

06-14-2019 LETTING ITEM 016

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

F.A. DATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
MAY	2018-099-TS	VARIOUS	57	1
ILLINOIS			CONTRACT NO. 62H46	

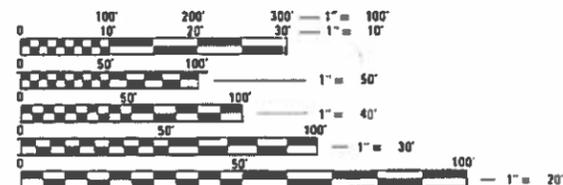
FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED HIGHWAY PLANS

VARIOUS LOCATIONS IN DISTRICT 1
CONTRACT NO. 3
SECTION 2018-099-TS
PROJECT STP-TH35(673)
TROMBONE MAST ARM REPLACEMENT
VARIOUS COUNTIES
C-91-250-19



FOR LOCATION MAPS
SEE SHEETS NO. 3-5



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 EXCAVATORS
1-800-892-0123
OR 811

PROJECT ENGINEER: IOVAN PLASCENCIA (847) 705-4504
PROJECT MANAGER: LUKASZ POCIECHA (847) 705-4420

CONTRACT NO. 62H46

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED May 13 2019
Anthony J. Guayley REGIONAL ENGINEER
May 10 2019
EA ETC ENGINEER OF DESIGN AND ENVIRONMENT
May 19 2019
Paul P. Chif 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
3-5	LOCATION MAPS
6-10	SUMMARY OF QUANTITIES
11-17	DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS (TS-05)
18	DISTRICT 1 MAST ARM MOUNTED STREET NAME SIGNS (TS-02)

SHT NO.	TS NO.	INTERSECTION NAME
19-23	5630	PALATINE RD AT WINDSOR DR
24-28	5620	PALATINE RD AT SCHOENBECK RD
29-33	5625	PALATINE RD AT WHEELING RD
34-38	1285	US RTE 14 AT RAND RD/NORTHWEST HWY
39-42	5830	TOUHY AVE AT DEE RD
43-47	6805	IL RTE 176 (ROCKLAND RD) AT IL RTE 43 (WAUKEGAN RD)
48-51	7020	IL RTE 176 (ROCKLAND RD) AT IL RTE 131 (GREEN BAY RD)
52-55	755	IL RTE 38 (STATE ST) AT IL RTE 25 (BENNETT ST)

SHT NO.	DESCRIPTION
56	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
57	ARTERIAL ROAD INFORMATION SIGN (TC-22)

HIGHWAY STANDARDS

STD. NO.	TITLE
000001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
701006-05	OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701101-05	OFF-ROAD OPERATIONS MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701701-10	URBAN LANE CLOSURE MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-08	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAIL
814001-03	HANDHOLES
814006-02	DOUBLE HANDHOLES
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
877001-07	STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
877011-10	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
878001-10	CONCRETE FOUNDATION DETAILS
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS
886001-01	DETECTOR LOOP INSTALLATIONS

RLR NOTES

DUE TO THE PRESENCE OF A RED LIGHT RUNNING (RLR) CAMERA FOR THE BELOW LISTED LOCATIONS, CONTRACTOR SHALL NOTIFY THE VILLAGE AND RLR CAMERA COMPANY PRIOR TO THE START OF CONSTRUCTION. THE VILLAGE OR THE RLR CAMERA COMPANY SHALL MAKE THE CAMERA INOPERATIVE FOR THE TIME OF CONSTRUCTION. ANY RLR CAMERA EQUIPMENT THAT IS IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED BY ITS RESPECTIVE OWNERS PRIOR TO THE START OF CONSTRUCTION.

RLR CAMERA LOCATION:

TS 5625 PALATINE RD AT WHEELING RD

VILLAGE OF WHEELING 2 COMMUNITY BLVD WHEELING, IL 60090 (847) 459-2600	RED SPEED, LLC. 400 EISENHOWER LANE LOMBARD, ILLINOIS 60148 (630) 317-5700
---	---

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. 48 HOUR NOTIFICATION IS REQUIRED.

THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470, 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 ARM LENGTHS.

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.

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 UNDERGROUND AND OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL NOTIFY THE AREA ENGINEER, THE RESIDENT ENGINEER AND ANY IMPACTED UTILITY COMPANY OF THE CONFLICT, AND SHALL COORDINATE AND RESOLVE THE ISSUE PRIOR TO ORDERING MATERIALS, AND PRIOR TO POURING FOUNDATIONS.

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 DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

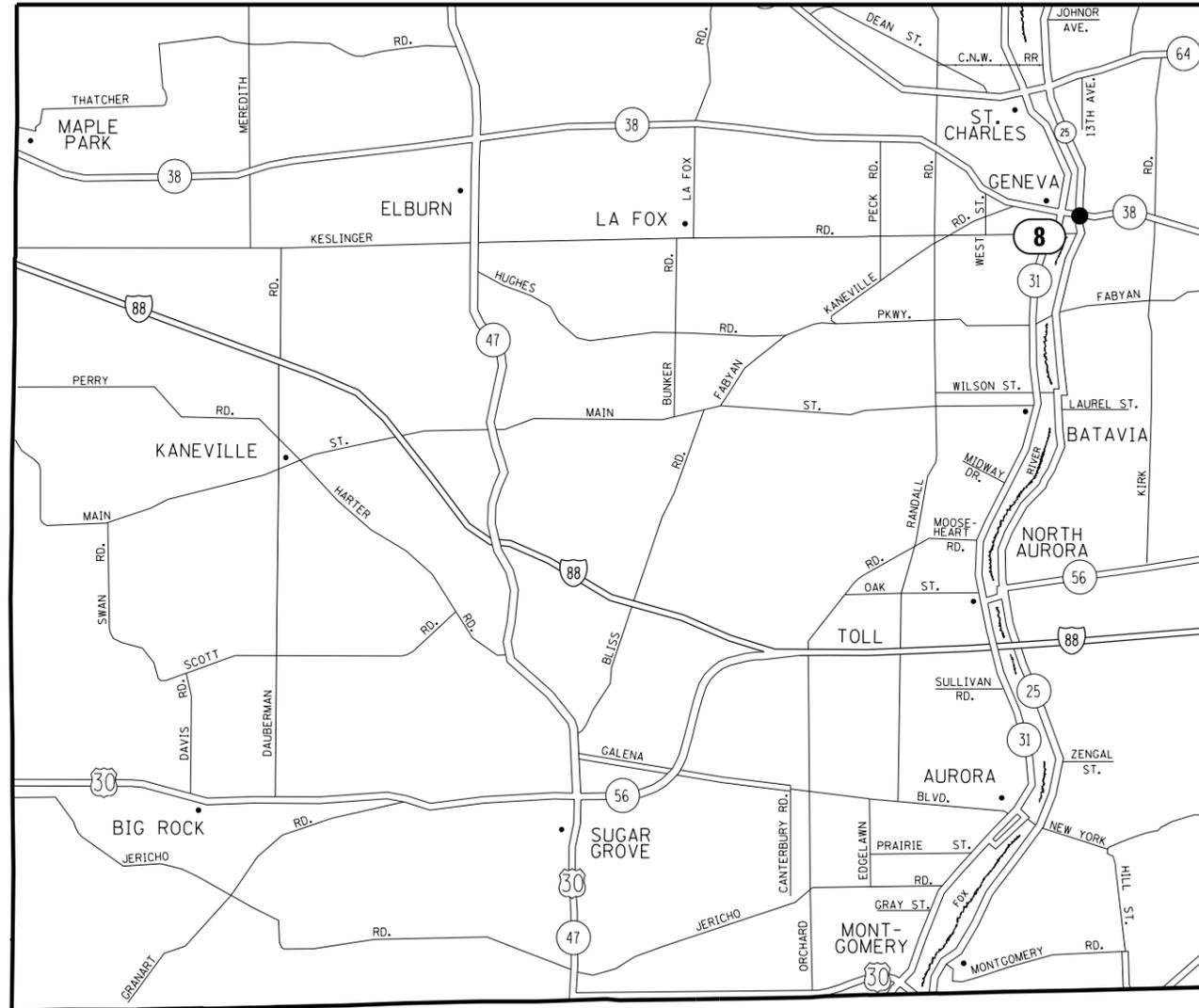
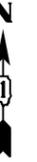
PARTIAL PAYMENT AS DESCRIBED IN ARTICLE 109.07(b) OF THE STANDARD SPECIFICATIONS WILL NOT BE ALLOWED FOR ITEMS INCLUDED IN THIS CONTRACT.

AT LOCATIONS ON THE PLANS WHERE TRAFFIC SIGNAL POST AND/OR MAST ARM AND POLE REMOVAL IS IDENTIFIED AND NEW TRAFFIC SIGNAL POST INSTALLATIONS ARE SPECIFIED, THE CONTRACTOR SHALL INSPECT THE EXISTING FOUNDATIONS. PRIOR TO REMOVING THE EXISTING EQUIPMENT, THE CONTRACTOR SHALL VERIFY THAT THE PATTERN, SPACING, AND CONDITION OF THE EXISTING ANCHOR BOLT IS ACCEPTABLE FOR REUSE WITH A NEW POST. IF THE EXISTING ANCHOR BOLT CONDITION IS NOT ACCEPTABLE, THE CONTRACTOR SHALL REPLACE ANCHOR BOLT AS DIRECTED BY THE ENGINEER. ANCHOR BOLT REPLACEMENT WILL BE PAID FOR AS "REMOVE AND REPLACE ANCHOR BOLTS". "REMOVE AND REPLACE ANCHOR BOLTS" PAY ITEM QUANTITIES SHOWN ARE NOMINAL AND ONLY TO BE UTILIZED AS APPROVED BY THE ENGINEER.

LOCATIONS WITH PEDESTRIAN EQUIPMENT HAVE BEEN DESIGNED TO BE ADA COMPLIANT. ANY DEVIATION FROM THE PLANS FOR TRAFFIC SIGNAL MAST ARM/POSTS THAT HAVE PEDESTRIAN EQUIPMENT WILL HAVE TO BE APPROVED BY THE ENGINEER TO INSURE ADA COMPLIANCE.

MODEL: Default
FILE NAME: S:\IP\Design\bovan08_MastArmContracts\62H46 - June 2019\CADD\62H46-ct-general.dgn

USER NAME = plascenciai	DESIGNED - IP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, HIGHWAY STANDARDS & GENERAL NOTES			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DRAWN - IP	REVISED -	VAR					2018-099-T5	VARIOUS	57	2	
PLOT SCALE = 100.0000 ' / in.	CHECKED - LP	REVISED -		CONTRACT NO. 62H46							
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	ILLINOIS



LOC. NO.	TS NO.	INTERSECTION NAME	MUNICIPALITY	COUNTY
1	5630	PALATINE RD AT WINDSOR DR	ARLINGTON HEIGHTS	COOK
2	5620	PALATINE RD AT SCHOENBECK RD	ARLINGTON HEIGHTS	COOK
3	5625	PALATINE RD AT WHEELING RD	WHEELING	COOK
4	1285	US RTE 14 AT RAND RD/NORTHWEST HWY	DES PLAINES	COOK
5	5830	TOUHY AVE AT DEE RD	PARK RIDGE	COOK
6	6805	IL RTE 176 (ROCKLAND RD) AT IL RTE 43 (WAUKEGAN RD)	LAKE BLUFF	LAKE
7	7020	IL RTE 176 (ROCKLAND RD) AT IL RTE 131 (GREEN BAY RD)	LAKE BLUFF	LAKE
8	755	IL RTE 38 (STATE ST) AT IL RTE 25 (BENNETT ST)	GENEVA	KANE

MODEL: D:\dft\...
 FILE: NAME: ...
 June 2019\CADD\62H46-rft-general.dgn

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 100,0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION MAP
KANE COUNTY

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	VARIOUS	57	5
			CONTRACT NO. 62H46	
		ILLINOIS	FED. AID PROJECT	

VARIOUS
COUNTIES

CONSTRUCTION CODE

80% FED
20% STATE
COOK COUNTY

80% FED
20% STATE
LAKE COUNTY

80% FED
20% STATE
KANE COUNTY

TRAFFIC SIGNALS

0021

URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	80% FED 20% STATE COOK COUNTY	80% FED 20% STATE LAKE COUNTY	80% FED 20% STATE KANE COUNTY			
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	105	48	41	16			
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	3	1	1	1			
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	LSUM	1	0.57	0.29	0.14			
* 66901002	ON-SITE MONITORING OF REGULATED SUBSTANCES	CAL DA	7	4	2	1			
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	LSUM	1	0.57	0.29	0.14			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	1	1	1			
67100100	MOBILIZATION	L SUM	1	0.62	0.25	0.13			
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.62	0.25	0.13			
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	0.50	0.25	0.25			
* 72000100	SIGN PANEL - TYPE 1	SQ FT	75	75					
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	724	249	402	73			
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	508	318	147	43			
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	629	530	99				
81400200	HEAVY-DUTY HANDHOLE	EACH	11		8	3			

*= SPECIALTY ITEM

MODEL: Default
FILE NAME: S:\V\Design\bovan08_Mtazam\Contract\62H46 - June 2019\CADD\62H46-CH-general.dgn

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
(SHEET 1 OF 5)

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	VARIOUS	57	6
			CONTRACT NO. 62H46	
		ILLINOIS	FED. AID PROJECT	

VARIOUS
COUNTIES

CONSTRUCTION CODE

80% FED
20% STATE
COOK COUNTY

80% FED
20% STATE
LAKE COUNTY

80% FED
20% STATE
KANE COUNTY

TRAFFIC SIGNALS

0021

URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	80% FED 20% STATE COOK COUNTY	80% FED 20% STATE LAKE COUNTY	80% FED 20% STATE KANE COUNTY			
81400300	DOUBLE HANDHOLE	EACH	1	1					
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	8	5	2	1			
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	3,155	1,756	825	574			
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	5,479	3,095	1,434	950			
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	11,441	7,814	2,157	1,470			
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	7,312	4,013	2,104	1,195			
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	3,340	1,340	1,440	560			
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1,795	1,285	380	130			
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	14	9	1	4			
87700150	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	4	2	2				
87700170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1		1				
87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	4	3		1			
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	2			2			
87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	2	2					

MODEL: D:\dtd\it... FILE NAME: S:\V\Design\Ivanan08_MastArmContract\62H46 - June 2019\CADD\62H46-CH-General.dgn

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
(SHEET 2 OF 5)

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	VARIOUS	57	7
			CONTRACT NO. 62H46	
		ILLINOIS	FED. AID PROJECT	

MODEL: D:\dtd\it...
 FILE NAME: S:\V\Design\Ivanan08_MastArmContract\62H46 - June 2019\CADD\62H46-RT-general.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				80% FED 20% STATE COOK COUNTY	80% FED 20% STATE LAKE COUNTY	80% FED 20% STATE KANE COUNTY	
				TRAFFIC SIGNALS			
				0021			
				URBAN			
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	2	2			
87700230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	2	1		1	
87700240	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	2		2		
87700270	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1		1		
87700280	STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH	2	2			
87702910	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT.	EACH	1		1		
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	28	24		4	
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	212	128	30	54	
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	76	26	50		
87900200	DRILL EXISTING HANDHOLE	EACH	56	26	21	9	
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	41	24	11	6	
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	17	12	1	4	
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	25	12	9	4	
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	25	12	9	4	

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/13/2019	DATE - 3/15/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES (SHEET 3 OF 5)			
SCALE:	SHEET	OF	SHEETS
	STA.	TO	STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	VARIOUS	57	8
			CONTRACT NO. 62H46	
		ILLINOIS	FED. AID PROJECT	

CONSTRUCTION CODE				
80% FED 20% STATE COOK COUNTY	80% FED 20% STATE LAKE COUNTY	80% FED 20% STATE KANE COUNTY		
TRAFFIC SIGNALS				
0021				
URBAN				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY					
88055150	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	8	8				
88055160	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	28	28				
88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	94	64	20	10		
88600100	DETECTOR LOOP, TYPE I	FOOT	1,185		905	280		
88800100	PEDESTRIAN PUSH-BUTTON	EACH	8			8		
89500200	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	27	11	8	8		
89500400	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	14	11	3			
89501250	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	7	4	2	1		
89502200	MODIFY EXISTING CONTROLLER	EACH	2	2				
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	2	2				
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	19,620	10,720	5,400	3,500		
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	1,385	500	885			
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	8	5	2	1		
89502380	REMOVE EXISTING HANDHOLE	EACH	11	7	1	3		

MODEL: Default
 FILE NAME: S:\WP\Design\bovan08_Mtazam\Contract\62H46 - June 2019\CADD\62H46-RT-general.dgn

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/13/2019	DATE - 3/15/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
(SHEET 4 OF 5)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	VARIOUS	57	9
			CONTRACT NO. 62H46	
		ILLINOIS	FED. AID PROJECT	

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								

MODEL: D:\dtd\11... FILE: 2019\CD\DD\62H46-RT-general.dgn

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 9/29/2016	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

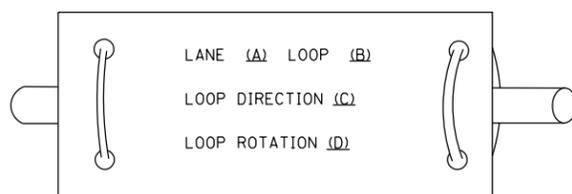
DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS			
SCALE: NONE	SHEET 1 OF 7 SHEETS	STA. TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	VARIOUS	57	11
TS-05		CONTRACT NO. 62H46		
ILLINOIS FED. AID PROJECT				

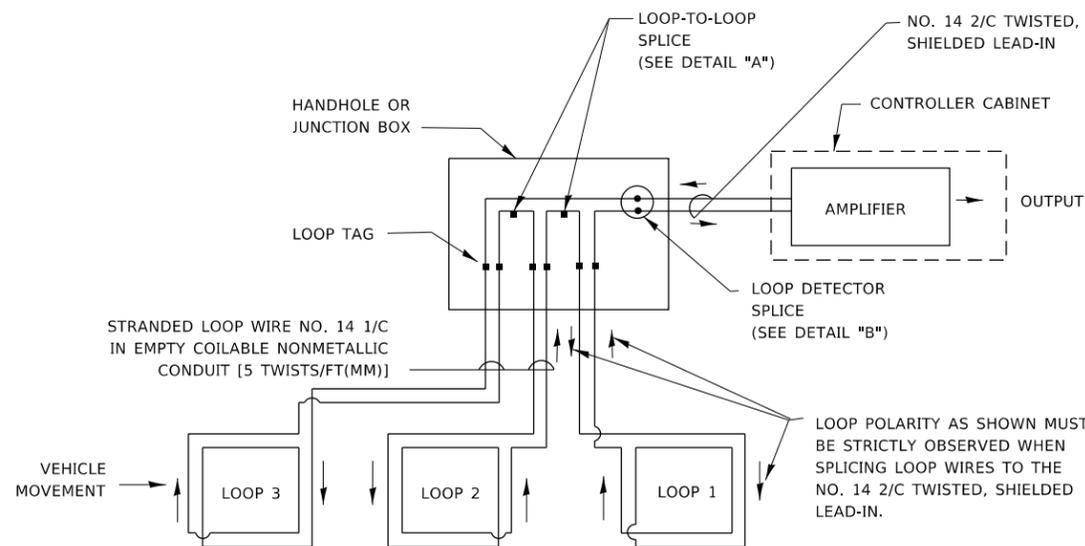
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

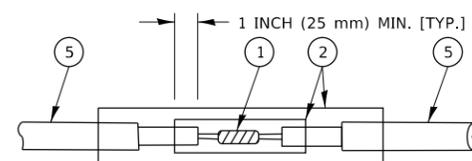


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

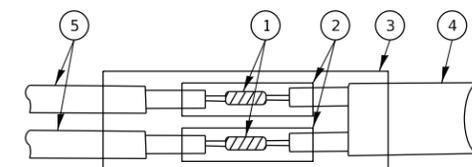


DETECTOR LOOP WIRING SCHEMATIC

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

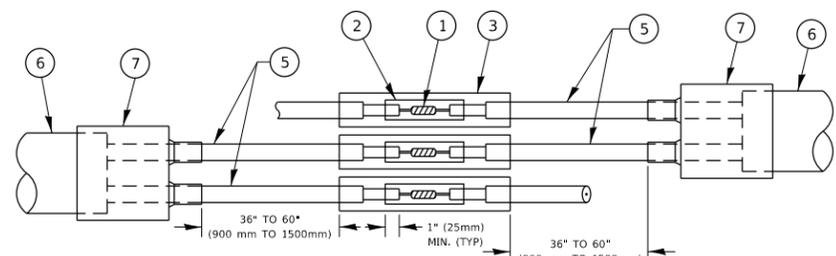


DETAIL "A"
LOOP-TO-LOOP SPLICE

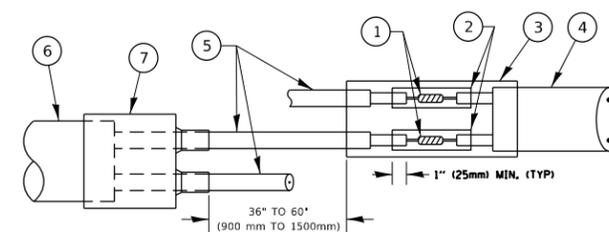


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

PREFORMED LOOP

LOOP DETECTOR SPLICE

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

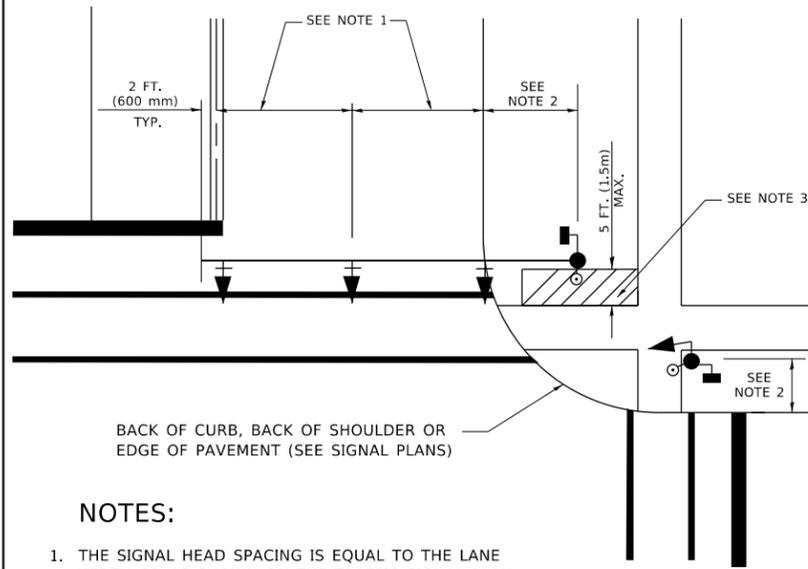
SCALE: NONE SHEET 2 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2018-099-T5	VARIOUS	57	12
TS-05		CONTRACT NO. 62H46		
ILLINOIS		FED. AID PROJECT		

MODEL: D:\dtd\11... FILE NAME: S:\V\Design\Ibvan\08_Mstafarm\Contract\62H46 - June 2019\CADD\62H46-rts-general.dgn

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

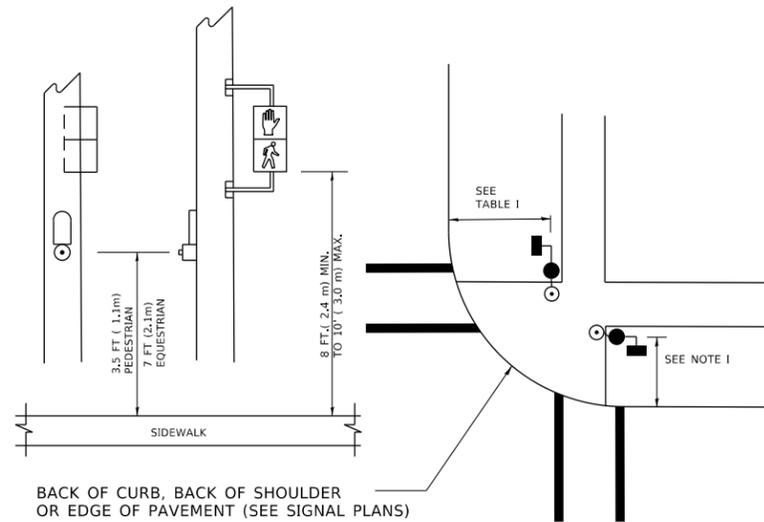
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



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."

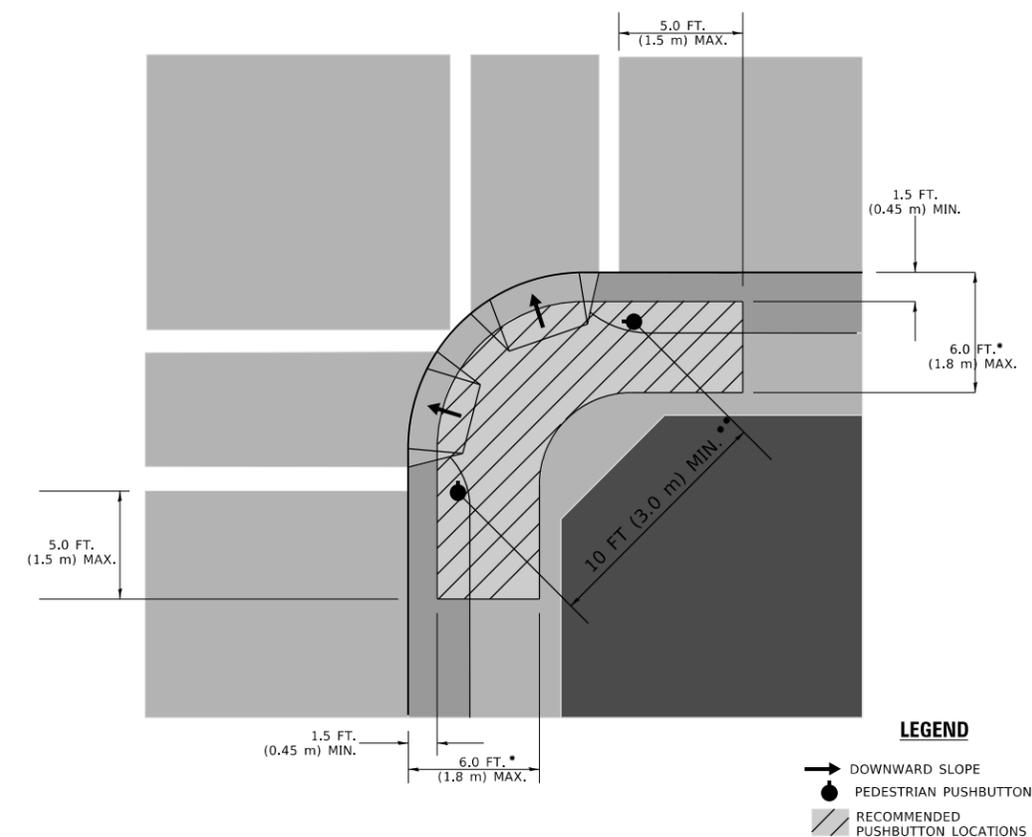
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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



LEGEND

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- ▨ RECOMMENDED PUSHBUTTON LOCATIONS

* WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.

** WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

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.

MODEL: Defaul
FILE: \\nas01\SS\IP\Design\bovan08_MastArmContract\62H46 - June 2019\CADD\62H46-rb-general.dgn

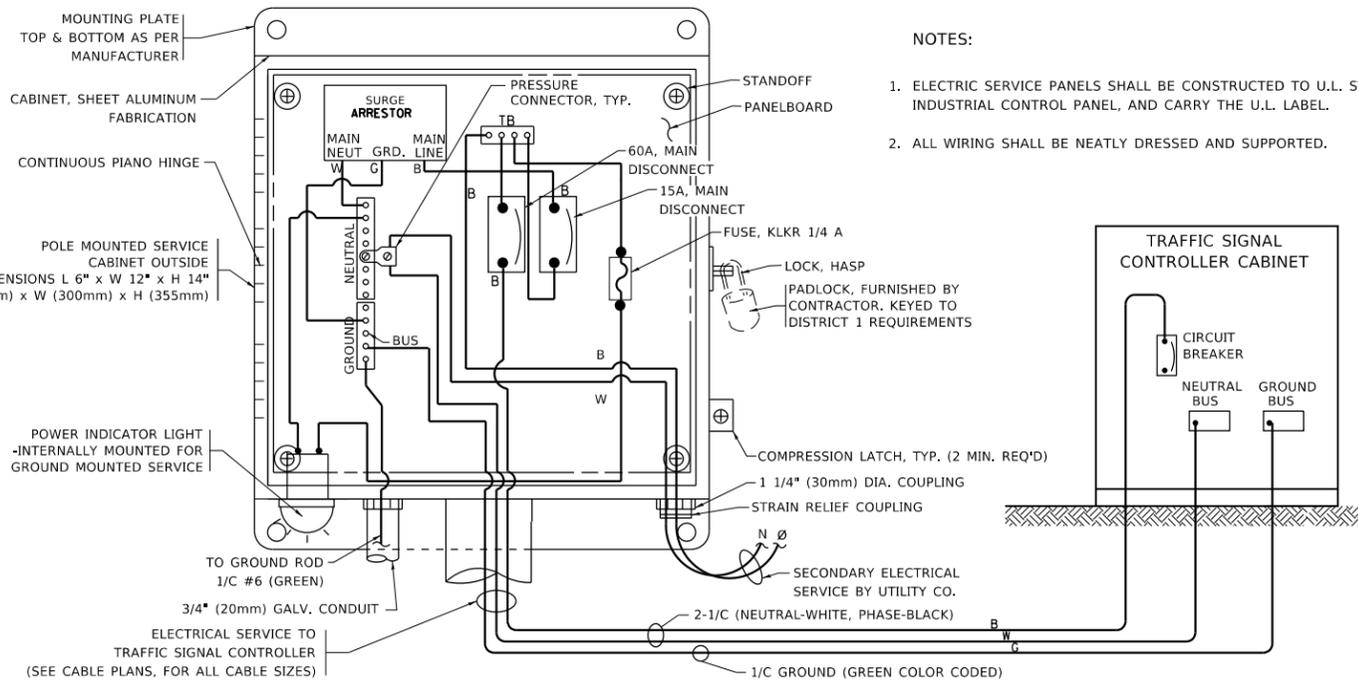
USER NAME = plascenciai	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -
PLOT DATE = 5/10/2019	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

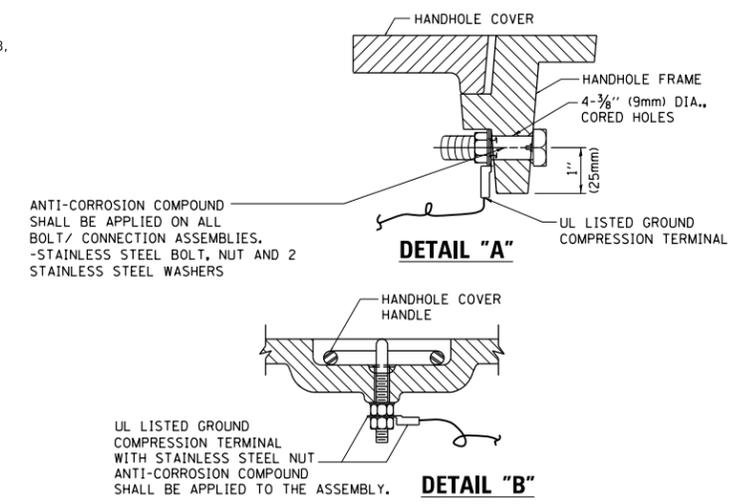
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET 3 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	VARIOUS	57	13
TS-05		CONTRACT NO. 62H46		
ILLINOIS FED. AID PROJECT				

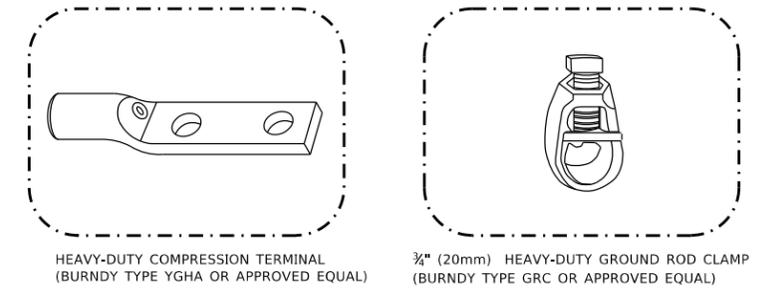


ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



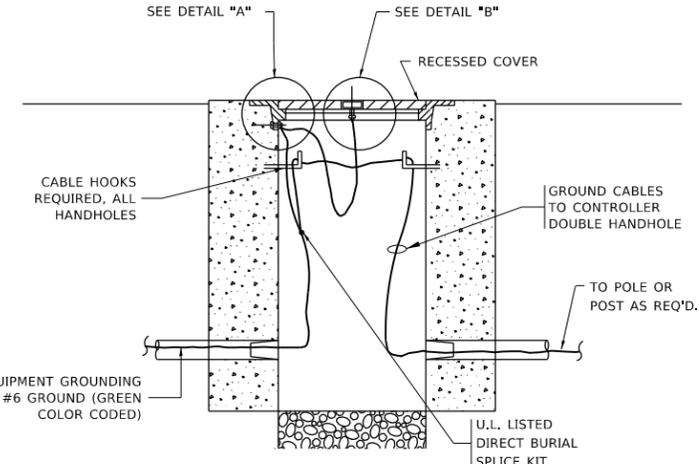
NOTES:
GROUNDING SYSTEM

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



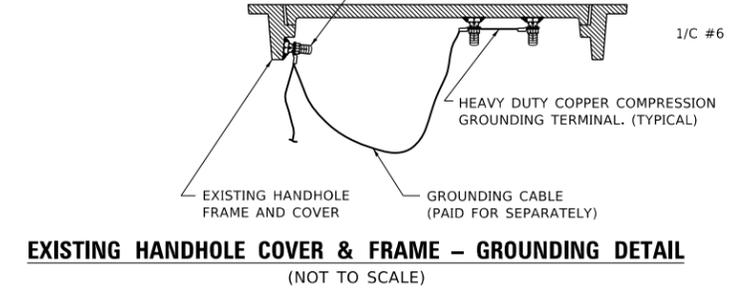
NOTES:

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

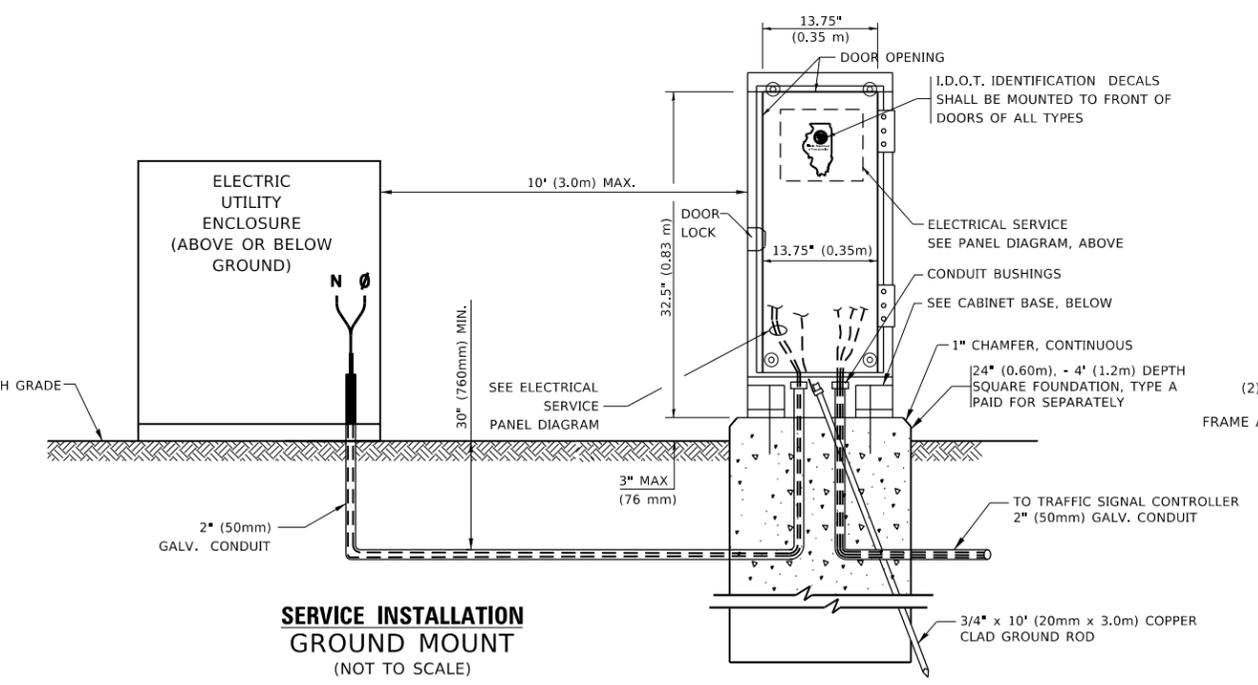


HANDHOLE COVER & FRAME – GROUNDING DETAIL
 (NOT TO SCALE)

(2) 1/2" x 1 1/4" STAINLESS STEEL BOLT WITH SPLIT LOCK WASHER AND NYLON INSERT LOCKOUT WELDED TO FRAME AND TO COVER. (TYPICAL). ANTI-CORROSION COMPOUND SHALL BE APPLIED TO EACH ASSEMBLY.

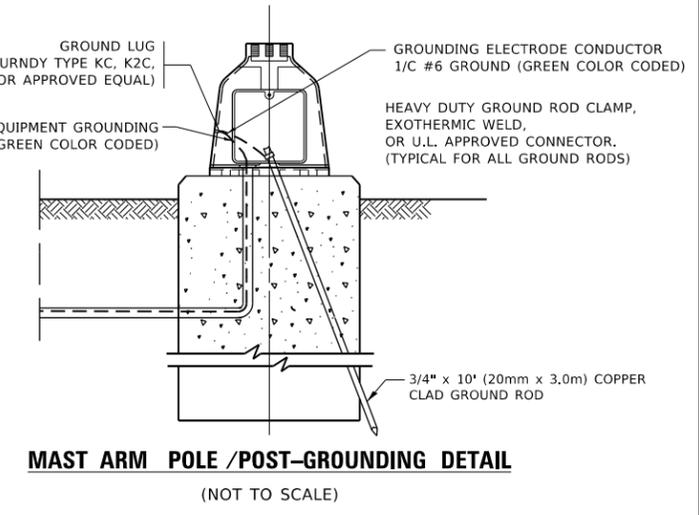
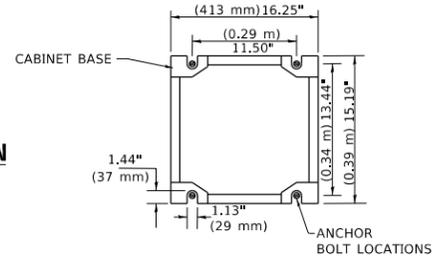


EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL
 (NOT TO SCALE)



SERVICE INSTALLATION GROUND MOUNT
 (NOT TO SCALE)

CABINET – BASE BOLT PATTERN
 (NOT TO SCALE)



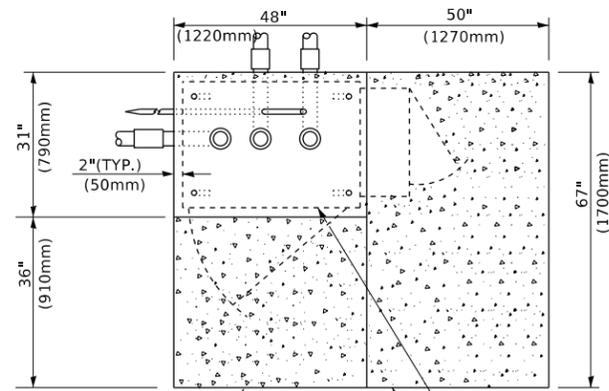
MODEL: D:\dft\... FILE NAME: S:\WP\Design\Ivan\08_MastArm\Contract\62H46 - June 2019\CADD\62H46-RT-general.dgn

USER NAME = plascenciai	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 5/10/2019	DATE -	REVISED -

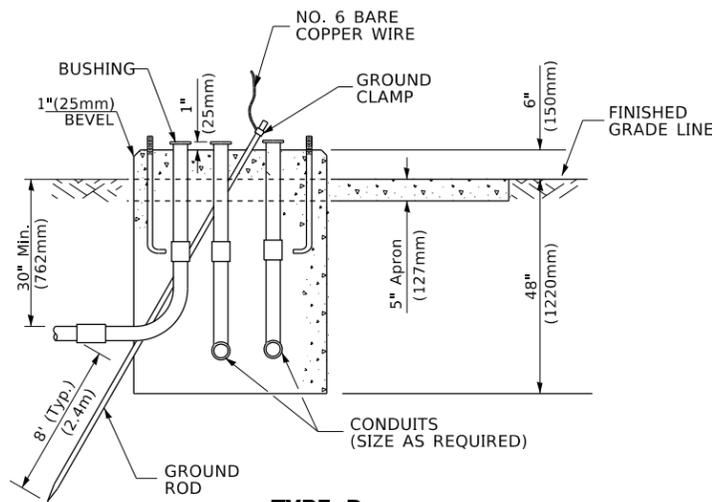
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE			
STANDARD TRAFFIC SIGNAL DESIGN DETAILS			
SCALE: NONE	SHEET 4	OF 7 SHEETS	STA. TO STA.

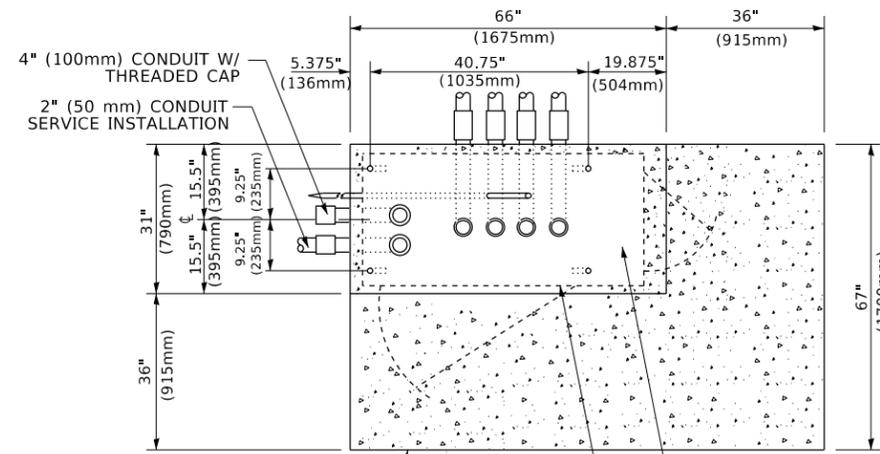
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	VARIOUS	57	14
TS-05		CONTRACT NO. 62H46		
ILLINOIS / FED. AID PROJECT				



TOP VIEW



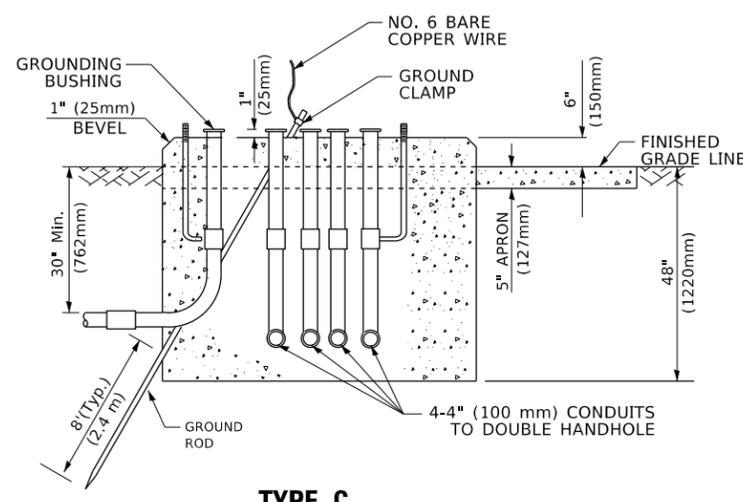
**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



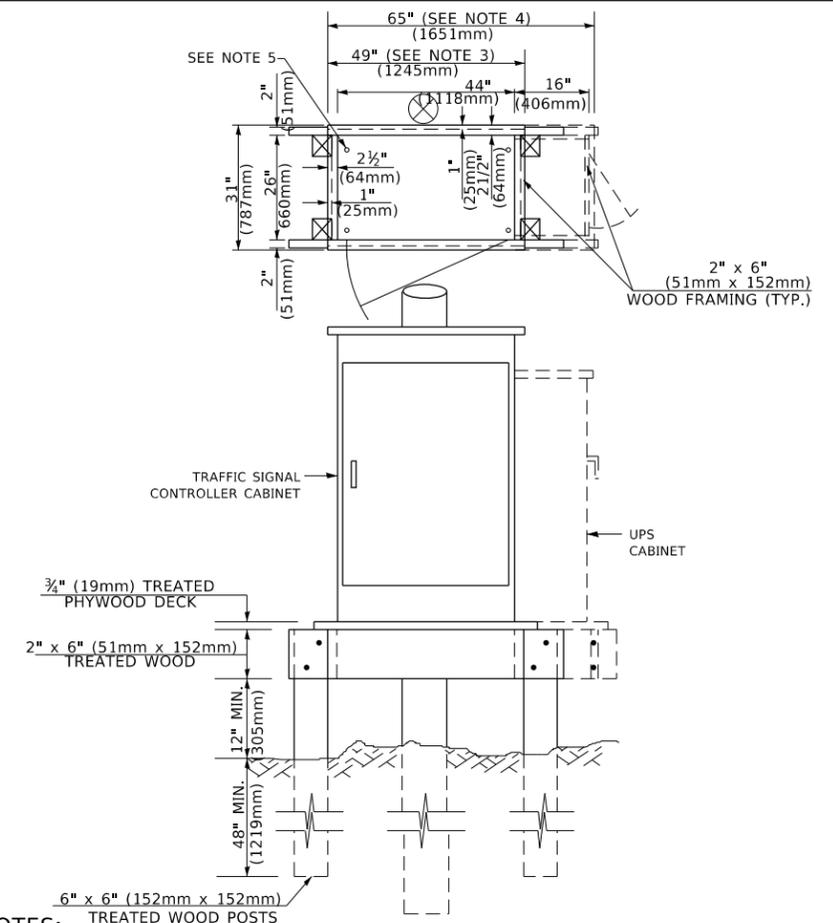
TOP VIEW

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 less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m) and up to 85' (25.9 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

MODEL: Default
FILE NAME: S:\IP\Design\Ivan\08_MastArm\Contract\62H46 - June 2019\CADD\62H46-rts-general.dgn

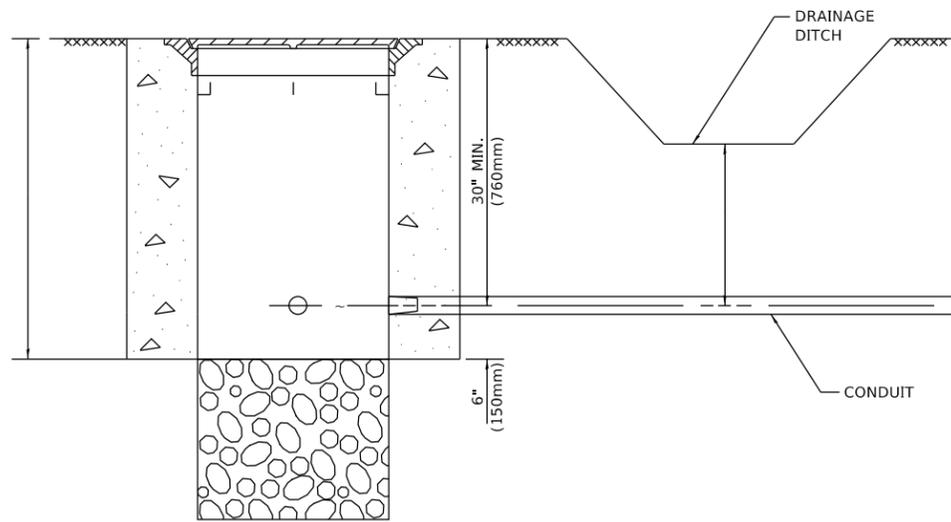
USER NAME = plascenciai	DESIGNED -	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 5/10/2019	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET 5 OF 7 SHEETS STA. TO STA.

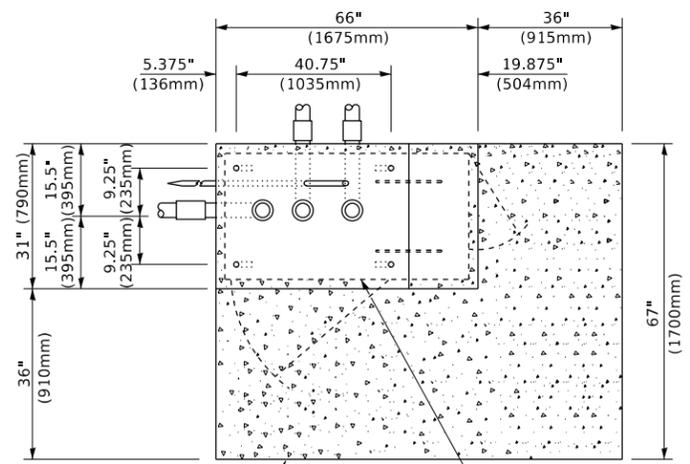
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	VARIOUS	57	15
TS-05			CONTRACT NO. 62H46	
ILLINOIS		FED. AID PROJECT		



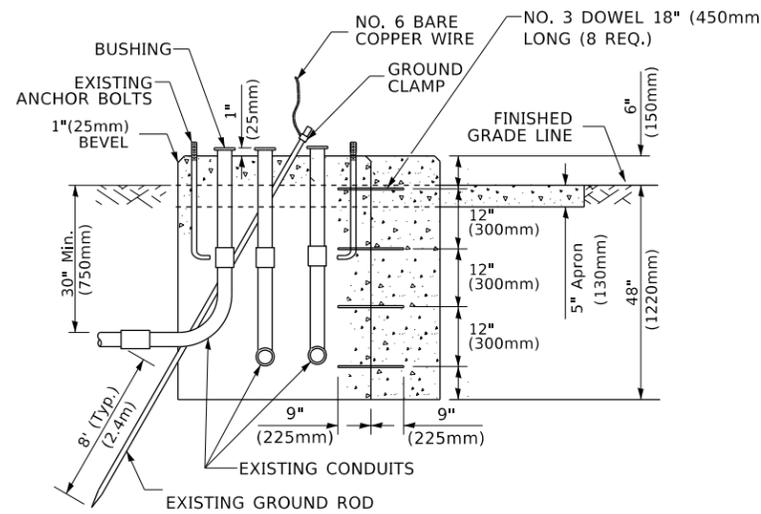
NOTES:

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.

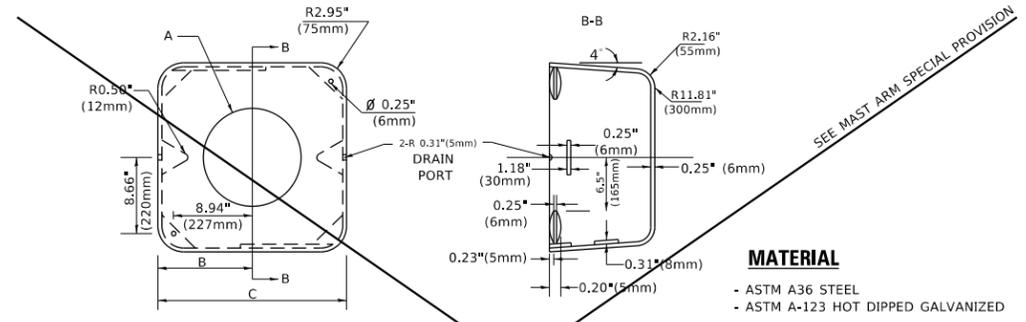
HANDHOLE WITH MINIMUM CONDUIT DEPTH
(NOT TO SCALE)



TOP VIEW
(NOT TO SCALE)



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



SHROUD

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

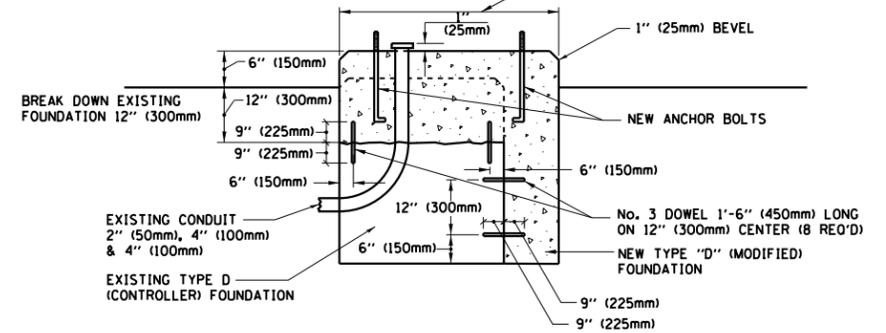
A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5"(241mm)	19"(483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIABLES	10.75"(273mm)	21.5"(546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIABLES	13.0"(330mm)	26"(660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIABLES	18.5"(470mm)	37"(940mm)	7" (178mm) - 12" (300mm)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

NOTES:

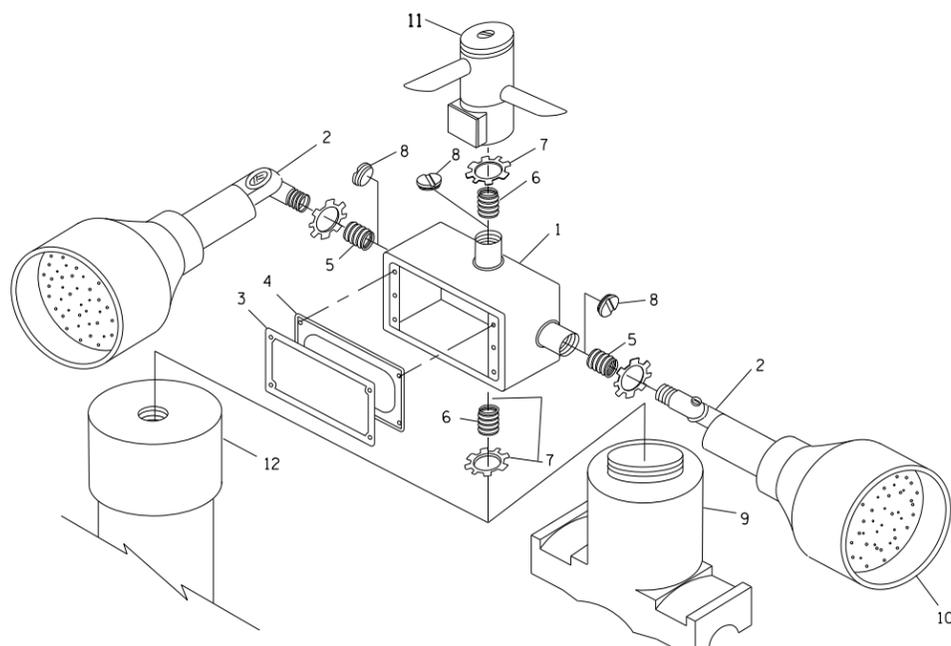
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

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

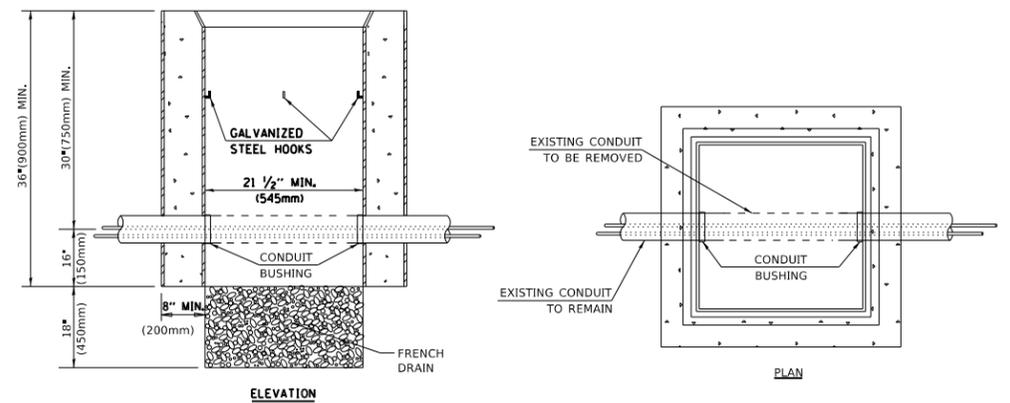


EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0,000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	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.



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

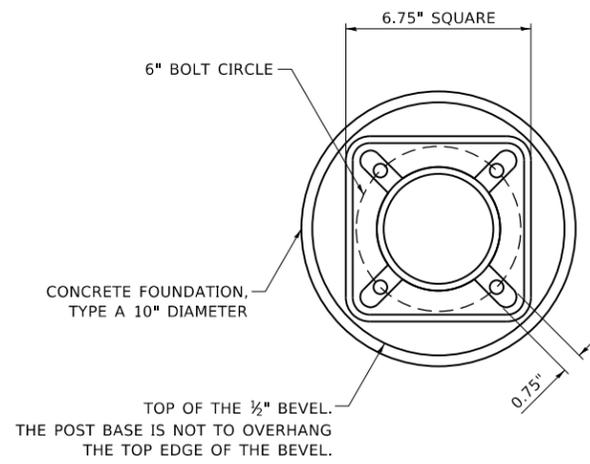
MODEL: Definit FILE: 62H46_SignDesign/62H46-08_MastArm_Contract/62H46 - June 2019/CADD/62H46-08-general.dgn

USER NAME = plascenciai	DESIGNED -	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 5/10/2019	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

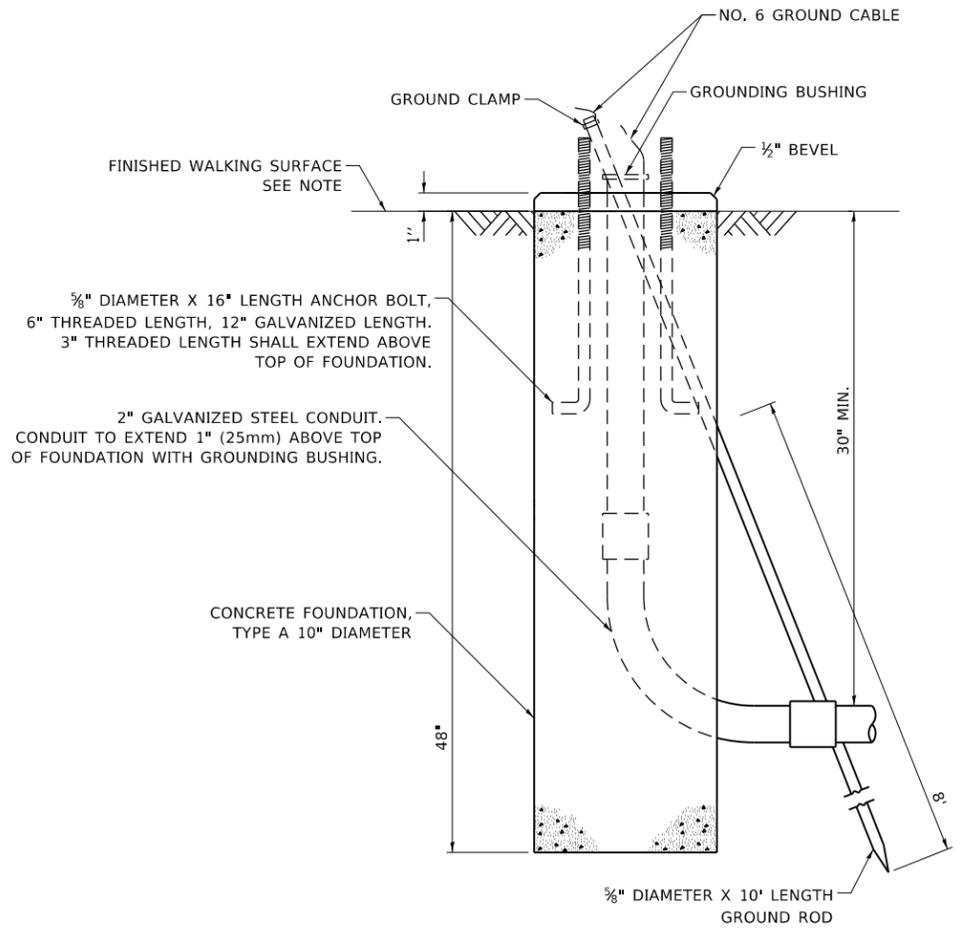
DISTRICT ONE			
STANDARD TRAFFIC SIGNAL DESIGN DETAILS			
SCALE: NONE	SHEET 6	OF 7 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	VARIOUS	57	16
TS-05		CONTRACT NO. 62H46		
ILLINOIS / FED. AID PROJECT				

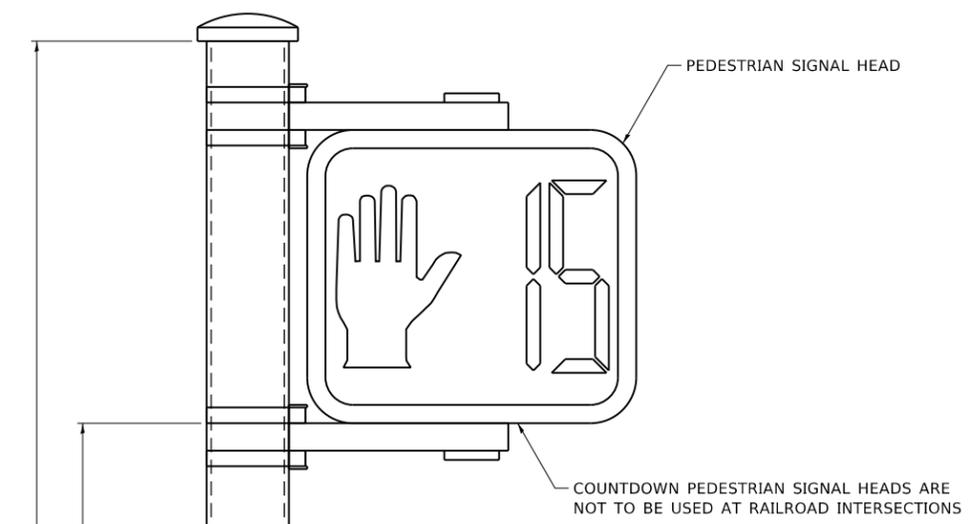


BOLT PATTERN

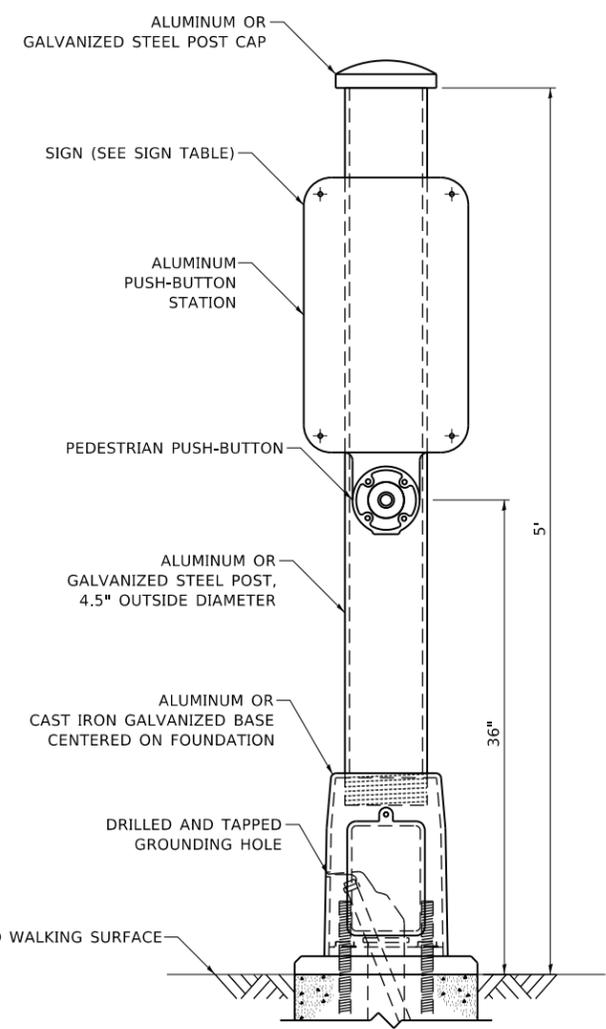
NOTE:
 1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



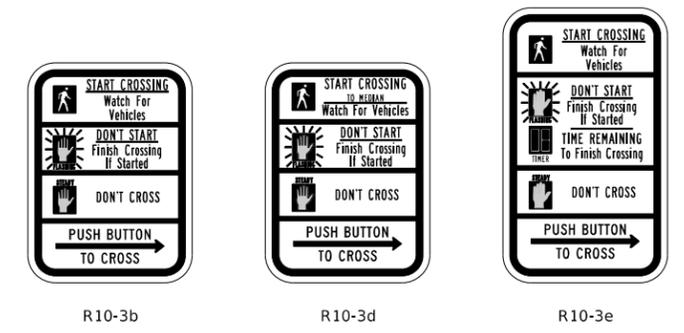
CONCRETE FOUNDATION, TYPE A 10-INCH DIAMETER



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.

MODEL: D:\dft\...
 FILE NAME: S:\V\Design\Ivan\08_Mass\dm\Contract\62H46 - June 2019\CADD\62H46-CH-general.dgn

USER NAME = plascenciai	DESIGNED - IP	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN - IP	REVISED -
PLOT DATE = 5/10/2019	CHECKED - LP	REVISED -
	DATE - 10/15/2018	REVISED -

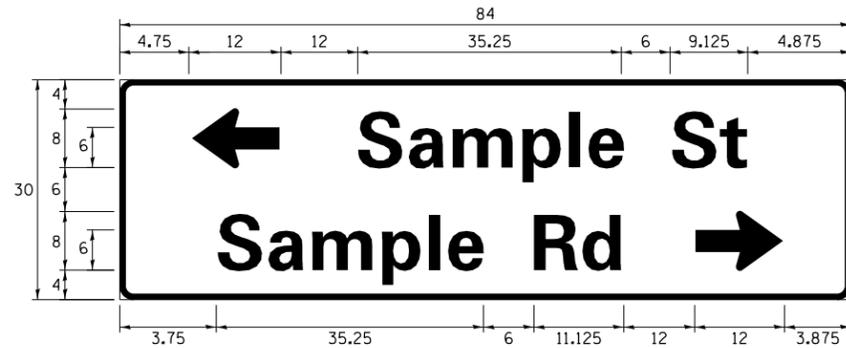
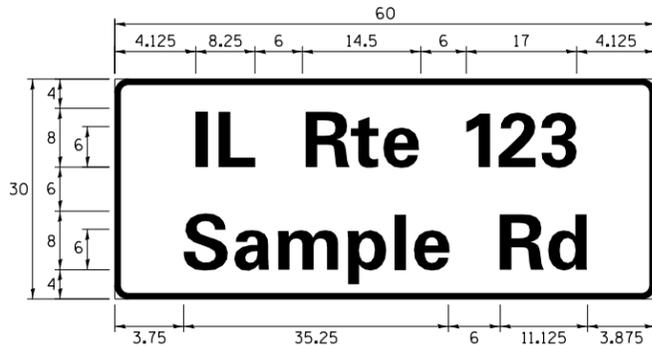
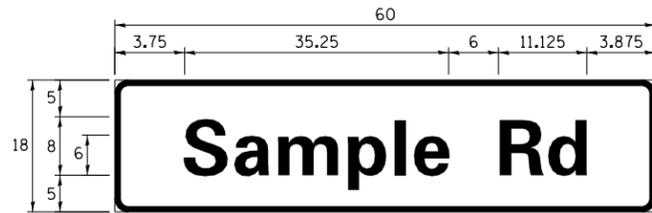
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NTS SHEET NO. 7 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	VARIOUS	57	17
TS-05		CONTRACT NO. 62H46		
ILLINOIS		FED. AID PROJECT		

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 SYMBOLOGY 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:

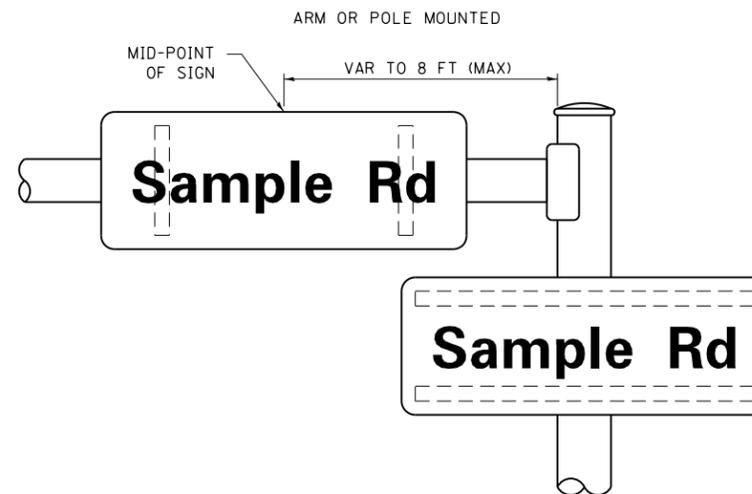
- J.O. HERBERT COMPANY, INC
MIDLOTHIAN, VA
- WESTERN REMAC, INC.
WOODRIDGE, IL

PARTS LISTING:

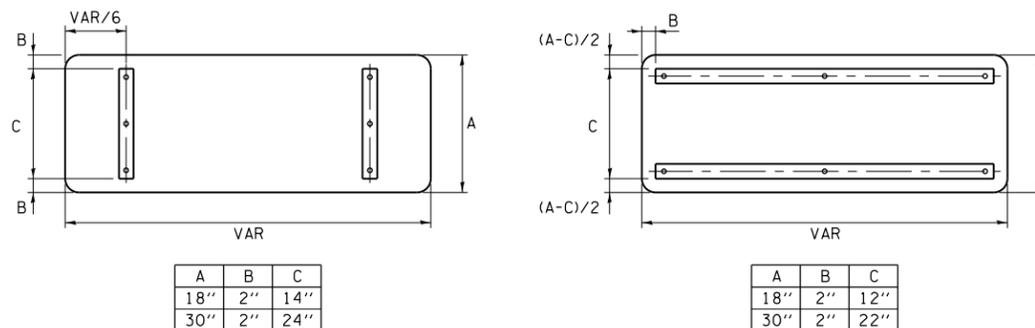
- SIGN CHANNEL PART *HPN053 (MED. CHANNEL)
1/4" x 14 x 1" H.W.H. #3
SELF TAPPING WITH NEOPRENE WASHER
- SIGN SCREWS PART *HPN034 (UNIVERSAL)
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING
- BRACKETS

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

MODEL: D:\dft\... FILE: 62H46 - SIGNFIX DESIGN\62H46 - June 2019\CADD\62H46-rb-general.dgn

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 10/15/2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
MAST ARM MOUNTED STREET NAME SIGNS**

SCALE: NTS SHEET NO. 7 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	VARIOUS	57	18
TS-02		CONTRACT NO. 62H46		
ILLINOIS		FED. AID PROJECT		

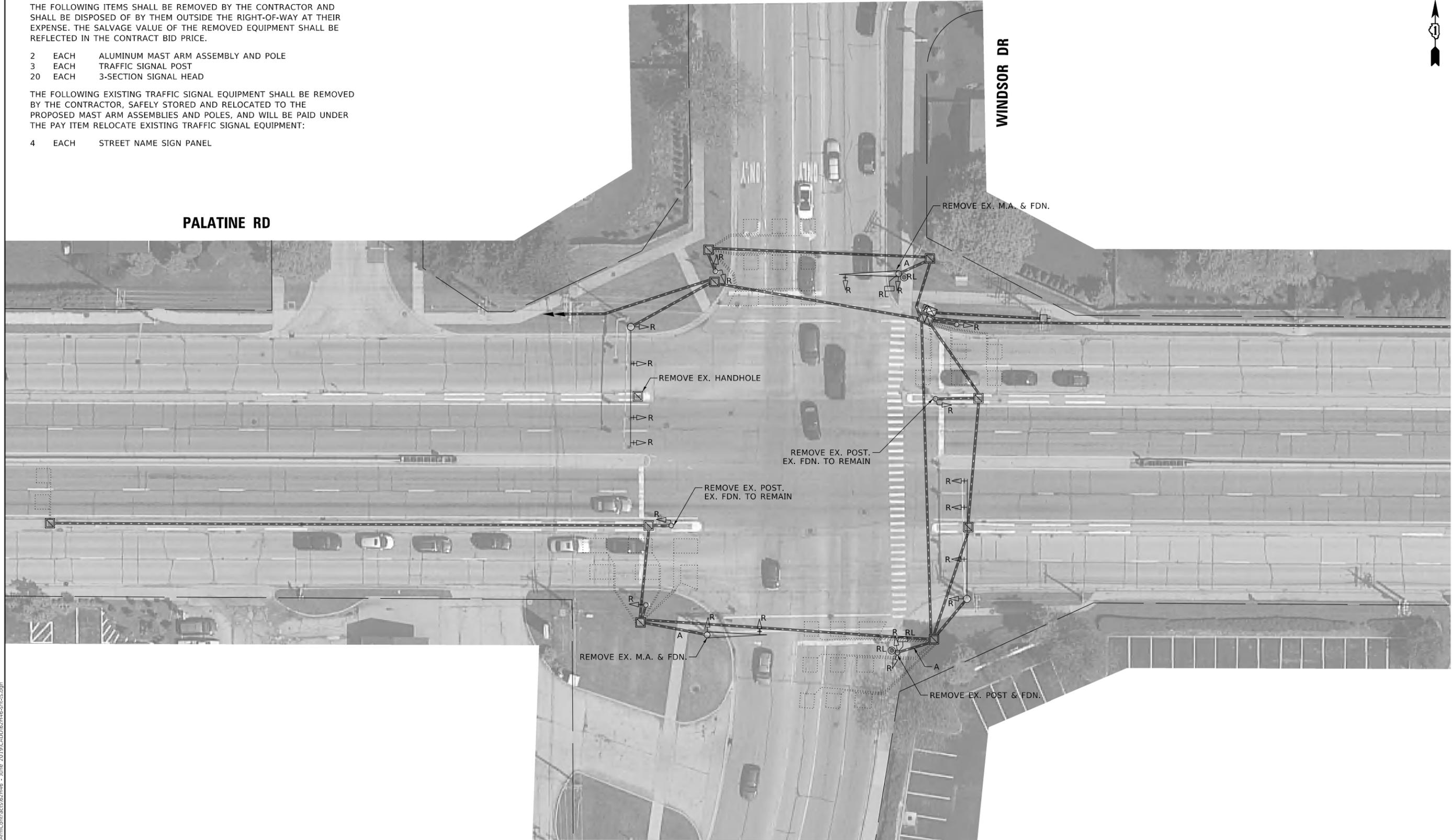
REMOVAL AND RELOCATION NOTES:

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.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 20 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 4 EACH STREET NAME SIGN PANEL



MODEL: D:\dft\... FILE: 62H46_TS... June 2019\CADD\62H46-PT-5.dgn

**TS 5630
ECON 163**

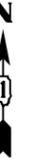
USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

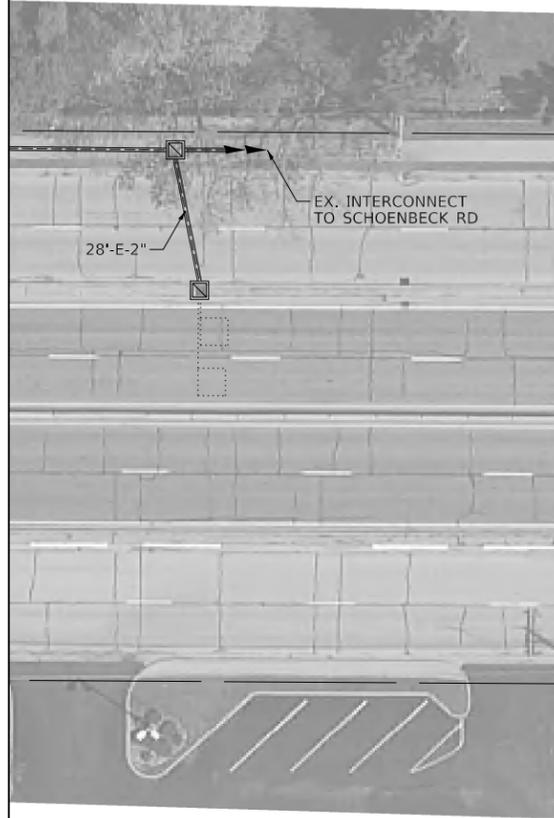
**TRAFFIC SIGNAL REMOVAL PLAN
PALATINE RD AT WINDSOR DR**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	COOK	57	19
			CONTRACT NO. 62H46	
		ILLINOIS	FED. AID PROJECT	



PALATINE RD



SEE SHT 20
MATCH LINE A-A

**TS 5630
ECON 163**

MODEL: D:\dtd\j...
FILE: M:\MIS...
June 2019\CADD\62H46-pts.ctb

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 2 OF 2)
PALATINE RD AT WINDSOR DR**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	COOK	57	21
ILLINOIS			FED. AID PROJECT	
			CONTRACT NO. 62H46	

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	30
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	8
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	53
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	221
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	229
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,523
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	864
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	115
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	27.0
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	14
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	2
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	2
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,000
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
REMOVE AND REPLACE ANCHOR BOLTS	EACH	1
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A 10-INCH DIAMETER	FOOT	4

MODEL: D:\d46\11
 FILE: 62H46_53\19\Design\Drawn\08_MastArm\Contract\62H46 - June 2019\CADD\62H46-53-19.dgn

**TS 5630
ECON 163**

USER NAME = plascenciai	DESIGNED - IP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES PALATINE RD AT WINDSOR DR				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
PLOT SCALE = 40.0000 ' / in.	DRAWN - IP	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	VAR	2018-099-TS	COOK	57	23
PLOT DATE = 5/10/2019	CHECKED - LP	REVISED -		CONTRACT NO. 62H46										
	DATE - 3/15/2019	REVISED -		ILLINOIS FED. AID PROJECT										

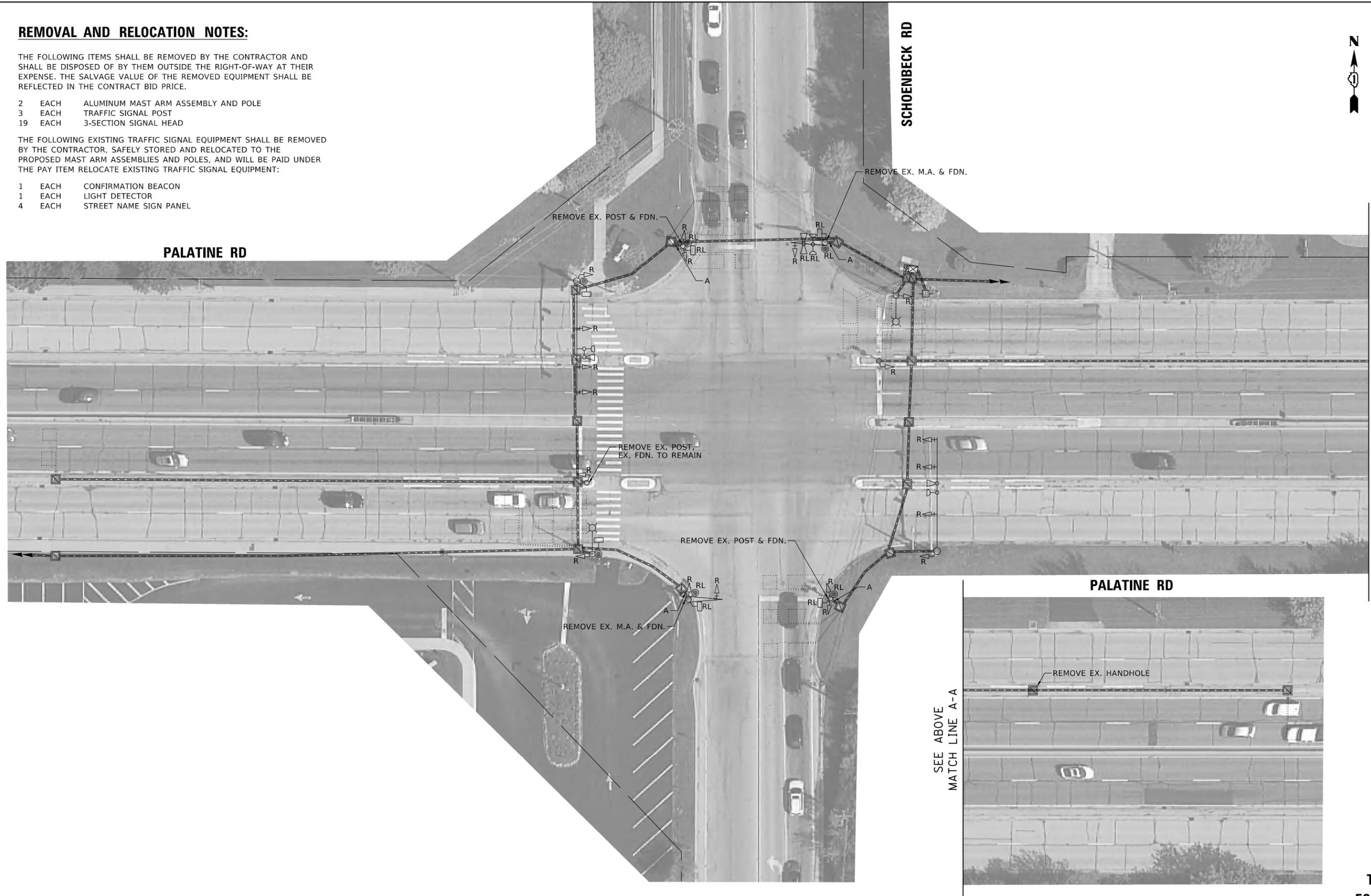
REMOVAL AND RELOCATION NOTES:

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.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 19 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 1 EACH CONFIRMATION BEACON
- 1 EACH LIGHT DETECTOR
- 4 EACH STREET NAME SIGN PANEL



MATCH LINE A-A
SEE BELOW

SEE ABOVE
MATCH LINE A-A

**TS 5620
ECON 163**

MODEL: Default
FILE NAME: S:\V\Projects\Design\62H46 - June 2019\CADD\62H46-62H46-62H46.dgn

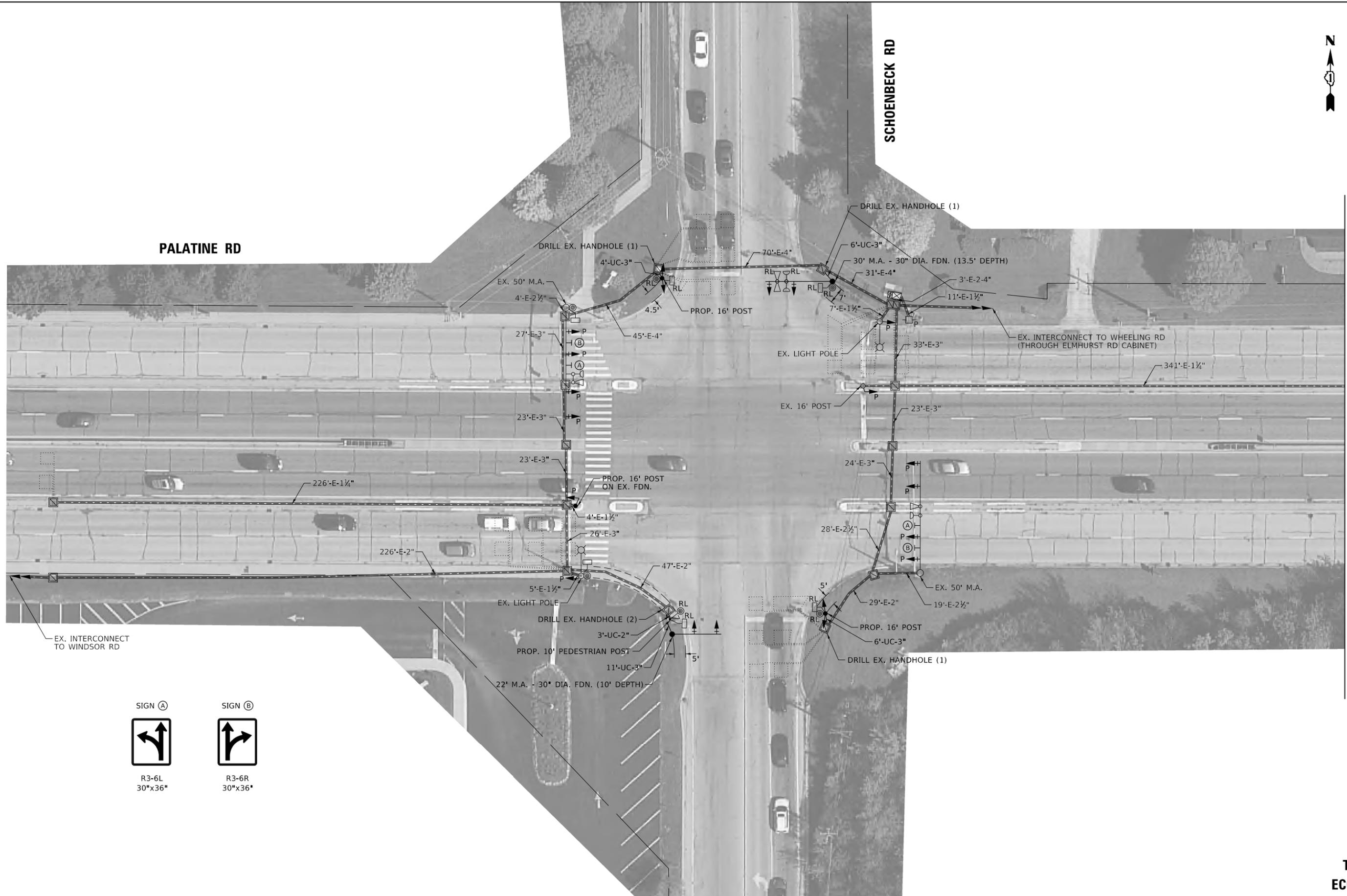
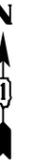
USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

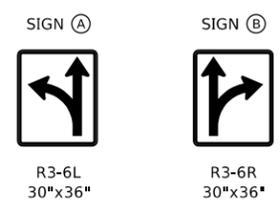
**TRAFFIC SIGNAL REMOVAL PLAN
PALATINE RD AT SCHOENBECK RD**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	COOK	57	24
CONTRACT NO. 62H46			ILLINOIS FED. AID PROJECT	



MATCH LINE A-A
SEE SHT 26



MODEL: Default
FILE NAME: S:\WP\Design\Ivanan08_Mtiaz\dm\Contract\62H46 - June 2019\CADD\62H46-rts-62.dgn

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

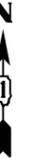
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 1 OF 2)
PALATINE RD AT SCHOENBECK RD**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	COOK	57	25
CONTRACT NO. 62H46			ILLINOIS FED. AID PROJECT	

**TS 5620
ECON 163**



PALATINE RD



SEE SHT 25
MATCH LINE A-A

MODEL: D:\dtd\it
FILE: M:\MIS_3\XIP\Design\bovan08_Masafarm\Contract\62H46 - June 2019\CADD\62H46-pts.ctb

**TS 5620
ECON 163**

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

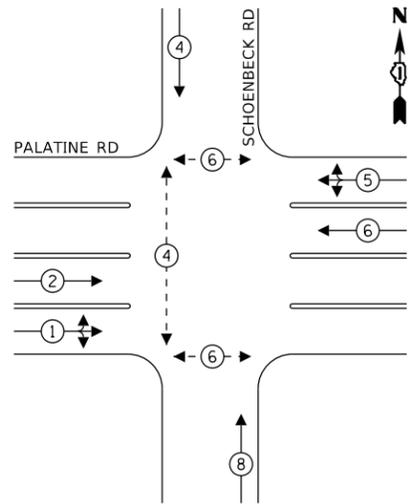
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 2 OF 2)
PALATINE RD AT SCHOENBECK RD**

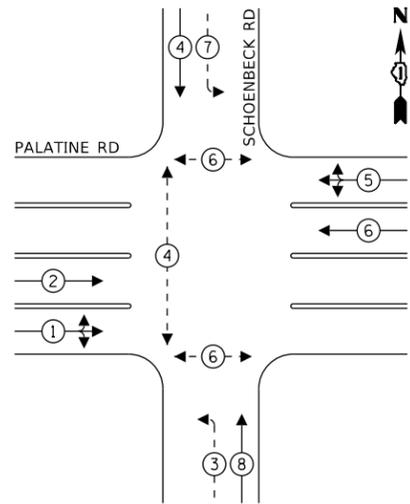
SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	COOK	57	26
			CONTRACT NO. 62H46	
		ILLINOIS	FED. AID PROJECT	

EXISTING CONTROLLER SEQUENCE



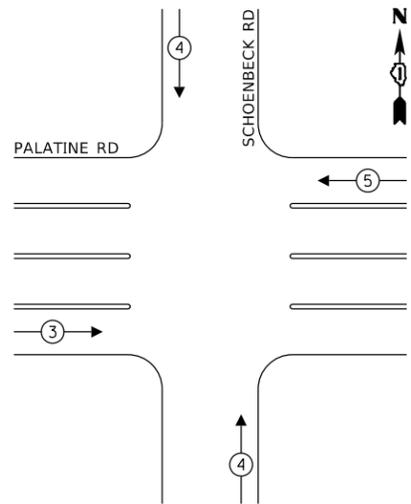
PROPOSED CONTROLLER SEQUENCE



LEGEND:

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

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



RING	1	2	3	4	5
1	1	-	2	3	4
2	-	5	6	7	8

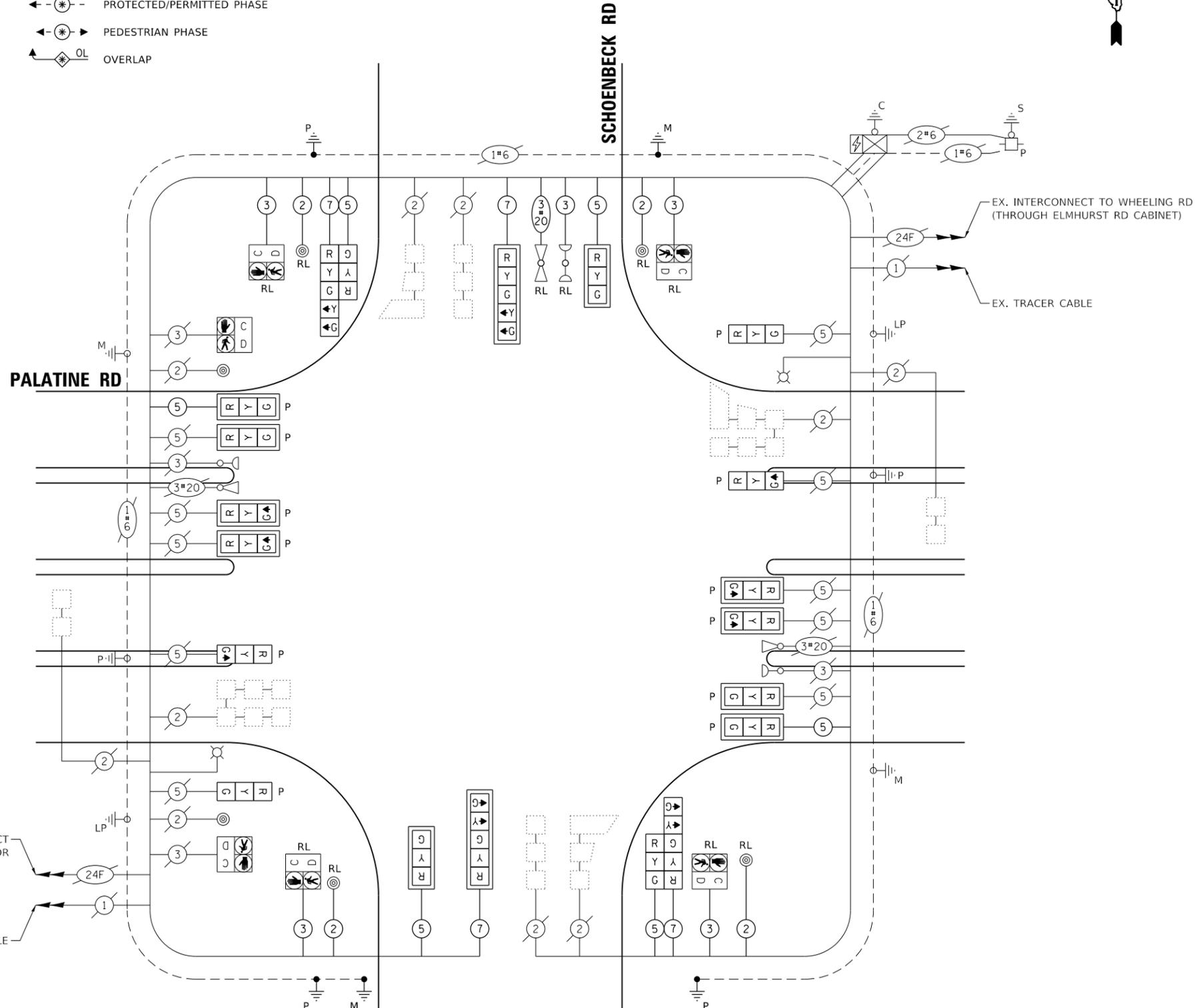
TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	11	50	110.0
(YELLOW)	20	20	5	20.0
(GREEN)	20	12	45	108.0
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	6	20	100	120.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				491.0

ENERGY COSTS TO:

VILLAGE OF ARLINGTON HEIGHTS
33 S ARLINGTON HEIGHTS RD
ARLINGTON HEIGHTS, IL 60005

ENERGY SUPPLY: CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ---



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM,
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
PALATINE RD AT SCHOENBECK RD

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	COOK	57	27
CONTRACT NO. 62H46				

SCALE: SHEET OF SHEETS STA. TO STA.

TS 5620
ECON 163

MODEL: D:\p1\... FILE: ARLHTS_SCHENBECK\Design\Drawings\... June 2019\CADD\62H46_P163.dgn

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	30
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	3
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	27
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	821
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	955
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,334
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	917
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	90
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	23.5
DRILL EXISTING HANDHOLE	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	12
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	4
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	4
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3,740
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	118
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
REMOVE AND REPLACE ANCHOR BOLTS	EACH	1
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A 10-INCH DIAMETER	FOOT	4

MODEL: D:\dtd\it...
 FILE: M:\MIS...
 June 2019\CADD\62H46-62H46-62H46-62H46.dgn

**TS 5620
ECON 163**

USER NAME = plascenciai	DESIGNED - IP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES PALATINE RD AT SCHOENBECK RD		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - IP	REVISED -		SCALE:	SHEET OF SHEETS	STA. TO STA.	VAR	2018-099-TS	COOK	57 28
PLOT SCALE = 40.0000 ' / in.	CHECKED - LP	REVISED -		CONTRACT NO. 62H46						
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -		ILLINOIS FED. AID PROJECT						

REMOVAL AND RELOCATION NOTES:

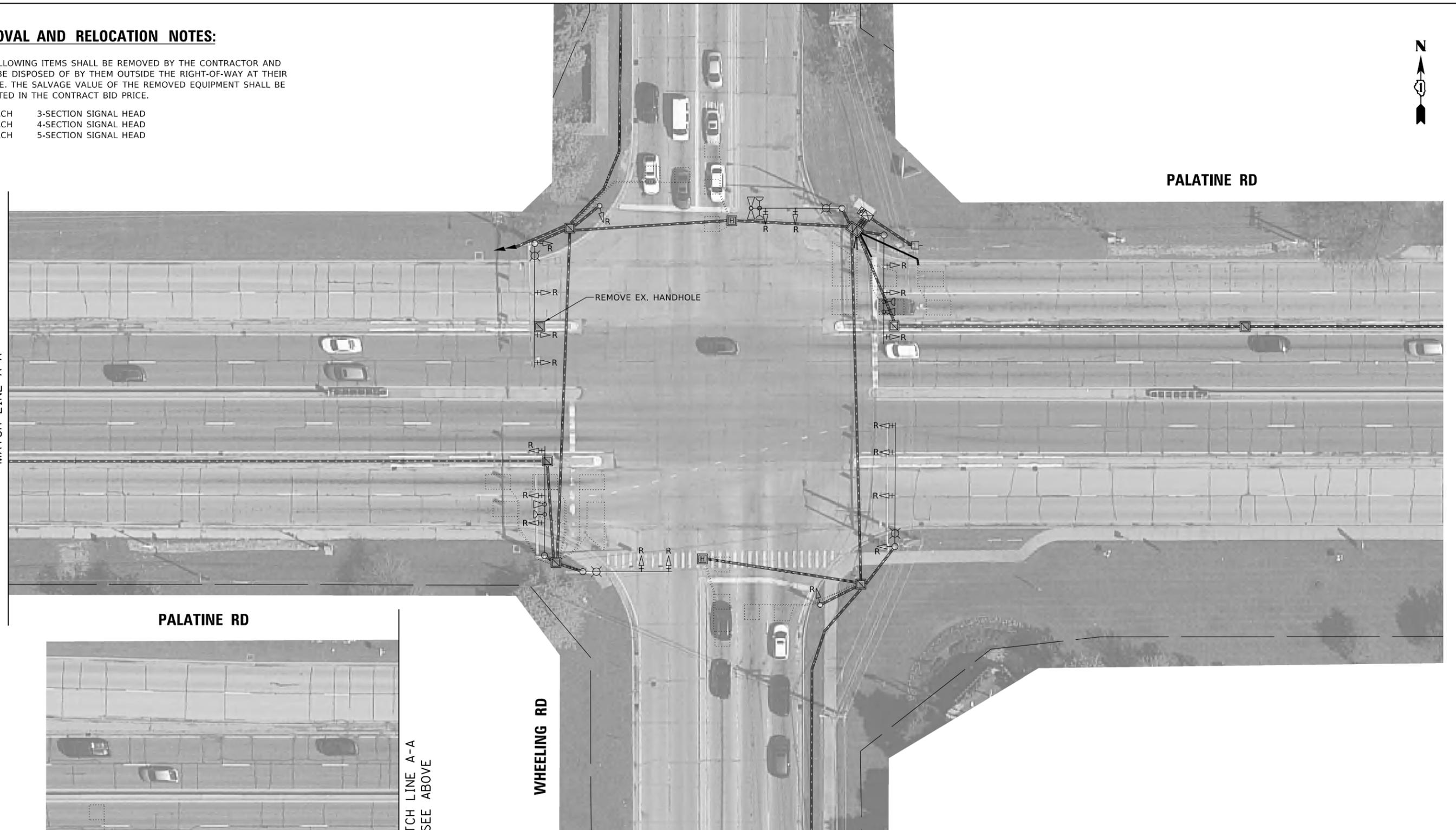
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 12 EACH 3-SECTION SIGNAL HEAD
- 4 EACH 4-SECTION SIGNAL HEAD
- 4 EACH 5-SECTION SIGNAL HEAD



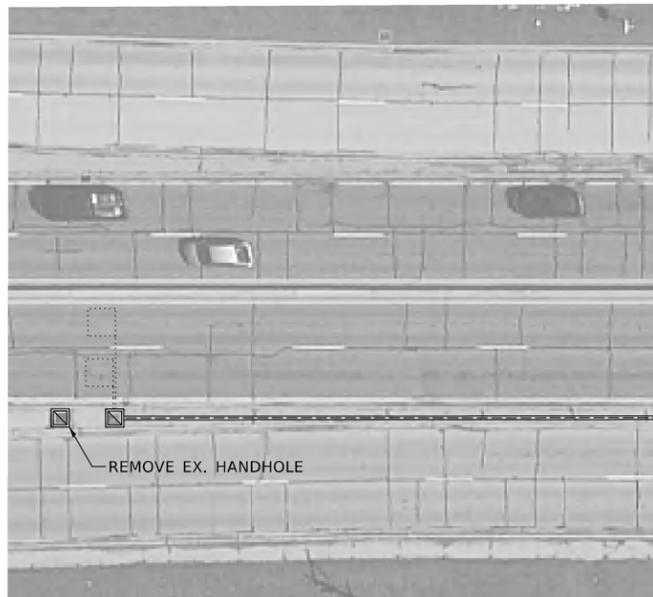
PALATINE RD

SEE BELOW
MATCH LINE A-A



PALATINE RD

WHEELING RD



MATCH LINE A-A
SEE ABOVE

MODEL: Default
FILE: \\nas015.southwestdesign.com\Users\masci\masci\masci\Contract\62H46 - June 2019\CADD\62H46-62H46-01.dgn

**TS 5625
ECON 163**

USER NAME = plascenciai	DESIGNED - IP	REVISED - 4/15/2019
	DRAWN - IP	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

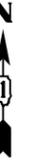
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL REMOVAL PLAN
PALATINE RD AT WHEELING RD**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	COOK	57	29
			CONTRACT NO. 62H46	
		ILLINOIS	FED. AID PROJECT	

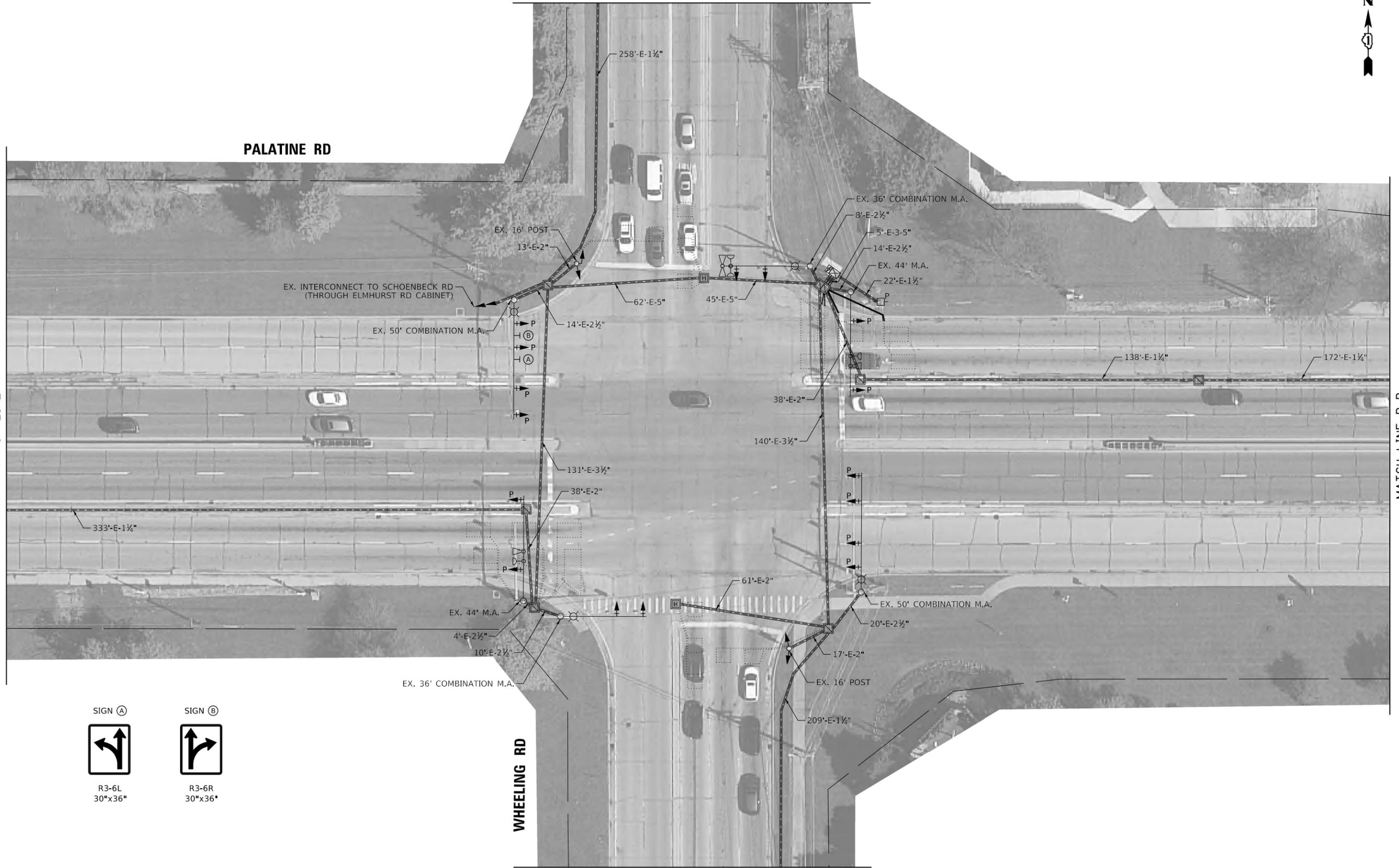
SEE SHT 31
MATCH LINE C-C



PALATINE RD

SEE SHT 31
MATCH LINE A-A

MATCH LINE B-B
SEE SHT 31



WHEELING RD

MATCH LINE D-D
SEE SHT 31

TS 5625
ECON 163

MODEL: Default
FILE NAME: S:\V\Projects\Design\Ivan\08_Mtiaz\Tsm\Contract\62H46 - June 2019\CADD\62H46-rts-c.dgn

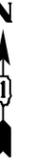
USER NAME = plascenciai	DESIGNED - IP	REVISED - 4/15/2019
	DRAWN - IP	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 1 OF 2)
PALATINE RD AT WHEELING RD

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	COOK	57	30
			CONTRACT NO. 62H46	
		ILLINOIS	FED. AID PROJECT	



PALATINE RD



MATCH LINE A-A
SEE SHT 30



SEE SHT 30
MATCH LINE B-B

PALATINE RD



WHEELING RD

MATCH LINE C-C
SEE SHT 30

SEE SHT 30
MATCH LINE D-D



WHEELING RD

MODEL: Default
FILE: \\nash\SS\XIP\Design\bovan08_Mtashum\Contract\62H46 - June 2019\CADD\62H46-pts.ctb

USER NAME = plascenciai	DESIGNED - IP	REVISED - 4/15/2019
	DRAWN - IP	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

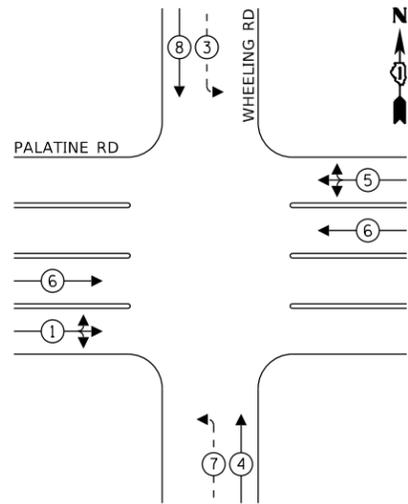
**TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 2 OF 2)
PALATINE RD AT WHEELING RD**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	COOK	57	31
			CONTRACT NO. 62H46	
		ILLINOIS	FED. AID PROJECT	

**TS 5625
ECON 163**

EXISTING CONTROLLER SEQUENCE

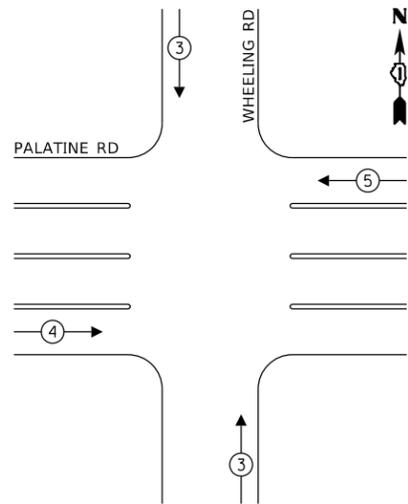


LEGEND:

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

RING	1	2	3	4	5
1	1	-	2	3	4
2	-	5	6	7	8

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



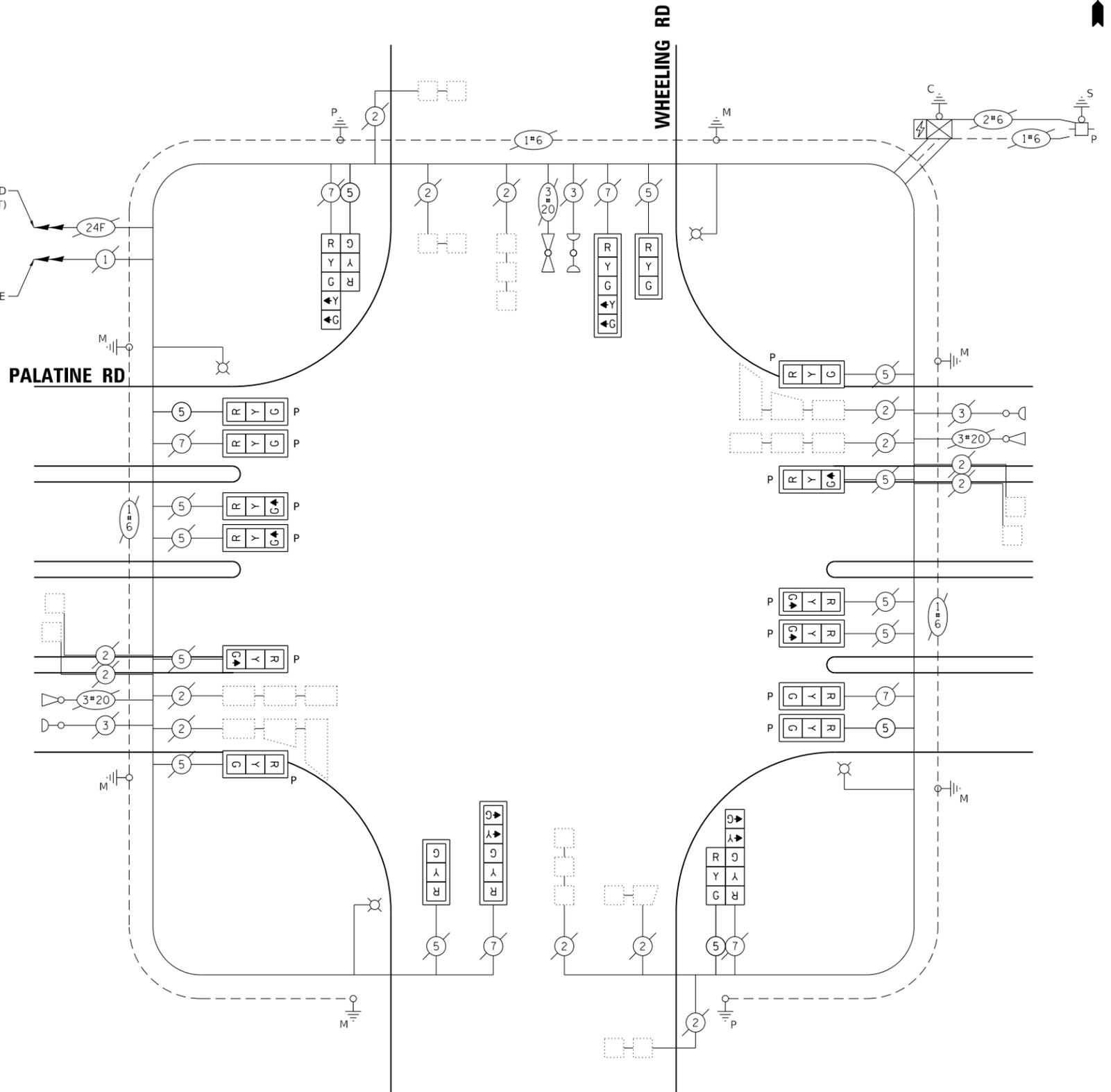
TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	11	50	110.0
(YELLOW)	20	20	5	20.0
(GREEN)	20	12	45	108.0
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				371.0

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W CENTER CT
SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ---



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES
PALATINE RD AT WHEELING RD

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	COOK	57	32
				CONTRACT NO. 62H46

TS 5625
ECON 163

MODEL: D:\p1\... FILE NAME: S:\p1\Design\Ibvan08_Mhzafum\Contract\62H46 - June 2019\CADD\62H46-P1-32.dgn

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	15
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	796
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	12
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	16
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	800
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	2
TEMPORARY INFORMATION SIGNING	SQ FT	51.4

MODEL: D:\dgn\...
 FILE: M:\dgn\...

**TS 5625
ECON 163**

USER NAME = plascenciai	DESIGNED - IP	REVISED - 4/15/2019	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	DRAWN - IP	REVISED -		PALATINE RD AT WHEELING RD		VAR	2018-099-T5	COOK	57	33	
PLOT SCALE = 40.0000 ' / in.	CHECKED - LP	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	CONTRACT NO. 62H46
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -									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.

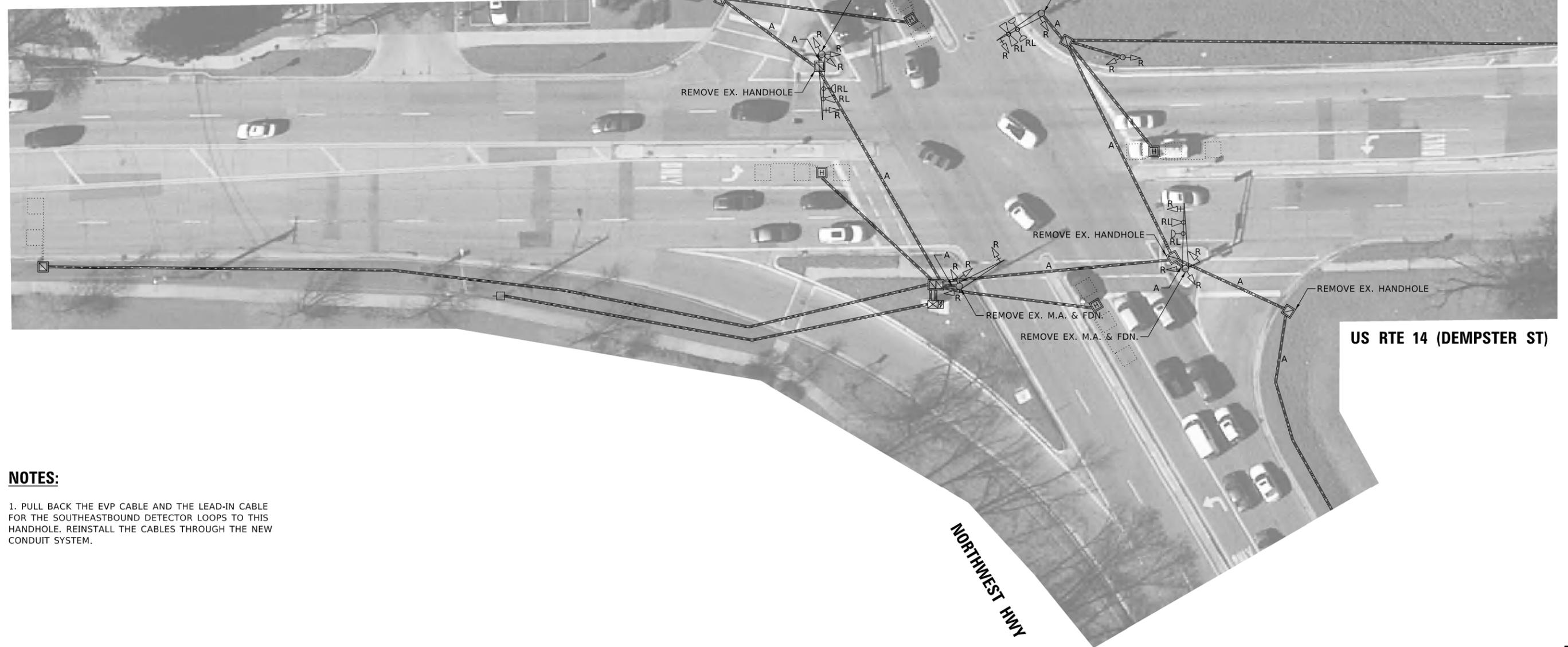
- 4 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 8 EACH 3-SECTION SIGNAL HEAD
- 8 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 3 EACH CONFIRMATION BEACON
- 3 EACH LIGHT DETECTOR
- 6 EACH STREET NAME SIGN PANEL



US RTE 14 (MINER ST)



NOTES:

1. PULL BACK THE EVP CABLE AND THE LEAD-IN CABLE FOR THE SOUTHEASTBOUND DETECTOR LOOPS TO THIS HANDHOLE. REINSTALL THE CABLES THROUGH THE NEW CONDUIT SYSTEM.

MODEL: D:\dtp\...
 FILE: 62H46...
 June 2019\CADD\62H46-62H46-62H46.dgn

TS 1285

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

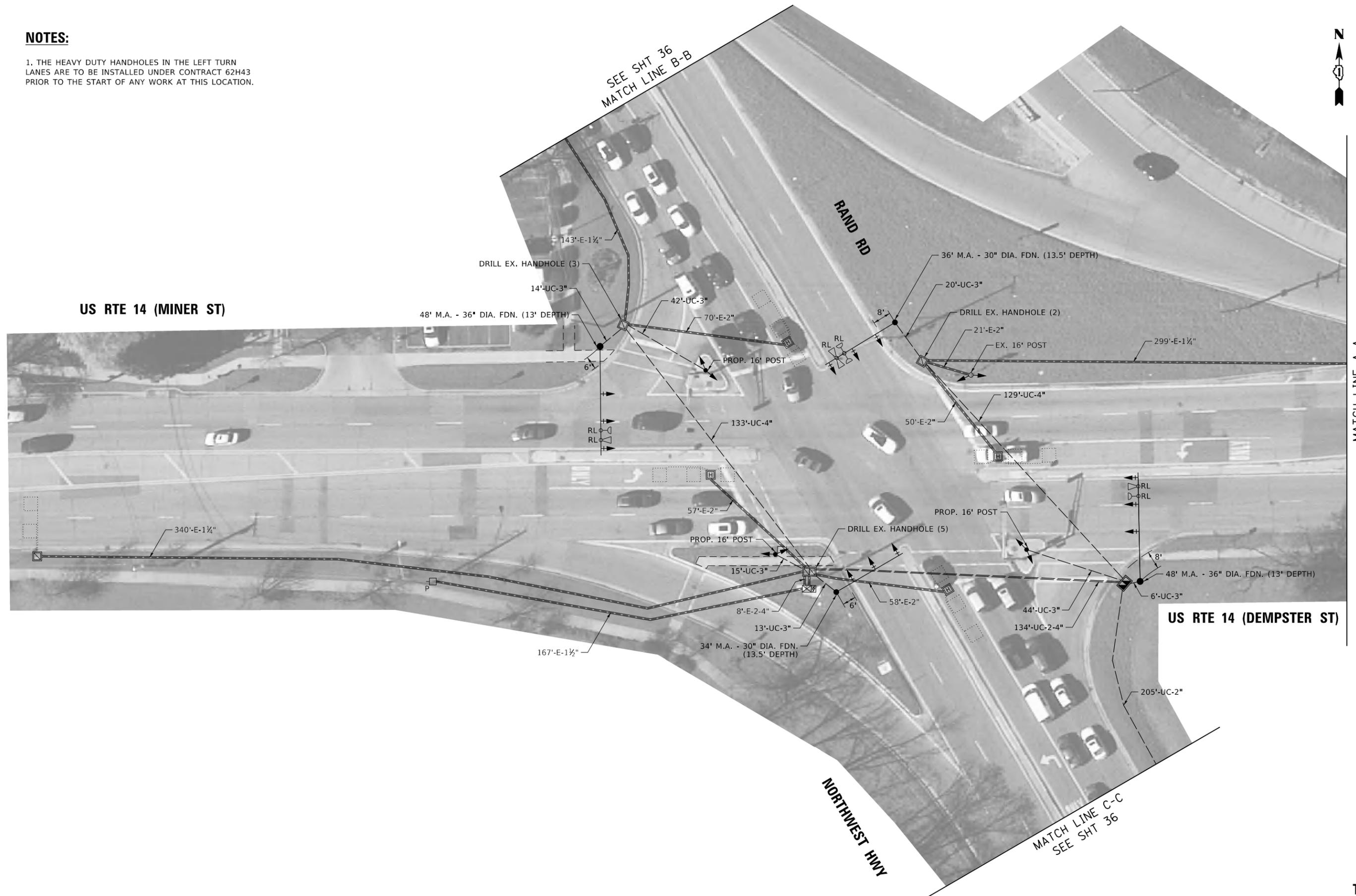
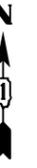
**TRAFFIC SIGNAL REMOVAL PLAN
US RTE 14 AT RAND RD/NORTHWEST HWY**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	COOK	57	34
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62H46	

NOTES:

1. THE HEAVY DUTY HANDHOLES IN THE LEFT TURN LANES ARE TO BE INSTALLED UNDER CONTRACT 62H43 PRIOR TO THE START OF ANY WORK AT THIS LOCATION.



US RTE 14 (MINER ST)

US RTE 14 (DEMPSTER ST)

MATCH LINE A-A
SEE SHT 36

MATCH LINE C-C
SEE SHT 36

MODEL: Default
FILE: \\mms\53\XPR\Design\bovan08_Mtastarm\Contract\62H46 - June 2019\CADD\62H46-01-01.dgn

TS 1285

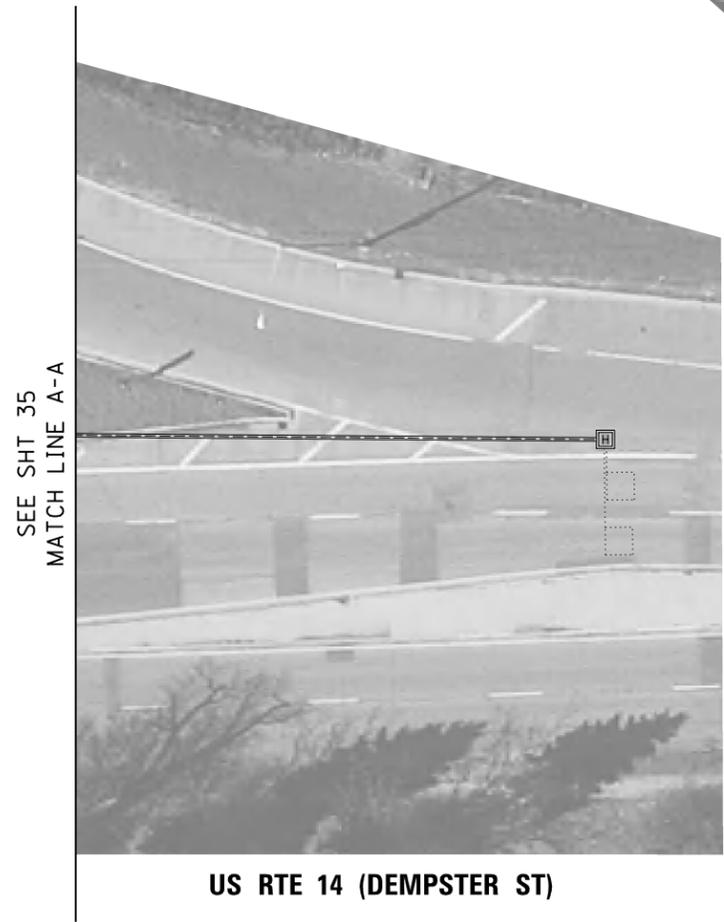
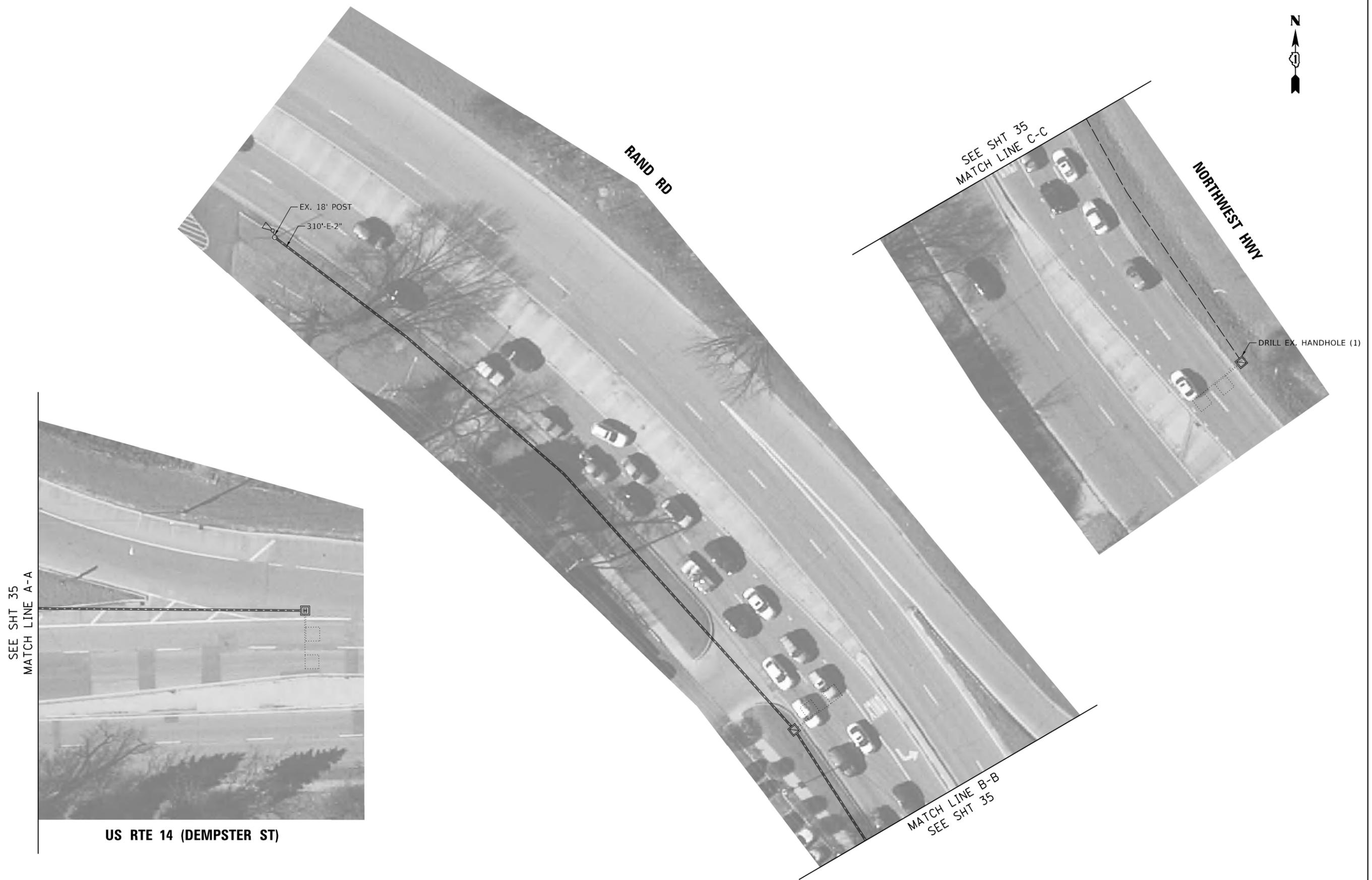
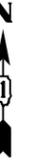
USER NAME = plascenciai	DESIGNED - IP	REVISED -
DRAWN - IP	REVISOR -	
PLOT SCALE = 40,0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 1 OF 2)
US RTE 14 AT RAND RD/NORTHWEST HWY**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	COOK	57	35
CONTRACT NO. 62H46			ILLINOIS FED. AID PROJECT	



MATCH LINE B-B
SEE SHT 35

SEE SHT 35
MATCH LINE C-C

US RTE 14 (DEMPSTER ST)

TS 1285

MODEL: D:\dtp\...
 FILE: 2019\CD\DD\62H46 - June 2019\CD\DD\62H46-pts.dgn

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

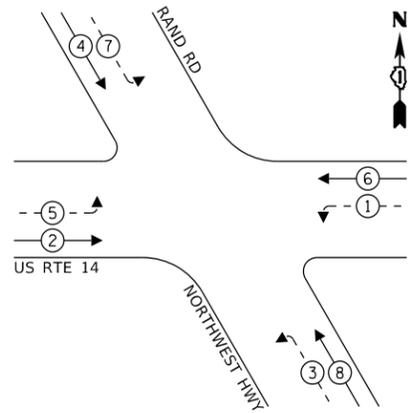
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 2 OF 2)
US RTE 14 AT RAND RD/NORTHWEST HWY

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	COOK	57	36
CONTRACT NO. 62H46			ILLINOIS FED. AID PROJECT	

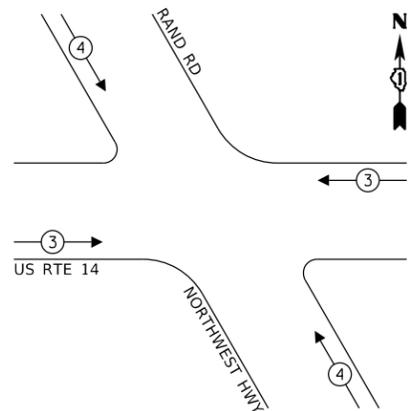
EXISTING CONTROLLER SEQUENCE



LEGEND:

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

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



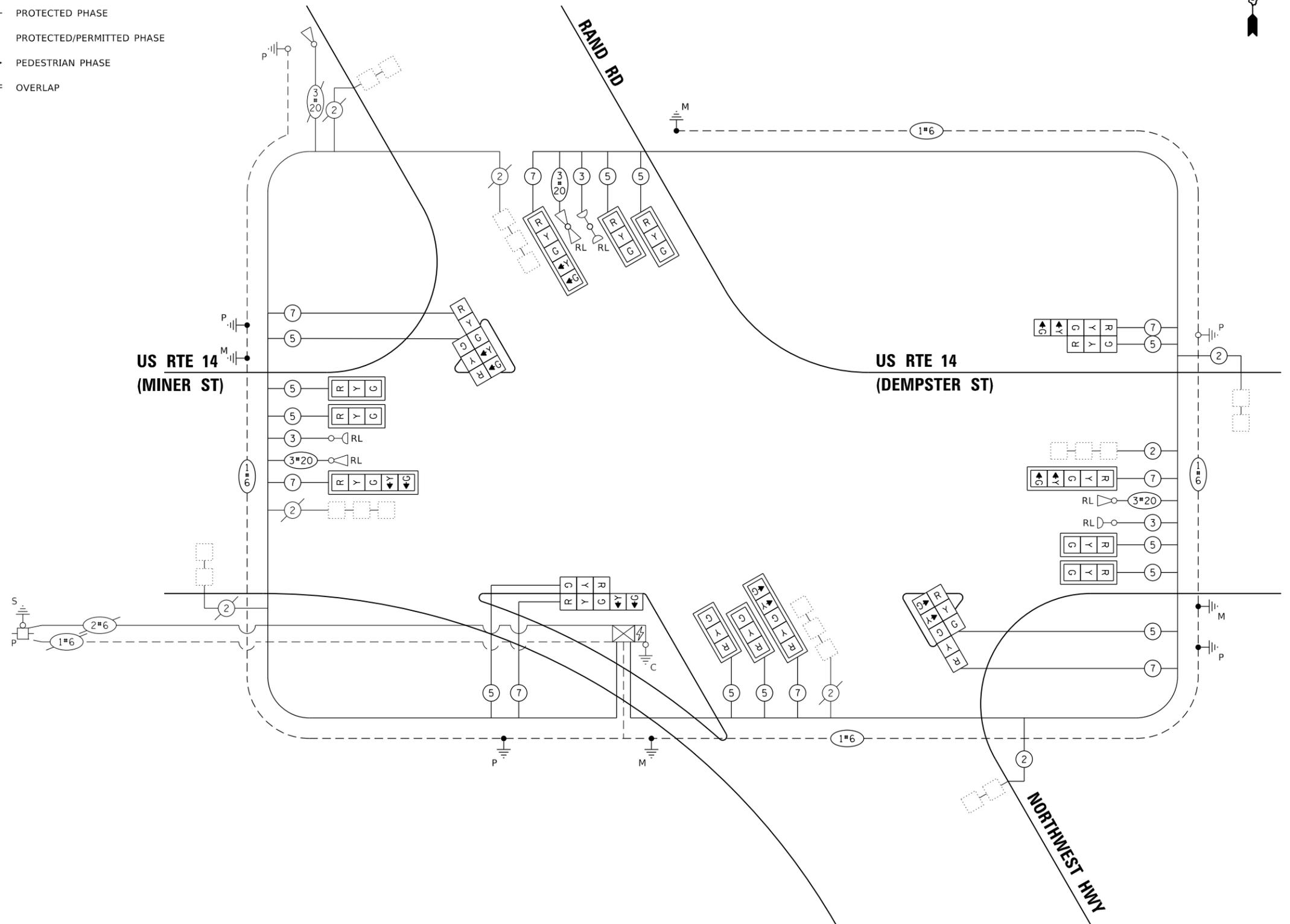
TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	11	50	110.0
(YELLOW)	20	20	5	20.0
(GREEN)	20	12	45	108.0
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				379.0

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W CENTER CT
SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: DAVE SCHACHT
PHONE: (630) 437-2129
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ---



MODEL: D:\p1\... FILE: 2019-09-15... CONTRACT: 62H46

USER NAME =	plascenciai	DESIGNED -	IP	REVISED -	
DRAWN -	IP	CHECKED -	LP	REVISED -	
PLOT SCALE =	40.0000 ' / in.	DATE -	3/15/2019	REVISED -	
PLOT DATE =	5/10/2019				

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM,
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
US RTE 14 AT RAND RD/NORTHWEST HWY**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	COOK	57	37
			CONTRACT NO. 62H46	
		ILLINOIS	FED. AID PROJECT	

TS 1285

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	33
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	84
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	714
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,029
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,466
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	397
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	210
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	50.5
DRILL EXISTING HANDHOLE	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	10
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	5
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	5
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,580
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	295
TEMPORARY INFORMATION SIGNING	SQ FT	102.8
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A 10-INCH DIAMETER	FOOT	8

MODEL: D:\dgn\...
 FILE: 2019\CD\DD\62H46-01.dgn
 June 2019\CD\DD\62H46-01.dgn

**TS 5830
EAGLE 1F**

USER NAME = plascenciai PLOT SCALE = 40.0000 ' / in. PLOT DATE = 5/10/2019	DESIGNED - IP DRAWN - IP	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES TOUHY AVE AT DEE RD		F.A. RTE. VAR	SECTION 2018-099-TS	COUNTY COOK	TOTAL SHEETS 57	SHEET NO. 42
	CHECKED - LP DATE - 3/15/2019	REVISED - REVISED -		SCALE:	SHEET OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT		CONTRACT NO. 62H46	

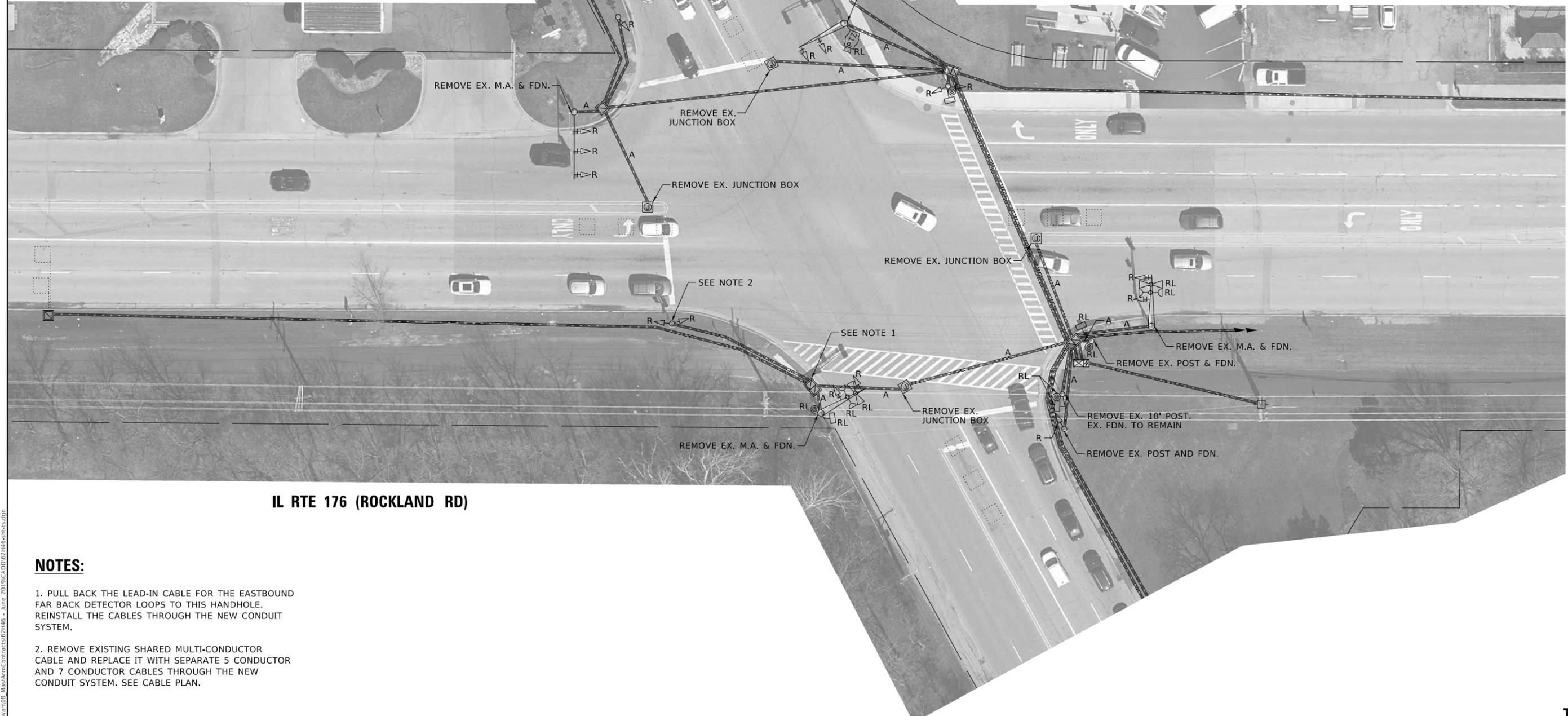
REMOVAL AND RELOCATION NOTES:

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.

- 3 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 5 EACH 3-SECTION SIGNAL HEAD
- 10 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 1 EACH PTZ CAMERA
- 4 EACH STREET NAME SIGN PANEL



NOTES:

1. PULL BACK THE LEAD-IN CABLE FOR THE EASTBOUND FAR BACK DETECTOR LOOPS TO THIS HANDHOLE. REINSTALL THE CABLES THROUGH THE NEW CONDUIT SYSTEM.
2. REMOVE EXISTING SHARED MULTI-CONDUCTOR CABLE AND REPLACE IT WITH SEPARATE 5 CONDUCTOR AND 7 CONDUCTOR CABLES THROUGH THE NEW CONDUIT SYSTEM. SEE CABLE PLAN.

MODEL: D:\dtd\it... FILE NAME: S:\V\Design\Ivan\08_MastArm\Contract\62H46 - June 2019\CADD\62H46-RTE-43.dgn

**TS 6805
FORMER ECON 200**

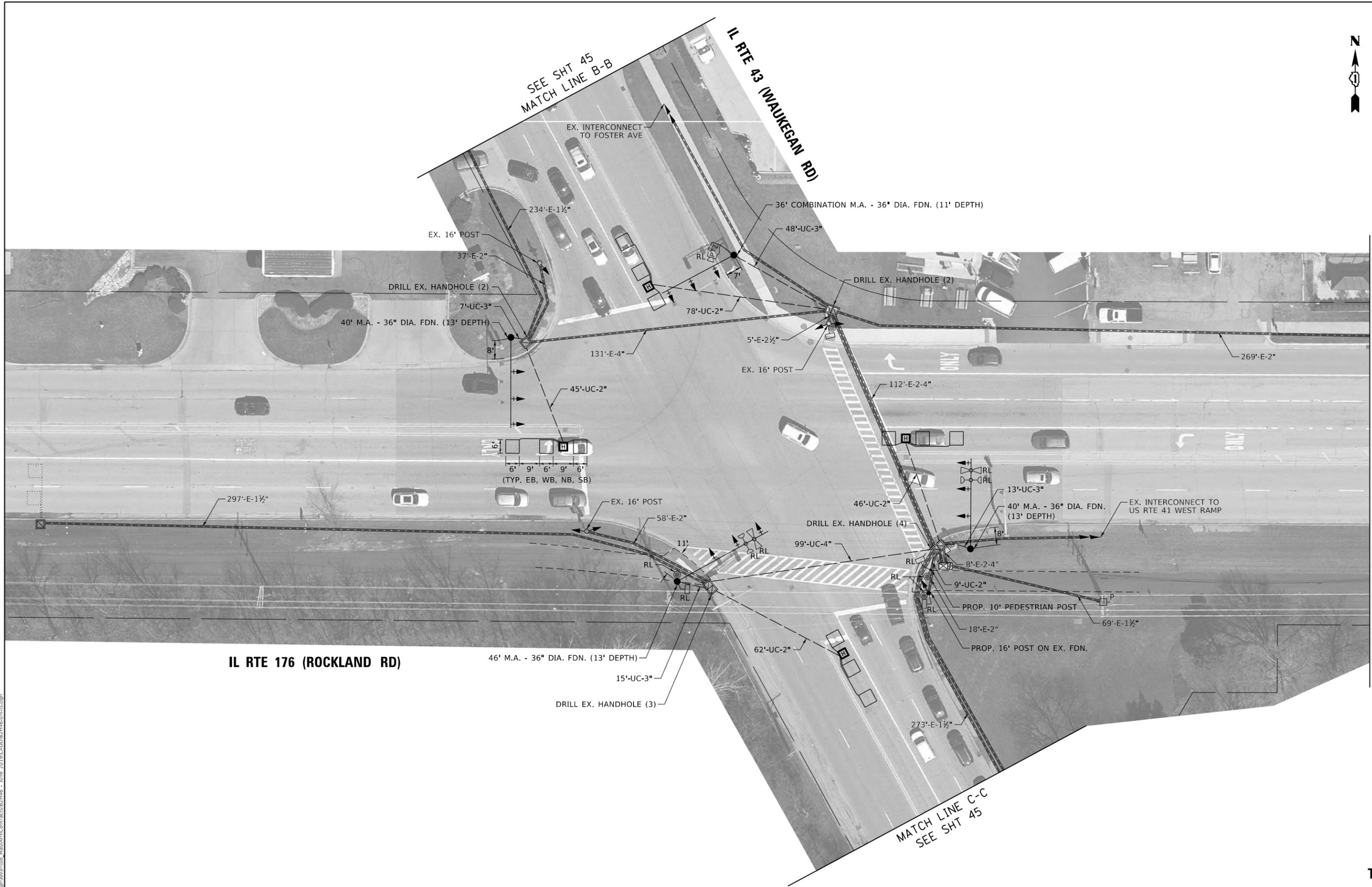
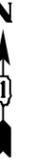
USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL REMOVAL PLAN
IL RTE 176 (ROCKLAND RD) AT IL RTE 43 (WAUKEGAN RD)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	LAKE	57	43
CONTRACT NO. 62H46			ILLINOIS FED. AID PROJECT	



SEE SHT 45
MATCH LINE B-B

IL RTE 43 (WAUKEGAN RD)

IL RTE 176 (ROCKLAND RD)

MATCH LINE C-C
SEE SHT 45

MATCH LINE A-A
SEE SHT 45

MODEL: Default
 FILE: \\blm\GIS_Support\Design\blm\08_Maps\form\Contract\62H46 - June 2019\CADD\62H46-rts.dgn

TS 6805
FORMER ECON 200

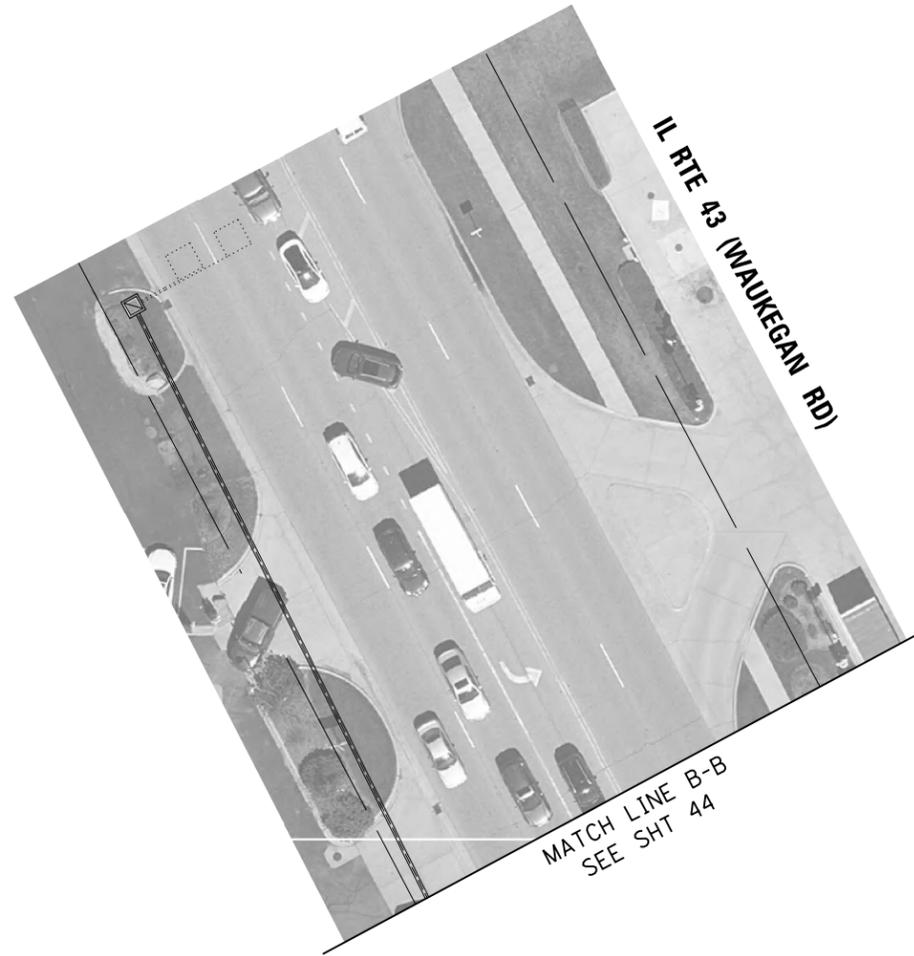
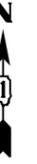
USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 1 OF 2)
IL RTE 176 (ROCKLAND RD) AT IL RTE 43 (WAUKEGAN RD)

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	LAKE	57	44
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62H46	



MODEL: Default
FILE: \\nas015.333\p\Design\bovan08_Mtastarm\Contract\62H46 - June 2019\CADD\62H46-rts.dgn

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 2 OF 2)
IL RTE 176 (ROCKLAND RD) AT IL RTE 43 (WAUKEGAN RD)

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	LAKE	57	45
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62H46	

TS 6805
FORMER ECON 200

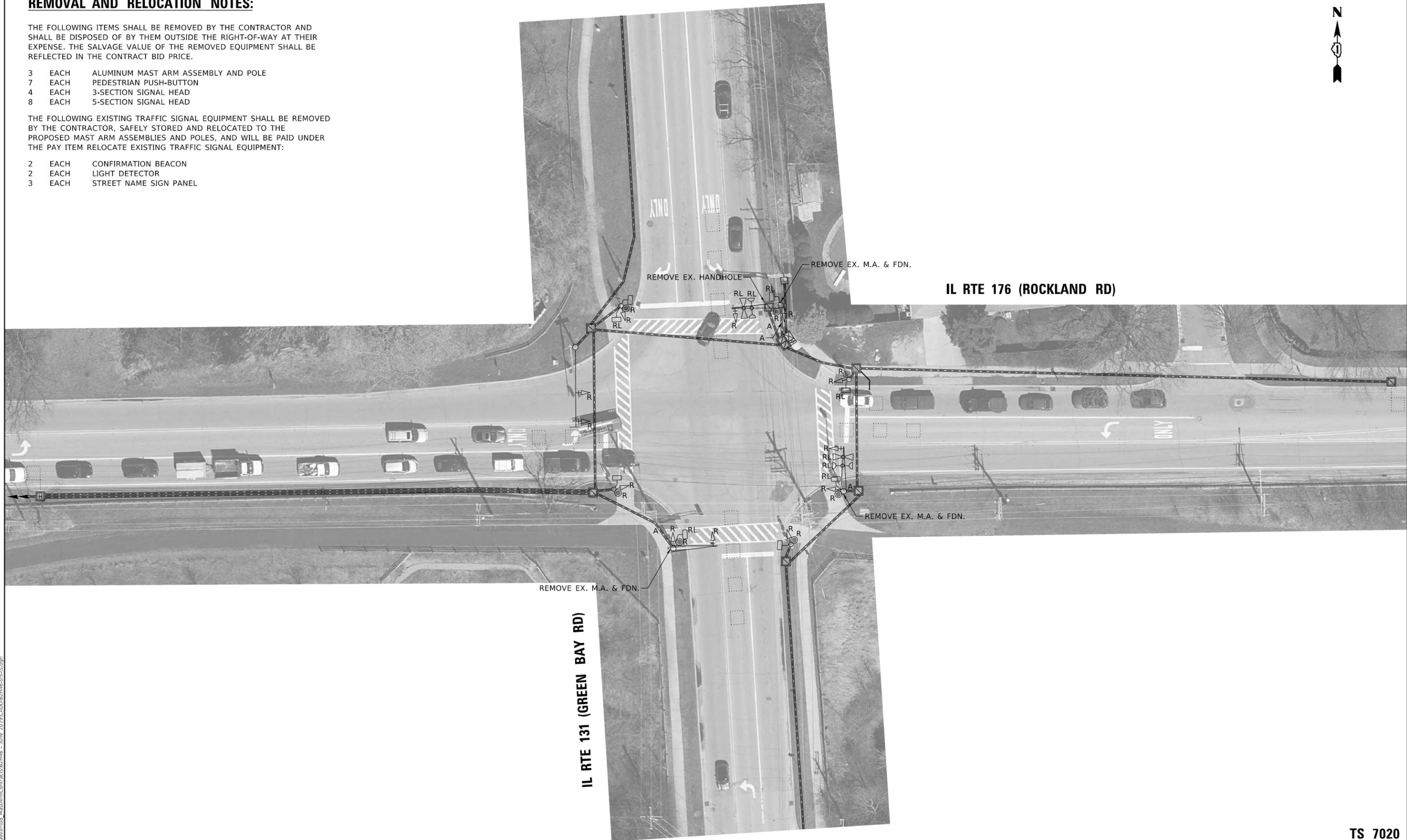
REMOVAL AND RELOCATION NOTES:

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.

- 3 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 7 EACH PEDESTRIAN PUSH-BUTTON
- 4 EACH 3-SECTION SIGNAL HEAD
- 8 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 3 EACH STREET NAME SIGN PANEL



MODEL: D:\dtd\it... FILE NAME: S:\IP\Design\Ivan\08_MastArm\Contract\62H46 - June 2019\CADD\62H46-rts.dgn

**TS 7020
FORMER ECON 200**

USER NAME = plascenciai	DESIGNED - IP	REVISED -
DRAWN - IP	REVISIONS -	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

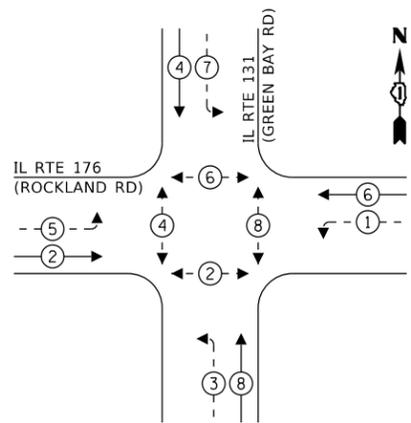
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL REMOVAL PLAN
IL RTE 176 (ROCKLAND RD) AT IL RTE 131 (GREEN BAY RD)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	LAKE	57	48
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62H46	

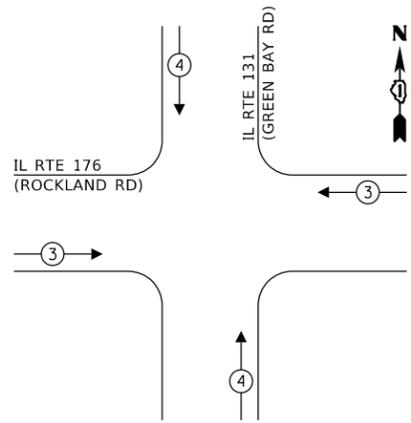
EXISTING CONTROLLER SEQUENCE



LEGEND:

- ← (*) → PROTECTED PHASE
- ← - (*) - → PROTECTED/PERMITTED PHASE
- ← (*) → PEDESTRIAN PHASE
- ← OL → OVERLAP

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				443.8

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 W CENTER CT
SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: TERRI BLECK
PHONE: (847) 816-5239
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ---

USER NAME =	plascenciai
PLOT SCALE =	40.0000 ' / in.
PLOT DATE =	5/10/2019

DESIGNED -	IP	REVISED -	
DRAWN -	IP	REVISED -	
CHECKED -	LP	REVISED -	
DATE -	3/15/2019	REVISED -	

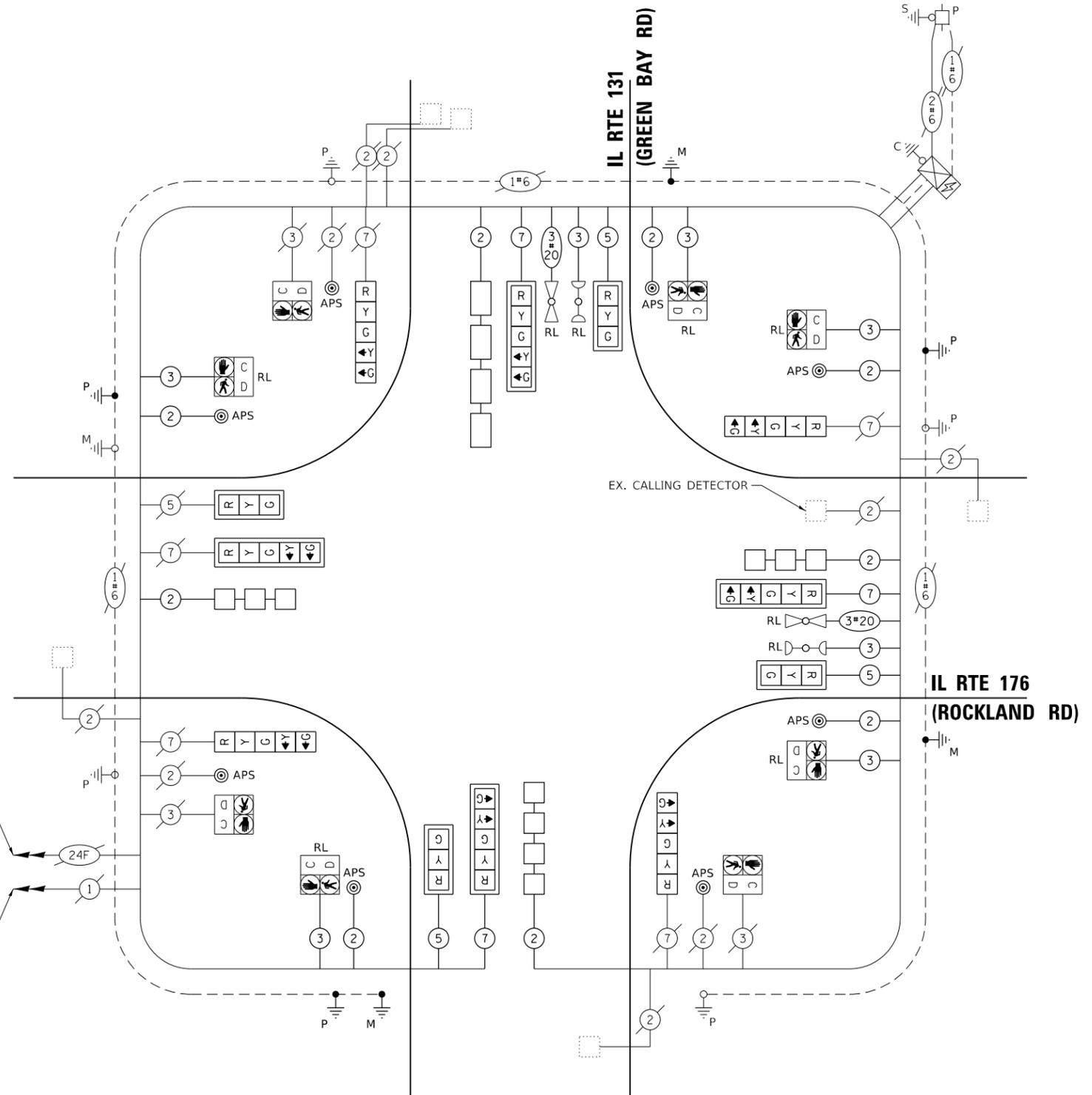
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM,
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL RTE 176 (ROCKLAND RD) AT IL RTE 131 (GREEN BAY RD)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	LAKE	57	50
			CONTRACT NO. 62H46	
		ILLINOIS	FED. AID PROJECT	

EX. INTERCONNECT TO US RTE 41 EAST RAMP
EX. TRACER CABLE



MODEL: D:\p1\11\1108_1108_MHz\arm\Contract\62H46 - June 2019\CADD\62H46-05-01.dgn
FILE NAME: S:\P1\Design\1108_1108_MHz\arm\Contract\62H46 - June 2019\CADD\62H46-05-01.dgn

**TS 7020
FORMER ECON 200**

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	162
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	64
HEAVY-DUTY HANDHOLE	EACH	4
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	611
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	884
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	504
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	534
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	570
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	200
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30.0
DRILL EXISTING HANDHOLE	EACH	10
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	8
DETECTOR LOOP, TYPE I	FOOT	515
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	5
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	253
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8
TEMPORARY INFORMATION SIGNING	SQ FT	102.8
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	3
CONCRETE FOUNDATION, TYPE A 10-INCH DIAMETER	FOOT	12

MODEL: D:\dtd\it
 FILE: M:\MIS_3\XIP\Design\bovan08_MastArm\Contract\62H46 - June 2019\CADD\62H46-01-01.dgn

TS 7020
FORMER ECON 200

USER NAME = plascenciai	DESIGNED - IP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES IL RTE 176 (ROCKLAND RD) AT IL RTE 131 (GREEN BAY RD)	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 40.0000 ' / in.	DRAWN - IP	REVISED -			VAR	2018-099-TS	LAKE	57	51	
PLOT DATE = 5/10/2019	CHECKED - LP	REVISED -			CONTRACT NO. 62H46					
	DATE - 3/15/2019	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO STA.

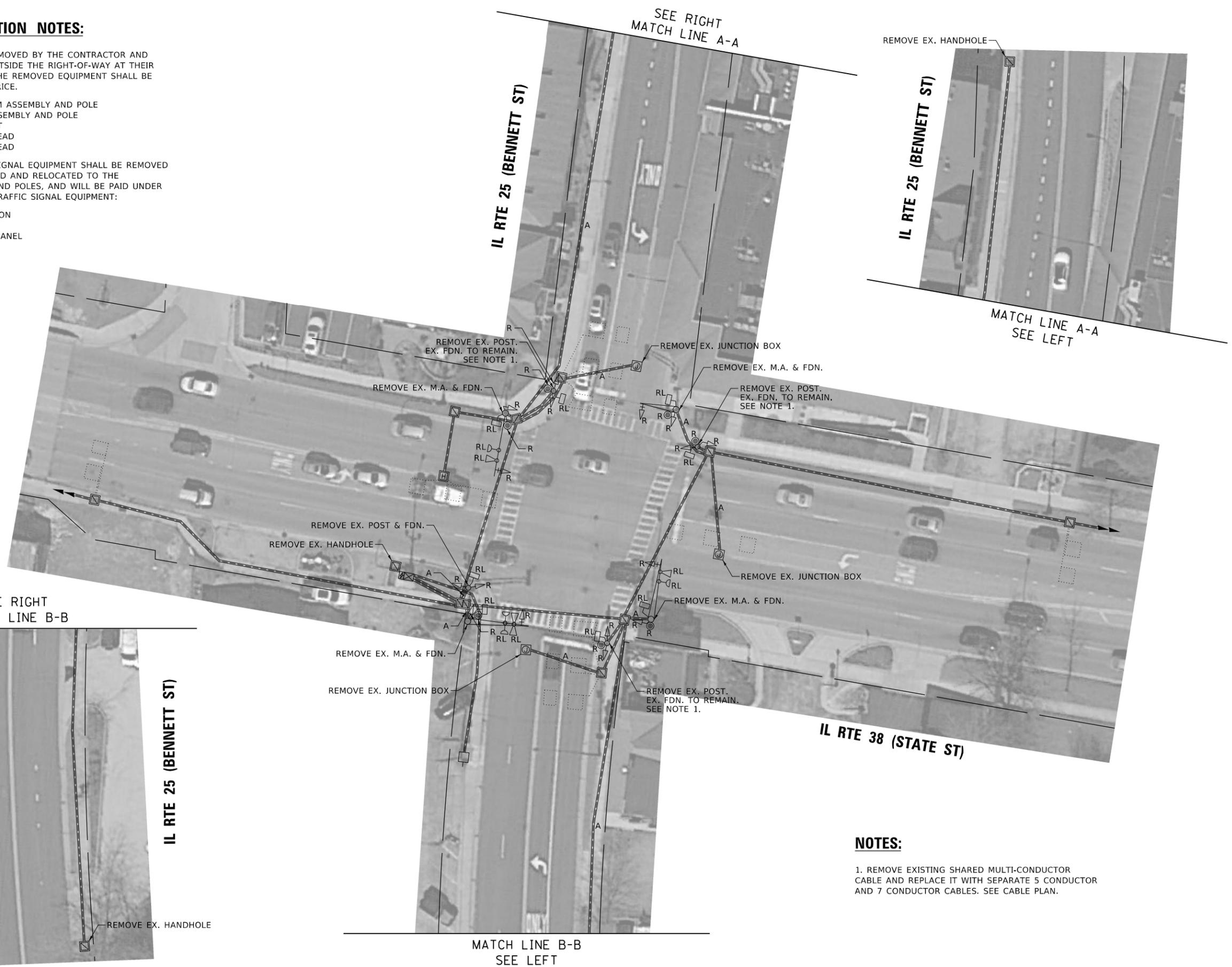
REMOVAL AND RELOCATION NOTES:

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.

- 3 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 4 EACH TRAFFIC SIGNAL POST
- 8 EACH 3-SECTION SIGNAL HEAD
- 8 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 3 EACH CONFIRMATION BEACON
- 3 EACH LIGHT DETECTOR
- 4 EACH STREET NAME SIGN PANEL



NOTES:

- 1. REMOVE EXISTING SHARED MULTI-CONDUCTOR CABLE AND REPLACE IT WITH SEPARATE 5 CONDUCTOR AND 7 CONDUCTOR CABLES. SEE CABLE PLAN.

MODEL: Defaul; FILE: \hml\62H46\Design\Bennett\08_MastArm\Contract\62H46 - June 2019\CADD\62H46-rts.dgn

SEE RIGHT
MATCH LINE B-B

IL RTE 25 (BENNETT ST)

MATCH LINE B-B
SEE LEFT

SEE RIGHT
MATCH LINE A-A

IL RTE 25 (BENNETT ST)

MATCH LINE A-A
SEE LEFT

IL RTE 38 (STATE ST)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

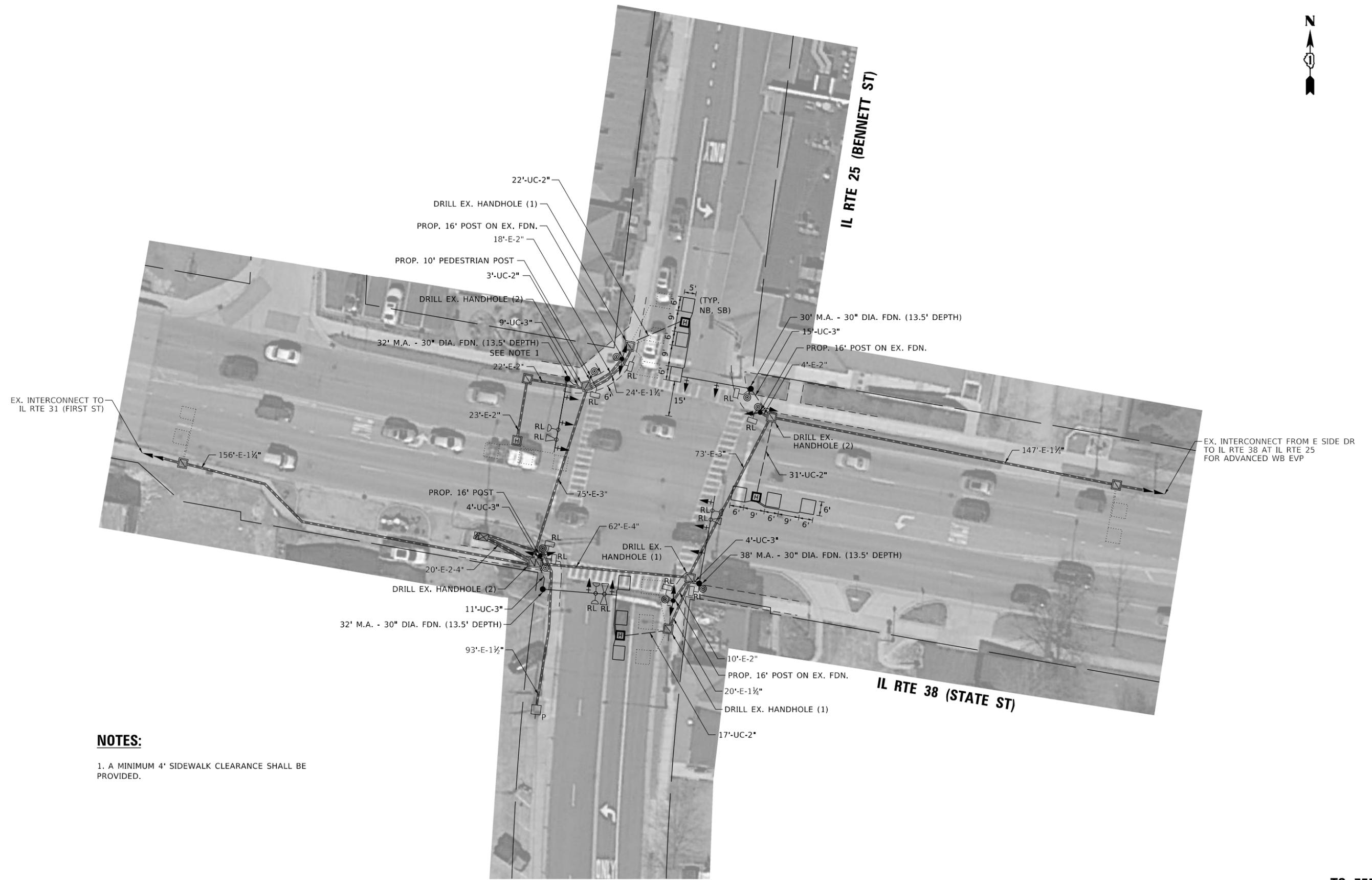
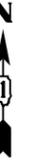
TRAFFIC SIGNAL REMOVAL PLAN
IL RTE 38 (STATE ST) AT IL RTE 25 (BENNETT ST)

TS 755
EAGLE 2G

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 40,0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	KANE	57	52
			CONTRACT NO. 62H46	
ILLINOIS FED. AID PROJECT				



NOTES:
 1. A MINIMUM 4' SIDEWALK CLEARANCE SHALL BE PROVIDED.

MODEL: Default
 FILE: \\blm\62_311\p\Design\blm\08_Mtastarm\Contract\62H46 - June 2019\CADD\62H46-rts.dgn

**TS 755
 EAGLE 2G**

USER NAME = plascenciai	DESIGNED - IP	REVISED -
	DRAWN - IP	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - LP	REVISED -
PLOT DATE = 5/10/2019	DATE - 3/15/2019	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN
 IL RTE 38 (STATE ST) AT IL RTE 25 (BENNETT ST)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-TS	KANE	57	53
CONTRACT NO. 62H46				
ILLINOIS FED. AID PROJECT				

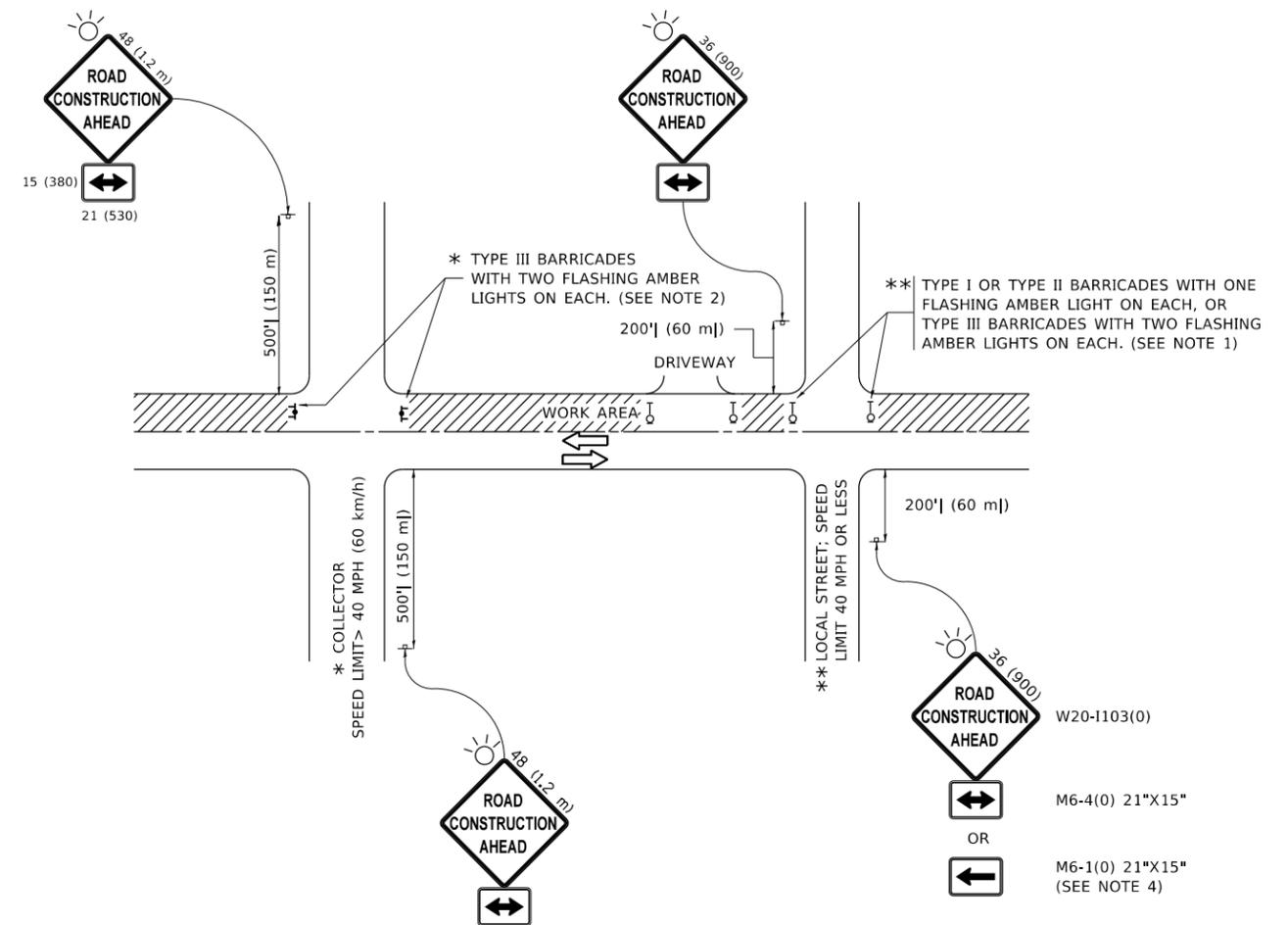
SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	73
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	43
HEAVY-DUTY HANDHOLE	EACH	3
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	574
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	950
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,470
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,195
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	560
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	130
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	54.0
DRILL EXISTING HANDHOLE	EACH	9
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	10
DETECTOR LOOP, TYPE I	FOOT	280
PEDESTRIAN PUSH-BUTTON	EACH	8
RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD	EACH	8
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3,500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	3
REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	276
REMOVE EXISTING JUNCTION BOX	EACH	3
TEMPORARY INFORMATION SIGNING	SQ FT	102.8
REMOVE AND REPLACE ANCHOR BOLTS	EACH	2
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A 10-INCH DIAMETER	FOOT	4

MODEL: Default
 FILE: \\nas015.southcoastdesign.com\Users\masciari\Projects\62H46 - June 2019\CADD\62H46-62H46-62H46.dgn

**TS 755
EAGLE 2G**

USER NAME = plascenciai	DESIGNED - IP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 40.0000 ' / in.	DRAWN - IP	REVISED -		IL RTE 38 (STATE ST) AT IL RTE 25 (BENNETT ST)		VAR	2018-099-TS	KANE	57	55
PLOT DATE = 5/10/2019	CHECKED - LP	REVISED -		SCALE:	SHEET OF SHEETS	STA. TO STA.	CONTRACT NO. 62H46			
DATE - 3/15/2019	DATE - 3/15/2019	REVISED -		ILLINOIS FED. AID PROJECT						



NOTES:

- 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:
 - 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.
 - 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.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - 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.
 - 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.
- 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.
- SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- 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.
- ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
- 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.

MODEL: Default
FILE NAME: S:\V\Design\Ivanan\08_Matsumoto\Contract\62H46 - June 2019\CADD\62H46-ct-general.dgn

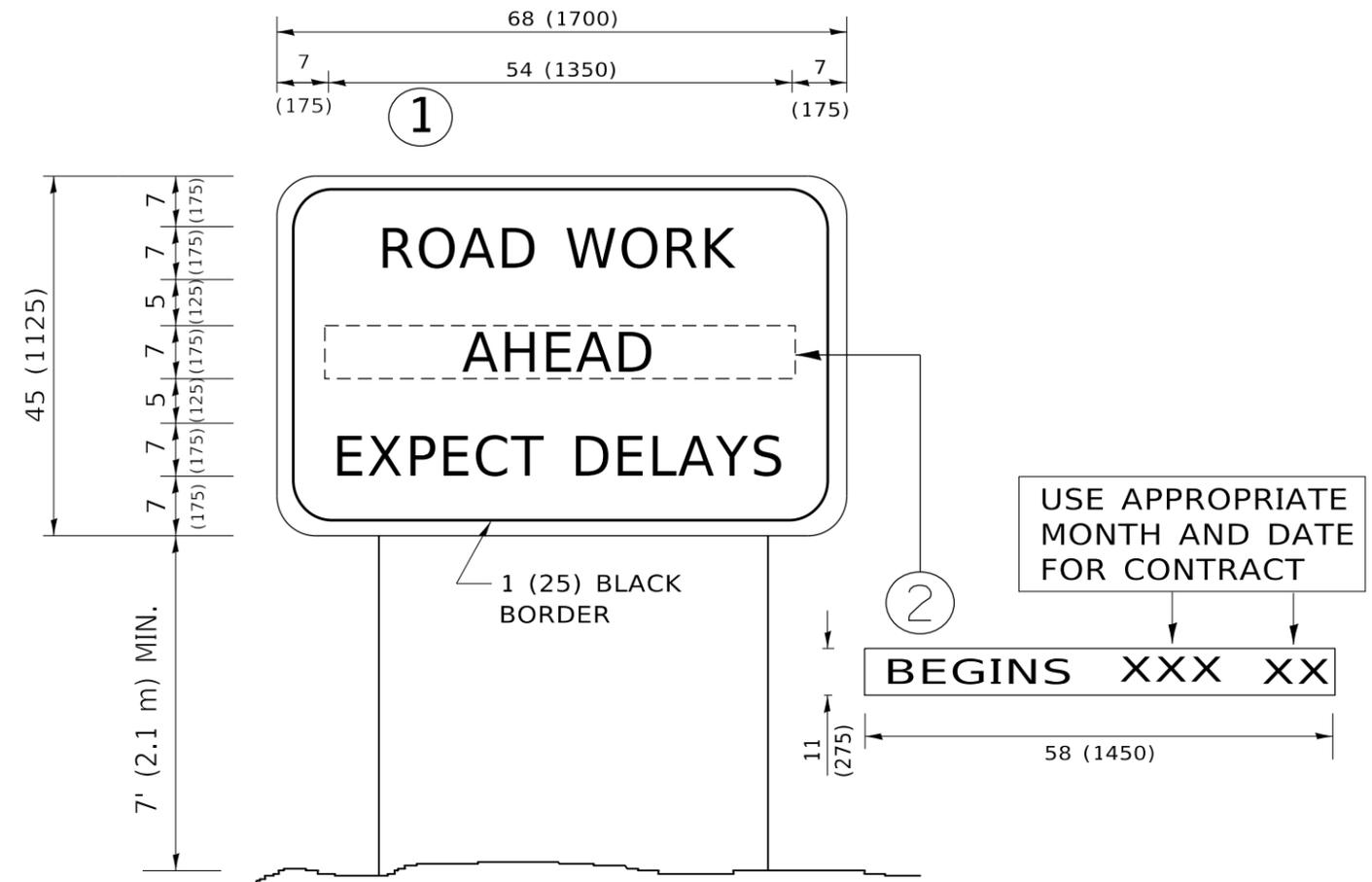
USER NAME = plascenciai	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
PLOT DATE = 5/10/2019	DATE - 06-89	REVISED - A. SCHUETZE 07-01-13
		REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	COOK	57	56
TC-10			CONTRACT NO. 62H46	
ILLINOIS FED. AID PROJECT				



NOTES:

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

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

MODEL: D:\dft\... FILE NAME: S:\V\Design\Ibvan\08_Masfz\m\Contract\62H46 - June 2019\CADD\62H46-rft-general.dgn

USER NAME = plascenciai	DESIGNED -	REVISED - R. MIRS 09-15-97
	DRAWN -	REVISED - R. MIRS 12-11-97
PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
PLOT DATE = 5/10/2019	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2018-099-T5	COOK	57	57
TC-22		CONTRACT NO. 62H46		
ILLINOIS FED. AID PROJECT				