

06-11-2021 LETTING ITEM 089

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.U. RTE. 1600	SECTION 20-00087-00-TL	COUNTY COOK	TOTAL SHEETS 30	SHEET NO. 1
		ILLINOIS	CONTRACT NO. 61G98	

PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

FAU ROUTE 1600: IL ROUTE 7 (143RD STREET)
WOLF ROAD TO U.S. ROUTE 45 (LA GRANGE ROAD)
SECTION: 20-00087-00-TL
PROJECT: 87J7(955)
TRAFFIC SIGNAL MODERNIZATION
VILLAGE OF ORLAND PARK
COOK COUNTY

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR INDEX OF HIGHWAY STANDARDS, SEE SHEET NO. 2

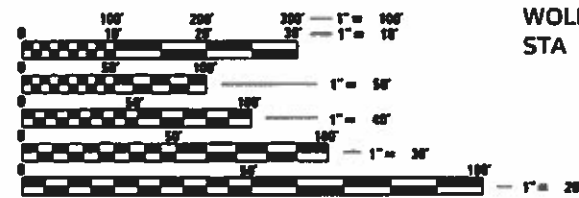
FAU 1600 IL ROUTE 7 (143RD STREET)
FUNCTIONAL CLASSIFICATION - MINOR ARTERIAL
ADT - 14,800 (2019)

	POSTED SPEED	DESIGN SPEED
STA 524+84 TO STA 529+00	40 MPH	40 MPH
STA 529+00 TO 590+00	35 MPH	35 MPH
STA TO 590+00 630+18	30 MPH	30 MPH

C-91-074-21



FEDERAL AID PROGRAM ENGINEER: CARMEN E. RAMOS, P.E. SCHAUMBURG, IL

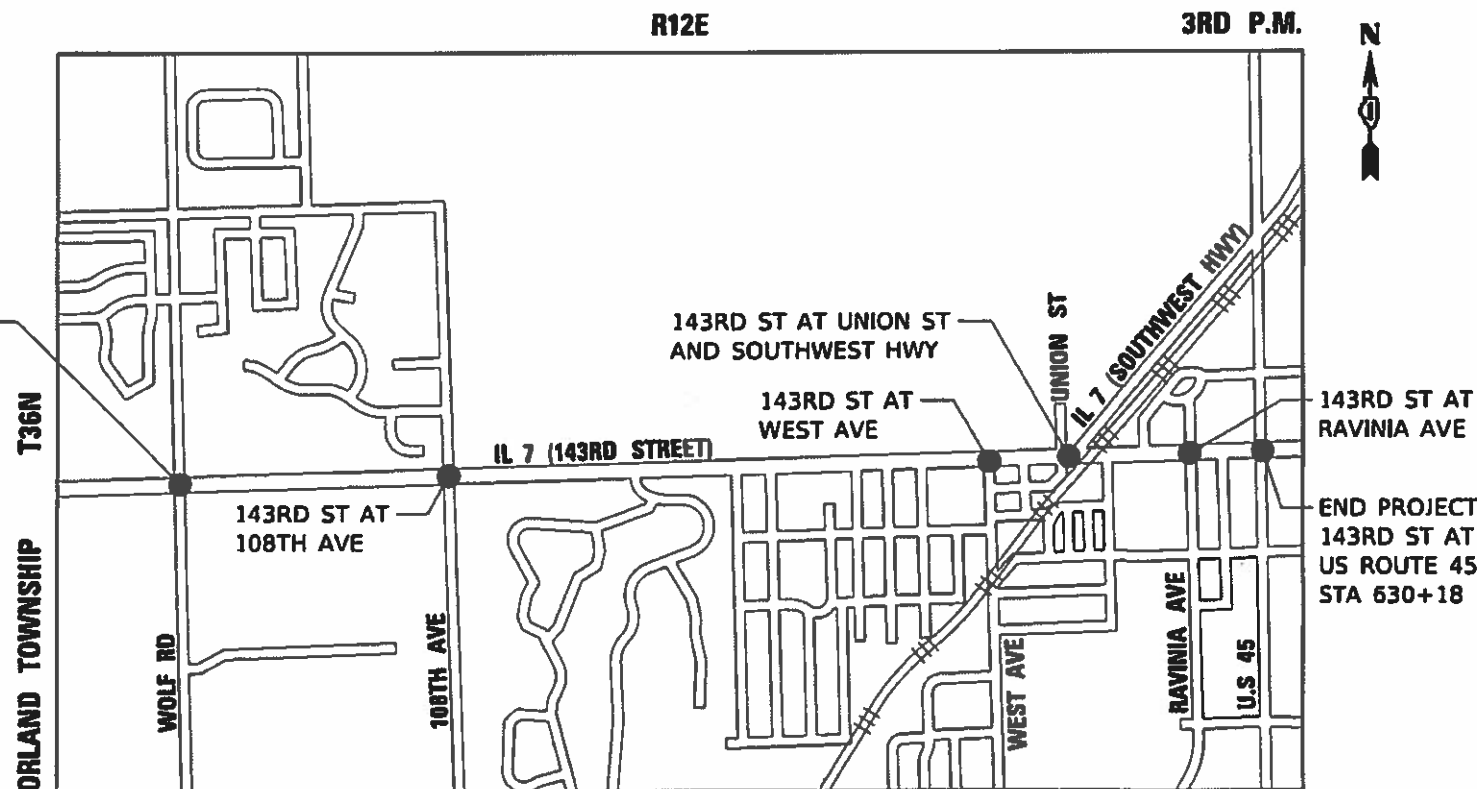


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS
1-800-892-8123
OR 811

PROJECT ENGINEER: ANMOL SHRIVATAYA, P.E., PTOE
PROJECT MANAGER: JOSEPH J. EMRY, P.E.

CONTRACT NO. 61G98



LOCATION MAP
(NOT TO SCALE)

GROSS AND NET LENGTH = 10,534.06 FT. = 1.995 MILE

SIGNED [Signature] JOSEPH J. EMRY
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS
DATE 01/08/2021 EXPIRES 11-30-2021

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED [Signature] 20 21
DIRECTOR OF ENGINEERING PROGRAMS AND SERVICES

PASSED [Signature] 20 21
DISTRICT 1 ENGINEER OF LOCAL ROADS AND STREETS

RELEASING FOR BID BASED ON LIMITED REVIEW [Signature] 20 21
REGIONAL ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

PLANS PREPARED BY:
CIVILTECH
Two Pierce Place, Suite 1400 - Itasca, Illinois 60143
Tel: 630.773.3900 - Fax: 630.773.3975
www.civiltechinc.com

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DISTRICT 1 DETAILS

TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC-22	ARTERIAL ROAD INFORMATION SIGN
TS-05	STANDARD TRAFFIC SIGNAL DESIGN DETAILS

HIGHWAY STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W MOVING OPERATIONS - DAY ONLY
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≤ 40 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-08	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAILS
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
857006-01	SUPERVISED RAILROAD INTERCONNECT CIRCUIT
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
878001-11	CONCRETE FOUNDATION DETAILS

GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.
- MEMBERS OF JULIE KNOWN TO BE WITHIN THE LIMITS OF THE IMPROVEMENT ARE:
 - AT&T
 - COMED
 - COMCAST
 - ILLINOIS AMERICAN WATER
 - MCI/VERIZON
 - METROPOLITAN WATER RECLAMATION DISTRICT
 - NICOR GAS
 - VILLAGE OF ORLAND PARK
 - ORLAND SCHOOL DISTRICT 135/ADESTA

THE CONTRACTOR SHALL CONTACT JULIE AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE WITHIN THE AREA.
- EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE AND UTILITIES WITHIN PUBLIC RIGHT-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE INCLUDED IN THE CONTRACT BID PRICE. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE PRIOR TO ORDERING MATERIALS. IN ADDITION, THE CONTRACTOR MUST VERIFY THE LINE AND GRADES. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSION OR DISCREPANCIES, FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS/HER OWN RISK AND EXPENSE.
- ALL PAVEMENT DIMENSIONS ARE SHOWN TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE THE MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

MAINTENANCE OF TRAFFIC GENERAL NOTES

- THE CONTRACTOR MUST COORDINATE ALL LANE CLOSURES WITH THE ENGINEER.
- ALL TRAFFIC CONTROL DEVICES AND SIGNAGE REQUIRED ON 143RD STREET IN ACCORDANCE WITH APPLICABLE INDOT DISTRICT 1 STANDARDS.
- LANE CLOSURES, SIGNING, AND BARRICADE PLACEMENT SHALL BE IN ACCORDANCE WITH THE LATEST HIGHWAY STANDARD DRAWINGS AND IDOT DISTRICT 1 STANDARD DETAILS.
- ADVANCED IDOT SIGNING PER IDOT DISTRICT 1 DETAIL TC-22 AND/OR CHANGEABLE MESSAGE SIGNS SHALL BE USED IN ADVANCE OF ROAD WORK IN BOTH TRAFFIC DIRECTIONS ALONG 14RD STREET.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND PROVIDING ACCESS POINTS TO THE WORK ZONE.

COMMITMENTS

NONE

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PLOT SCALE = 2,0000 ' / in.	CHECKED - JJE	REVISED -
PLOT DATE = 3/31/2021	DATE - 3/31/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, INDEX OF SHEETS AND LIST OF STATE STANDARDS
143RD STREET INTERCONNECT**

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	2
				CONTRACT NO. 61G98
		ILLINOIS	FED. AID PROJECT	

SPECIAL PROVISION	SPECIALTY ITEM	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
						CMAQ FUNDS					
						80% FED / 20% LOCAL	80% FED / 20% LOCAL	80% FED / 20% LOCAL	80% FED / 20% LOCAL	80% FED / 20% LOCAL	80% FED / 20% LOCAL
						SIGNALS	SIGNALS	SIGNALS	SIGNALS	SIGNALS	SIGNALS
						0021	0021	0021	0021	0021	0021
						143RD STREET/ WOLF ROAD	143RD STREET/ 108TH AVENUE	143RD STREET/ WEST AVENUE	143RD STREET/ SOUTHWEST HWY/ UNION STREET	143RD STREET/ RAVINIA AVENUE	INTERCONNECT
X	X	66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	3	1		1	1		
X	X	66900530	SOIL DISPOSAL ANALYSIS	EACH	1	0.25	0.25	0.25	0.25		
X	X	66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	LUMP SUM	1	0.25	0.25	0.25	0.25		
X	X	66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	LUMP SUM	1	0.25	0.25	0.25	0.25		
X	X	66901006	REGULATED SUBSTANCES MONITORING	CAL DA	4	1	1	1	1		
		67100100	MOBILIZATION	LUMP SUM	1	0.2	0.2	0.2	0.2	0.2	
		70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LUMP SUM	1	0.2	0.2	0.2	0.2	0.2	
		70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LUMP SUM	1	0.2	0.2	0.2	0.2	0.2	
		70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LUMP SUM	1	0.2	0.2	0.2	0.2	0.2	
X		72000100	SIGN PANEL - TYPE I	SQ FT	10				10		
X		81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	169	10	44	10	105		
X		85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	5	1	1	1	1	1	
		86400100	TRANSCEIVER - FIBER OPTIC	EACH	4	1	1	1	1		
X		87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	257		67	190			
X		87301805	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	424	119	62	71	172		
X		87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	424	119	62	71	172		
X		87800100	CONCRETE FOUNDATION, TYPE A	FOOT	16	4	4	4	4		

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 PLOT DATE = 4/14/2021

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 CHECKED - JJE
 DATE - 3/31/2021

REVISED -
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 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES (SHEET 1 OF 2)
 143RD STREET INTERCONNECT**

SCALE: N.T.S. SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	3
ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G98	

SPECIAL PROVISION	SPECIALTY ITEM	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
						CMAQ FUNDS					
						80% FED / 20% LOCAL	80% FED / 20% LOCAL	80% FED / 20% LOCAL	80% FED / 20% LOCAL	80% FED / 20% LOCAL	80% FED / 20% LOCAL
						SIGNALS	SIGNALS	SIGNALS	SIGNALS	SIGNALS	SIGNALS
						0021	0021	0021	0021	0021	0021
						143RD STREET/ WOLF ROAD	143RD STREET/ 108TH AVENUE	143RD STREET/ WEST AVENUE	143RD STREET/ SOUTHWEST HWY/ UNION STREET	143RD STREET/ RAVINIA AVENUE	INTERCONNECT
X		88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4		4				
		88500100	INDUCTIVE LOOP DETECTOR	EACH	6				6		
X		88800100	PEDESTRIAN PUSH-BUTTON	EACH	16		4	4		8	
X		89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1				1		
		89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	448	199	59	99	91		
X		89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	5	1	1	1	1	1	
X		X0323003	TEMPORARY ELECTRIC SERVICE INSTALLATION	EACH	4	1	1	1	1		
X		X0325134	WIRELESS INTERCONNECT (COMPLETE)	EACH	1						1
X		X1400150	SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	4	1	1	1	1		
X		X1400156	RADAR VEHICLE DETECTION SYSTEM, SINGLE APPROACH, FAR BACK	EACH	2			1	1		
X		X8570215	FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	4	1	1	1		1	
X		X8571315	RAILROAD, FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1				1		
X		X8620250	UNITERRUPTABLE POWER SUPPLY AND CABINET, SPECIAL	EACH	1		1				
X		Z0030850	TEMPORARY INFORMATION SIGNING	SQFT	43	11	10	11	11		
X		Z0033056	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1						1

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USER NAME = AS2
PLOT SCALE = 2.0000" / in.
PLOT DATE = 4/14/2021

DESIGNED - AS
DRAWN - AS
CHECKED - JJE
DATE - 3/31/2021

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REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES (SHEET 2 OF 2)
143RD STREET INTERCONNECT

SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	4
CONTRACT NO. 61G98				
ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL LEGEND

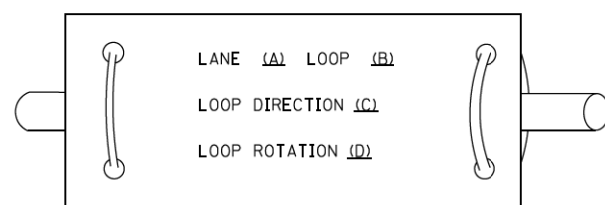
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ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET			HANDHOLE -SQUARE -ROUND	 	 	SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD		
COMMUNICATION CABINET			HEAVY DUTY HANDHOLE -SQUARE -ROUND	 	 	SIGNAL HEAD WITH BACKPLATE -(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	S	SP	FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		
WOOD POLE			INTERSECTION ITEM	I	IP	GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE		
GUY WIRE			REMOVE ITEM		R			
SIGNAL HEAD			RELOCATE ITEM		RL			
SIGNAL HEAD WITH BACKPLATE			ABANDON ITEM		A			
SIGNAL HEAD OPTICALLY PROGRAMMED			CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF			
FLASHER INSTALLATION -(FS) SOLAR POWERED	 		MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF			
PEDESTRIAN SIGNAL HEAD			SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF			
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								

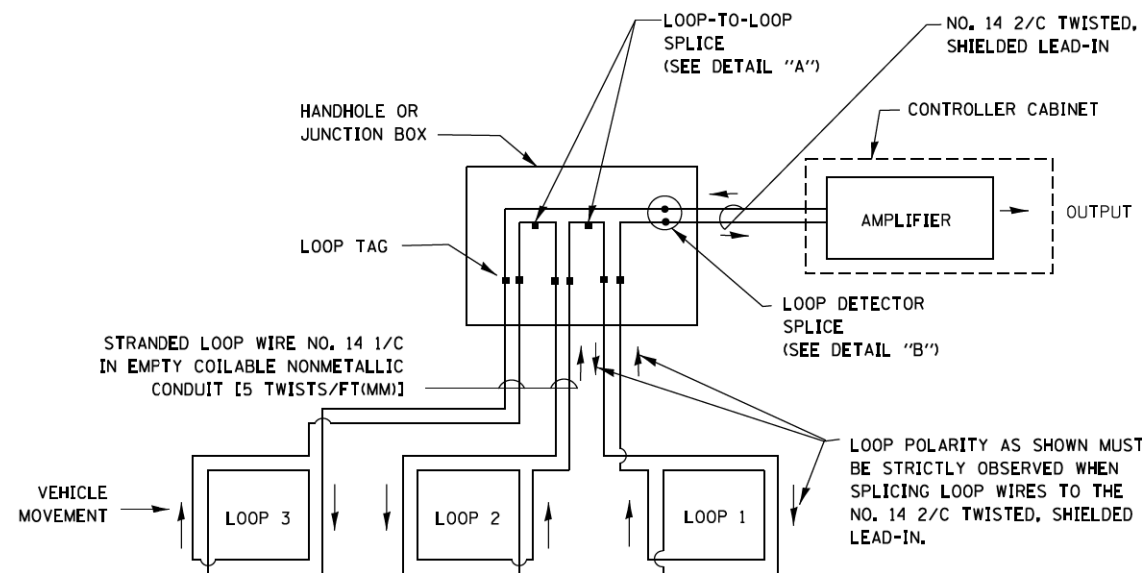
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

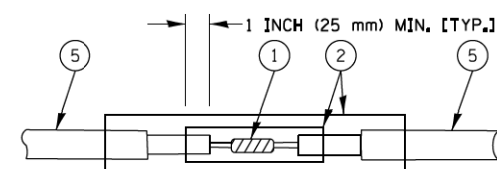


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

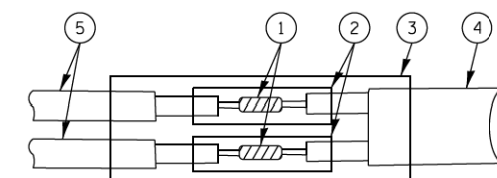


DETECTOR LOOP WIRING SCHEMATIC

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

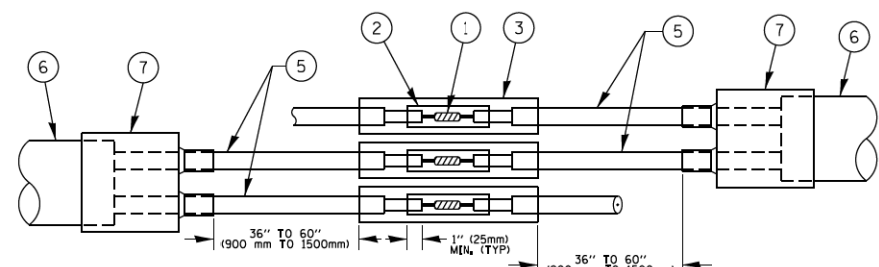


DETAIL "A"
LOOP-TO-LOOP SPLICE

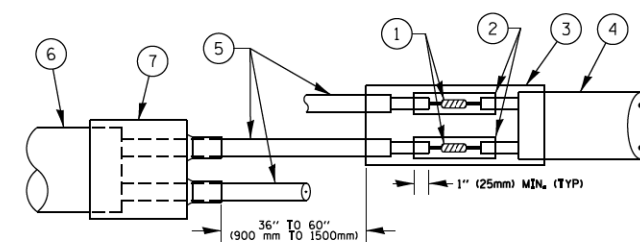


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. 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.
- 6 PRE-FORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14
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	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

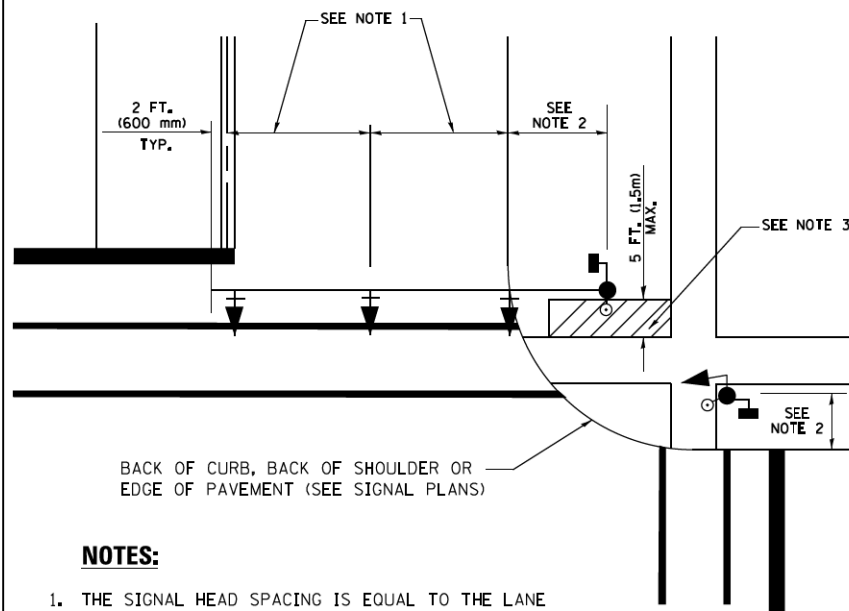
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET NO. 2 OF 7 SHEETS STA. TO STA.

F.A.U. RTE. 1600	SECTION 20-00087-00-TL	COUNTY COOK	TOTAL SHEETS 30	SHEET NO. 6
TS-05		CONTRACT NO. 61G98		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

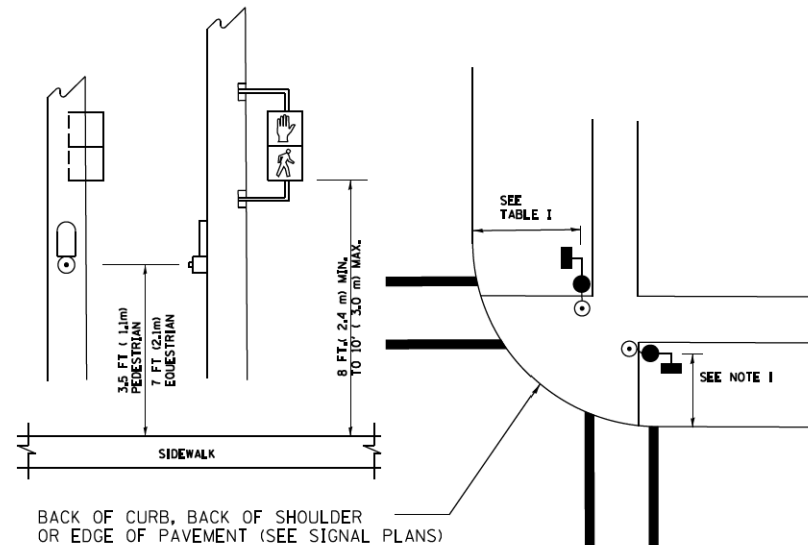
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



NOTES:

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

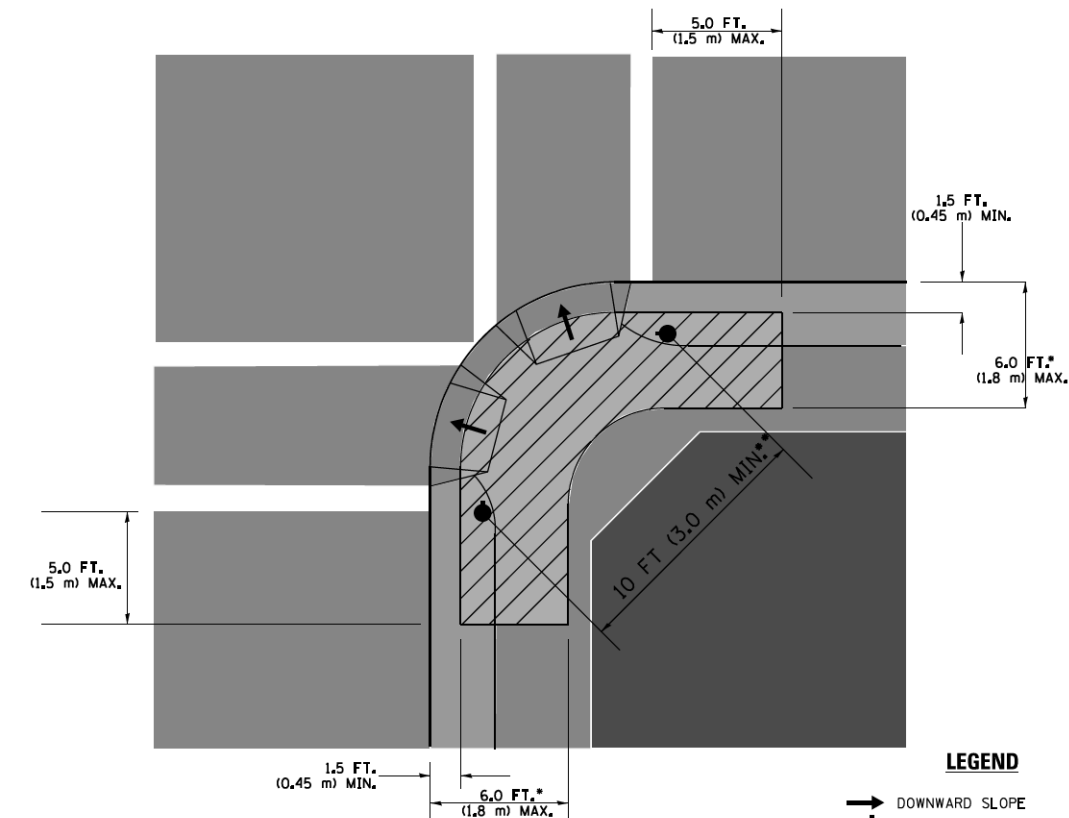
**PEDESTRIAN SIGNAL POST
AND
PEDESTRIAN PUSH BUTTON POST**



NOTES:

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

RECOMMENDED PUSHBUTTON LOCATIONS



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.

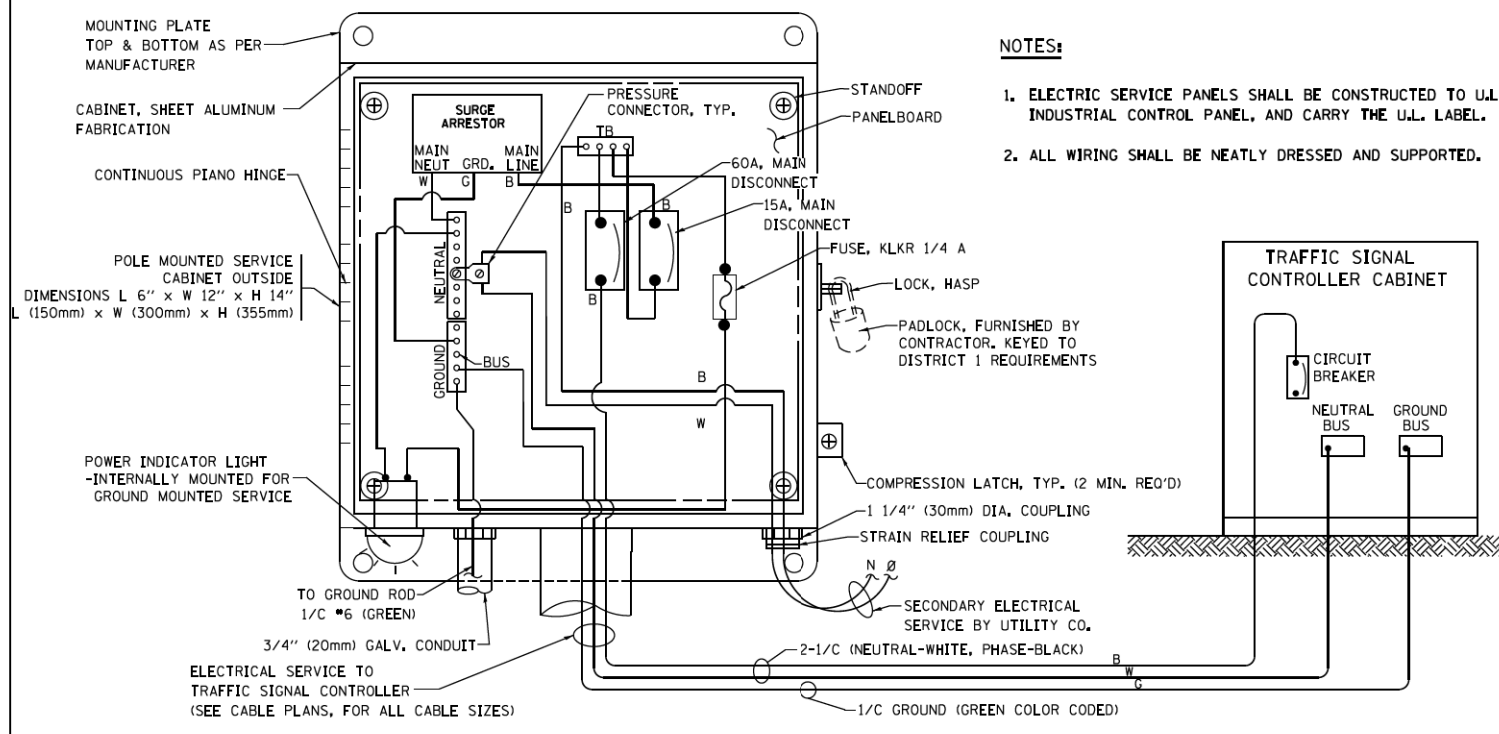
TRAFFIC SIGNAL EQUIPMENT OFFSET

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.

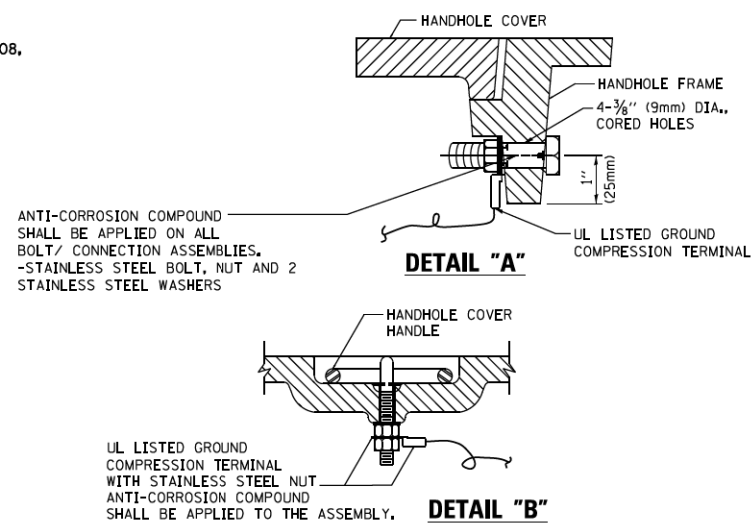
NOTES:

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.

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 50.0000' / 1"	CHECKED - DAD	REVISED -	TS-05			CONTRACT NO. 61G98				
PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
				SCALE: NONE	SHEET NO. 3 OF 7 SHEETS	STA. TO STA.				

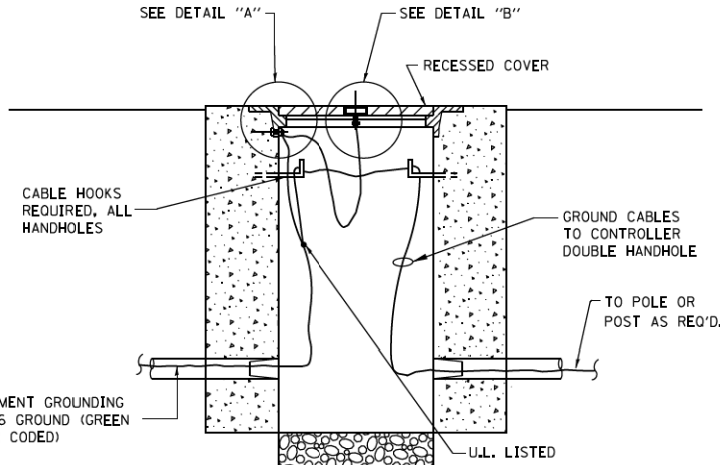


**ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
(NOT TO SCALE)**

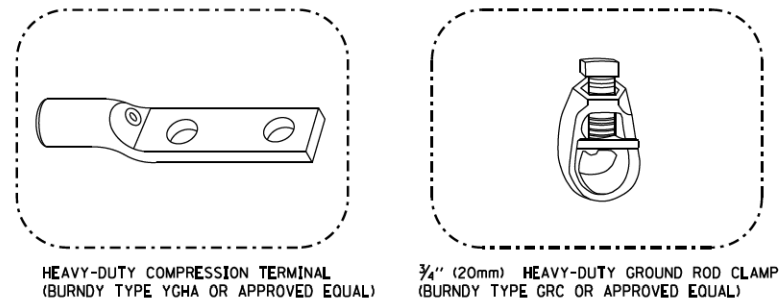


**NOTES:
GROUNDING SYSTEM**

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

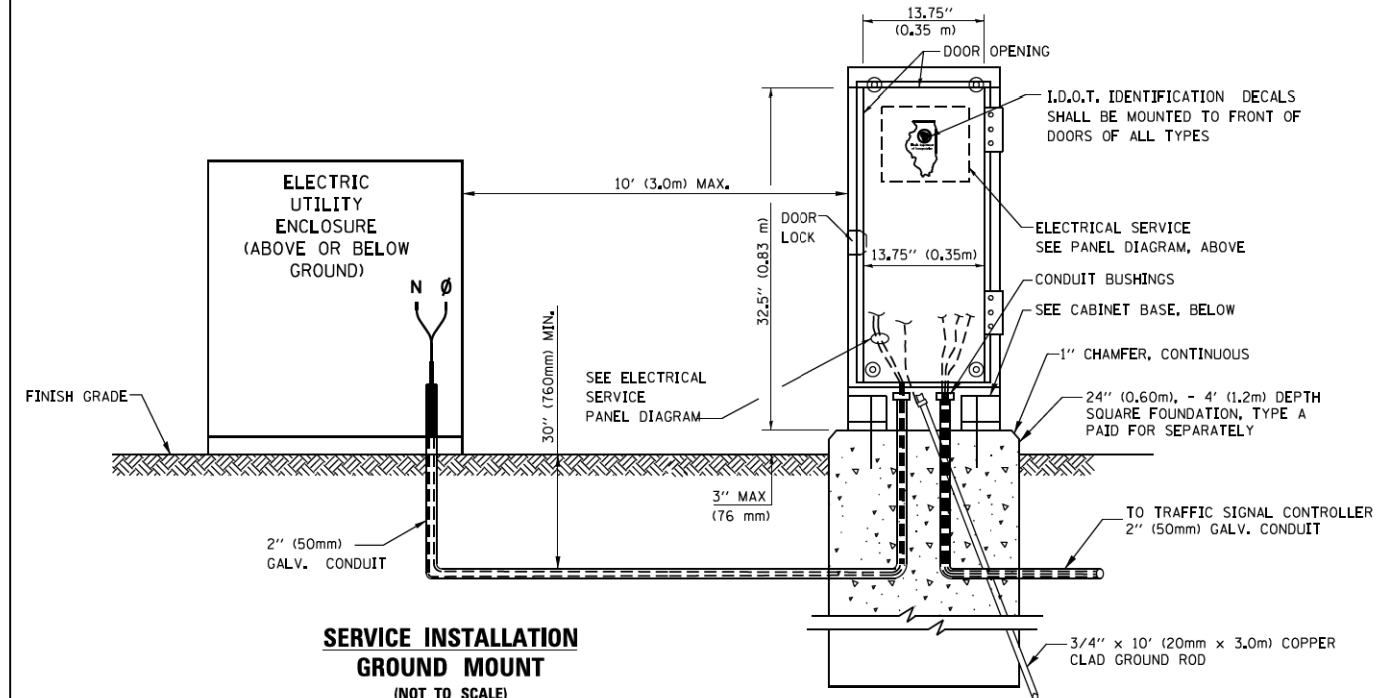


**HANDHOLE COVER & FRAME – GROUNDING DETAIL
(NOT TO SCALE)**

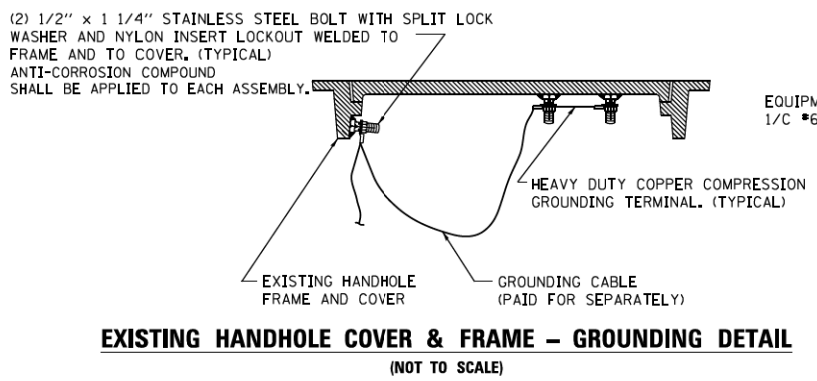


NOTES:

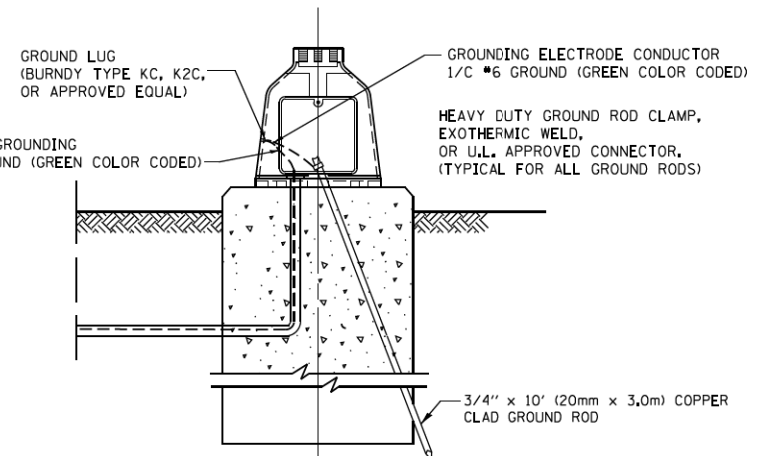
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



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

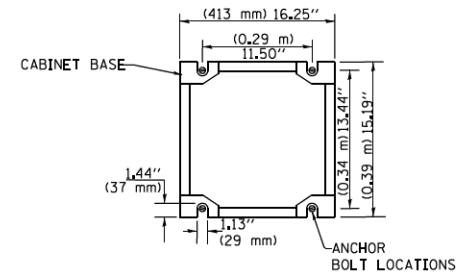


**EXISTING HANDHOLE COVER & FRAME – GROUNDING DETAIL
(NOT TO SCALE)**



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

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

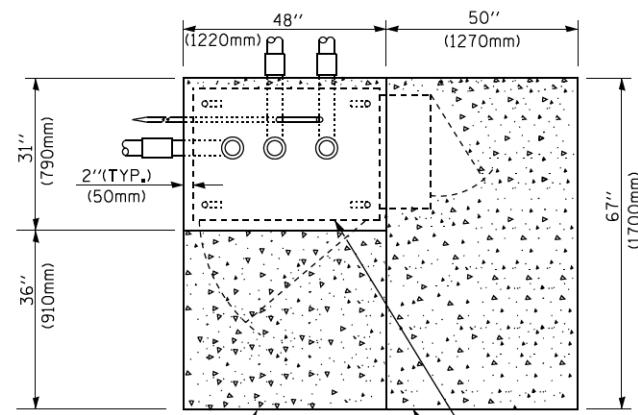


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		CHECKED - DAD	REVISED -
		DATE - 10-28-09	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

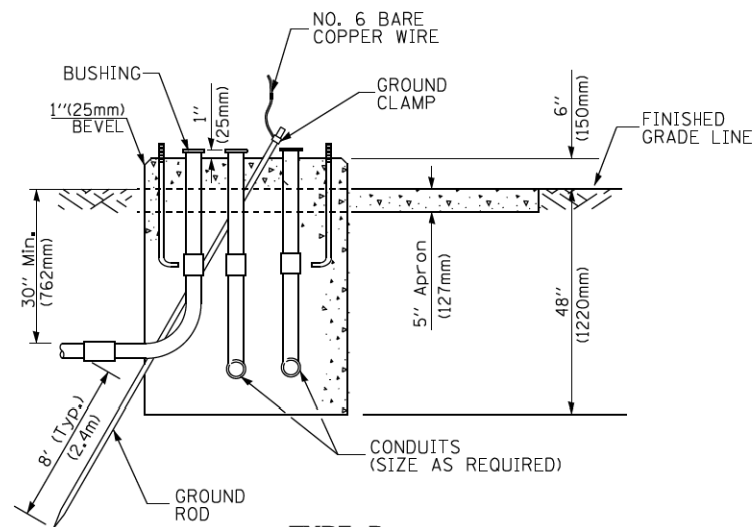
DISTRICT ONE	
STANDARD TRAFFIC SIGNAL DESIGN DETAILS	
SCALE: NONE	SHEET NO. 4 OF 7 SHEETS
STA.	TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TS-05		CONTRACT NO. 61G98		
FED. ROAD DIST. NO. 1 ILLINOIS/FED. AID PROJECT				

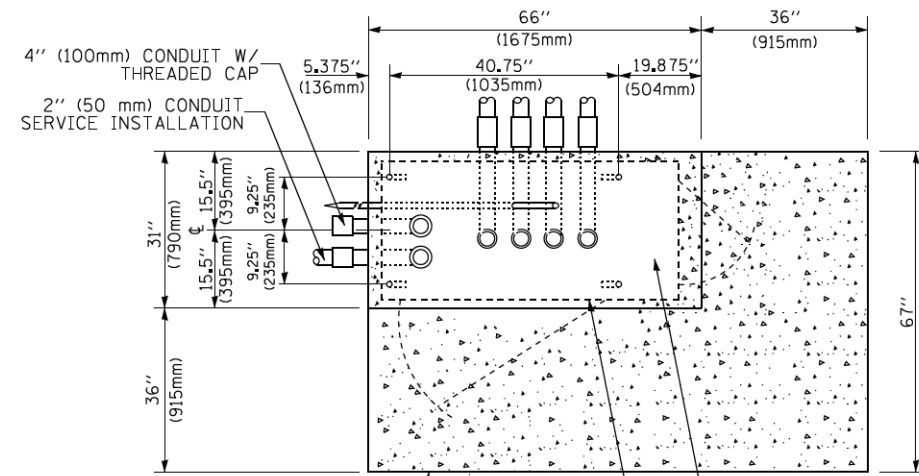


TOP VIEW

EXISTING APRON
CONTROLLER CABINET BASE
PROPOSED APRON



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

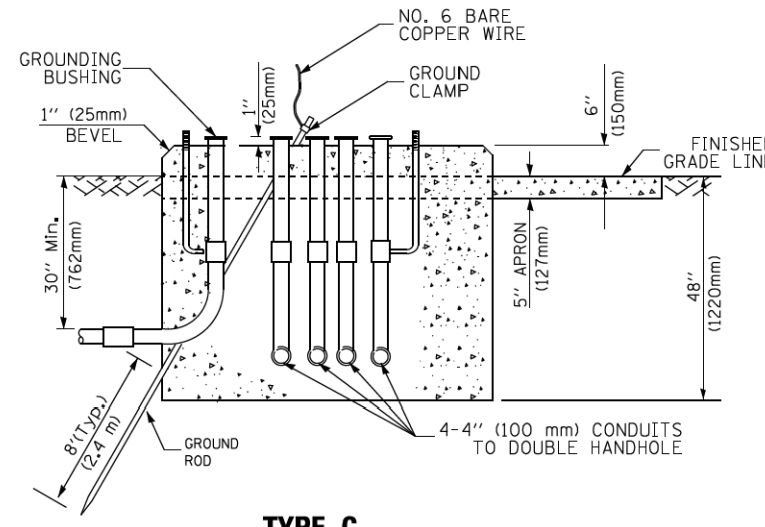


TOP VIEW

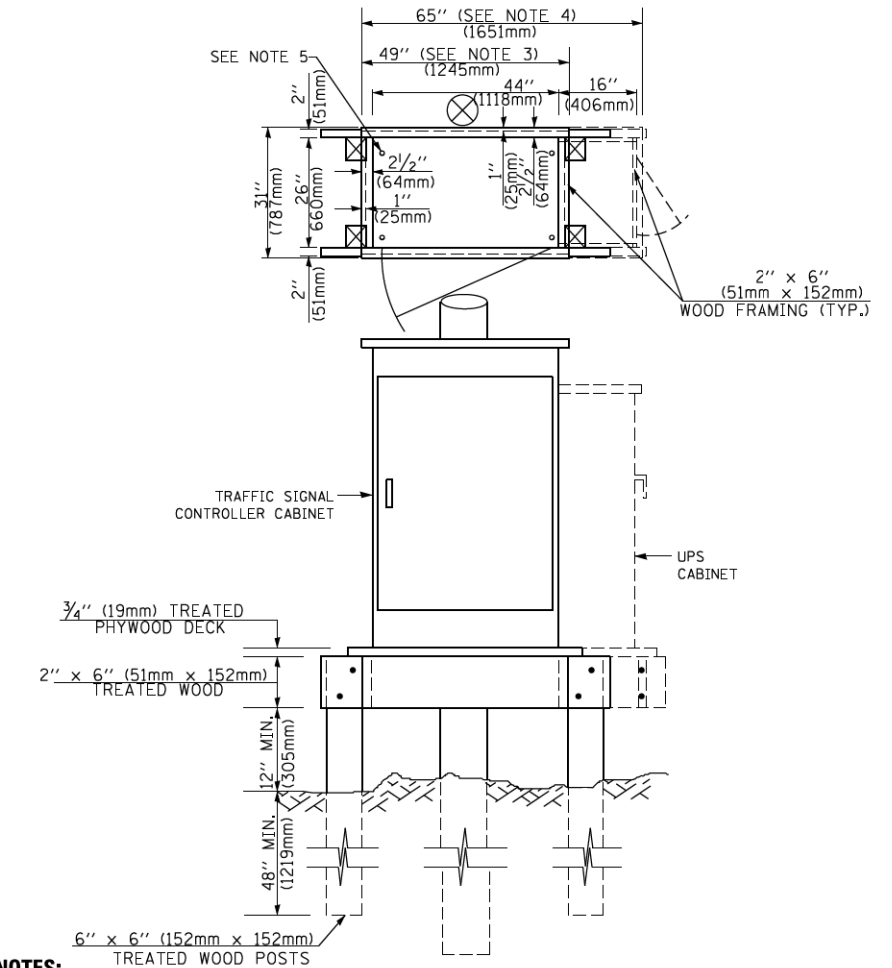
APRON
UPS BATTERY COMPARTMENT
CONTROLLER CABINET BASE

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)

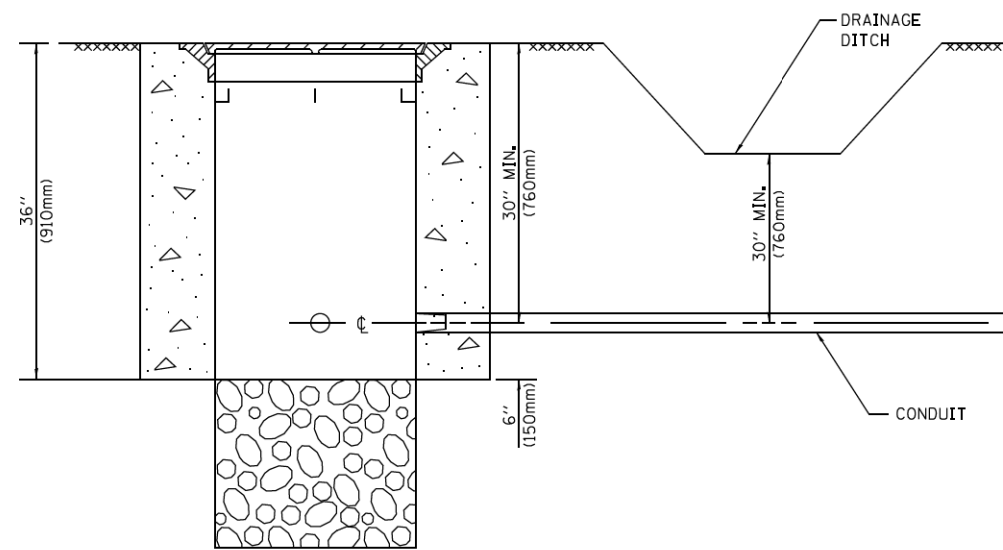
DEPTH OF FOUNDATION

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)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and up to 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 less than 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)	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..

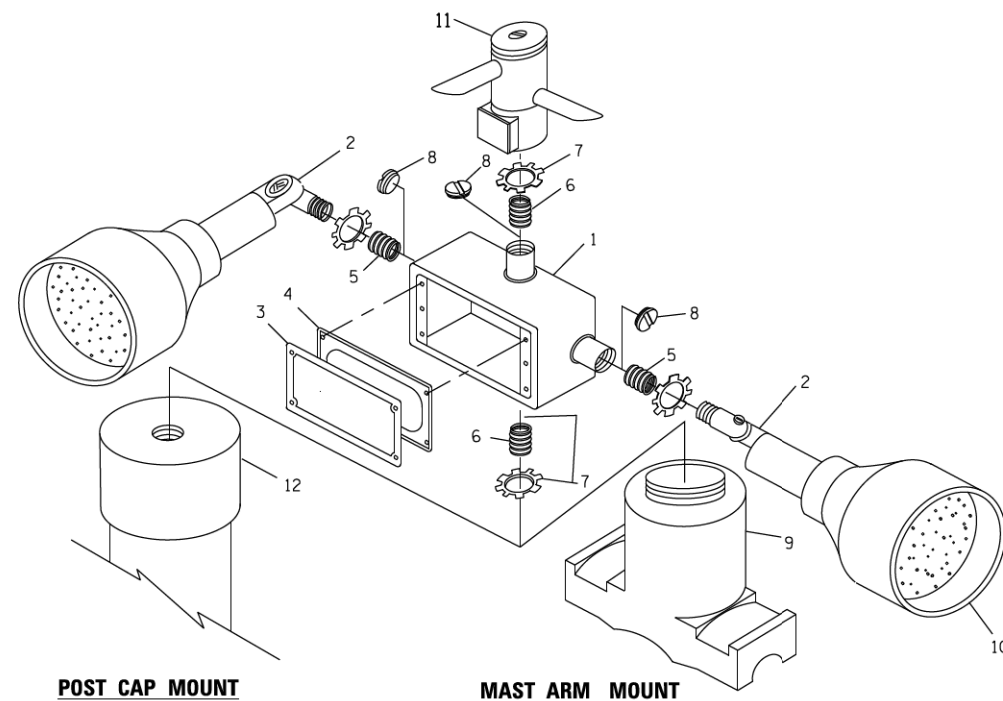
DEPTH OF MAST ARM FOUNDATIONS, TYPE E



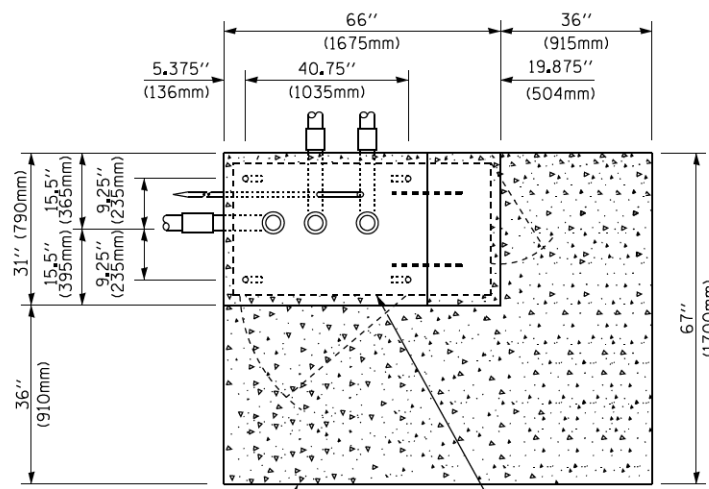
NOTES:

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.

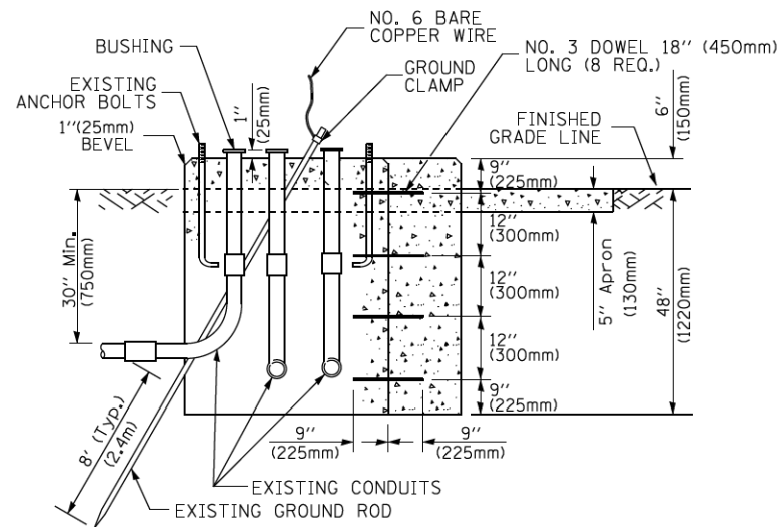
HANDHOLE WITH MINIMUM CONDUIT DEPTH
(NOT TO SCALE)



EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL



TOP VIEW
(NOT TO SCALE)

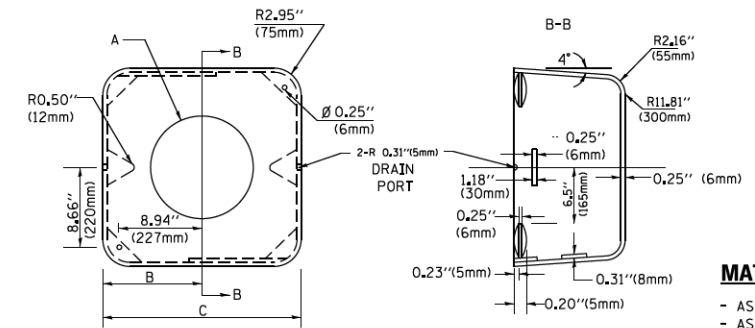


MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION
(NOT TO SCALE)

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

NOTES:

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



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

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

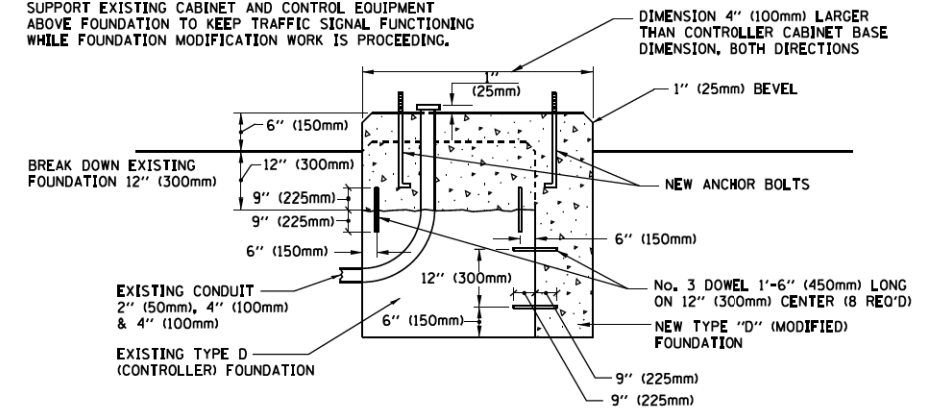
SHROUD

NOTES:

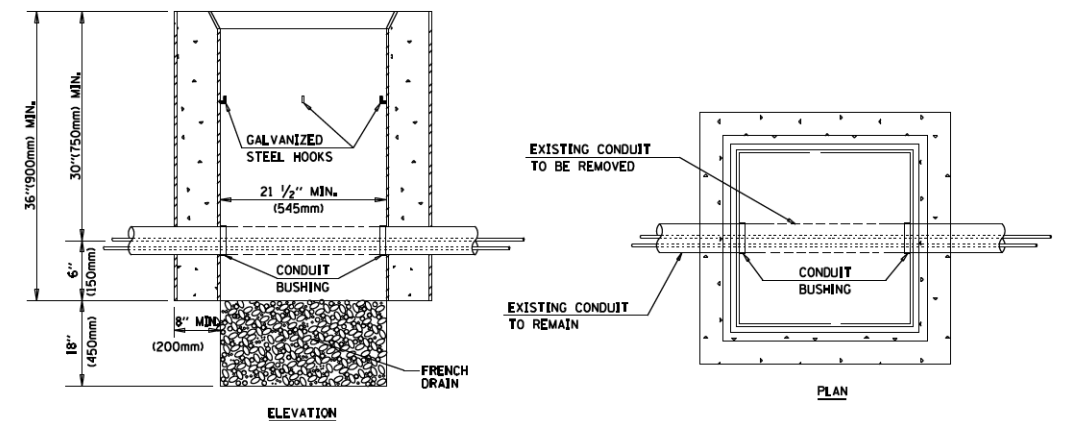
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

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



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

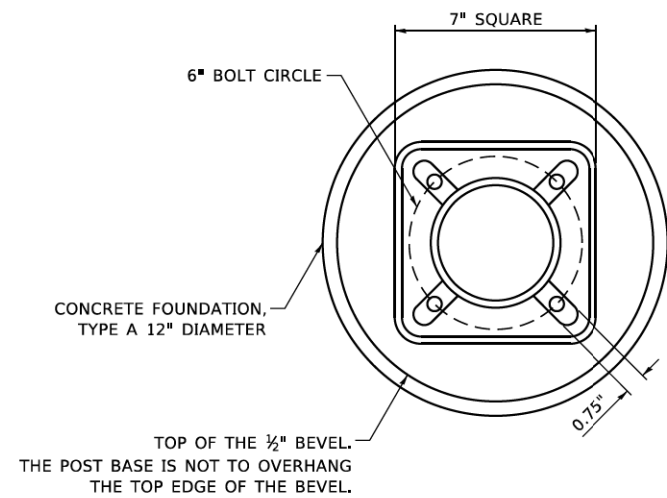
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	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE SHEET NO. 6 OF 7 SHEETS STA. TO STA.

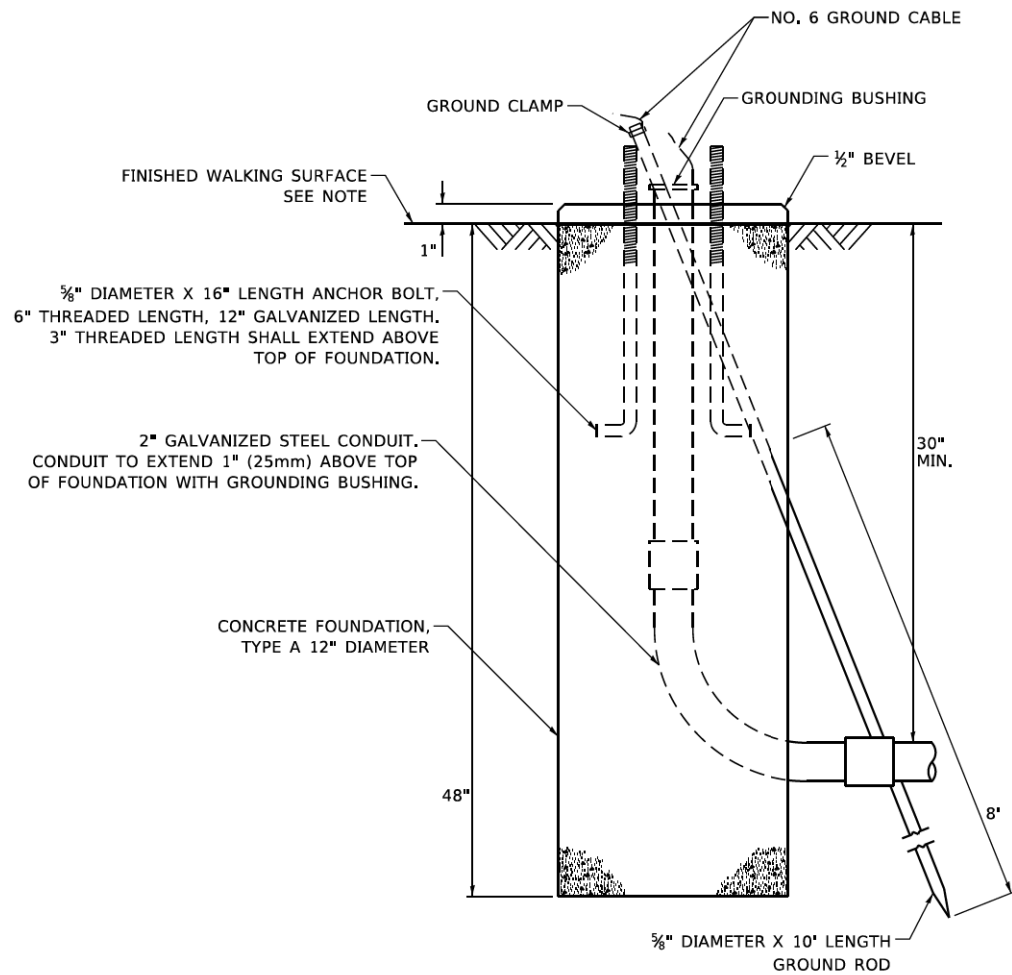
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	10
TS-05		CONTRACT NO. 61G98		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



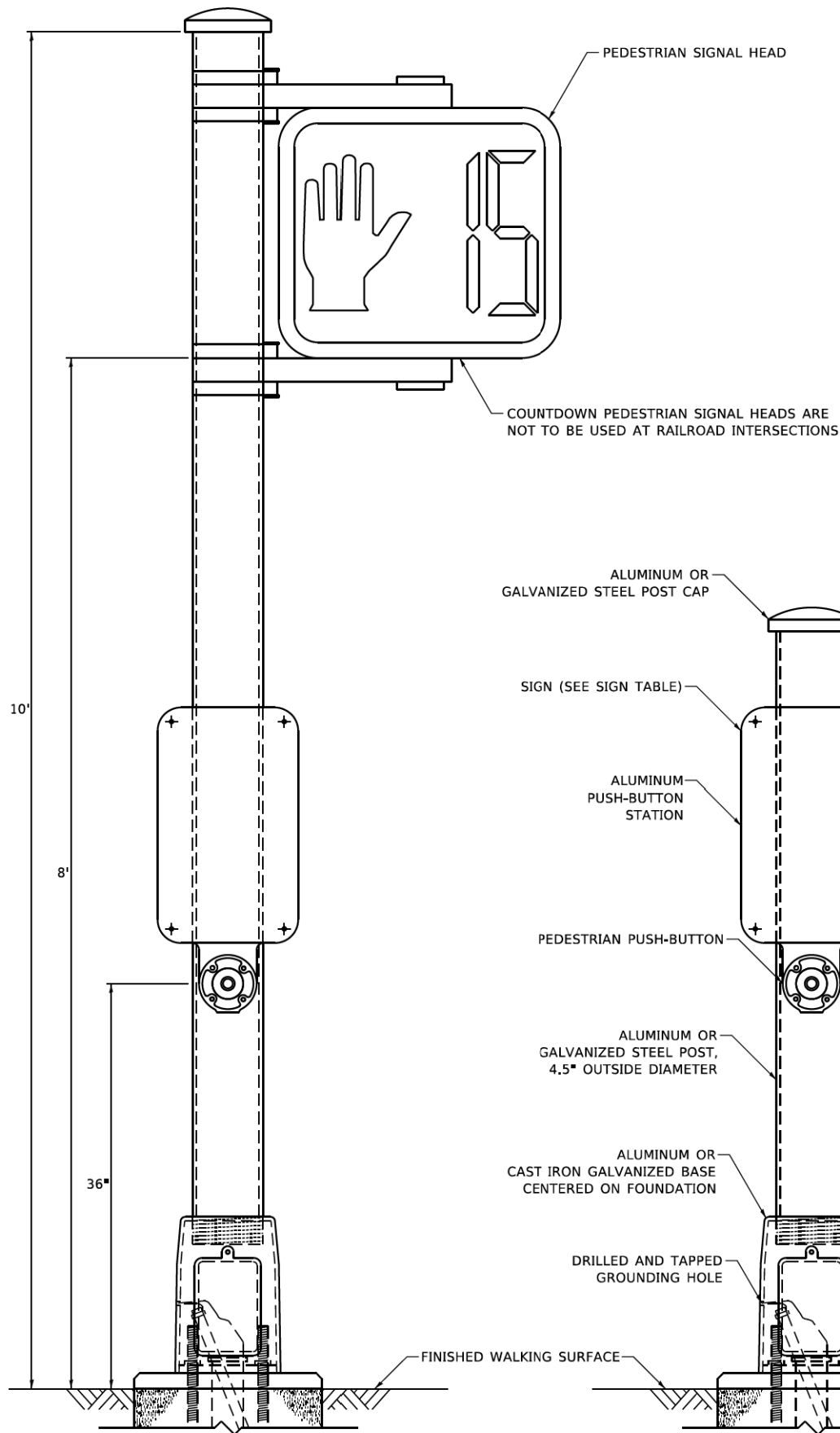
BOLT PATTERN

NOTE:

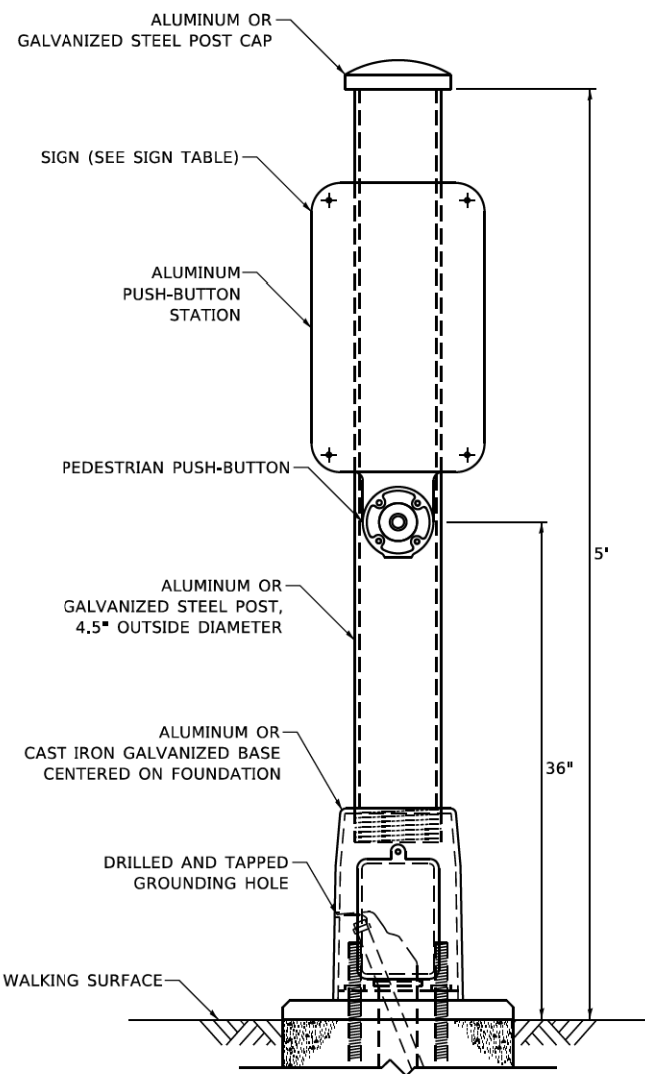
1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



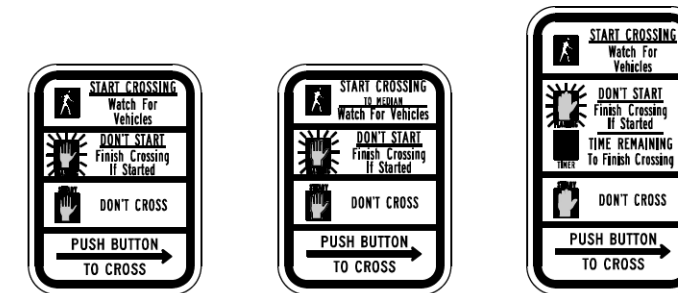
**CONCRETE FOUNDATION,
TYPE A 12-INCH DIAMETER**



PEDESTRIAN SIGNAL POST, 10 FT.



PEDESTRIAN SIGNAL POST, 5 FT.



R10-3b

R10-3d

R10-3e

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: Default
FILE: Model: StandardPedestrianSignalPost_WorkingFile.dwg
User: JPL/Design/Jan11_Chen/PedestrianSignalPost_WorkingFile.dwg

USER NAME = plasenciai	DESIGNED - IP	REVISED - 10/15/2020
	DRAWN - IP	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - LP	REVISED -
PLOT DATE = 11/17/2020	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.

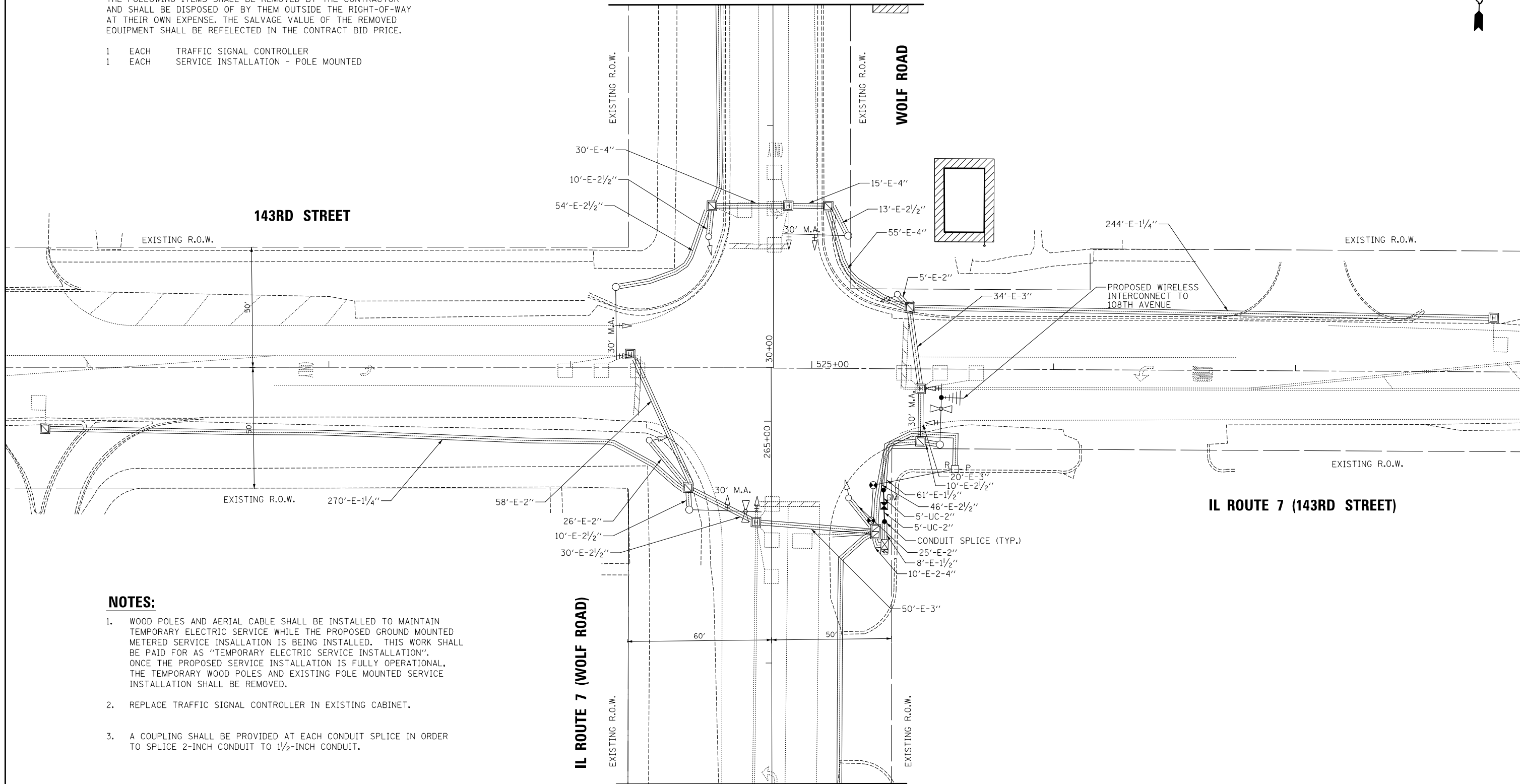
F.A.U. RTE. 1600	SECTION 20-00087-00-TL	COUNTY COOK	TOTAL SHEETS 30	SHEET NO. 11
TS-05		CONTRACT NO. 61G98		
ILLINOIS FED. AID PROJECT				

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 OWN EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE RELECTED IN THE CONTRACT BID PRICE.

- 1 EACH TRAFFIC SIGNAL CONTROLLER
- 1 EACH SERVICE INSTALLATION - POLE MOUNTED

MATCH LINE STA. 31+50
SEE SHEET 13



NOTES:

1. WOOD POLES AND AERIAL CABLE SHALL BE INSTALLED TO MAINTAIN TEMPORARY ELECTRIC SERVICE WHILE THE PROPOSED GROUND MOUNTED METERED SERVICE INSALLATION IS BEING INSTALLED. THIS WORK SHALL BE PAID FOR AS "TEMPORARY ELECTRIC SERVICE INSTALLATION". ONCE THE PROPOSED SERVICE INSTALLATION IS FULLY OPERATIONAL, THE TEMPORARY WOOD POLES AND EXISTING POLE MOUNTED SERVICE INSTALLATION SHALL BE REMOVED.
2. REPLACE TRAFFIC SIGNAL CONTROLLER IN EXISTING CABINET.
3. A COUPLING SHALL BE PROVIDED AT EACH CONDUIT SPLICE IN ORDER TO SPLICE 2-INCH CONDUIT TO 1 1/2-INCH CONDUIT.

MATCH LINE STA. 263+50
SEE SHEET 13

MODEL: \\MODEL\NAME: FILE NAME: ... 3/31/2021



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PLOT SCALE = 40,0000' / in.	DRAWN - MC	REVISED -
PLOT DATE = 3/31/2021	CHECKED - JJE	REVISED -
	DATE - 3/31/2021	REVISED -

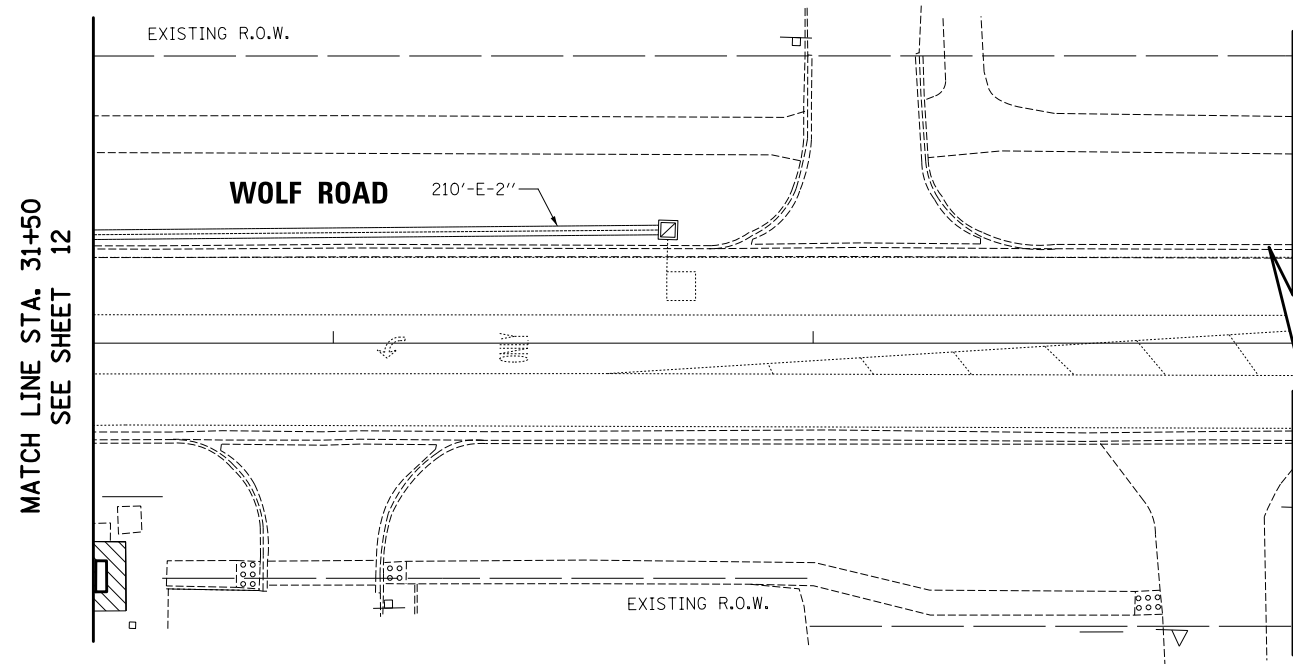
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN (SHEET 1 OF 2)
IL ROUTE 7 (143RD STREET) AND WOLF ROAD

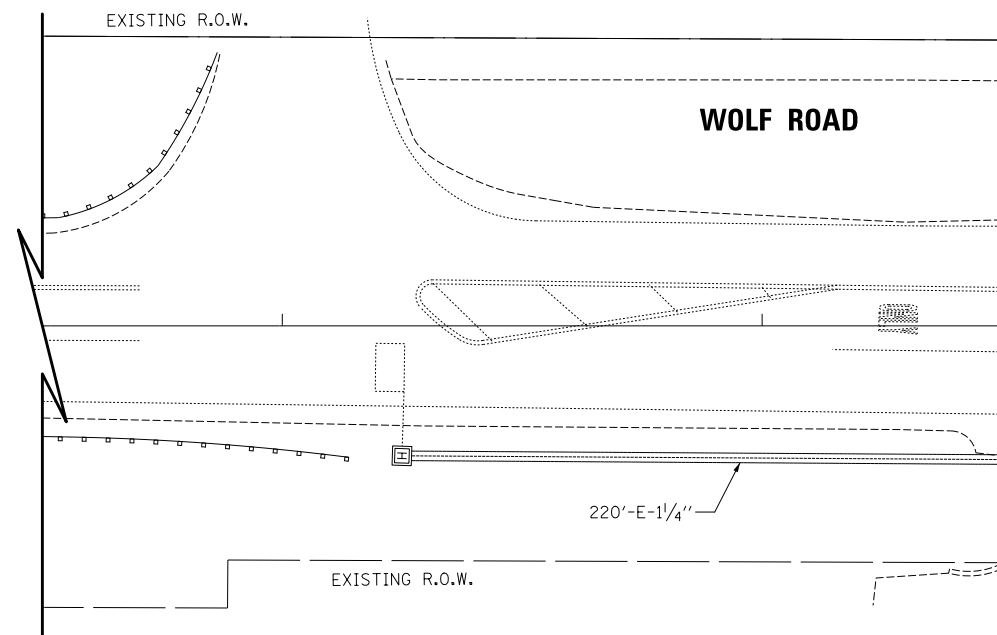
SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	12
CONTRACT NO. 61G98				
ILLINOIS FED. AID PROJECT				

TS 21520
EAGLE 3H



MATCH LINE STA. 31+50
SEE SHEET 12



MATCH LINE STA. 263+50
SEE SHEET 12

MODEL: \\MODEL\NAME: FILE: NAME: ... 2021033102_211210.dwg



USER NAME = AS2	DESIGNED - AS	REVISED -
	DRAWN - JJE	REVISED -
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PLOT DATE = 3/31/2021	DATE - 3/31/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

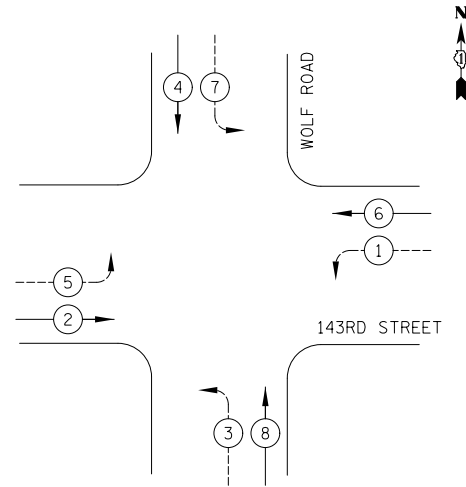
TRAFFIC SIGNAL MODIFICATION PLAN (SHEET 2 OF 2)
IL ROUTE 7 (143RD STREET) AND WOLF ROAD

SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	13
				CONTRACT NO. 61G98
		ILLINOIS	FED. AID PROJECT	

TS 21520
EAGLE 3H

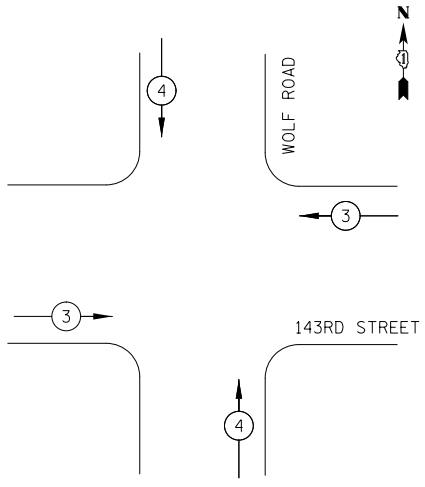
EXISTING AND PROPOSED CONTROLLER SEQUENCE:



LEGEND

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE:



TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

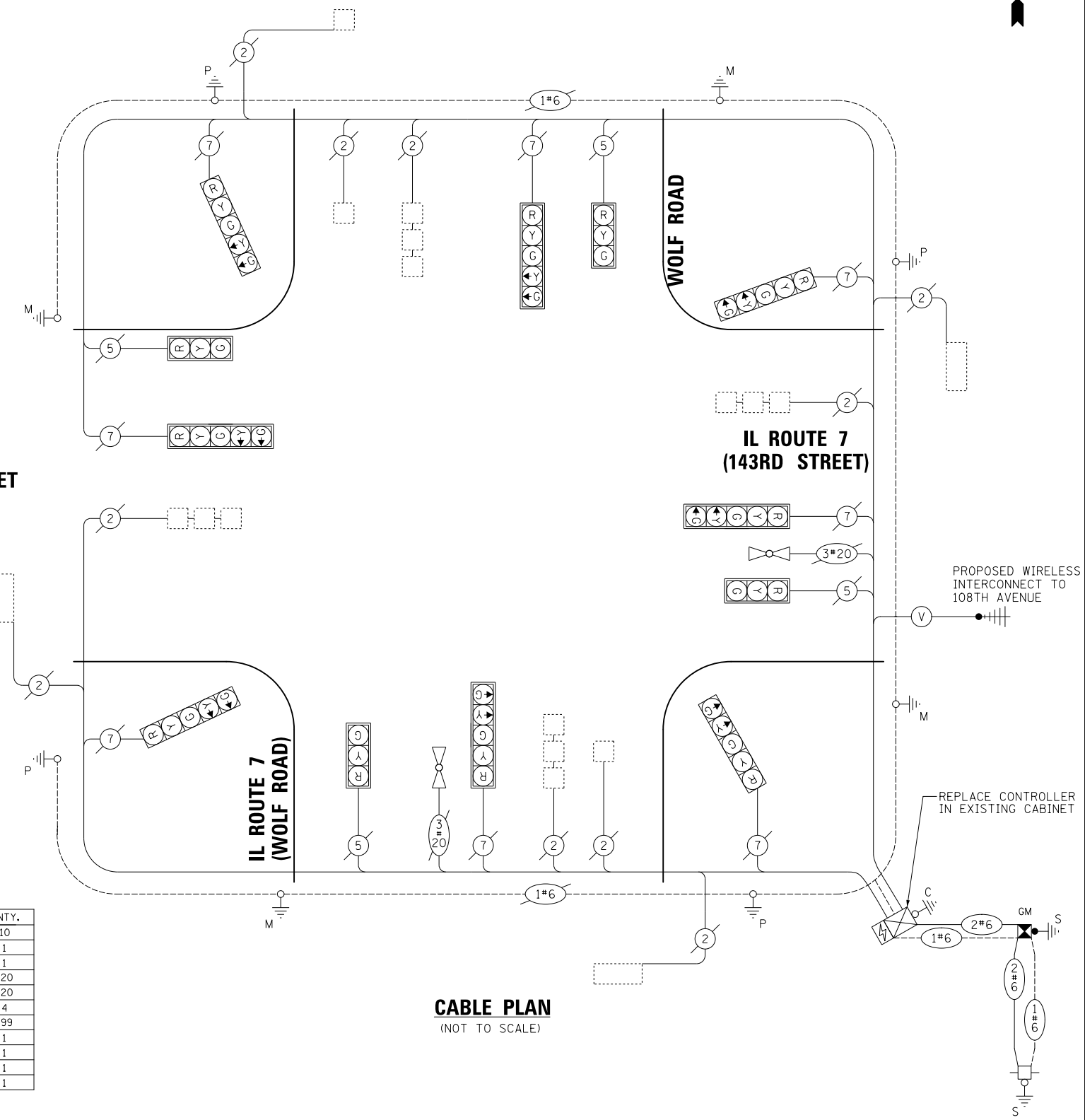
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				283.8

ENERGY COSTS TO:
 VILLAGE OF ORLAND PARK
 14700 RAVINIA AVE.
 ORLAND PARK, IL 60462
 ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN
 PHONE: (708) 235-2962
 COMPANY: COMMONWEALTH EDISON
 ACCOUNT NUMBER: 01350-79364

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	10
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIEVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	120
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	120
CONCRETE FOUNDATION, TYPE A	FOOT	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	199
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
TEMPORARY ELECTRIC SERVICE INSTALLATION	EACH	1
SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1

143RD STREET



CABLE PLAN
(NOT TO SCALE)

MODEL: S:\MODEL\NAME: FILE NAME: 20210331\2502_21r-1310.dwg



USER NAME = AS2	DESIGNED - AS	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - AS	REVISED -
PLOT DATE = 3/31/2021	CHECKED - JJE	REVISED -
	DATE - 3/31/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM,
EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
IL ROUTE 7 (143RD STREET) AND WOLF ROAD**

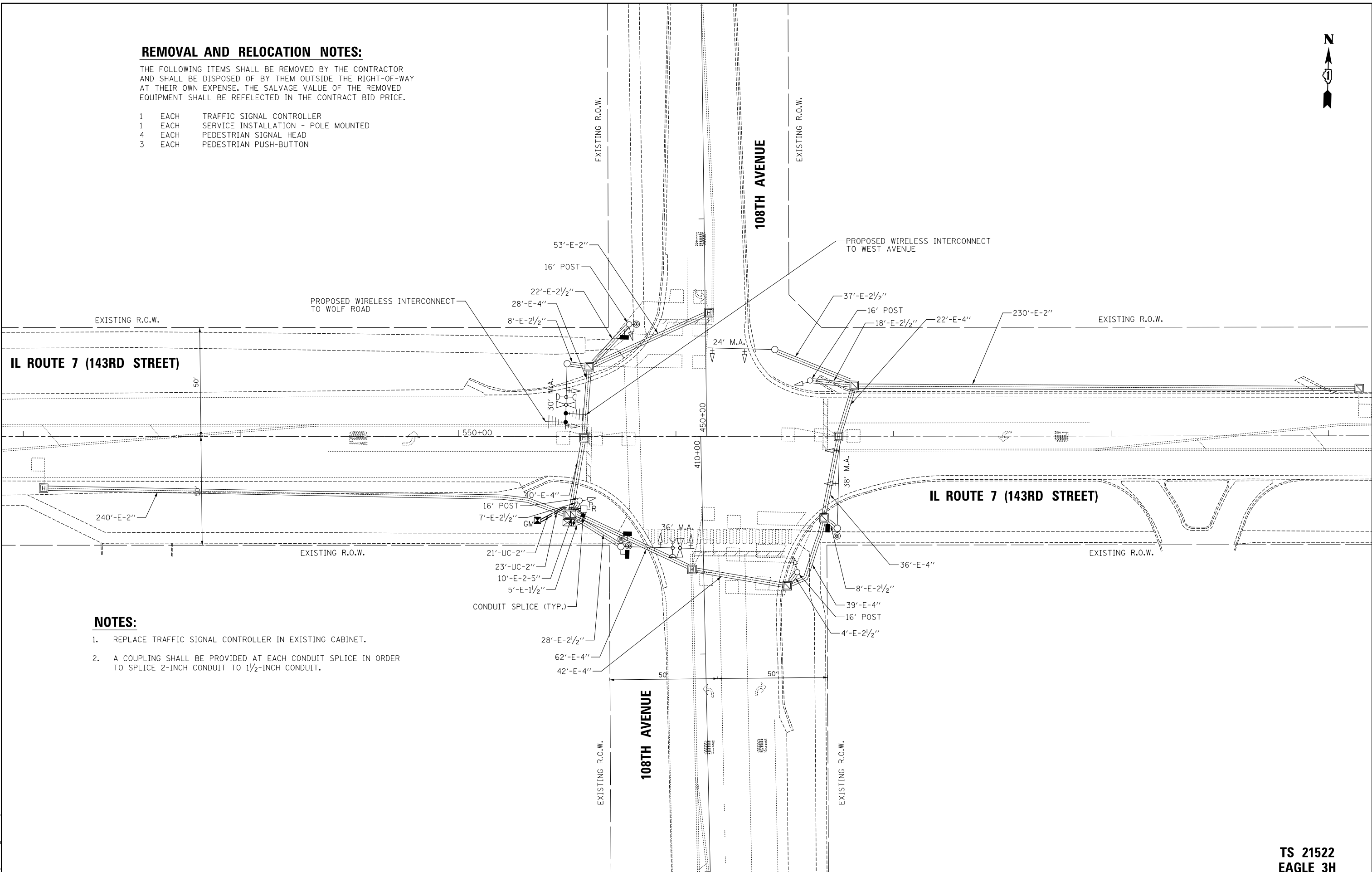
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	14
CONTRACT NO. 61G98				
ILLINOIS FED. AID PROJECT				

**TS 21520
EAGLE 3H**

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 OWN EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH TRAFFIC SIGNAL CONTROLLER
- 1 EACH SERVICE INSTALLATION - POLE MOUNTED
- 4 EACH PEDESTRIAN SIGNAL HEAD
- 3 EACH PEDESTRIAN PUSH-BUTTON



NOTES:

- 1. REPLACE TRAFFIC SIGNAL CONTROLLER IN EXISTING CABINET.
- 2. A COUPLING SHALL BE PROVIDED AT EACH CONDUIT SPLICE IN ORDER TO SPLICE 2-INCH CONDUIT TO 1/2-INCH CONDUIT.

MODEL: \\MODELNAME
FILE: \\NAME: \\SIGNATURES02_2021.dwg



USER NAME = AS2	DESIGNED - AS	REVISED -
PLOT SCALE = 40,0000 ' / in.	DRAWN - MC	REVISED -
PLOT DATE = 3/31/2021	CHECKED - JJE	REVISED -
	DATE - 3/31/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

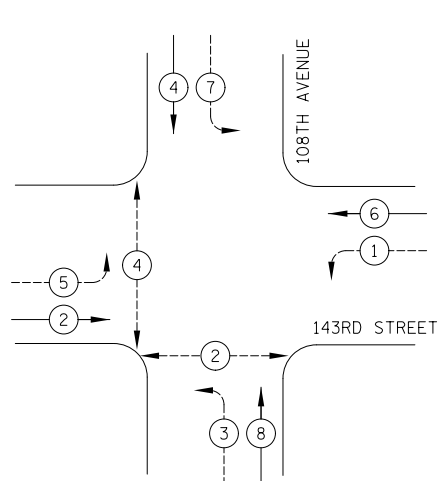
**TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 7 (143RD STREET) AND 108TH AVENUE**

SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.

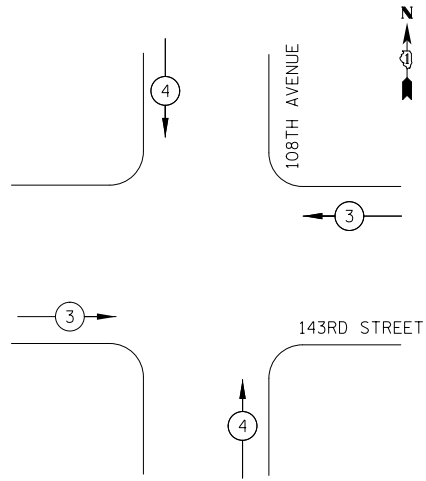
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	15
CONTRACT NO. 61G98				
ILLINOIS FED. AID PROJECT				

**TS 21522
EAGLE 3H**

EXISTING AND PROPOSED CONTROLLER SEQUENCE:



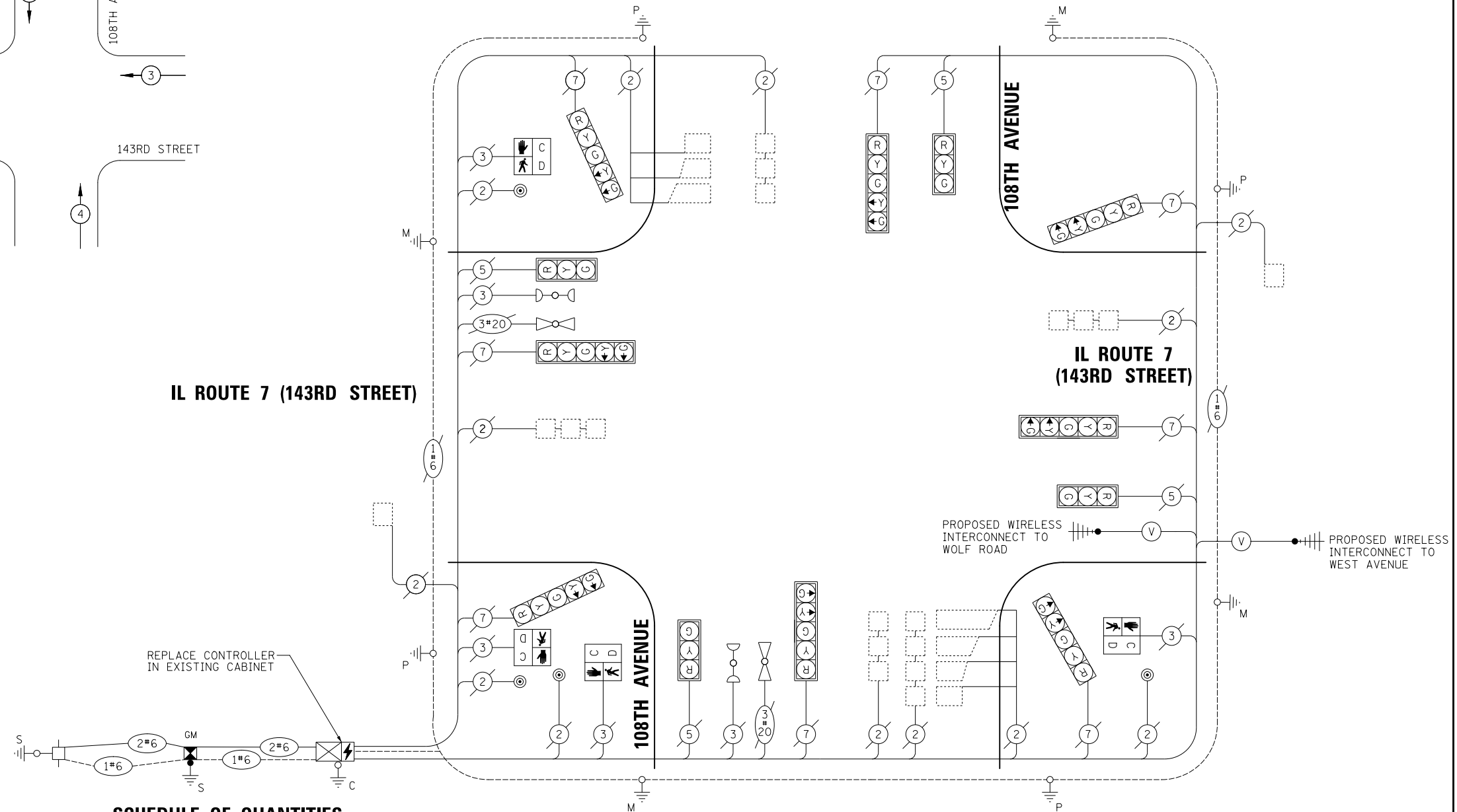
EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE:



LEGEND

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

IL ROUTE 7 (143RD STREET)



REPLACE CONTROLLER IN EXISTING CABINET

PROPOSED WIRELESS INTERCONNECT TO WOLF ROAD
PROPOSED WIRELESS INTERCONNECT TO WEST AVENUE

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	4	20	100	80.0
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 =				363.8

ENERGY COSTS TO:
 VILLAGE OF ORLAND PARK
 14700 RAVINIA AVE.
 ORLAND PARK, IL 60462
 ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN
 PHONE: (708) 235-2692
 COMPANY: COMMONWEALTH EDISON
 ACCOUNT NUMBER: 01350-79364

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	44
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	67
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	63
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	63
CONCRETE FOUNDATION, TYPE A	FOOT	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	59
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
TEMPORARY ELECTRIC SERVICE INSTALLATION	EACH	1
SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY AND CABINET, SPECIAL	EACH	1

CABLE PLAN
(NOT TO SCALE)

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM,
EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
IL ROUTE 7 (143RD STREET) AND 108TH AVENUE**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	16
				CONTRACT NO. 61G98

MODEL: S:\MODEL\NAME: FILE NAME: ...



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PLOT SCALE = 40,0000' / in.	DRAWN - AS	REVISED -
PLOT DATE = 3/31/2021	CHECKED - JJE	REVISED -
	DATE - 3/31/2021	REVISED -

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

**TS 21522
EAGLE 3H**

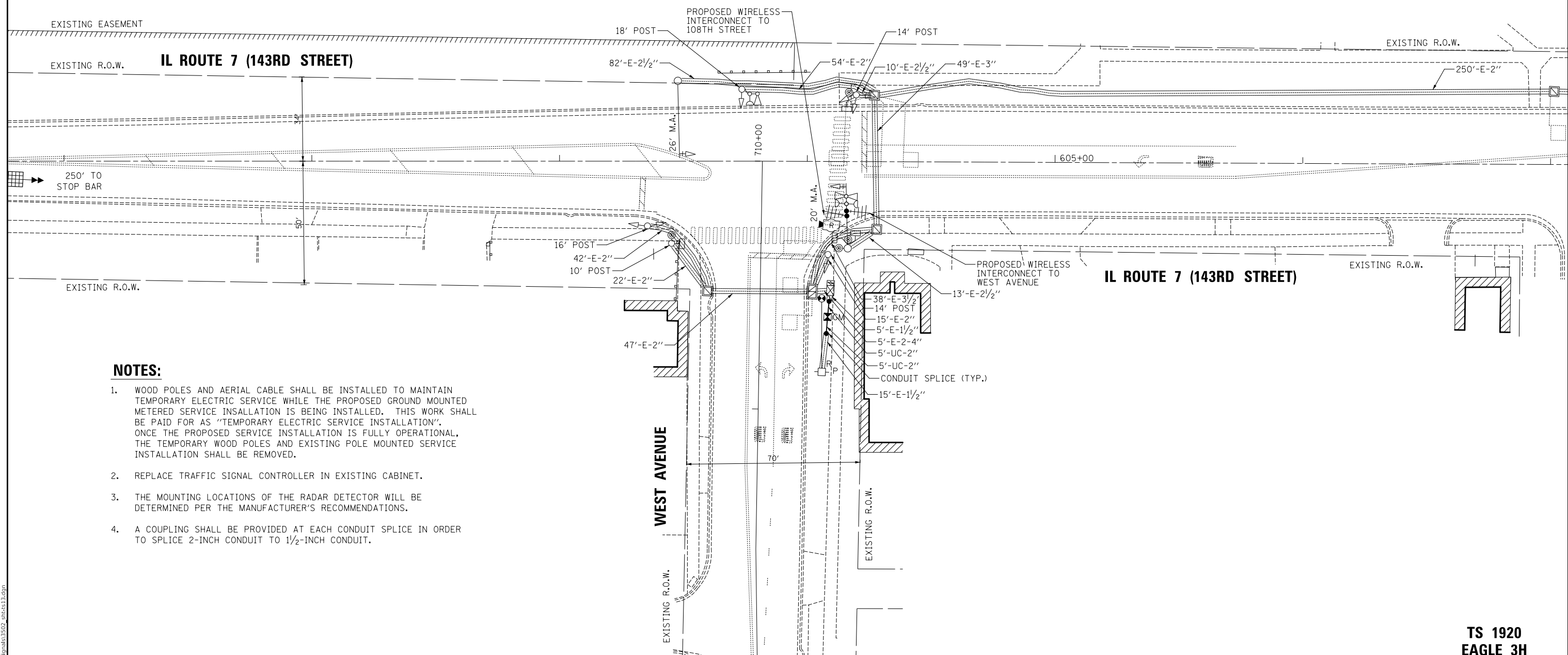
ILLINOIS FED. AID PROJECT



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 OWN EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH TRAFFIC SIGNAL CONTROLLER
- 1 EACH SERVICE INSTALLATION - POLE MOUNTED
- 2 EACH PEDESTRIAN PUSH-BUTTON



NOTES:

1. WOOD POLES AND AERIAL CABLE SHALL BE INSTALLED TO MAINTAIN TEMPORARY ELECTRIC SERVICE WHILE THE PROPOSED GROUND MOUNTED METERED SERVICE INSTALLATION IS BEING INSTALLED. THIS WORK SHALL BE PAID FOR AS "TEMPORARY ELECTRIC SERVICE INSTALLATION". ONCE THE PROPOSED SERVICE INSTALLATION IS FULLY OPERATIONAL, THE TEMPORARY WOOD POLES AND EXISTING POLE MOUNTED SERVICE INSTALLATION SHALL BE REMOVED.
2. REPLACE TRAFFIC SIGNAL CONTROLLER IN EXISTING CABINET.
3. THE MOUNTING LOCATIONS OF THE RADAR DETECTOR WILL BE DETERMINED PER THE MANUFACTURER'S RECOMMENDATIONS.
4. A COUPLING SHALL BE PROVIDED AT EACH CONDUIT SPLICE IN ORDER TO SPLICE 2-INCH CONDUIT TO 1 1/2-INCH CONDUIT.

MODEL: \\MODEL\NAME: FILE NAME: ...



USER NAME = AS2	DESIGNED - AS	REVISED -
PLOT SCALE = 40,0000' / in.	DRAWN - MC	REVISED -
PLOT DATE = 3/31/2021	CHECKED - JJE	REVISED -
	DATE - 3/31/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

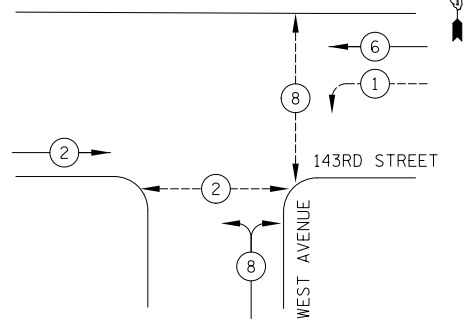
**TRAFFIC SIGNAL MODIFICATION PLAN
143RD STREET (IL ROUTE 7) AND WEST AVENUE**

SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.

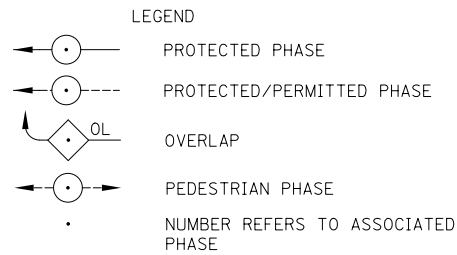
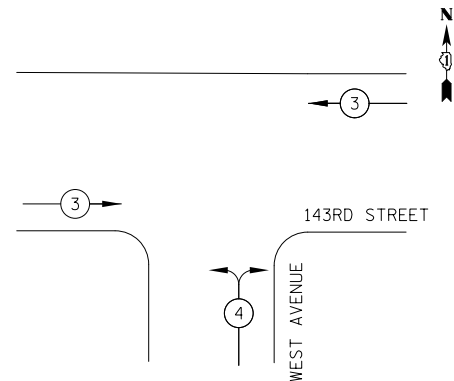
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 61G98				
ILLINOIS FED. AID PROJECT				

**TS 1920
EAGLE 3H**

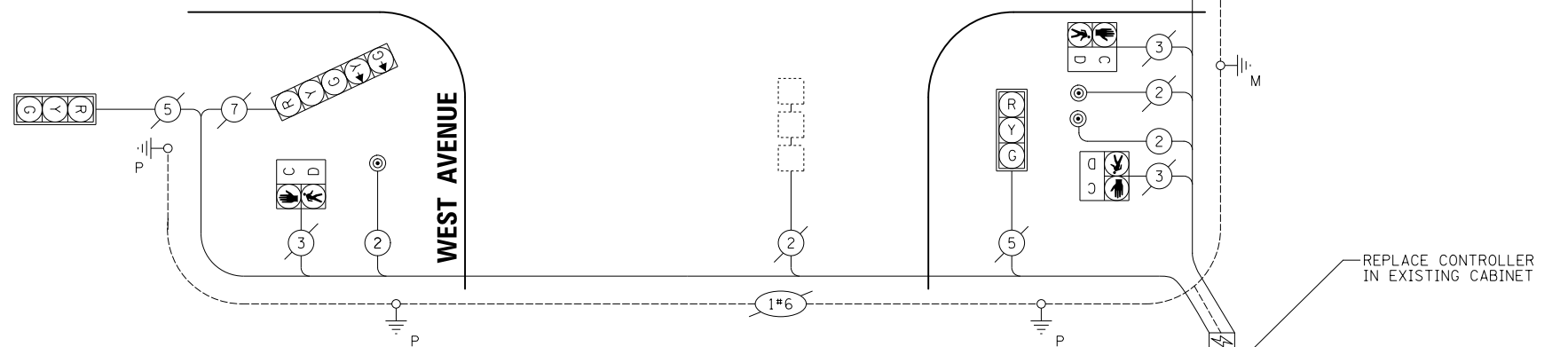
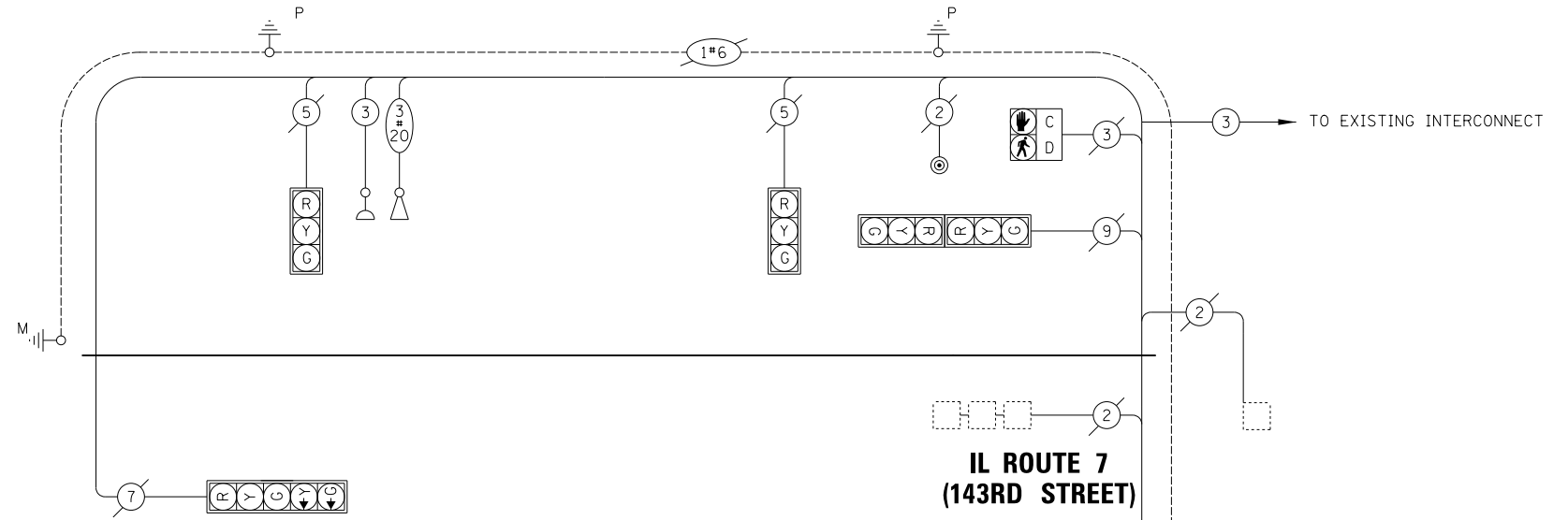
EXISTING AND PROPOSED CONTROLLER SEQUENCE:



EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE:



IL ROUTE 7 (143RD STREET)



SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	10
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	190
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	71
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	71
CONCRETE FOUNDATION, TYPE A	FOOT	4
PEDESTRIAN PUSH-BUTTON	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	99
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
TEMPORARY ELECTRIC SERVICE INSTALLATION	EACH	1
SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	1
RADAR VEHICLE DETECTION SYSTEM, SINGLE APPROACH, FAR BACK	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1

CABLE PLAN
(NOT TO SCALE)

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	9	11	50	49.5
(YELLOW)	9	20	5	9.0
(GREEN)	9	12	45	48.6
PERMISSIVE ARROW	4	10	10	4.0
PED. SIGNAL	4	20	100	80.0
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 =				316.1

ENERGY COSTS TO:

VILLAGE OF ORLAND PARK
14700 RAVINIA AVE.
ORLAND PARK, IL 60462

ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN
PHONE: (708) 235-2962
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: 01350-79364

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM,
EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
143RD STREET (IL ROUTE 7) AND WEST AVENUE

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	18
				CONTRACT NO. 61G98

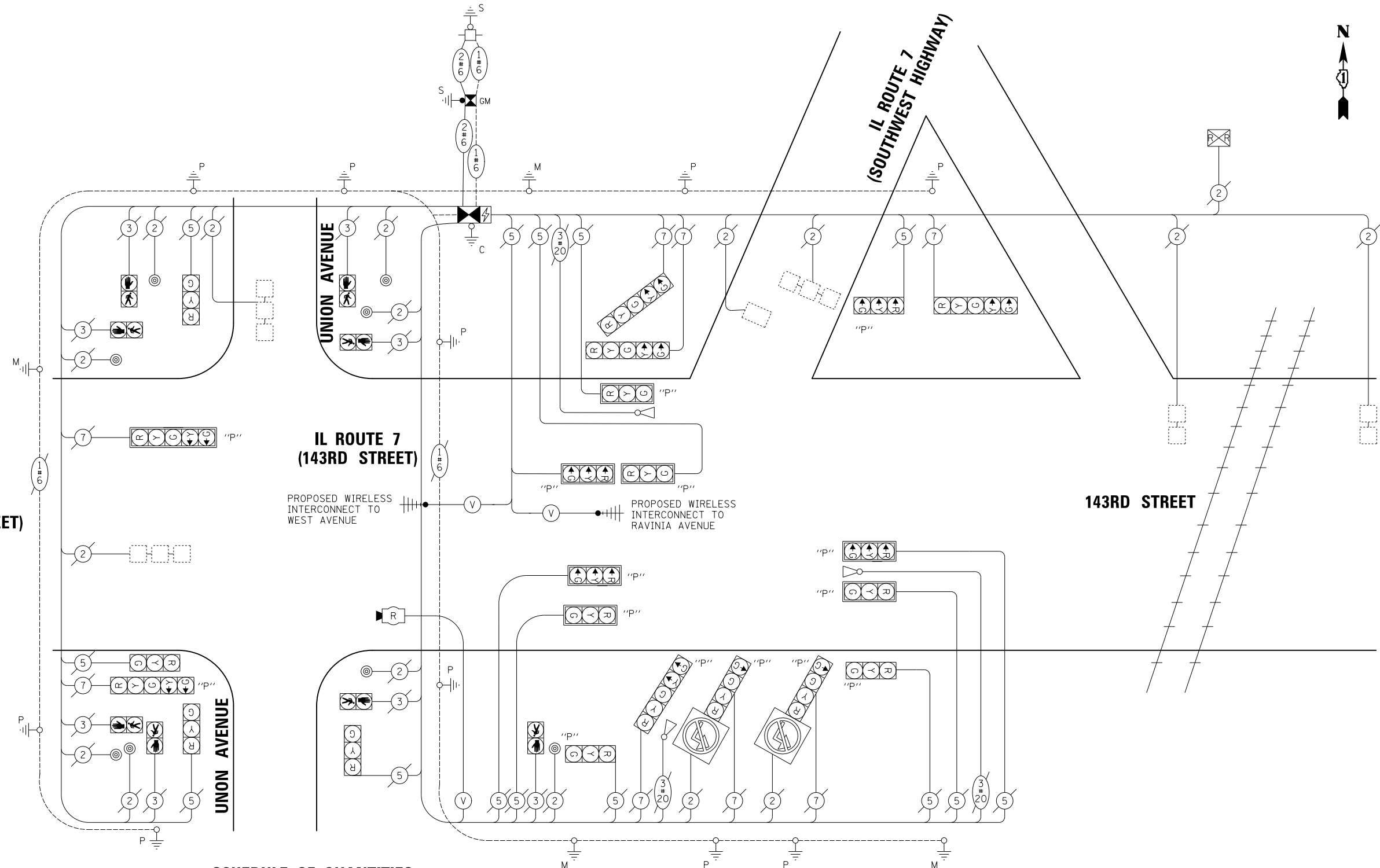
ILLINOIS FED. AID PROJECT

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PLOT DATE = 3/31/2021	CHECKED - JJE	REVISED -
	DATE - 3/31/2021	REVISED -

TS 1920
EAGLE 3H



IL ROUTE 7 (143RD STREET)

IL ROUTE 7
(143RD STREET)

143RD STREET

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
SIGN PANEL - TYPE I	SQ FT	10
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	105
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	172
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	172
CONCRETE FOUNDATION, TYPE A	FOOT	4
INDUCTIVE LOOP DETECTOR	EACH	6
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	91
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
TEMPORARY ELECTRIC SERVICE INSTALLATION	EACH	1
SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	1
RADAR VEHICLE DETECTION SYSTEM, SINGLE APPROACH, FAR BACK	EACH	1
RAILROAD, FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	23	11	50	126.5
(YELLOW)	23	20	5	23.0
(GREEN)	23	12	45	124.2
PERMISSIVE ARROW	14	10	10	14.0
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 =				572.2

ENERGY COSTS TO:
 VILLAGE OF ORLAND PARK
 14700 RAVINIA AVE.
 ORLAND PARK, IL 60462
 ENERGY SUPPLY: CONTACT: NEW BUSINESS
 PHONE: (866) 639-3532
 COMPANY: COMMONWEALTH EDISON
 ACCOUNT NUMBER: 01350-79364

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PLOT SCALE = 40,0000' / in.	DRAWN - AS	REVISED -
PLOT DATE = 3/31/2021	CHECKED - JJE	REVISED -
	DATE - 3/31/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION






CABLE PLAN AND SCHEDULE OF QUANTITIES
 IL ROUTE 7 (143RD STREET) AND SOUTHWEST HIGHWAY/UNION STREET
 SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	20
				CONTRACT NO. 61G98
		ILLINOIS	FED. AID PROJECT	

TS 1915
EAGLE 3H

PROPOSED SEQUENCE OF OPERATION

MOVEMENT	N	←-6→ ←-2→												←-6→ ←-2→								3 OL C						4						F L A S H				
		2 + 5												2 + 6								3						4										
PHASE		2 + 5												2 + 6								3						4										
INTERVAL		1	2	3A	3B	3C	3D	4	5	6A	6B	6C	6D	7A	7B	7C	7D	8A	8B	8C	8D	9	10A	10B	10C	10D	11A	11B	11C	12	13	14A	14B	15A	15B	15C	15D	
CHANGE TO		∅	∅	2 + 6				2 + 5				3				4				2 + 5 4				2 + 6				2 + 5				2 + 6						
IL RTE 7 - 143RD ST RIGHT MAST ARM AND FAR RIGHT SIGNALS AT IL RTE 7 (SOUTHWEST HWY)	EB	G	G	G	G	G	G	G	G	G	G	G	G	G	Y	R	G	G	G	G	R	R	R	R	R	R	R	R	G	G	G	G	G	G	G	G	R	
IL RTE 7 - 143RD ST END MAST ARM AND FAR LEFT SIGNALS AT IL RTE 7 (SOUTHWEST HWY)	EB	←G	←G	←G	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←G	←G	←G	←G	←G	←G	←Y	←R	←R	
IL RTE 7 - 143RD ST NEAR RIGHT, FAR RIGHT AND RIGHT MAST ARM SIGNALS AT UNION ST	EB	G	G	G	G	G	G	G	G	G	G	G	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
IL RTE 7 - 143RD ST END MAST ARM AND FAR LEFT MAST ARM SIGNALS AT UNION ST	EB	←G	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	
143RD ST NEAR RIGHT AND FAR RIGHT SIGNALS AT IL RTE 7 (SOUTHWEST HWY)	WB	R	R	R	R	R	R	G	G	Y	R	R	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
143RD ST MAST ARM SIGNALS AT IL RTE 7 (SOUTHWEST HWY)	WB	R	R	R	R	R	R	G	G	Y	R	R	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
143RD ST ALL SIGNALS AT UNION ST	WB	R	R	R	R	R	R	G	G	G	Y	R	G	G	G	G	G	G	Y	R	G	G	G	Y	R	G	G	G	Y	R	R	R	R	R	R	R	R	
IL RTE 7 - SOUTHWEST HWY NEAR RIGHT AND FAR RIGHT SIGNALS	SB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
IL RTE 7 - SOUTHWEST HWY CENTER AND FAR LEFT SIGNALS	SB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
UNION ST ALL SIGNALS	SB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
PEDESTRIAN SIGNALS CROSSING UNION ST ON THE SOUTH SIDE OF 143RD ST		P*	FH**	H	H	H	H	P*	FH**	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H		
PEDESTRIAN SIGNALS CROSSING UNION ST ON THE NORTH SIDE OF 143RD ST		H	H	H	H	H	H	P*	FH**	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H		
PEDESTRIAN SIGNALS CROSSING 143RD ST ON THE EAST AND WEST SIDE OF UNION ST		H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H		

- * TO APPEAR ONLY UPON PUSHBUTTON ACTUATION.
- ** FLASHING  IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN CLEARANCE INTERVAL.
- ∅ THIS  OR FLASHING  INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE  OR FLASHING  INTERVALS.
- PHASE 2 AND 6 SHALL BE PLACED ON RECALL

P = ILLUMINATED PERSON = WALK
 FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
 H = ILLUMINATED SOLID HAND = DON'T WALK

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PLOT SCALE = 40.0000' / in.	CHECKED - JJE	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SEQUENCE OF OPERATION
IL ROUTE 7 (143RD STREET) AND SOUTHWEST HIGHWAY/UNION STREET**

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	21
CONTRACT NO. 61G98			ILLINOIS FED. AID PROJECT	

**TS 1915
EAGLE 3H**

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

																												PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 5												
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	1					4					4					4					9			9	9	12			12												
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	1AA	1BB	1CC	1DD	1EE	1FF	1GG	1HH	1JJ	1KK	1LL	1MM	1NN	2	3	4	CLEAR TO NORMAL SEQUENCE	
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	1D	1E	1F	3 OR 4	1H	1J	1K	1L	2	1N	1P	1Q	1R	3	1T	1U	1V	1W	4	1Y	1Z	1AA	2	1CC	3	1EE	4	1GG	1HH	2	1KK	1LL	1MM	1NN	3 OR 4					
IL RTE 7 - 143RD ST RIGHT MAST ARM AND FAR RIGHT SIGNALS AT IL RTE 7 (SOUTHWEST HWY)	EB	G	G	G	G	Y	R	G	G	G	G	G	G	G	Y	R	G	G	G	Y	R	R	R	R	R	R	R	R	R	G	G	G	G	G	G	Y	R	G	R	R	◇	
IL RTE 7 - 143RD ST END MAST ARM AND FAR LEFT SIGNALS AT IL RTE 7 (SOUTHWEST HWY)	EB	←G	←G	←G	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←G	←G	←G	←G	←G	←G	←Y	←R	←G	←R	←R	◇		
IL RTE 7 - 143RD ST NEAR RIGHT, FAR RIGHT AND RIGHT MAST ARM SIGNALS AT UNION ST	EB	G	G	Y	R	R	R	G	G	G	G	G	Y	R	R	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
IL RTE 7 - 143RD ST END MAST ARM AND FAR LEFT MAST ARM SIGNALS AT UNION ST	EB	←G	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	◇	
143RD ST NEAR RIGHT AND FAR RIGHT SIGNALS AT IL RTE 7 (SOUTHWEST HWY)	WB	R	R	R	R	R	R	G	Y	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
143RD ST MAST ARM SIGNALS AT IL RTE 7 (SOUTHWEST HWY)	WB	R	R	R	R	R	R	G	Y	R	R	R	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
143RD ST ALL SIGNALS AT UNION ST	WB	R	R	R	R	R	R	G	G	G	Y	R	G	G	G	G	G	G	G	G	G	←G	←G	Y	R	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	←G	◇
IL RTE 7 - SOUTHWEST HWY NEAR RIGHT AND FAR RIGHT SIGNALS	SB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	Y	R	G	G	R	R	R	R	R	R	R	R	R	R	R	◇	
IL RTE 7 - SOUTHWEST HWY CENTER AND FAR LEFT SIGNALS	SB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	Y	R	←G	←G	R	R	R	R	R	R	R	R	R	R	R	R	◇	
UNION ST ALL SIGNALS	SB	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
PEDESTRIAN SIGNALS CROSSING UNION ST ON THE SOUTH SIDE OF 143RD ST	FH	FH	H	H	H	H	FH	H	H	H	H	FH	H	H	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇	
PEDESTRIAN SIGNALS CROSSING UNION ST ON THE NORTH SIDE OF 143RD ST	H	H	H	H	H	H	FH	H	H	H	H	FH	H	H	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇		
PEDESTRIAN SIGNALS CROSSING 143RD ST ON THE EAST AND WEST SIDE OF UNION ST	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	FH	H	H	FH	H	H	H	H	H	H	◇		

◇ EMERGENCY VEHICLE PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE PREEMPTION INTERVAL AFTER EMERGENCY VEHICLE PREEMPTION INTERVAL 2, 3 OR 4 IS TERMINATED.

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE
IL ROUTE 7 (143RD STREET) AND SOUTHWEST HIGHWAY/UNION STREET**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	22
CONTRACT NO. 61G98				
ILLINOIS FED. AID PROJECT				

**TS 1915
EAGLE 3H**

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

PROPOSED RAILROAD PREEMPTION SEQUENCE OF OPERATION

	PREEMPTOR NUMBER 3				PREEMPTOR NUMBER 4				PREEMPTOR NUMBER 5				PREEMPTOR NUMBER 2					
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	4	9	12														
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE INTERVAL NUMBER					2	3	4											
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1U	1V	1W	2	3	4	5	CLEAR TO NORMAL SEQUENCE
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	1D	2	1F	2	1H	2	1K	2	2	1W	2	3	4	5		
IL RTE 7 - 143RD ST RIGHT MAST ARM AND FAR RIGHT SIGNALS AT IL RTE 7 (SOUTHWEST HWY)	EB	Y	R	Y	R	R	R	Y	R	Y	R	R	R	R	R	R	R	△
IL RTE 7 - 143RD ST END MAST ARM AND FAR LEFT SIGNALS AT IL RTE 7 (SOUTHWEST HWY)	EB	←Y	←R	←R	←R	←R	←R	←Y	←R	←Y	←R	←R	←R	←R	←R	←R	←R	△
IL RTE 7 - 143RD ST NEAR RIGHT, FAR RIGHT AND RIGHT MAST ARM SIGNALS AT UNION ST	EB	Y	R	Y	R	R	R	R	Y	R	R	R	R	R	R	R	R	△
IL RTE 7 - 143RD ST END MAST ARM AND FAR LEFT MAST ARM SIGNALS AT UNION ST	EB	←Y	←R	←R	←R	←R	←R	←R	←Y	←R	←R	←R	←R	←R	←R	←R	←R	△
143RD ST NEAR RIGHT AND FAR RIGHT SIGNALS AT IL RTE 7 (SOUTHWEST HWY)	WB	R	R	G	G	R	R	R	R	R	G	R	R	G	Y	R	R	△
143RD ST MAST ARM SIGNALS AT IL RTE 7 (SOUTHWEST HWY)	WB	R	R	G	G	R	R	R	R	R	G	R	R	G	Y	R	R	△
143RD ST ALL SIGNALS AT UNION ST	WB	R	R	G	G	←G	←G	R	R	R	←G	←G	←G	←G	←G	←G	←G	△
IL RTE 7 - SOUTHWEST HWY NEAR RIGHT AND FAR RIGHT SIGNALS	SB	R	R	R	R	Y	R	R	R	R	R	Y	R	R	R	R	R	△
IL RTE 7 - SOUTHWEST HWY CENTER AND FAR LEFT SIGNALS	SB	R	R	R	R	Y	R	R	R	R	R	Y	R	R	R	R	R	△
UNION ST ALL SIGNALS	SB	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	△
PEDESTRIAN SIGNALS CROSSING UNION ST ON THE SOUTH SIDE OF 143RD ST	FH	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	△
PEDESTRIAN SIGNALS CROSSING UNION ST ON THE NORTH SIDE OF 143RD ST	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	△
PEDESTRIAN SIGNALS CROSSING 143RD ST ON THE EAST AND WEST SIDE OF UNION ST	H	H	H	H	H	H	FH	H	H	H	H	H	H	H	H	H	H	△
INTERNALLY ILLUMINATED NO LEFT TURN SIGNS - SB	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	△
																		HOLD

△ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE PREEMPTION INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

NLT = "NO LEFT TURN" OR 

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USER NAME = AS2	DESIGNED - AS	REVISED -
	DRAWN - AS	REVISED -
PLOT SCALE = 40,0000' / in.	CHECKED - JJE	REVISED -
PLOT DATE = 3/31/2021	DATE - 3/31/2021	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**RAILROAD PEEMPTION SEQUENCE
IL ROUTE 7 (143RD STREET) AND SOUTHWEST HIGHWAY/UNION STREET**

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	23
CONTRACT NO. 61G98				
ILLINOIS FED. AID PROJECT				

**TS 1915
EAGLE 3H**



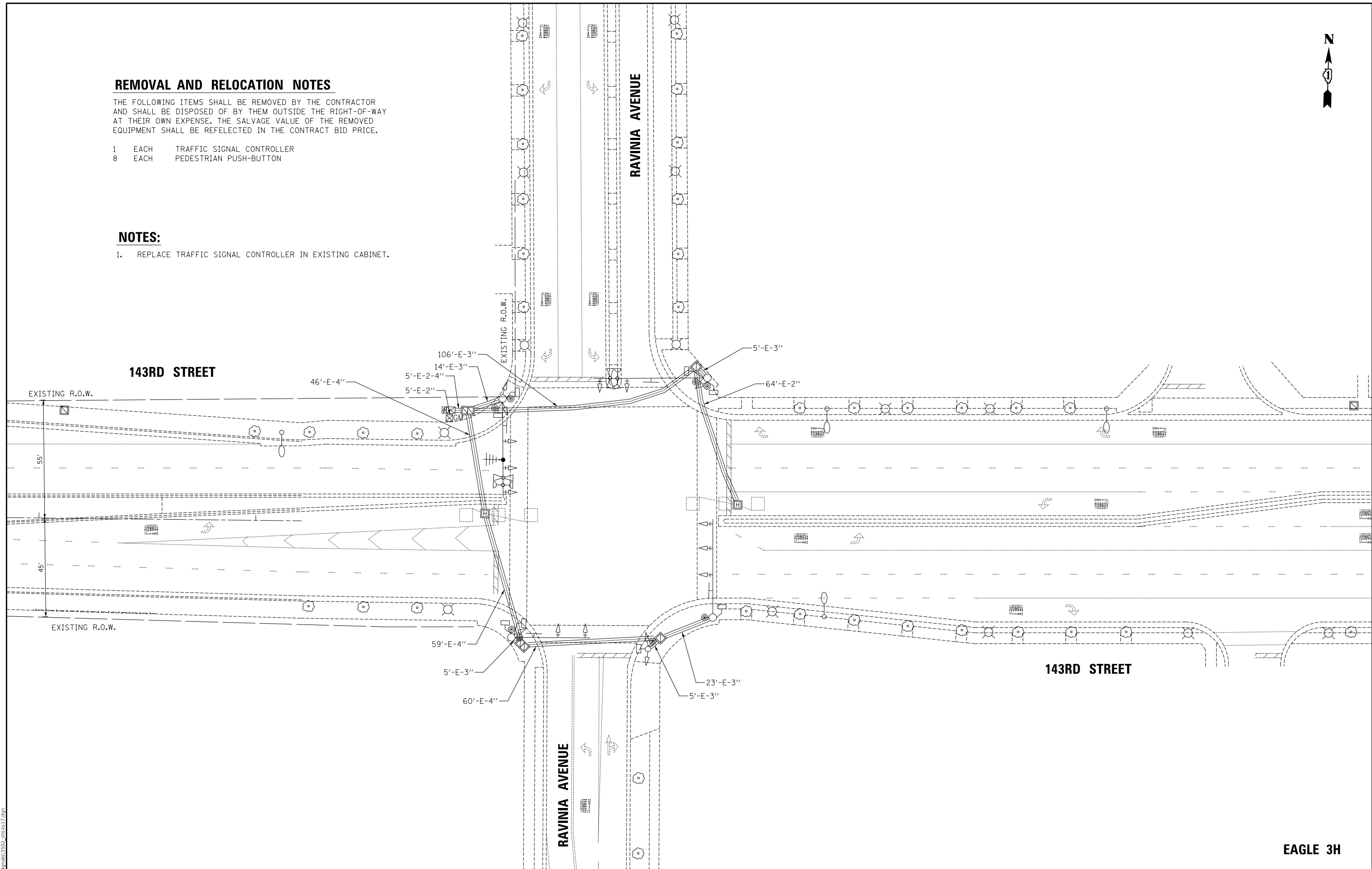
REMOVAL AND RELOCATION NOTES

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

- 1 EACH TRAFFIC SIGNAL CONTROLLER
- 8 EACH PEDESTRIAN PUSH-BUTTON

NOTES:

- 1. REPLACE TRAFFIC SIGNAL CONTROLLER IN EXISTING CABINET.



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PLOT SCALE = 40.0000' / in.	CHECKED - JJE	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

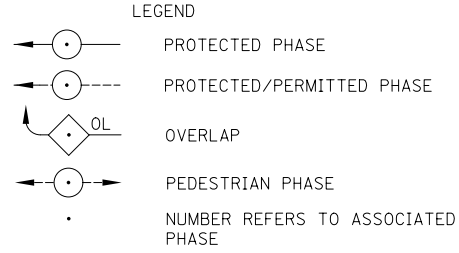
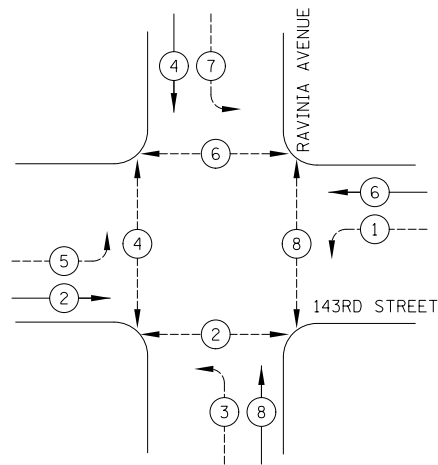
TRAFFIC SIGNAL MODIFICATION PLAN
143RD STREET AND RAVINIA AVENUE

SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.

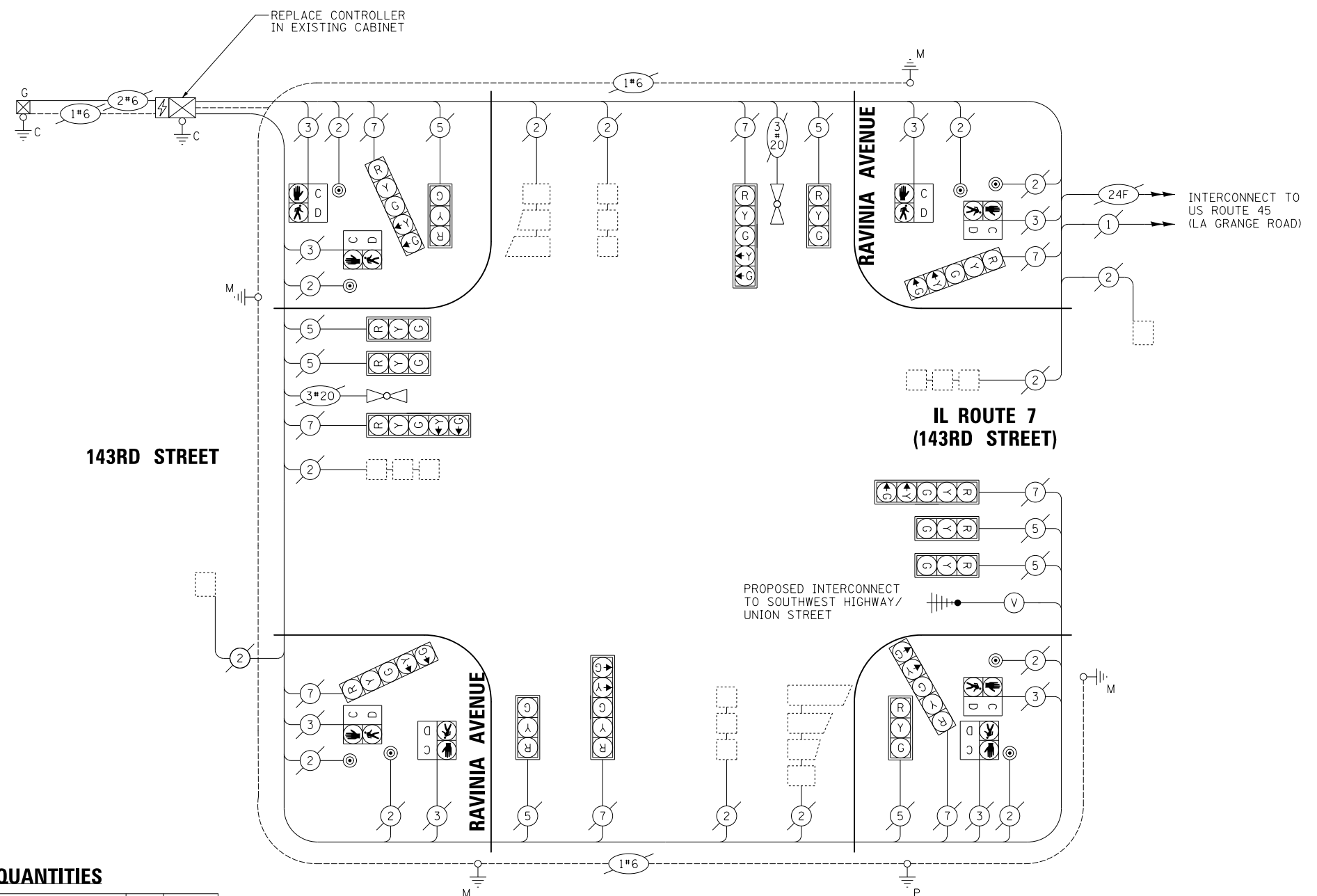
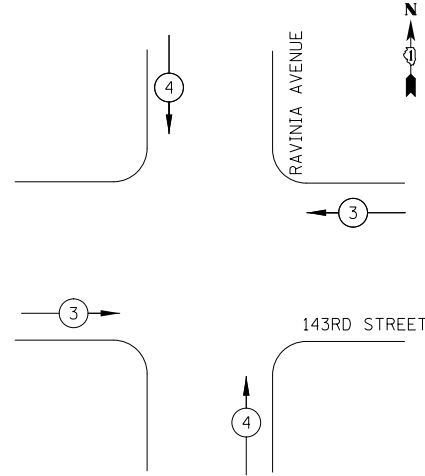
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	24
CONTRACT NO. 61G98				
ILLINOIS FED. AID PROJECT				

EAGLE 3H

EXISTING AND PROPOSED CONTROLLER SEQUENCE:



EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE:



CABLE PLAN
(NOT TO SCALE)

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
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 =				491.4

ENERGY COSTS TO:
 VILLAGE OF ORLAND PARK
 14700 RAVINIA AVE.
 ORLAND PARK, IL 60462
 ENERGY SUPPLY: CONTACT: NEW BUSINESS
 PHONE: (866) 639-3532
 COMPANY: COMMONWEALTH EDISON
 ACCOUNT NUMBER: ---

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN PUSH-BUTTON	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM,
EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
143RD STREET AND RAVINIA AVENUE

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	25

CONTRACT NO. 61G98

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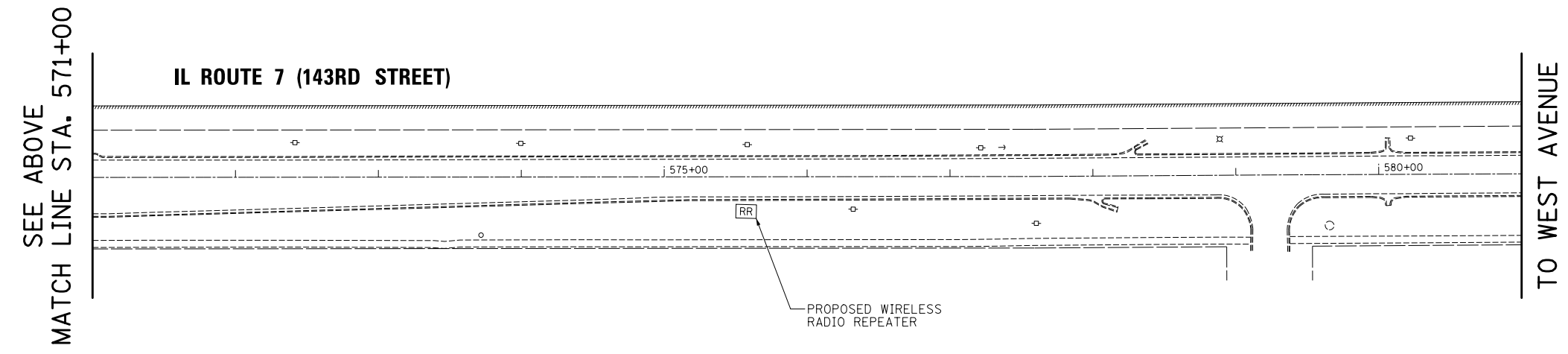
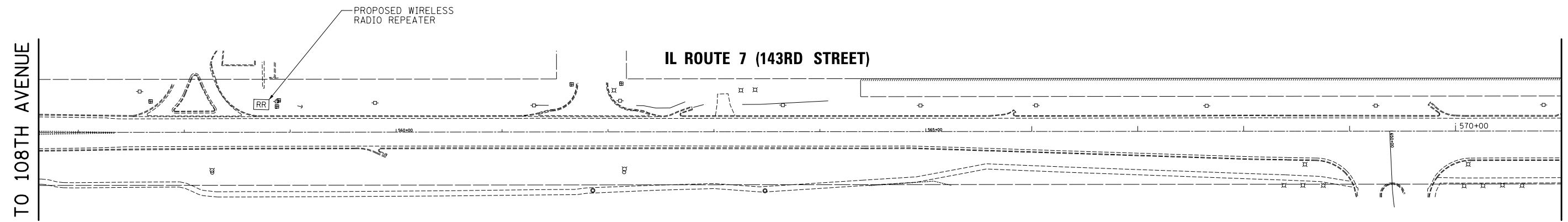


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PLOT SCALE = 40.0000' / in.	DRAWN - AS	REVISED -
PLOT DATE = 3/31/2021	CHECKED - JJE	REVISED -
	DATE - 3/31/2021	REVISED -

SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.

EAGLE 3H

ILLINOIS FED. AID PROJECT



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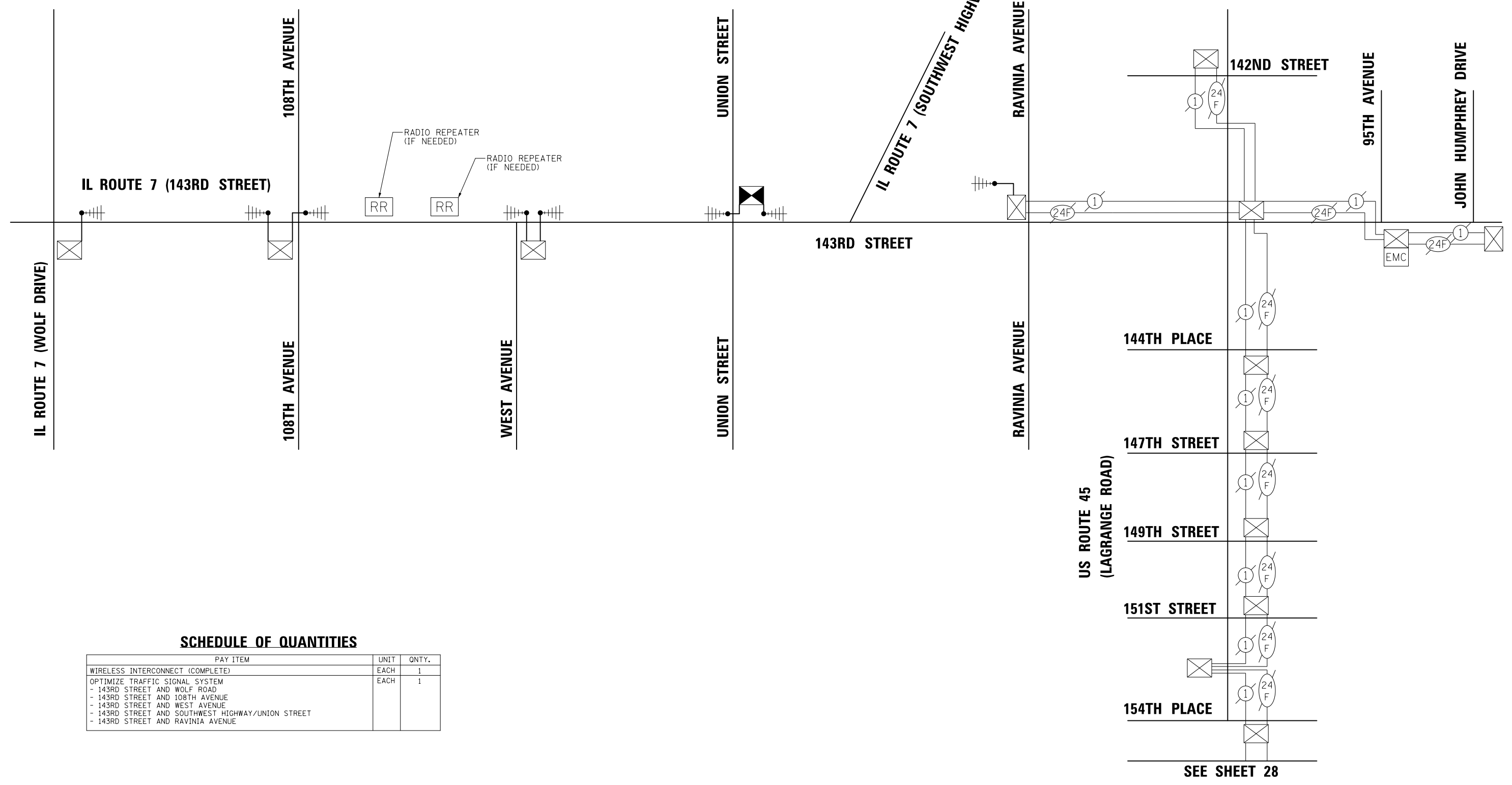
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	DRAWN - MC	REVISED -
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PLOT DATE = 3/31/2021	DATE - 3/31/2021	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INTERCONNECT PLAN
IL ROUTE 7 (143RD STREET) BETWEEN 108TH AVENUE AND WEST AVENUE

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	26
CONTRACT NO. 61G98				
ILLINOIS FED. AID PROJECT				

EAGLE 3H



SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
WIRELESS INTERCONNECT (COMPLETE)	EACH	1
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
- 143RD STREET AND WOLF ROAD		
- 143RD STREET AND 108TH AVENUE		
- 143RD STREET AND WEST AVENUE		
- 143RD STREET AND SOUTHWEST HIGHWAY/UNION STREET		
- 143RD STREET AND RAVINIA AVENUE		

MODEL: \\MODEL\NAME: ...
 FILE NAME: ...



USER NAME = AS2	DESIGNED - AS	REVISED -
PLOT SCALE = 40,0000 ' / in.	DRAWN - AS	REVISED -
PLOT DATE = 3/31/2021	CHECKED - JJE	REVISED -
	DATE - 3/31/2021	REVISED -

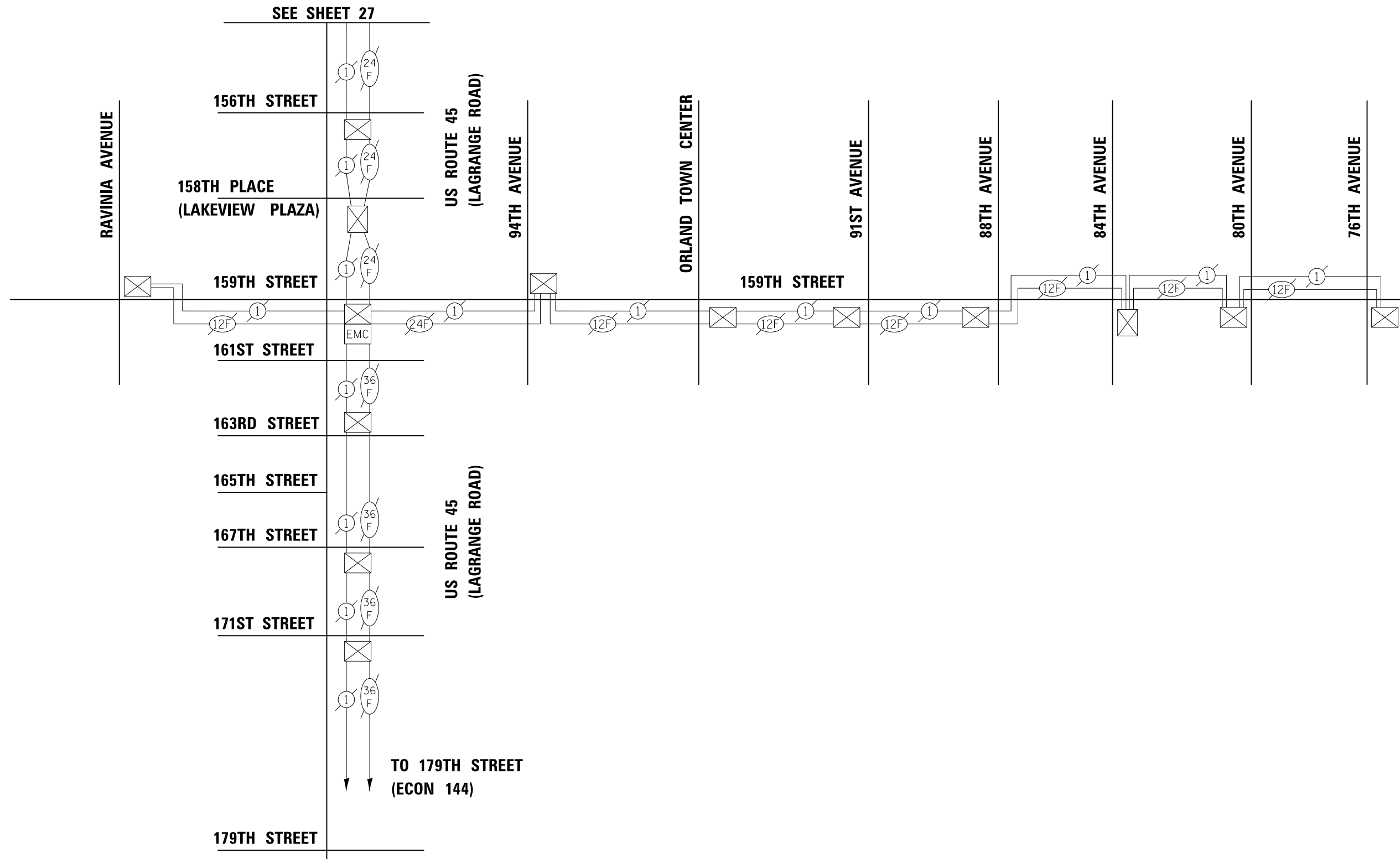
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT SCHEMATIC AND
SCHEDULE OF QUANTITIES (SHEET 1 OF 2)
143RD STREET - WOLF ROAD TO US ROUTE 45 AND US ROUTE 6

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	27
ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G98	

EAGLE 3H



MODEL: \\MODEL\NAME: ...
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USER NAME = AS2	DESIGNED - AS	REVISED -
	DRAWN - AS	REVISED -
PLOT SCALE = 40,0000' / in.	CHECKED - JJE	REVISED -
PLOT DATE = 3/31/2021	DATE - 3/31/2021	REVISED -

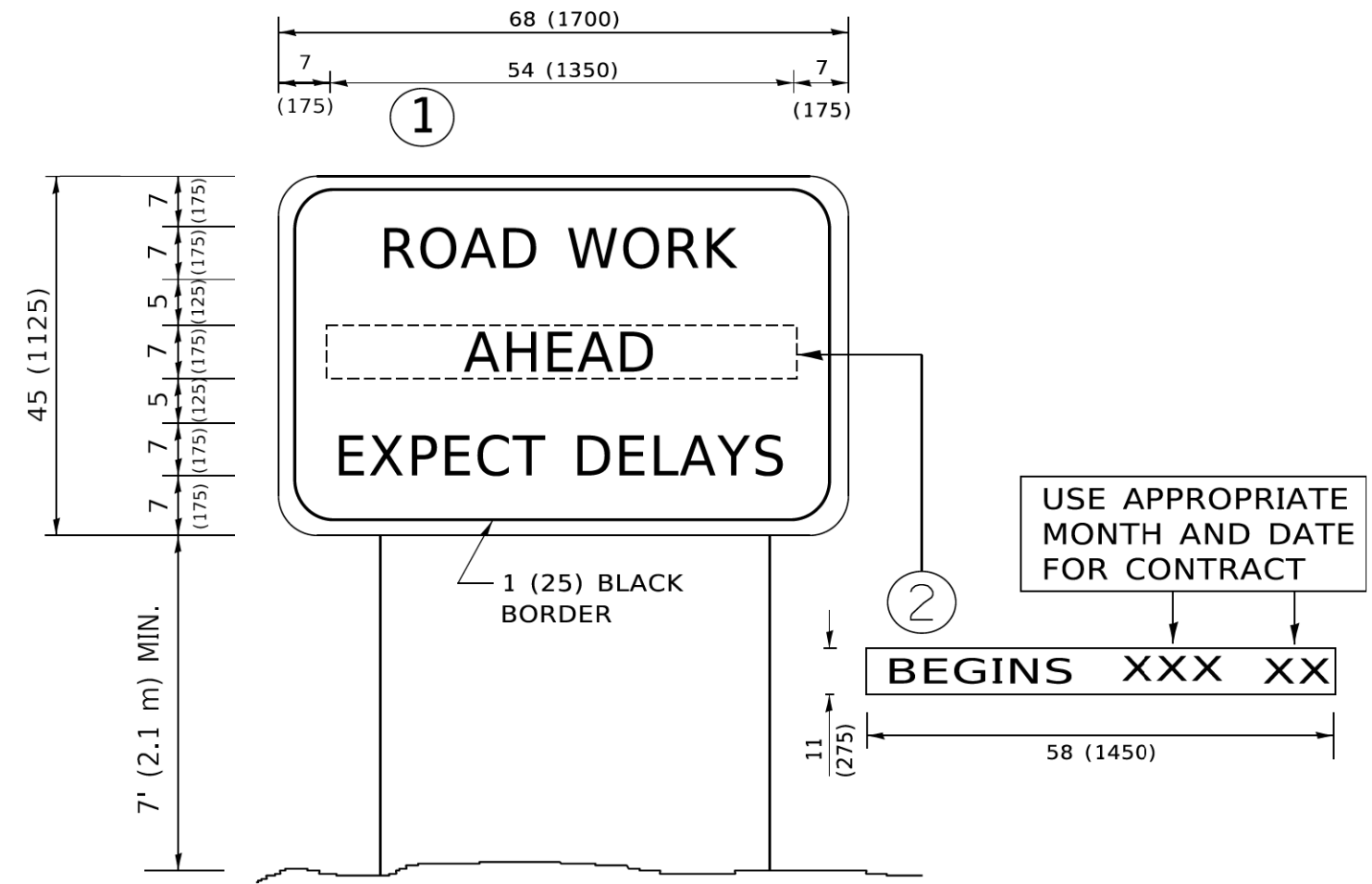
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT SCHEMATIC AND
SCHEDULE OF QUANTITIES (SHEET 2 OF 2)
143RD STREET - WOLF ROAD TO US ROUTE 45 AND US ROUTE 6

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	28
ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G98	

EAGLE 3H



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:\draft\...
 FILE NAME: P:\PROJECTS\...

USER NAME	footemj	DESIGNED	-	REVISED	- R, MIRS 09-15-97
PLOT SCALE	50,0000 * / in.	DRAWN	-	REVISED	- R, MIRS 12-11-97
PLOT DATE	3/4/2019	CHECKED	-	REVISED	- T. RAMMACHER 02-02-99
		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.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1600	20-00087-00-TL	COOK	30	30
TC-22			CONTRACT NO. 61G98	
ILLINOIS FED. AID PROJECT				