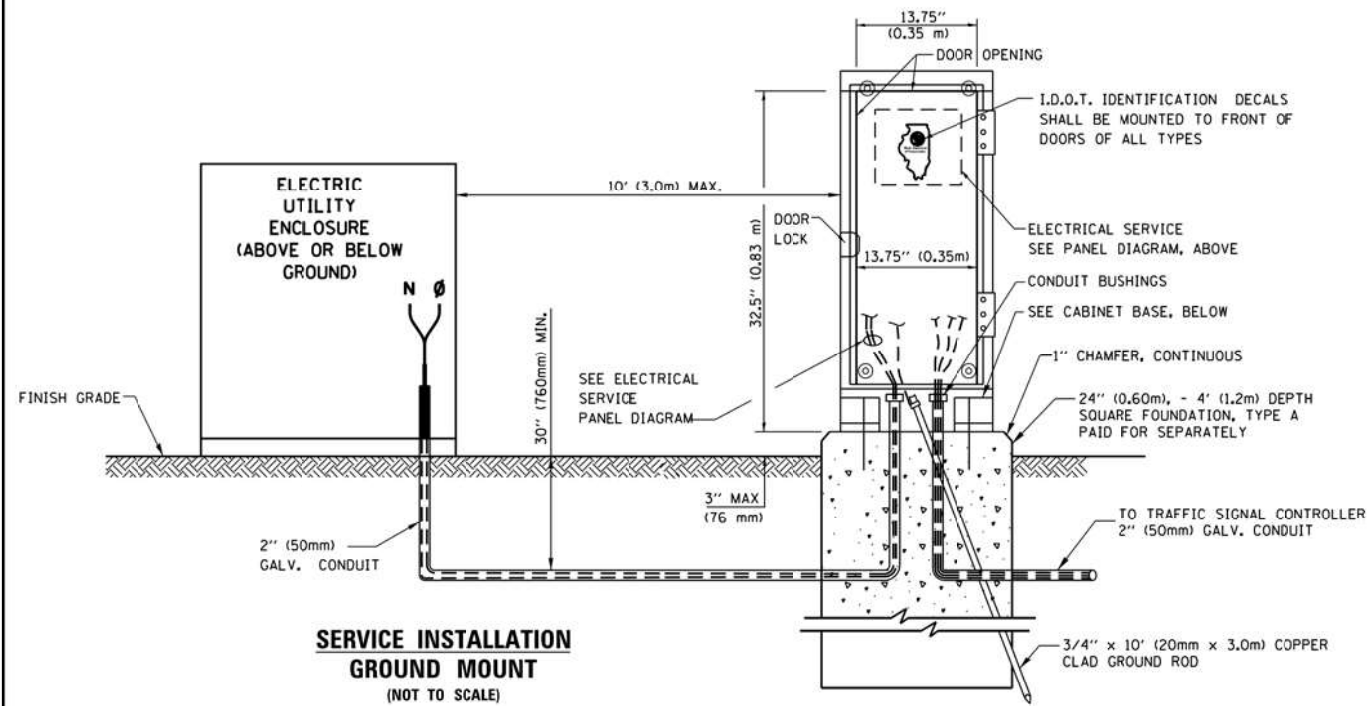
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	10
TS-05		CONTRACT NO. 62R85		
ILLINOIS FED. AID PROJECT				

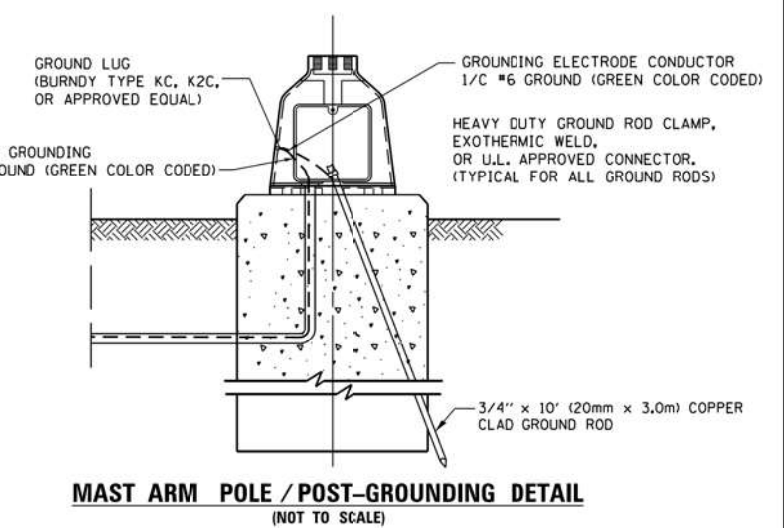
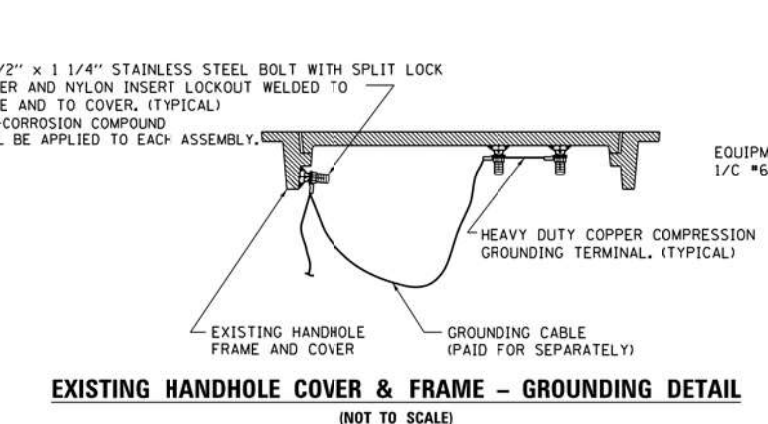




**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)

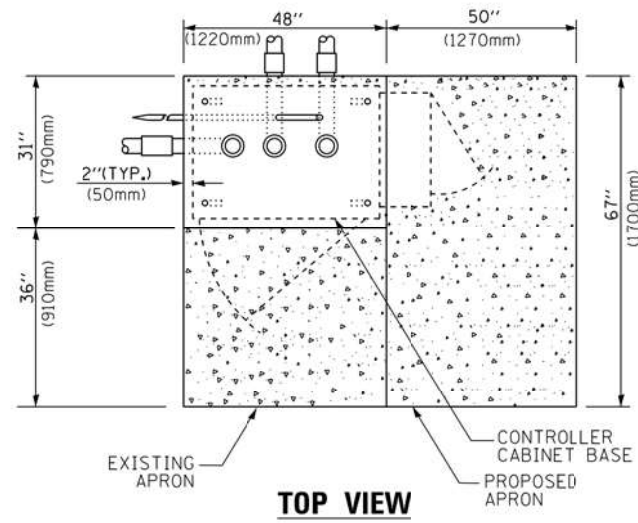


- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, U.L. APPROVED.
  - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES
  - 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES
  - 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES.
  - 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME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

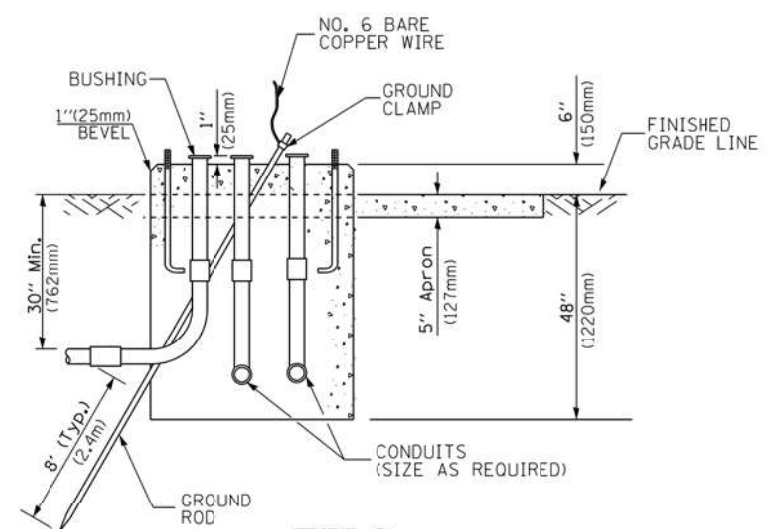


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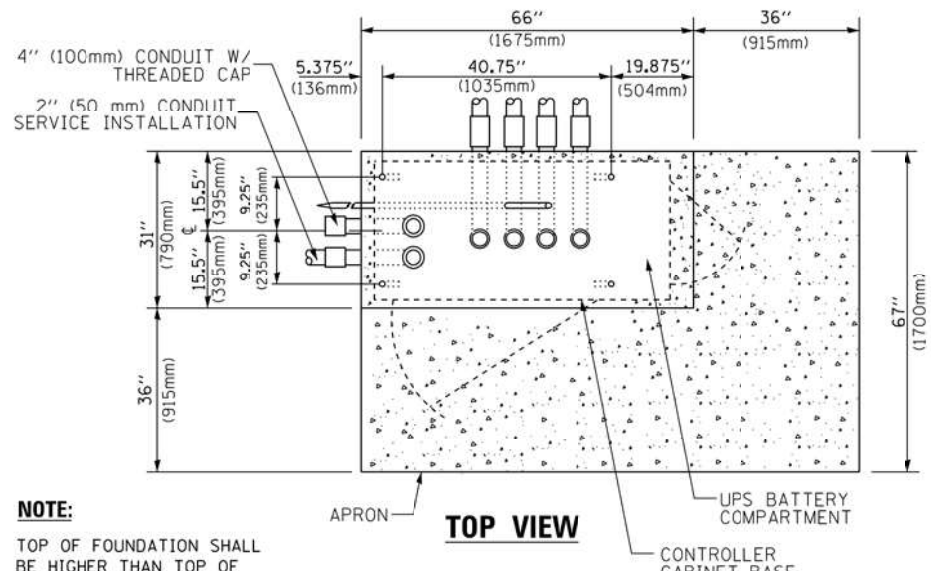
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**TOP VIEW**

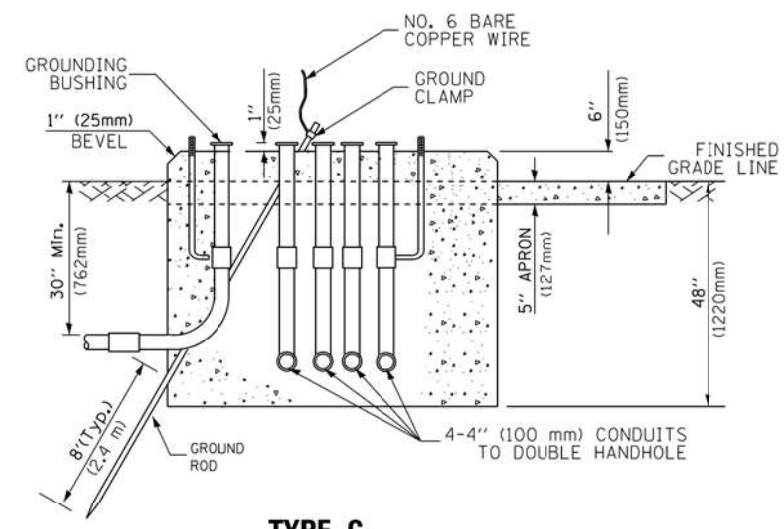


**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**

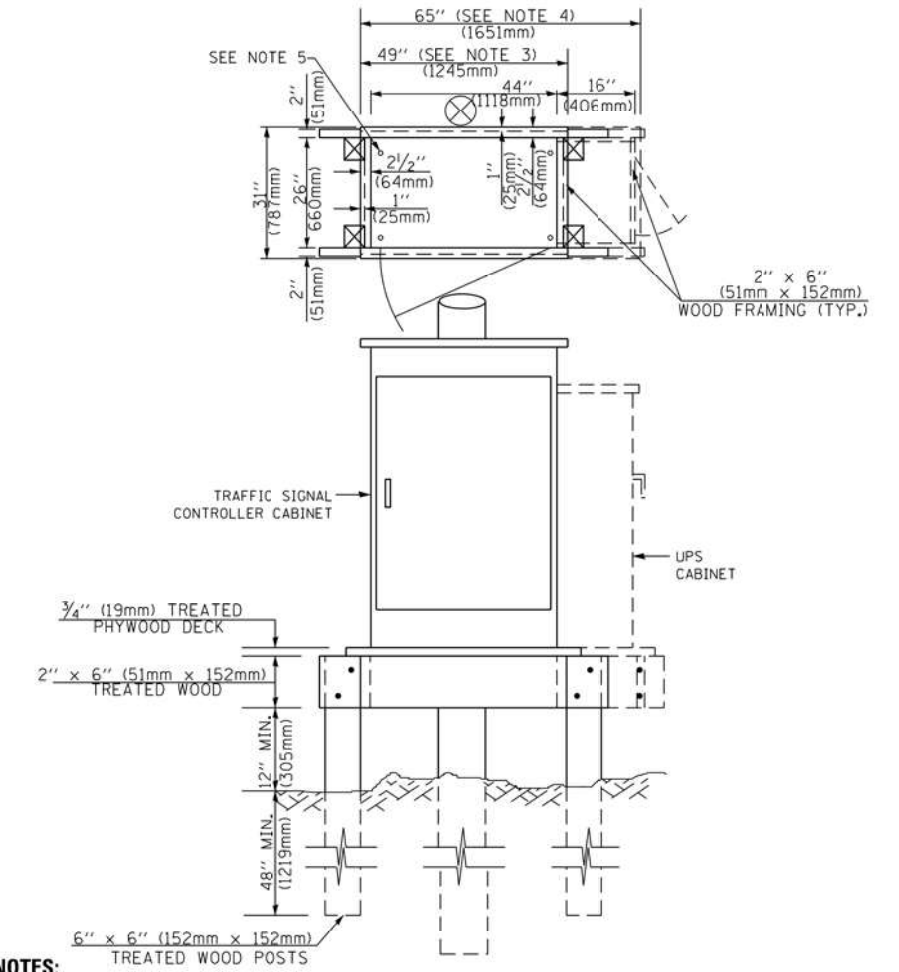


**TOP VIEW**

**NOTE:**  
TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



**TYPE C  
FOR GROUND MOUNTED  
SUPER P (TYPE IV) AND SUPER R (TYPE V)  
CONTROLLER CABINETS**



**NOTES:**

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

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

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

**CABLE SLACK**

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

**VERTICAL CABLE LENGTH**

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

**DEPTH OF FOUNDATION**

MAST ARM LENGTH	① FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	24" (600mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and up to 56' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

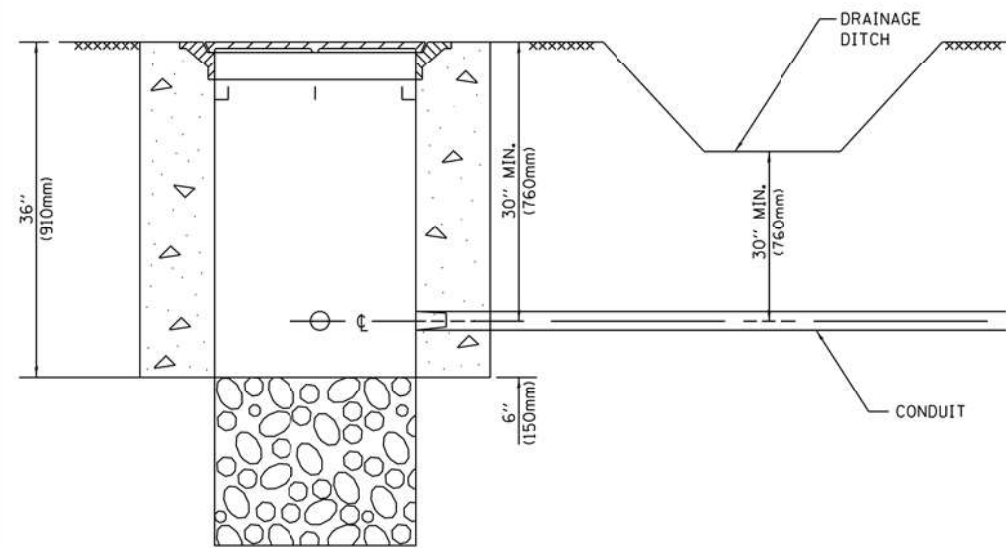
**NOTES:**

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

**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**

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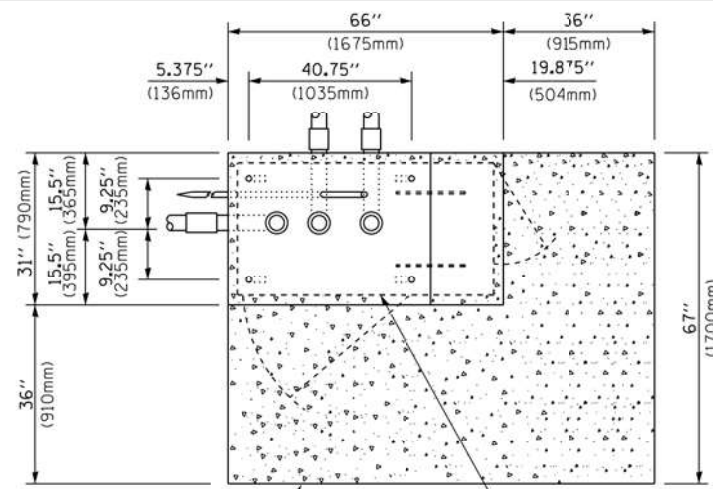
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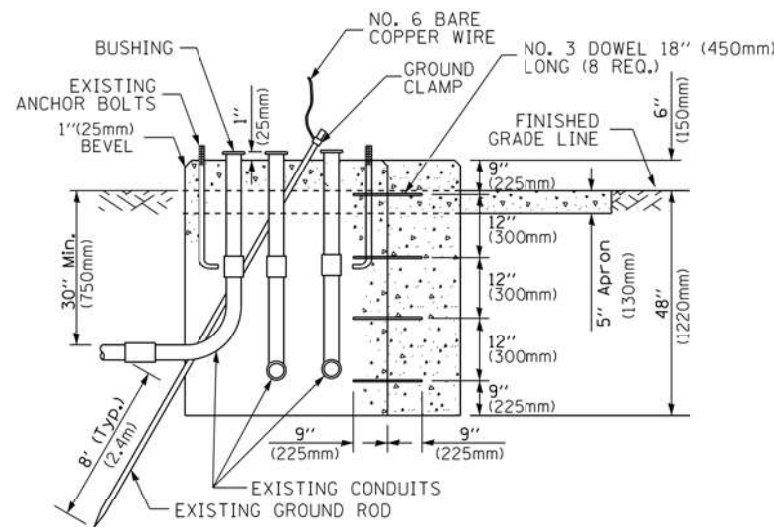
**NOTES:**

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



**TOP VIEW**  
(NOT TO SCALE)

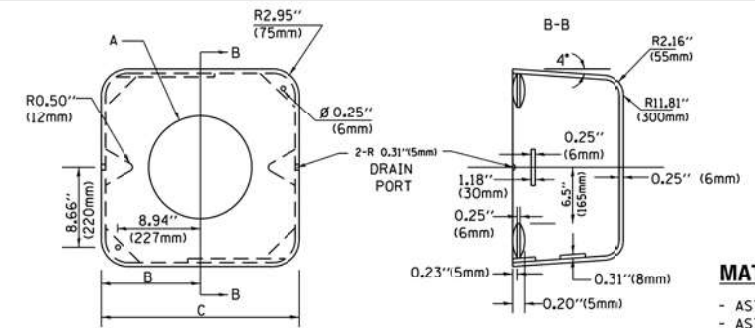


**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0,000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

**NOTES:**

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



**MATERIAL:**  
- ASTM A36 STEEL  
- ASTM A-123 HOT DIPPED GALVANIZED

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

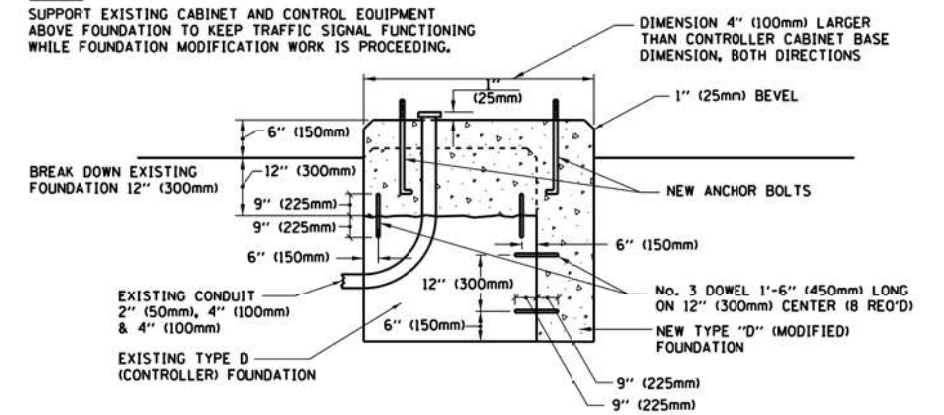
**SHROUD**

**NOTES:**

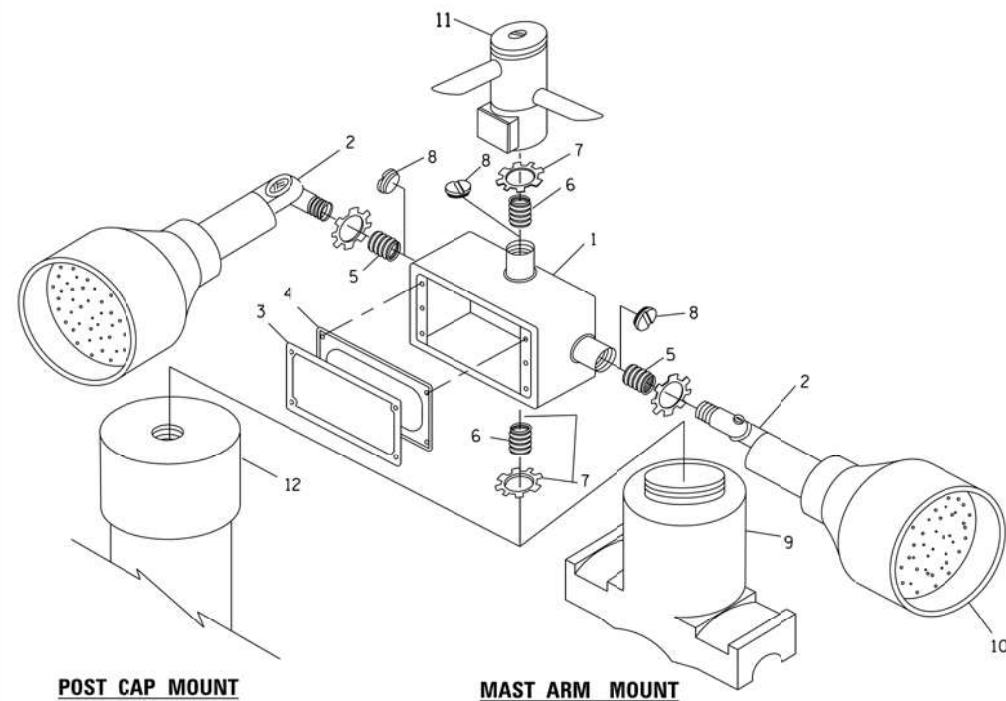
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE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

**NOTE:**

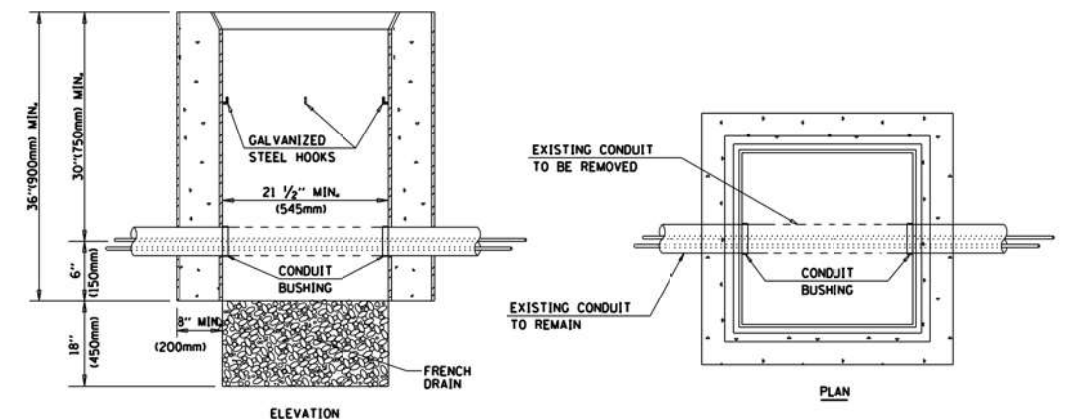
SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



**MODIFY EXISTING TYPE "D" FOUNDATION**



**POST CAP MOUNT**      **MAST ARM MOUNT**  
**EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL**

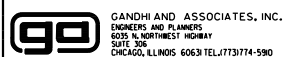


**NOTES:**

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

**HANDHOLE TO INTERCEPT EXISTING CONDUIT**

FILE NAME = K:\PROJECTS\Projects\_2022\22-ESR-498-IDD1.IL Rev 7 (7th St & Addison) D:\PTB 194-19\CADD\_Sheets\03.IDD1 DETAIL 5.6.dgn



USER NAME = \$USER\$	DESIGNED -	REVISED -
PLOT SCALE = 40.0000' / 1"	DRAWN -	REVISED -
PLOT DATE = \$DATE\$	CHECKED -	REVISED -
	DATE -	REVISED -

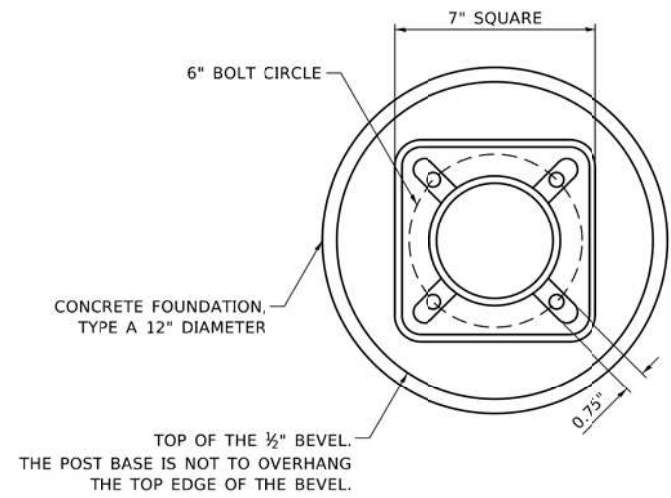
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

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

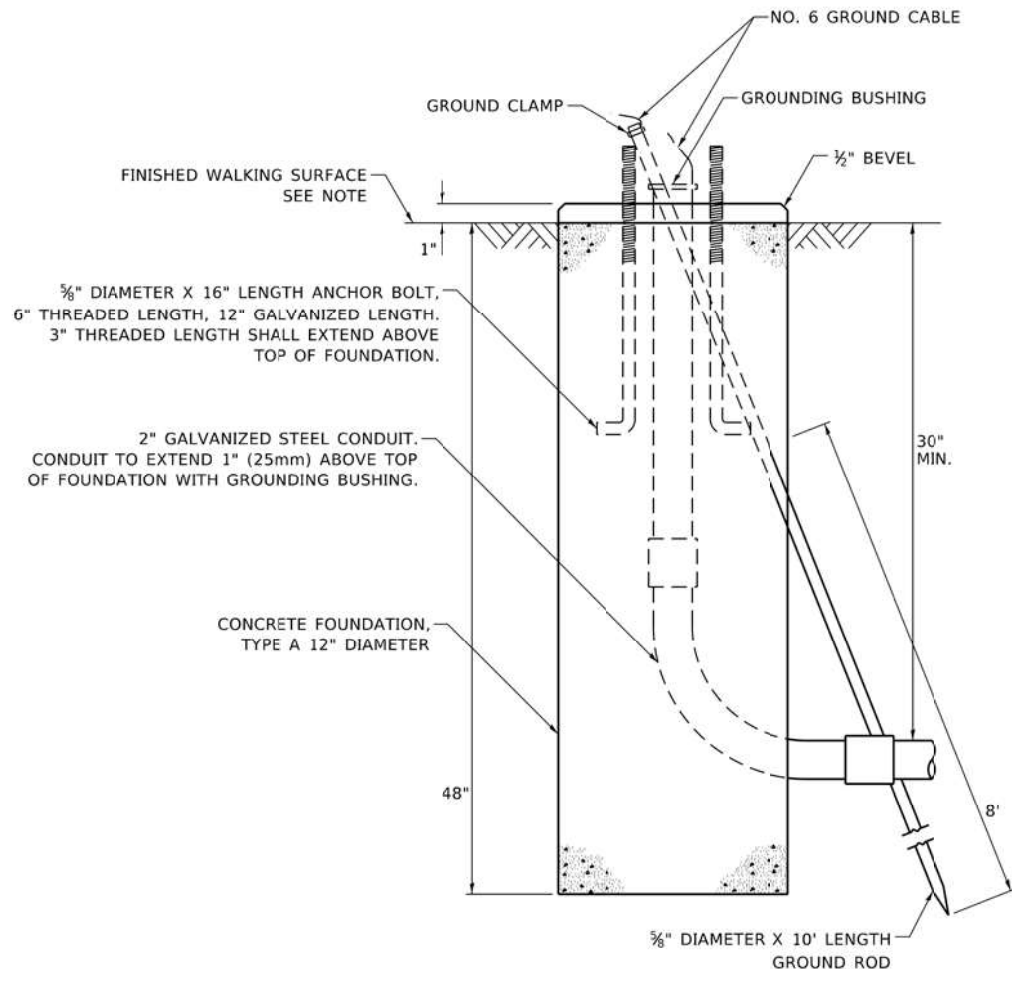
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	13
TS-05			CONTRACT NO. 62R85	
ILLINOIS FED. AID PROJECT				



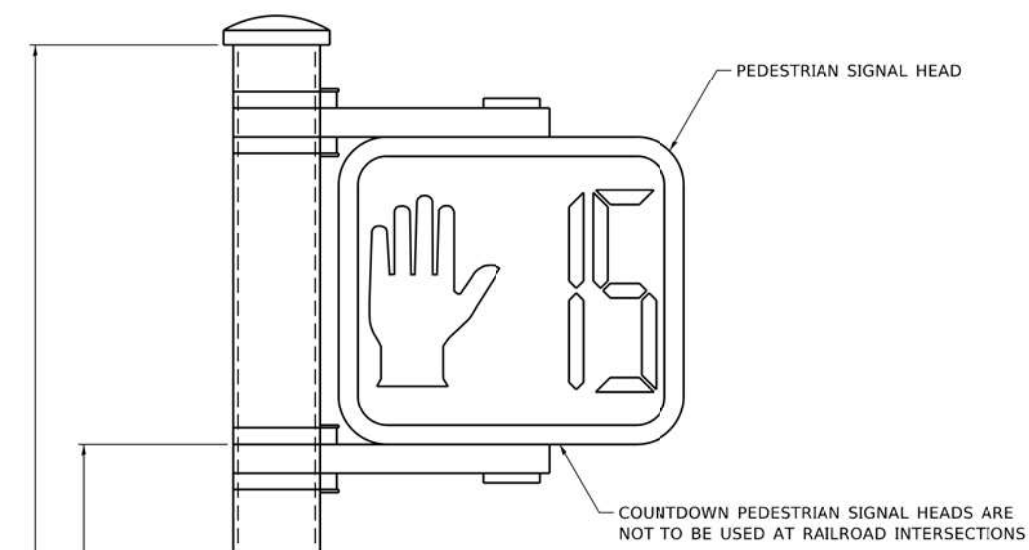


**BOLT PATTERN**

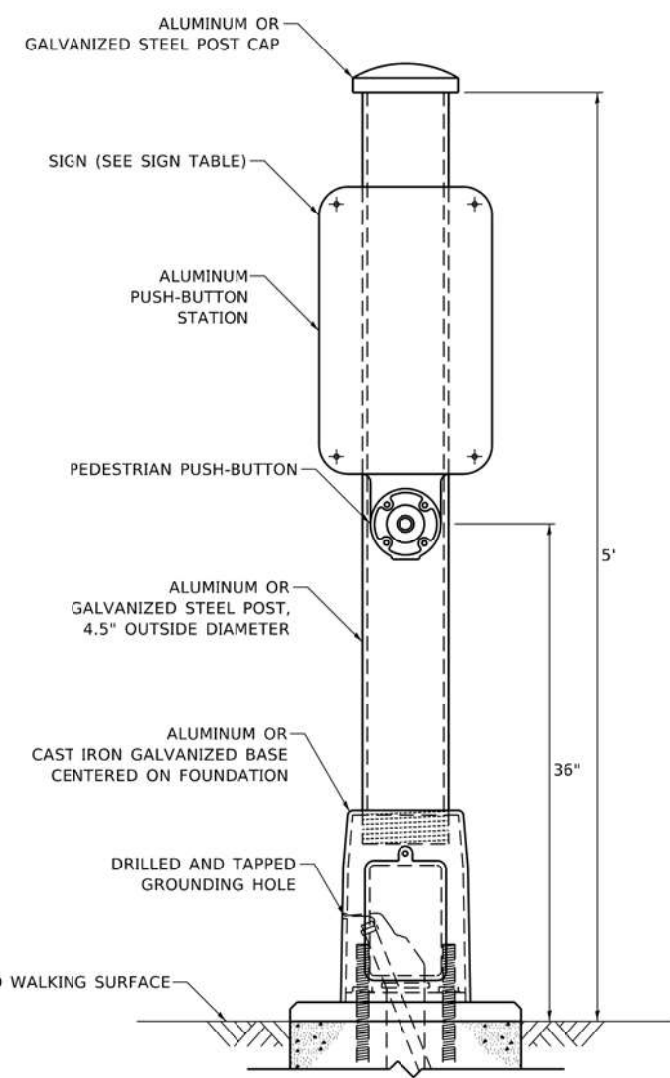
NOTE:  
1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



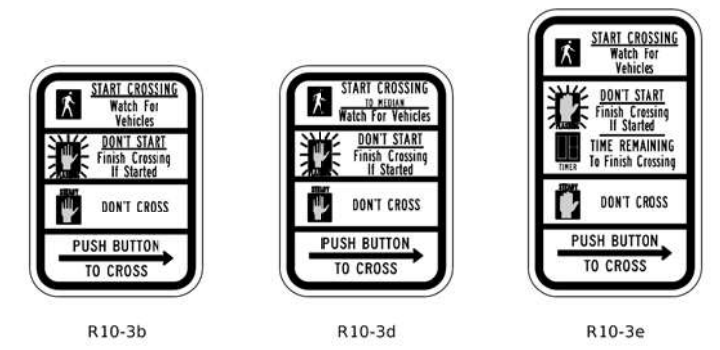
**CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER**



**PEDESTRIAN SIGNAL POST, 10 FT.**



**PEDESTRIAN SIGNAL POST, 5 FT.**



**SIGN TABLE**

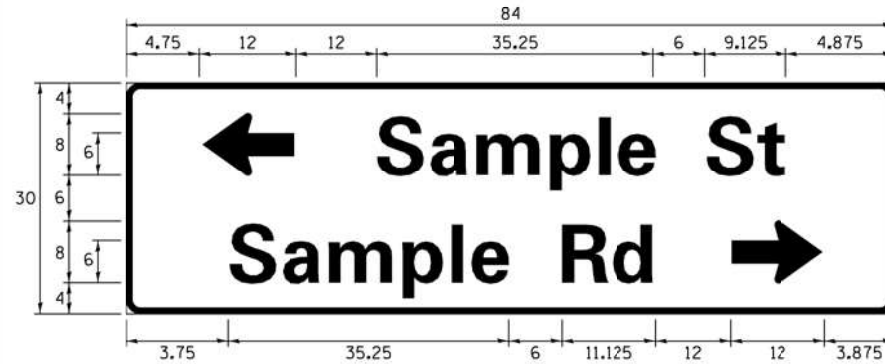
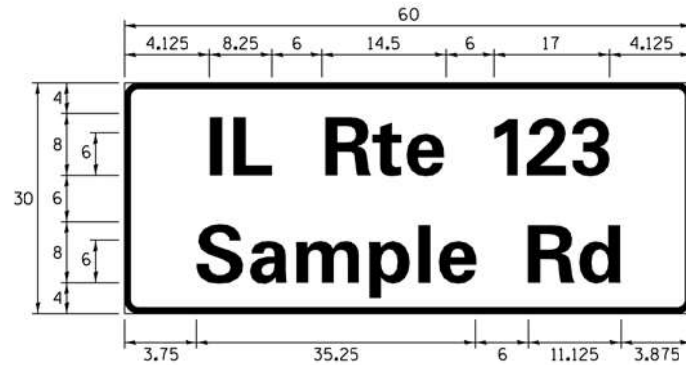
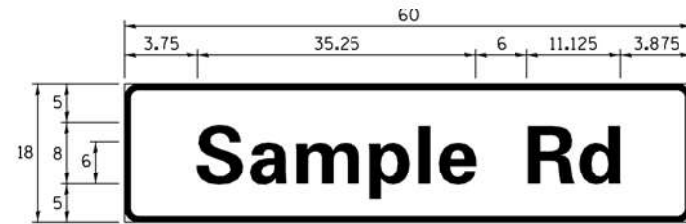
SIGN	DIMENSIONS
R10-3b (RAILROAD ONLY)	9" X 12"
R10-3d (RAILROAD ONLY)	9" X 12"
R10-3e	9" X 15"

NOTES:  
1. THE SIGN PANELS SHALL BE TYPE AP SHEETING.  
2. THE ARROW ON SIGNS FOR PUSH-BUTTONS SERVING TWO DIRECTIONS ON THE SAME PHASE SHALL BE BI-DIRECTIONAL.  
3. THE SIGN FOR DUAL-CALL PUSH-BUTTONS SHALL HAVE NO ARROW.

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-IDD1.IL Rev 7 (7th St & Addison Dr) PTB 194-19\CADD\_Sheets\014.IDDT DETAIL 5.7.dgn

<p>GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 5035 N. NORTHWEST HIGHWAY SUITE 200 CHICAGO, ILLINOIS 60630 TEL: (773) 774-590</p>	USER NAME = \$USER\$	DESIGNED - IP	REVISED - 10/15/2020	<p align="center"><b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b></p>	<p><b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b></p>			F.A.P. RTE. 351	SECTION 2023 SIGNALS 04	COUNTY WILL	TOTAL SHEETS 43	SHEET NO. 14
	PLOT SCALE = 40.0000' / 1"	CHECKED - LP	REVISOR -		DATE - 10/15/2018	SCALE: 1"=20'	SHEET NO.	OF SHEETS	STA.	TO STA.	<p><b>TS-05</b> CONTRACT NO. 62R85 ILLINOIS FED. AID PROJECT</p>	

**SIGN PANEL – TYPE 1 OR TYPE 2**



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D OR C	-	1 OR 2	ZZ	-

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

**COMMON STREET NAME ABBREVIATIONS AND WIDTHS**

NAME	ABBREVIATION	WIDTH (INCH)	
		SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7.750	9.125
UNITED STATES	US	10.375	12.250

**GENERAL NOTES**

- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
- THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS SHALL BE 3/4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8'-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
- LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

**LOCAL SUPPLIERS:**

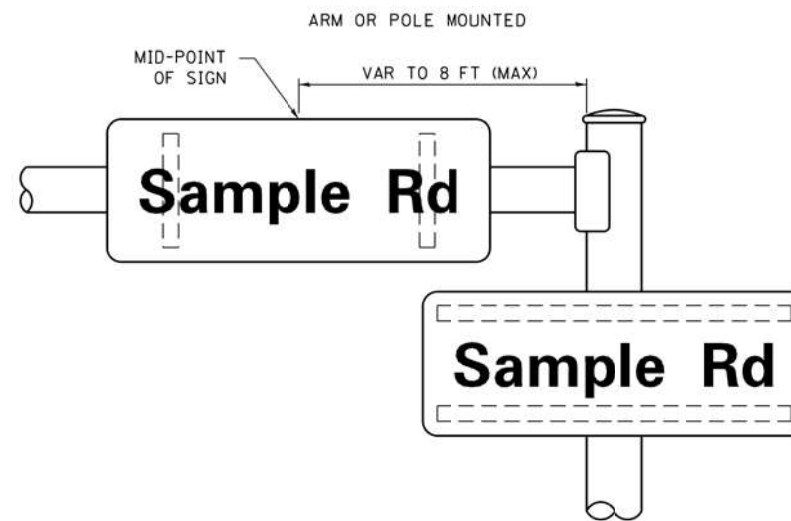
- J.O. HERBERT COMPANY, INC  
MIDLOTHIAN, VA
- WESTERN REMAC, INC.  
WOODRIDGE, IL

**PARTS LISTING:**

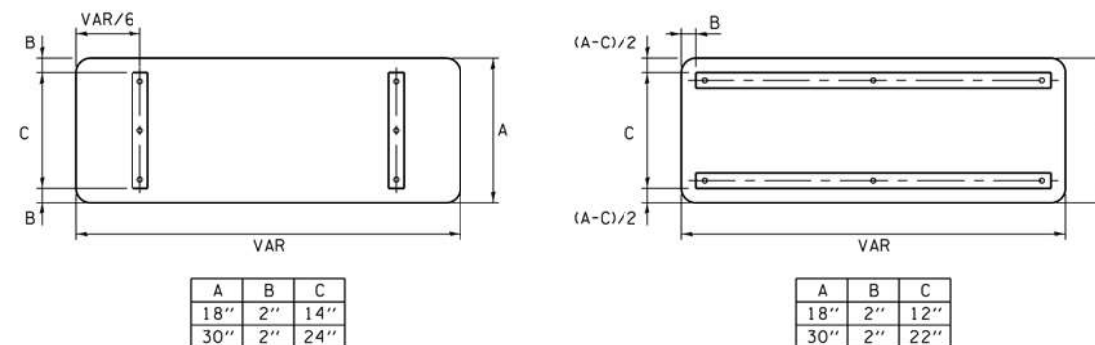
- SIGN CHANNEL PART #HPN053 (MED. CHANNEL)  
1/4" x 14 x 1" H.W.H. #3  
SELF TAPPING WITH NEOPRENE WASHER
- SIGN SCREWS PART #HPN034 (UNIVERSAL)  
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING
- BRACKETS

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

**MOUNTING LOCATION**



**SUPPORTING CHANNELS**



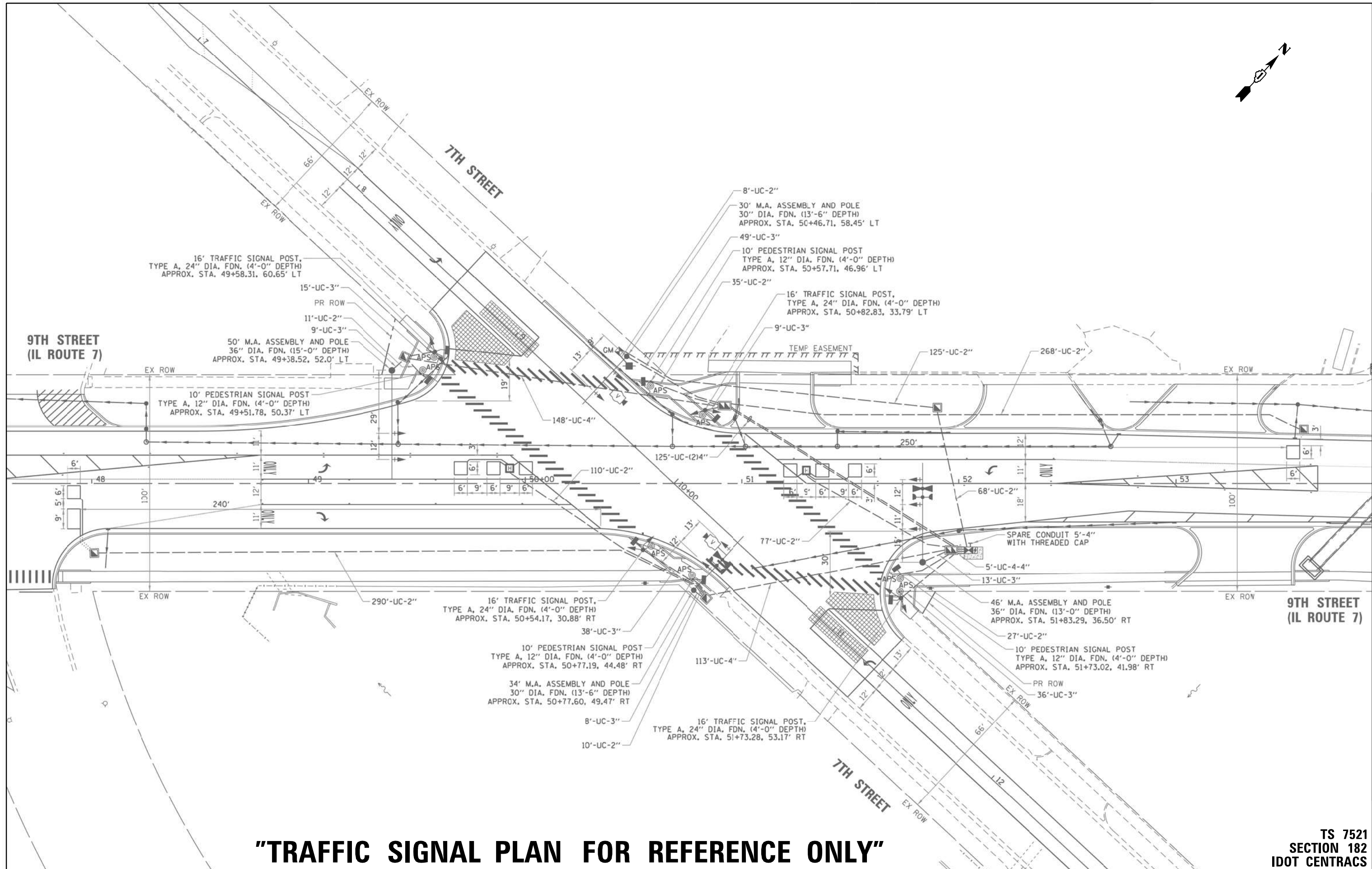
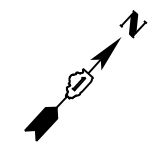
**STANDARD ALPHABETS SPACING CHART**

( 8" ) UPPER CASE AND ( 6" ) LOWER CASE

CHARACTER	FHWA SERIES "C"			CHARACTER	FHWA SERIES "D"		
	LEFT SPACING ( INCH )	WIDTH ( INCH )	RIGHT SPACING ( INCH )		LEFT SPACING ( INCH )	WIDTH ( INCH )	RIGHT SPACING ( INCH )
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.882	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

K:\PROJECTS\Projects\2022\22-ESR-498-IDOT-IL Rev 7 (7th St & Administration) D:\PFB 194-19\CAD\Drawings\015.IDOT DETAIL 5.dwg

GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 505 N. NORTHWEST HIGHWAY SUITE 205 CHICAGO, ILLINOIS 60657 TEL: (773) 774-590	USER NAME = \$USER\$	DESIGNED - IP	REVISED - 10/15/2020	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS	F.A.P. RTE. 351	SECTION 2023 SIGNALS 04	COUNTY WILL	TOTAL SHEETS 43	SHEET NO. 15
	PLOT SCALE = 40.0000' / 1"	CHECKED - LP	REVISIED -			SCALE: 1"=20'	SHEET NO. OF SHEETS STA. TO STA.	TS-02	CONTRACT NO. 62R85	ILLINOIS FED. AID PROJECT



**"TRAFFIC SIGNAL PLAN FOR REFERENCE ONLY"**

**TS 7521**  
**SECTION 182**  
**IDOT CENTRACS**

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-IDOT-IL Rte 7 (7th St & Addlmmn D) \PFB 194-19\CADD\Sheets\016-IL Rte 7 at 7th St-INT.dgn


**GANDHI AND ASSOCIATES, INC.**  
 ENGINEERS AND PLANNERS  
 5035 N. NORTHWEST HIGHWAY  
 SUITE 200  
 CHICAGO, ILLINOIS 60630 TEL: 773.774.590

USER NAME = \$USER\$	DESIGNED - EA	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - MS	REVISED -
	DATE - 2/23/2024	REVISED -

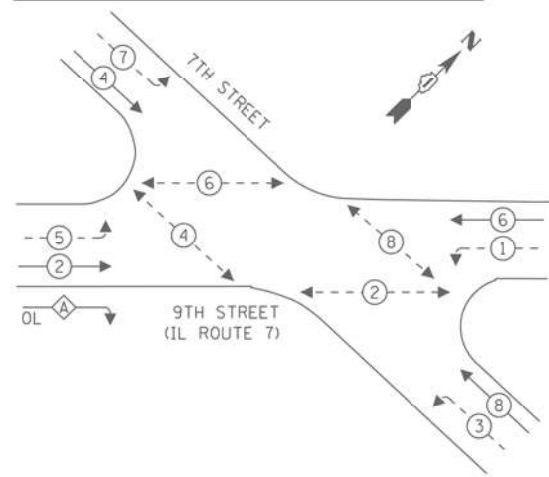
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

<b>LOCATION #1</b> <b>IL RTE 7 (9TH ST) AT 7TH ST INTERSECTION PLAN</b>	
SCALE: N.T.S.	SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	16
CONTRACT NO. 62R85				
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				



**PROPOSED CONTROLLER SEQUENCE**



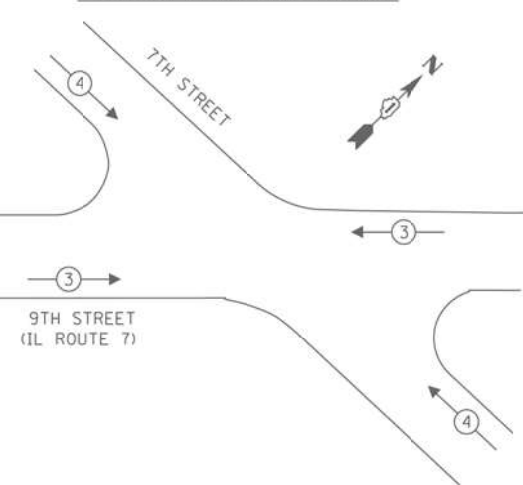
**LEGEND:**

- ← ⊙ ← PROTECTED PHASE
- ← ⊙ ← PROTECTED/PERMITTED PHASE
- ← ⊙ → PEDESTRIAN PHASE
- ⊙ OL OVERLAP

**RIGHT TURN OVERLAP PHASE DESIGNATION:**

OVERLAP LETTER = PERMISSIVE PHASE + PROTECTED PHASE  
 A = 2 + 3

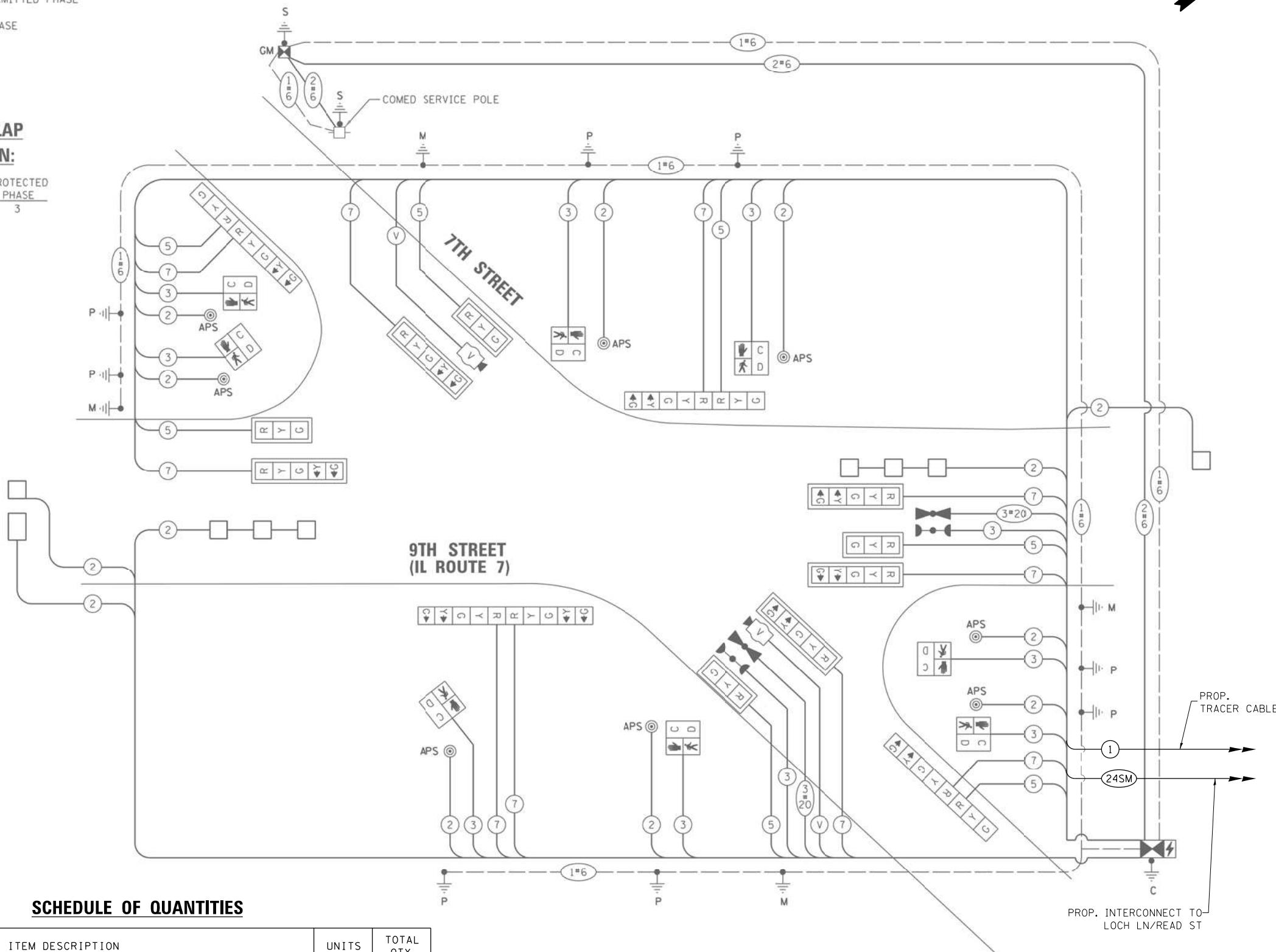
**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	QUANTITY	LED WATTAGE	TOTAL WATTAGE
<b>SIGNAL HEAD</b>			
3-SECTION	7	11	44
4-SECTION	-	14	-
5-SECTION	10	13	130
<b>PROGRAMMABLE SIGNALS</b>			
3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
<b>PED. SIGNAL</b>			
CONTROLLER	8	15	120
MASTER CONTROLLER	1	150	150
UPS	-	100	-
DETECTION	1	25	25
RADAR	-	20	-
VIDEO	2	20	40
NETWORK SWITCH II OR III	-	25	-
BLANK-OUT SIGN	-	35	-
CELLULAR MODEM	-	15	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>509</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1114</b>

ENERGY COSTS TO:  
**CITY OF LOCKPORT**  
 222 E 9TH STREET  
 LOCKPORT, IL 60441  
 ENERGY SUPPLY: CONTACT: NEW CONTACT  
 PHONE: NEW NUMBER  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER:



**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	24
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
* CENTRACTS LICENSE EXPANSION	EACH	1

\* CENTRACTS LICENSE WILL BE PROVIDED BY IDOT.

**CABLE PLAN**  
(NOT TO SCALE)

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**LOCATION #1**  
**IL RTE 7 (9TH ST) AT 7TH ST CABLE PLAN**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	17
CONTRACT NO. 62R85				

**TS 7521**  
**SECTION 182**  
**IDOT CENTRACTS**

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-IDOT-IL-Rte 7 (7th St & Addison) D:\PFB 194-19\CADD\_Sheets\07-IL-Rte 7 at 7th St\_CD.dgn

**GA** GANDHI AND ASSOCIATES, INC.  
 ENGINEERS AND PLANNERS  
 5035 N. NORTHWEST HIGHWAY  
 SUITE 200  
 CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900

USER NAME = \$USER\$	DESIGNED - EA	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - MS	REVISED -
	DATE - 2/23/2024	REVISED -

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

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

**REMOVAL AND RELOCATION NOTES:**

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

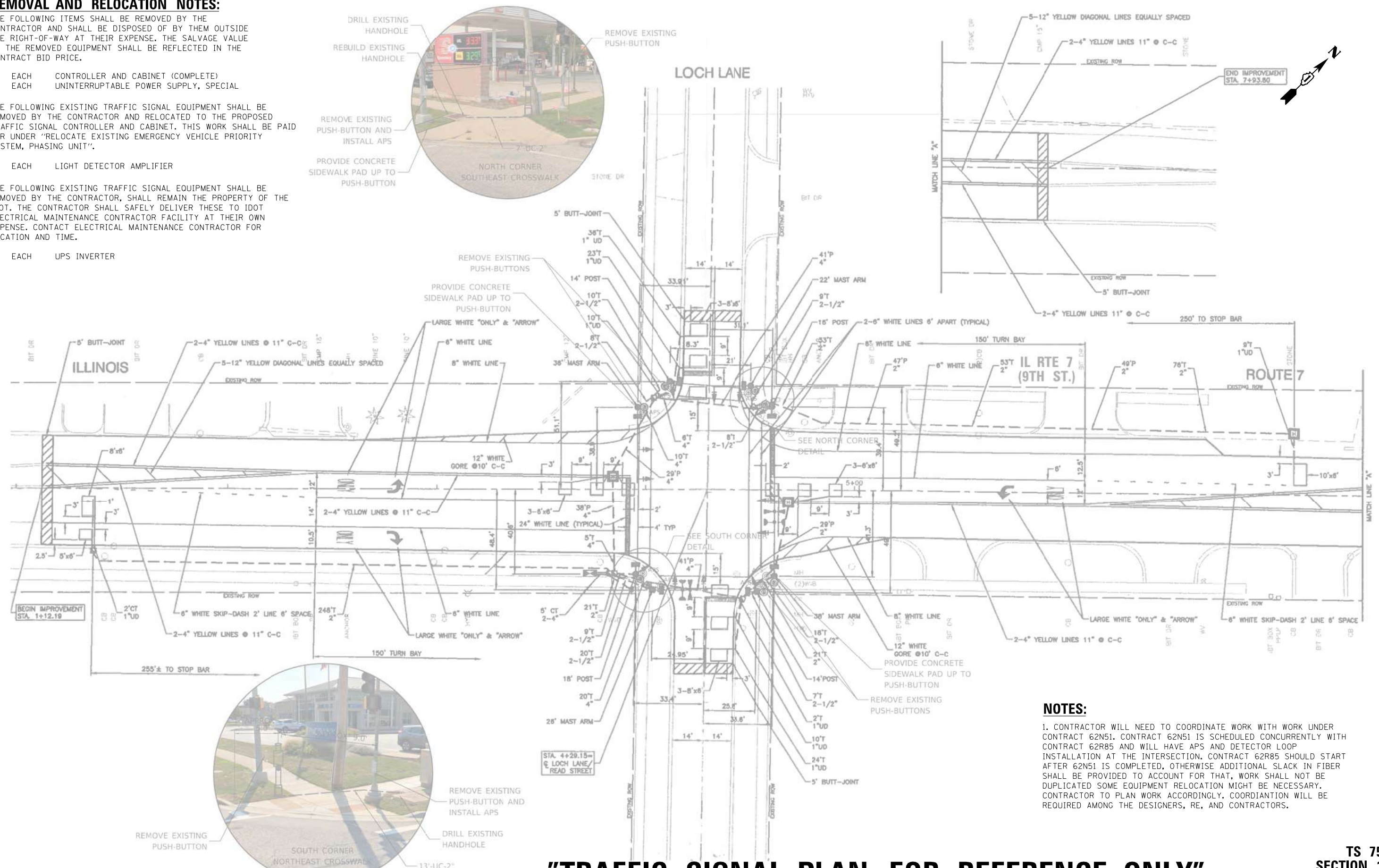
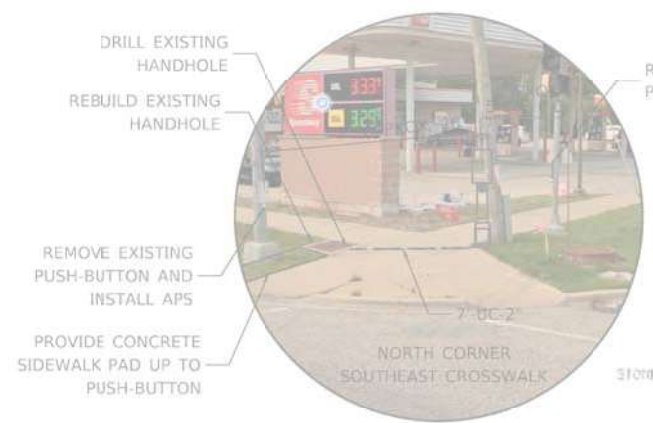
- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 1 EACH UNINTERRUPTABLE POWER SUPPLY, SPECIAL

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED TO THE PROPOSED TRAFFIC SIGNAL CONTROLLER AND CABINET. THIS WORK SHALL BE PAID FOR UNDER "RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT".

- 1 EACH LIGHT DETECTOR AMPLIFIER

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE IDOT. THE CONTRACTOR SHALL SAFELY DELIVER THESE TO IDOT ELECTRICAL MAINTENANCE CONTRACTOR FACILITY AT THEIR OWN EXPENSE. CONTACT ELECTRICAL MAINTENANCE CONTRACTOR FOR LOCATION AND TIME.

- 1 EACH UPS INVERTER



**NOTES:**

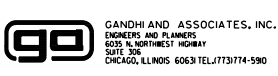
1. CONTRACTOR WILL NEED TO COORDINATE WORK WITH WORK UNDER CONTRACT 62N51. CONTRACT 62N51 IS SCHEDULED CONCURRENTLY WITH CONTRACT 62R85 AND WILL HAVE APS AND DETECTOR LOOP INSTALLATION AT THE INTERSECTION. CONTRACT 62R85 SHOULD START AFTER 62N51 IS COMPLETED. OTHERWISE ADDITIONAL SLACK IN FIBER SHALL BE PROVIDED TO ACCOUNT FOR THAT, WORK SHALL NOT BE DUPLICATED SOME EQUIPMENT RELOCATION MIGHT BE NECESSARY. CONTRACTOR TO PLAN WORK ACCORDINGLY. COORDINATION WILL BE REQUIRED AMONG THE DESIGNERS, RE, AND CONTRACTORS.

**"TRAFFIC SIGNAL PLAN FOR REFERENCE ONLY"**

**TS 7524  
SECTION 182  
IDOT CENTRACS**

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LOCATION #2  
IL RTE 7 (9TH ST) AT LOCH LN/READ ST INTERSECTION PLAN**

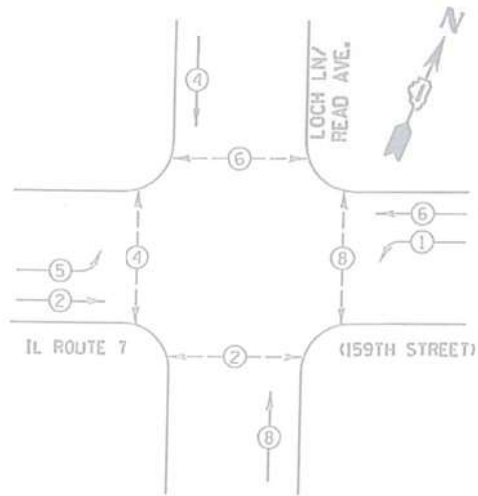


USER NAME = \$USER\$	DESIGNED - EA	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - MS	REVISED -
	DATE - 2/23/2024	REVISED -

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	18
CONTRACT NO. 62R85				
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				

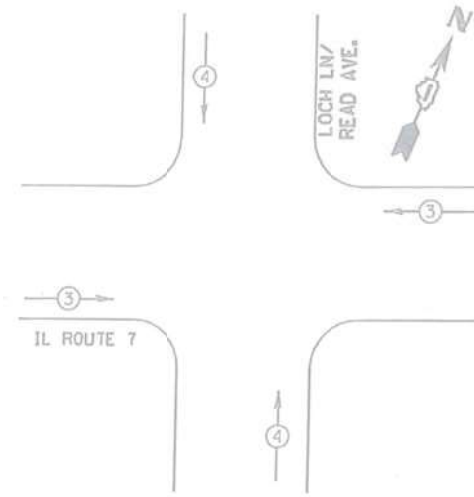
FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-IDOT-IL-Rte 7 (7th St & Addison) D:\PTB 194-19\CADD\_Sheets\08-IL-Rte 7 at Read St\_IL\_INT.dgn

**EXISTING CONTROLLER SEQUENCE**



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

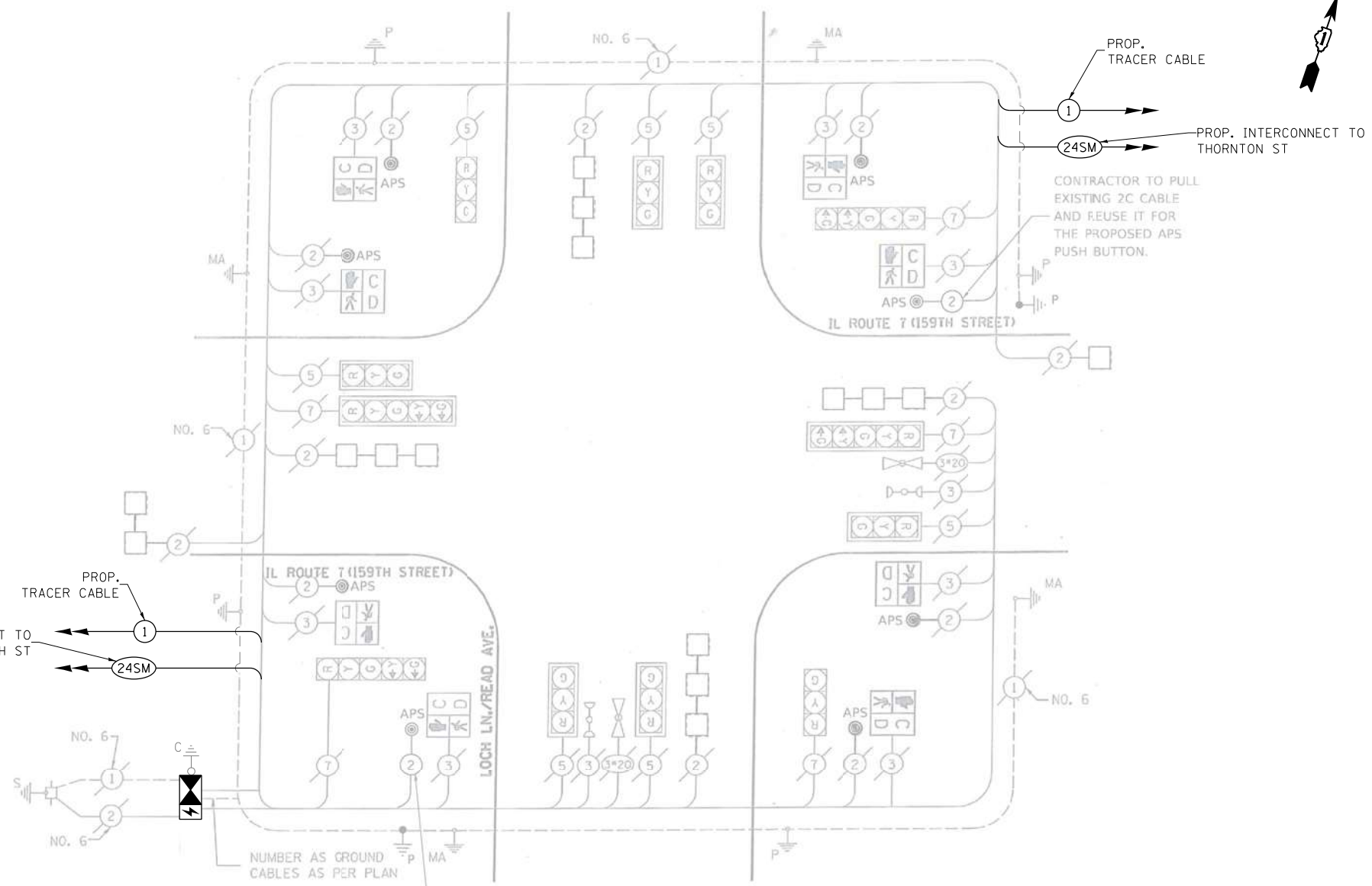
**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	QUANTITY	LED WATTAGE	TOTAL WATTAGE
SIGNAL HEAD			
3-SECTION	8	11	88
4-SECTION	-	14	-
5-SECTION	4	13	52
PROGRAMMABLE SIGNALS			
3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PED.SIGNAL	8	15	120
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR	-	20	-
VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
TOTAL UPS SIZING			<b>470</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
TOTAL SERVICE WIRE SIZING			<b>1075</b>

ENERGY COSTS TO:  
 CITY OF LOCKPORT  
 222 E 9TH STREET  
 LOCKPORT, IL 60441  
 ENERGY SUPPLY: CONTACT: DENISE BAKER  
 PHONE: (815) 724-5054  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: 27391-20053



**CABLE PLAN**

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	6
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	6
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
* CENTRACS LICENSE EXPANSION	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT.

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-1001\IL Rte 7 (7th St & Addison) D:\PFB 194-19\CADD\_Sheets\019\_IL Rte 7 at Read St\_CD.dgn



DESIGNED - EA	REVISOR -
DRAWN - EA, AV	REVISION -
CHECKED - MS	REVISION -
DATE - 2/23/2024	REVISION -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

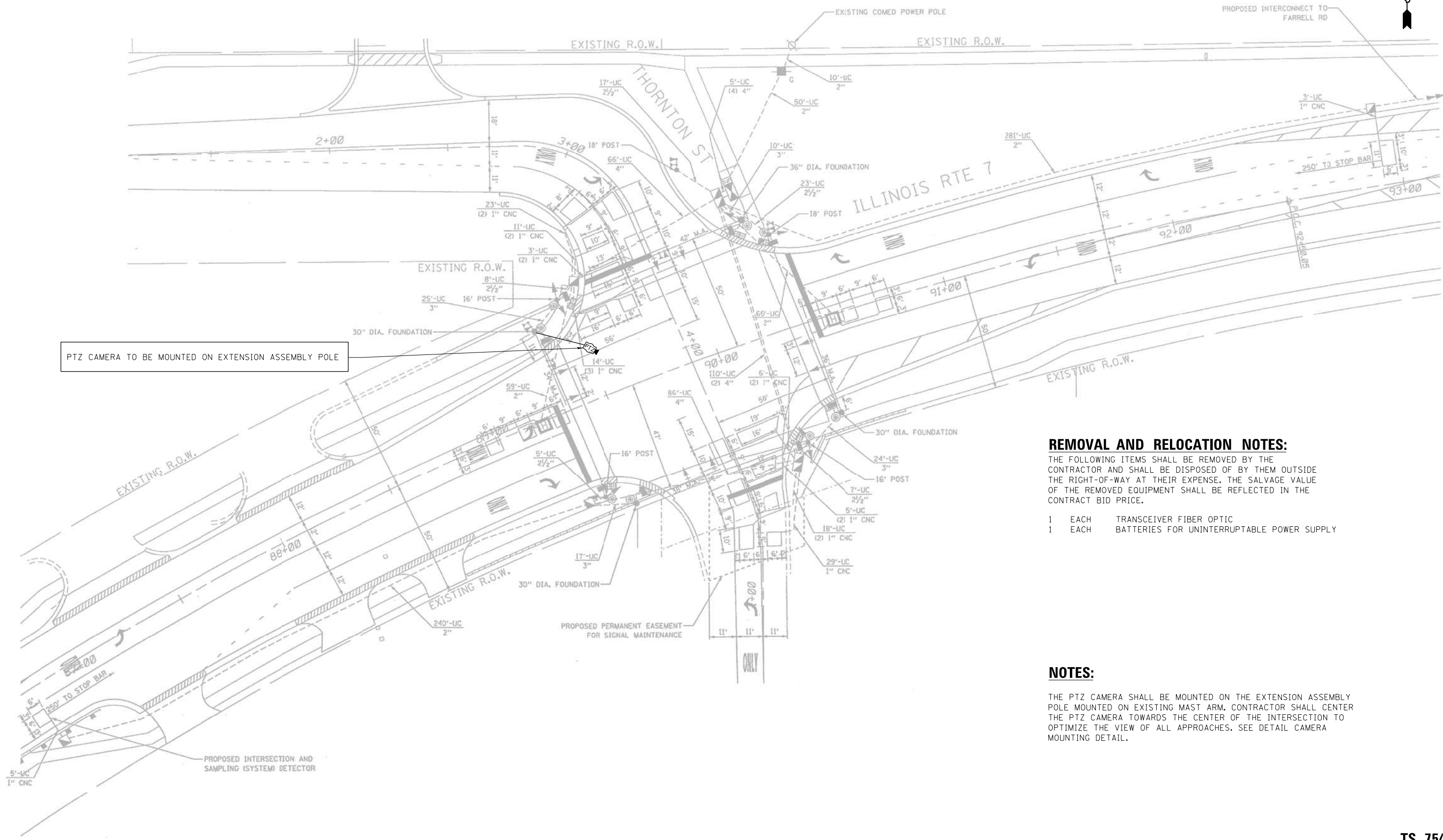
**LOCATION #2 IL RTE 7 (9TH ST) AT LOCH LN/READ ST CABLE PLAN**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	19
CONTRACT NO. 62R85				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

**TS 7524 SECTION 182 IDOT CENTRACS**



# "TRAFFIC SIGNAL PLAN FOR REFERENCE ONLY"



PTZ CAMERA TO BE MOUNTED ON EXTENSION ASSEMBLY POLE

- REMOVAL AND RELOCATION NOTES:**
- 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 TRANSCEIVER FIBER OPTIC
  - 1 EACH BATTERIES FOR UNINTERRUPTABLE POWER SUPPLY

**NOTES:**

THE PTZ CAMERA SHALL BE MOUNTED ON THE EXTENSION ASSEMBLY POLE MOUNTED ON EXISTING MAST ARM. CONTRACTOR SHALL CENTER THE PTZ CAMERA TOWARDS THE CENTER OF THE INTERSECTION TO OPTIMIZE THE VIEW OF ALL APPROACHES. SEE DETAIL CAMERA MOUNTING DETAIL.

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-1001.IL Rte 7 (7th St & Addison) D:\PTB 194-19\CADD\_Sheets\020.IL Rte 7 at Thornton St\_INT.dgn



GANDHI AND ASSOCIATES, INC.  
ENGINEERS AND PLANNERS  
5035 N. NORTHWEST HIGHWAY  
SUITE 206  
CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900

USER NAME = \$USER\$	DESIGNED - EA	REVISED -
	DRAWN - EA, AV	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - MS	REVISED -
PLOT DATE = \$DATE\$	DATE - 2/23/2024	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

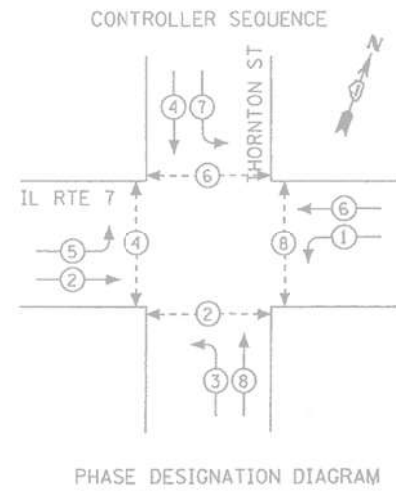
LOCATION #3  
IL RTE 7 (9TH ST) AT THORNTON ST INTERSECTION PLAN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	20
CONTRACT NO. 62R85				
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				

TS 7543  
SECTION 182  
IDOT CENTRACS

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-IDOT-IL Rte 7 (7th St & Addison) D:\PTB 194-19\CADD\_Sheets\021-IL Rte 7 at Thornton St.Caddgn

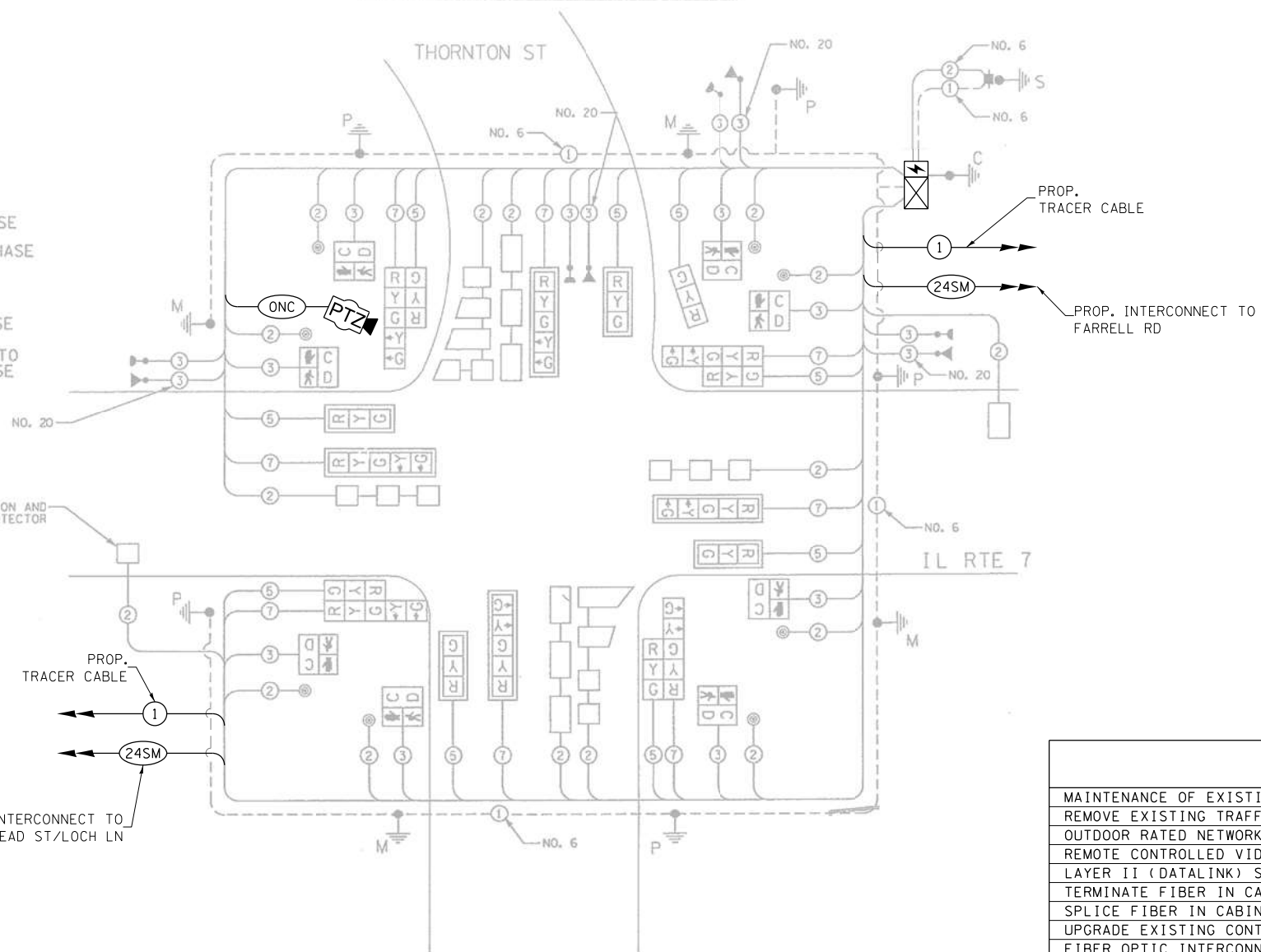


- LEGEND**
- DUAL ENTRY PHASE
  - SINGLE ENTRY PHASE
  - OVERLAP
  - PEDESTRIAN PHASE
  - NUMBER REFERS TO ASSOCIATED PHASE

PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR

PROP. TRACER CABLE  
PROP. INTERCONNECT TO READ ST/LOCH LN

**PROPOSED CABLE PLAN**



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	QUANTITY	LED WATTAGE	TOTAL WATTAGE
SIGNAL HEAD			
3-SECTION	9	11	99
4-SECTION	-	14	-
5-SECTION	8	13	104
PROGRAMMABLE SIGNALS			
3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PED.SIGNAL	8	15	120
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION			
RADAR	-	20	-
VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
TOTAL UPS SIZING			<b>533</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
TOTAL SERVICE WIRE SIZING			<b>1138</b>

ENERGY COSTS TO:

CITY OF LOCKPORT  
222 E 9TH STREET  
LOCKPORT, IL 60441

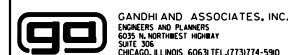
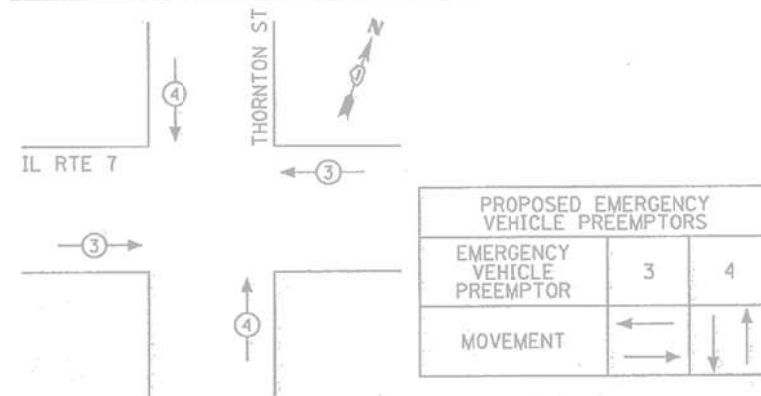
ENERGY SUPPLY: CONTACT: MARK ANDERSON  
PHONE: (815) 724-5988  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: 24690-13038

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
OUTDOOR RATED NETWORK CABLE	FOOT	168
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	6
UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	1
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
REMOVE AND REPLACE BATTERIES FOR UNINTERRUPTABLE POWER SUPPLY	EACH	1
CAMERA MOUNTING ASSEMBLY	EACH	1
* CENTRACS LICENSE EXPANSION	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT.

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



USER NAME = \$USER\$  
DESIGNED - EA  
DRAWN - EA, AV  
PLOT SCALE = 40.0000' / in.  
CHECKED - MS  
PLOT DATE = \$DATE\$  
DATE - 2/23/2024

REVISIED -  
REVISIED -  
REVISIED -  
REVISIED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LOCATION #3  
IL RTE 7 (9TH ST) AT THORNTON ST CABLE PLAN

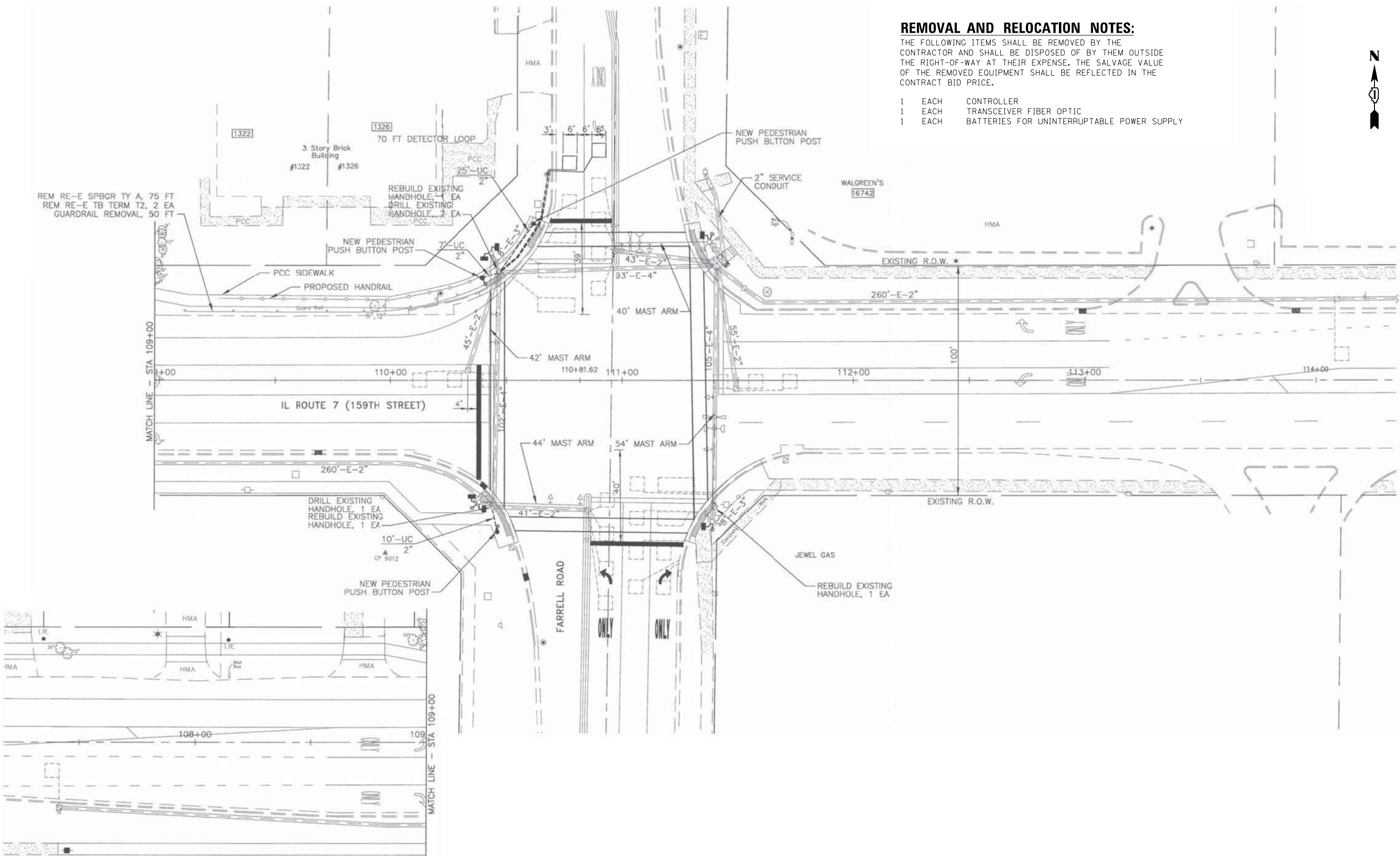
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	21
CONTRACT NO. 62R85				
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				

TS 7543  
SECTION 182  
IDOT CENTRACS



K:\PROJECTS\Projects\2022\22-ESR-498-1001.IL Rte 7 (7th St & Addison) D:\PTB 194-19\CADD\_Sheets\022.IL Rte 7 at Ferrill Rd. INT.dgn  
 FILE NAME =



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

- 1 EACH CONTROLLER
- 1 EACH TRANSCEIVER FIBER OPTIC
- 1 EACH BATTERIES FOR UNINTERRUPTABLE POWER SUPPLY

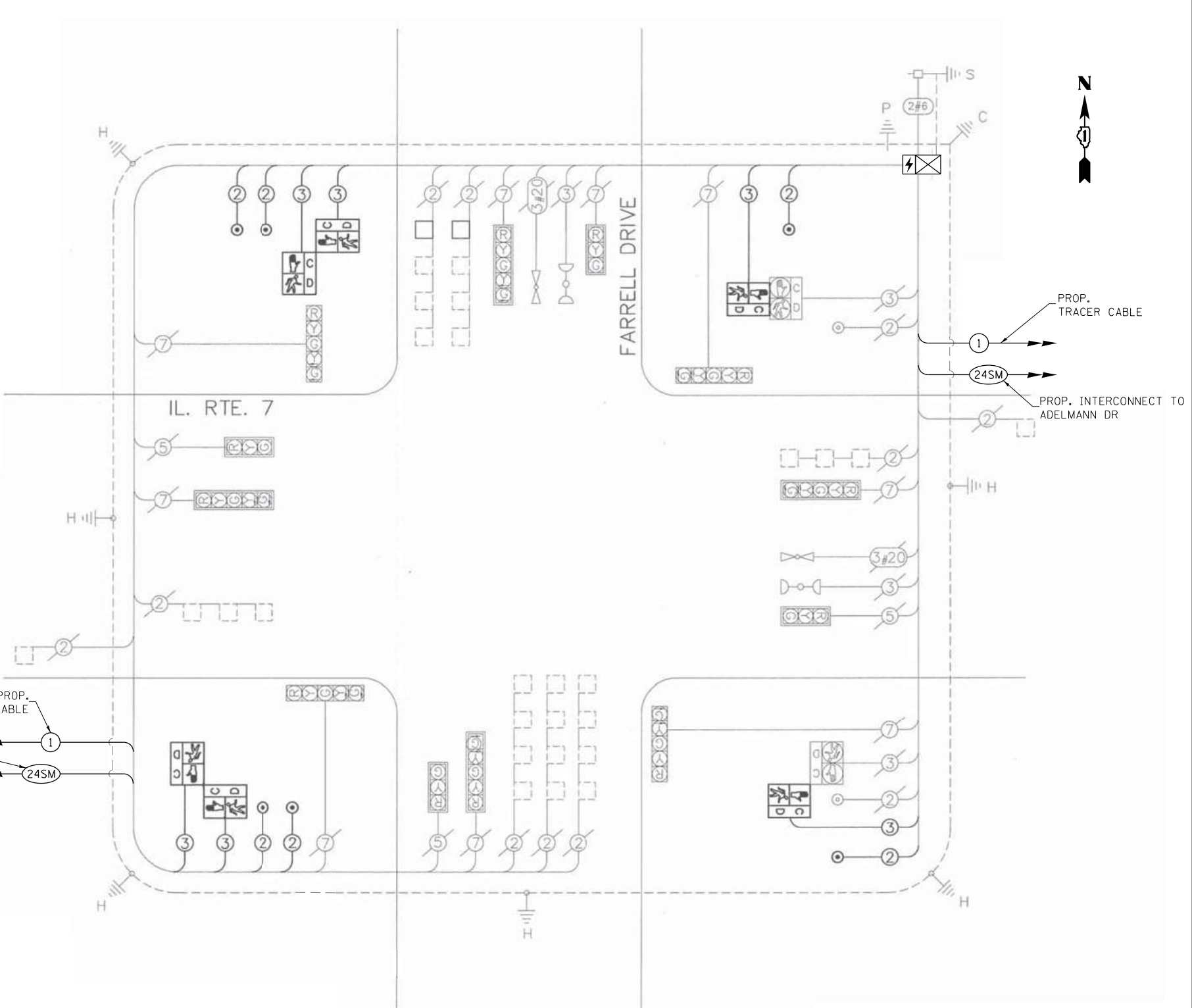
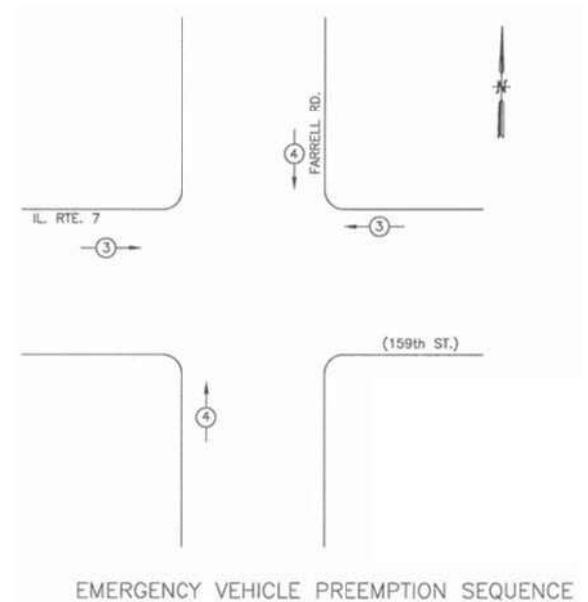
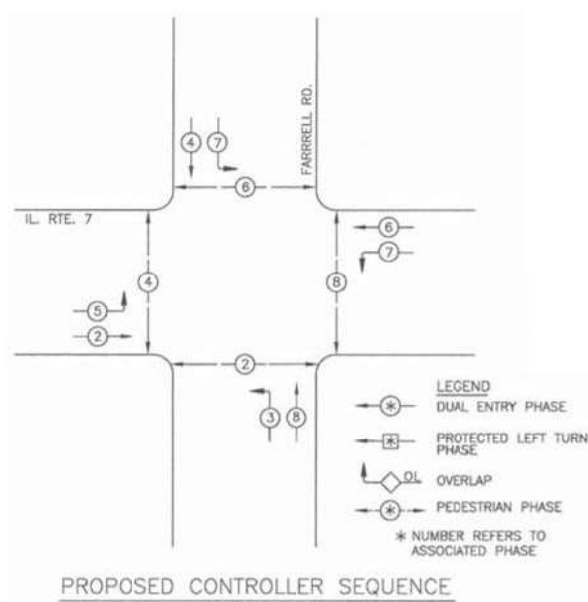


**"TRAFFIC SIGNAL PLAN FOR REFERENCE ONLY"**

**TS 7526  
SECTION 182  
IDOT CENTRACS**

GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 5035 N. NORTHWEST HIGHWAY SUITE 200 CHICAGO, ILLINOIS 60630 TEL: (773) 774-590	USER NAME = \$USER\$	DESIGNED - EA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LOCATION #4 IL RTE 7 (159TH ST) AT FARRELL RD INTERSECTION PLAN</b>			F.A.P. RTE. 351	SECTION 2023 SIGNALS 04	COUNTY WILL	TOTAL SHEETS 43	SHEET NO. 22
	PLOT SCALE = 40.0000' / in.	CHECKED - MS	REVISED -					SCALE: N.T.S.	SHEET NO. OF SHEETS	STA. TO STA.	CONTRACT NO. 62R85	
PLOT DATE = \$DATE\$	DATE - 2/23/2024	REVISED -					FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT					

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-1001-IL RTE 7 (7th St & Adelmans Dr)\PFB 194-19\CADD\_Sheets\023\_IL RTE 7 at Farrell Rd\_CD.dgn



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	QUANTITY	LED WATTAGE	TOTAL WATTAGE
SIGNAL HEAD			
3-SECTION	4	11	44
4-SECTION	-	14	-
5-SECTION	8	13	104
PROGRAMMABLE SIGNALS			
3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PED.SIGNAL	8	15	120
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION			
RADAR	-	20	-
VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>			<b>478</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1083</b>

**ENERGY COSTS TO:**  
 CITY OF LOCKPORT  
 222 E 9TH STREET  
 LOCKPORT, IL 60441  
 ENERGY SUPPLY: CONTACT: DOLORES KREMNETZER  
 PHONE: (815) 724-5214  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: 24870-48066

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	6
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1
REMOVE AND REPLACE BATTERIES FOR UNINTERRUPTIBLE POWER SUPPLY	EACH	1
* CENTRACS LICENSE EXPANSION	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT.

**GANDHI AND ASSOCIATES, INC.**  
 ENGINEERS AND PLANNERS  
 5035 N. NORTHWEST HIGHWAY  
 SUITE 200  
 CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900

DESIGNED - EA	REVISED -
DRAWN - EA, AV	REVISED -
CHECKED - MS	REVISED -
DATE - 2/23/2024	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**LOCATION #4**  
**IL RTE 7 (159TH ST) AT FARRELL RD CABLE PLAN**  
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

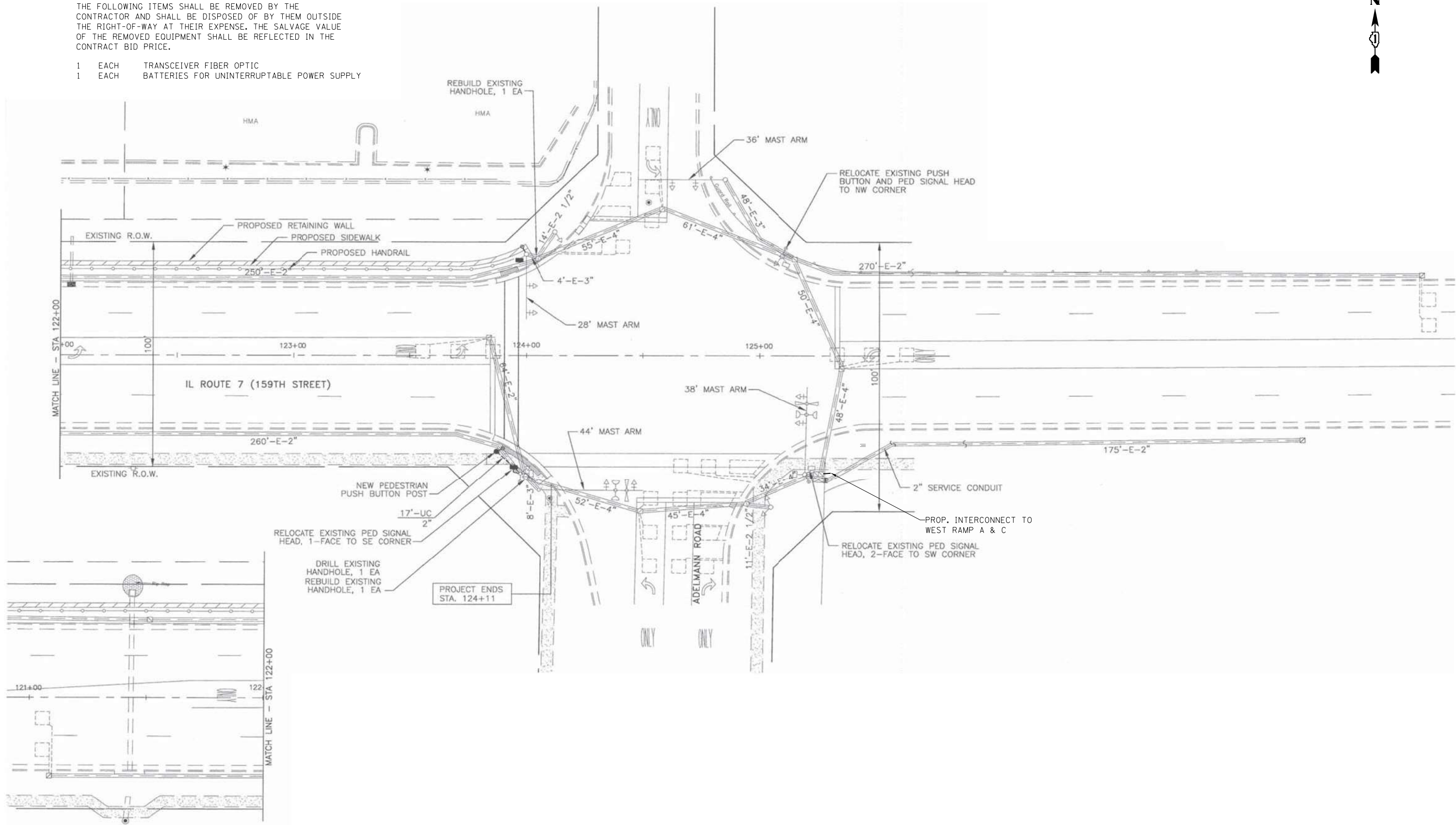
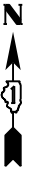
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	23
CONTRACT NO. 62R85				
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				

**TS 7526**  
**SECTION 182**  
**IDOT CENTRACS**

**REMOVAL AND RELOCATION NOTES:**

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 TRANSCEIVER FIBER OPTIC
- 1 EACH BATTERIES FOR UNINTERRUPTABLE POWER SUPPLY



**"TRAFFIC SIGNAL PLAN FOR REFERENCE ONLY"**

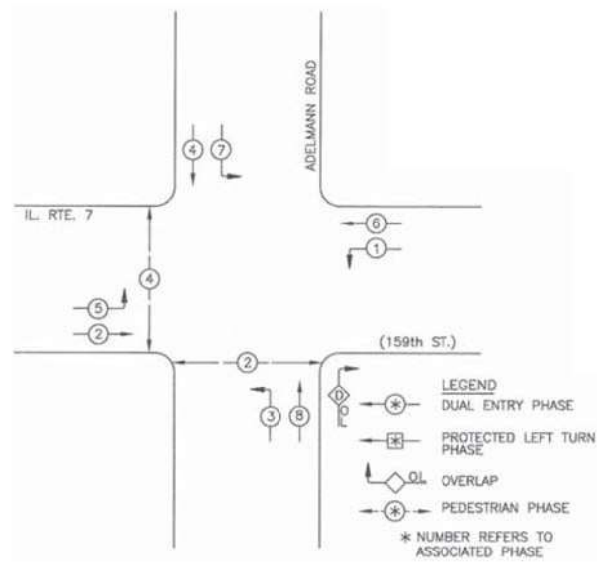
**TS 7529  
SECTION 182  
IDOT CENTRACS**

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-1DDT.IL\_Rte 7 (7th St & Adelmann Dr)\PTB 194-19\CADD\_Sheets\024-IL\_Rte 7 at Adelmann Dr-.INT.dgn

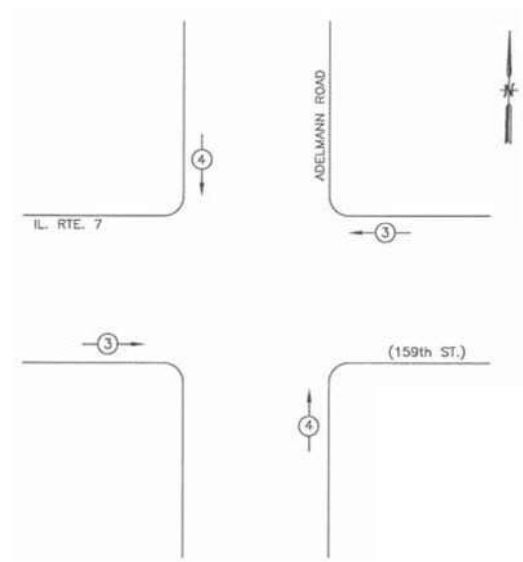
<p>GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 5035 N. NORTHWEST HIGHWAY SUITE 200 CHICAGO, ILLINOIS 60639 TEL: 773/774-590</p>	USER NAME = \$USER\$	DESIGNED - EA	REVISED -	<p align="center"><b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b></p>	<p align="center"><b>LOCATION #5 IL RTE 7 (159TH ST) AT ADELMANN DR INTERSECTION PLAN</b></p>			F.A.P. RTE. 351	SECTION 2023 SIGNALS 04	COUNTY WILL	TOTAL SHEETS 43	SHEET NO. 24
	PLOT SCALE = 40.0000' / in.	CHECKED - MS	REVISED -		SCALE: N.T.S.	SHEET NO. OF SHEETS	STA. TO STA.	<p align="center"><b>CONTRACT NO. 62R85</b></p>				
PLOT DATE = \$DATE\$	DATE - 2/23/2024	REVISED -		<p>FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT</p>								



EXISTING CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



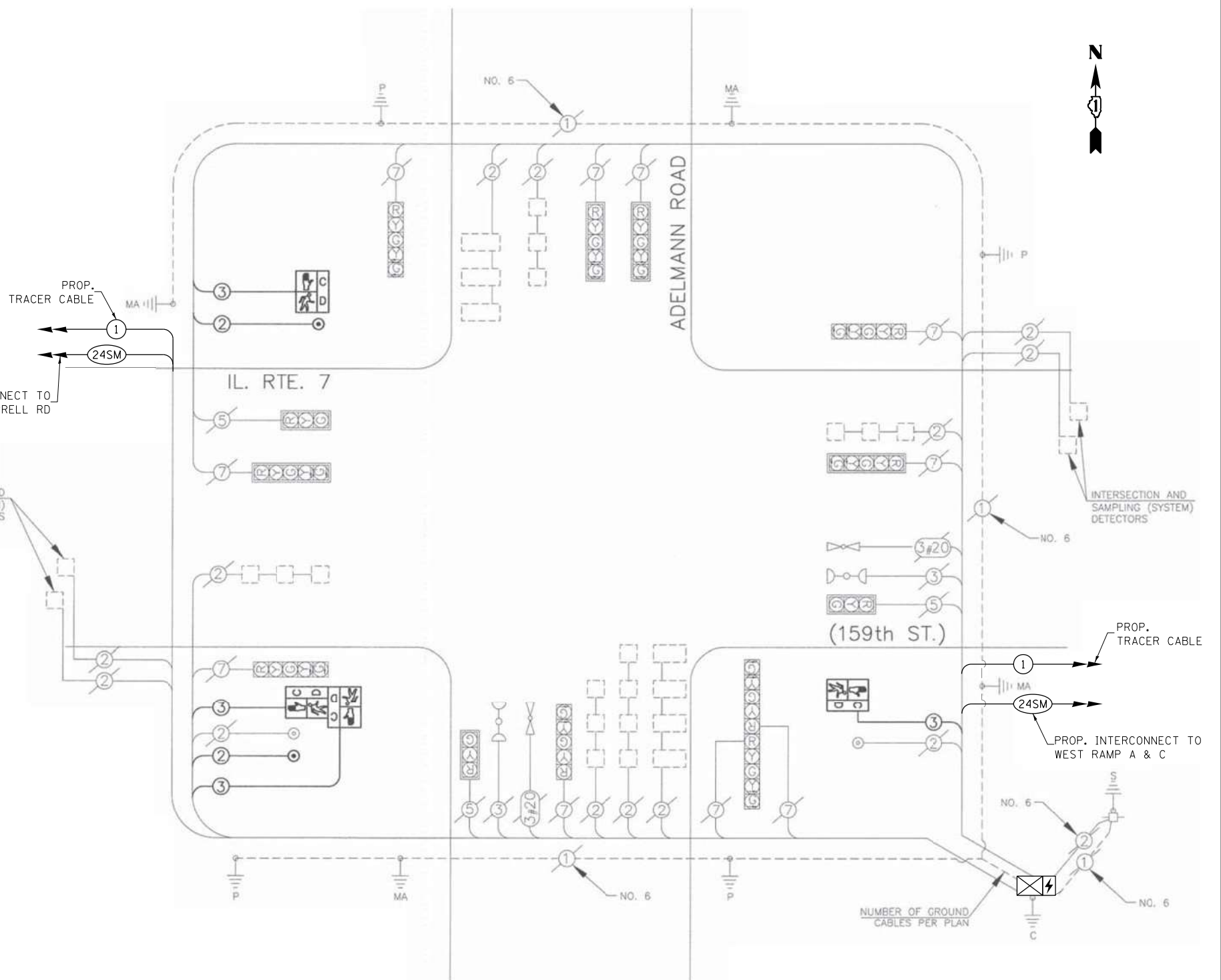
**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	QUANTITY	LED WATTAGE	TOTAL WATTAGE
SIGNAL HEAD			
3-SECTION	3	11	33
4-SECTION	-	14	-
5-SECTION	10	13	130
PROGRAMMABLE SIGNALS			
3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PED.SIGNAL	4	15	60
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR	-	20	-
VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
TOTAL UPS SIZING			<b>433</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
TOTAL SERVICE WIRE SIZING			<b>1038</b>
ENERGY COSTS TO:			
CITY OF LOCKPORT 222 E 9TH STREET LOCKPORT, IL 60441			
ENERGY SUPPLY: CONTACT: DOLORES KREMNETZER PHONE: (815) 724-5214 COMPANY: COMMONWEALTH EDISON ACCOUNT NUMBER: 24690-13038			

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	6
UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	1
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
REMOVE AND REPLACE BATTERIES FOR UNINTERRUPTABLE POWER SUPPLY	EACH	1
* CENTRACS LICENSE EXPANSION	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT.



IL ROUTE 7 AND ADELMANN ROAD

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LOCATION #5  
IL RTE 7 (159TH ST) AT ADELMANN DR CABLE PLAN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	25
CONTRACT NO. 62R85				

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-1001\IL RTE 7 (15th St & Adelmann Dr)\PFB 194-19\CAD\Drawings\025-IL RTE 7 at Adelmann Dr.dwg

**GA** GANDHI AND ASSOCIATES, INC.  
ENGINEERS AND PLANNERS  
5035 N. NORTHWEST HIGHWAY  
SUITE 200  
CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900

DESIGNED - EA	REVISED -
DRAWN - EA, AV	REVISED -
CHECKED - MS	REVISED -
DATE - 2/23/2024	REVISED -

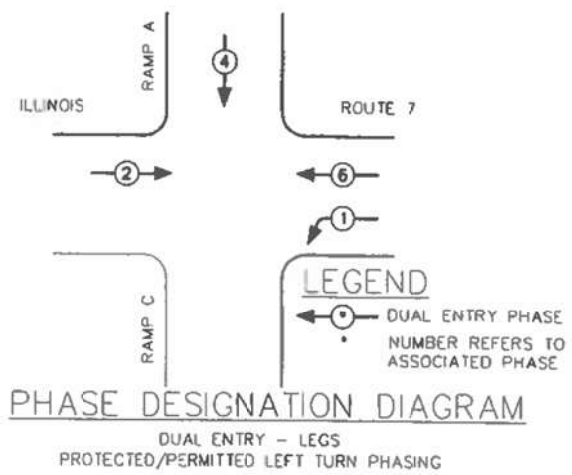
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

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

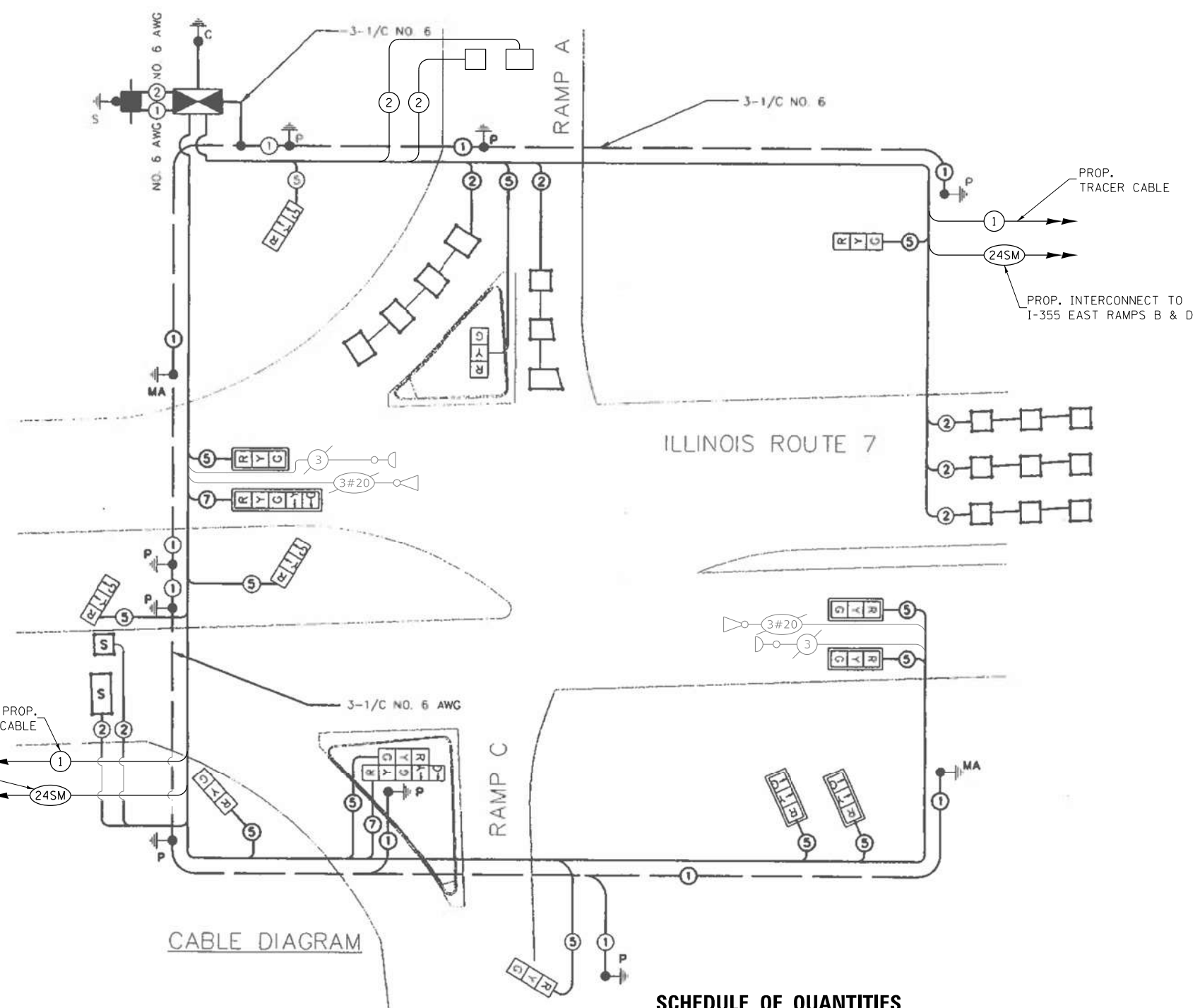
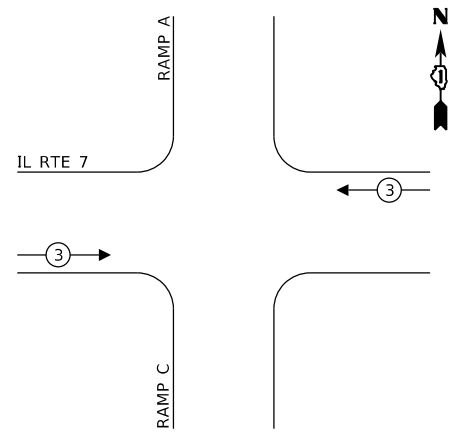




**CONTROLLER SEQUENCE IV**



**EXISTING EMERGENCY VEHICLE  
PREEMPTION SEQUENCE**



**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	235
HEAVY-DUTY HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	530
DRILL EXISTING HANDHOLE	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	2
DETECTOR LOOP, TYPE I	FOOT	72
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	6
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1
REMOVE AND REPLACE BATTERIES FOR UNINTERRUPTABLE POWER SUPPLY	EACH	1
* CENTRACS LICENSE EXPANSION	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT.

**TRAFFIC SIGNAL  
ELECTRICAL SERVICE REQUIREMENTS**

TYPE	QUANTITY	LED WATTAGE	TOTAL WATTAGE
SIGNAL HEAD			
3-SECTION	13	11	143
4-SECTION	-	14	-
5-SECTION	2	13	26
PROGRAMMABLE SIGNALS			
3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PED.SIGNAL	-	15	-
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR	-	20	-
VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>			<b>379</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>984</b>

**ENERGY COSTS TO:**  
CITY OF LOCKPORT  
222 E 9TH STREET  
LOCKPORT, IL 60441  
ENERGY SUPPLY: CONTACT: TONY COX  
PHONE: (630) 437-2236  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: 24690-13038

**GO** GANDHI AND ASSOCIATES, INC.  
ENGINEERS AND PLANNERS  
5035 N. NORTHWEST HIGHWAY  
SUITE 200  
CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900

DESIGNED - EA	REVISED -
DRAWN - EA, AV	REVISED -
CHECKED - MS	REVISED -
DATE - 2/23/2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LOCATION #6  
IL RTE 7 (159TH ST) AT I-355 WEST RAMPS A & C CABLE PLAN**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

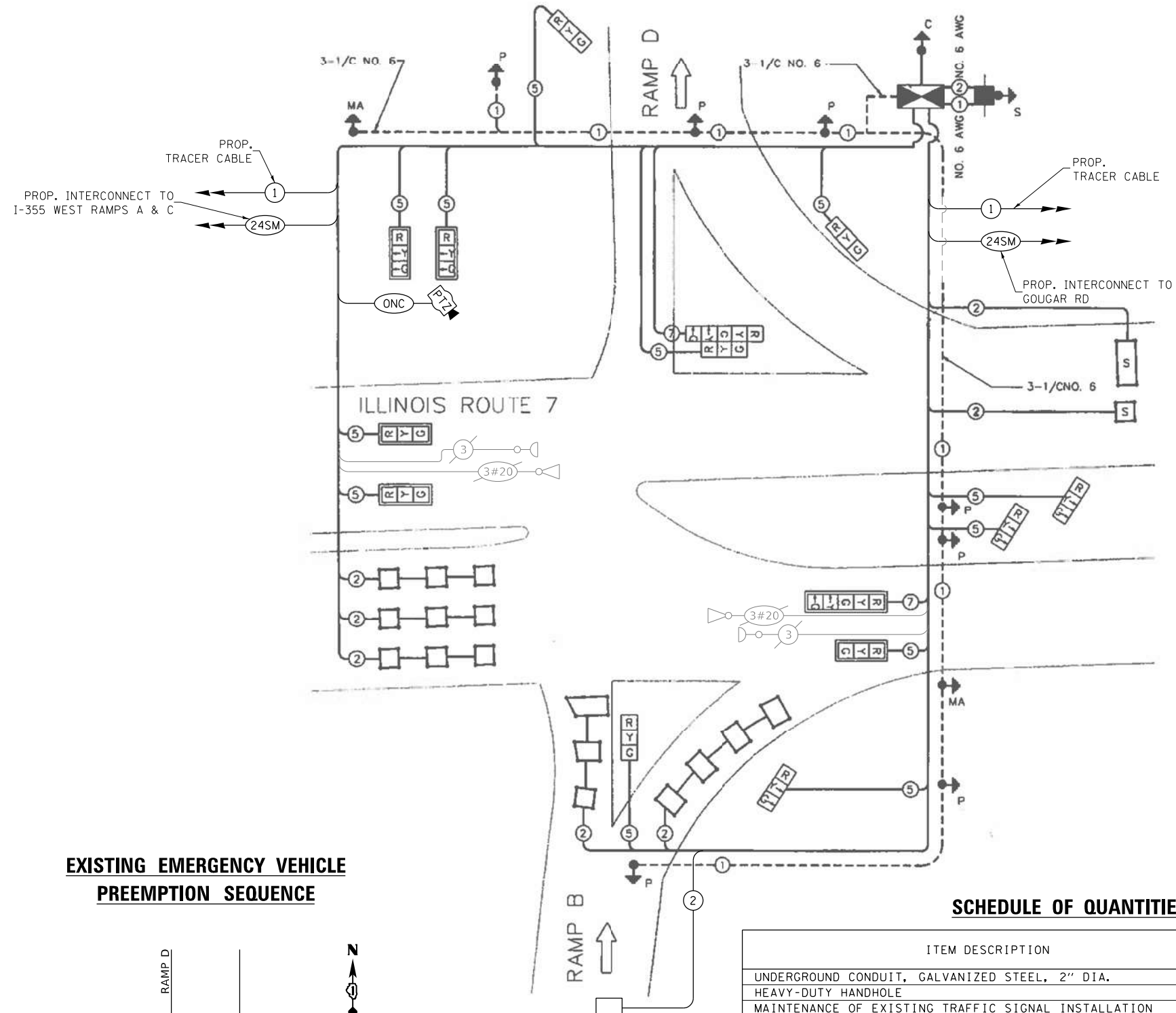
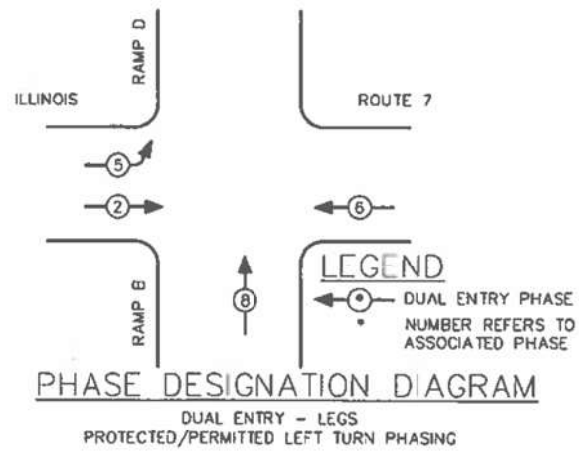
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	27
CONTRACT NO. 62R85				
FED. ROAD DIST. NO. [ ] ILLINOIS FED. AID PROJECT				

**TS 75111  
SECTION 182  
IDOT CENTRACS**

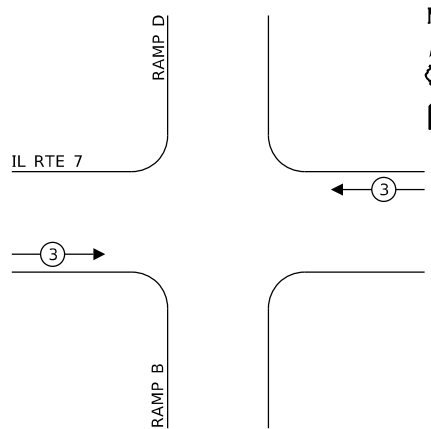
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**CONTROLLER SEQUENCE IV**



**EXISTING EMERGENCY VEHICLE  
PREEMPTION SEQUENCE**



**CABLE PLAN**

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	295
HEAVY-DUTY HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	485
DRILL EXISTING HANDHOLE	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	1
DETECTOR LOOP, TYPE I	FOOT	35
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
CELLULAR MODEM	EACH	1
OUTDOOR RATED NETWORK CABLE	FOOT	235
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
LAYER III (NETWORK) SWITCH	EACH	1
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1
REMOVE AND REPLACE BATTERIES FOR UNINTERRUPTABLE POWER SUPPLY	EACH	1
CAMERA MOUNTING ASSEMBLY	EACH	1
CENTRACS LICENSE EXPANSION	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT.

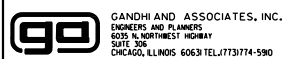
**TRAFFIC SIGNAL  
ELECTRICAL SERVICE REQUIREMENTS**

TYPE	QUANTITY	LED WATTAGE	TOTAL WATTAGE
SIGNAL HEAD			
3-SECTION	12	11	132
4-SECTION	-	14	-
5-SECTION	2	13	26
PROGRAMMABLE SIGNALS			
3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PED.SIGNAL	-	15	-
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR	-	20	-
VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	1	15	15
<b>TOTAL UPS SIZING</b>			<b>383</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>988</b>

**ENERGY COSTS TO:**

CITY OF LOCKPORT  
222 E 9TH STREET  
LOCKPORT, IL 60441

ENERGY SUPPLY: CONTACT: TONY COX  
PHONE: (630) 437-2236  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: 24690-13038



USER NAME = \$USER\$  
DESIGNED - EA  
DRAWN - EA, AV  
PLOT SCALE = 40.0000' / 1" IN.  
CHECKED - MS  
PLOT DATE = \$DATE\$  
REVISOR -  
REVISION -  
REVISOR -  
REVISION -  
DATE - 2/23/2024

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LOCATION #7  
IL RTE 7 (159TH ST) AT I-355 EAST RAMPS B & D CABLE PLAN

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

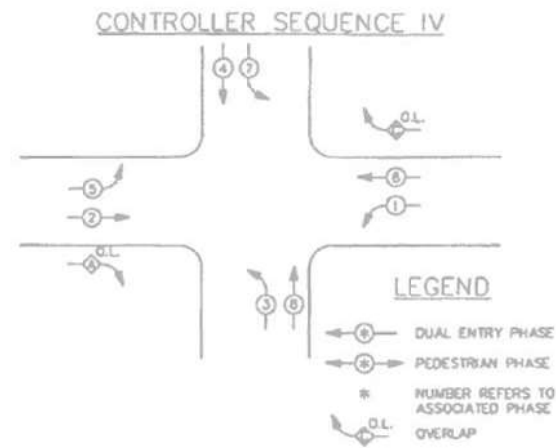
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	29
CONTRACT NO. 62R85				
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				

TS 75112  
SECTION 182  
IDOT CENTRACS

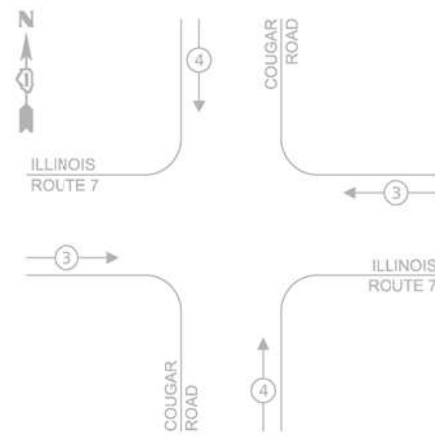
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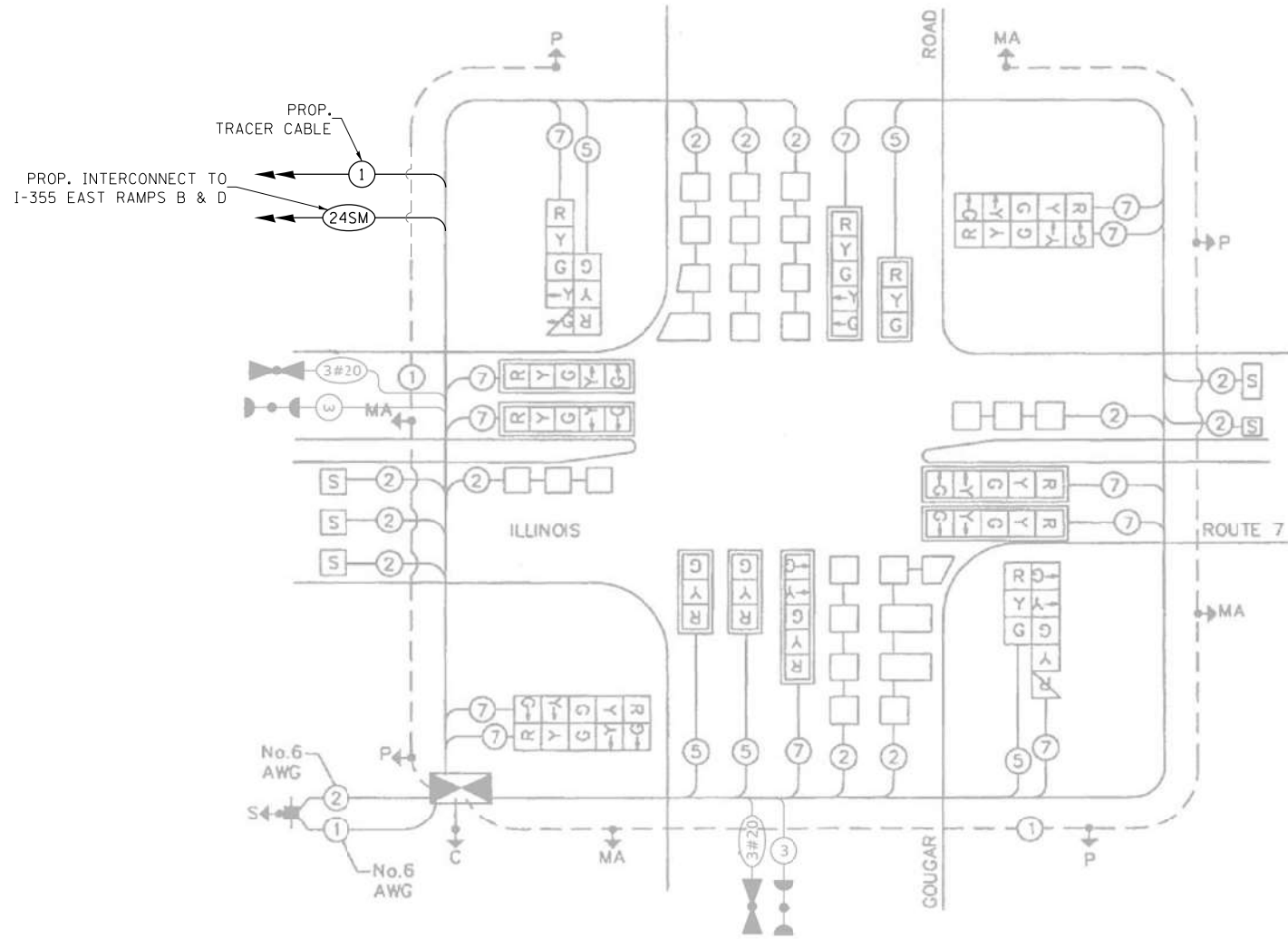




**PROPOSED EMERGENCY VEHICLE  
PREEMPTION SEQUENCE**



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



**CABLE PLAN**

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	24
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1
REMOVE AND REPLACE BATTERIES FOR UNINTERRUPTABLE POWER SUPPLY	EACH	1
* CENTRACS LICENSE EXPANSION	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT.

**TRAFFIC SIGNAL  
ELECTRICAL SERVICE REQUIREMENTS**

TYPE	QUANTITY	LED WATTAGE	TOTAL WATTAGE
SIGNAL HEAD			
3-SECTION	5	11	55
4-SECTION	-	14	-
5-SECTION	12	13	156
PROGRAMMABLE SIGNALS			
3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PED.SIGNAL	-	15	-
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR	-	20	-
VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>			<b>421</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1026</b>

ENERGY COSTS TO:  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196  
ENERGY SUPPLY: CONTACT: TONY COX  
PHONE: (630) 437-2236  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: J2210-65122

**GO** GANDHI AND ASSOCIATES, INC.  
ENGINEERS AND PLANNERS  
5035 N. NORTHWEST HIGHWAY  
SUITE 200  
CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900

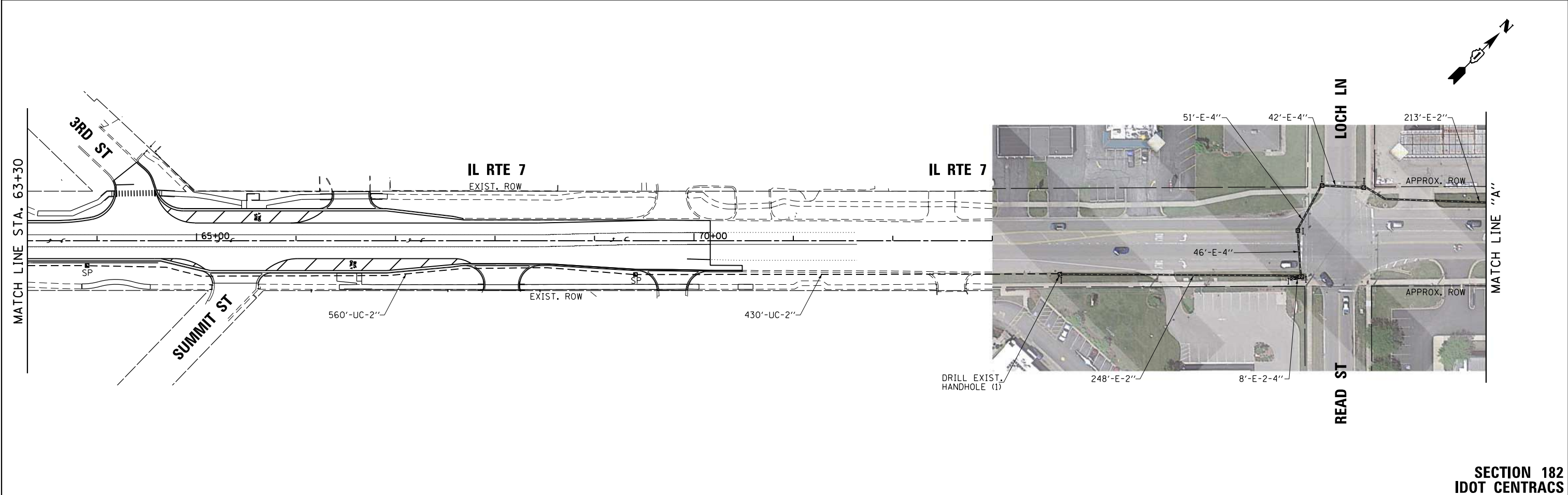
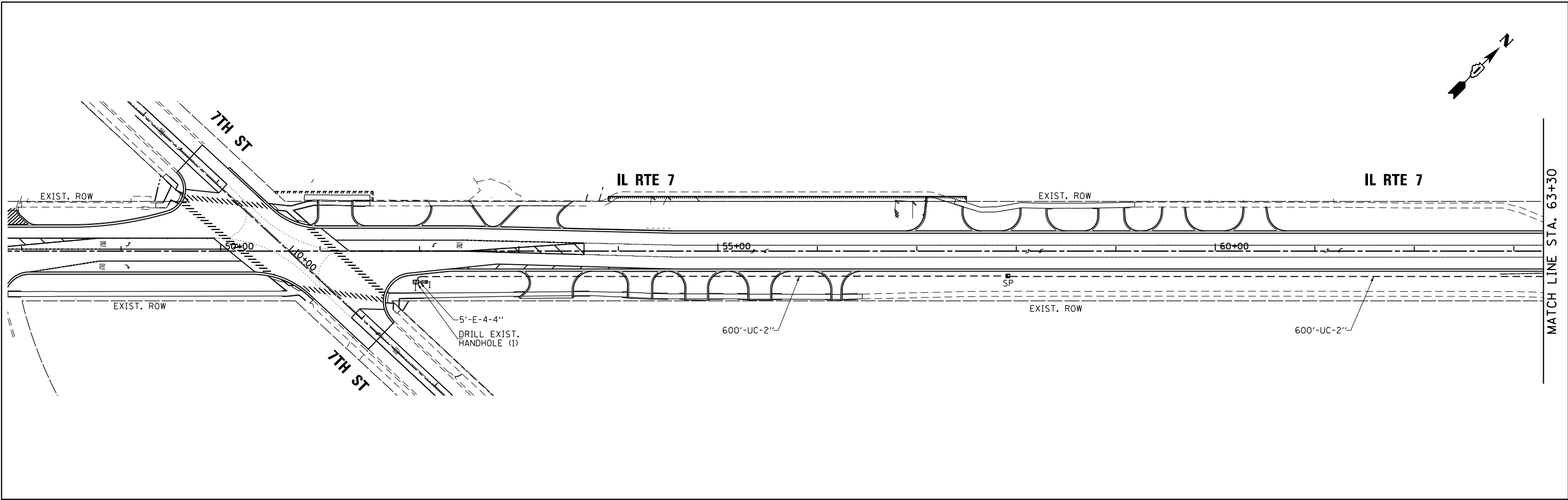
DESIGNED - EA	REVISED -
DRAWN - EA, AV	REVISED -
CHECKED - MS	REVISED -
DATE - 2/23/2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**


**LOCATION #8  
IL RTE 7 (159TH ST) AT GOUGAR RD CABLE PLAN**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	31
CONTRACT NO. 62R85				

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-1001-IL RTE 7 (159th St & Addison) D:\PFB 194-19\CADD\_Sheets\031-IL RTE 7 at Gougar Rd.Caddgn



FILE NAME = K:\PROJECTS\Projects\_2022\22-ESR-498-1007\_IL\_Rte\_7 (7th St & Adelmenn Dr)\P1B\_194-19\CAD\Sheets\032\_Econ\_182\_Interconnect\_L.dgn

 <b>GANDHI AND ASSOCIATES, INC.</b> ENGINEERS AND PLANNERS 6035 N. NORTHWEST HIGHWAY SUITE 306 CHICAGO, ILLINOIS 60630 TEL: 773-774-590	USER NAME = #USER#	DESIGNED - EA	REVISED -	
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

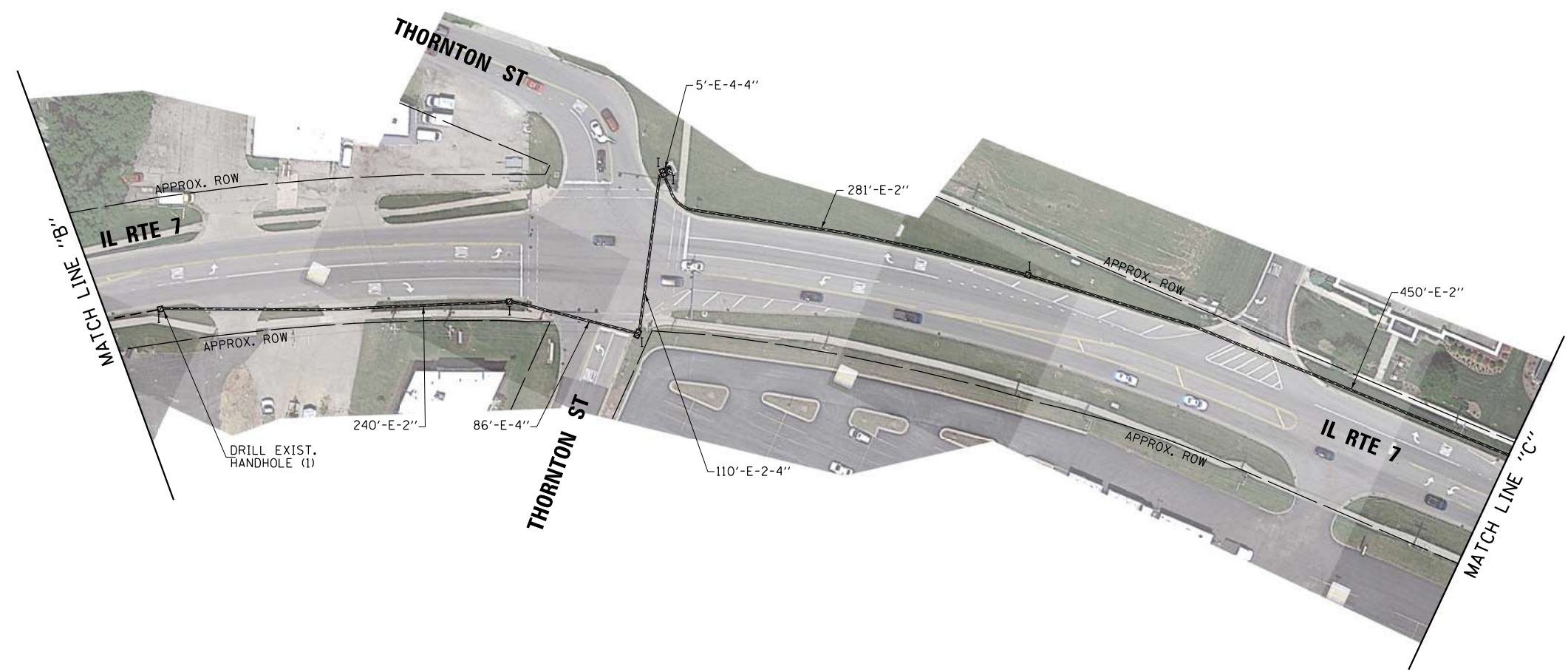
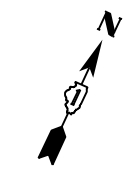
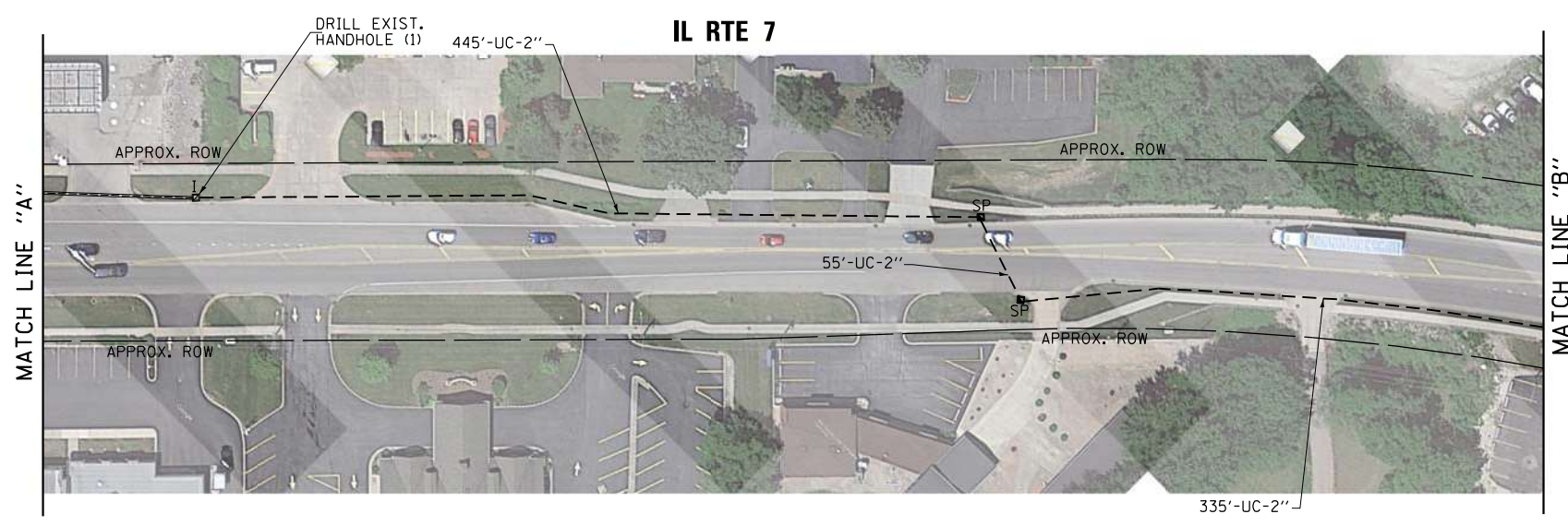
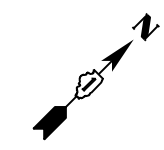
**PROPOSED INTERCONNECT PLAN (SHEET 1 OF 5)**  
**IL RTE 7 -**  
**7TH ST TO GOUGAR RD**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	32
CONTRACT NO. 62R85				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**SECTION 182**  
**IDOT CENTRACS**





FILE NAME = K:\PROJECTS\Projects\_2022\22-ESR-498-1007\_IL\_Rte\_7 (7th St & Adelmenn Dr)\71B\_194-19\CAD\Sheets\033\_Econ\_182\_Interconnect\_2.dgn

GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 6035 N. NORTHWEST HIGHWAY SUITE 306 CHICAGO, ILLINOIS 60630 TEL: 773.7174.590	USER NAME = \$USER\$	DESIGNED - EA	REVISED -
	PLOT SCALE = 100.0000' / 1" =	CHECKED - MS	REVISED -
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

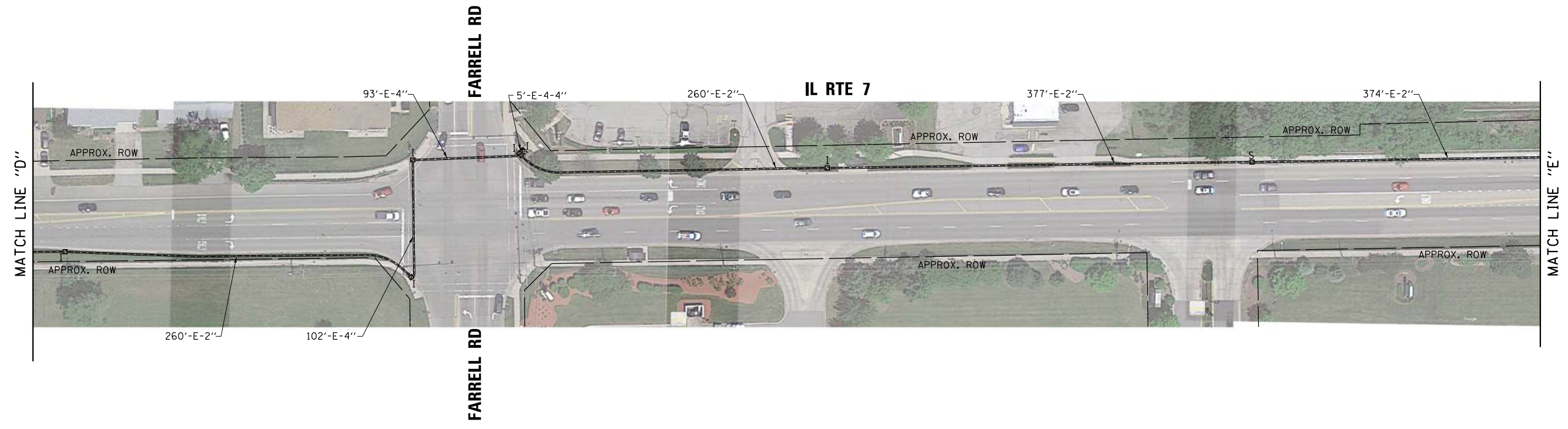
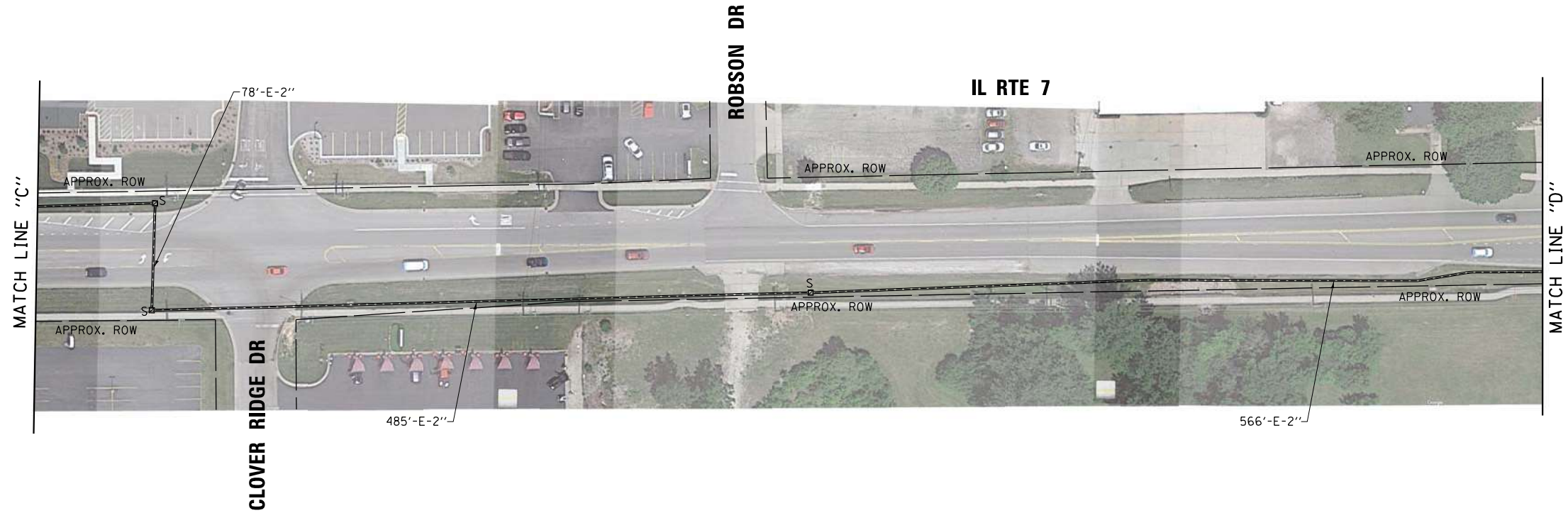
**PROPOSED INTERCONNECT PLAN (SHEET 2 OF 5)**  
**IL RTE 7 -**  
**7TH ST TO GOUGAR RD**

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


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	33
CONTRACT NO. 62R85				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

**SECTION 182**  
**IDOT CENTRACS**





FILE NAME = K:\PROJECTS\Projects\_2022\22-ESR-498-1007\_IL\_Rte\_7\_7th\_St\_&\_Addlmann\_Dr\17B\_194-19\19\CADD\_Sheets\034\_Econ\_182\_Interconnect\_3.dgn

 <b>GANDHI AND ASSOCIATES, INC.</b> ENGINEERS AND PLANNERS 6035 N. NORTHWEST HIGHWAY SUITE 306 CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900	USER NAME = \$USER\$	DESIGNED - EA	REVISED -
		DRAWN - EA, AV	REVISED -
	PLOT SCALE = 100.0000' / 1" =	CHECKED - MS	REVISED -
	PLOT DATE = \$DATE\$	DATE - 2/23/2024	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN (SHEET 3 OF 5)**  
**IL RTE 7 -**  
**7TH ST TO GOUGAR RD**

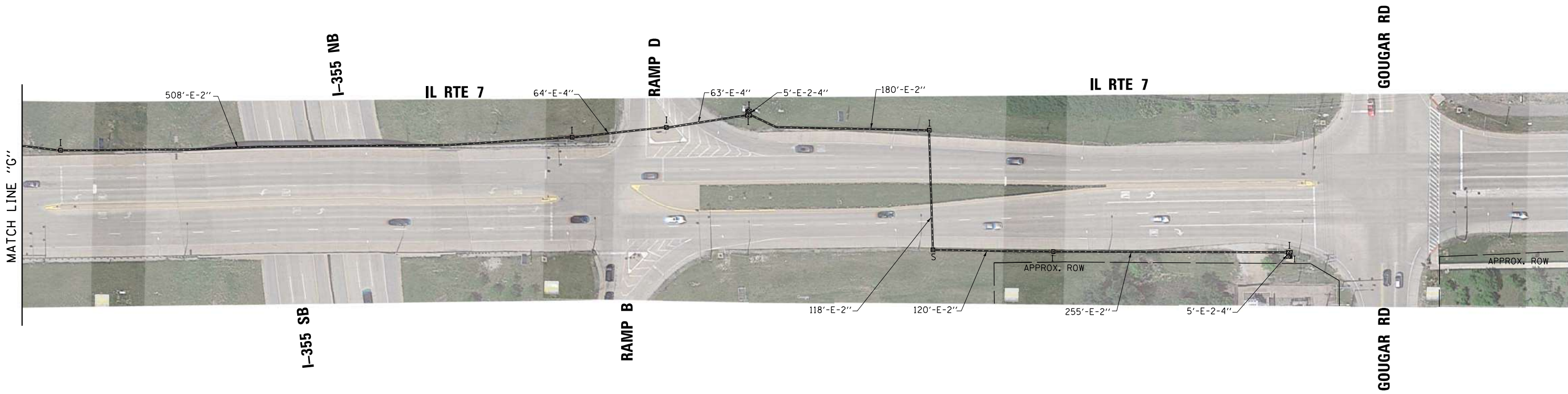
SCALE:      SHEET NO.    OF    SHEETS    STA.                    TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	34
CONTRACT NO. 62R85				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

**SECTION 182**  
**IDOT CENTRACS**







FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-1007\_IL\_Rte\_7 (7th St & Adelmann Dr)\71B\_194-19\CADD\_Sheets\036\_Econ\_182\_Interconnect\_5.dgn

 <b>GANDHI AND ASSOCIATES, INC.</b> ENGINEERS AND PLANNERS 6035 N. NORTHWEST HIGHWAY SUITE 306 CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900	USER NAME = \$USER\$	DESIGNED - EA	REVISED -	
	DRAWN - EA, AV	REVISOR -		
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	PLOT DATE = \$DATE\$	DATE - 2/23/2024	REVISOR -	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>PROPOSED INTERCONNECT PLAN (SHEET 5 OF 5)</b> <b>IL RTE 7 -</b> <b>7TH ST TO GOUGAR RD</b>			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	36
CONTRACT NO. 62R85				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

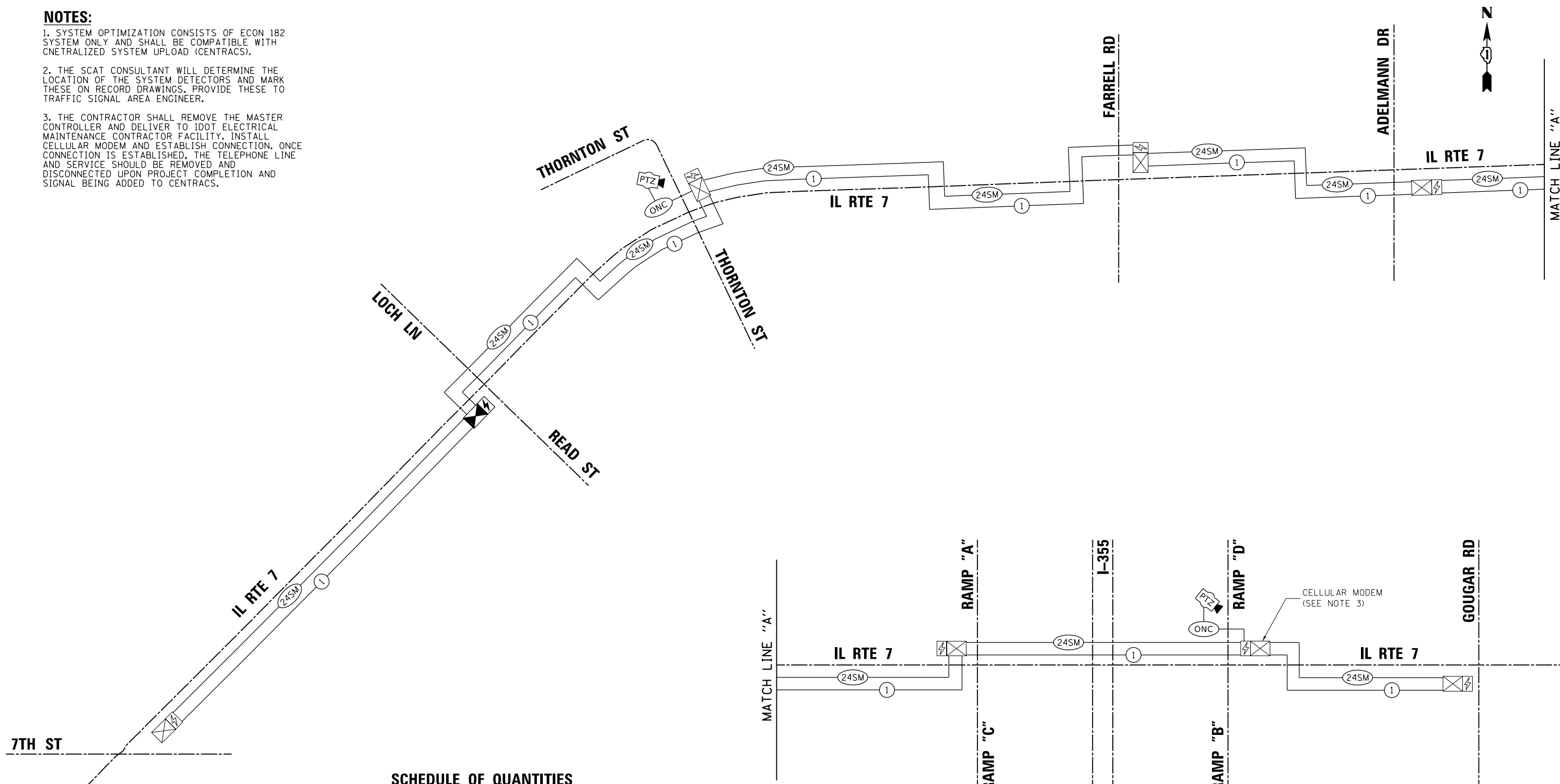
**SECTION 182**  
**IDOT CENTRACS**

**NOTES:**

1. SYSTEM OPTIMIZATION CONSISTS OF ECON 182 SYSTEM ONLY AND SHALL BE COMPATIBLE WITH CNETRALIZED SYSTEM UPLOAD (CENTRACS).

2. THE SCAT CONSULTANT WILL DETERMINE THE LOCATION OF THE SYSTEM DETECTORS AND MARK THESE ON RECORD DRAWINGS. PROVIDE THESE TO TRAFFIC SIGNAL AREA ENGINEER.

3. THE CONTRACTOR SHALL REMOVE THE MASTER CONTROLLER AND DELIVER TO IDOT ELECTRICAL MAINTENANCE CONTRACTOR FACILITY. INSTALL CELLULAR MODEM AND ESTABLISH CONNECTION. ONCE CONNECTION IS ESTABLISHED, THE TELEPHONE LINE AND SERVICE SHOULD BE REMOVED AND DISCONNECTED UPON PROJECT COMPLETION AND SIGNAL BEING ADDED TO CENTRACS.



**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	5,208
HANDHOLE	EACH	8
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	11,978
DRILL EXISTING HANDHOLE	EACH	5
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	11,180
* ROD AND CLEAN EXISTING CONDUIT	FOOT	3,033
** OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
FIBER OPTIC CABLE, MICRO, 24 FIBERS, SINGLE MODE	FOOT	12,531

\* NOMINAL QUANTITY TO BE USED AS NEEDED AND AS APPROVED BY ENGINEER  
 \*\* SYSTEM OPTIMIZATION SHALL CONSIST OF IDOT FORMER ECON 182

FILE NAME = K:\PROJECTS\Projects\_2022\22-ESR-498-100\1\_IL\_Rte\_7 (7th St & Adelmann Dr)\17B\_194-19\CADD\_Sheets\037\_Econ\_182\_Schem\_Interconnect.dgn  
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	DATE - 2/23/2024	REVISED -







**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

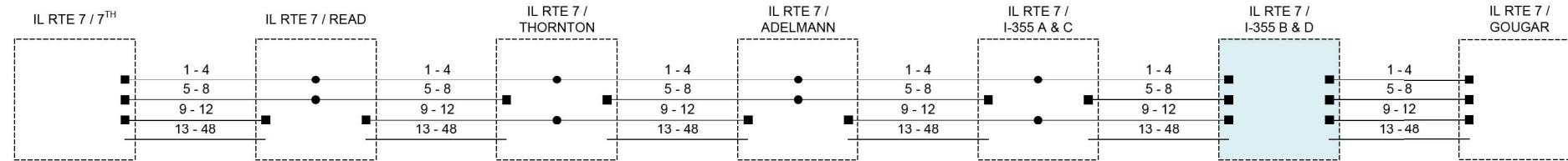
**PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES**  
 IL RTE 7 -  
 7TH ST TO GOUGAR RD  
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE. 351	SECTION 2023 SIGNALS 04	COUNTY WILL	TOTAL SHEETS 43	SHEET NO. 37
CONTRACT NO. 62R85				
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT				

**SECTION 182  
 IDOT CENTRACS**



-  EXISTING CONNECTOR / EXISTING FIBER
-  NEW CONNECTOR / EXISTING FIBER
-  EXISTING FUSION SPLICE / EXISTING FIBER
-  NEW FUSION SPLICE / EXISTING FIBER
-  NEW CONNECTOR / NEW FIBER
-  NEW FUSION SPLICE / NEW FIBER



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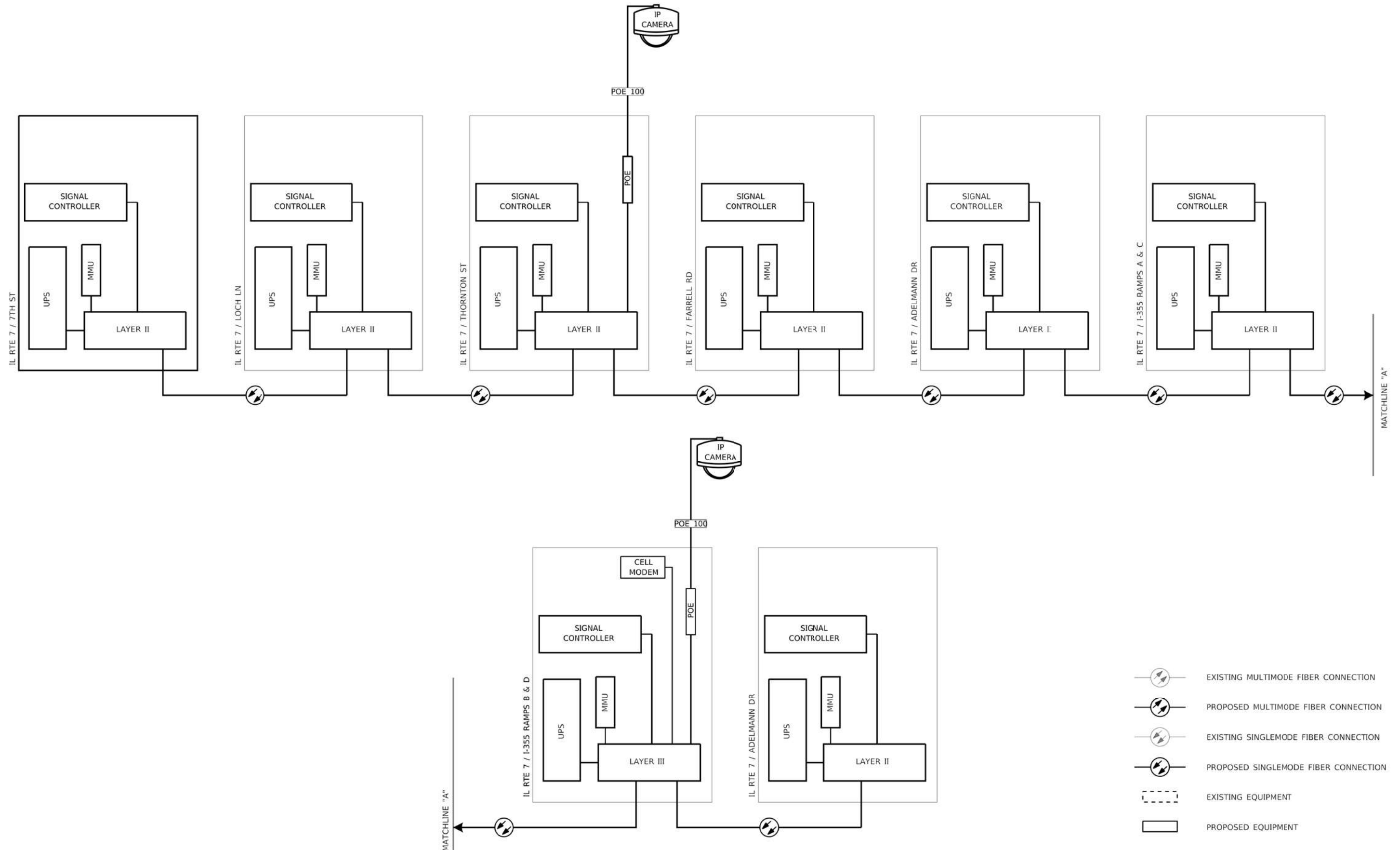
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FIBER SPLICING DIAGRAM SHEET  
IL RTE 7**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	38
<b>CONTRACT NO. 62R85</b>				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FILE NAME = K:\PROJECTS\Projects\2022-22-ESR-498-1007\_IL\_Rte\_7 (7th St & Adelmann Dr)\7B 194-19\CADD\Sheets\039\_Cabinets\_Detail.dgn



- EXISTING MULTIMODE FIBER CONNECTION
- PROPOSED MULTIMODE FIBER CONNECTION
- EXISTING SINGLEMODE FIBER CONNECTION
- PROPOSED SINGLEMODE FIBER CONNECTION
- EXISTING EQUIPMENT
- PROPOSED EQUIPMENT

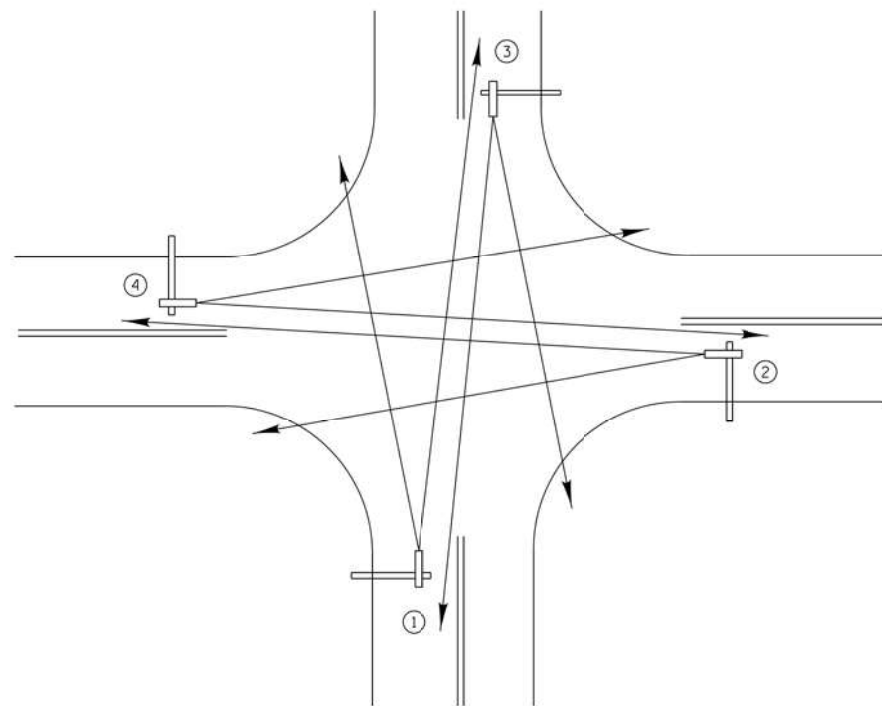
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DRAWN - OA	REVISIONS -	REVISED -
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PLOT DATE = \$DATE\$	DATE - 01/12/2023	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABINET DETAIL SHEET  
IL RTE 7**

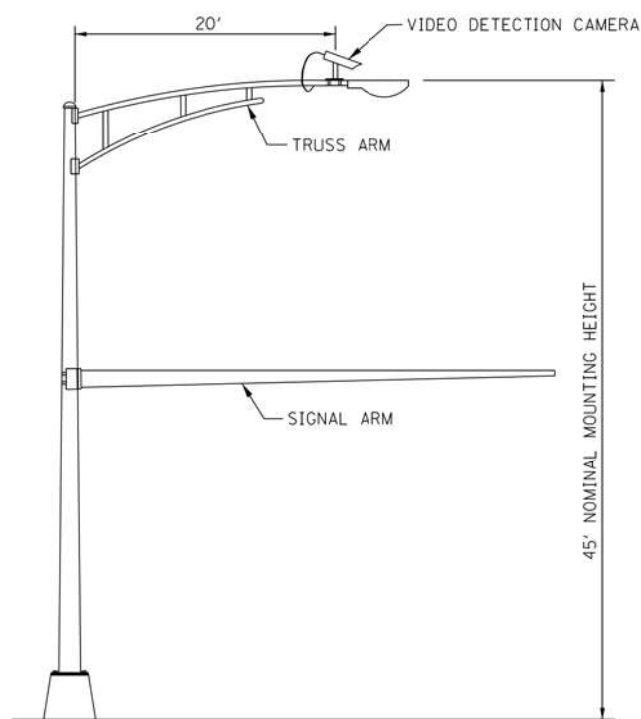
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62R85				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

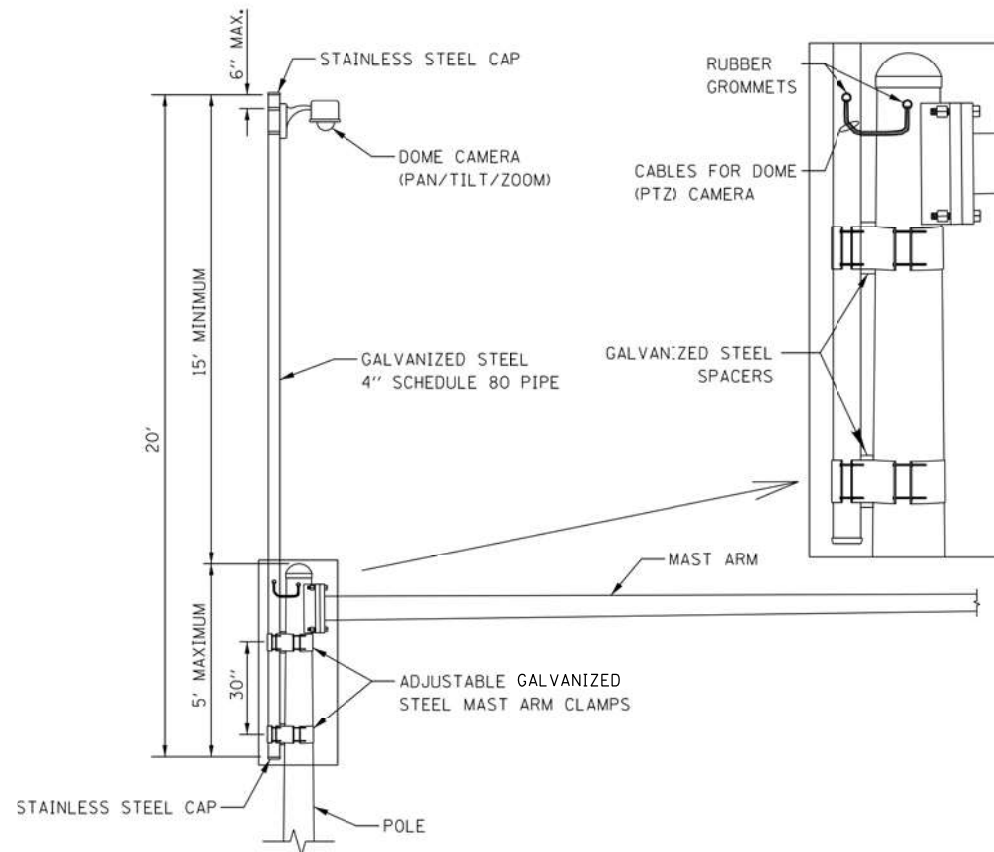


TYPICAL VIDEO VEHICLE  
DETECTION SYSTEM  
(NOT TO SCALE)

(4) VIDEO DETECTION CAMERA ASSEMBLIES AND BRACKETS ① ② ③ ④



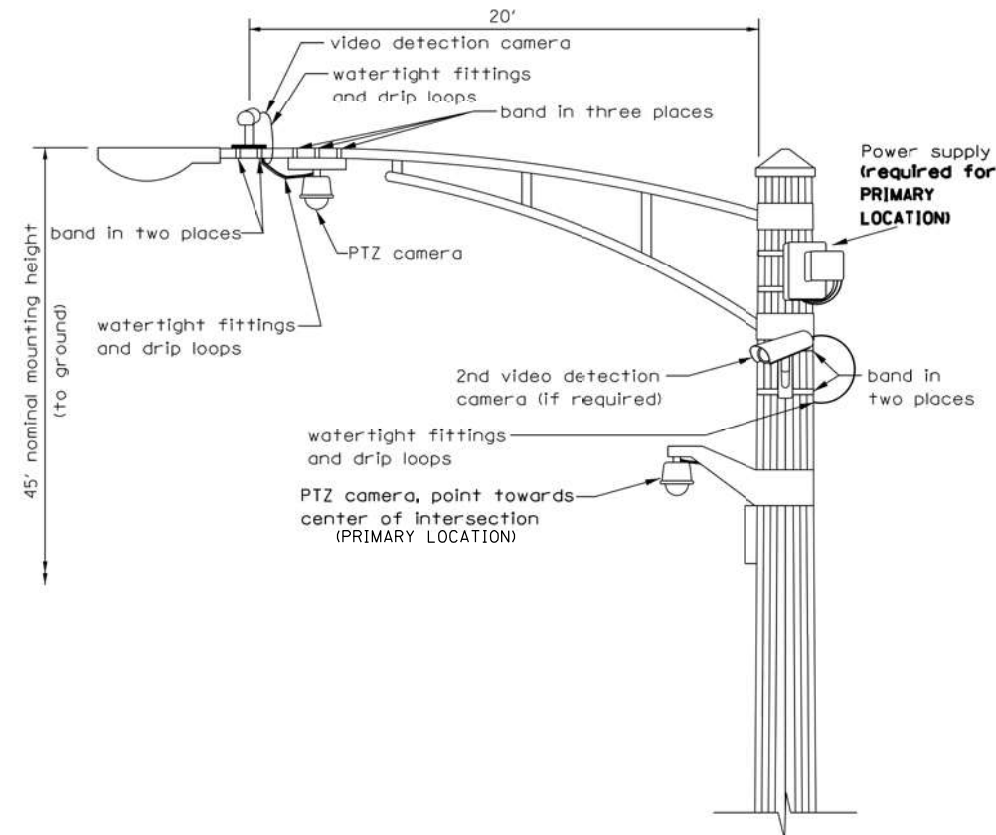
COMBINATION MAST ARM ASSEMBLY  
AND POLE DIMENSIONS  
(NOT TO SCALE)



CAMERA MOUNTING ASSEMBLY DETAIL  
(NOT TO SCALE)

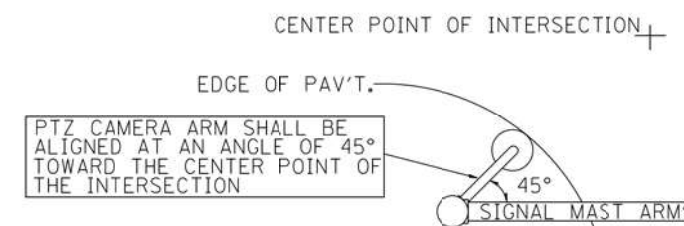
NOTES:

- THE MAST ARM IS TAPERED.
- INSTALL EXTENSION POLE VERTICAL AND PLUMB BY MODIFYING/INSTALLING BRACKETS AS NECESSARY. ADDITIONAL SPACERS REQUIRED ARE INCLUDED IN THE COST OF THE CAMERA MOUNTING ASSEMBLY OF THE TYPE SPECIFIED.
- SPACERS ARE TO BE INTEGRATED OR MANUFACTURED WITH THE MAST ARM BRACKETS



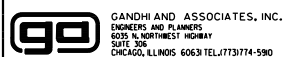
VIDEO DETECTION CAMERA(S) AND  
DOME (PTZ) CAMERA MOUNTING DETAIL  
(NOT TO SCALE)

- NOTES FOR SINGLE, DUAL AND MULTIPLE CAMERA MOUNTING:
- MOUNT LUMINAIRE MOUNTING BRACKET AS HIGH AS POSSIBLE.
  - MOUNT VIDEO DETECTION CAMERA AIMING DOWN TOWARD THE DIRECTION OF TRAFFIC TO BE DETECTED.



PTZ CAMERA MOUNTING DETAILS  
(SECONDARY LOCATION)  
(NO SCALE)

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-1001.IL Rev 7 (7th St & Addison Dr) PTB 194-19\CADD\_Sheets\293\_CAMERA\_MOUNTING\_DETAIL.dgn



GANDHI AND ASSOCIATES, INC.  
ENGINEERS AND PLANNERS  
5035 N. NORTHWEST HIGHWAY  
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CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900

USER NAME = \$USER\$	DESIGNED - KK	REVISED -
DRAWN - KK	REVISIONS -	
PLOT SCALE = 40.0000' / 1" =	CHECKED - DD	REVISIONS -
PLOT DATE = \$DATE\$	DATE - 06/30/2022	REVISIONS -

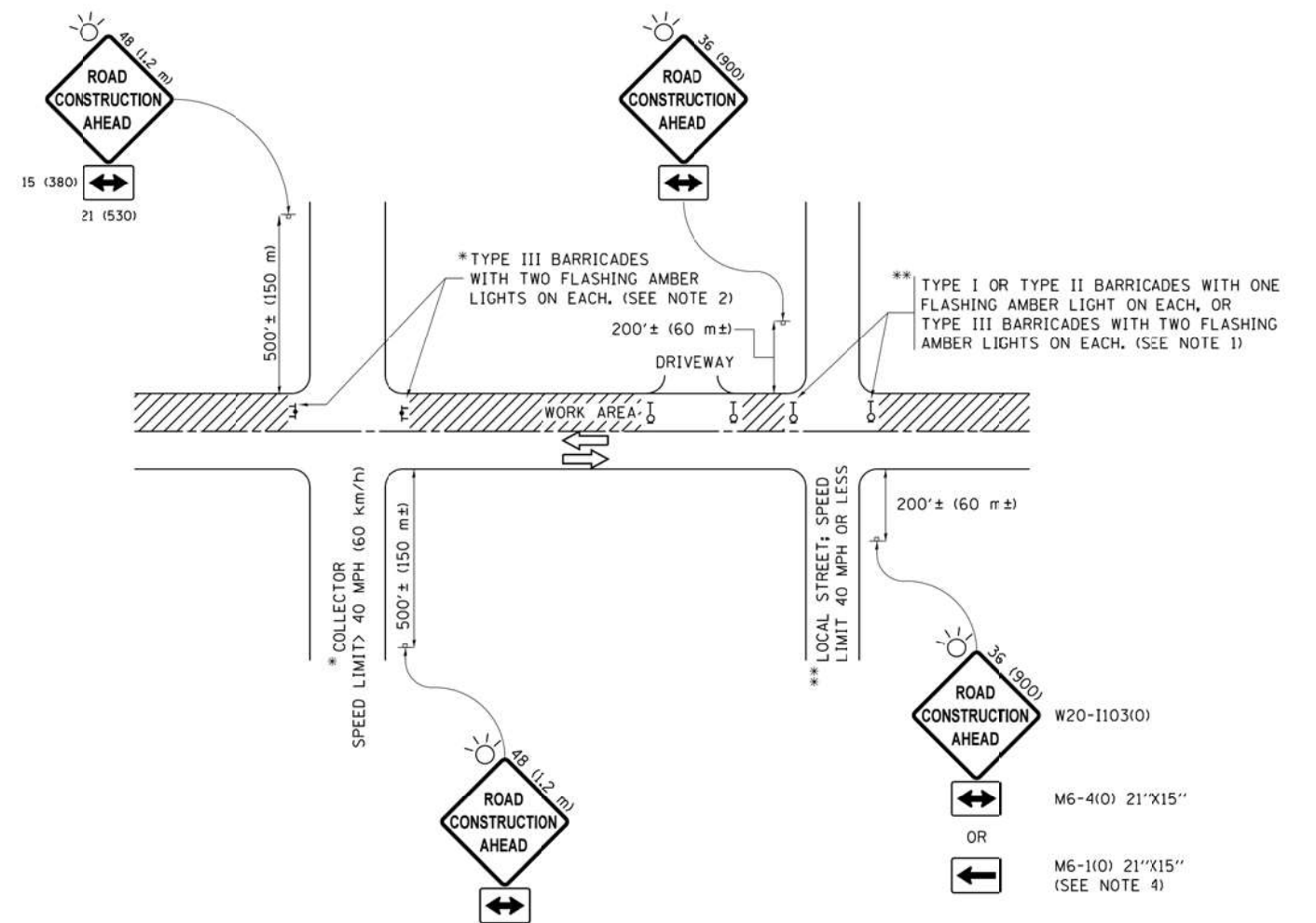
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CAMERA MOUNTING DETAIL

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	40
CONTRACT NO. 62R85				
ILLINOIS FED. AID PROJECT				

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-1001.IL Plan 7 (7th St & Addison) D:\PTB 194-19\CADD\_Sheets\294-Traffic Control and Protection.dgn



**NOTES:**

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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



USER NAME = \$USER*	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
PLOT DATE = \$DATE*	DATE - 06-89	REVISED - A. SCHUETZE 07-01-13
		REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

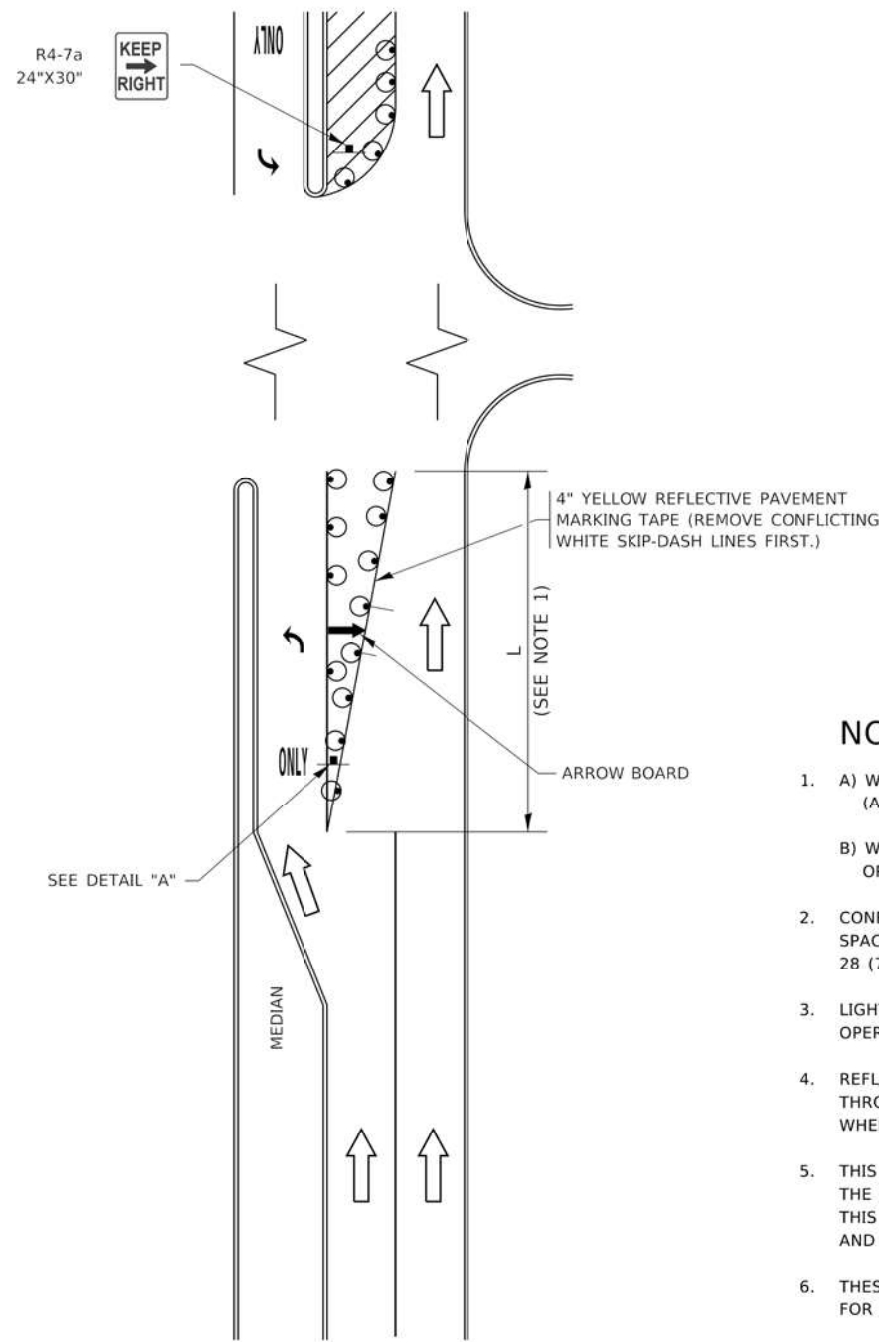
**TRAFFIC CONTROL AND PROTECTION FOR  
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	41
<b>TC-10</b>			<b>CONTRACT NO. 62R85</b>	
ILLINOIS FED. AID PROJECT				

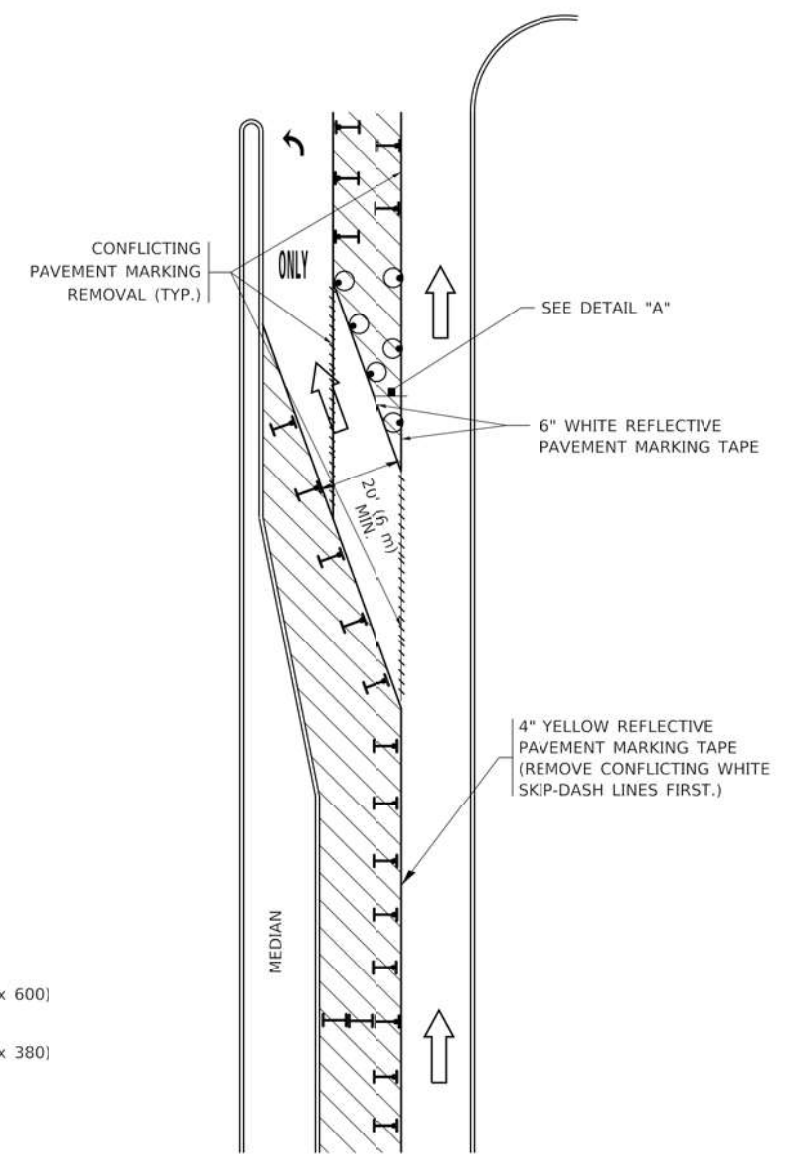


# TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER



**FIGURE 1**

# TURN BAY ENTRANCE WITHIN A LANE CLOSURE



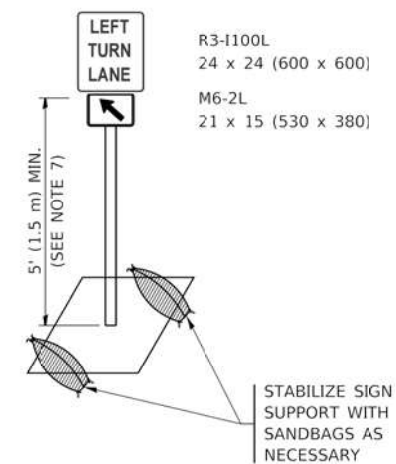
**FIGURE 2**

### LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- ARROW BOARD
- TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- SIGN ASSEMBLY
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

### NOTES:

1. A) WHEN "L" IS  $\leq$  THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.  
B) WHEN "L" IS  $>$  THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-1100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH REQUIREMENTS.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.



**DETAIL A**

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

K:\PROJECTS\Projects\2022\22-ESR-498-1001.IL Rev 7 (7th St & Addison) D:\PTB 194-19\CADD\_Sheets\295\_TRAFFIC CONTROL AND PROTECTION TURN BAYS.dgn

USER NAME = \$USER\$	DESIGNED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
	DRAWN - A. HOUSEH 11-07-95	REVISED - A. SCHUETZE 07-01-13
PLOT SCALE = 40.0000' / in.	CHECKED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16
PLOT DATE = \$DATE\$	DATE - T. RAMMACHER 01-06-00	REVISED -

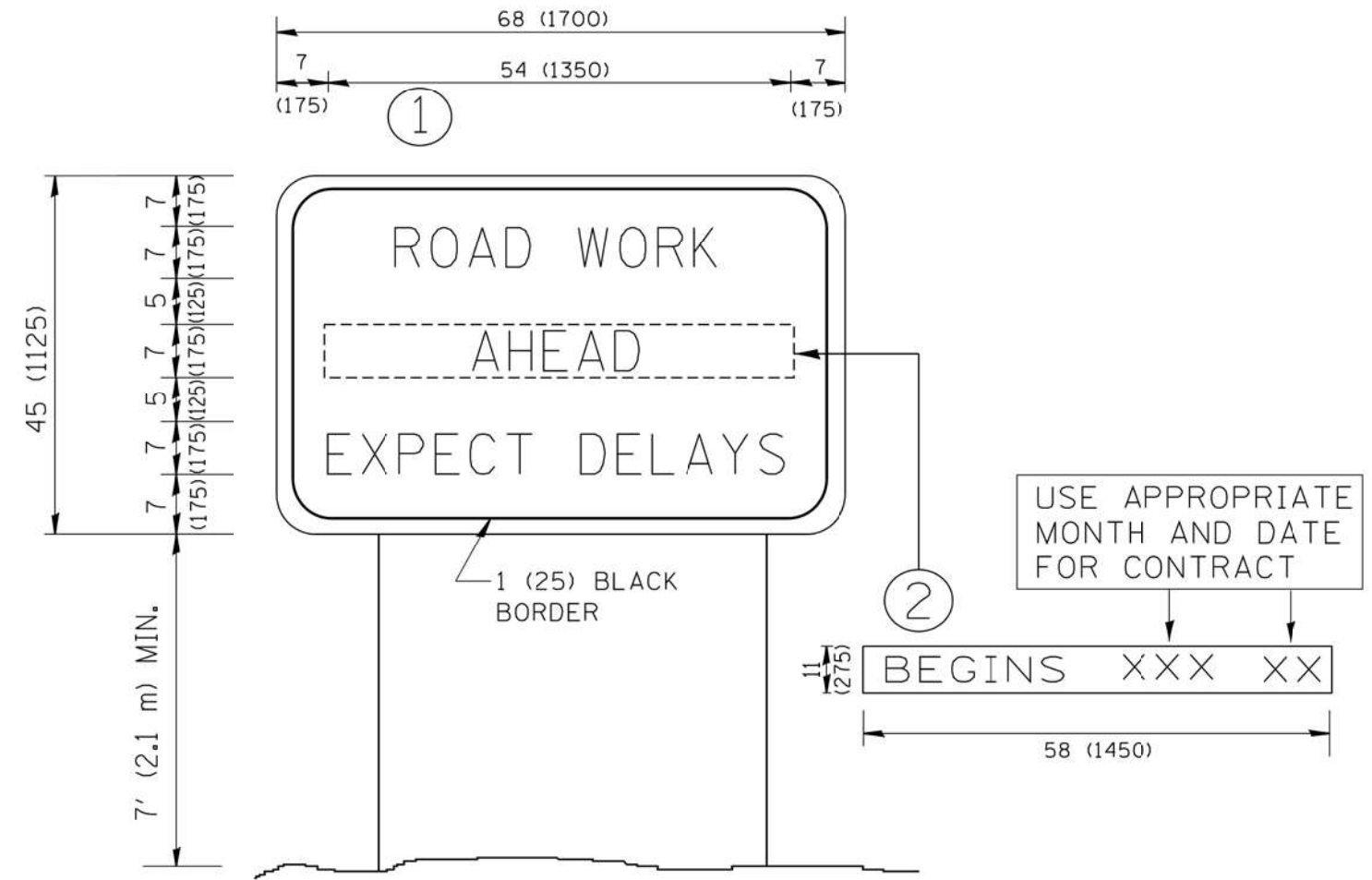
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	42
TC-14			CONTRACT NO. 62R85	
ILLINOIS FED. AID PROJECT				

FILE NAME = K:\PROJECTS\Projects\2022\22-ESR-498-IDD1.IL Plan 7 (7th St & Addlmann Dr)\PTB 194-19\CADD\_Sheets\296-ARTERIAL ROAD INFORMATION SIGN.dgn



**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.

GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 6035 N. NORTHWEST HIGHWAY SUITE 205 CHICAGO, ILLINOIS 60639 TEL: (773) 774-590	USER NAME = \$USER\$	DESIGNED -	REVISED - R. MIRS 09-15-97
	PLOT SCALE = 40.0000' / in.	DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT DATE = \$DATE\$	CHECKED -	REVISED - T. RAMMACHER 02-02-99
		DATE -	REVISED - C. JUCIUS 01-31-07

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<b>ARTERIAL ROAD INFORMATION SIGN</b>			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	2023 SIGNALS 04	WILL	43	43
TC-22			CONTRACT NO. 62R85	
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				