

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
-	(29X,8X)TS-2	SALINE	17	1
		ILLINOIS	CONTRACT NO. 78B06	

FAP 132/FAP 332/FAS 899

D-99-012-25

FOR INDEX OF SHEETS, SEE SHEET NO. 4-6

PROPOSED  
HIGHWAY PLANS

FAP 132/FAP 332/FAS 899 ROUTE (US 45/POPLAR ST.)  
SECTION (29X,8X)TS-2

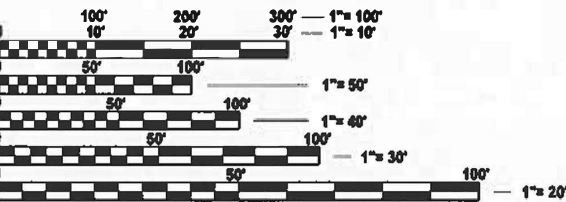
TRAFFIC DATA

ADT (2023) 14,900 (US 45)  
6,400 (POPLAR ST.)

TRAFFIC SIGNAL MODIFICATION  
SALINE COUNTY

C-99-039-25

TOWNSHIP: HARRISBURG  
DESIGN DESIGNATION: N/A  
COORDINATE SYSTEM: US / STATE PLANE 1983  
ZONE: ILLINOIS EAST 1201 FEET  
POSTED SPEED: 30 MPH

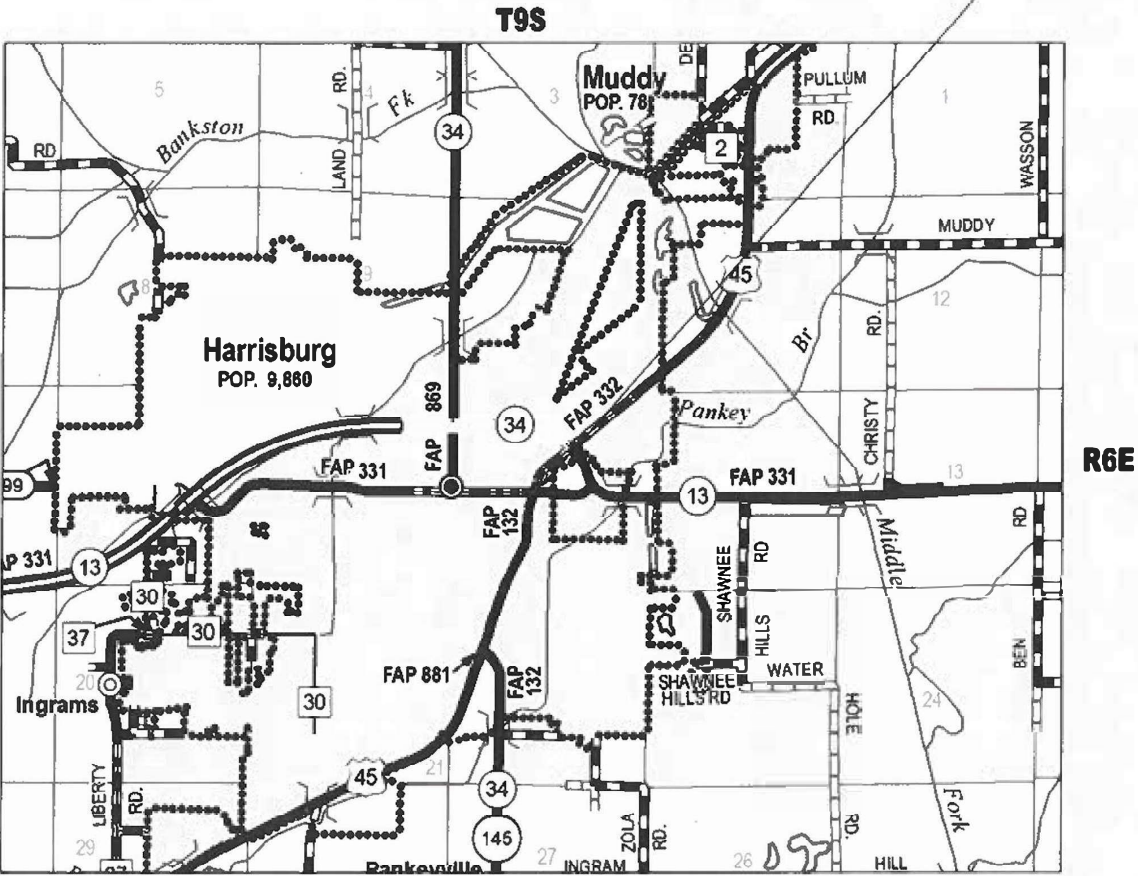


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD  
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT  
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS  
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER SEAN GREENLEE  
PROJECT MANAGER SEAN GREENLEE

CONTRACT NO. 78B06



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION







SUBMITTED March 24, 2025  
Lora S. Rasmussen  
REGIONAL ENGINEER

May 9, 2025  
Sean Greenlee  
ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 2025  
John Murphy  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

MODEL 02 Signature (Sheet)  
FILE NAME: C:\pwworkspace\greenlee\1067619\097806-SMA-Cover.dgn

Prepared By:	 DISTRICT STUDIES & PLANS ENGINEER
Examined By:	 DISTRICT LAND ACQUISITION ENGINEER
Examined By:	 DISTRICT PROGRAM DEVELOPMENT ENGINEER
Examined By:	 DISTRICT OPERATIONS ENGINEER
Examined By:	 DISTRICT PROJECT IMPLEMENTATION ENGINEER
Examined By:	 DISTRICT CONSTRUCTION ENGINEER
Examined By:	 DISTRICT MATERIALS ENGINEER

	USER NAME = sean.greenlee	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SIGNATURE SHEET					F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -							.	(29X.8X)TS-2	SALINE	17	2
		CHECKED -	REVISED -		CONTRACT NO. 78B06									
	PLOT DATE = 3/26/2025	DATE -	REVISED -		ILLINOIS FED. AID PROJECT									
				SCALE:	SHEET 2	OF 17	SHEETS	STA.	TO STA.					

INDEX OF SHEETS

SHEET NO	DESCRIPTION
1	COVER SHEET
2	SIGNATURE SHEET
3	INDEX OF SHEETS, HIGHWAY STANDARDS, COMMITMENTS,GENERAL NOTES, MIX DESIGN
4-6	SUMMARY OF QUANTITIES
7	SCHEDULES
8	EXISTING TRAFFIC SIGNALS
9	PROPOSED TRAFFIC SIGNALS
10	PROPOSED WIRING DIAGRAM
11	PROPOSED LIGHTING PLAN
12	PROPOSED LIGHTING WIRING DIAGRAM AND LUMINAIRE PERFORMANCE TABLE
13	DETAILS: HANDHOLE AND MAST ARM GROUNDING SIGNAL PHASE DIAGRAM
14	DETAILS: SIGN DETAILS, CABINET FOR SERVICE INSTALLATION GROUND MOUNT AND CONCRETE FOUNDATION, GROUND MOUNT
15	DETAILS: POLE STANDARDS
16-17	DETAILS: MAST ARM BORINGS

HIGHWAY STANDARDS

000001-08 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS  
001001-02 AREAS OF REINFORCEMENT BARS  
001006 DECIMAL OF AN INCH AND OF A FOOT  
701101-05 OFF-ROAD OPERATIONS, MULTILANE, 15 FT TO 24 IN FROM PAVEMENT EDGE  
701106-02 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN15 FT AWAY  
701701-10 URBAN LANE CLOSURE, MULTILANE INTERSECTION  
701901-10 TRAFFIC CONTROL DEVICES  
720001-01 SIGN PANEL MOUNTING DETAILS  
720016-04 MAST ARM MOUNTED STREET NAME SIGNS  
805001-01 ELECTRICAL SERVICE INSTALLATION DETAILS  
814001-03 HANDHOLES  
821101-03 LUMINAIRE WIRING IN POLE  
857001-01 STANDARD PHASE DESIGNATION DIAGRAMS & PHASE SEQUENCES  
862001-01 UNINTERRUPTABLE POWER SUPPLY (UPS)  
873001-02 TRAFFIC SIGNAL GROUNDING & BONDING  
877011-10 STEEL COMB, MAST ARM ASSEMBLY & POLE 16' THROUGH 55'  
877012-07 STEEL COMB, MAST ARM ASSEMBLY & POLE 56' THROUGH 75'  
878001-11 CONCRETE FOUNDATION DETAILS  
880006-01 TRAFFIC SIGNAL MOUNTING DETAILS

GENERAL NOTES

NONE

COMMITMENTS

NONE

REV - MS

MODEL: Index\_Gen\_Notes\_HighwayStd\_Comm [Sheet]  
FILE NAME: c:\pwworking\dwg\gennotes\1067819D978B06-SHB-Index\_GenNotes.dgn

	USER NAME = seam.gr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, GENERAL NOTES,			F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					*	(29X,8X)TS-2	SALINE	17	3
		CHECKED -	REVISED -					CONTRACT NO. 78B06				
	PLOT DATE = 3/25/2025	DATE -	REVISED -		SCALE:	SHEET 3	OF 1/7 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	COUNTY:	SALINE	SALINE
				ROUTE:	US 45	US 45
				FUNDING:	100% STATE	100% STATE
				LOCATION:	RURAL	RURAL
					ROADWAY	TRAFFIC SIGNALS
					0005	0021
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	286		286	
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	40		40	
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	1		1	
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1		1	
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1		1	
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DA	5		5	
67100100	MOBILIZATION	L SUM	1		1	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1		1	
70107025	CHANGEABLE MESSAGE SIGN	CAL DA	56		56	
* 72000100	SIGN PANEL - TYPE 1	SQ FT	47			47
80300100	LOCATING UNDERGROUND CABLE	FOOT	80			80
80500010	SERVICE INSTALLATION - GROUND MOUNTED	EACH	1			1
81028360	UNDERGROUND CONDUIT, PVC, 2 1/2" DIA.	FOOT	55			55
81028390	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	330			330

\* SPECIALTY ITEM

MODEL: SQQ [Sheet]  
FILE NAME: c:\pw\work\pvt\greenlee\md1067\19\0578806-SHC-SQ.dgn



SUMMARY OF QUANTITIES - CONT

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	COUNTY:	SALINE	SALINE
				ROUTE:	US 45	US 45
				FUNDING:	100% STATE RURAL	100% STATE RURAL
				LOCATION:	ROADWAY	TRAFFIC SIGNALS
				0005	0021	
81400100	HANDHOLE	EACH	3			3
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1,968			1,968
82110007	LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH	5			5
85700300	FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	1			1
86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1			1
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,120			1,120
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	450			450
87501000	TRAFFIC SIGNAL POST, 14 FT.	EACH	1			1
87702900	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT.	EACH	1			1
87702950	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT.	EACH	2			2
87702990	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 54 FT.	EACH	1			1
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	3			3
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	3			3
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	36			36

MODEL: SQQ-1 [Sheet]  
FILE NAME: c:\pwworking\pwworking\greenlee\mtd1067119\077806-SHYC-SQQ.dgn

REV - MS

	USER NAME   =  sean.greenlee	DESIGNED   -	REVISED   -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN    -	REVISED   -						*	(29X,8X)TS-2	SALINE	17	5	
		CHECKED   -	REVISED   -		CONTRACT NO. 78B06									
	PLOT DATE   =  3/26/2025	DATE       -	REVISED   -		SCALE:	SHEET 5	OF 17	SHEETS	STA.	TO STA.	ILLINOIS   FED. AID PROJECT			

SUMMARY OF QUANTITIES - CONT

SUMMARY OF QUANTITIES - CONT			COUNTY:	SALINE	SALINE
			ROUTE:	US 45	US 45
			FUNDING:	100% STATE RURAL	100% STATE RURAL
			LOCATION:	ROADWAY	TRAFFIC SIGNALS
CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	0005	0021
87900200	DRILL EXISTING HANDHOLE	EACH	2		2
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	12		12
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	8		8
88200510	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	20		20
89501250	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1		1
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1		1
XP000179	GROUND ROD, 8', COPPER CLAD	EACH	4		4
X1400267	REMOVAL OF LIGHTING LUMINAIRE, NO SALVAGE	EACH	4		4
X4402020	CONCRETE MEDIAN SURFACE REMOVAL	SQ FT	276	276	
X8250091	COMBINATION LIGHTING CONTROLLER	EACH	1		1
Z0033062	RADIO TRANSCEIVER	EACH	1		1

REV - MS

MODEL: SQQ-2 [Sheet]  
FILE NAME: c:\pw\_workspace\tdg\greenlee\mtd1067h19\0978806-SHYC-SQQ.dgn

	USER NAME   =  sean.greenlee	DESIGNED   -	REVISED   -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN    -	REVISED   -						*	(29X,8X)TS-2	SALINE	17	6
		CHECKED   -	REVISED   -		CONTRACT NO. 78B06								
	PLOT DATE   =  3/26/2025	DATE       -	REVISED   -		ILLINOIS   FED. AID PROJECT								
					SCALE:	SHEET 6	OF 17	SHEETS	STA.	TO STA.			

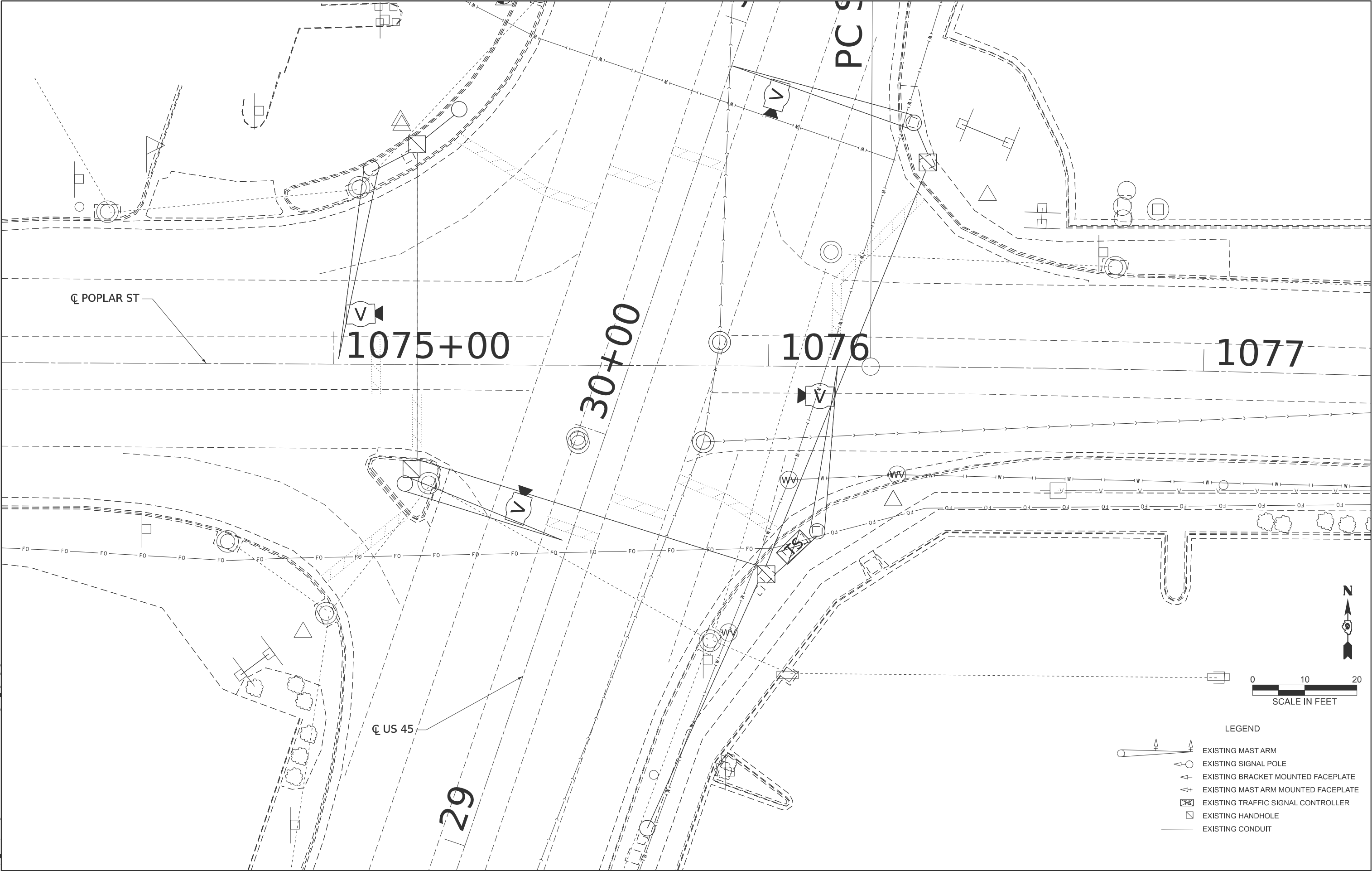
MEDIAN SURFACE SCHEDULE								
LOCATION STATION TO STATION					WIDTH  (FEET)	CONCRETE MEDIAN SURFACE REMOVAL  (SQ FT)	CONCRETE MEDIAN SUFACE, 4 INCH  (SQ FT)	COMMENTS
NORTHWEST RADIUS								
1075+01.39	LT	TO	30+70.88	RT	5' & VAR	197	207	OLD 13 STATIONING TO US45 STATIONING
SOUTHWEST ISLAND								
1075+08.73	RT	TO	1075+24.03	RT	VAR	79	79	OLD 13 STATIONING
TOTALS						276	286	

SIGNING SCHEDULE		
LOCATION STATION TO STATION	SIGN PANEL - TYPE 1 (SQ FT)	COMMENTS
NORTHWEST RADIUS		
MAST ARM	7.5	Commercial St.
MAST ARM	5	LEFT TURN SIGNAL
NORTHEAST RADIUS		
MAST ARM	6	Poplar St.
MAST ARM	5	LEFT TURN SIGNAL
SOUTHWEST ISLAND		
MAST ARM	6	Poplar St.
MAST ARM	5	LEFT TURN SIGNAL
SOUTHEAST RADIUS		
MAST ARM	7.5	Commercial St.
MAST ARM	5	LEFT TURN SIGNAL
TOTALS		

MODEL: Schedule - 1 [Sheet]  
FILE NAME: c:\pw\_work\pwtd\greenleesmd1067813\ID978B06-SHE-Schedules.dgn

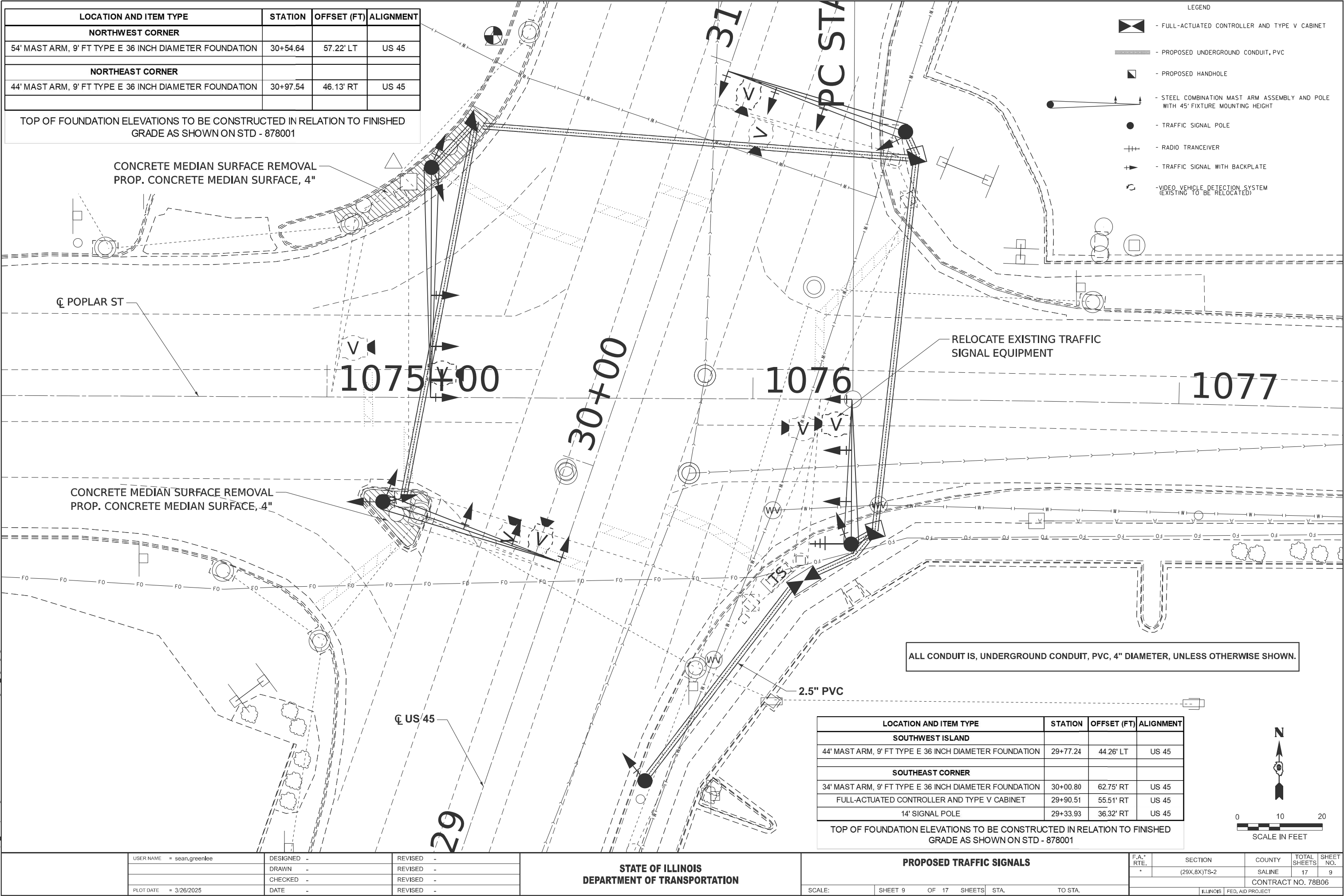
	USER NAME = sean.greenlee	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES			F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -					*	(29X,8X)TS-2	SALINE	17	7
		CHECKED -	REVISED -		SCALE:			CONTRACT NO. 78B06				
	PLOT DATE = 3/26/2025	DATE -	REVISED -		SHEET 7	OF 17	SHEETS	STA.	TO STA.	ILLINOIS   FED. AID PROJECT		

MODEL: Signals-1 [Sheet]  
FILE NAME: c:\p\work\tdlgreenlessmd1067819\ID978B06-Sylu-Signals\_Lighting.dgn



- LEGEND
- EXISTING MAST ARM
  - EXISTING SIGNAL POLE
  - EXISTING BRACKET MOUNTED FACEPLATE
  - EXISTING MAST ARM MOUNTED FACEPLATE
  - EXISTING TRAFFIC SIGNAL CONTROLLER
  - EXISTING HANDHOLE
  - EXISTING CONDUIT

	USER NAME = sean.greenlee		DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EXISTING TRAFFIC SIGNALS				F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			DRAWN -	REVISED -						*	(29X,8X)TS-2	SALINE	17	8
			CHECKED -	REVISED -						CONTRACT NO. 78B06				
	PLOT DATE = 3/26/2025		DATE -	REVISED -		SCALE:	SHEET 8	OF 17	SHEETS	STA.	TO STA.	ILLINOIS	FED. AID PROJECT	



MODEL: Signals-2 [Sheet]  
FILE NAME: c:\p\work\tdt\greenlee\md1067819\0978B06-SYU-Signals\_Lighting.dgn

	USER NAME	= sean.greenlee	DESIGNED	-	REVISED	-
			DRAWN	-	REVISED	-
			CHECKED	-	REVISED	-
	PLOT DATE	= 3/26/2025	DATE	-	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LOCATION AND ITEM TYPE	STATION	OFFSET (FT)	ALIGNMENT
SOUTHWEST ISLAND			
44' MAST ARM, 9' FT TYPE E 36 INCH DIAMETER FOUNDATION	29+77.24	44.26' LT	US 45
SOUTHEAST CORNER			
34' MAST ARM, 9' FT TYPE E 36 INCH DIAMETER FOUNDATION	30+00.80	62.75' RT	US 45
FULL-ACTUATED CONTROLLER AND TYPE V CABINET	29+90.51	55.51' RT	US 45
14' SIGNAL POLE	29+33.93	36.32' RT	US 45
TOP OF FOUNDATION ELEVATIONS TO BE CONSTRUCTED IN RELATION TO FINISHED GRADE AS SHOWN ON STD - 878001			

PROPOSED TRAFFIC SIGNALS			
SCALE:	SHEET 9	OF 17 SHEETS	STA. TO STA.

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(29X,8X)TS-2	SALINE	17	9
CONTRACT NO. 78B06				
ILLINOIS FED. AID PROJECT				





NOT TO SCALE



DRAWING NOT TO SCALE

NOTES

ALL CABLES SHALL BE A.W.G. #14 UNLESS OTHERWISE NOTED.

ELECTRIC SERVICE IS SUPPLIED BY AMEREN IL.

ELECTRIC CABLE DENOTED AS 2-IC NO. 6, 1/C NO. 8 GROUND BEING INSTALLED TO THE COMBINATION MAST ARM POLES SHALL NOT GO THROUGH THE TERMINAL BLOCK BUT SHOULD BE SPLICED IN POLE. SEE STEEL COMB. MAST ARM ASSEMBLY AND POLE DETAIL.

PROPOSED COAXIAL CABLE AND ANTENNA INCLUDED IN THE COST OF RADIO TRANSCEIVER.

ALL SIGNAL LENSES SHALL BE 12 INCHES.

SEE LIGHTING DETAIL SHEETS FOR THE ILLINOIS DEPARTMENT OF TRANSPORTATION LUMINAIRE PERFORMANCE TABLE

LEGEND

SIGNAL HEAD, LED, I-FACE, 3 SECTION, MAST ARM MOUNTED (W/ TRAFFIC SIGNAL BACKPLATE, RETROFLECTIVE)

SIGNAL HEAD, LED, I-FACE, 3 SECTION, BRACKET MOUNTED (W/ TRAFFIC SIGNAL BACKPLATE, RETROFLECTIVE)

SIGNAL HEAD, LED, I-FACE, 4 SECTION, MAST ARM MOUNTED (W/ TRAFFIC SIGNAL BACKPLATE, RETROFLECTIVE)

SIGNAL HEAD, LED, I-FACE, 4 SECTION, BRACKET MOUNTED (W/ TRAFFIC SIGNAL BACKPLATE, RETROFLECTIVE)

12" TRAFFIC SIGNAL SECTION. - SOLID RED  
 12" TRAFFIC SIGNAL SECTION. - SOLID YELLOW  
 12" TRAFFIC SIGNAL SECTION. - SOLID GREEN  
 12" TRAFFIC SIGNAL SECTION. - LEFT TURN RED  
 12" TRAFFIC SIGNAL SECTION. - LEFT TURN YELLOW  
 12" TRAFFIC SIGNAL SECTION. - LEFT TURN GREEN  
 12" TRAFFIC SIGNAL SECTION. - RIGHT TURN RED  
 12" TRAFFIC SIGNAL SECTION. - RIGHT TURN YELLOW

VIDEO/RADAR DETECTION SENSOR TO BE PAID FOR AS VIDEO VEHICLE DETECTION SYSTEM, AND RADAR VEHICLE DETECTION SYSTEM

TERMINAL BLOCK

SINGLE LUMINAIRE. NUMBER INDICATED ON DRAWING DENOTES FIXTURE NUMBER

TRAFFIC SIGNAL CONTROLLER CABINET

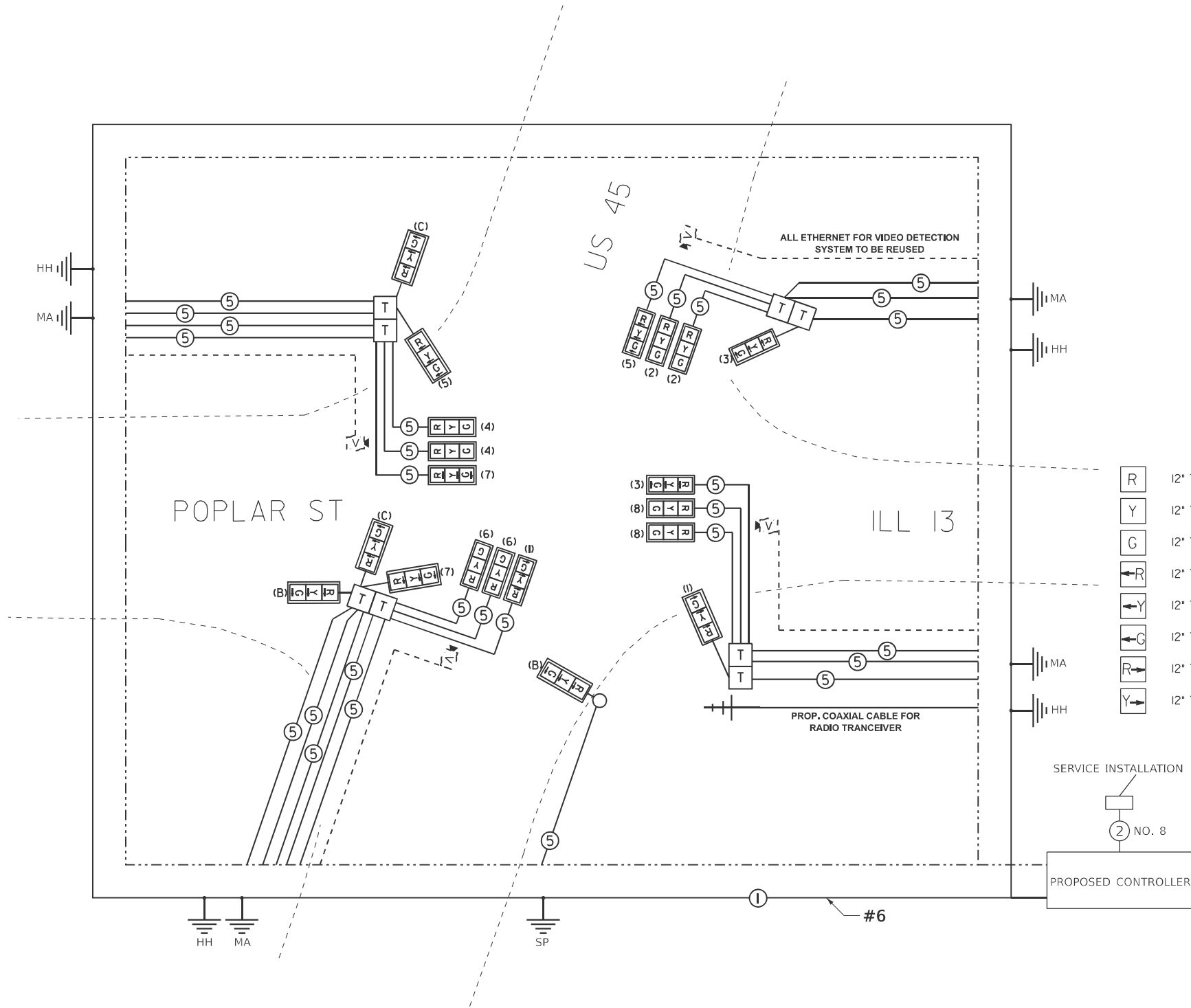
NUMBER IN CIRCLE INDICATES NUMBER OF CONDUCTORS IN THAT CABLE

NUMBER IN PARENTHESIS INDICATES PHASE

MA - MAST ARM

HH - HANDHOLE

SP - SIGNAL POLE



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED WIRING DIAGRAM

SCALE: SHEET 10 OF 17 SHEETS STA. TO STA.

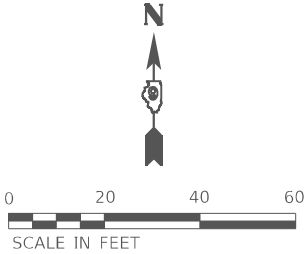
F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(29X,8X)TS-2	SALINE	17	10
CONTRACT NO. 78B06				
ILLINOIS FED. AID PROJECT				

FAP 132/FAP 332/FAS 899

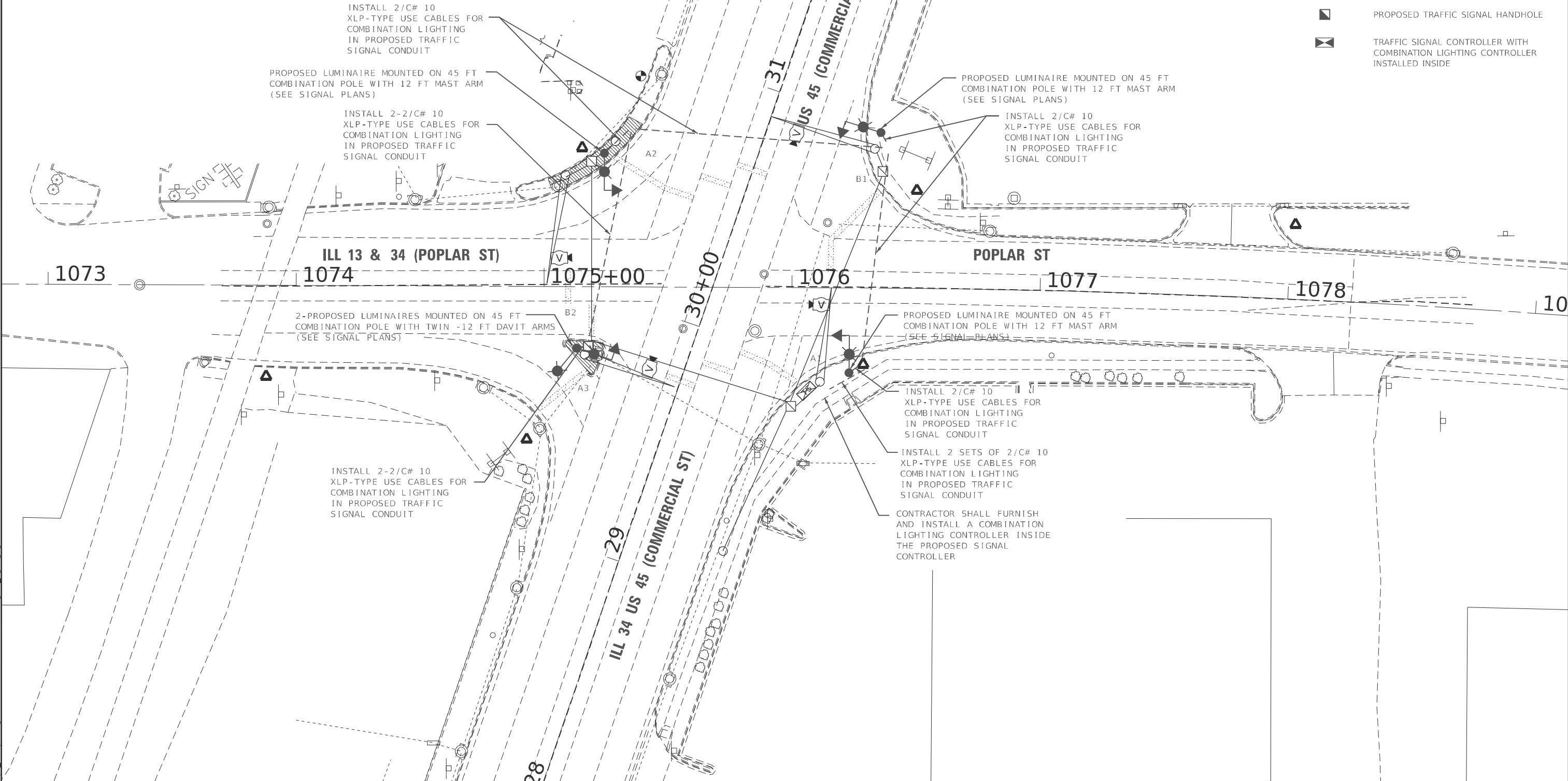
USER NAME = sean.greenlee	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 3/26/2025	DATE -	REVISED -

LIGHTING QUANTITY  
ILL 13 & 34 (POPLAR ST) AT US 45 (COMMERCIAL ST)

ITEM	UNIT	TOTAL QUANTITY
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION G	EACH	5
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1968
COMBINATION LIGHTING CONTROLLER	EACH	1



- PLAN LEGEND
- PROP LED COBRAHEAD COMBINATION LUMINAIRE ON 12' ARM MOUNTED AT 45'
  - 2-PROP LED COBRAHEAD COMBINATION LUMINAIRES ON TWIN 12' ARMS MOUNTED AT 45'
  - PROPOSED COMBINATION LIGHTING CABLES IN TRAFFIC CONDUIT SIGNAL
  - EXISTING TRAFFIC SIGNAL HANDHOLE
  - PROPOSED TRAFFIC SIGNAL HANDHOLE
  - TRAFFIC SIGNAL CONTROLLER WITH COMBINATION LIGHTING CONTROLLER INSTALLED INSIDE



MODEL: Lighting-1 [Sheet]  
FILE NAME: c:\pwwork\greenlee\mtd1067819\0978B06-Signals-Lighting.dgn

USER NAME = sean.greenlee	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 3/26/2025	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED LIGHTING

SCALE: SHEET 11 OF 17 SHEETS STA. TO STA.

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(29X,8X)TS-2	SALINE	17	11
CONTRACT NO. 78B06				
ILLINOIS FED. AID PROJECT				



Luminaire Performance Table

Project

Date	Contract Number	Section Number	County
2/11/25	78B06	42X-I	SALINE

Marked Route Number	Municipality
US RTE 45	HARRISBURG

Roadway

Lane Width (see note 4)	Number and Direction of lanes	Median Width	Surface Classification	Q-Zero Value
12'	6 in one direction	N/A	R3	0.07

Structure

Mounting Height	Arm Length	Set-Back (see note 1)	Number of Luminaries
45'	12'	6'	N/A

Luminaire

Description	Transverse Distribution	Lateral Distribution
LUMINAIRE, LED, ROADWAY, DES. G	TYPE II	MEDIUM

Total Light Loss Factor (LLF)	B-U-G Rating	Shields	Dimming Protocol
Refer to Notes 6 and 7	U=0	N/A	0-10V

Layout

Spacing	Configuration
170'	STAGGERED

Performance (see notes 5 and 6)

Average Illuminance, $E_{AVE}$ (fc)	Uniformity Ratio, $E_{AVE}/E_{MIN}$
1.7	3.0

Average Luminance, $L_{AVE}$ (cd/m <sup>2</sup> )	Uniformity Ratio, $L_{AVE}/L_{MIN}$	Uniformity Ratio, $L_{MAX}/L_{MIN}$	Veiling Luminance Ratio, $L_v/L_{AVE}$
N/A	N/A	N/A	N/A

Light Trespass (see notes 5 and 7)

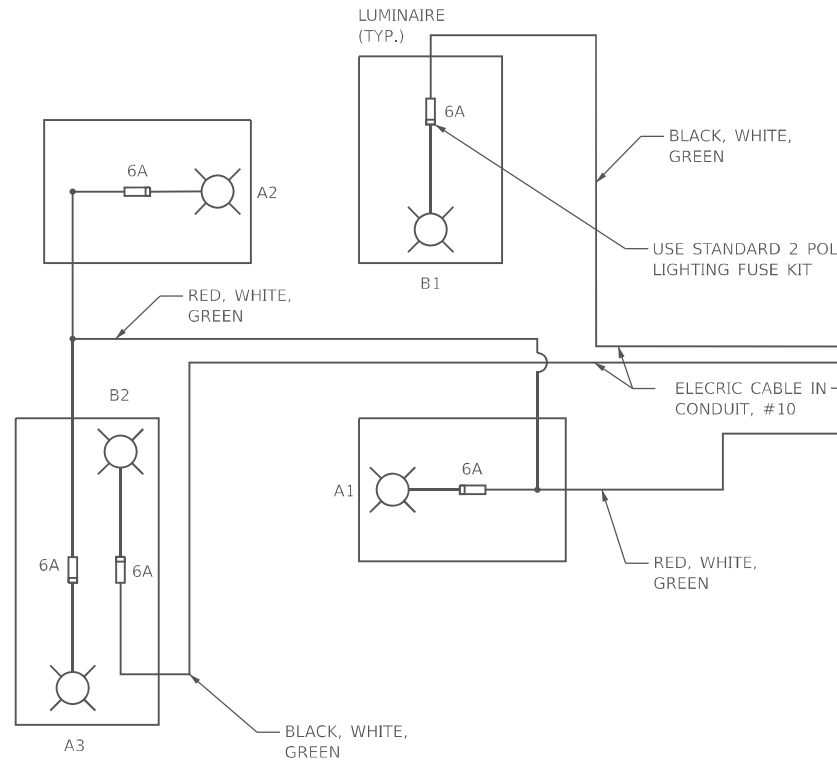
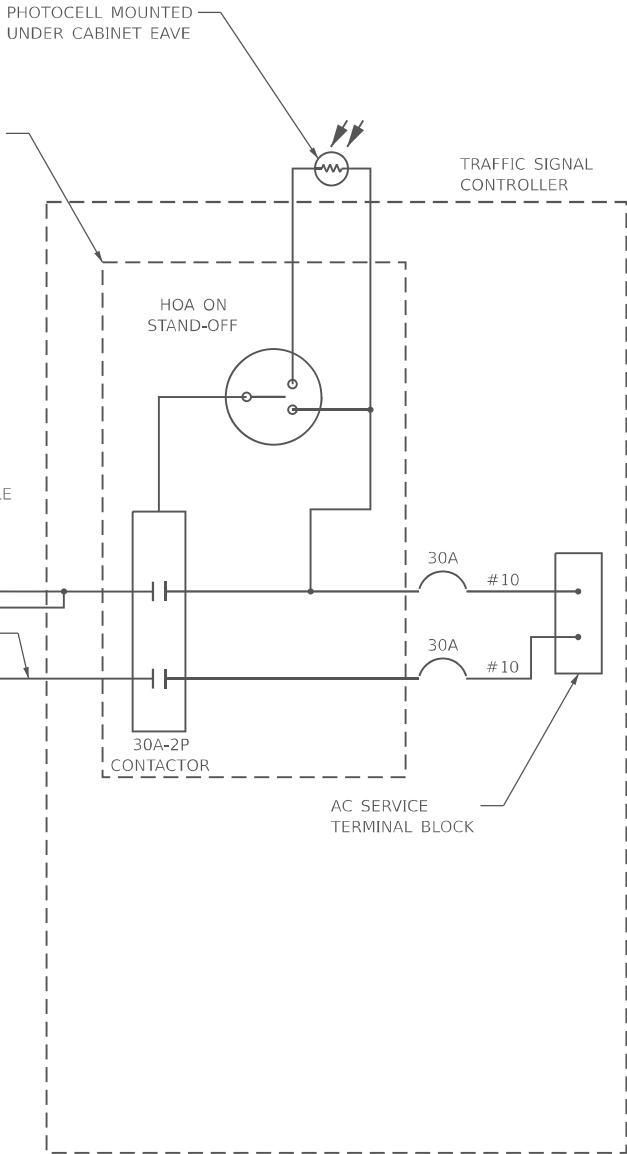
Distance to ROW (behind pole)	Max. Horizontal Illuminance at ROW, $E_H$	Max. Vertical Illuminance at ROW, $E_v$
N/A	N/A	N/A

Notes

- Set-Back is from Edge of Pavement (white line).
- Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.
- Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.
- Lane width is the width of each **individual** lane, not to be confused with total roadway width.
- Compliance with performance criteria shall be held to one significant digit.
- Photometric calculations for roadways shall be performed with a total light loss factor of 0.7
- Light trespass calculations shall be performed with a total light loss factor of 1.0 and with horizontal calculations performed at grade and vertical calculations performed with calculation points located three feet above grade.
- Luminaire performance table is intended to define the luminaire and does not necessarily match any specific roadway geometry, mounting height, setback, or arm length.

Printed 10/10/24

BDE 5630 (Rev. 06/06/24)



NOTES

- 4 LUMINAIRES PER CIRCUIT, MAXIMUM.
- TWO #10 (XLP-TYPE USE) CABLES TO BE USED FOR LIGHTING CIRCUITS.
- ROUTE LIGHTING CIRCUITS IN TRAFFIC SIGNAL CONDUIT SYSTEM.
- ALL SPLICES AND CONNECTIONS FOR ROADWAY LIGHTING SHALL BE AT POLE BASE ONLY.
- FOR LIGHTING CIRCUITS, CONNECT TWO CIRCUIT BREAKERS TO AC SERVICE TERMINAL BLOCK.
- ALL WIRING SHALL BE NEATLY DRESSED, IDENTIFIED BY TAGS, AND SUPPORTED. (UNDERGROUND SPLICING OF LIGHTING CONDUCTORS IS NOT PERMITTED).
- THE H.O.A. SWITCH SHALL BE LABELED AS "LIGHTING CONTROL" WITH THE POSITIONS "AUTO", "OFF" AND "TEST" WITH ENGRAVED NAME PLATES.
- LIGHTING CONNECTED TO UPS BYPASS CIRCUIT WHERE UPS IS INSTALLED.
- COMBINATION LIGHTING MUST BE INSTALLED PRIOR TO SIGNAL TURN ON.
- LUMINAIRE VOLTAGE SHALL BE 120V.
- POLE WIRING & FUSE KITS ARE INCLUDED IN THE LUMINAIRE PAY ITEM.
- THE UNDERGROUND EQUIPMENT GROUND WIRE IS SHOWN IN THE TRAFFIC SIGNAL PLANS AND IS INCLUDED IN THE SIGNAL PLANS. IT IS SHARED GROUND BETWEEN SIGNALS AND LIGHTING.

COMBINATION POLE WIRING DETAIL

(NOT TO SCALE)

MODEL: Lighting-2 [Sheet]  
FILE NAME: c:\pwworking\tdogreen\lessmd1067819\DWG\78B06-Sytl-Signals\_Lighting.dgn

USER NAME = sean.greenlee	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 3/26/2025	DATE -	REVISED -

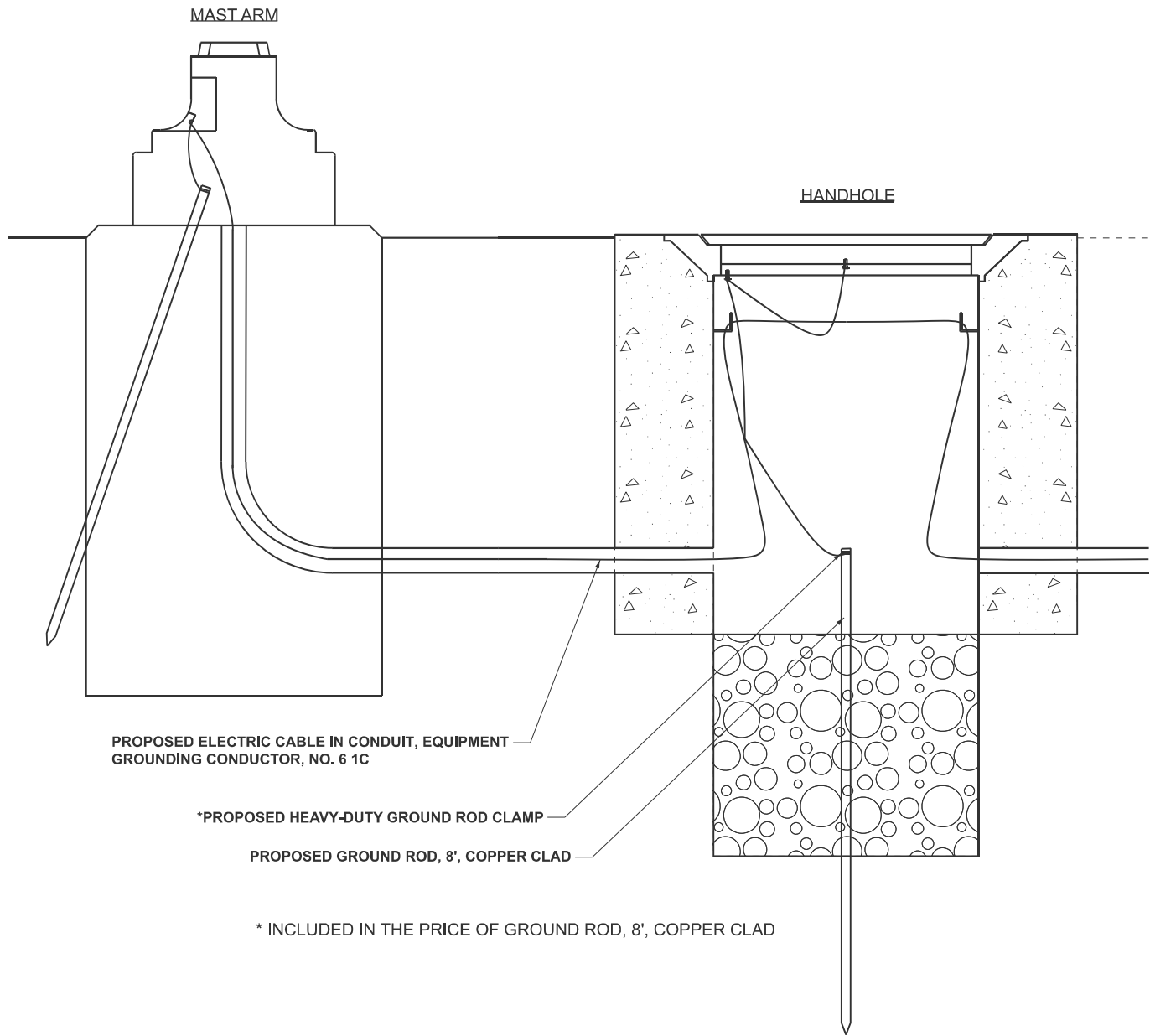
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHTING WIRING DIAGRAM AND  
LUMINAIRE PERFORMANCE TABLE

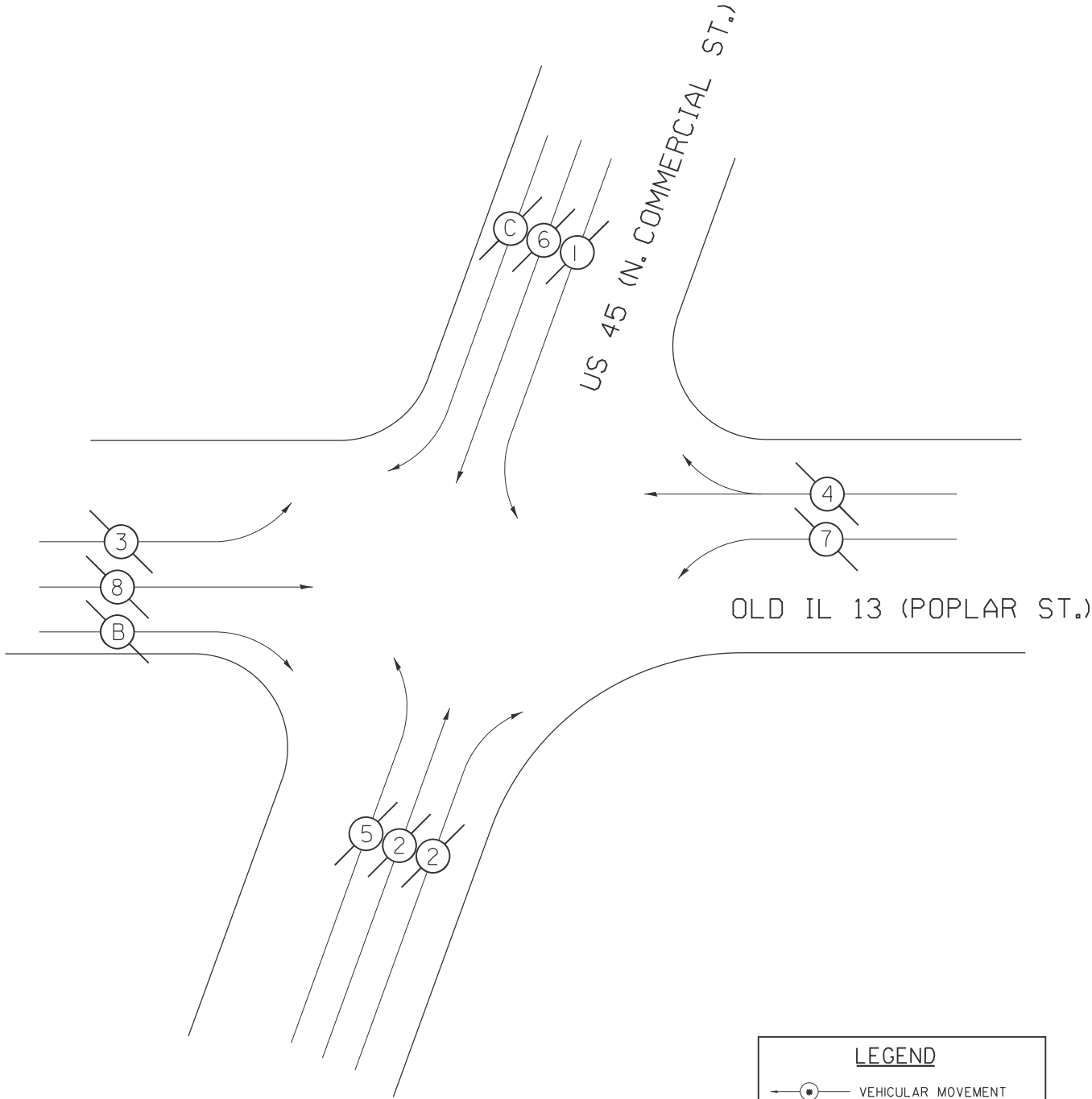
SCALE: SHEET 12 OF 17 SHEETS STA. TO STA.

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(29X,8X)TS-2	SALINE	17	12
CONTRACT NO. 78B06				
ILLINOIS FED. AID PROJECT				

HANDHOLE AND MAST ARM GROUNDING



PHASE DESIGNATION DIAGRAM  
OLD IL 13 & US 45



**LEGEND**

← ● → VEHICULAR MOVEMENT

\* NUMBER REFERS TO ASSOCIATED PHASE

REFERRING TO STANDARD 857001, THE  
VEHICULAR AND PEDESTRIAN PHASES  
USED ARE DESIGNATED AS SHOWN.

MODEL: Detail-1 [Sheet]  
FILE NAME: c:\p\work\p\work\greenlee\m1067819\ID978B06-S\HIS-District\Stds.dgn

USER NAME	= sean.greenlee	DESIGNED	-	REVISED	-
		DRAWN	-	REVISED	-
		CHECKED	-	REVISED	-
PLOT DATE	= 3/26/2025	DATE	-	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

HANDHOLE AND MAST ARM GROUNDING, SIGNAL PHASE DIAGRAM			
SCALE:	SHEET 13	OF 17 SHEETS	STA. TO STA.

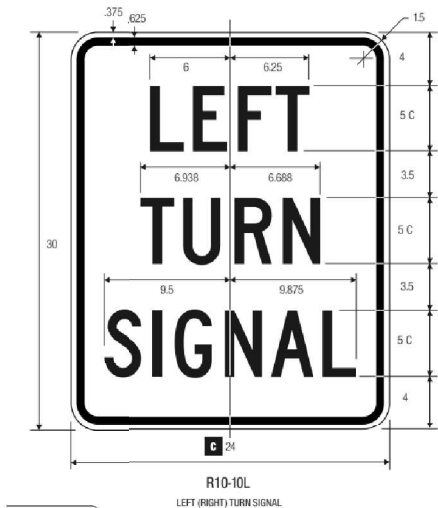
F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(29X,8X)TS-2	SALINE	17	13
CONTRACT NO. 78B06				
ILLINOIS FED. AID PROJECT				

SIGN DETAILS

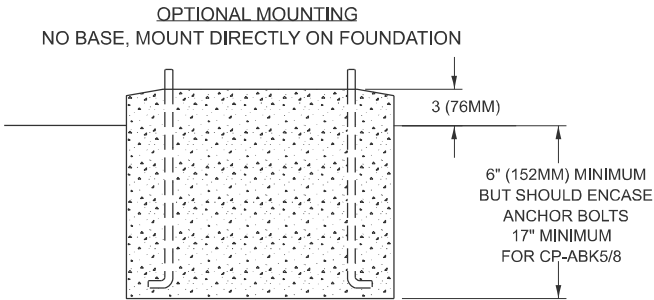
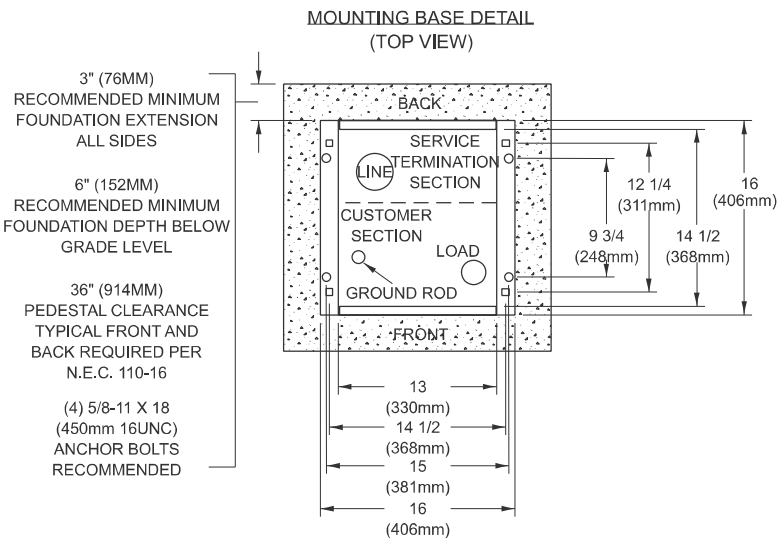
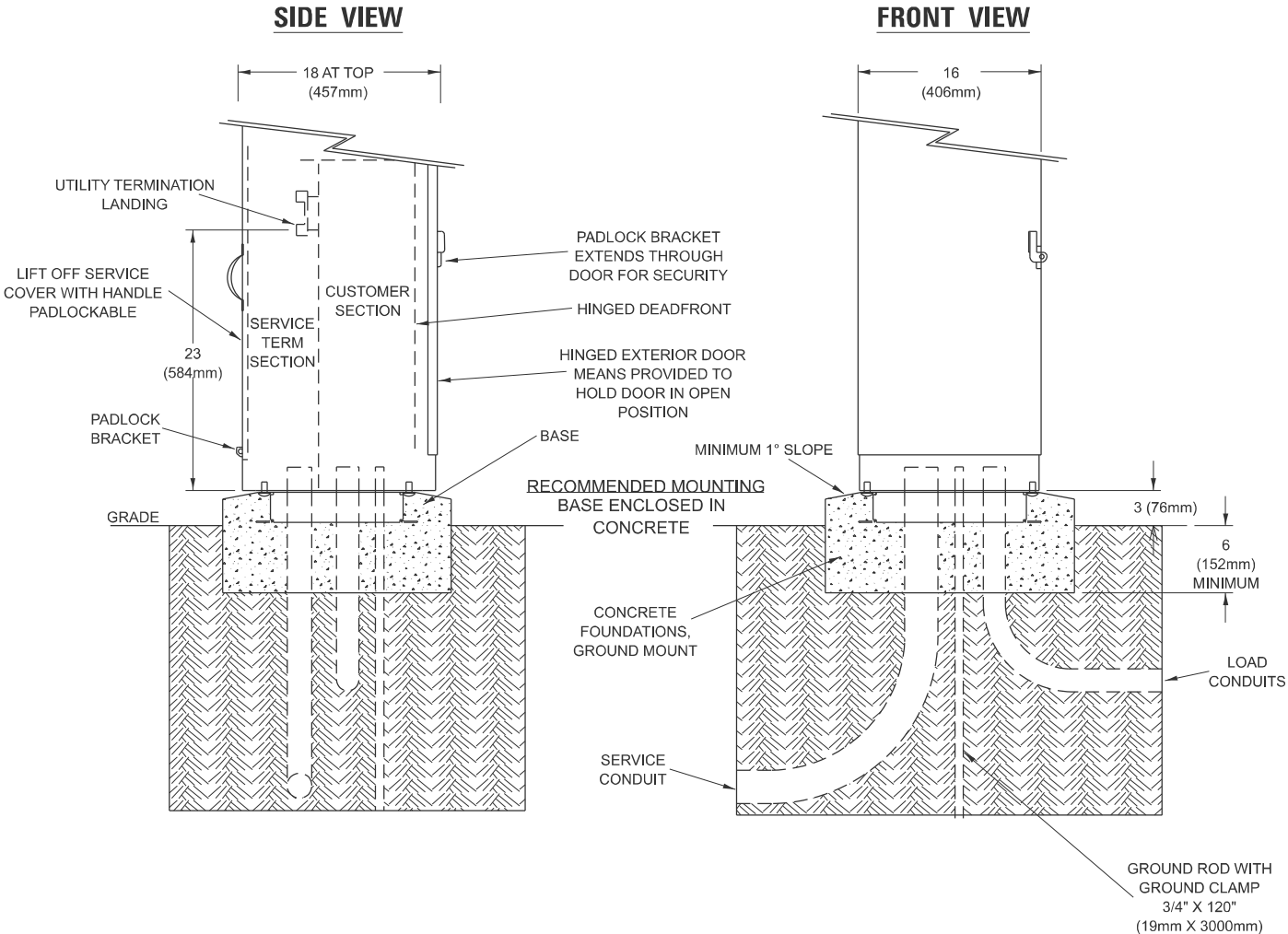
"Poplar St" SIGN  
48" X 18" SIGN, 8" LETTERS, FONT T2000 HWYC  
BORDER 0.7" EDGE TO EDGE WITH 1.75" RADIUS



"Commercial St" SIGN  
60" X 18" SIGN, 8" LETTERS, FONT T2000 HWYC  
BORDER 0.7" EDGE TO EDGE WITH 1.75" RADIUS



CABINET FOR SERVICE INSTALLATION GROUND MOUNT  
AND CONCRETE FOUNDATIONS, GROUND MOUNT



- PEDESTAL MOUNTING HOLES
- ANCHOR BOLT MOUNTING HOLES

DRAWN	03-02-22
REVISED	05-27-22
REVISED	
REVISED	

STD. 9-27

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SIGN DETAILS, CABINET FOR SERVICE INSTALLATION  
GROUND MOUNT AND CONCRETE FOUNDATIONS, GROUND MOUNT

SCALE: SHEET 14 OF 17 SHEETS STA. TO STA.

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(29X,8X)TS-2	SALINE	17	14
CONTRACT NO. 78B06				

FAP 132/FAP 332/FAS 899

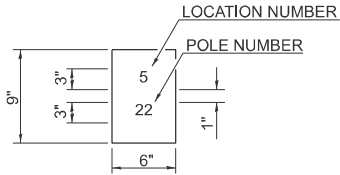
MODEL: Detail-4 [Sheet]  
FILE NAME: c:\p\work\p\work\greenlee\md1067819\ID978B06-Sign-District\Std.dgn



POLE STANDARDS

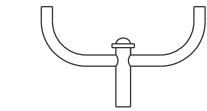
"INSTALL AND ORIENT ARM BRACKET OVER POLE TENON AND FIRMLY HAND TIGHTEN THE TWO SET SCREWS. USE THIRD HOLE IN ARM BRACKET AS A GUIDE TO DRILL A 2 1/64 DIAMETER HOLE THROUGH TENON. INSTALL AND TIGHTEN SELF-TAPPING SCREW. TIGHTEN SET SCREWS AN ADDITIONAL 1/4 TO 3/8 TURN WITH HEX KEY (NOT PROVIDED). INSTALL LOCKNUTS ON SET SCREWS IF THREADED PROJECTION ALLOWS."

POLE SHALL MEET AASHTO STANDARD SPECIFICATIONS FOR 80 MPH WIND LOADING AND 90 LB, 4.0 SQ. FT E.P.A. LUMINAIRE.

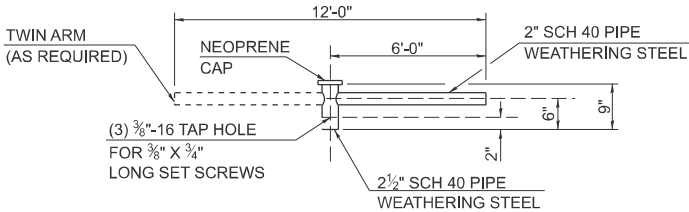


THE CONTRACTOR SHALL FURNISH AND INSTALL A LIGHT POLE IDENTIFICATION OF EACH NEW LIGHT POLE, AS SHOWN ABOVE, INCIDENTAL TO THE RESPECTIVE LIGHT POLE PAY ITEM IN ACCORDANCE WITH ART, 1069.06

THE LIGHT POLE IDENTIFICATION SHALL BE APPLIED TO SIGN BASE MATERIAL AS SPECIFIED IN ART. 1069.06, APPROXIMATELY 7" ABOVE THE ADJACENT PAVEMENT GRADE VISIBLE TO APPROACHING TRAFFIC IN ACCORDANCE WITH HIGHWAY STANDARD 720001.

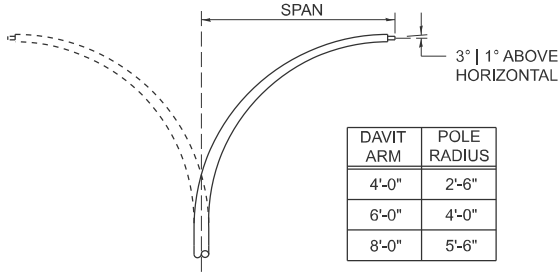


TWIN TENON



TENON MOUNT BRACKET ARM

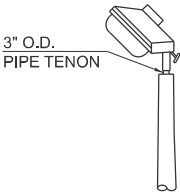
NOTE: SINGLE OR TWIN ARM ASSEMBLY SHALL BE TILTED 3° ABOVE HORIZONTAL.



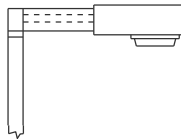
DAVIT ARM	POLE RADIUS
4'-0"	2'-6"
6'-0"	4'-0"
8'-0"	5'-6"

DAVIT ARM (AND OR)

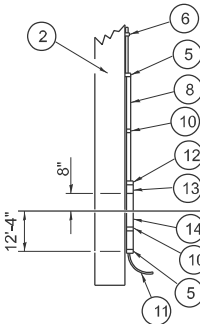
DAVIT ARM-TWIN



TENON



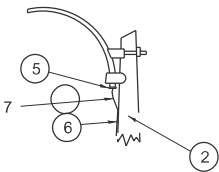
SHORT BRACKET



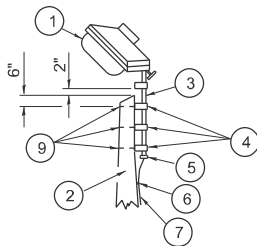
DETAILS FOR UNDERGROUND DISTRIBUTION IF REQUIRED

POLE, WOOD

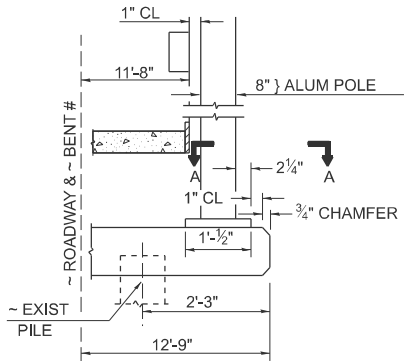
POLE LENGTH	DEPTH IN GROUND
65'-0"	12'-0"
60'-0"	10'-0"
55'-0"	9'-0"
50'-0"	8'-0"
45'-0"	7'-0"
40'-0"	6'-6"
35'-0"	6'-0"
30'-0"	5'-6"



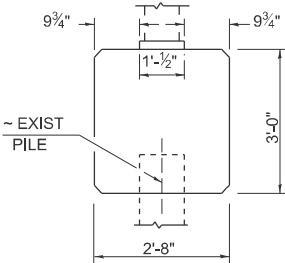
MAST ARM



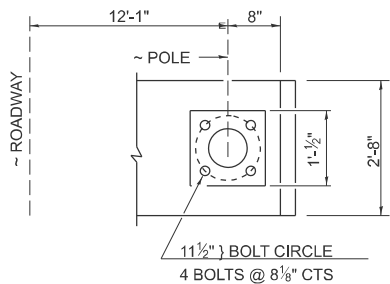
TENON



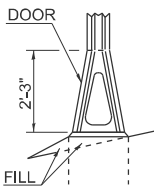
BENT # (LOOKING )



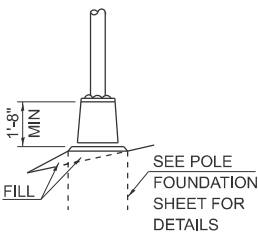
BRIDGE PIER MOUNT



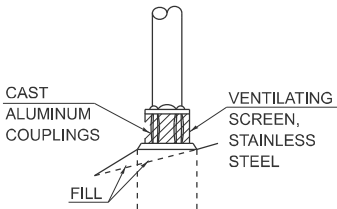
SECTION A-A



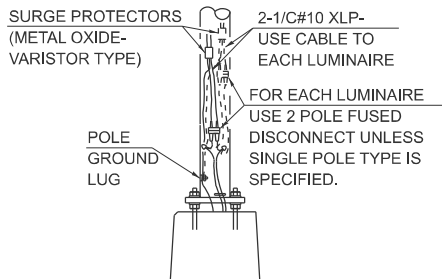
STAINLESS STEEL FLAIR BASE



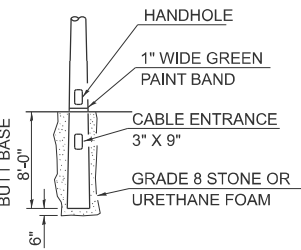
TRANSFORMER BASE FRANGIBLE



BREAKAWAY COUPLING



ANCHOR



BUTT BASE

- 1 LUMINAIRE
- 2 WOOD POLE, CLASS 3 OR BETTER
- 3 2 1/2" GALV. STEEL CONDUIT
- 4 SINGLE OFFSET POLE BAND
- 5 CONDUIT BUSHING
- 6 CABLE CLAMPS ON 2' CENTERS
- 7 2/C #12 TYPE USE CABLE
- 8 1" GALV. STEEL CONDUIT 10' IN LENGTH
- 9 5/8" Ø HOT DIPPED GALVANIZED BOLT WITH FLAT WASHER & LOCKNUT (3 REQ'D)
- 10 CONDUIT CLAMPS ON 3' CENTERS
- 11 UNIT DUCT
- 12 THREADED REDUCER
- 13 "C" CONDULET, THREADED
- 14 1 1/2" GALV. STEEL CONDUIT FOR 1 UNIT DUCT OR 3" GALV. STEEL CONDUIT FOR 2 OR 3 UNIT DUCTS.

STD. 9-12

DRAWN	02-09-01
REVISED	05-06-08
REVISED	10-21-21
REVISED	05-04-22

USER NAME = sean.greenlee	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 3/26/2025	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

POLE STANDARDS

SCALE: SHEET 15 OF 17 SHEETS STA. TO STA.

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(29X,8X)TS-2	SALINE	17	15
CONTRACT NO. 78B06				
ILLINOIS FED. AID PROJECT				

FAP 132/FAP 332/FAS 899

MODEL: Detail-5 [Sheet]  
FILE NAME: c:\ppl\_work\ppl\greenlee\std1067819\ID978B06-SysS-District\Std5.dgn

Page 1 of 1Date 2/3/25

ROUTE	Commercial and Poplar	DESCRIPTION	Mast Arm Foundation N.W. Quad	LOGGED BY	L. Estel
-------	-----------------------	-------------	-------------------------------	-----------	----------

SECTION (20X,8X)TS-2 LOCATION Intersection of Commercial and Poplar st H'burg, SEC. 15, TWP. 9S, RNG. 6E, PM

COUNTY Saline DRILLING METHOD HSA (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lbs

D E P T H  (ft)	B L O W S	U C S  Qu  (tsf)	M C I S T  (%)
-----------------------------------	-----------------------	------------------------------------	----------------------------------

D E P T H  (ft)	B L O W S	U C S  Qu  (tsf)	M C I S T  (%)
-----------------------------------	-----------------------	------------------------------------	----------------------------------

6" CONCRETE Pavement and Crushed AGGREGATE					Poplar St.; EL = 365.01
363.19					
Stiff Grey, Moist CLAY	7				
	2	1.65	25		
	2	B			
360.69					
Very Stiff Brownish Grey, Moist CLAY	-5	2			-25
	4	2.45	22		
	7	B			
358.19					
Very Stiff Brownish Grey, Moist CLAY	5				
	7	3.1	18		
	8	B			
355.69					
Very Dense Grey, Moist SANDY LOAM	-10	50			-30
4% m. SAND, 4% f. SAND, 24% SILT, 8% CLAY, Non-plastic (Lab 4)		50/3"	15		
353.19					
Hard Brownish Tan, Moist Weathered SANDSTONE		100/2.5"			
			16		
	-15				-35
Bottom of Hole at 12.16 ft					
Free Water Encountered at 9.5 ft					
To Convert "N" Values to "N60", Multiply by 1.39; Hammer Efficiency = 83.4%					
Ground Surface Elevation Referenced to Survey Monument in Northwest Quadrant of Intersection of Commercial and	-20				-40

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)



## Page 1 of 1

Date 2/3/25

ROUTE Commercial and Poplar DESCRIPTION Mast Arm Foundation S.W. Quad LOGGED BY L. Estel

SECTION (29X,8X)TS-2 LOCATION Intersection of Commercial and Poplar st H'burg, SEC. 15, TWP. 9S, RNG. 6E, PM

COUNTY Saline DRILLING METHOD HSA (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lbs

D E P T H	B L O W S	U C S  Qu	M O I S T
(ft)		(tsf)	(%)

D E P T H	B L O W S	U C S  Qu	M O I S T
(ft)		(tsf)	(%)

[illegible]

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

F.A.* RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	(29X,8X)TS-2	SALINE	17	16
CONTRACT NO. 78B06				
ILLINOIS		FED. AID PROJECT		

FAP 132/FAP 332/FAS 899

MODEL: Detail-2 [Sheet]  
FILE NAME: c:\pw work\pwidot\greenleesm\1067819\ID978B06-ShtS-DistrictStds.dgn

Page 1 of 1

Date 2/4/25

COUNTY Saline DRILLING METHOD HSA (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lbs

D E P T H	B L O W S	U C S  Qu	M O I S T
(ft)		(tsf)	(%)


The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating the SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) PBS, from 137 (Rev. 8-99)

Page 1 of 1Date 2/4/25

COUNTY Saline DRILLING METHOD HSA (8" O.D., 3.25" I.D.) HAMMER TYPE Auto SPT 140 lbs

D E P T H	B L O W S	U C S  Qu	M O I S T
(ft)		(tsf)	(%)


The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated) Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS from 137 (Rev. 8-99)