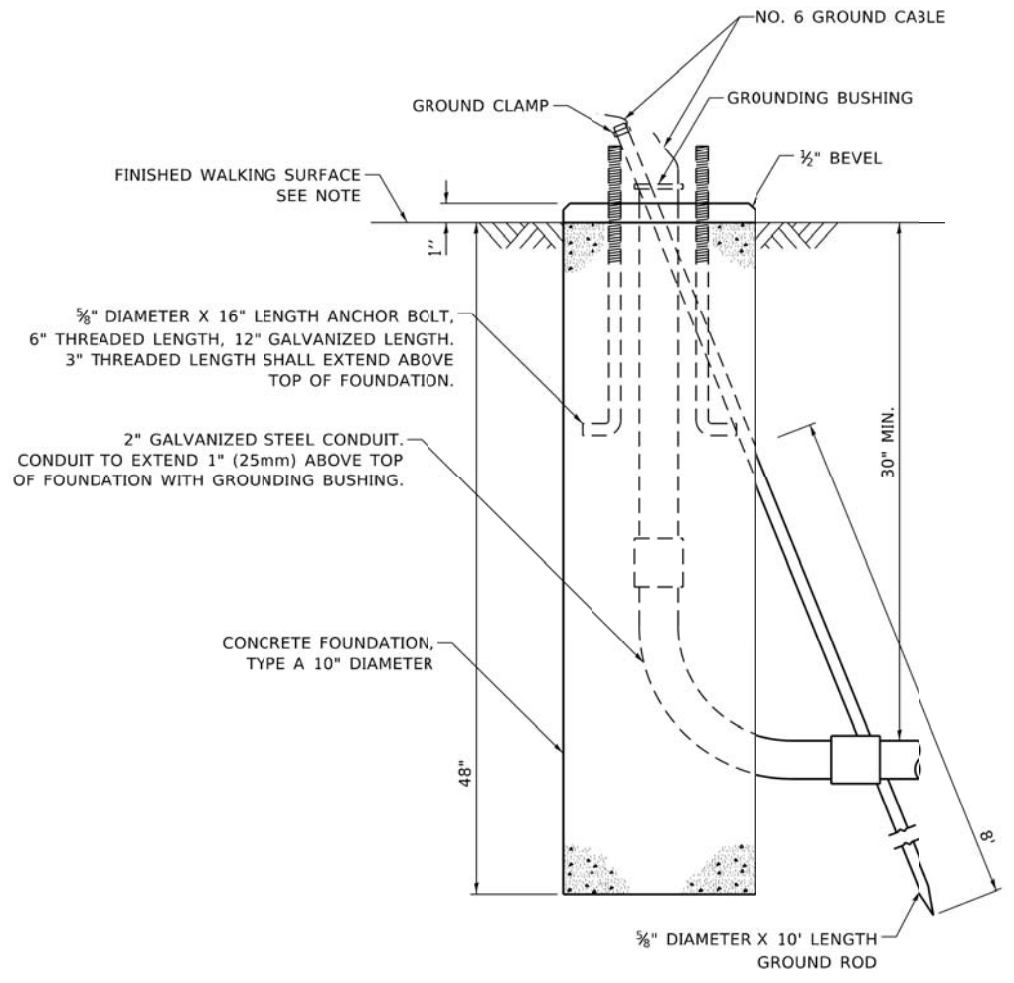
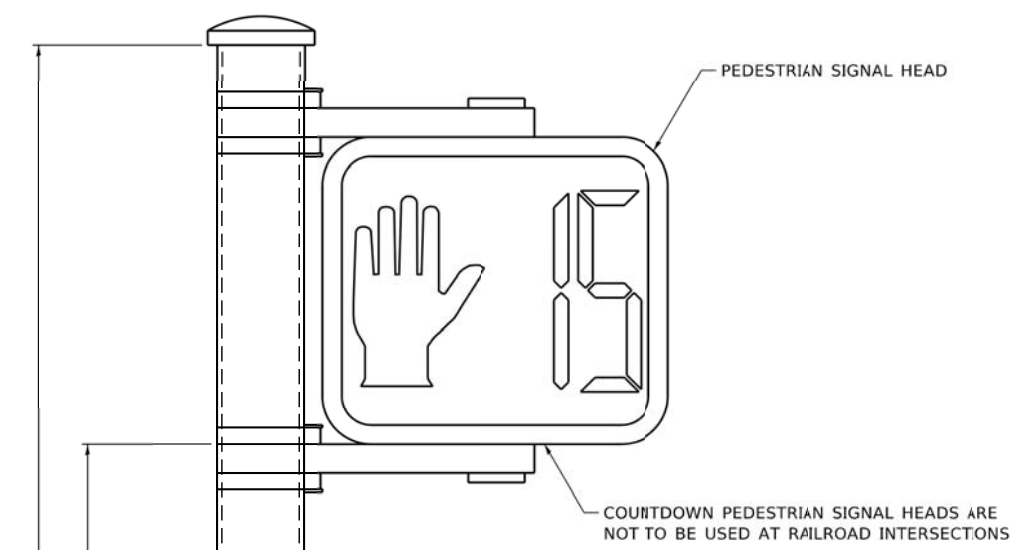


BOLT PATTERN

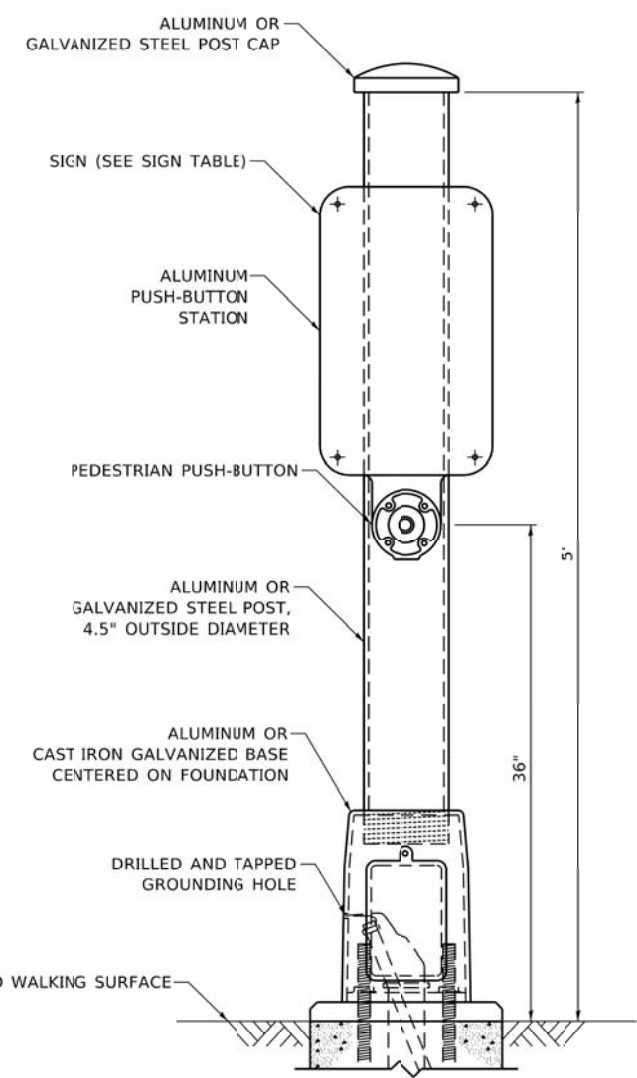
NOTE:
 1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



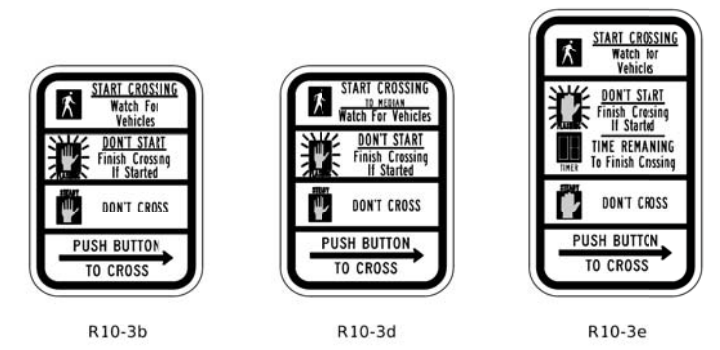
CONCRETE FOUNDATION, TYPE A 10-INCH DIAMETER



PEDESTRIAN SIGNAL POST, 10 FT.



PEDESTRIAN SIGNAL POST, 5 FT.



SIGN TABLE

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

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

MODEL: Default FILE: Main: S:\WP\Design\Drawn\11_01\ped\pedstranpost\pedstranpost.dgn

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	DRAWN - IP	REVISED -
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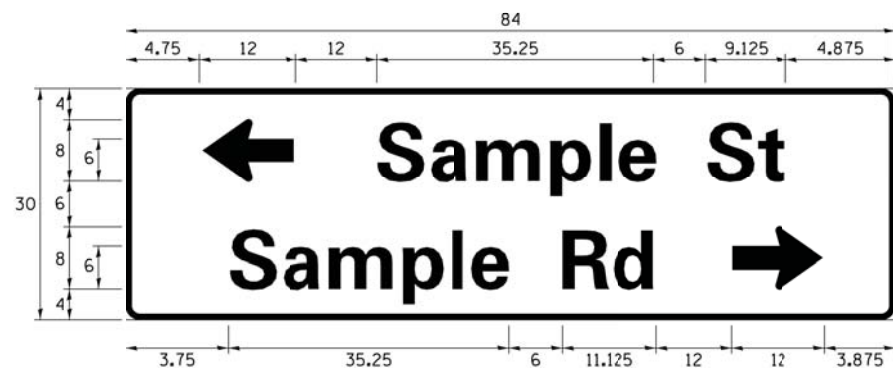
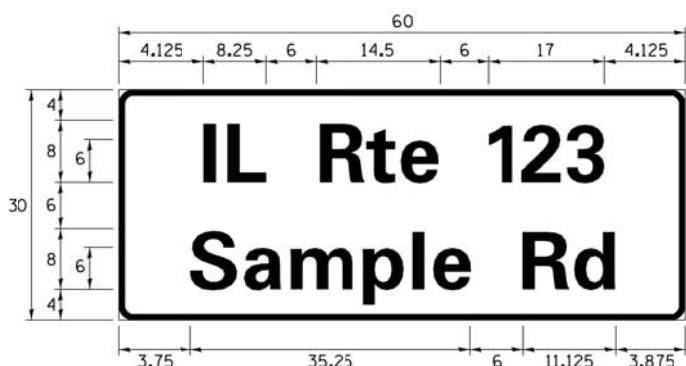
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

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

F.A.U. RTE. 2678 1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 101
CONTRACT NO. 61G16				ILLINOIS FED. AID PROJECT

SIGN PANEL – TYPE 1 OR TYPE 2



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

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

COMMON STREET NAME ABBREVIATIONS AND WIDTHS

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

GENERAL NOTES

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

LOCAL SUPPLIERS:

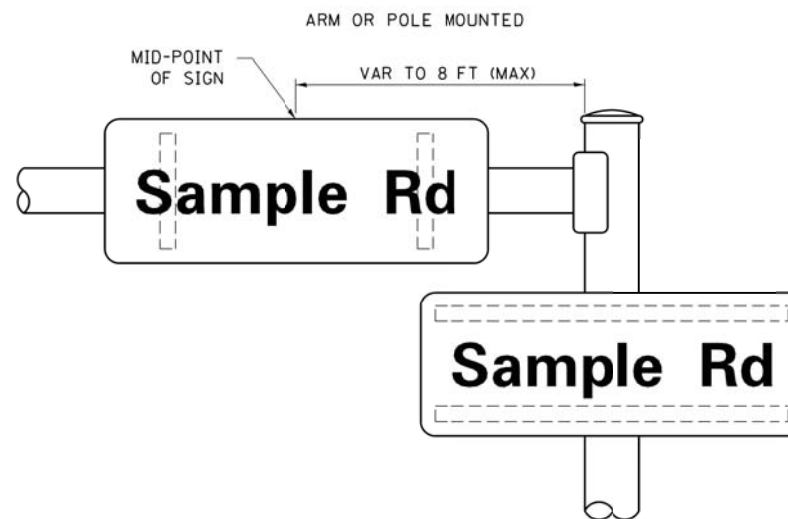
- J.O. HERBERT COMPANY, INC
MIDLOTHIAN, VA
- WESTERN REMAC, INC.
WOODRIDGE, IL

PARTS LISTING:

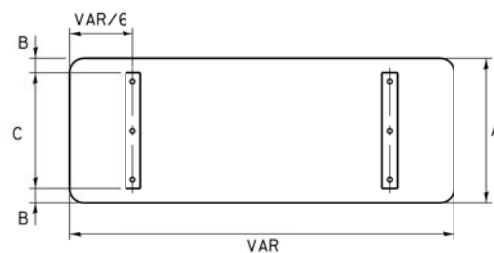
- SIGN CHANNEL PART #HPN053 (MED. CHANNEL)
1/4" x 14 x 1" H.W.H. #3
- SIGN SCREWS SELF TAPPING WITH NEOPRENE WASHER
PART #HPN034 (UNIVERSAL)
- BRACKETS CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

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

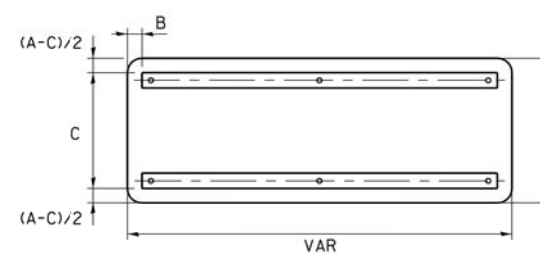
MOUNTING LOCATION



SUPPORTING CHANNELS



A	B	C
18"	2"	14"
30"	2"	24"

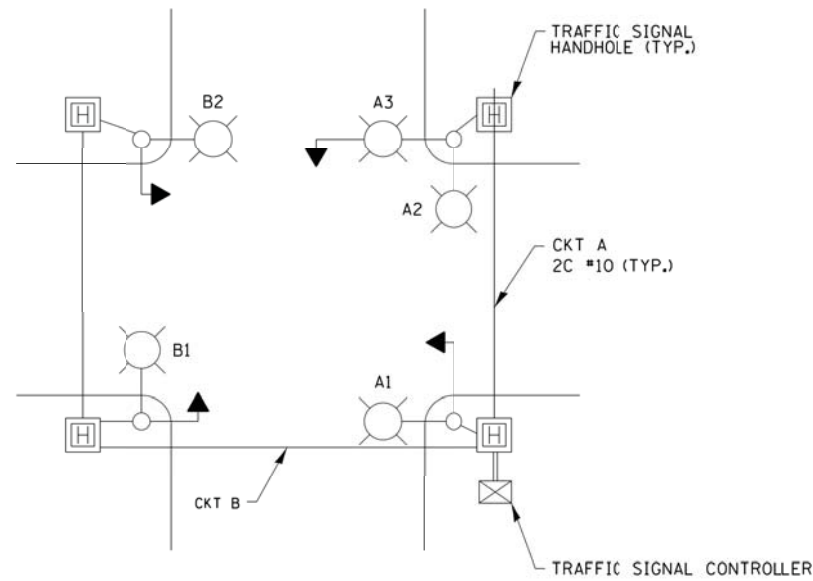


A	B	C
18"	2"	12"
30"	2"	22"

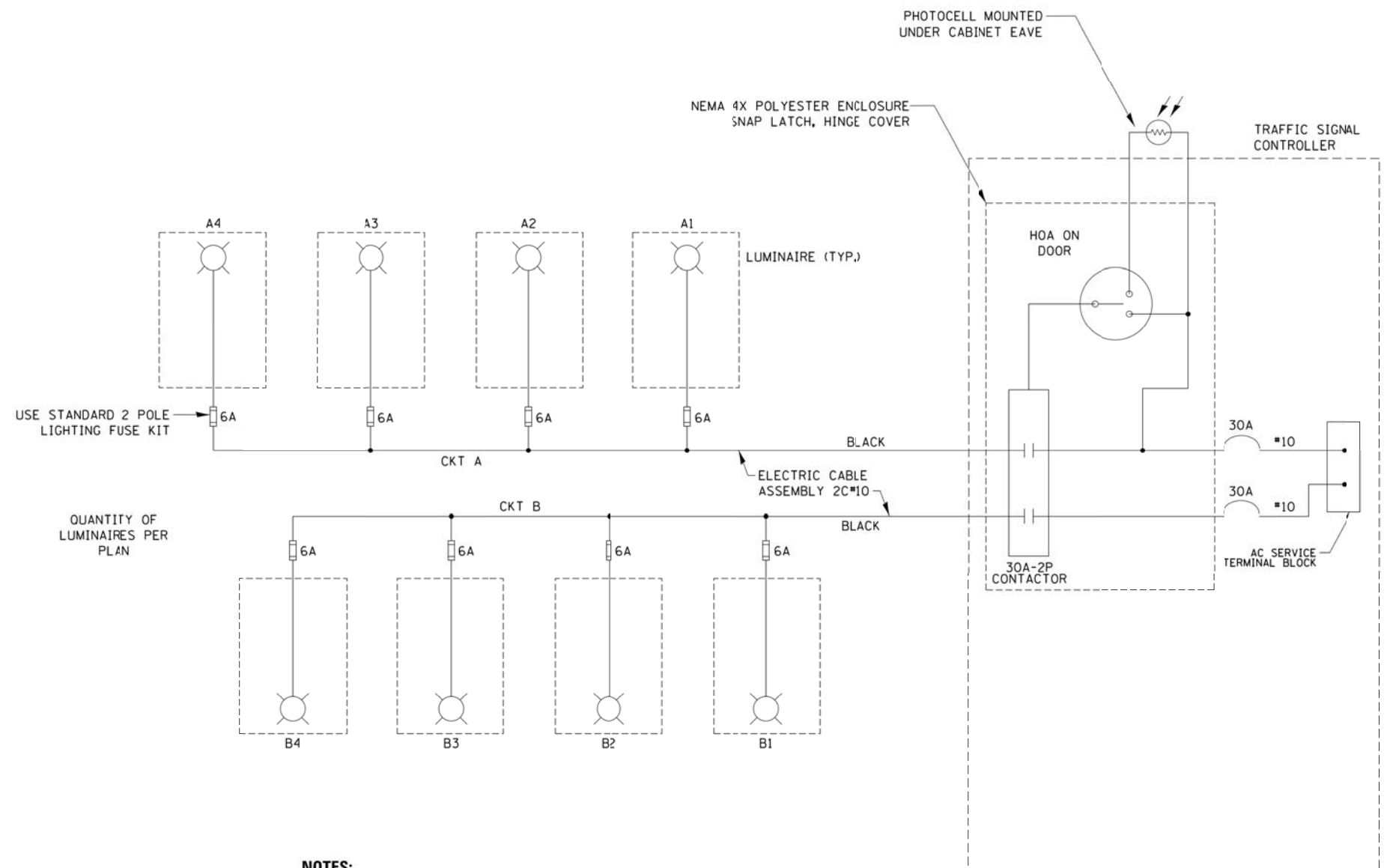
STANDARD ALPHABETS SPACING CHART

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

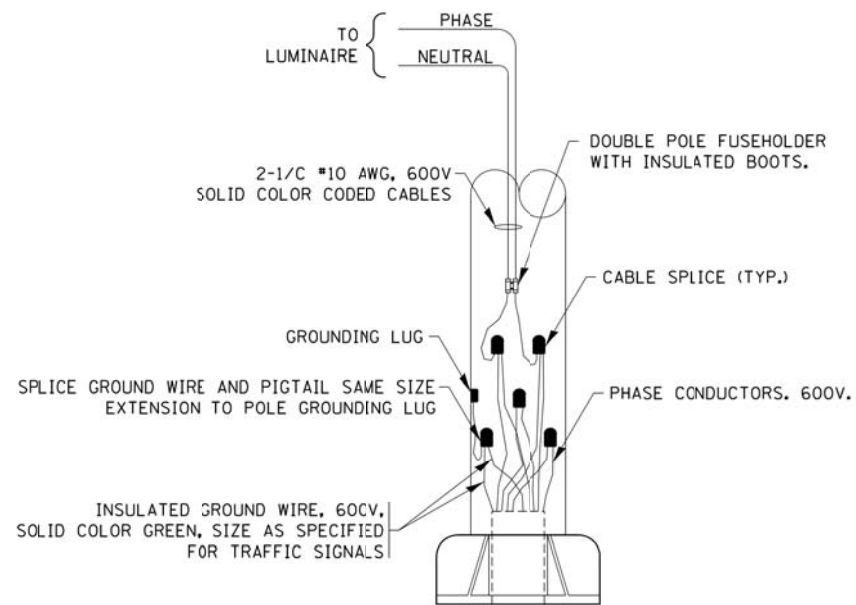
CHARACTER	FHWA SERIES "C"			CHARACTER	FHWA SERIES "D"		
	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)		LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.432	0.480	B	0.960	5.446	0.400
C	0.720	4.432	0.720	C	0.800	5.446	0.800
D	0.880	4.432	0.720	D	0.960	5.446	0.800
E	0.880	4.032	0.480	E	0.960	4.962	0.400
F	0.880	4.032	0.240	F	0.960	4.962	0.240
G	0.720	4.432	0.720	G	0.800	5.446	0.800
H	0.880	4.432	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.032	0.880	J	0.240	5.122	0.960
K	0.880	4.432	0.480	K	0.960	5.604	0.400
L	0.880	4.032	0.240	L	0.960	4.962	0.240
M	0.880	5.234	0.880	M	0.960	6.244	0.960
N	0.880	4.432	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.432	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.432	0.480	R	0.960	5.446	0.400
S	0.480	4.432	0.480	S	0.400	5.446	0.400
T	0.240	4.032	0.240	T	0.240	4.962	0.240
U	0.880	4.432	0.880	U	0.960	5.446	0.960
V	0.240	4.952	0.240	V	0.240	6.084	0.240
W	0.240	6.034	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.432	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.032	0.480	b	0.800	4.802	0.480
c	0.480	4.032	0.240	c	0.480	4.722	0.240
d	0.480	4.032	0.720	d	0.480	4.802	0.800
e	0.480	4.032	0.320	e	0.480	4.722	0.320
f	0.320	2.430	0.160	f	0.320	2.882	0.160
g	0.480	4.032	0.720	g	0.480	4.802	0.800
h	0.720	4.032	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.032	0.640	n	0.800	4.722	0.720
o	0.480	4.032	0.480	o	0.480	4.882	0.480
p	0.720	4.032	0.480	p	0.800	4.802	0.480
q	0.480	4.032	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.352	0.240	s	0.320	3.762	0.240
t	0.080	2.832	0.080	t	0.080	3.202	0.080
u	0.640	4.032	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.952	0.160	y	0.160	6.004	0.160
z	0.240	3.352	0.240	z	0.240	4.002	0.240
1	0.720	1.630	0.880	1	0.800	2.000	0.960
2	0.480	4.432	0.480	2	0.800	5.446	0.800
3	0.480	4.432	0.480	3	1.440	5.446	0.800
4	0.240	4.952	0.720	4	0.160	6.004	0.960
5	0.480	4.432	0.480	5	0.800	5.446	0.800
6	0.720	4.432	0.720	6	0.800	5.446	0.800
7	0.240	4.432	0.720	7	0.560	5.446	0.560
8	0.480	4.432	0.480	8	0.800	5.446	0.800
9	0.480	4.432	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240



TYPICAL LIGHTING CIRCUIT
(NOT TO SCALE)



- NOTES:**
1. 4 LUMINAIRES PER CIRCUIT, MAXIMUM.
 2. MULTI-CONDUCTOR CABLE ASSEMBLY FOR LIGHTING CIRCUITS.
 3. ROUTE LIGHTING CIRCUITS IN TRAFFIC SIGNAL CONDUIT SYSTEM.
 4. ALL SPLICES AND CONNECTIONS FOR ROADWAY LIGHTING SHALL BE AT POLE BASE ONLY.
 5. ALL CONTROLLERS TO HAVE TWO FUSED LIGHTING BRANCH CIRCUITS.
 6. ALL WIRING SHALL BE NEATLY DRESSED, IDENTIFIED BY TAGS, AND SUPPORTED. (UNDERGROUND SPLICING OF LIGHTING CONDUCTORS IS NOT PERMITTED).
 7. THE H.O.A. SWITCH SHALL BE LABELED AS "LIGHTING CONTROL" WITH THE POSITIONS "AUTO", "OFF" AND "TEST" WITH ENGRAVED NAME PLATES.
 8. LIGHTING CONNECTED TO UFS BYPASS CIRCUIT.
 9. COMBINATION LIGHTING MUST BE INSTALLED PRIOR TO SIGNAL TURN ON.
 10. LUMINAIRE VOLTAGE SHALL BE 120V



COMBINATION POLE WIRING DETAIL
(NOT TO SCALE)

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		DRAWN -	REVISED - 10/13/2015
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	PLOT DATE = 03/22/18	DATE - 08/18/2014	REVISED - R. TOMSONS 3/22/18

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

COMBINATION LIGHTING, TRAFFIC SIGNAL SCHEMATIC

SCALE: NTS SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.J. RTE. 2678 1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 103
BE-240		CONTRACT NO.		61G16
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLANNED	
	NOTED	
	CHECKED	
	BY	
	NO.	

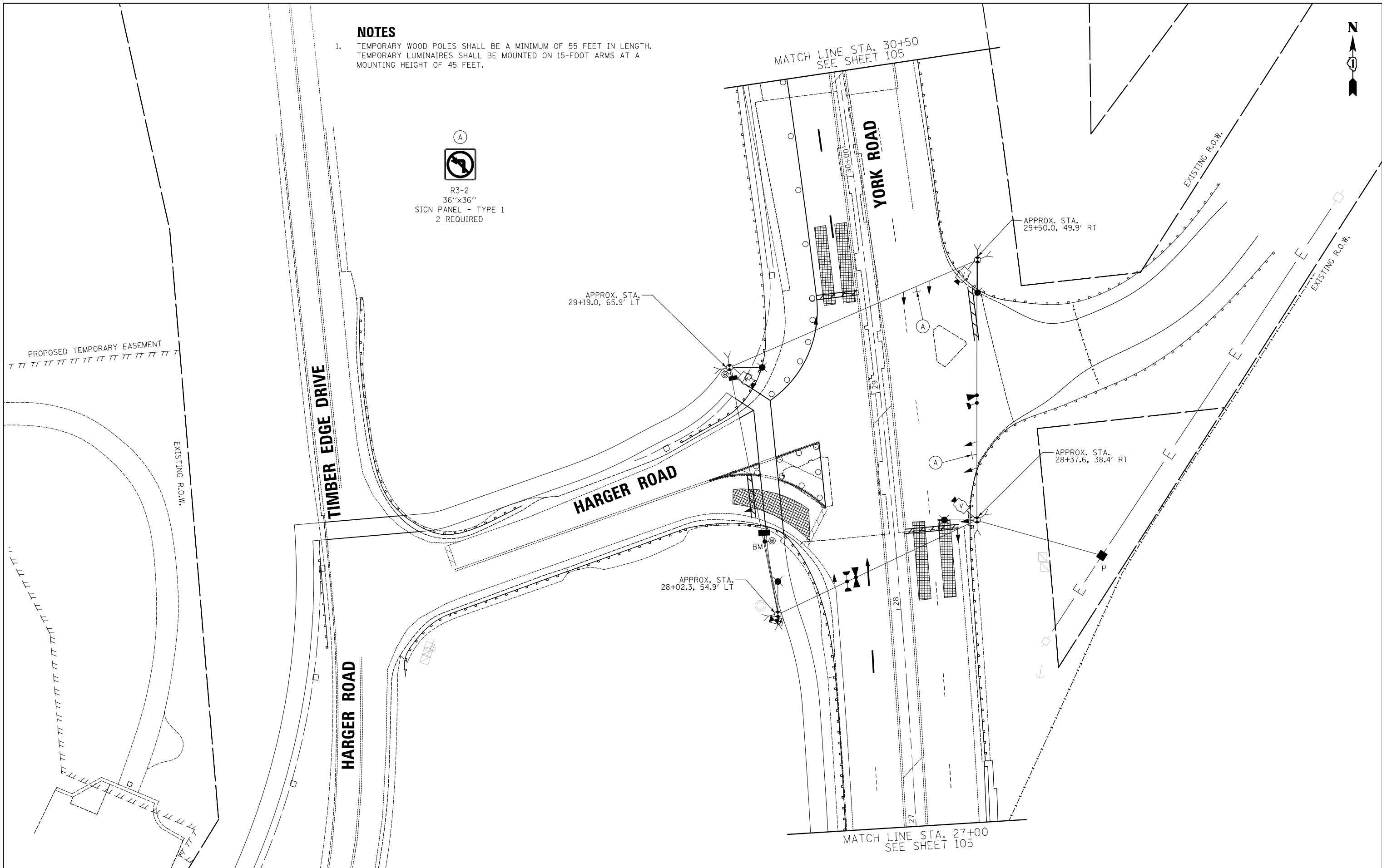
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	PLANNED	
	NOTED	
	CHECKED	
	BY	
	NO.	

NOTES

- TEMPORARY WOOD POLES SHALL BE A MINIMUM OF 55 FEET IN LENGTH. TEMPORARY LUMINAIRES SHALL BE MOUNTED ON 15-FOOT ARMS AT A MOUNTING HEIGHT OF 45 FEET.



R3-2
36"x36"
SIGN PANEL - TYPE 1
2 REQUIRED



Two Pierce Place, Suite 1400
Itasca, Illinois 60143
Tel: 630.773.3900 Fax: 630.773.3975
www.civiltechinc.com

DESIGNED - AS	REVISED -
DRAWN - OJT	REVISED -
CHECKED - JJE	REVISED -
DATE - 12/03/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN (SHEET 1 of 2)
YORK ROAD AND HARGER ROAD (PRE-STAGE)

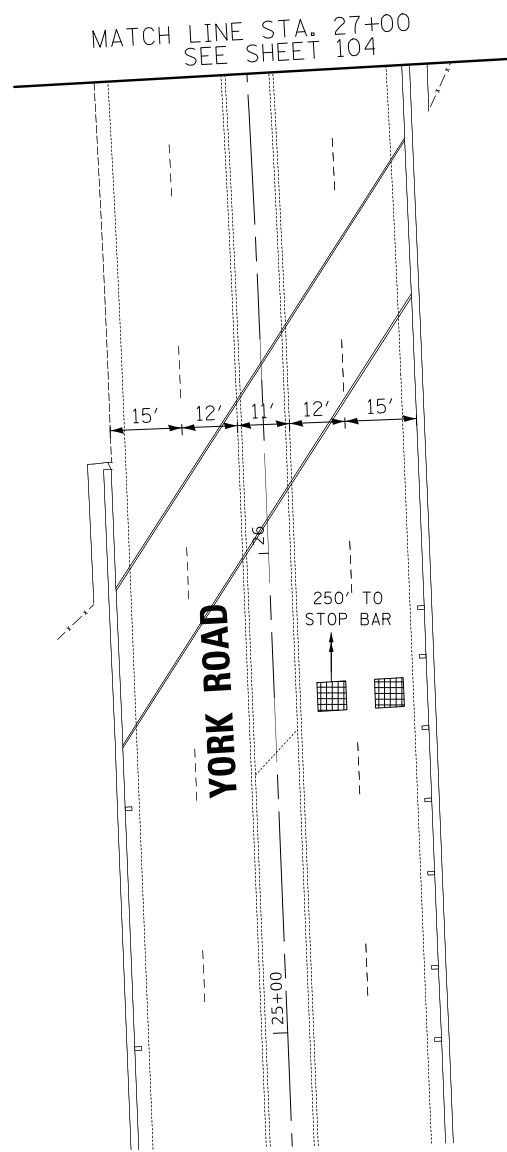
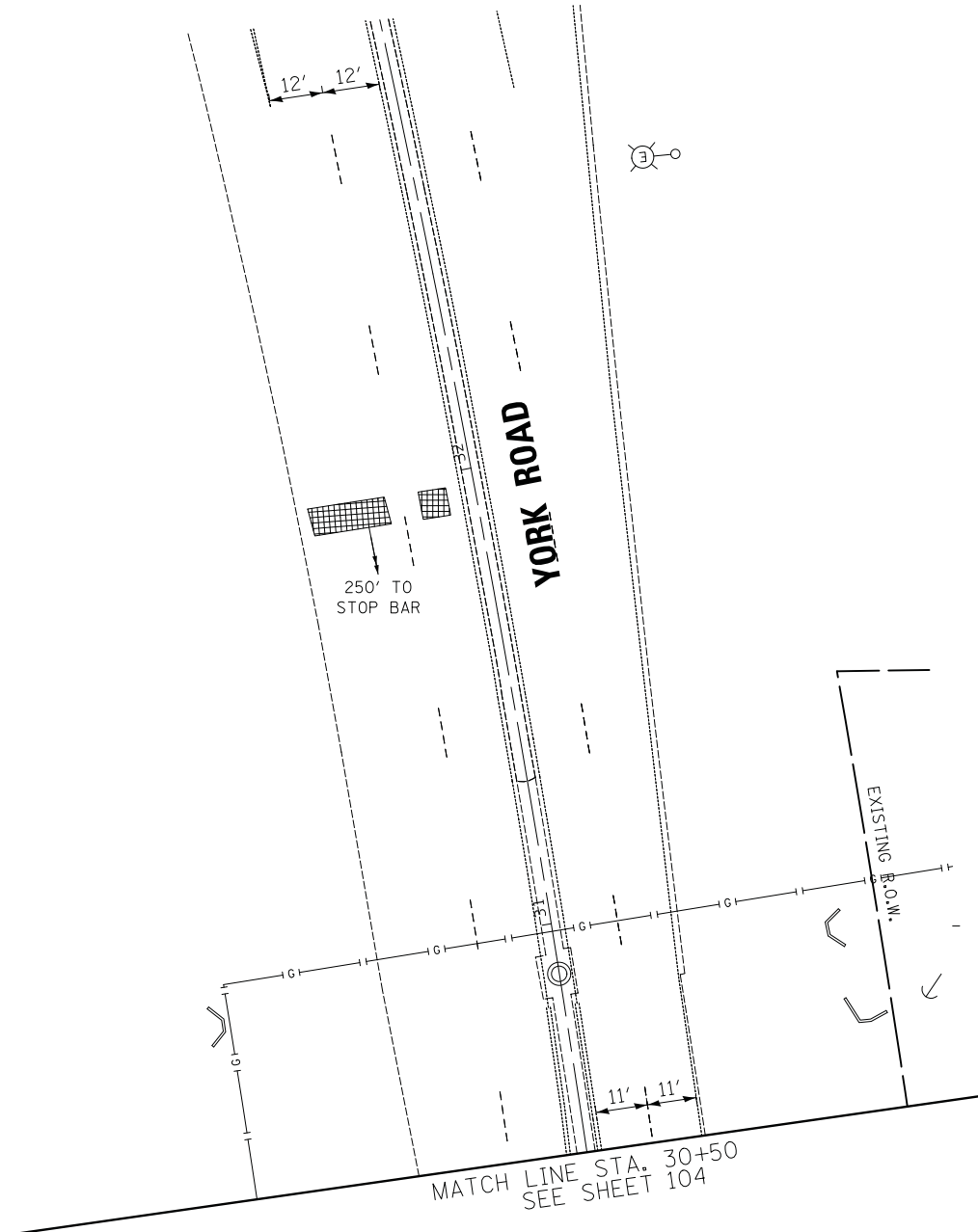
SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	104
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



PLAN	SURVEYED	DATE
NO.	BY	
	PLANNED	
	CHECKED	
	PT. OF WAY CHECKED	
	ADD. FILE NAME	

PROFILE	SURVEYED	DATE
NO.	BY	
	PLANNED	
	CHECKED	
	STRUCTURE NOTATIONS CHKD	



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 Two Pierce Place, Suite 1400
 Itasca, Illinois 60143
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DESIGNED - AS	REVISED -
DRAWN - OJT	REVISED -
CHECKED - JJE	REVISED -
DATE - 12/03/2019	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN (SHEET 2 OF 2)			
YORK ROAD AND HARGER ROAD (PRE-STAGE)			
SCALE: 1" = 20'	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	105
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
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	CHECKED	
	BY	
	NO. OF WAY CHECKED	
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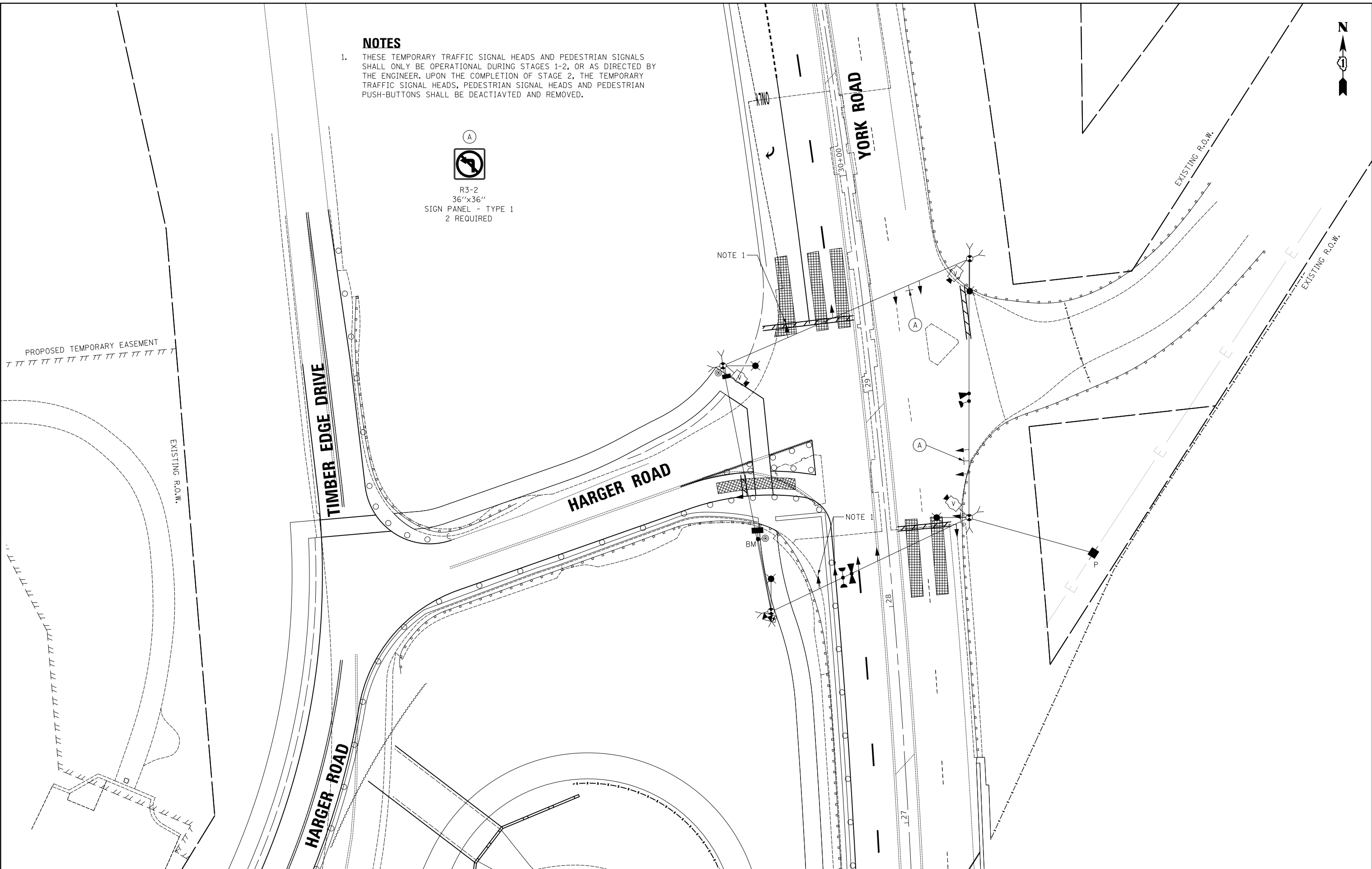
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	PLOTTED	
	CHECKED	
	BY	
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	ADD. FILE NAME	
	NO.	

NOTES

1. THESE TEMPORARY TRAFFIC SIGNAL HEADS AND PEDESTRIAN SIGNALS SHALL ONLY BE OPERATIONAL DURING STAGES 1-2, OR AS DIRECTED BY THE ENGINEER. UPON THE COMPLETION OF STAGE 2, THE TEMPORARY TRAFFIC SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSH-BUTTONS SHALL BE DEACTIATED AND REMOVED.



R3-2
36"x36"
SIGN PANEL - TYPE 1
2 REQUIRED



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

DESIGNED - AS	REVISED -
DRAWN - OJT	REVISED -
CHECKED - JJE	REVISED -
DATE - 12/03/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL PLAN
YORK ROAD AND HARGER ROAD (STAGE 1)**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	106
CONTRACT NO. 61G16				

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

PLAN	SURVEYED	DATE
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	CHECKED	
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	ADD. FILE NAME	

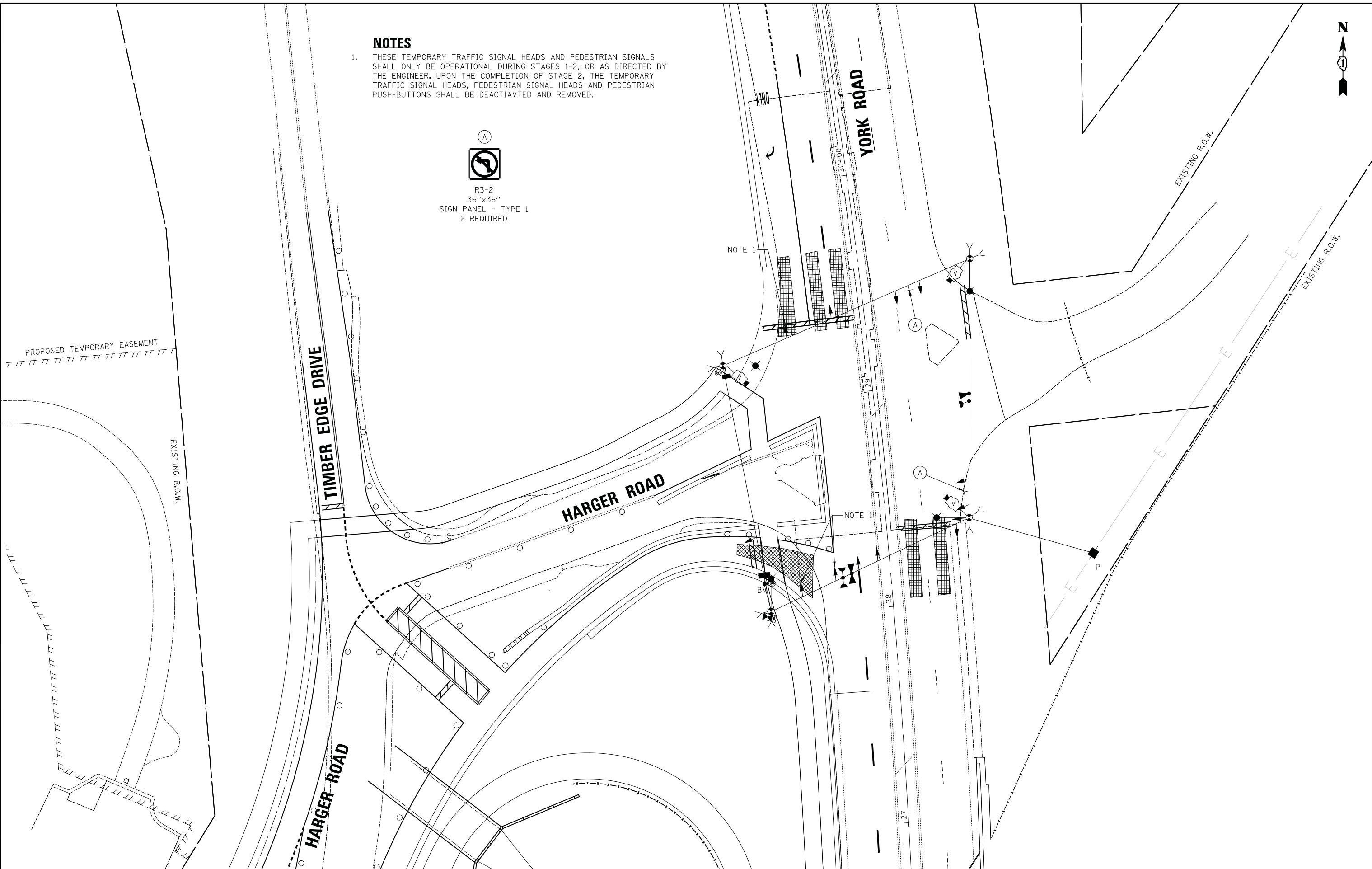
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	NO. OF WAY CHECKED	
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	ADD. FILE NAME	

NOTES

1. THESE TEMPORARY TRAFFIC SIGNAL HEADS AND PEDESTRIAN SIGNALS SHALL ONLY BE OPERATIONAL DURING STAGES 1-2, OR AS DIRECTED BY THE ENGINEER. UPON THE COMPLETION OF STAGE 2, THE TEMPORARY TRAFFIC SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSH-BUTTONS SHALL BE DEACTIVATED AND REMOVED.



R3-2
36"x36"
SIGN PANEL - TYPE 1
2 REQUIRED



Two Pierce Place, Suite 1400
Itasca, Illinois 60143
Tel: 630.773.3900 Fax: 630.773.3975
www.civiltechinc.com

DESIGNED - AS	REVISED -
DRAWN - OJT	REVISED -
CHECKED - JJE	REVISED -
DATE - 12/03/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

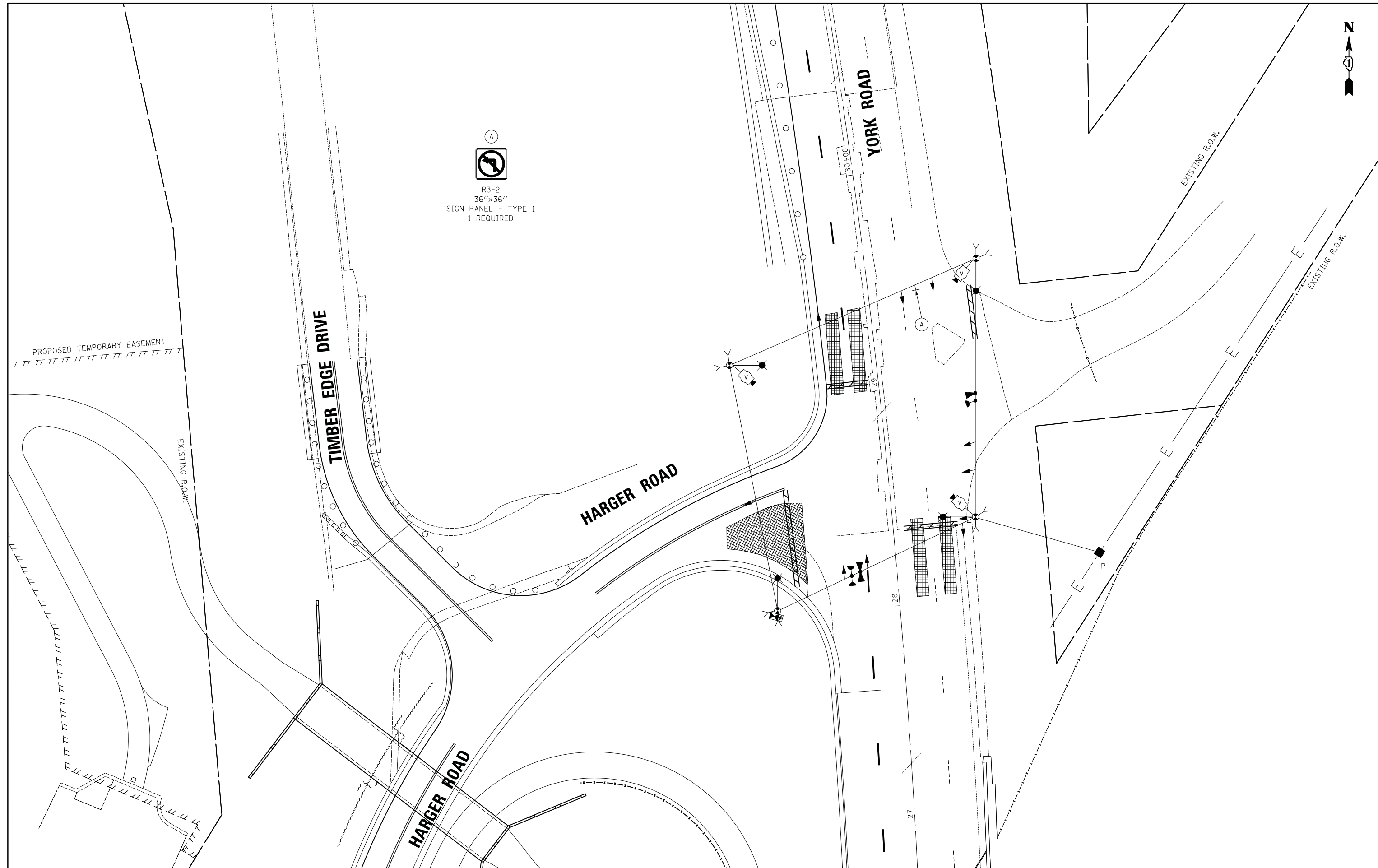
**TEMPORARY TRAFFIC SIGNAL INSTALLATION PLAN
YORK ROAD AND HARGER ROAD (STAGE 2)**


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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	107
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
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	CHECKED	
	BY	
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	ADD. FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO. OF WAY CHECKED	
	NO.	
	ADD. FILE NAME	



(A)

 R3-2
 36"x36"
 SIGN PANEL - TYPE 1
 1 REQUIRED

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

DESIGNED - AS	REVISED -
DRAWN - OJT	REVISED -
CHECKED - JJE	REVISED -
DATE - 12/03/2019	REVISED -

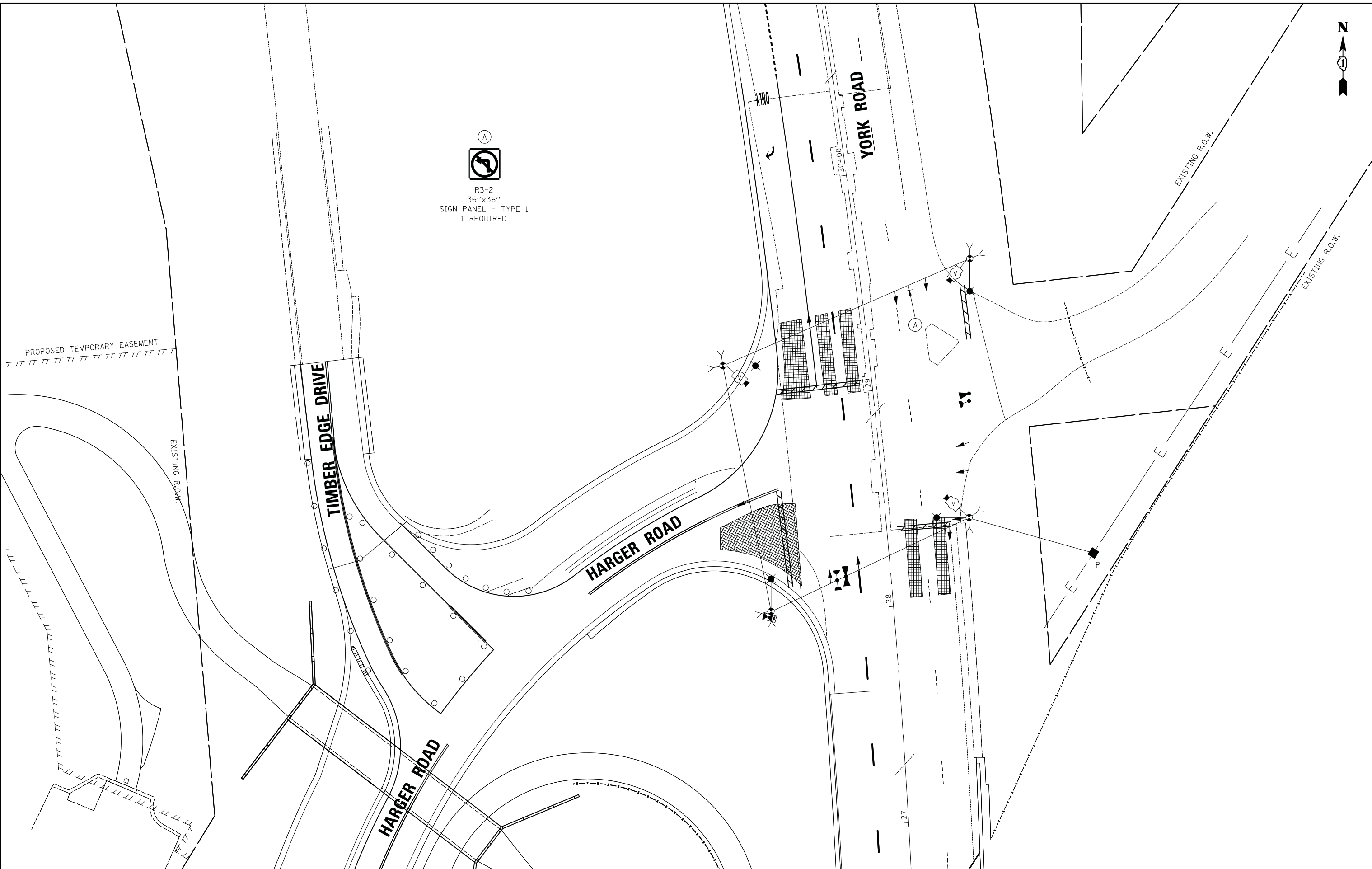
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**


**TEMPORARY TRAFFIC SIGNAL PLAN
 YORK ROAD AND HARGER ROAD (STAGE 3)**
 SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	108
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
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	BY	
	NO. OF WAY CHECKED	
	ADD. FILE NAME	

PROFILE	SURVEYED	DATE
	PLANNED	
	NOTED	
	CHECKED	
	BY	
	NO. OF WAY CHECKED	
	ADD. FILE NAME	



(A)

 R3-2
 36"x36"
 SIGN PANEL - TYPE 1
 1 REQUIRED



Two Pierce Place, Suite 1400
 Itasca, Illinois 60143
 Tel: 630.773.3900 Fax: 630.773.3975
 www.civiltechinc.com

DESIGNED - AS	REVISED -
DRAWN - OJT	REVISED -
CHECKED - JJE	REVISED -
DATE - 12/03/2019	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

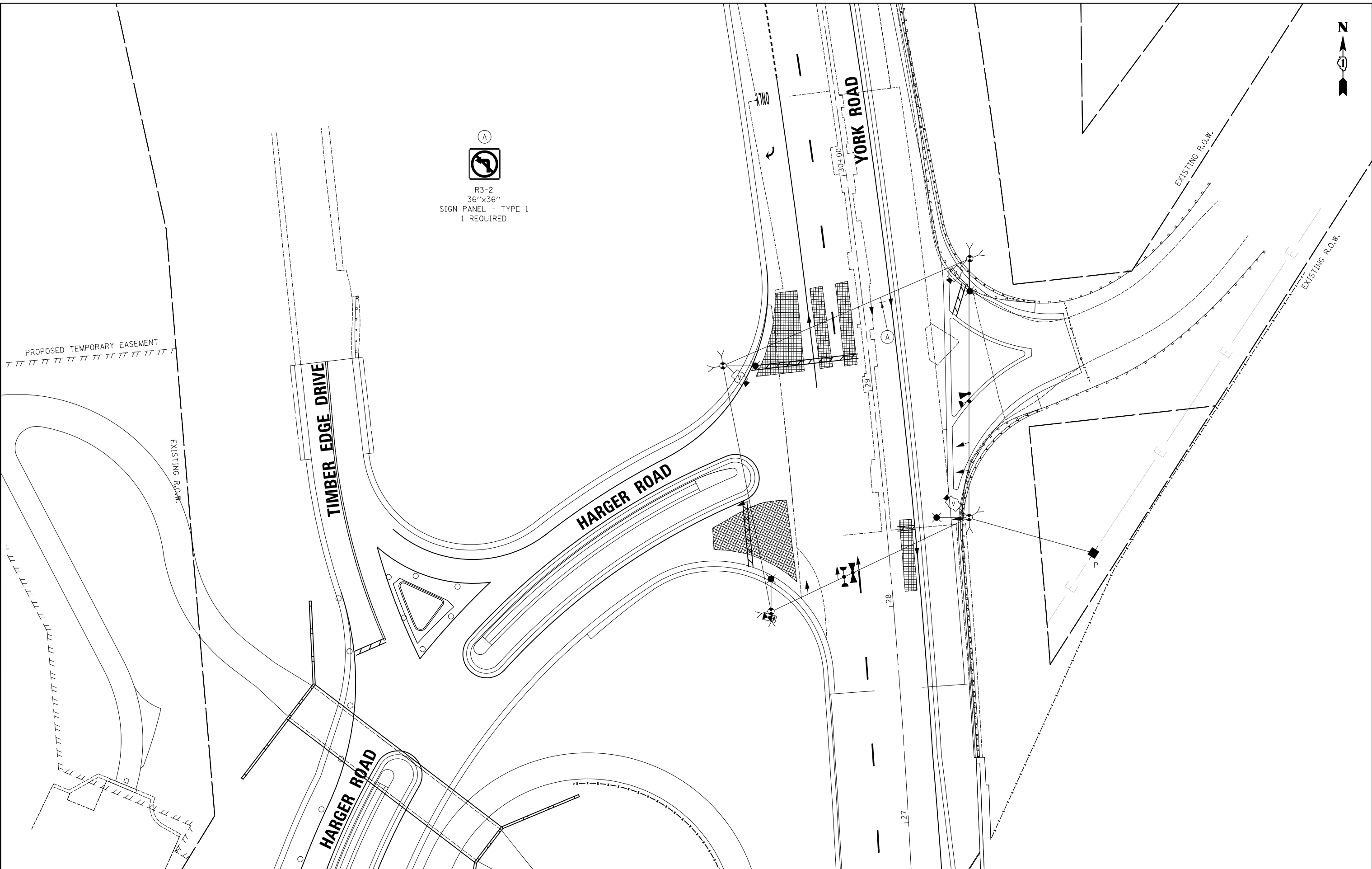
TEMPORARY TRAFFIC SIGNAL PLAN
 YORK ROAD AND HARGER ROAD (STAGES 3A - 3B)

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	109
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
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	ADD. FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO. OF WAY CHECKED	
	NO.	
	ADD. FILE NAME	



(A)

 R3-2
 36"x36"
 SIGN PANEL - TYPE 1
 1 REQUIRED



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 Tel: 630.773.3900 Fax: 630.773.3975
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CHECKED - JJE	REVISED -
DATE - 12/03/2019	REVISED -

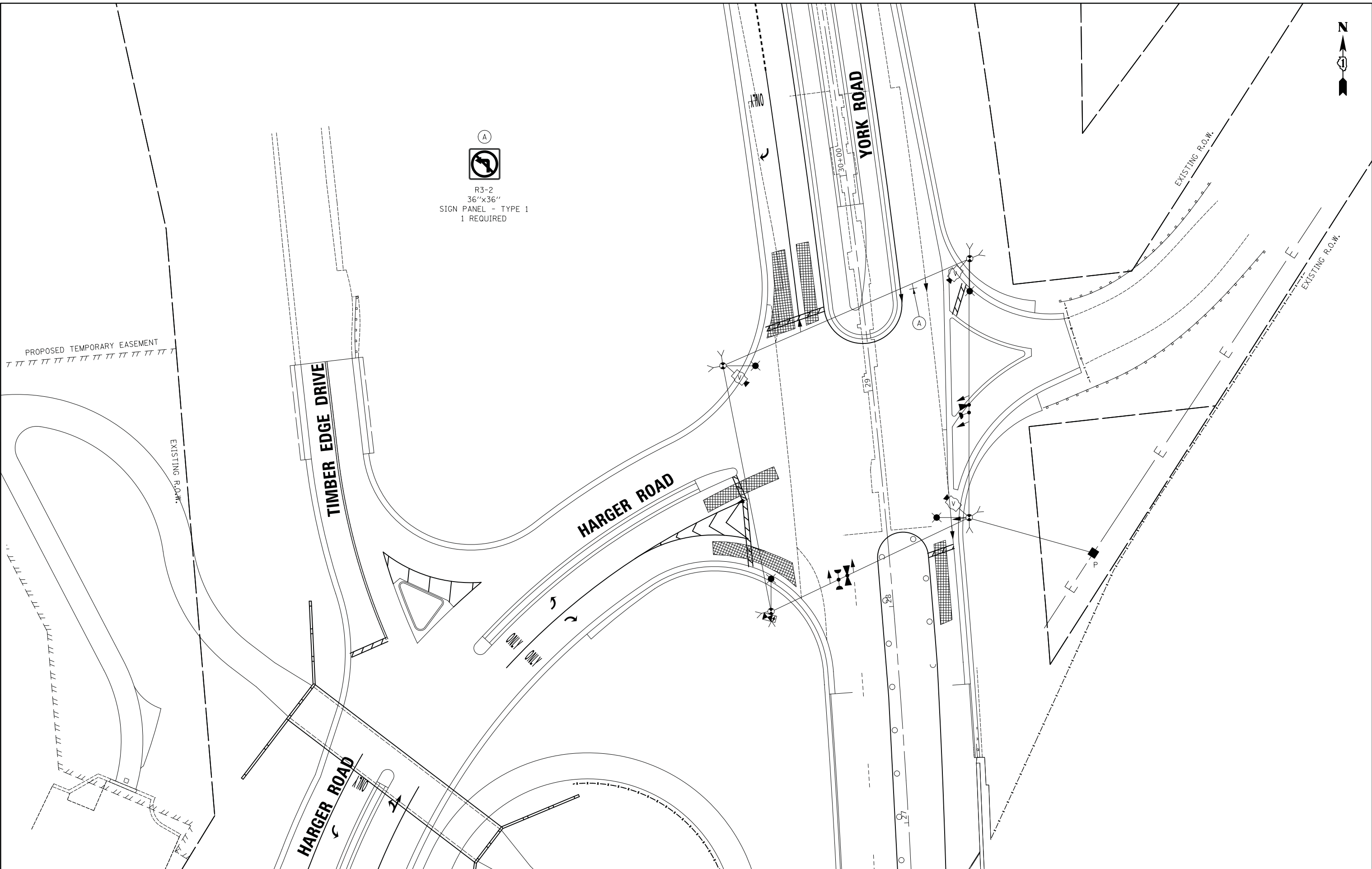
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**


**TEMPORARY TRAFFIC SIGNAL PLAN
 YORK ROAD AND HARGER ROAD (STAGE 4)**
 SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	110
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
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	NO. OF WAY CHECKED	
	NO.	
	ADD. FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
	CHECKED	
	BY	
	NO. OF WAY CHECKED	
	NO.	
	ADD. FILE NAME	



(A)

 R3-2
 36"x36"
 SIGN PANEL - TYPE 1
 1 REQUIRED

CIVILTECH
 Two Pierce Place, Suite 1400
 Itasca, Illinois 60143
 Tel: 630.773.3900 Fax: 630.773.3975
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DRAWN - OJT	REVISED -
CHECKED - JJE	REVISED -
DATE - 12/03/2019	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

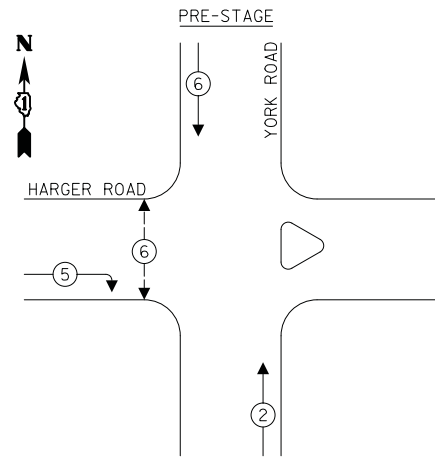
**TEMPORARY TRAFFIC SIGNAL PLAN
 YORK ROAD AND HARGER ROAD (STAGE 5)**
 SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	111
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

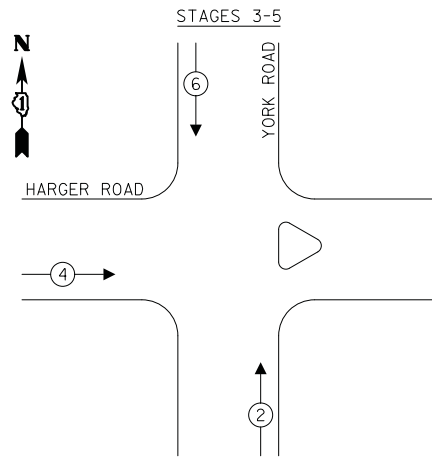
PLAN	SURVEYED	DATE
	PLOTTED	
	NOTED	
	BY	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	NOTED	
	BY	
	NO.	

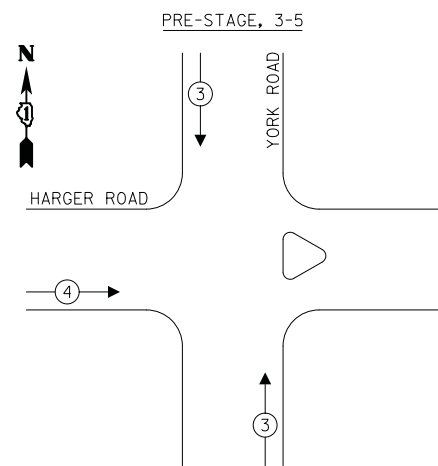
PROPOSED CONTROLLER SEQUENCE



PROPOSED CONTROLLER SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND:

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

NOTES

1. THESE TEMPORARY TRAFFIC SIGNAL HEADS AND PEDESTRIAN SIGNALS SHALL ONLY BE OPERATIONAL DURING STAGES 1-2, OR AS DIRECTED BY THE ENGINEER. UPON THE COMPLETION OF STAGE 2, THE TEMPORARY TRAFFIC SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSH-BUTTONS SHALL BE DEACTIATED AND REMOVED.
2. DURING PRE-STAGE TO MOT STAGE 2 THE YELLOW ARROW AND GREEN ARROW SECTIONS OF THESE SIGNAL HEADS SHALL BE OPERATIONAL AND THE YELLOW BALL AND GREEN BALL SECTIONS SHALL BE BAGGED AND DEACTIVATED. DURING MOT STAGES 3-5 THE YELLOW BALL AND GREEN BALL SECTIONS SHALL BE UNBAGGED AND OPERATIONAL, AND THE YELLOW ARROW AND GREEN ARROW SECTIONS SHALL BE BAGGED AND DEACTIVATED.

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

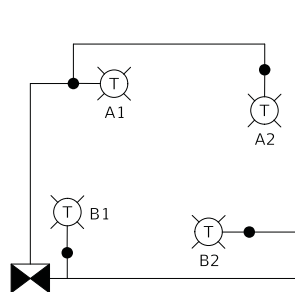
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL:				
RED	10	17	50	85.0
YELLOW	10	25	5	12.5
GREEN	10	15	45	67.5
RED RT ARROW	3	10	90	27.0
G/Y RT ARROW	12	10	10	12.0
PED. SIGNAL	2	20	100	40.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	4	400	50	800.0
TOTAL =				1319.0

ENERGY COSTS TO:

VILLAGE OF OAK BROOK
1200 OAK BROOK ROAD
OAK BROOK, IL 60523

ENERGY SUPPLY: CONTACT: NEW BUSINESS
PHONE: (866) 639-3532
COMPANY: COMED
ACCOUNT NUMBER: XXXXXXXXXX

YORK ROAD / HARGER ROAD
TEMPORARY COMBINATION LIGHTING
ONE-LINE DIAGRAM



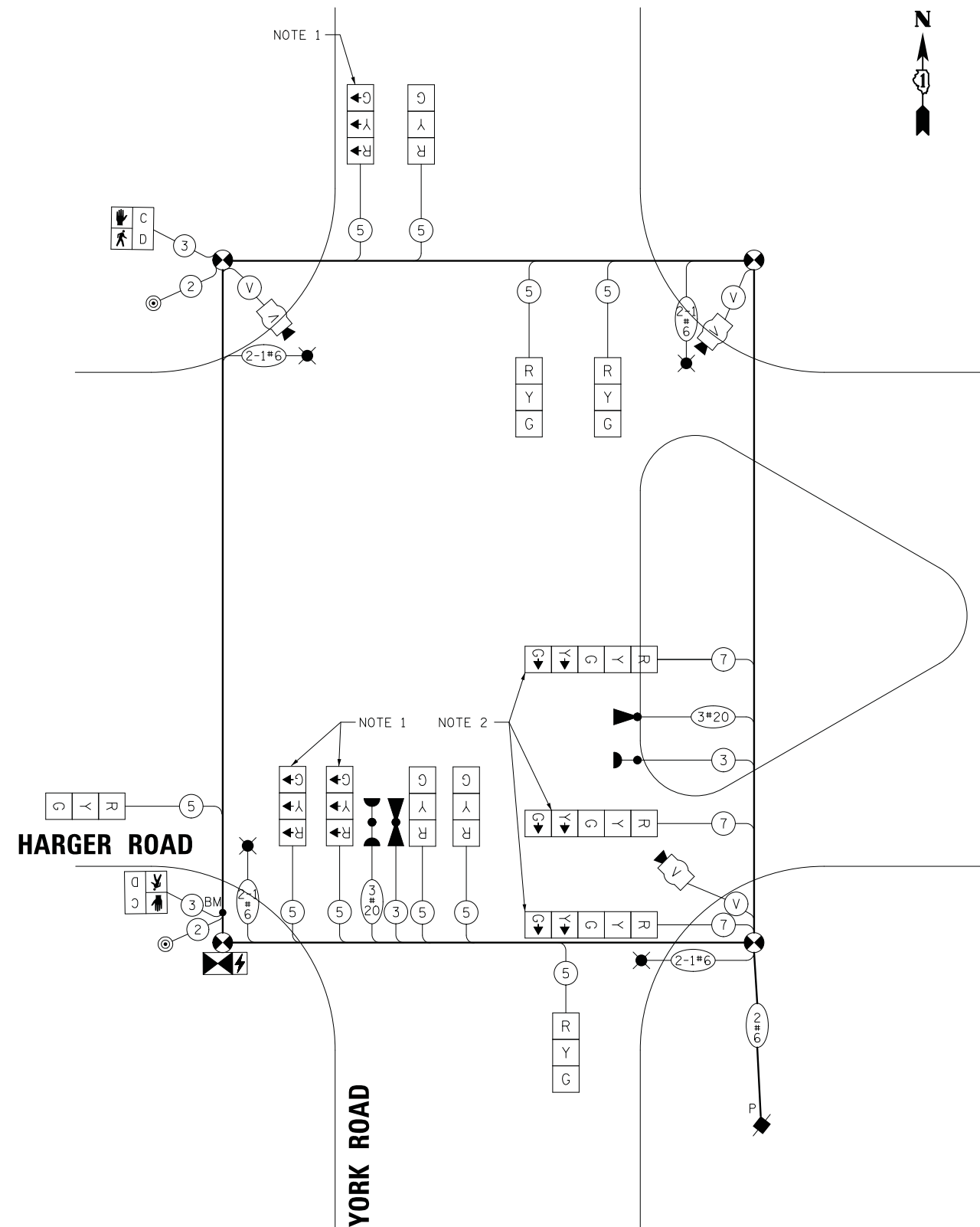
LEGEND

- ⊙ — TEMPORARY 400 WATT, HPS LUMINAIRE
- ⊙ — TEMPORARY TRAFFIC SIGNAL CONTROLLER

RED CABLE	@120V	BLACK CABLE	@120V
A	8	B	8
TOTAL		8	

HARGER ROAD

YORK ROAD



CABLE PLAN
(NOT TO SCALE)

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Tel: 630.773.3900 Fax: 630.773.3975
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CHECKED - JJE	REVISED -
DATE - 12/03/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM,
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE
YORK ROAD AND HARGER ROAD**

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

F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 112
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TEMPORARY SEQUENCE OF OPERATION

MOT STAGES 1-2

MOVEMENT		1 6 ↑					6 ↑					5 → 2 ↑				F L A S H
PHASE		2 + 6					2 + 6P*					2 + 5				
INTERVAL		1	2A	2B	3A	3B	4	5	6	7A	7B	8	9A	9B		
CHANGE TO		2 + 6P					2 + 5					2 + 6 2 + 6P				
YORK ROAD ALL SIGNALS	NB	G	G	G	G	G	G	G	G	G	G	G	G	G	R	
YORK ROAD - NEAR SIDE LEFT AND FAR SIDE 2 LEFT SPAN WIRE SIGNALS	SB	G	G	G	Y	R	G	G	G	Y	R	R	R	R	R	
YORK ROAD - NEAR SIDE RIGHT AND FAR SIDE 2 RIGHT SPAN WIRE SIGNALS	SB	G→	Y→	R→	Y→	R→	R→	R→	R→	R→	R→	R→	R→	R→	R→	
HARGER ROAD FAR SIDE SPAN WIRE SIGNALS	EB	R	R	R	R	R	R	R	R	R	R	G→	Y→	R	R	
HARGER ROAD NEAR SIDE SPAN WIRE SIGNALS	EB	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	
PEDESTRIAN SIGNALS CROSSING HARGER ROAD ON THE WEST SIDE OF YORK ROAD		H	H	H	H	H	P*	FH**	H	H	H	H	H	H	DARK	

PHASES 2+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

* TO APPEAR ONLY UPON PUSHBUTTON ACTUATION.

** FLASHING  IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN CLEARANCE INTERVAL.

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

MOT STAGES 1-2

		PREEMPTOR NUMBER 3										PREEMPTOR NUMBER 4				
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER		1	1			4		4			8		8			
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER		1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	2	3		CLEAR TO NORMAL SEQUENCE
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER		2	1C	3	1E	2	1G	1H	3	1K	2	3				
YORK ROAD ALL SIGNALS	NB	G	Y	R	G	G	G	Y	R	G	G	Y	G	R	◇	
YORK ROAD - NEAR SIDE LEFT AND FAR SIDE 2 LEFT SPAN WIRE SIGNALS	SB	G	Y	R	G	G	G	Y	R	R	R	R	G	R	◇	
YORK ROAD - NEAR SIDE RIGHT AND FAR SIDE 2 RIGHT SPAN WIRE SIGNALS	SB	G→	Y→	R→	R→	R→	R→	R→	R→	R→	R→	R→	G→	R→	◇	
HARGER ROAD FAR SIDE SPAN WIRE SIGNALS	EB	R	R	R	R	R	R	R	R	Y→	R	G→	R	G→	◇	
HARGER ROAD NEAR SIDE SPAN WIRE SIGNALS	EB	R	R	R	R	R	R	R	R	Y	R	G	R	G	◇	
PEDESTRIAN SIGNALS CROSSING HARGER ROAD ON THE WEST SIDE OF YORK ROAD		H	H	H	FH	H	FH	H	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 OR 3 IS TERMINATED.

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DATE	
BY	
PROFILE	
SURVEYED	
PLOTTED	
CHECKED	
NO. OF WAY CHECKED	
NO.	
STRUCTURE NOTATIONS CHKD	



DESIGNED - AS
 DRAWN - OJT
 CHECKED - JJE
 DATE - 12/03/2019

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY SEQUENCE OF OPERATION AND
 TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE (MOT STAGES 1-2)
 YORK ROAD AND HARGER ROAD

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

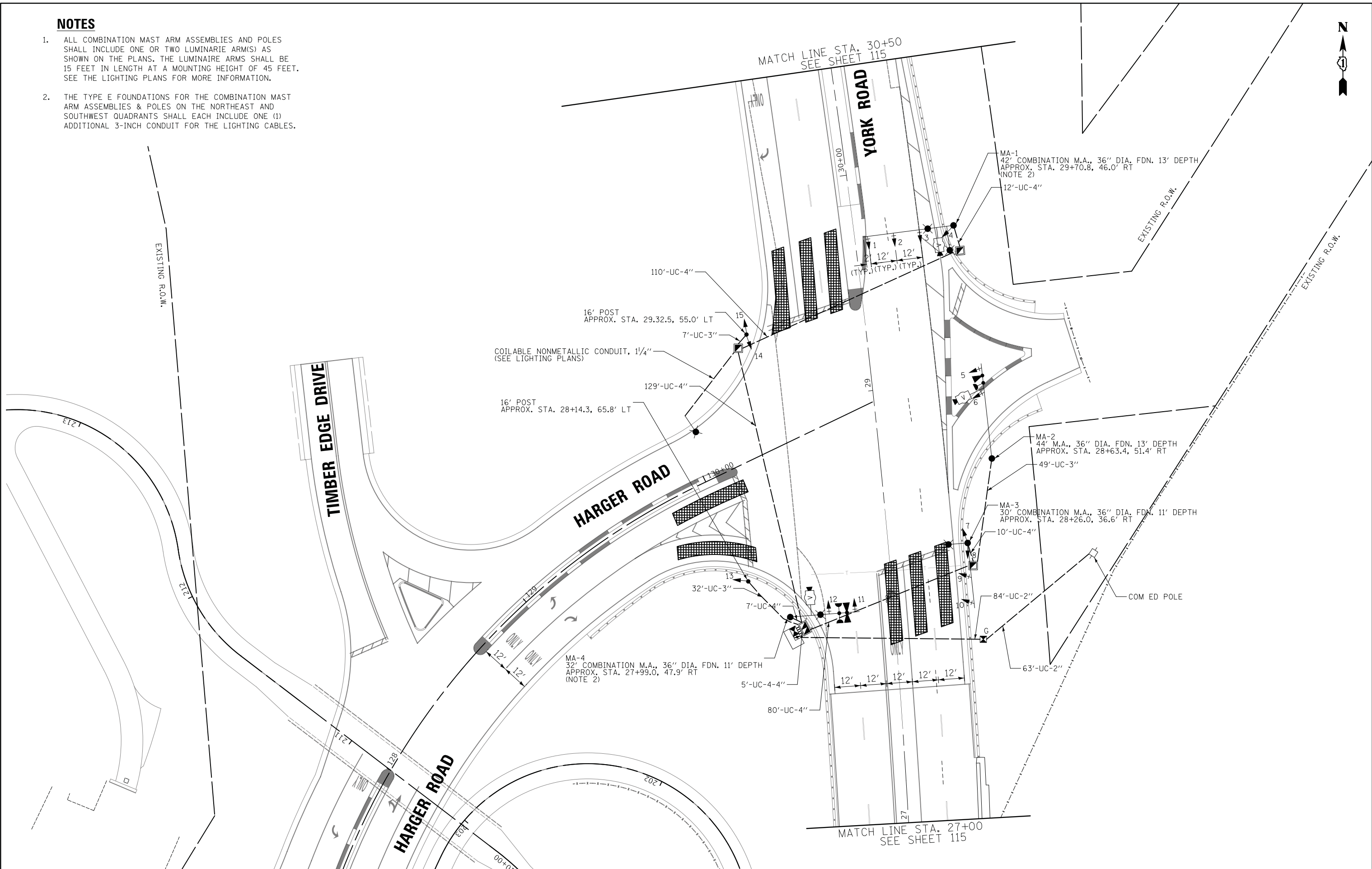
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	113
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

NOTES

1. ALL COMBINATION MAST ARM ASSEMBLIES AND POLES SHALL INCLUDE ONE OR TWO LUMINARIE ARM(S) AS SHOWN ON THE PLANS. THE LUMINAIRE ARMS SHALL BE 15 FEET IN LENGTH AT A MOUNTING HEIGHT OF 45 FEET. SEE THE LIGHTING PLANS FOR MORE INFORMATION.
2. THE TYPE E FOUNDATIONS FOR THE COMBINATION MAST ARM ASSEMBLIES & POLES ON THE NORTHEAST AND SOUTHWEST QUADRANTS SHALL EACH INCLUDE ONE (1) ADDITIONAL 3-INCH CONDUIT FOR THE LIGHTING CABLES.

DATE	
BY	
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PLANNED	
NOTED	
STRUCTURE	
NO.	

DATE	
BY	
SURVEYED	
PLANNED	
NOTED	
STRUCTURE	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

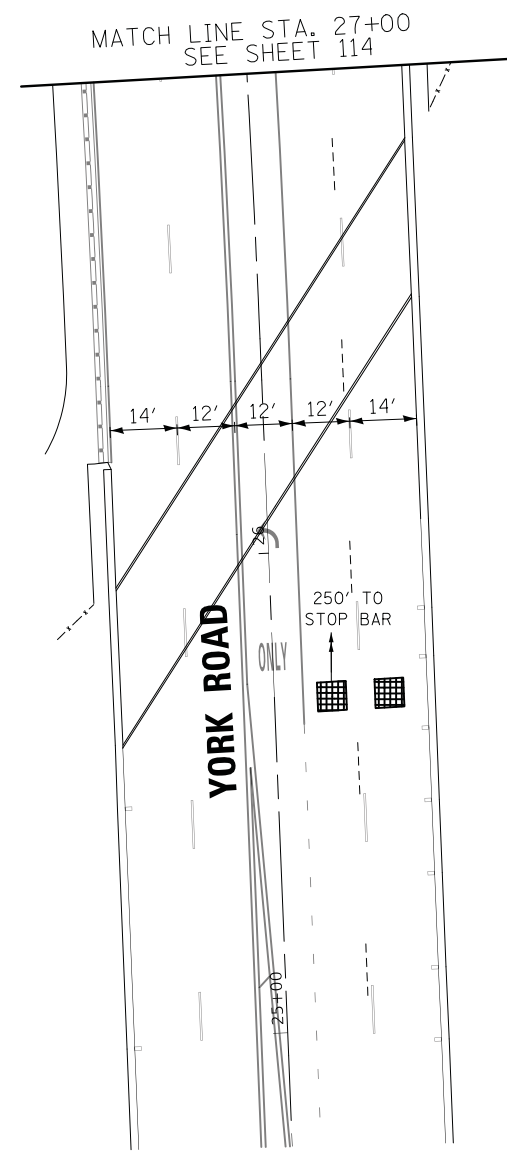
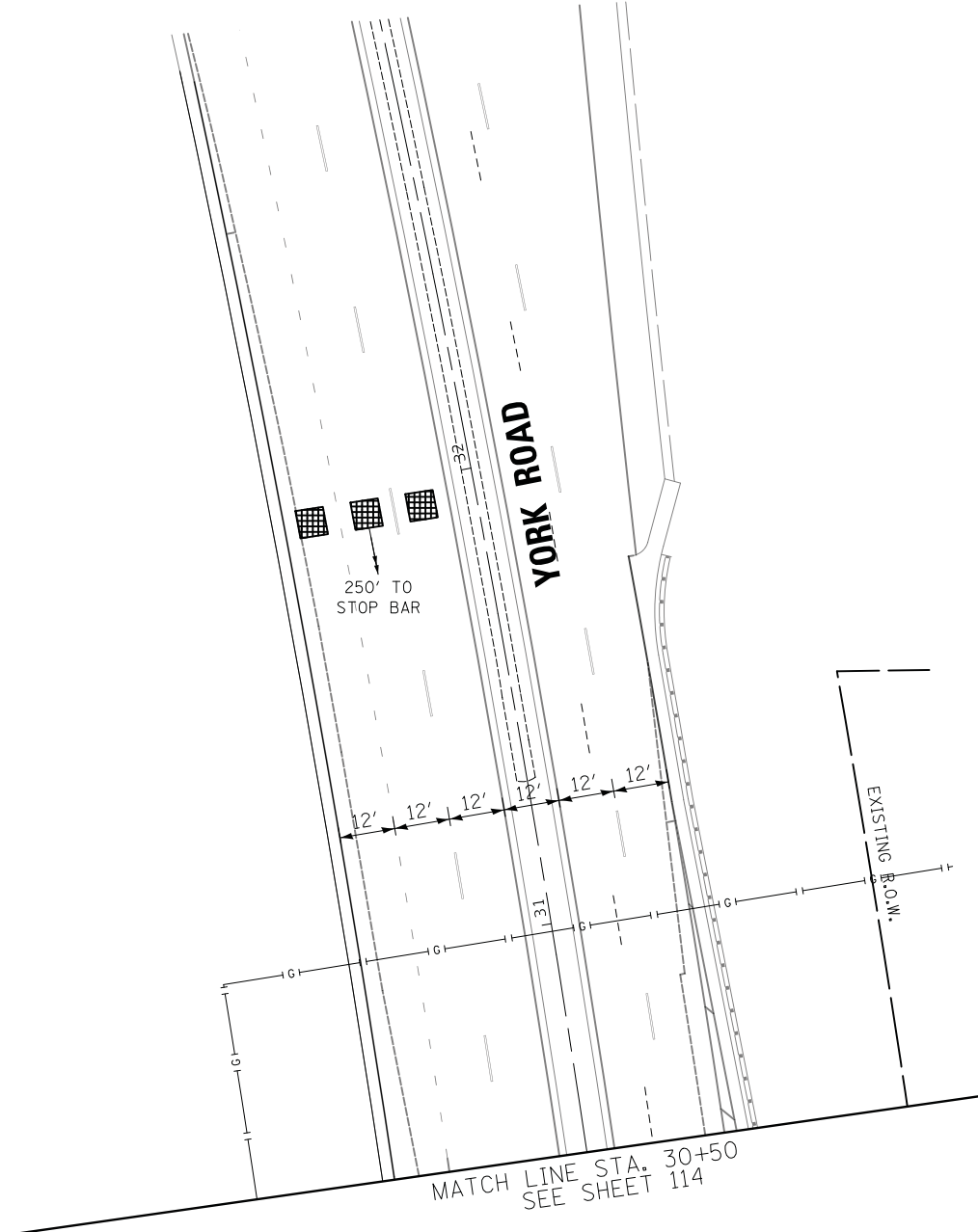
TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 1 OF 2)
YORK ROAD AND HARGER ROAD
 SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	114
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



PLAN	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED	
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PROFILE	SURVEYED	DATE
NOTE BOOK NO.	PLOTTED	
	CHECKED	
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	DATE	



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DATE - 12/03/2019	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

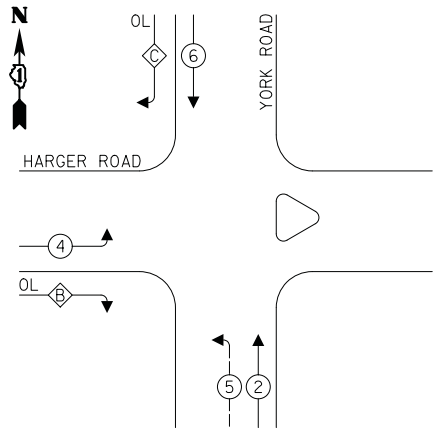
TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 2 OF 2)			
YORK ROAD AND HARGER ROAD			
SCALE: 1" = 20'	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	115
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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ADD. FILE NAME	

DATE	
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NO. OF WAY CHECKED	
NO.	
ADD. FILE NAME	

PROPOSED CONTROLLER SEQUENCE



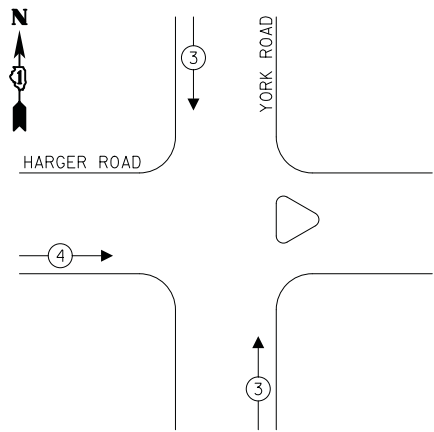
LEGEND:

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

RIGHT TURN OVERLAP PHASE DESIGNATION:

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4 + 5	
C	= 6 + 4	

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



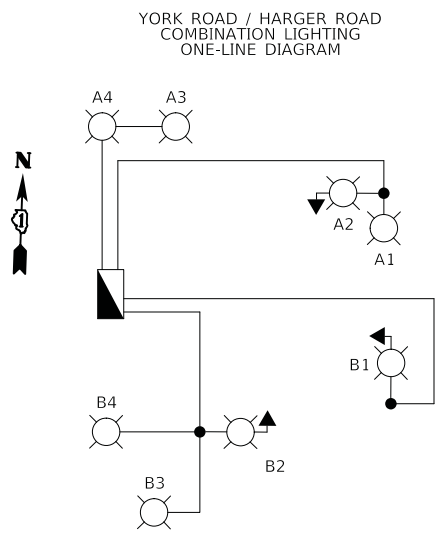
TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	15	11	50	82.5
(YELLOW)	15	20	5	15.0
(GREEN)	15	12	45	81.0
PROT-PERM ARROW	8	10	10	8.0
PED. SIGNAL	-	20	100	-
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	1	150	100	150.0
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	8	214	50	856.0
TOTAL =				1317.5

ENERGY COSTS TO:

VILLAGE OF OAK BROOK
1200 OAK BROOK ROAD
OAK BROOK, IL 60523

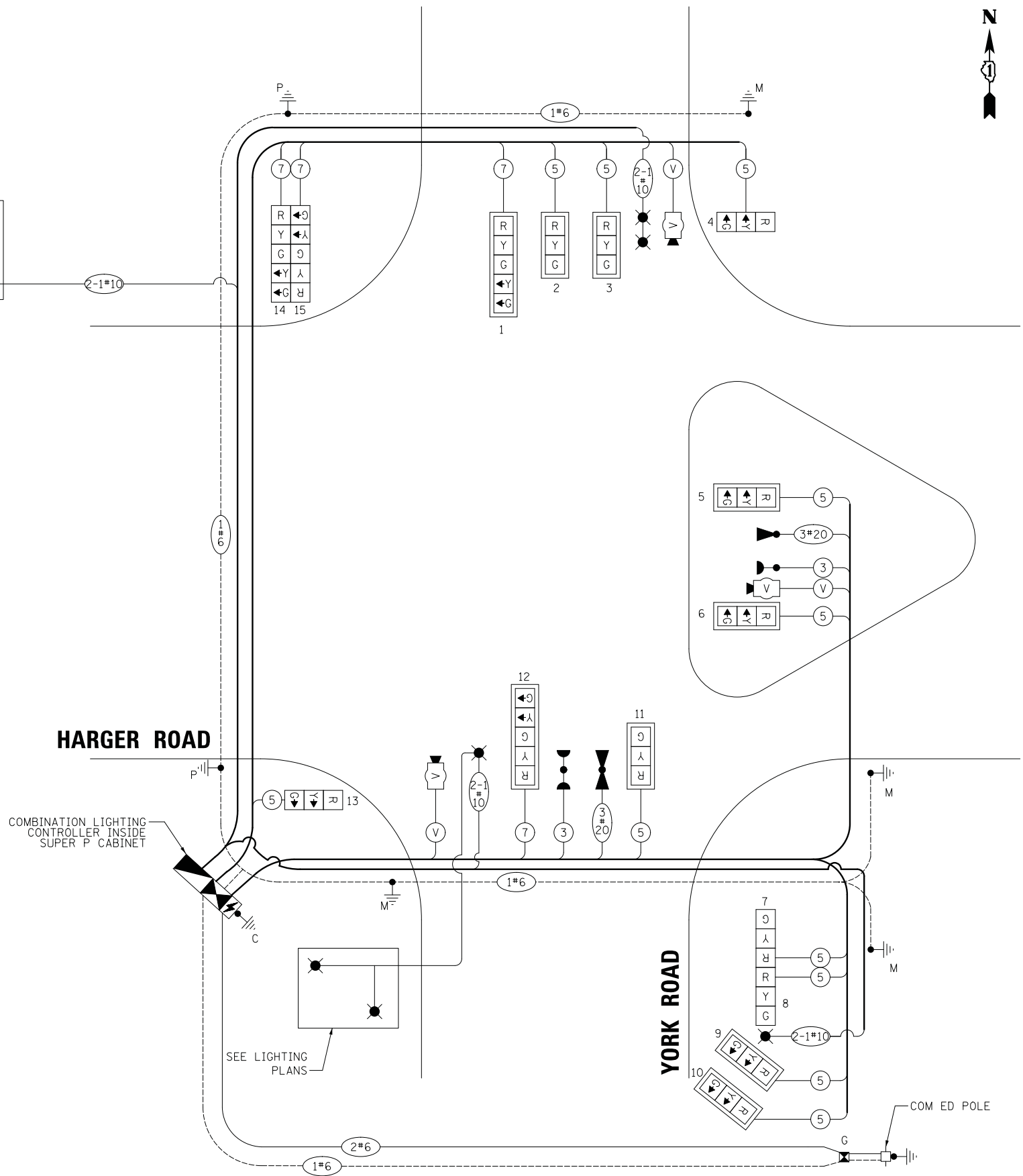
ENERGY SUPPLY: CONTACT: NEW BUSINESS
PHONE: (866) 639-3532
COMPANY: COMED
ACCOUNT NUMBER: XXXXXXXXXX



LEGEND

- PROPOSED LUMINAIRE
- PROPOSED COMBINATION LIGHTING CONTROLLER INSIDE SUPER P CABINET

	RED CABLE @120V	BLACK CABLE @120V
A	8.56	8.56
B	8.56	8.56
TOTAL	8.56	8.56



CABLE PLAN

(NOT TO SCALE)

CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE YORK ROAD AND HARGER ROAD

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

F.A.U. RTE. 2678 1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 116
CONTRACT NO. 61G16				

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

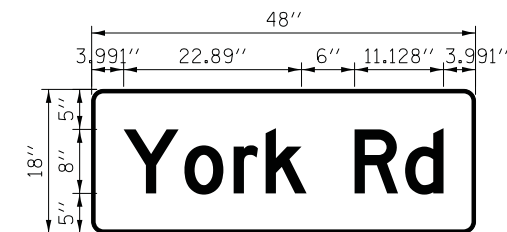
CIVILTECH
Two Pierce Place, Suite 1400
Itasca, Illinois 60143
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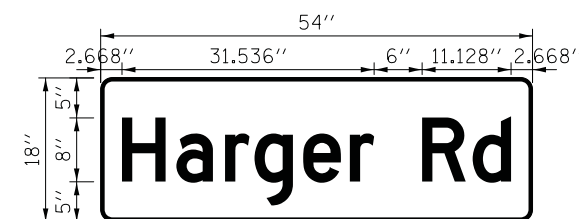
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN	SURVEYED	BY	DATE
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PROFILE	SURVEYED	BY	DATE
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	NO.		
	STRUCTURE NOTATIONS CHKD		



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6	TYPE 1	ZZ	2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	6.75	TYPE 1	ZZ	2

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
SIGN PANEL - TYPE I	SQ FT	26
SERVICE INSTALLATION - GROUND MOUNTED	EACH	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	147
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	88
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	368
HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	306
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2173
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	790
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	FOOT	188
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	779
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	8
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	48
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	7
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	9
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	306
FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
VIDEO DETECTION SYSTEM COMPLETE INTERSECTION	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

COMBINATION LIGHTING SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1782
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	4
COMBINATION LIGHTING CONTROLLER	EACH	1

LEGEND

	EXISTING LIGHTING UNIT (TOLLWAY) LED LUMINAIRE, 50 FT M.H., 15 FT MAST ARM
	EXISTING LIGHTING UNIT (IDOT) 310 OR 400 WATT HPS, 47.5 FT. M.H., 15 FT. MAST ARM
	TEMPORARY LIGHTING UNIT 400 WATT HPS COBRAHEAD 60 FT. WOOD POLE (47.5 FT. MOUNTING HEIGHT) 15 FT. MAST ARM
	TEMPORARY AERIAL CABLE (AS SPECIFIED IN THE PLANS)
	TEMPORARY WOOD POLE, 50 FT., CLASS 4
	PROPOSED LIGHTING UNIT (VILLAGE OF OAK BROOK) LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H LIGHT POLE, ALUMINAIRE, 47.5 FT. M.H., 15 FT. MAST ARM
	PROPOSED LIGHTING UNIT (IDOT) LUMINAIRE, 400 WATT HPS, TYPE III DISTRIBUTION LIGHT POLE, ALUMINAIRE, 47.5 FT. M.H., 15 FT. MAST ARM
	RELOCATED EXISTING LIGHTING UNIT
	PROPOSED COMBINATION LIGHTING UNIT MOUNTED ON TRAFFIC SIGNAL POLES (VILLAGE OF OAK BROOK) LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H
	EXISTING CABLES
	REMOVAL OF EXISTING CABLES
	PROPOSED UNIT DUCT (AS SPECIFIED IN PLANS)
	UNDERPASS LUMINAIRE (SPECIAL) UNDERPASS LED WALL MOUNTED LUMINAIRE
	JUNCTION BOX, STAINLESS STEEL, EMBEDDED IN STRUCTURE, 8"x8"x6"
	PROPOSED LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60 AMP

LIGHTING GENERAL NOTES

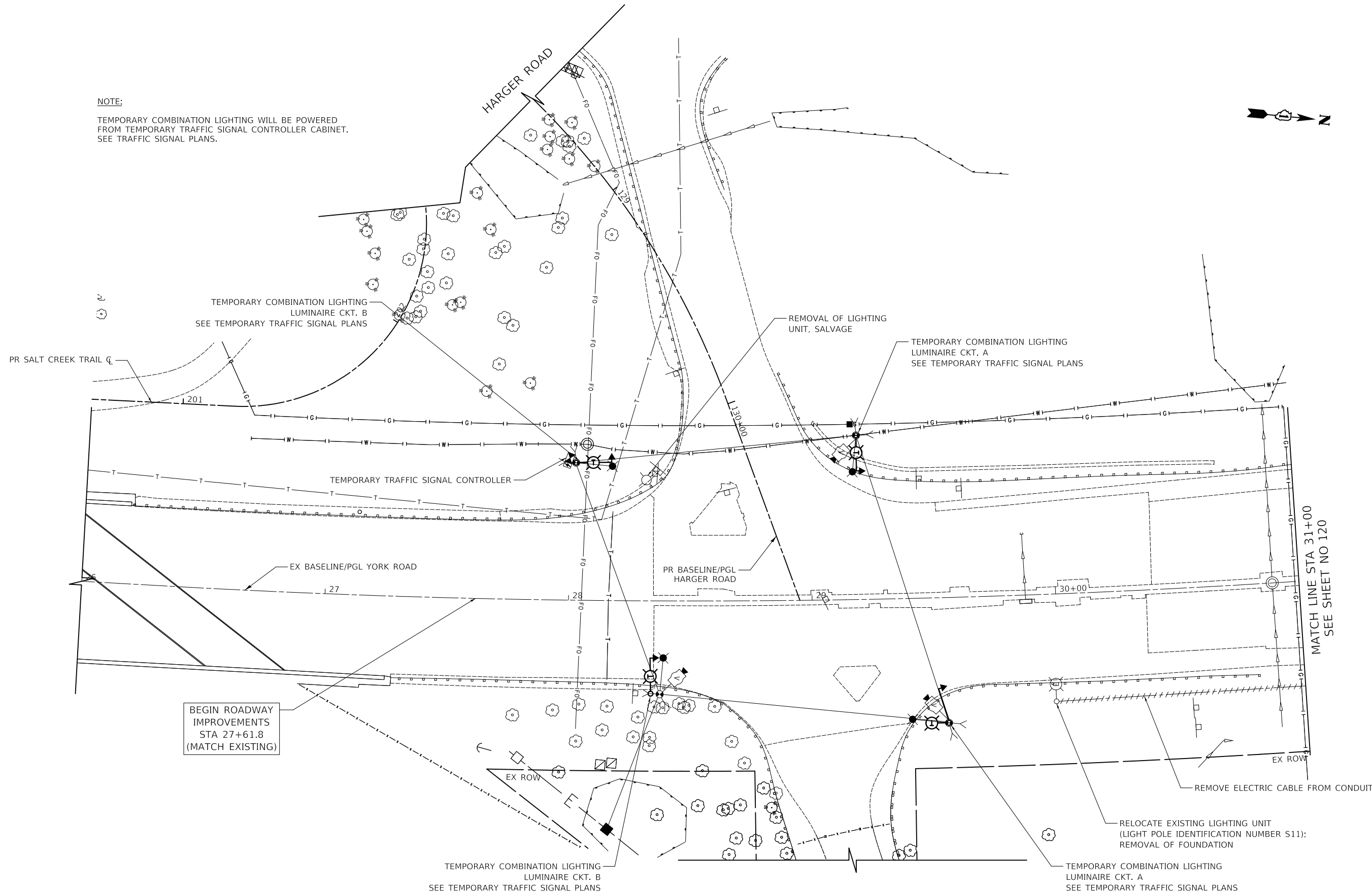
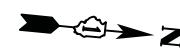
1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
2. PAY ITEMS IN THE SUMMARY OF QUANTITIES HAVE BEEN ESTIMATED. IF, IN THE ENGINEER'S OPINION, ANY WORK IS NOT REQUIRED, THAT ITEM WILL BE DEDUCTED FROM THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
3. EXISTING LIGHTING WILL REMAIN OPERATIONAL UNTIL TEMPORARY LIGHTING ARE INSTALLED AND OPERATIONAL. TEMPORARY LIGHTING WILL REMAIN OPERATIONAL UNTIL PROPOSED LIGHTING IS INSTALLED AND OPERATIONAL. TRANSITION FROM EXISTING TO TEMPORARY TO PROPOSED LIGHTING WILL BE COORDINATED AND COMPLETED ON THE SAME DAY WITHOUT ANY INTERRUPTION OF LIGHTING OPERATION FOR THAT SAME EVENING.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES AND LIGHTING CONTROLLERS FOR EXAMINATION AND CONFIRMATION WITH THE RESIDENT ENGINEER.
5. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO INSTALLING LIGHT POLE FOUNDATIONS. THE EXACT LOCATIONS FOR ALL ITEMS SHALL BE CONFIRMED WITH THE RESIDENT ENGINEER.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF FINISHED GRADE. THE RESIDENT ENGINEER MAY ASSIST THE CONTRACTOR, AS APPLICABLE, BUT THE RESPONSIBILITY FOR COORDINATING THE FINISHED GRADE ELEVATION WITH THE TOP OF FOUNDATIONS HEIGHTS AND THE LIGHT SHALL REMAIN WITH THE CONTRACTOR.
7. LIGHT POLE FOUNDATIONS TYPE IS SPECIFIED IN PLANS BASE ON UTILITY INFORMATION. IF IT IS DETERMINED THAT THE CONDITIONS IN THE FIELD REQUIRES AN OFFSET FOUNDATION, AN OFFSET FOUNDATION WILL BE USED WITH APPROVAL OF THE ENGINEER.
8. NO LIGHT POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED, AS APPROVED BY THE ENGINEER.
9. FOR CONCRETE FOUNDATIONS, A MINIMUM OF 2 SLEEVES SHALL BE PROVIDED REGARDLESS OF WHAT IS BEING INSTALLED. THE SLEEVES SHALL BE SEALED AND CAPPED TO PREVENT MOISTURE OR CONTAMINANTS. MATERIAL AND LABOR WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE PAY ITEM FOR LIGHT POLE FOUNDATION.
10. TO MAINTAIN THE STRUCTURAL INTEGRITY OF POLES WITH MAST ARMS, THEY SHALL NOT BE ERECTED AND LEFT TO STAND WITHOUT LUMINAIRES. NOTE THAT THE CONTRACTOR SHALL NOT BE PAID FOR POLES UNTIL LUMINAIRES ARE INSTALLED.
11. CONDUIT AND UNIT DUCT MUST BE POSITIONED IN THE FIELD TO AVOID CONFLICT WITH TREES, BUSHES, DRAINS, OTHER UTILITIES, AND LANDSCAPING.
12. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE ANY LIGHT STANDARD IS ERECTED.
13. THE INSTALLATION OF BURIED WARNING TAPE SHALL BE INSPECTED AND APPROVED BY THE RESIDENT ENGINEER.
14. NO UNDERGROUND SPLICING ALLOWED.
15. ANY DAMAGE TO PAVEMENT, SIDEWALK, CURB, OR ANY OTHER PORTION OF THE ROADWAY NOT SPECIFICALLY TO BE REMOVED AND REPLACED SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST AND REPLACEMENT SHALL MEET THE APPROVAL OF THE ENGINEER.
16. OFFSET CALL-OFFS FOR TEMPORARY LIGHT POLES ARE FROM THE CENTER OF POLES TO PROPOSED BASELINE/PGL. OFFSET CALL-OFFS FOR PROPOSED LIGHT POLES ARE FROM THE CENTER OF POLE TO PROPOSED EDGE OF PAVEMENT (E.O.P.)

LIGHTING BILL OF MATERIALS

ITEM	UNIT	TOTAL QUANTITY
ELECTRIC SERVICE INSTALLATION	EACH	1
ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
UNDERGROUND CONDUIT, GALVANIZED STEEL, 1" DIA.	FOOT	100
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	535
UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.	FOOT	40
CONDUIT EMBEDDED IN STRUCTURE, 1" DIA., GALVANIZED STEEL	FOOT	239
JUNCTION BOX, STAINLESS STEEL, ATTACHED TO STRUCTURE, 8" X 8" X 6"	EACH	2
HANDHOLE	EACH	2
UNIT DUCT, 600V, 2-1C NO.10, 1/C NO.10 GROUND, (XLP-TYPE USE), 3/4" DIA. POLYETHYLENE	FOOT	373
UNIT DUCT, 600V, 3-1C NO.6, 1/C NO.8 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	710
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1216
ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 2/0	FOOT	1671
AERIAL CABLE, 3-1/C NO. 6 WITH MESSENGER WIRE	FOOT	660
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	1
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H	EACH	4
LIGHTING CONTROLLER, PEDESTAL MOUNTED, 240VOLT, 60AMP	EACH	1
LIGHT POLE, ALUMINUM, 47.5 FT. M.H., 15 FT. MAST ARM	EACH	5
LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	90
BREAKAWAY DEVICE, TRANSFORMER BASE, 15 INCH BOLT CIRCLE	EACH	9
REMOVAL OF LIGHTING UNIT, SALVAGE	EACH	1
REMOVAL OF POLE FOUNDATION	EACH	4
RELOCATE EXISTING LIGHTING UNIT	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2514
TEMPORARY WOOD POLE, 60 FT., CLASS 4, 15 FT. MAST ARM	EACH	4
TEMPORARY WOOD POLE, 50 FT., CLASS 4	EACH	1
TEMPORARY LUMINAIRE, HIGH PRESSURE SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	4
UNDERPASS LUMINAIRE (SPECIAL)	EACH	10
LIGHT POLE FOUNDATION, 24" DIAMETER, OFFSET	FOOT	24
MAINTENANCE OF LIGHTING SYSTEM	CAL MO	8
UNIT DUCT, 600V, 2-1C NO.2, 1/C NO.8 GROUND, (EPR-TYPE RHW), 2" DIA. POLYETHYLENE	FOOT	226

NOTE:

TEMPORARY COMBINATION LIGHTING WILL BE POWERED FROM TEMPORARY TRAFFIC SIGNAL CONTROLLER CABINET. SEE TRAFFIC SIGNAL PLANS.



MATCH LINE STA 31+00
SEE SHEET NO 120

YORK ROAD

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

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DATE - 12/27/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

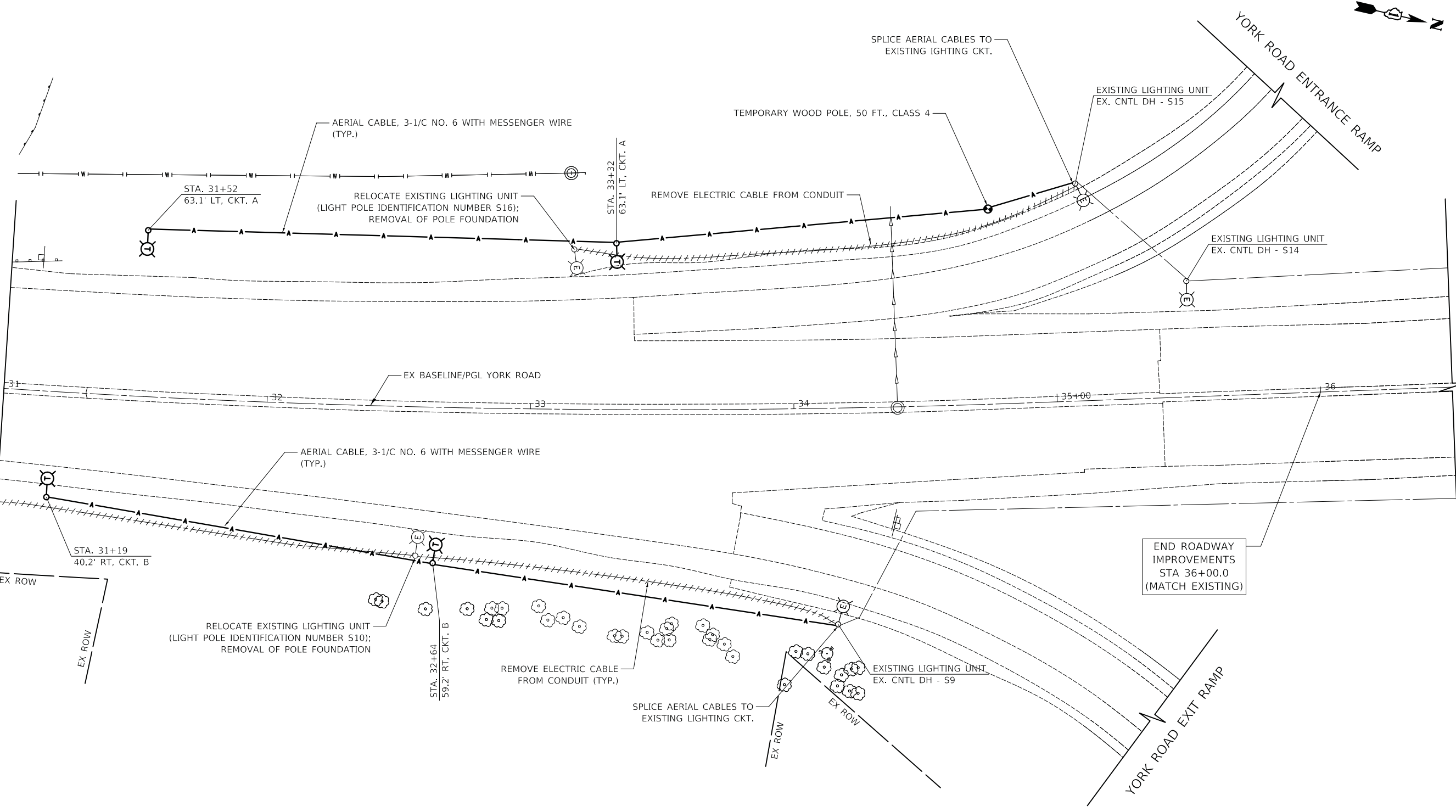


TEMPORARY LIGHTING PLAN

SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	119
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

MATCH LINE STA 31+00
SEE SHEET NO 119

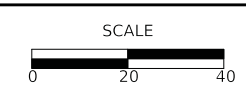


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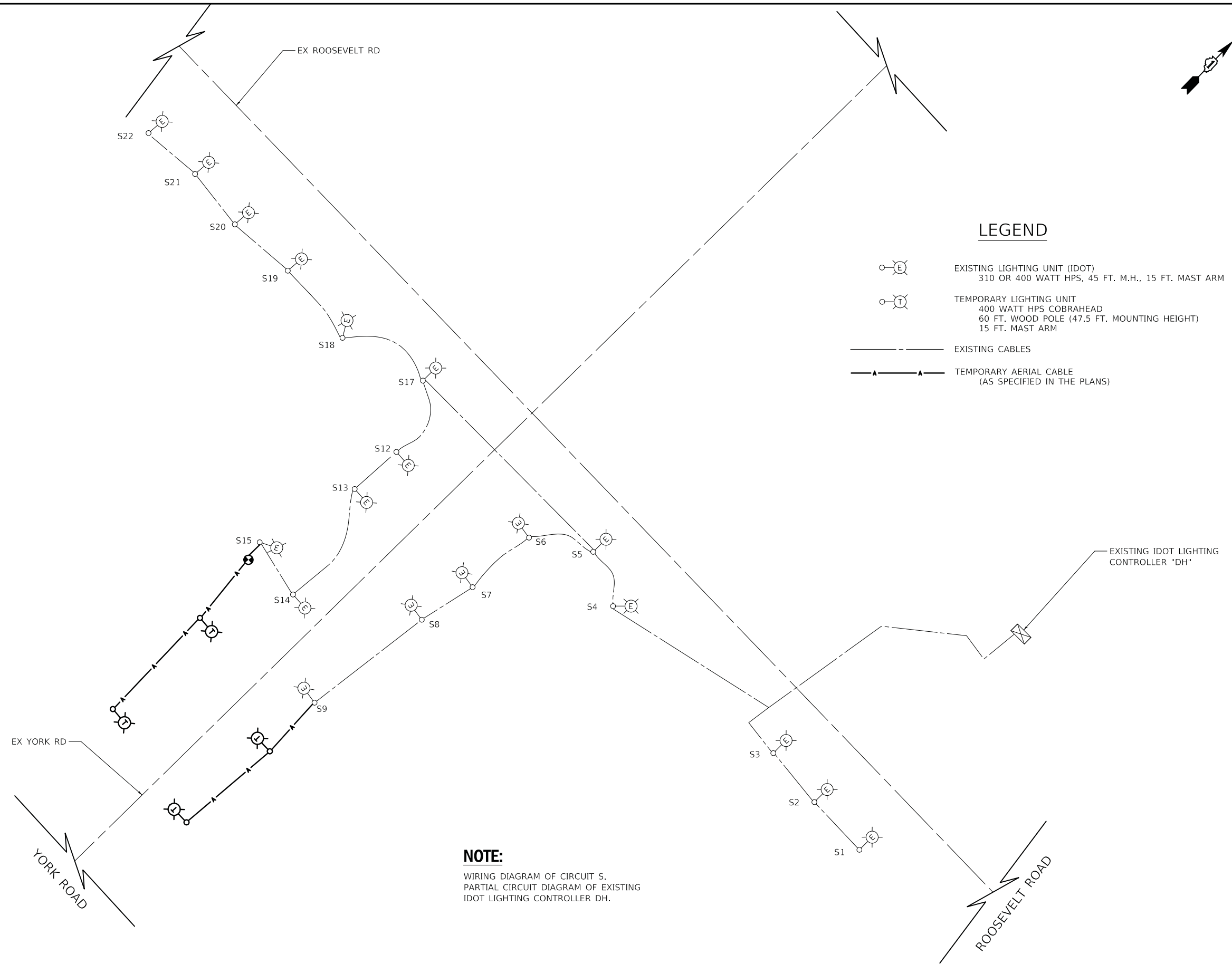
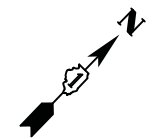
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



TEMPORARY LIGHTING PLAN

SHEET 2 OF 4 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	120
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



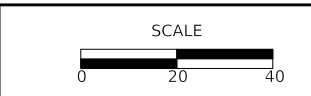
LEGEND

- EXISTING LIGHTING UNIT (IDOT)
310 OR 400 WATT HPS, 45 FT. M.H., 15 FT. MAST ARM
- TEMPORARY LIGHTING UNIT
400 WATT HPS COBRAHEAD
60 FT. WOOD POLE (47.5 FT. MOUNTING HEIGHT)
15 FT. MAST ARM
- EXISTING CABLES
- TEMPORARY AERIAL CABLE
(AS SPECIFIED IN THE PLANS)

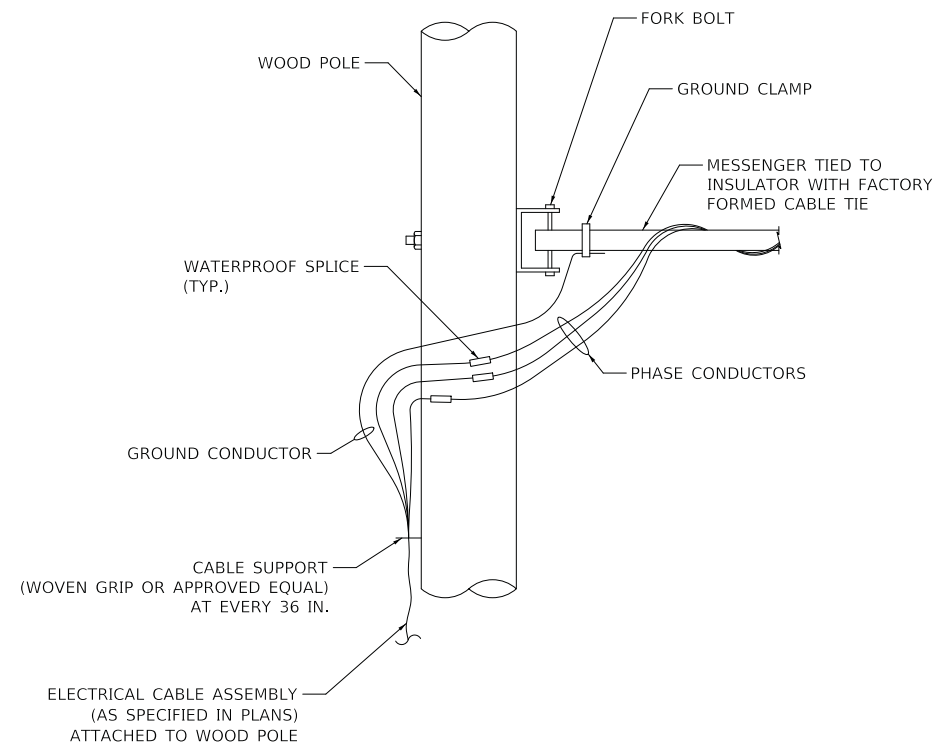
NOTE:

WIRING DIAGRAM OF CIRCUIT S.
PARTIAL CIRCUIT DIAGRAM OF EXISTING
IDOT LIGHTING CONTROLLER "DH".

DESIGNED -	REVISED -
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DATE - 12/27/2019	REVISED -



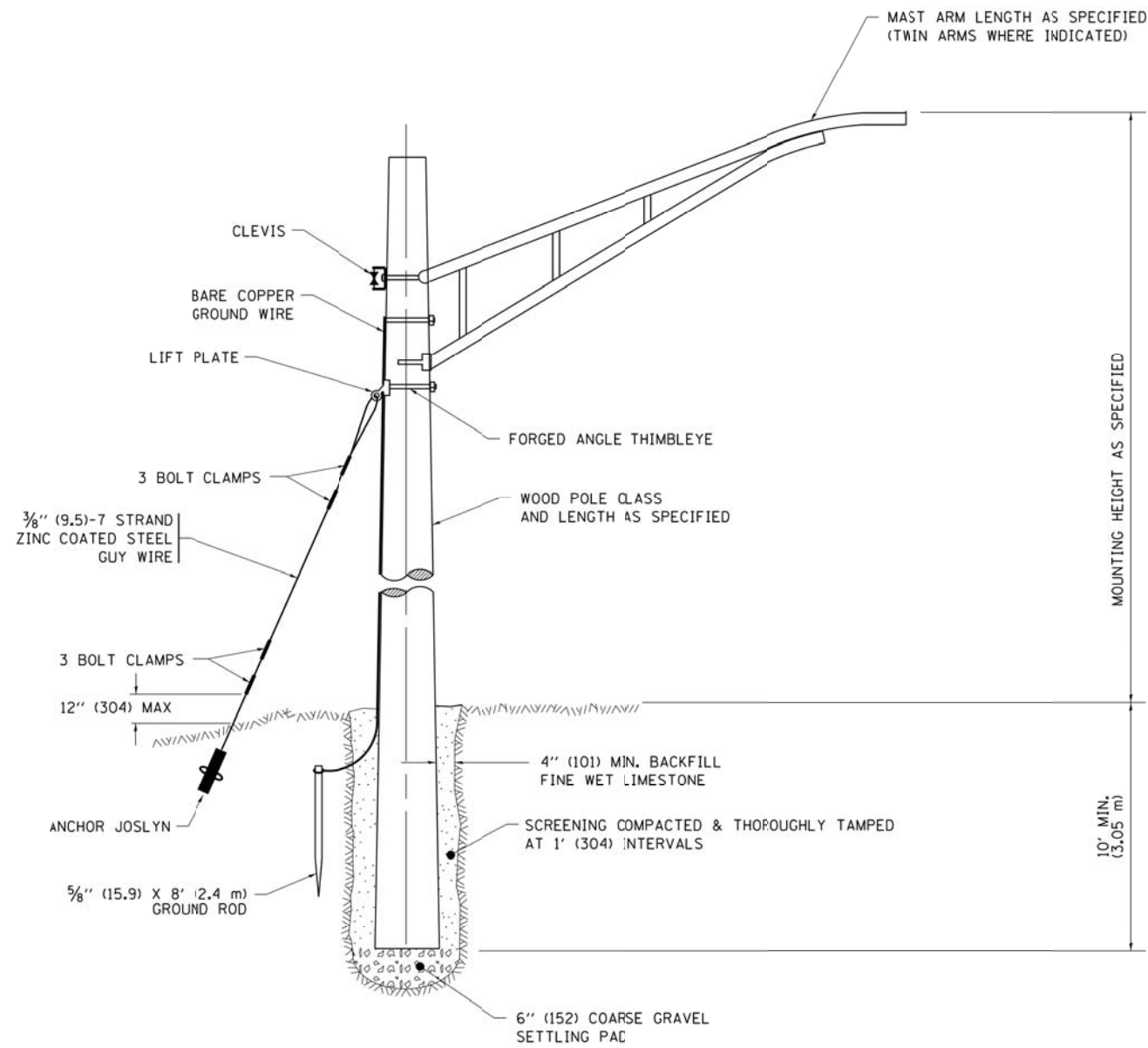
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	121
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G16	



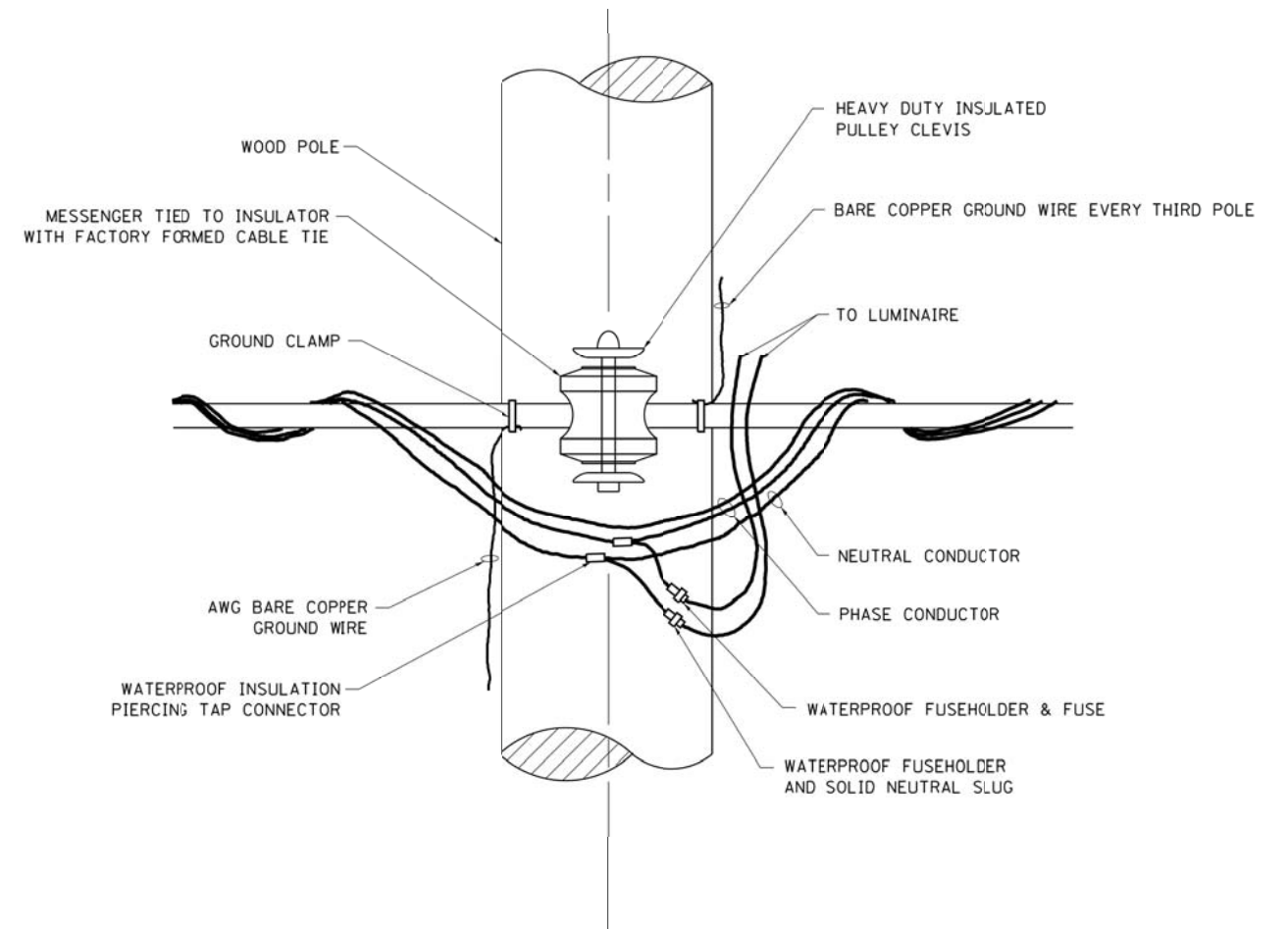
AERIAL CABLE CONNECTION DETAIL

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DRAWN -	REVISED -
CHECKED -	REVISED -
DATE - 12/27/2019	REVISED -

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	122
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



TEMPORARY LIGHT POLE DETAIL



TEMPORARY LIGHT POLE ATTACHMENT DETAIL

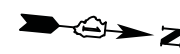
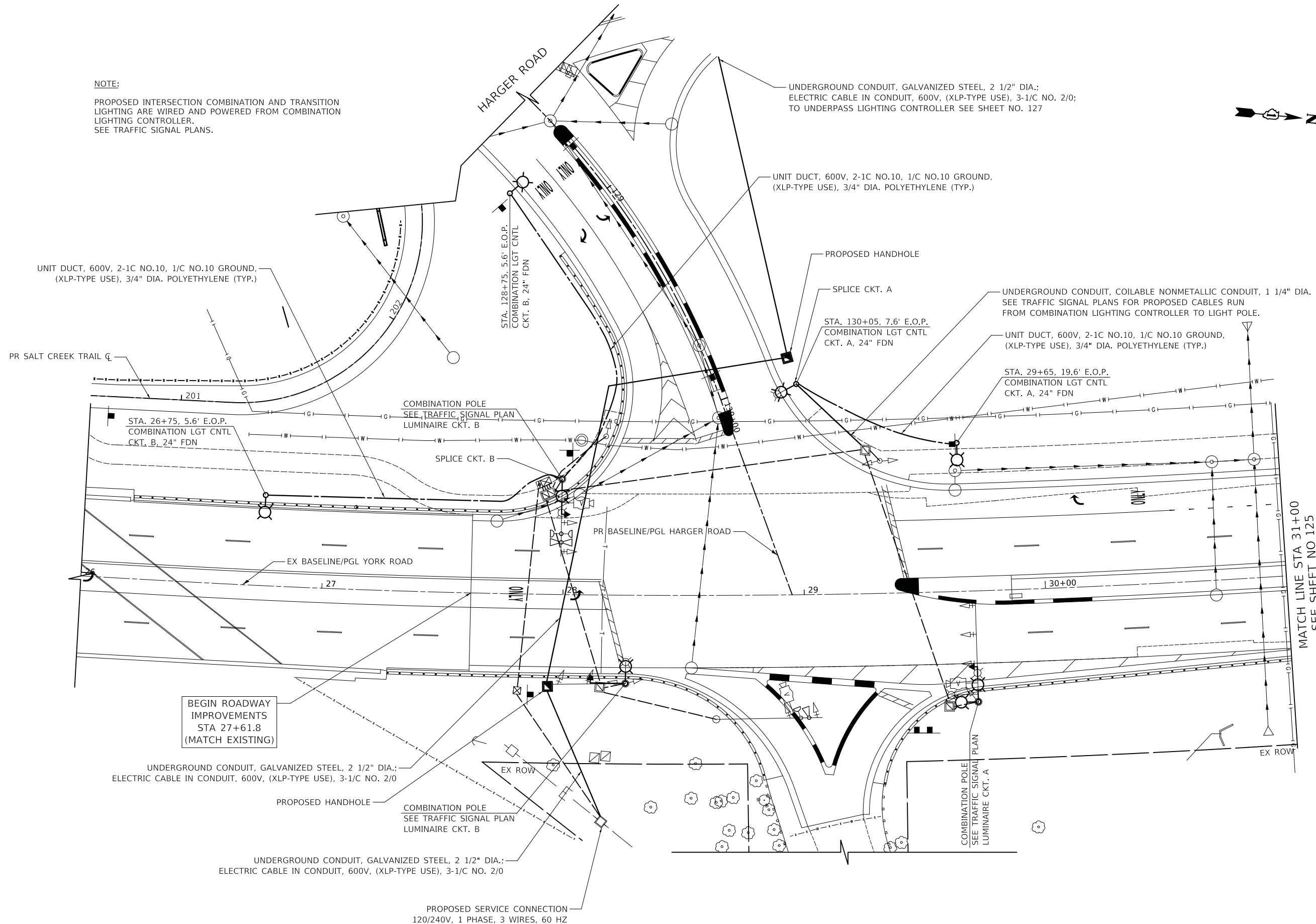
NOTE:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. MAST ARM SHALL BE RATED FOR THE SPECIFIED MOUNTING HEIGHT.

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHT POLE DETAILS			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
pw\ill084EBIDINTE\illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist	DRAWN\CADDeta\CADsheets\be800.dgn	CHECKED -	REVISED - R.T. 07-26-16		SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.	17-00049-00-PV	208	123
Default	PLOT SCALE = 50.000' / in.	DATE -	REVISED -					BE-800		CONTRACT NO. 61G16			
	PLOT DATE = 9/1/2016				ILLINOIS FED. AID PROJECT								

NOTE:

PROPOSED INTERSECTION COMBINATION AND TRANSITION LIGHTING ARE WIRED AND POWERED FROM COMBINATION LIGHTING CONTROLLER. SEE TRAFFIC SIGNAL PLANS.



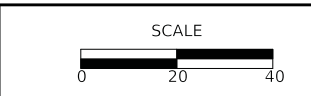
MATCH LINE STA 31+00
SEE SHEET NO 125

YORK ROAD

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DATE - 12/27/2019	REVISED -

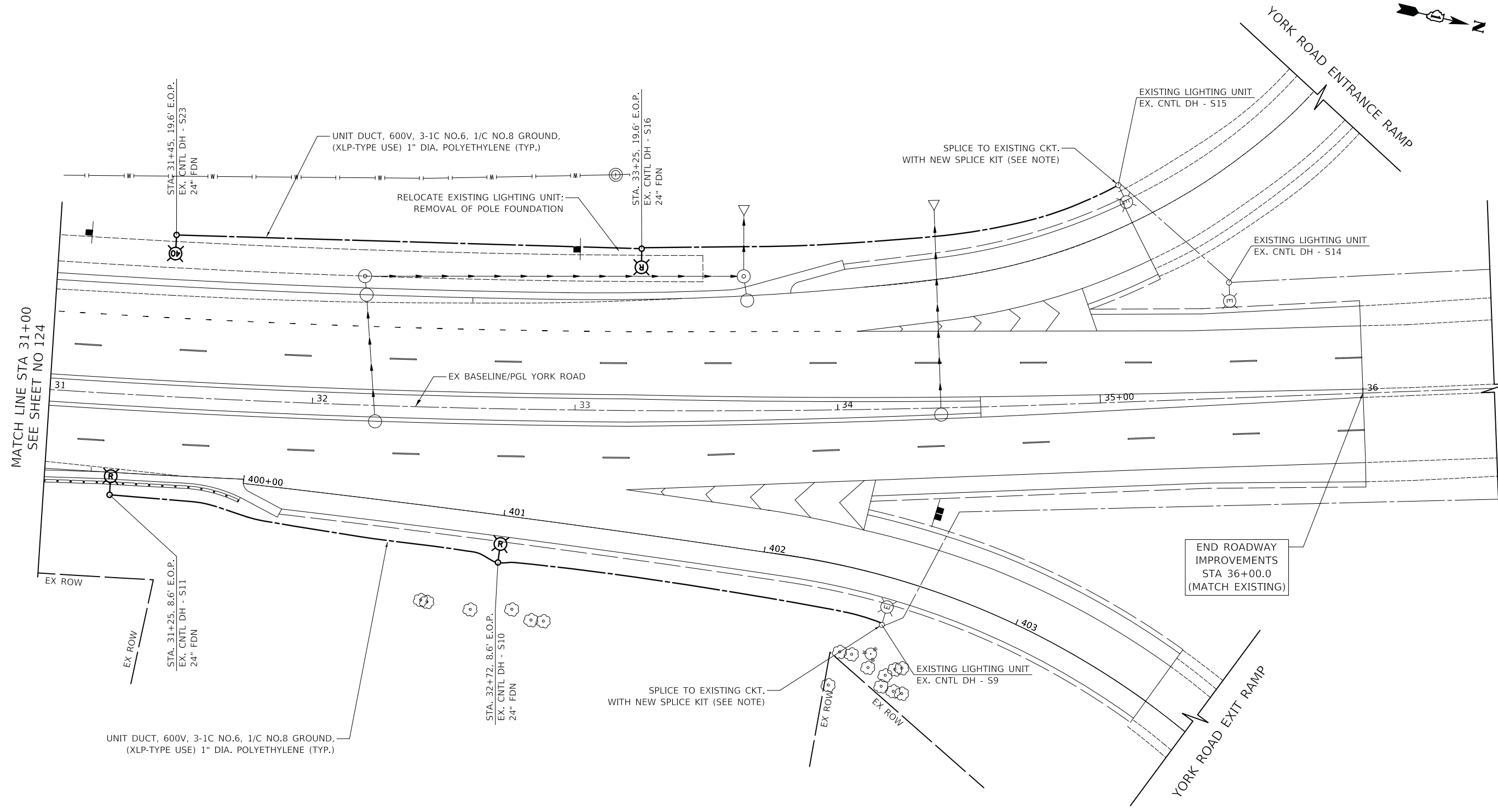
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



LIGHTING PLAN

SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 124
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



MATCH LINE STA 31+00
SEE SHEET NO 124

END ROADWAY
IMPROVEMENTS
STA 36+00.0
(MATCH EXISTING)

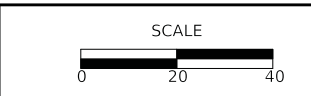
NOTE:
NEW SPLICE KIT WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE PAY ITEM OF UNIT DUCT.

YORK ROAD

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DATE - 12/27/2019	REVISED -

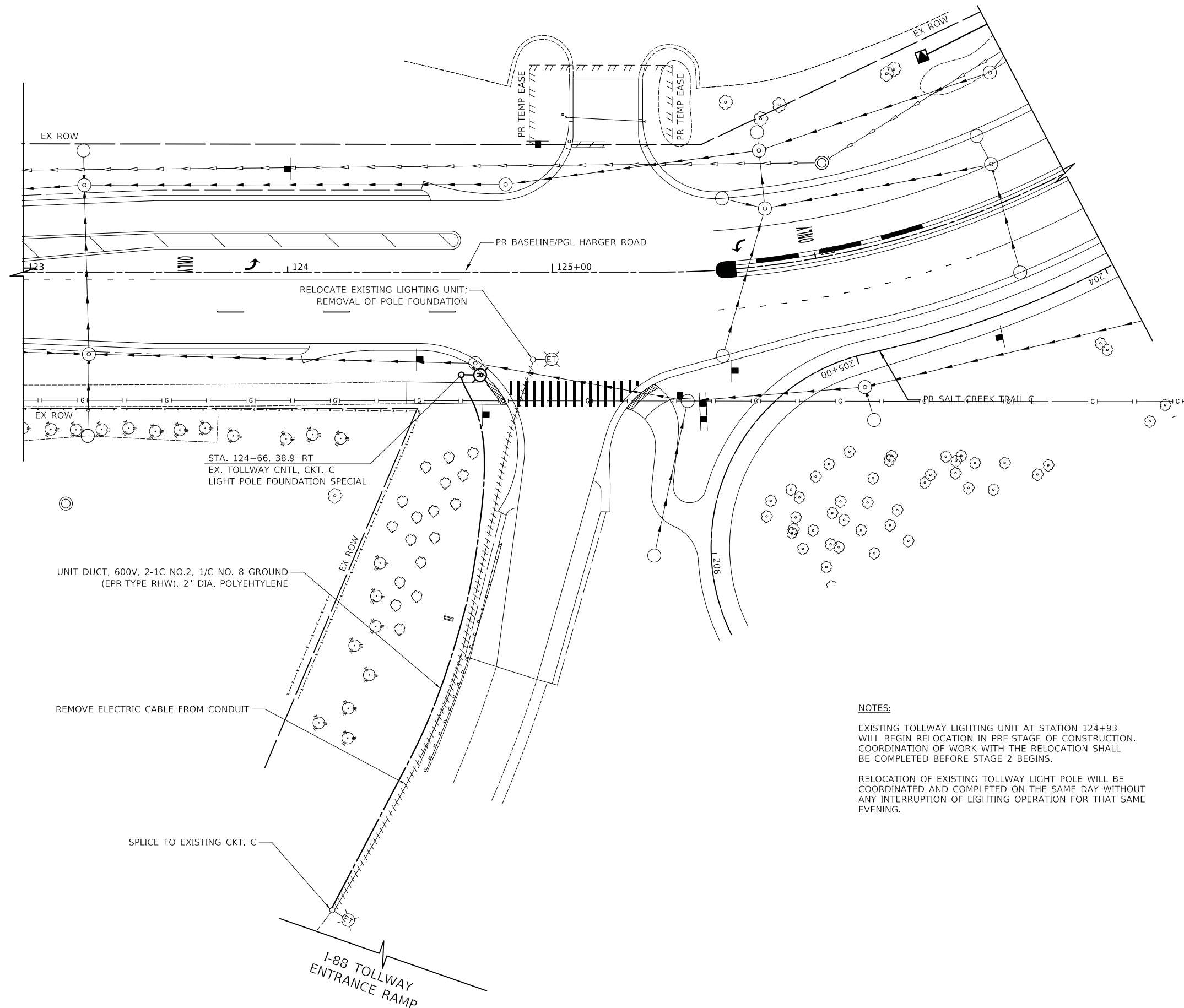
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



LIGHTING PLAN

SHEET 2 OF 4 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	125
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G16	



STA. 124+66, 38.9' RT
EX. TOLLWAY CNTL, CKT. C
LIGHT POLE FOUNDATION SPECIAL

UNIT DUCT, 600V, 2-1C NO.2, 1/C NO. 8 GROUND
(EPR-TYPE RHW), 2" DIA. POLYETHYLENE

REMOVE ELECTRIC CABLE FROM CONDUIT

SPLICE TO EXISTING CKT. C

NOTES:

EXISTING TOLLWAY LIGHTING UNIT AT STATION 124+93 WILL BEGIN RELOCATION IN PRE-STAGE OF CONSTRUCTION. COORDINATION OF WORK WITH THE RELOCATION SHALL BE COMPLETED BEFORE STAGE 2 BEGINS.

RELOCATION OF EXISTING TOLLWAY LIGHT POLE WILL BE COORDINATED AND COMPLETED ON THE SAME DAY WITHOUT ANY INTERRUPTION OF LIGHTING OPERATION FOR THAT SAME EVENING.

I-88 TOLLWAY
ENTRANCE RAMP

HARGER ROAD

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DATE - 12/27/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**



LIGHTING PLAN

SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	126
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

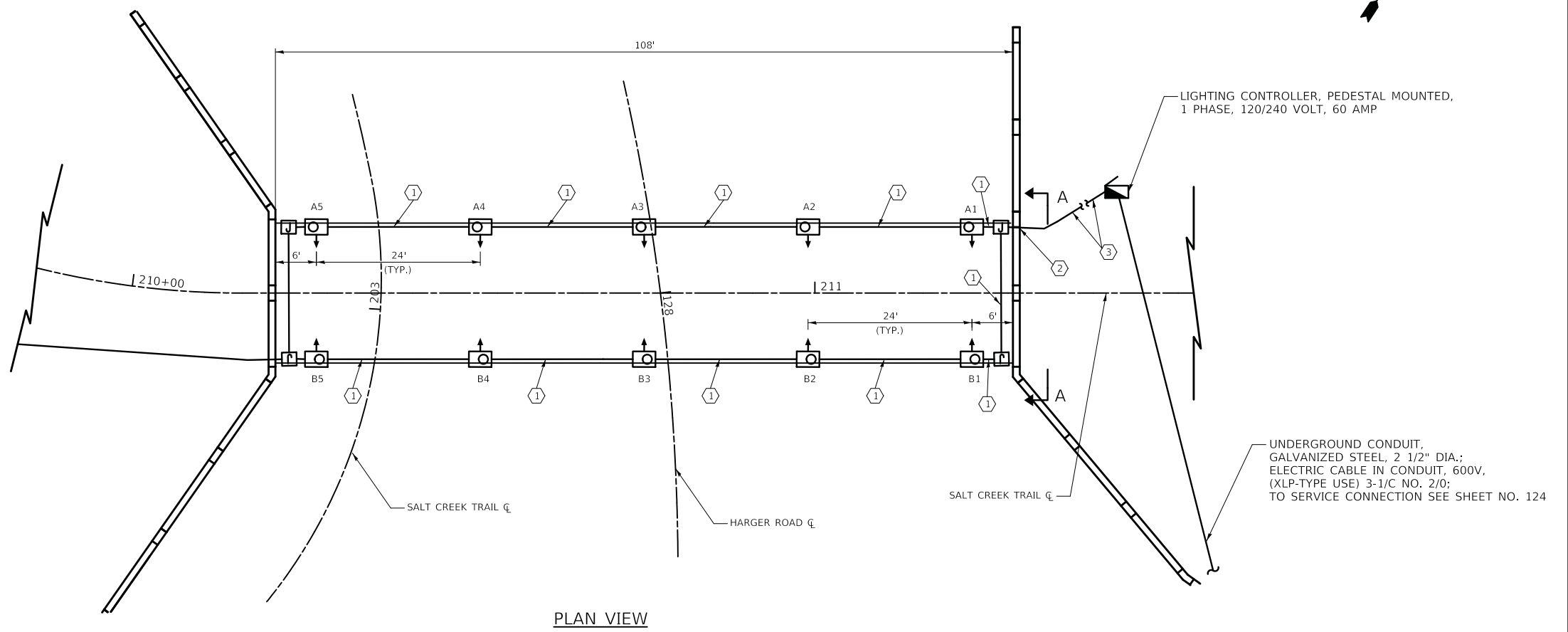


LEGEND

- UNDERPASS LUMINAIRE (SPECIAL)
UNDERPASS LED WALL MOUNTED LUMINAIRE
- RIGID GALVANIZED STEEL CONDUIT,
TYPE AND SIZE AS NOTED
- JUNCTION BOX, STAINLESS STEEL,
EMBEDDED IN STRUCTURE, 8"x8"x6"
- PROPOSED LIGHTING CONTROLLER,
PEDESTAL MOUNTED, 240VOLT, 60 AMP

NOTES:

1. ALL WALL MOUNTED LUMINAIRES ARE MOUNTED 8'
FROM THE BOTTOM OF THE LUMINAIRE TO THE
FINISHED SURFACE OF THE BIKE PATH.



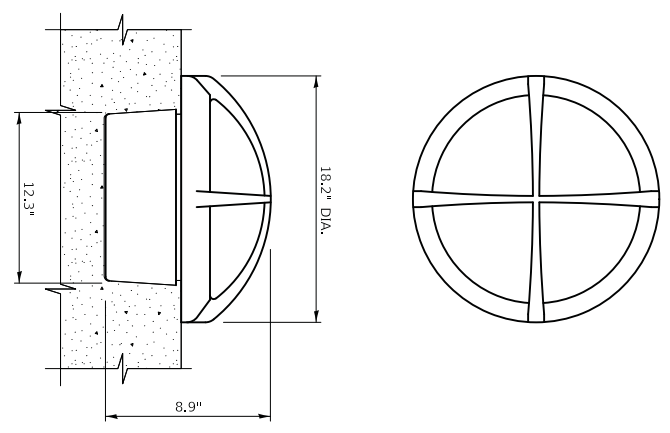
PLAN VIEW

WIRE AND CONDUIT TABLE

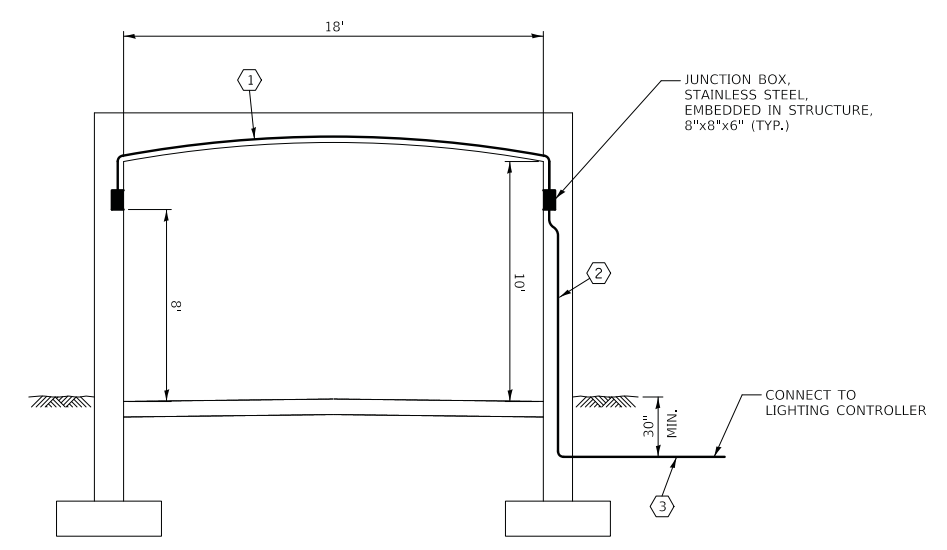
TAG	WIRE	RIGID GALVANIZED STEEL CONDUIT
①	2-1/C NO. 10 AND 1/C NO. 10 GROUND	CONDUIT EMBEDDED IN STRUCTURE, 1" DIA. GALVANIZED STEEL
②	3-1/C NO. 10 AND 1/C NO. 10 GROUND	CONDUIT EMBEDDED IN STRUCTURE, 1" DIA. GALVANIZED STEEL
③	3-1/C NO. 10 AND 1/C NO. 10 GROUND	UNDERGROUND CONDUIT, GALVANIZED STEEL, 1" DIA.,

UNDERPASS LUMINAIRE LOCATIONS

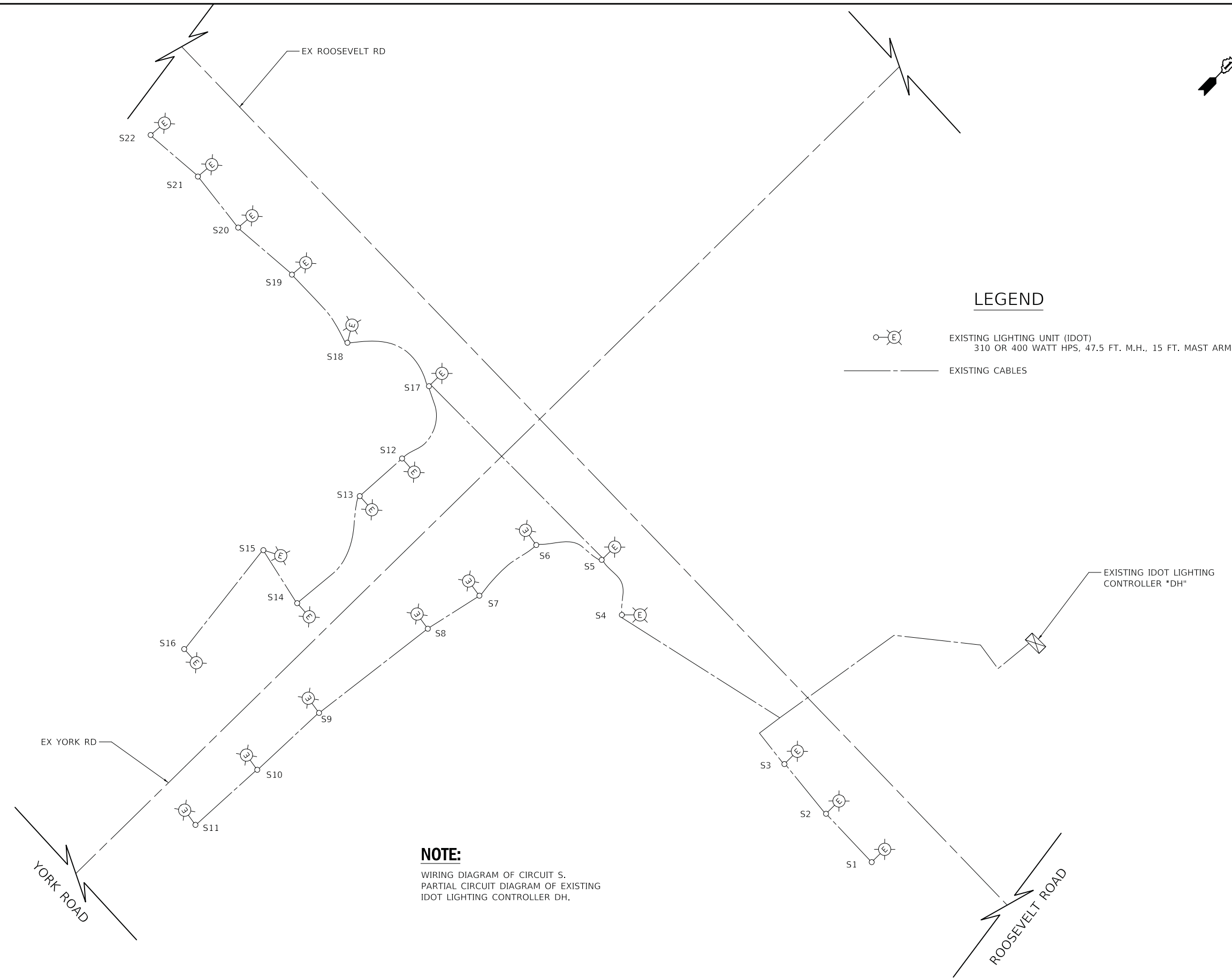
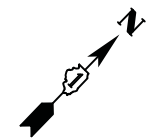
LUMINAIRE NO.	STATION	OFFSET
A1	211+23	9.0' LT.
A2	210+99	9.0' LT.
A3	210+75	9.0' LT.
A4	210+51	9.0' LT.
A5	210+27	9.0' LT.
B1	211+23	9.0' RT.
B2	210+99	9.0' RT.
B3	210+75	9.0' RT.
B4	210+51	9.0' RT.
B5	210+27	9.0' RT.

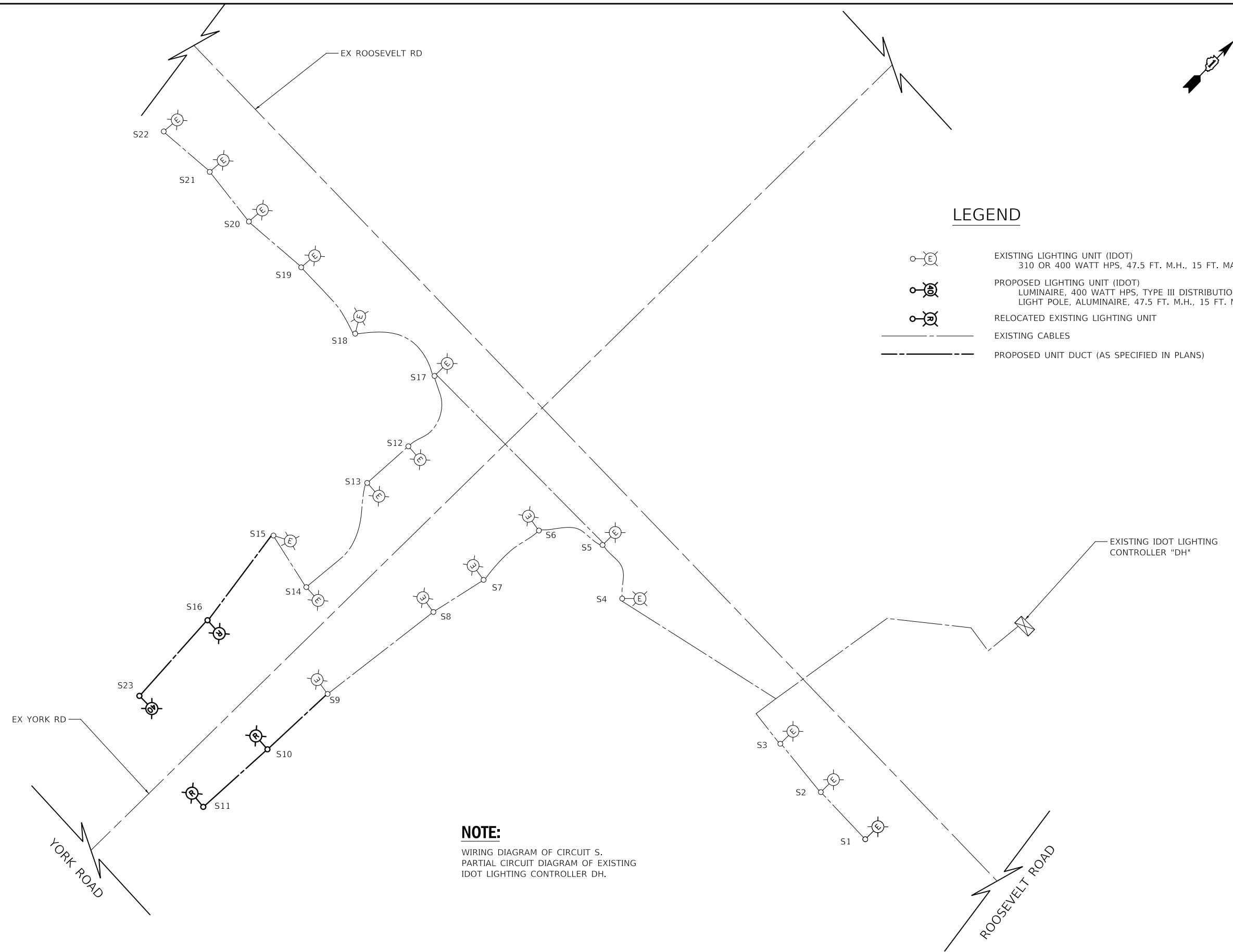
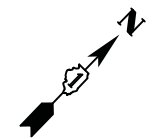


**UNDERPASS LUMINAIRE (SPECIAL)
DETAIL**



SECTION A-A



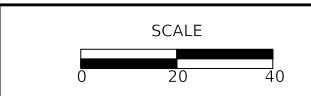


LEGEND

- EXISTING LIGHTING UNIT (IDOT)
310 OR 400 WATT HPS, 47.5 FT. M.H., 15 FT. MAST ARM
- PROPOSED LIGHTING UNIT (IDOT)
LUMINAIRE, 400 WATT HPS, TYPE III DISTRIBUTION
LIGHT POLE, ALUMINAIRE, 47.5 FT. M.H., 15 FT. MAST ARM
- RELOCATED EXISTING LIGHTING UNIT
- EXISTING CABLES
- PROPOSED UNIT DUCT (AS SPECIFIED IN PLANS)

NOTE:
WIRING DIAGRAM OF CIRCUIT S.
PARTIAL CIRCUIT DIAGRAM OF EXISTING
IDOT LIGHTING CONTROLLER DH.

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE - 12/27/2019	REVISED -




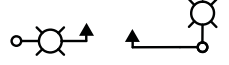






F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	129
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

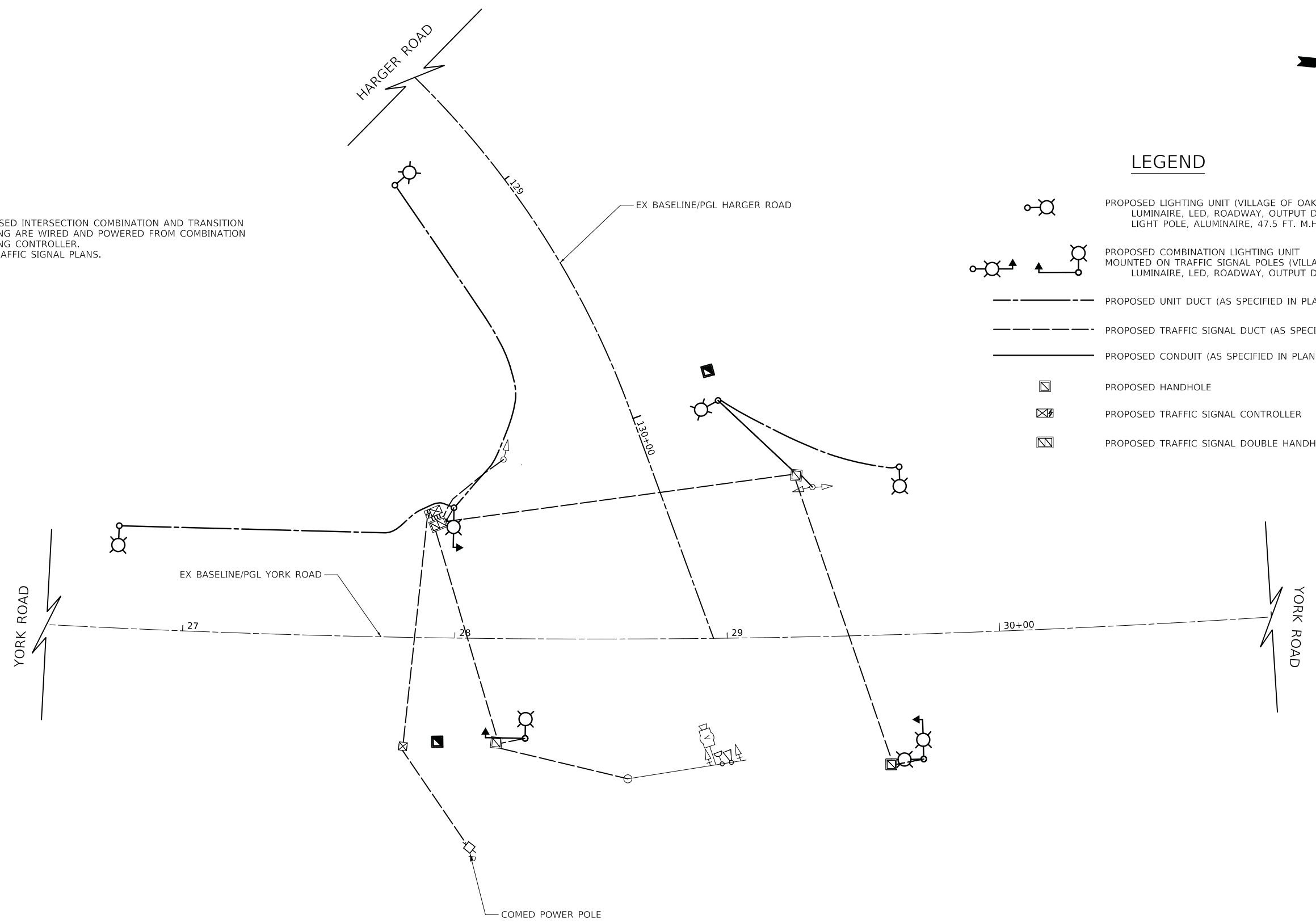
NOTE:

PROPOSED INTERSECTION COMBINATION AND TRANSITION LIGHTING ARE WIRED AND POWERED FROM COMBINATION LIGHTING CONTROLLER. SEE TRAFFIC SIGNAL PLANS.

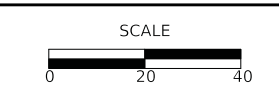


LEGEND

-  PROPOSED LIGHTING UNIT (VILLAGE OF OAK BROOK)
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H
LIGHT POLE, ALUMINAIRE, 47.5 FT. M.H., 15 FT. MAST ARM
-  PROPOSED COMBINATION LIGHTING UNIT
MOUNTED ON TRAFFIC SIGNAL POLES (VILLAGE OF OAK BROOK)
LUMINAIRE, LED, ROADWAY, OUTPUT DESIGNATION H
-  PROPOSED UNIT DUCT (AS SPECIFIED IN PLANS)
-  PROPOSED TRAFFIC SIGNAL DUCT (AS SPECIFIED IN PLANS)
-  PROPOSED CONDUIT (AS SPECIFIED IN PLANS)
-  PROPOSED HANDHOLE
-  PROPOSED TRAFFIC SIGNAL CONTROLLER
-  PROPOSED TRAFFIC SIGNAL DOUBLE HANDHOLE



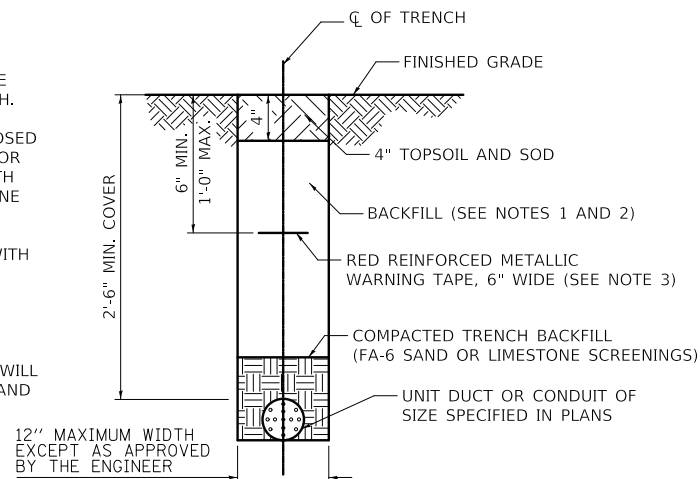
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DRAWN -	REVISED -
CHECKED -	REVISED -
DATE - 12/27/2019	REVISED -



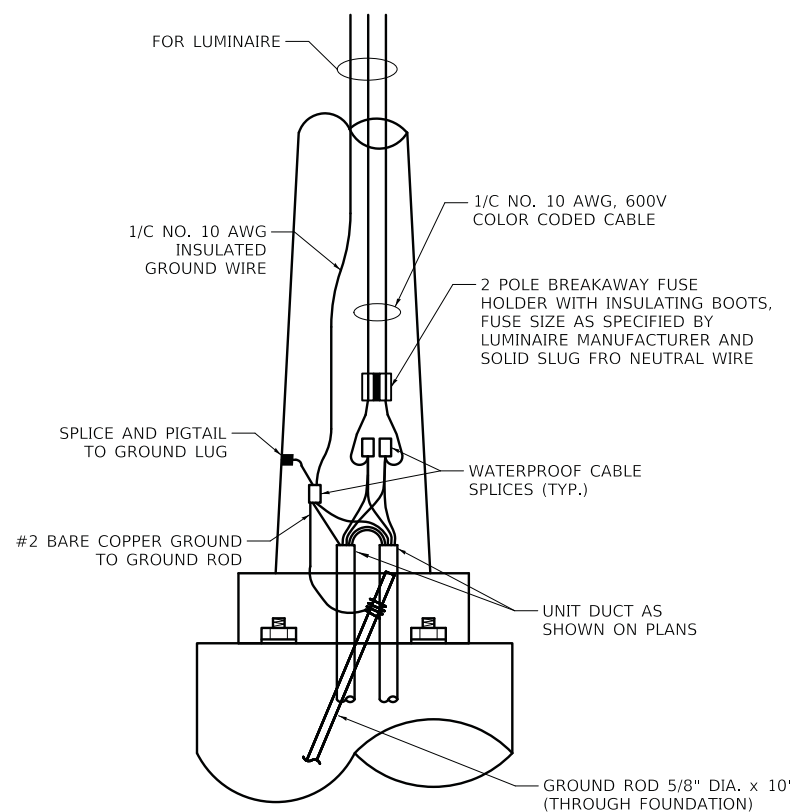
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	130
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G16	

NOTES:

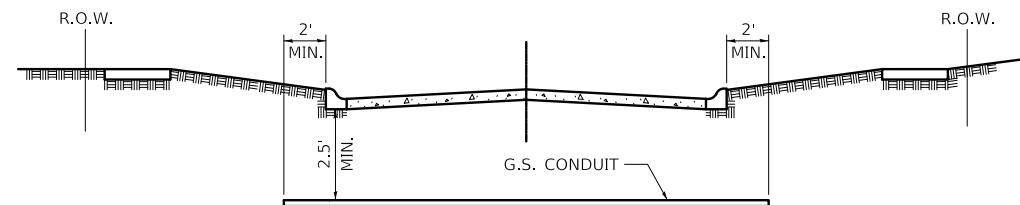
1. IN GRASS COVERED AREAS, THE BACKFILL MAY BE COMPACTED EARTH.
2. TRENCHES WITHIN 2' OF PROPOSED OR EXISTING STREETS, DRIVEWAYS, OR SIDEWALKS WILL BE BACKFILLED WITH COMPACTED FA-6 SAND OR LIMESTONE SCREENINGS.
3. WARNING TAPE WILL BE RED WITH BLACK LETTERING TO READ "CAUTION - ELECTRIC LINE BURIED BELOW".
4. ALL GRASS COVERED AREAS DISTURBED DURING CONSTRUCTION WILL BE RESTORED WITH 4" OF TOPSOIL AND SOD.



TYPICAL TRENCH CROSS SECTION

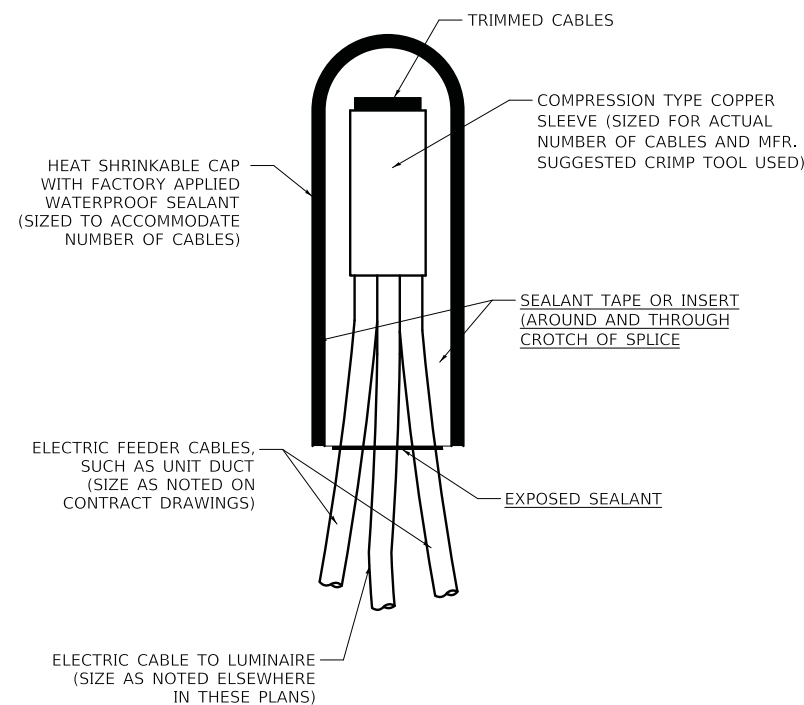


ROADWAY POLE HANDHOLE WIRING DIAGRAM



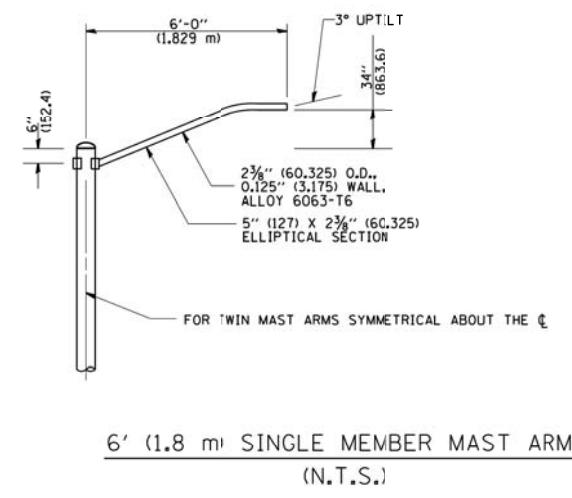
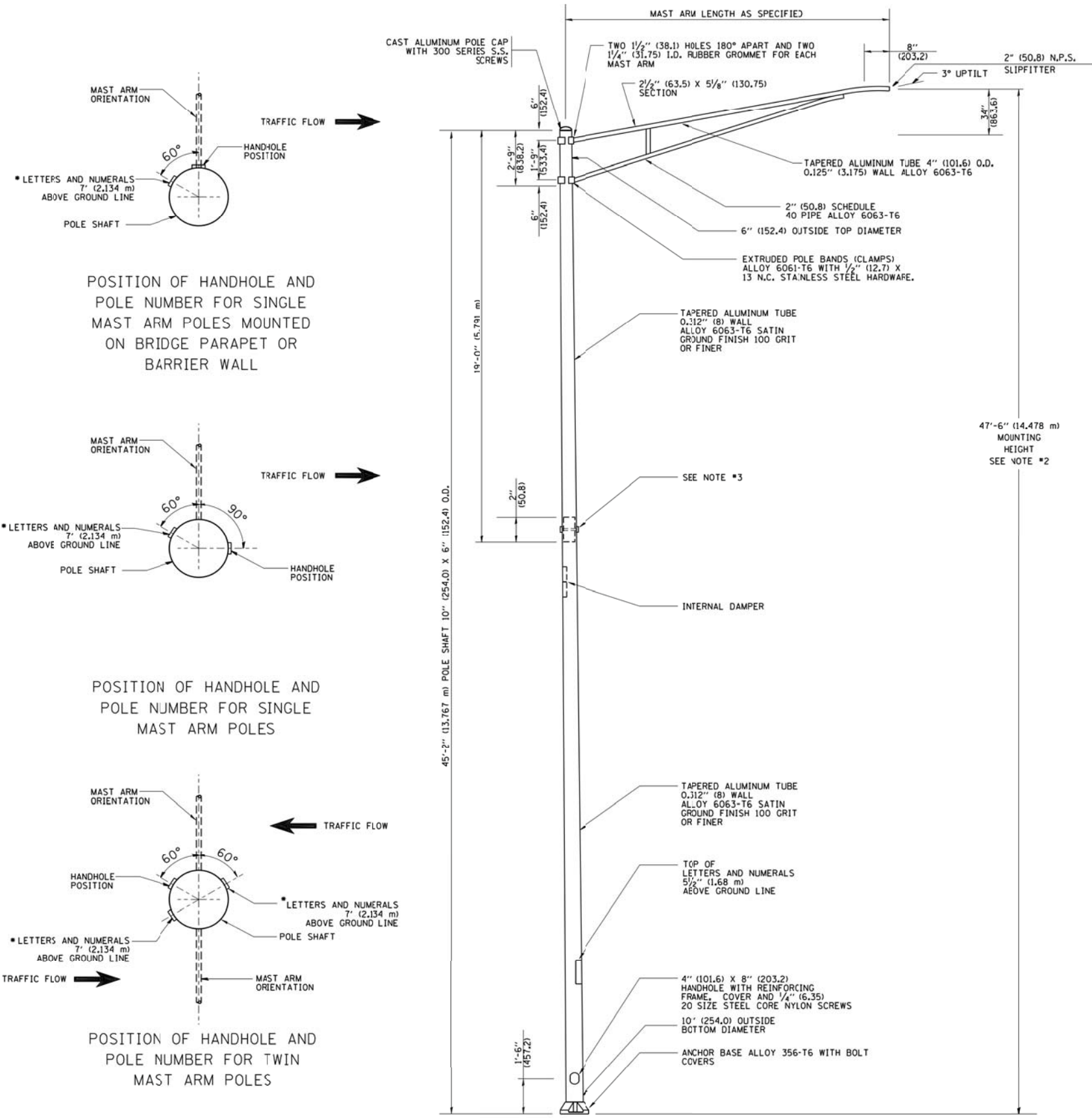
- ① CONDUIT SHALL BE HEAVY WALL RIGID G.S. CONDUIT.
- ② CONDUIT SHALL EXTEND A MINIMUM OF 2 FT. BEYOND BACK OF CURB.
- ③ CONDUIT SHALL BE A MINIMUM OF 2.5 FT. BELOW BOTTOM OF CURB.

ELECTRICAL CONDUIT UNDER PAVEMENT

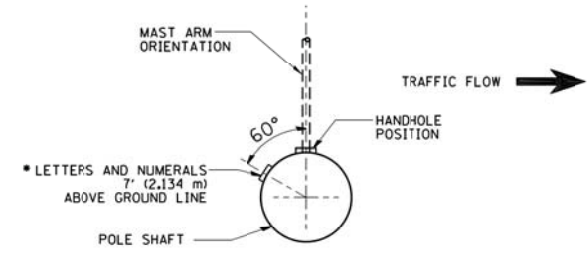


NOTE: NUMBER OF Cables IN SPLICE MAY VARY

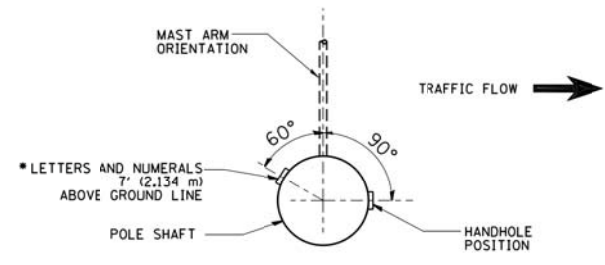
SPlicing ELECTRIC Cables
BASIC MATERIALS AND METHODS



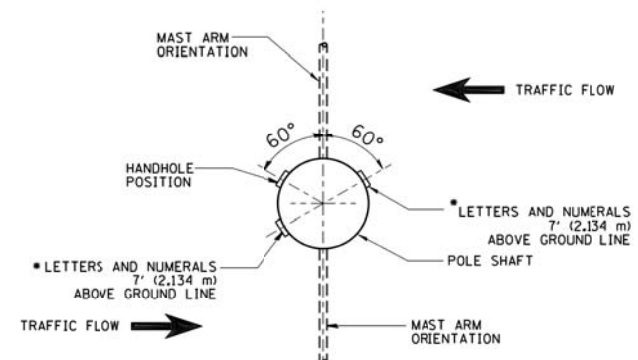
- NOTES:
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
 4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
 5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
 6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
 7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
 8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



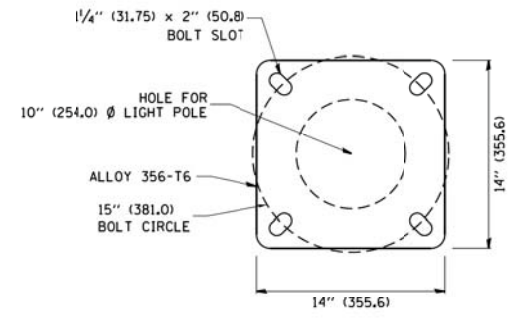
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



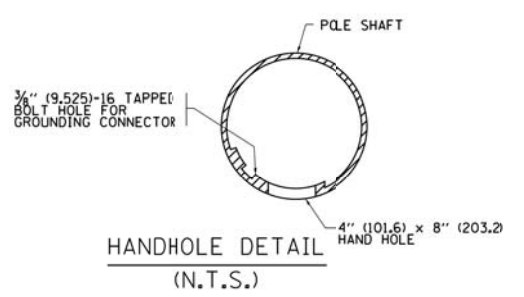
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



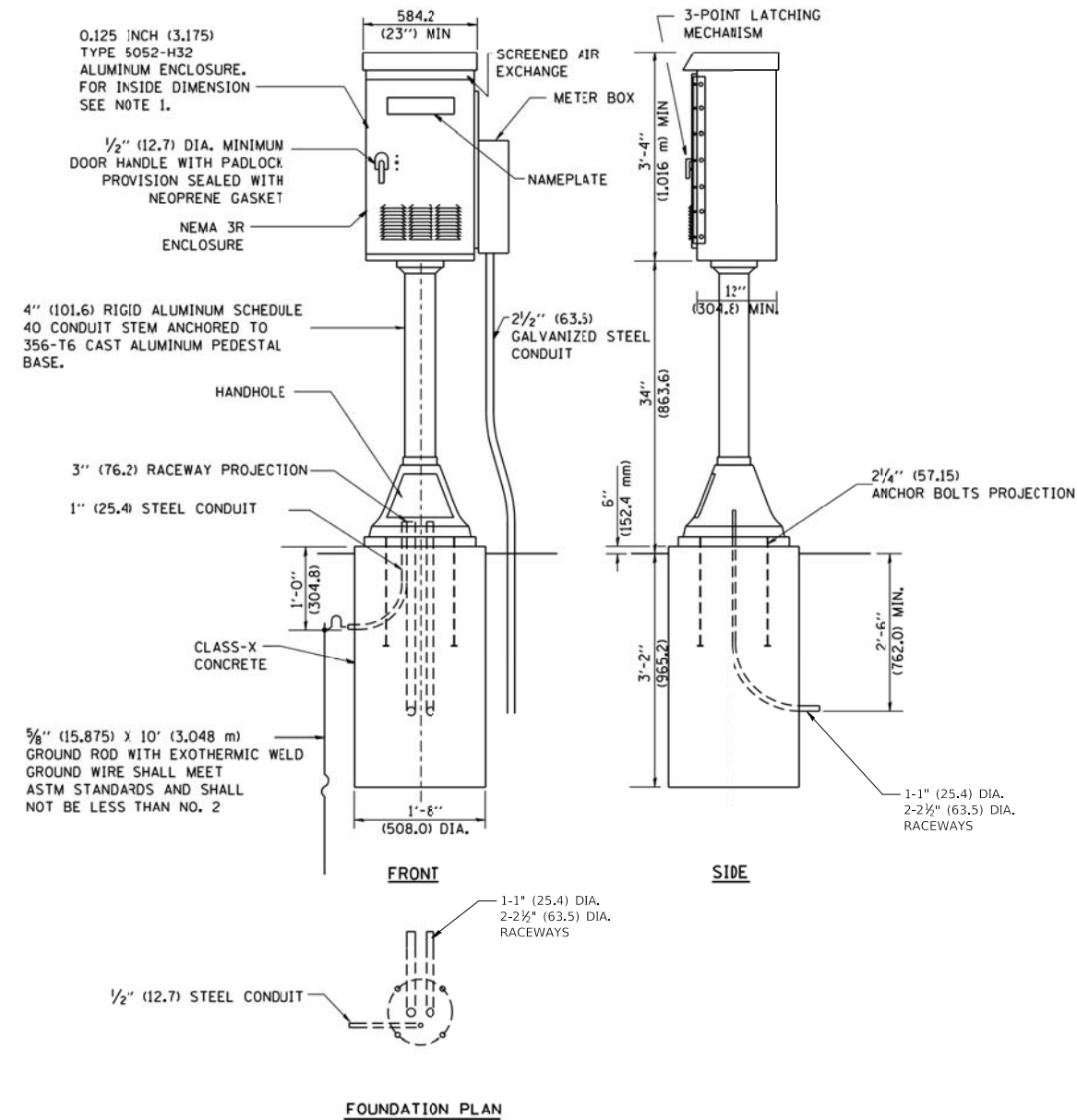
POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES



LIGHT POLE BASE PLATE DETAIL
15 INCH (381.0) BOLT CIRCLE

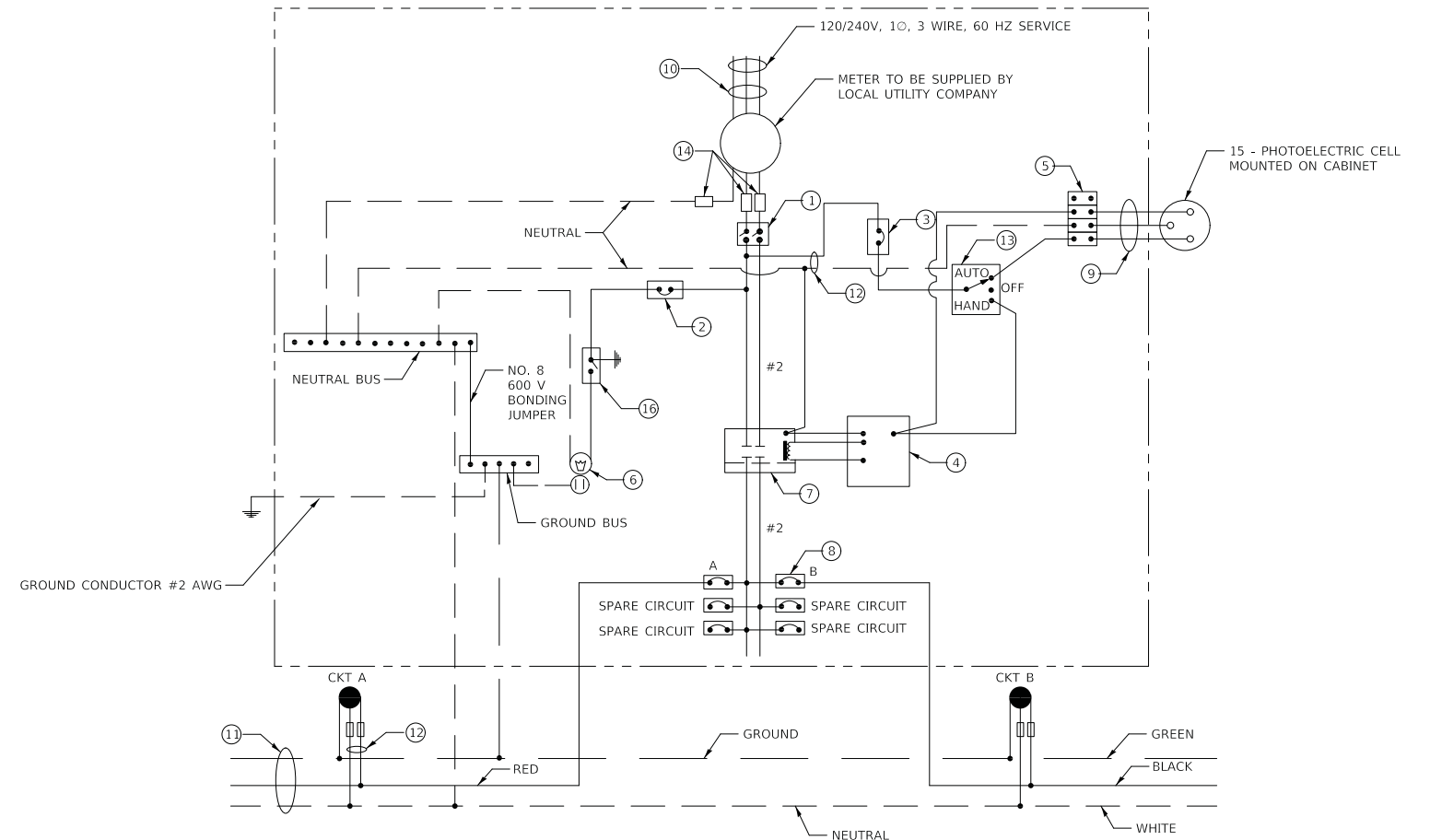


FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - R. TOMSONS 09-06-00	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ALUMINUM LIGHT POLE		F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw\jll084EBIDINTE\illinois\govt\PIWIDOT\Documents\IDOT Offices\District 1\Projects\Dist	DRAWN\CADData\CADsheets\be400.dgn	CHECKED -	REVISED - R. TOMSONS 09-03-03		47'-6" (14.478 m) MOUNTING HEIGHT			17-00049-00-PV	DUPAGE	208	132
Default	PLOT SCALE = 50.000' / in.	DATE -	REVISED - R. TOMSONS 01-18-13		SCALE:	SHEET 1	OF 1	SHEETS	STA.	TO STA.	CONTRACT NO. 61G16
	PLOT DATE = 12/21/2015		REVISED - R. TOMSONS 03-18-15								ILLINOIS/FED. AID PROJECT



NOTES:

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. UNLESS OTHERWISE INDICATED, THE CABINET SHALL BE MOUNTED ATOP A 4-INCH (101.6 mm) RIGID ALUMINUM SCHEDULE 40 CONDUIT STEM ANCHORED TO A CAST ALUMINUM PEDESTAL BASE.
3. IN FRONT OF CONTROL CABINET DOOR, REMOVE VEGETATION AND 2" (50.8 mm) TOP SOIL. LEVEL THE AREA AND ON TOP, PLACE LENGTH WISE PARALLEL TO CONTROL CABINET, A CONCRETE PAD 36" (914.4 mm) x 60" (1524.0 mm) x 4" (101.6 mm) MIN. SIZE. THE COST OF LABOR AND MATERIALS ARE INCLUDED IN THE COST OF THE CONTROLLER.
4. DOOR SHALL BE CONSTRUCTED FROM SAME TYPE OF MATERIAL AND THICKNESS AS CABINET.
5. DOOR SHALL BE EQUIPPED WITH THREE POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP THE BOTTOM.
6. DOOR HINGE SHALL BE A HEAVY GAUGE CONTINUOUS HINGE WITH A 1/4" (6.35 mm) DIA. STAINLESS STEEL HINGE PIN.
7. ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
8. CONTROL WIRING TO BE #12 AWG, 600V, TYPE "SIS" GRAY SWITCH BOARD WIRE, STRANDED COPPER.
9. METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET, NEAR TO THE SERVICE POLE.
10. CABINETS SHALL BE PRIMED AND PAINTED AS SPECIFIED.
11. THE HEADS OF CONNECTORS SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS.
12. ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
R = RED BL = BLUE W = WHITE
B = BLACK Y = YELLOW G = GREEN
13. PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
14. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
15. THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".



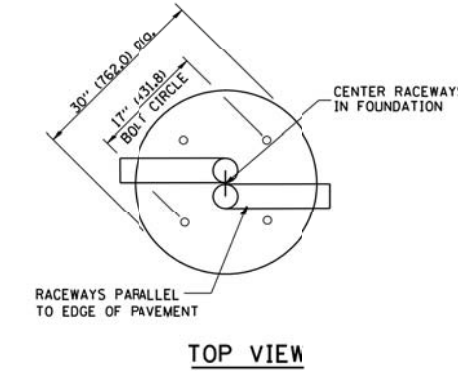
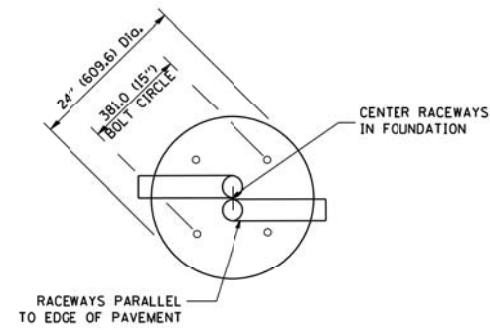
LIGHTING CONTROLLER COMPONENT SCHEDULE

ITEM	SPECIFICATION OR EQUAL
① MAIN CIRCUIT BREAKER	60 AMPERE, 2 POLE, 240 VOLT RATING INTERRUPTING CAPACITY NOT LESS THAN 25,000 RMS SYMMETRICAL AMPS AT 600V
② LAMPHOLDER CIRCUIT BREAKER	15 AMPERE, 1 POLE, 120 VOLT RATING INTERRUPTING CAPACITY NOT LESS THAN 14,000 RMS SYMMETRICAL AMPS AT 277V
③ PHOTOELECTRIC CELL CONTROL CIRCUIT BREAKER	15 AMPERE, 1 POLE, 120 VOLT RATING INTERRUPTING CAPACITY NOT LESS THAN 14,000 RMS SYMMETRICAL AMPS AT 277V
④ AUXILIARY RELAY	120 VOLT SPST 60 HZ COIL
⑤ FOUR POINT TERMINAL BLOCK	600 VOLT
⑥ LAMPHOLDER AND OUTLET	120 VOLT SWITCHED LAMPHOLDER AND 15 AMP GFI DUPLEX RECEPTACLE
⑦ REMOTE CONTROL SWITCH	60 AMPERE, 2 POLE, 240 VOLT RATING, ELECTRICALLY OPERATED, MECHANICALLY HELD
⑧ BRANCH LINE CIRCUIT BREAKERS	CKTS A-B 20 AMP 1 POLE, 120 VOLT RATING INTERRUPTING CAPACITY NOT LESS THAN 10,000 RMS SYMMETRICAL AMPS AT 277V
⑨ PHOTOELECTRIC CELL CONTROL WIRE	3-600V XLP NO. 10
⑩ SERVICE CABLES	3-600V (XLP-TYPE USE) NO. 2
⑪ BRANCH LINE CABLES	SEE PLANS FOR SIZE
⑫ LIGHTING POLE WIRE	2-600V XLP NO. 10 CABLES WITH POLE GROUND AND FUSING
⑬ HAND-AUTO-OFF CONTROL SWITCH	10 AMPERE, 3 POLE, 120 VOLT
⑭ LIGHTING ARRESTOR	BRACKET MOUNTED SURGE ARRESTOR FOR 120/240V 3W SERVICE
⑮ PHOTOELECTRIC CELL	120 SECONDS OFF TIME DELAY, 120V
⑯ MICRO SWITCH	MOUNT WITH ACTUATOR TO SWITCH WHEN DOOR IS OPEN

LIGHTING CONTROLLER WIRING DIAGRAM

LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SO. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Qu = 0.75 TON/SO.FT	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY Qu = 1.50 TON/SO. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)

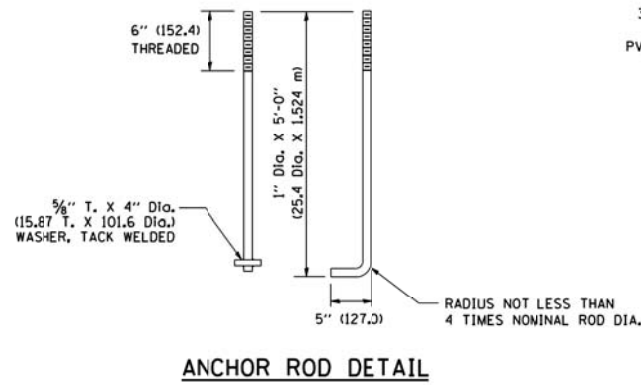
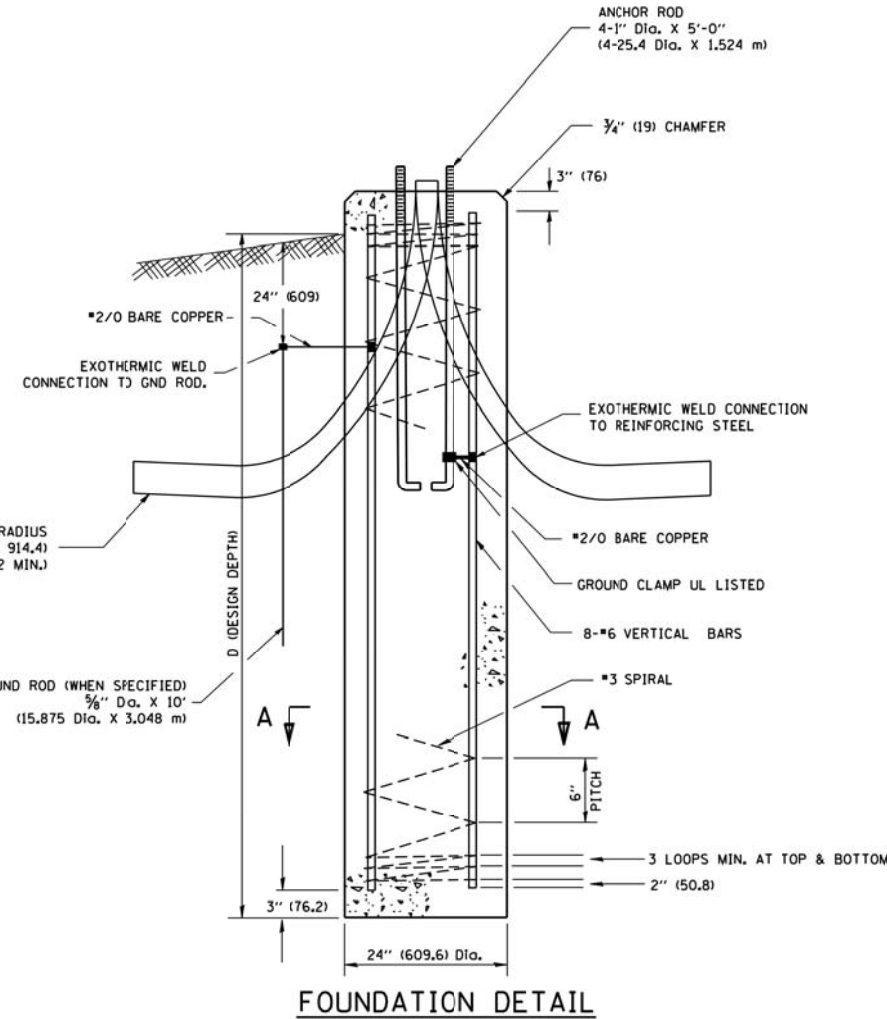


TOP VIEW

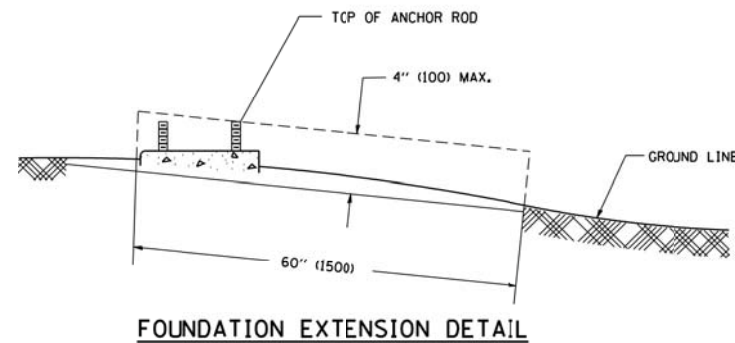
TOP VIEW

NOTES

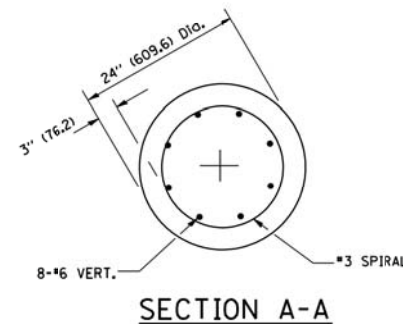
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS S1. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPEL PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMG MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



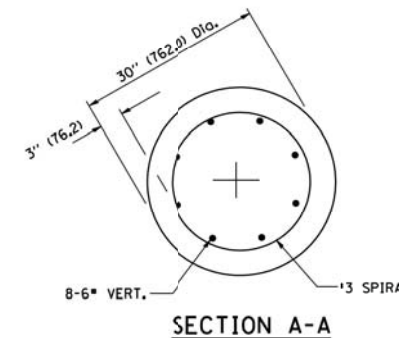
ANCHOR ROD DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

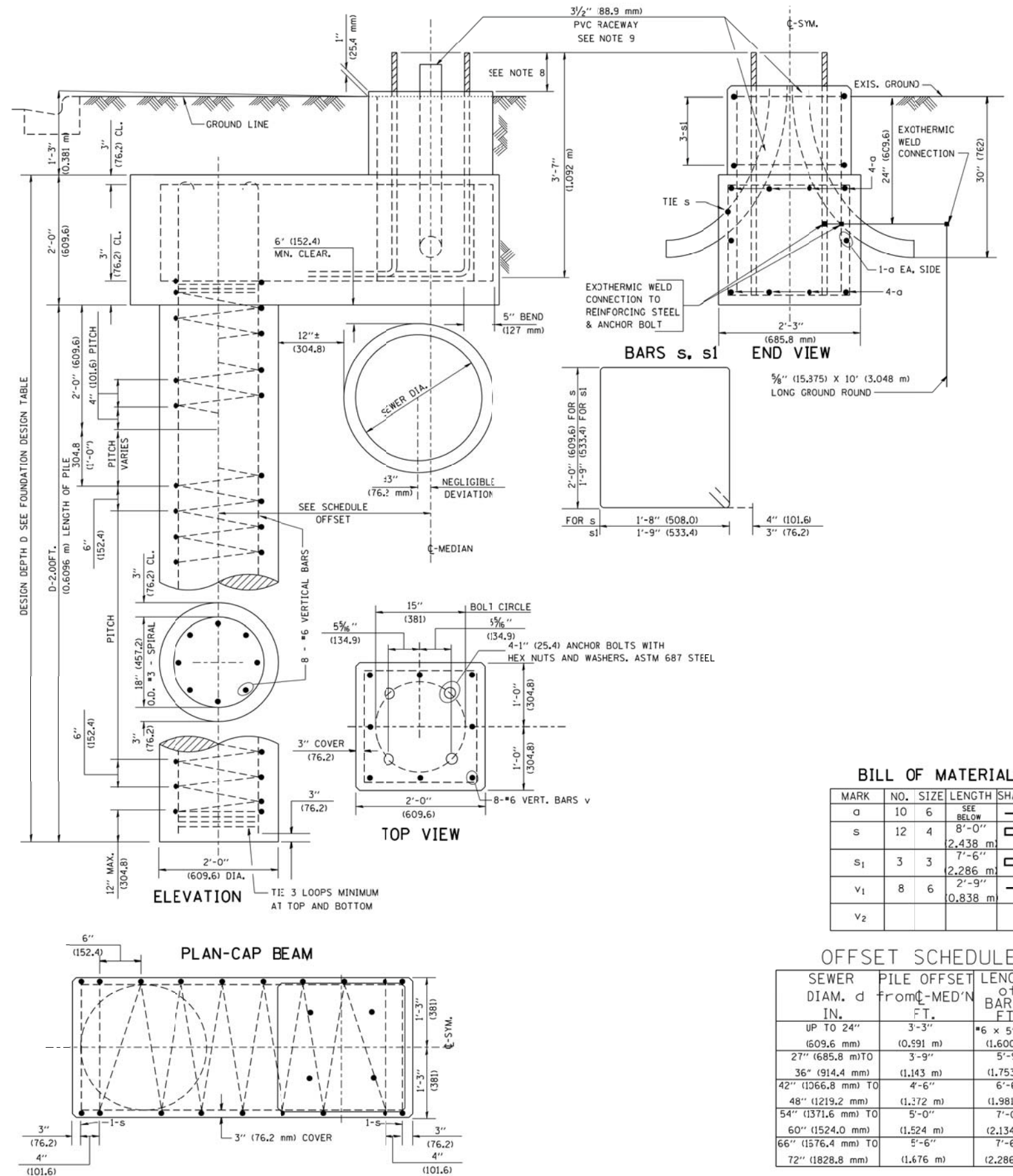
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	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -		40' (12.192 m) TO 47' 1/2" (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE			17-00049-00-PV	DUPAGE	208	134		
	PLOT DATE = 1/4/2008	CHECKED -	REVISED -		SCALE: NONE	SHEET NO. 1	OF 1 SHEETS	STA.	TO STA.	BE-301			CONTRACT NO. 61G16
		DATE -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								

FOUNDATION DESIGN TABLE

TYPE OF SOIL	DESIGN DEPTH OF FOUNDATION		REINFORCEMENT IN FOUNDATION			
	SINGLE ARM D	TWIN ARM D	SINGLE ARM		TWIN ARM	
			VERT BARS	SPIRAL	VERT BARS	SPIRAL
SOFT CLAY	13'-0" (3.962 m)	15'-0" (4.572 m)	8-#6X12'-6" (3.810 m)	#3X122' (37.185 m)	8-#6X14'-3" (4.343 m)	#3X141' (42.977 m)
MEDIUM CLAY	9'-6" (2.896 m)	10'-9" (3.277 m)	8-#6X9'-0" (2.743 m)	#3X30' (27.432 m)	8-#6X10'-0" (3.048 m)	#3X100' (30.480 m)
STIFF CLAY	7'-0" (2.134 m)	8'-0" (2.438 m)	8-#6X6'-6" (1.981 m)	#3X56' (20.112 m)	8-#6X7'-6" (2.286 m)	#3X76' (23.165 m)
LOOSE SAND	9'-0" (2.743 m)	10'-0" (3.048 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)	8-#6X9'-6" (2.896 m)	#3X94' (28.651 m)
MEDIUM SAND	8'-3" (2.515 m)	9'-0" (2.743 m)	8-#6X8'-0" (2.438 m)	#3X78' (23.774 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)
DENSE SAND	7'-9" (2.362 m)	9'-0" (2.743 m)	8-#6X7'-6" (2.286 m)	#3X73' (22.250 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)
ROCK OR SOLIDIFIED SLAG	5'-0" (1.524 m)	5'-0" (1.524 m)	NONE	NONE	NONE	NONE

NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
- EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" (609.6 mm) OR 30" (762.0 mm) IN DIAMETER.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 1C5). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS. IF LIGHT POLE IS MOUNTED WITHOUT BREAKAWAY DEVICE, ANCHOR BOLTS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
- RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.



BILL OF MATERIAL

MARK	NO.	SIZE	LENGTH	SHAPE
a	10	6	SEE BELOW	—
s	12	4	8'-0" 2,438 m	□
s ₁	3	3	7'-6" 2,286 m	□
v ₁	8	6	0.838 m	—
v ₂				

OFFSET SCHEDULE

SEWER DIAM. d IN.	PILE OFFSET FROM C-MED'N FT.	LENGTH OF BAR a FT.
UP TO 24" (609.6 mm)	3'-3" (0.991 m)	#6 x 5'-3" (1.600 m)
27" (685.8 mm) TO	3'-9" (1.143 m)	5'-9" (1.753 m)
36" (914.4 mm)	(1.143 m)	(1.753 m)
42" (1066.8 mm) TO	4'-6" (1.372 m)	6'-6" (1.981 m)
48" (1219.2 mm)	(1.372 m)	(1.981 m)
54" (1371.6 mm) TO	5'-0" (1.524 m)	7'-0" (2.134 m)
60" (1524.0 mm)	(1.524 m)	(2.134 m)
66" (1576.4 mm) TO	5'-6" (1.676 m)	7'-6" (2.286 m)
72" (1828.8 mm)	(1.676 m)	(2.286 m)

FILE NAME = K:\diststd22x34\be310.dgn	USER NAME = bauerdl	DESIGNED -	REVISED - 06-16-08 R. TOMSONS
		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHT POLE FOUNDATION OFFSET
40' (12.192 m) TO 47 1/2' (14.478 m) M.H.
15" (381 mm) BOLT CIRCLE

SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	17-00049-00-PV	DUPAGE	208	135
	BE-310		CONTRACT NO.	61G16
			ILLINOIS FED. AID PROJECT	

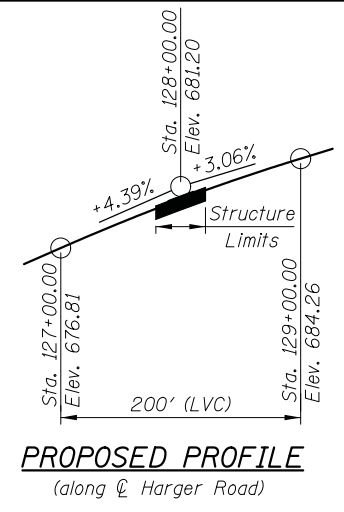
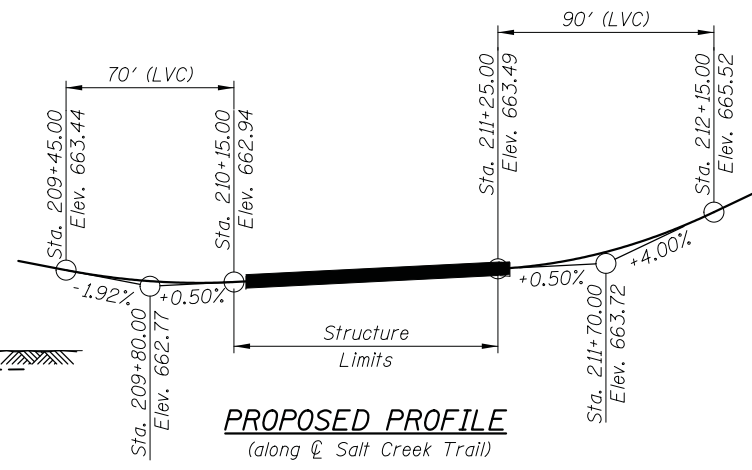
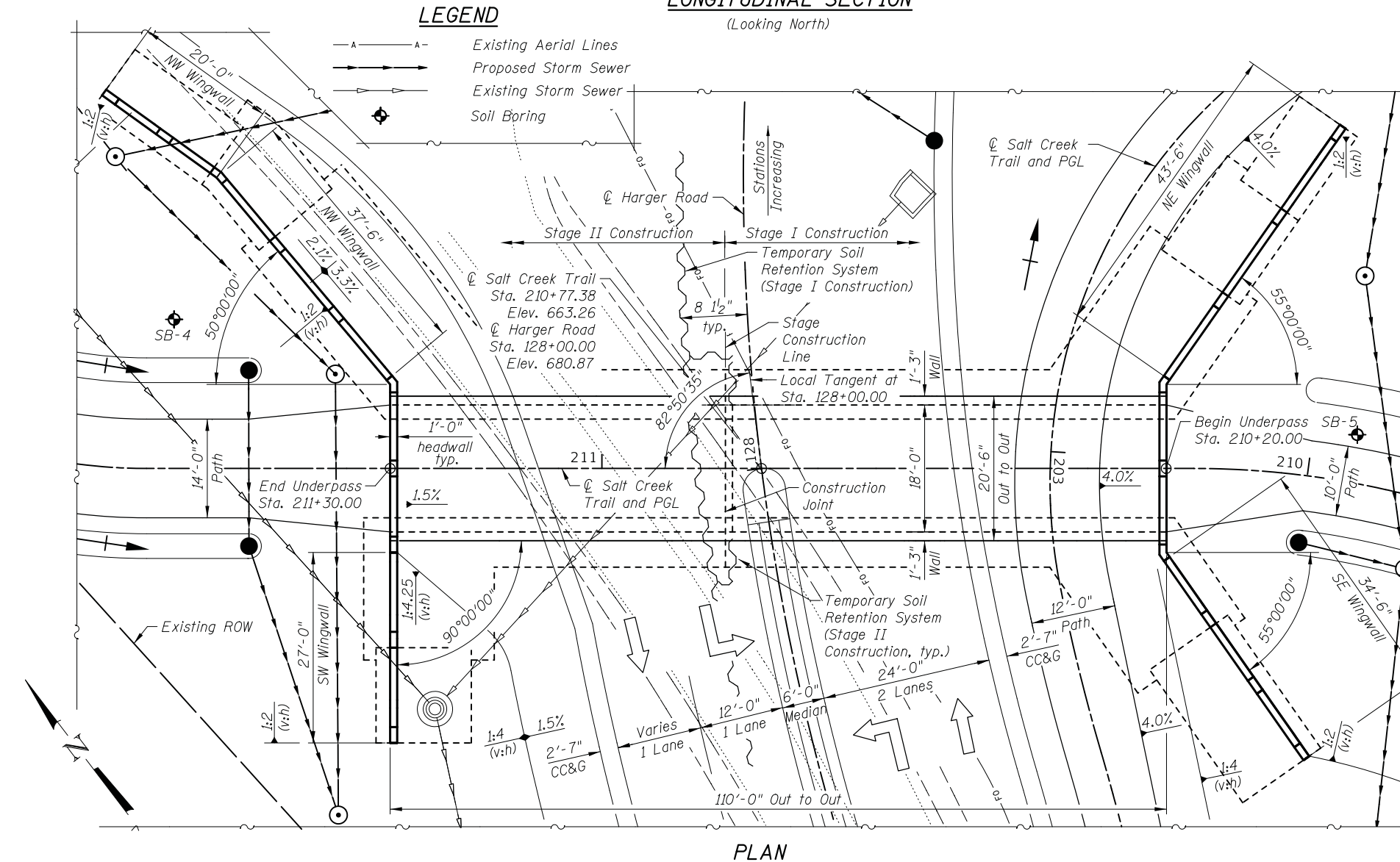
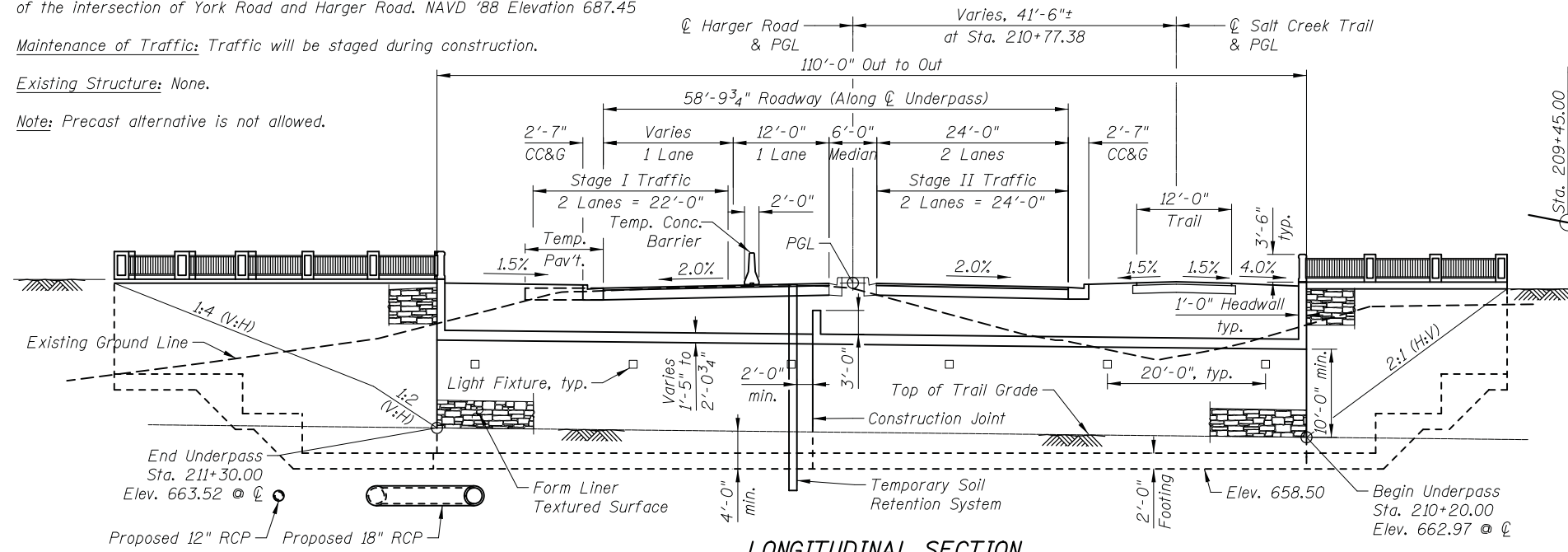
6/16/2008
K:\diststd22x34\be310.dgn
bauerdl

Benchmark: T.B.M. #2 Railroad Spike (Set) in Wood Light Pole in the Southwest Quadrant of the intersection of York Road and Harger Road. NAVD '88 Elevation 687.45

Maintenance of Traffic: Traffic will be staged during construction.

Existing Structure: None.

Note: Precast alternative is not allowed.



INDEX OF SHEETS

- S-1 General Plan & Longitudinal Section
- S-2 General Data
- S-3 Underpass Plan and Elevation
- S-4 Underpass Foundation
- S-5 Underpass Details 1
- S-6 Underpass Details 2
- S-7 East Wingwalls
- S-8 West Wingwalls
- S-9 Wingwall Details 1
- S-10 Wingwall Details 2
- S-11 Architectural Details 1
- S-12 Architectural Details 2
- S-13 Bar Splicer Assembly Details
- S-14 Underpass Soil Boring Logs

HIGHWAY CLASSIFICATION

F.A.U. 1446 Harger Road
 Functional Class: Minor Arterial
 ADT: 7,700 (2016), 9,900 (2040)
 ADTT: 1.6%
 Design Speed: 30 m.p.h.
 Posted Speed: 30 m.p.h.
 2-Way Traffic

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

LOADING HL-93

Allow 50 psf for Future Wearing Surface

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (SD1)=0.103g
 Design Spectral Acceleration at 0.2 sec. (SDS)=0.134g
 Soil Site Class = D

CURVE DATA

HARGER ROAD

P.I. Sta. = 128+78.63
 $\Delta = 43^\circ 17' 08''$ (RT)
 $D = 17^\circ 21' 44''$
 $R = 330.00'$
 $T = 130.94'$
 $L = 249.31'$
 $E = 25.03'$
 P.C. Sta. = 127+47.69
 P.T. Sta. = 129+97.00

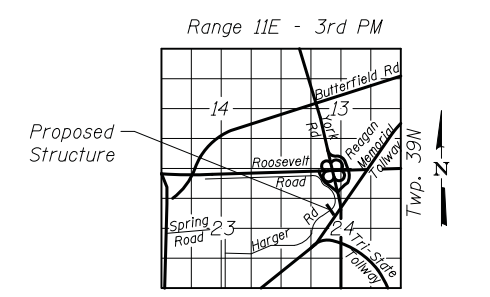
CIVILTECH ENGINEERING, INC.
 GREGORY J. HATLESTAD, S.E.



GREGORY J. HATLESTAD, S.E.
 # 081-005562

EXP 11-30-20

DATE 11-25-19



LOCATION SKETCH

**GENERAL PLAN & ELEVATION
 SALT CREEK TRAIL UNDERPASS AT
 HARGER ROAD, F.A.U. RTE 1446**

DUPAGE COUNTY

STA. 128+00.00

STRUCTURE NUMBER 022-6858

I certify that to the best knowledge, information and belief, this design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of the structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.

**GENERAL PLAN AND ELEVATION
 HARGER ROAD OVER SALT CREEK TRAIL
 STRUCTURE NO. 022-6858**
 SHEET NO. S-1 OF S-14 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1446	17-00049-00-PV	DUPAGE	208	136
				CONTRACT NO. 61G16
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

DRAWN	DESIGNED	CHECKED	DATE	REVISED
E. VAYSMAN	E. VAYSMAN	G. HATLESTAD	11/25/2019	-

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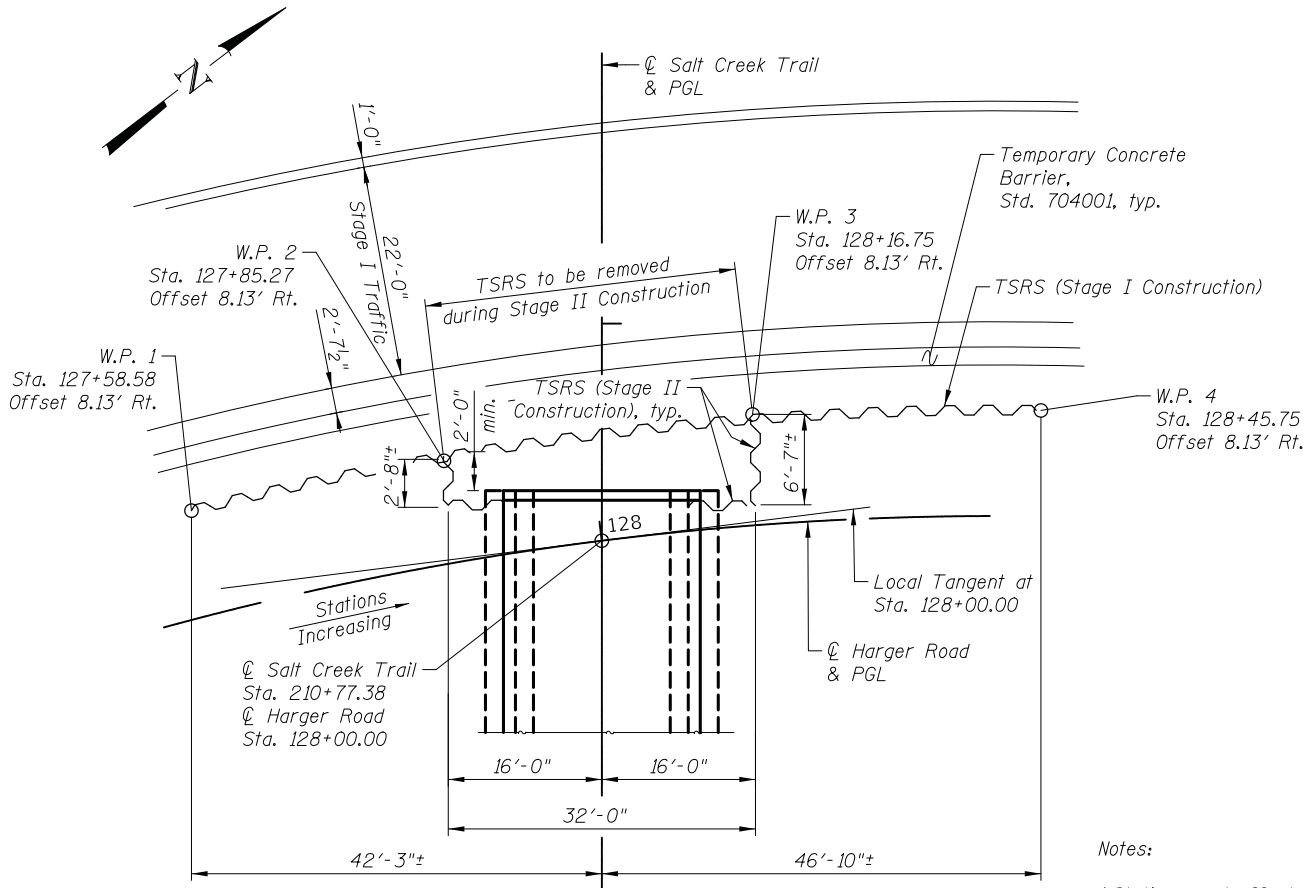
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GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
3. Anti-Graffiti Protective System should be applied to all exposed surfaces of the underpass, wingwalls, entrances and pilasters.

TOTAL BILL OF MATERIAL

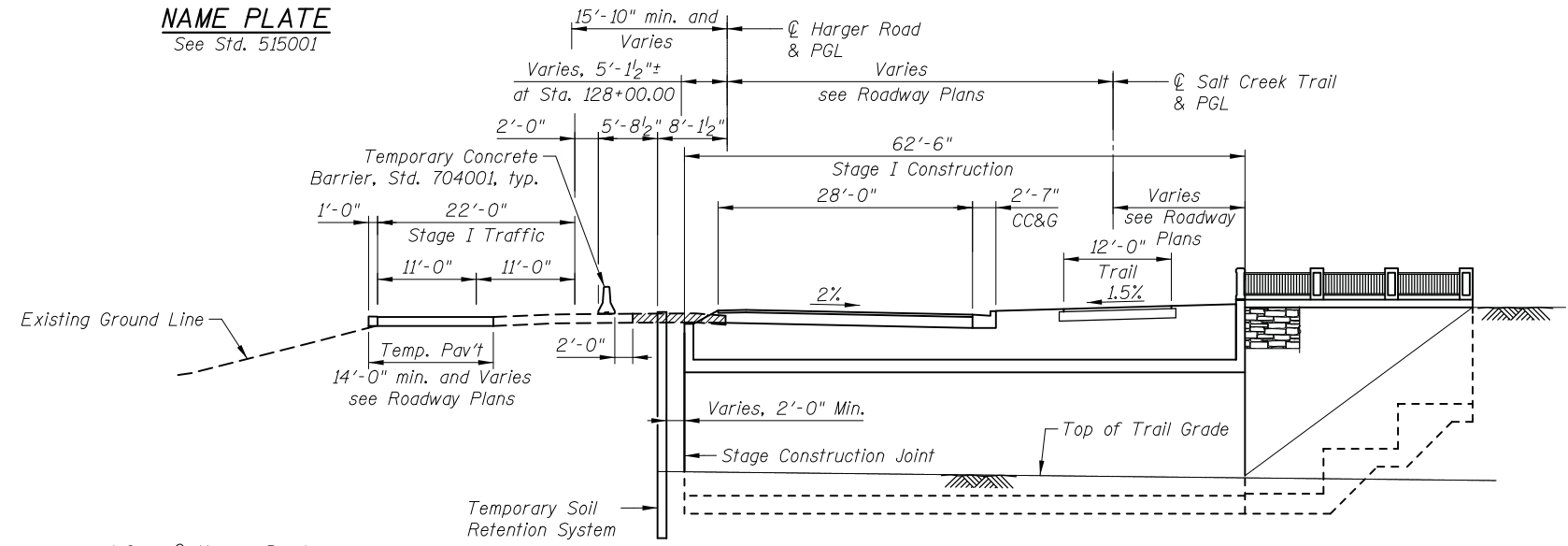
Item	Unit	Total
Porous Granular Embankment	Cu. Yd.	8,679
Structure Excavation	Cu. Yd.	7,651
Concrete Structures	Cu. Yd.	703
Rubbed Finish	Sq. Ft.	4,358
Reinforcement Bars, Epoxy Coated	Pound	104,510
Bar Splicers	Each	130
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	2,014
Geocomposite Wall Drain	Sq. Yd.	939
Anti-Graffiti Protective System	Sq. Ft.	6,951
Membrane Waterproofing System For Buried Structures	Sq. Yd.	293
Form Liner Textured Surface, Special	Sq. Ft.	2,960
Staining Concrete Structures	Sq. Ft.	2,960
Ornamental Railing	Foot	171
Pipe Underdrains for Structures, 4"	Foot	656



TEMPORARY SHEET PILING - PLAN

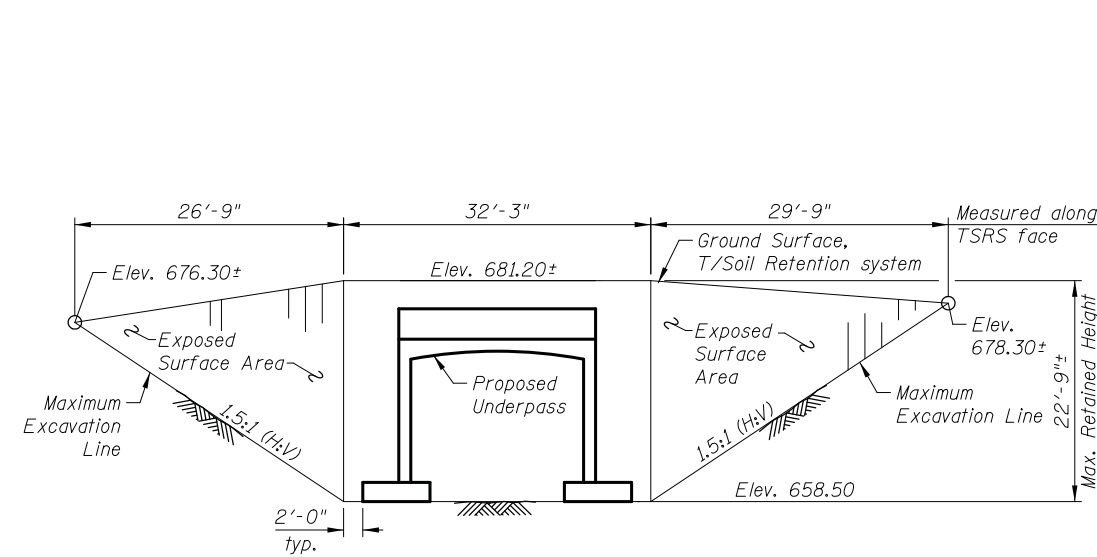
SALT CREEK TRAIL UNDERPASS
 BUILT 201_ BY
 DUPAGE COUNTY
 SEC 17-00049-00-PV
 F.A.U. 1446 STA. 128+00.00
 STR. NO. 022-6858 LOADING HL-93

NAME PLATE
 See Std. 515001

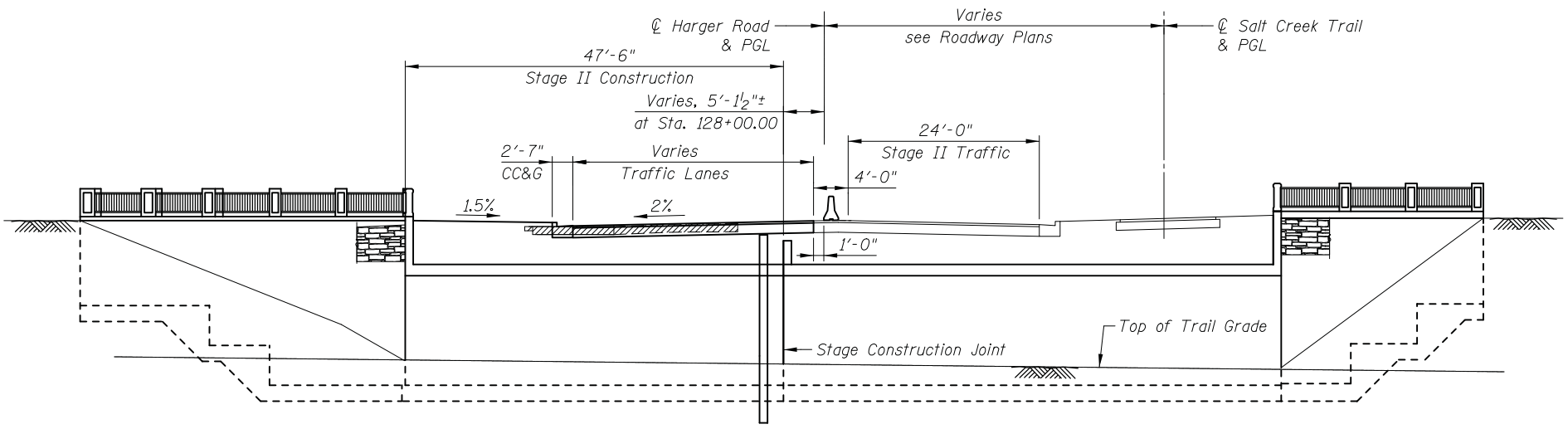


STAGE I CONSTRUCTION
 (Looking North)

- Notes:
 1. Stations and offsets are measured from ϕ Harger Road.
 2. TSRS = Temporary Soil Retention System
 W.P. = Work Point



TEMPORARY SHEET PILING - ELEVATION
 (Looking West)



STAGE II CONSTRUCTION
 (Looking North)

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DESIGNED - E. VAYSMAN	REVISED -
CHECKED - G. HATLESTAD	REVISED -
DATE - 11/25/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

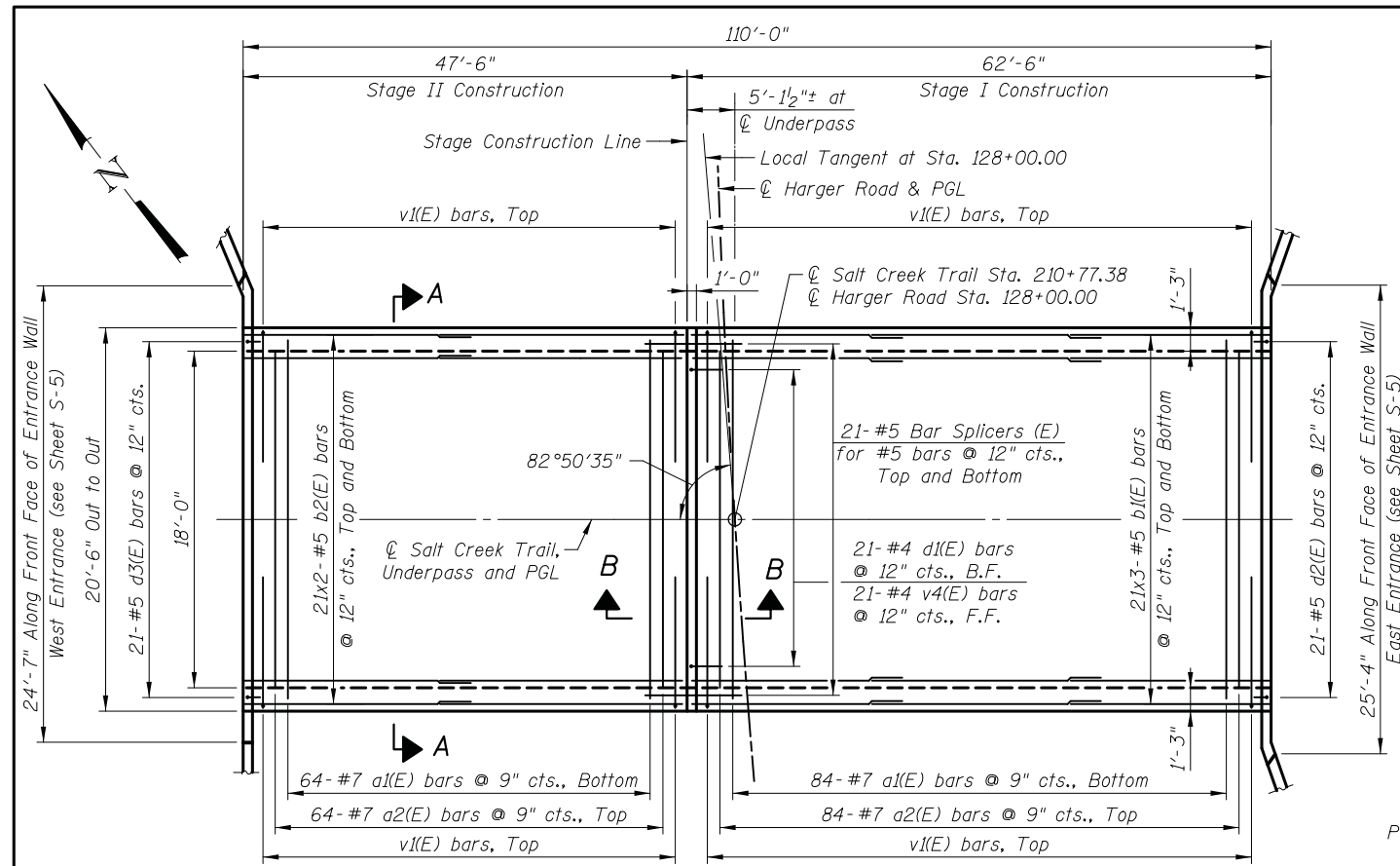
GENERAL DATA
HARGER ROAD OVER SALT CREEK TRAIL
STRUCTURE NO. 022-6858
 SHEET NO. S-2 OF S-14 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1446	17-00049-00-PV	DUPAGE	208	137
CONTRACT NO. 61G16				

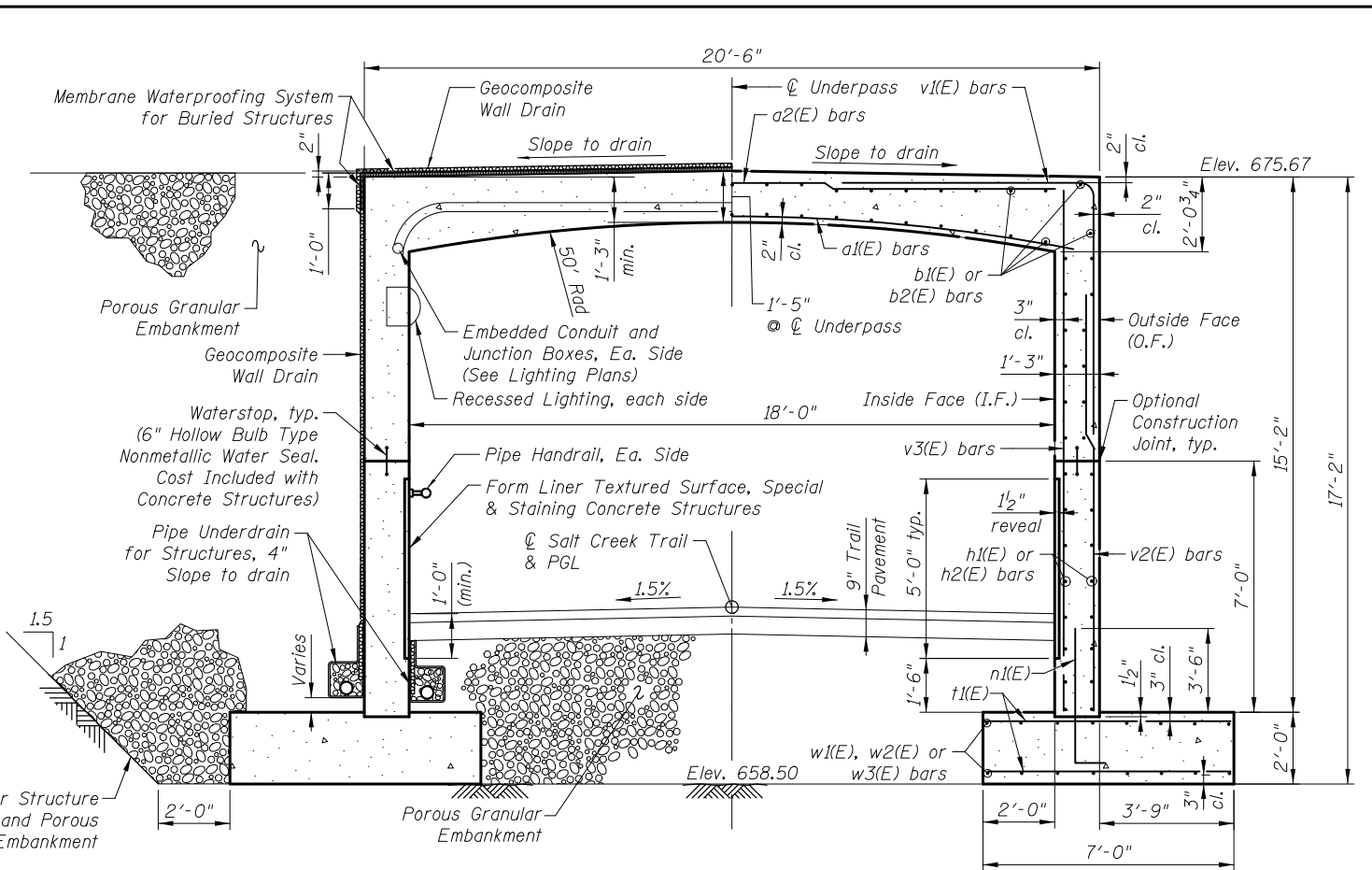
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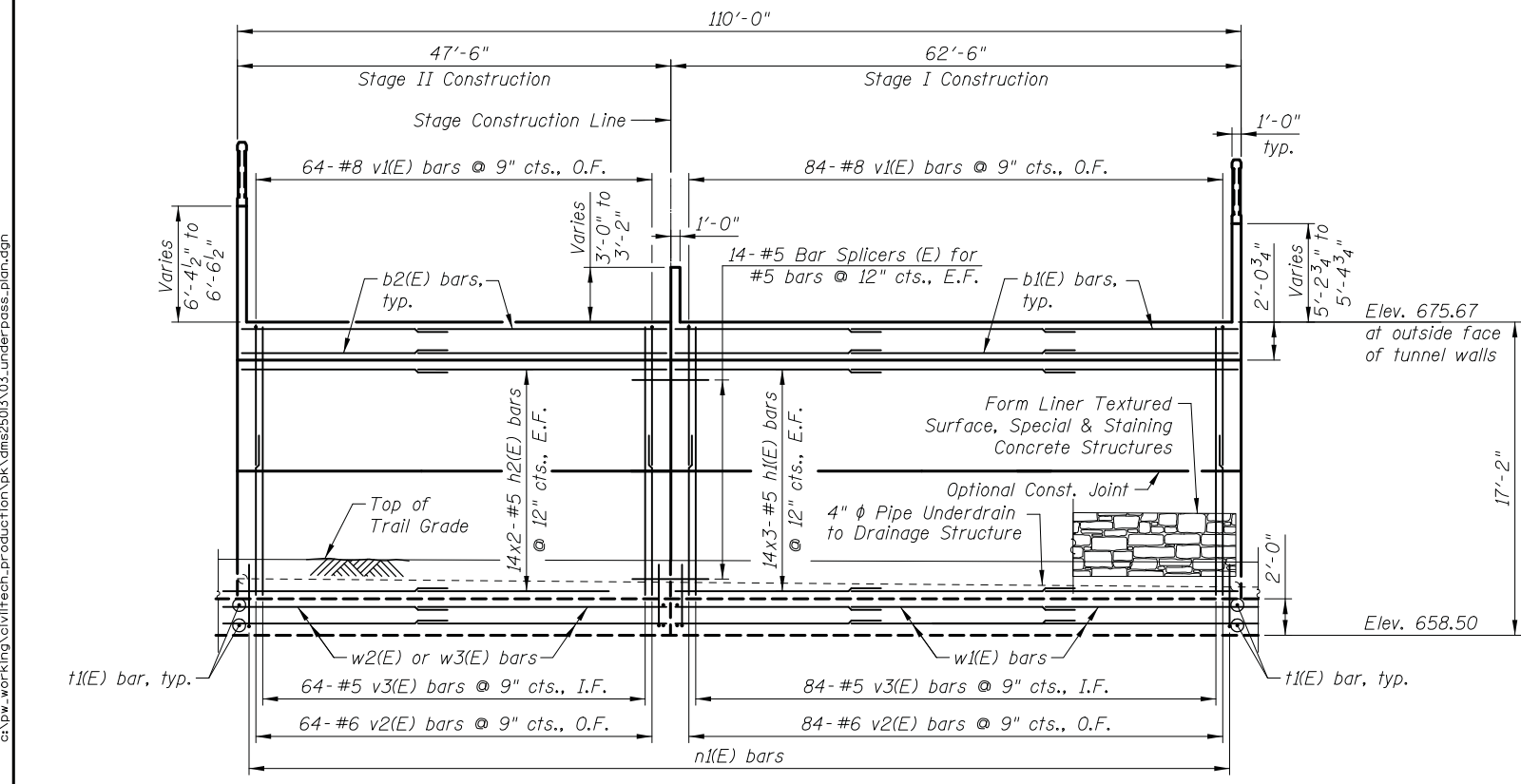


TOP SLAB- PLAN



SECTION A-A

(Structure Symmetric About \varnothing Underpass)
 Maximum Applied Bearing Pressure = 5,465 psf
 Maximum Allowed Bearing Pressure = 6,000 psf



ELEVATION

(South Wall Shown - North Wall is Similar)

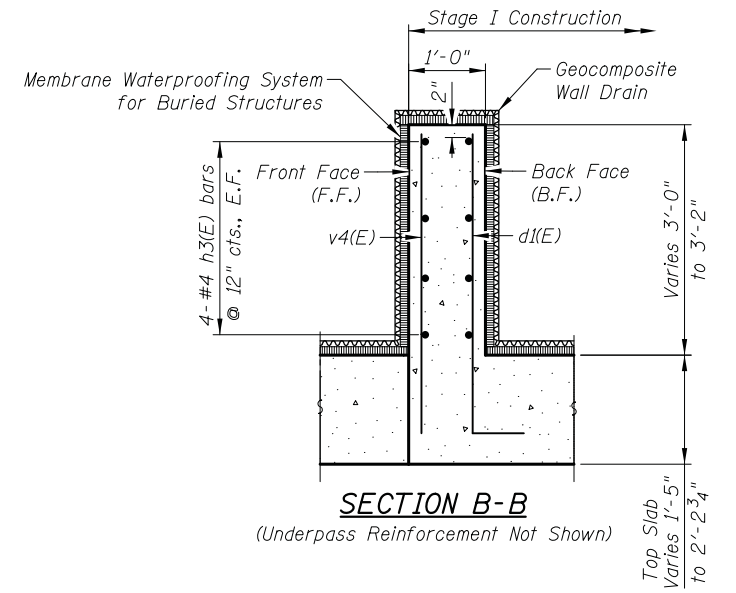
MINIMUM BAR LAP

- #5 = 3'-7"
- #6 = 4'-4"
- #7 = 5'-8"

I.F. - Inside Face
 O.F. - Outside Face
 E.F. - Each Face

Notes:

- See Sheet S-6 for Bill of Material and Bar Diagrams.
- See Sheets S-7 & S-8 for pipe underdrain invert elevations and S-9 for Pipe Underdrain Detail.
- See Sheets S-11 and S-12 for Architectural Details.
- Bars indicated thus 13x3-#6 etc. indicates 13 lines of bars with 3 lengths per line.
- See Sheet S-13 for bar splicer details and bar splicer Bill of Material.
- The pay limits for Geocomposite Wall Drain are along the perimeter of the top and side walls. Geocomposite Wall Drain shall be according to Section 591 of the Standard Specifications except that concrete nails shall not be used in areas where it overlaps Membrane Waterproofing for Buried Structures



SECTION B-B

(Underpass Reinforcement Not Shown)

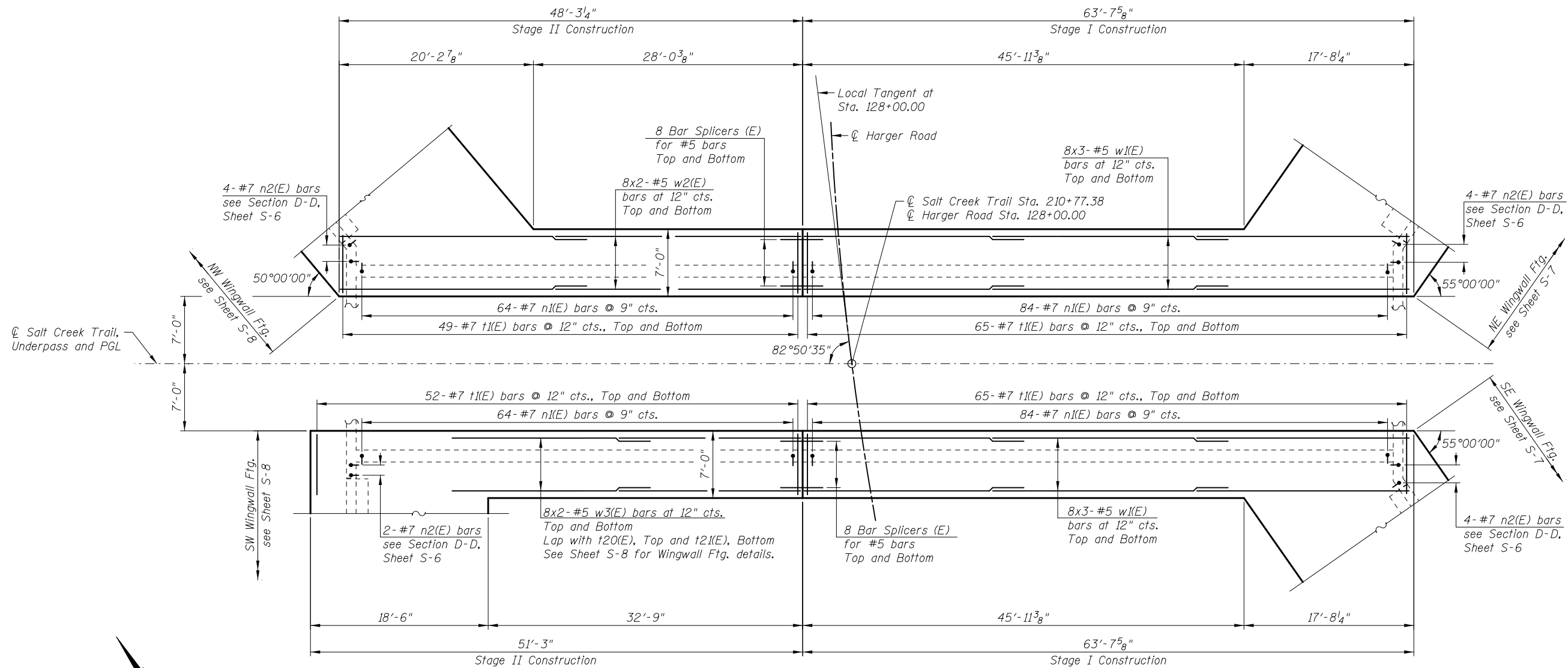
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CHECKED	- G. HATLESTAD	REVISED	-
DATE	- 11/25/2019	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

UNDERPASS PLAN AND ELEVATION
HARGER ROAD OVER SALT CREEK TRAIL
STRUCTURE NO. 022-6858
 SHEET NO. S-3 OF S-14 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1446	17-00049-00-PV	DUPAGE	208	138
				CONTRACT NO. 61G16
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



FOOTING - PLAN

(Wingwall Reinforcement not Shown for Clarity)

Notes:

1. See Sheet S-6 for Bill of Material and Bar Diagrams.
2. Bars indicated thus 13x3-#6 etc. indicates 13 lines of bars with 3 lengths per line.
3. See Sheet S-12 for bar splicer details and bar splicer Bill of Material.

MINIMUM BAR LAP

#5 = 3'-7"

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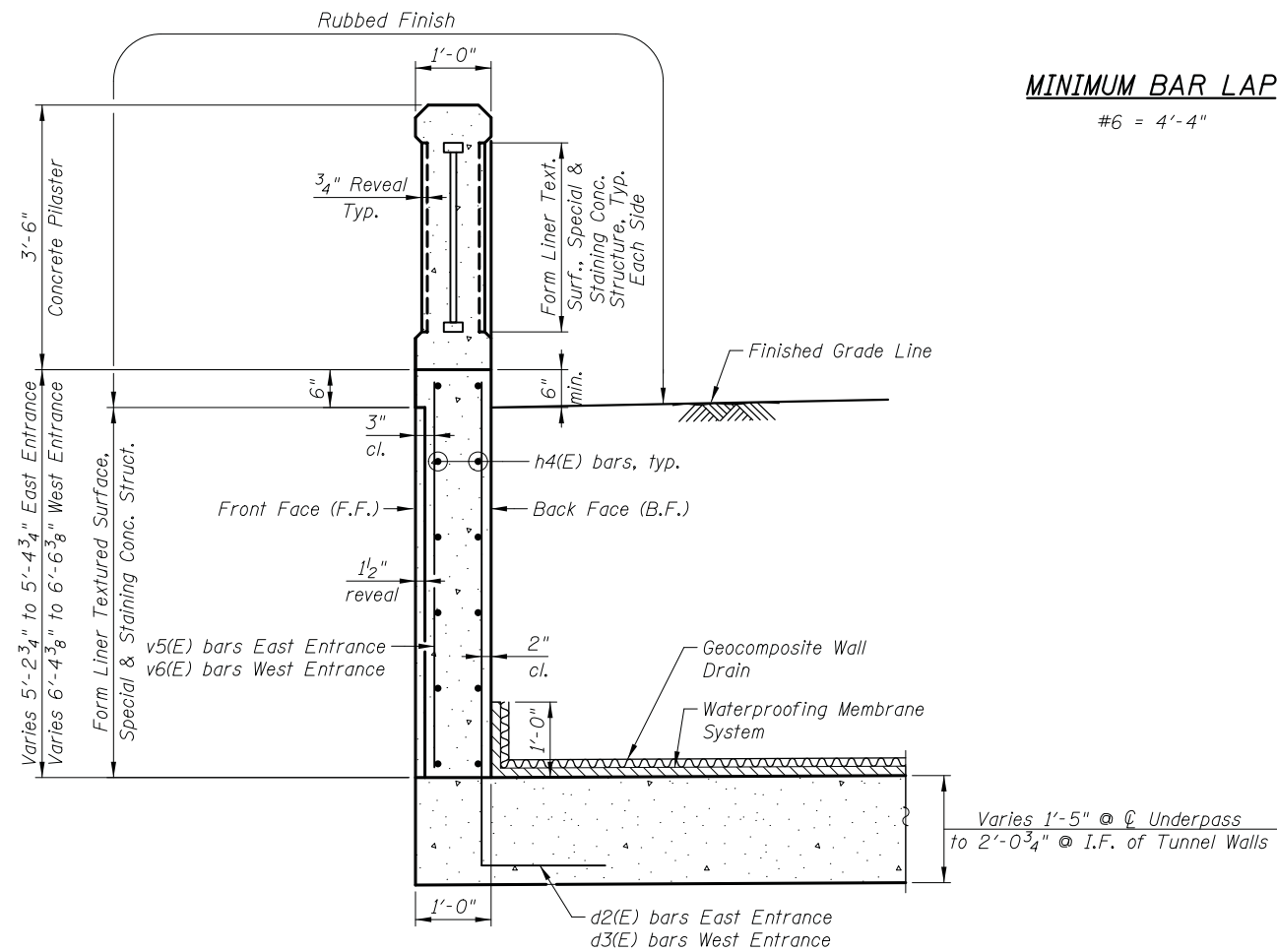
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DESIGNED	- E. VAYSMAN	REVISED	-
CHECKED	- G. HATLESTAD	REVISED	-
DATE	- 11/25/2019	REVISED	-

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**UNDERPASS FOUNDATION
 HARGER ROAD OVER SALT CREEK TRAIL
 STRUCTURE NO. 022-6858**

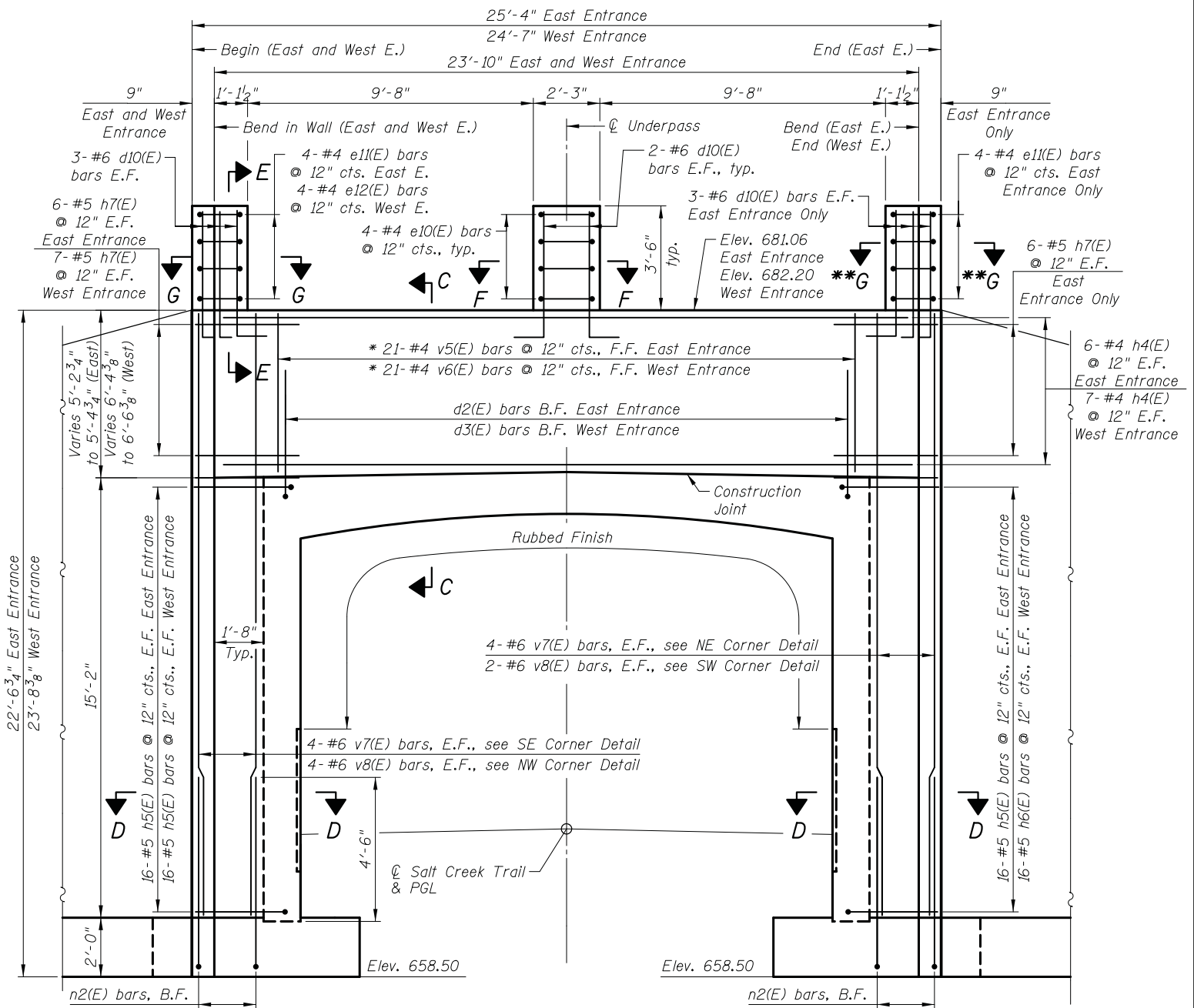
SHEET NO. S-4 OF S-14 SHEETS

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FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G16	

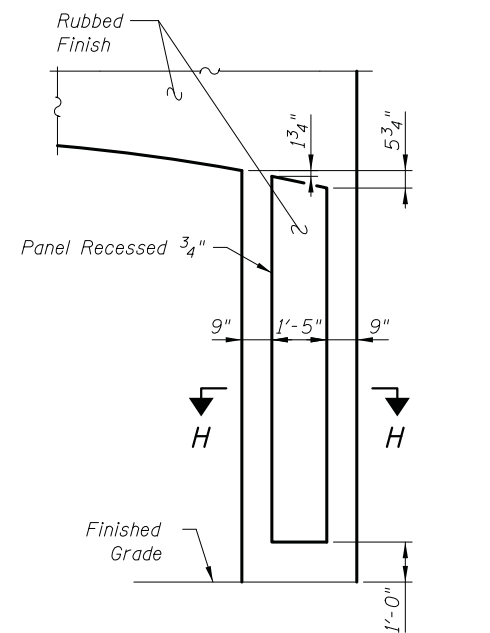


MINIMUM BAR LAP
#6 = 4'-4"

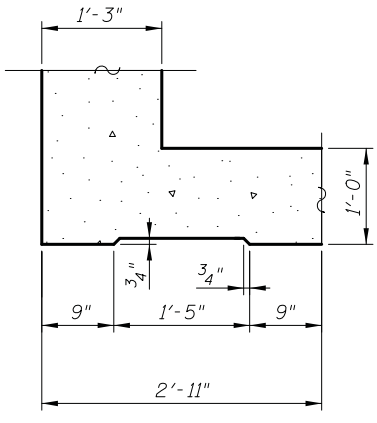
SECTION C-C
(Pilaster and Underpass Reinforcement Not Shown)
East Entrance looking West shown
West Entrance looking East similar



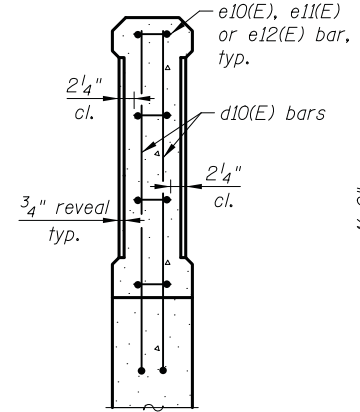
ENTRANCE ELEVATION
East Entrance looking West shown
West Entrance looking East similar
(Unfolded - Looking at Front Face of Wall)



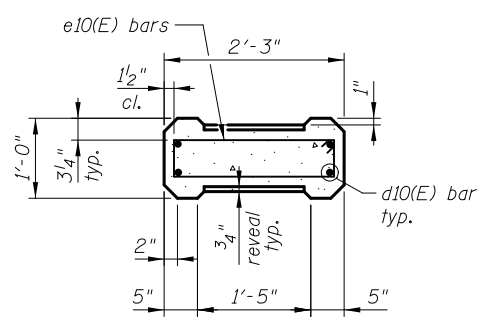
RECESSED PANEL DETAIL



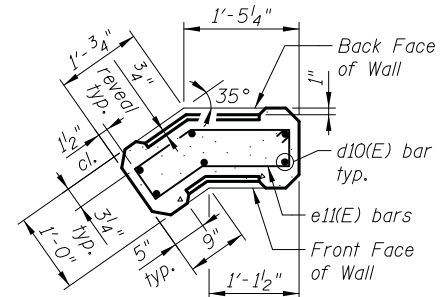
SECTION H-H



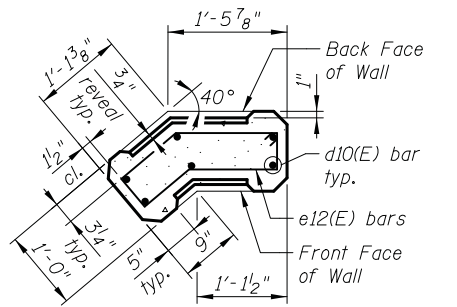
SECTION E-E



SECTION F-F



SECTION G-G
SE Corner Shown
NE Corner Equal and Opposite



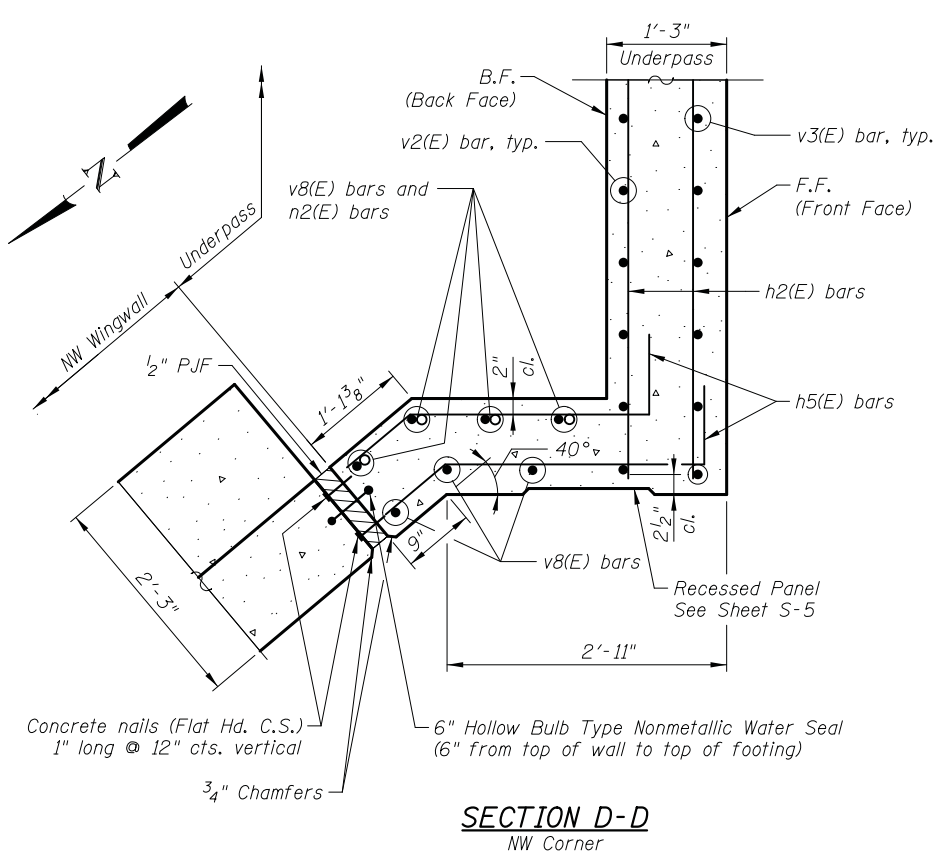
SECTION G-G
NW Corner

Note:
1. See Sheet S-6 for Section D-D, Bill of Material and Bar Diagrams.

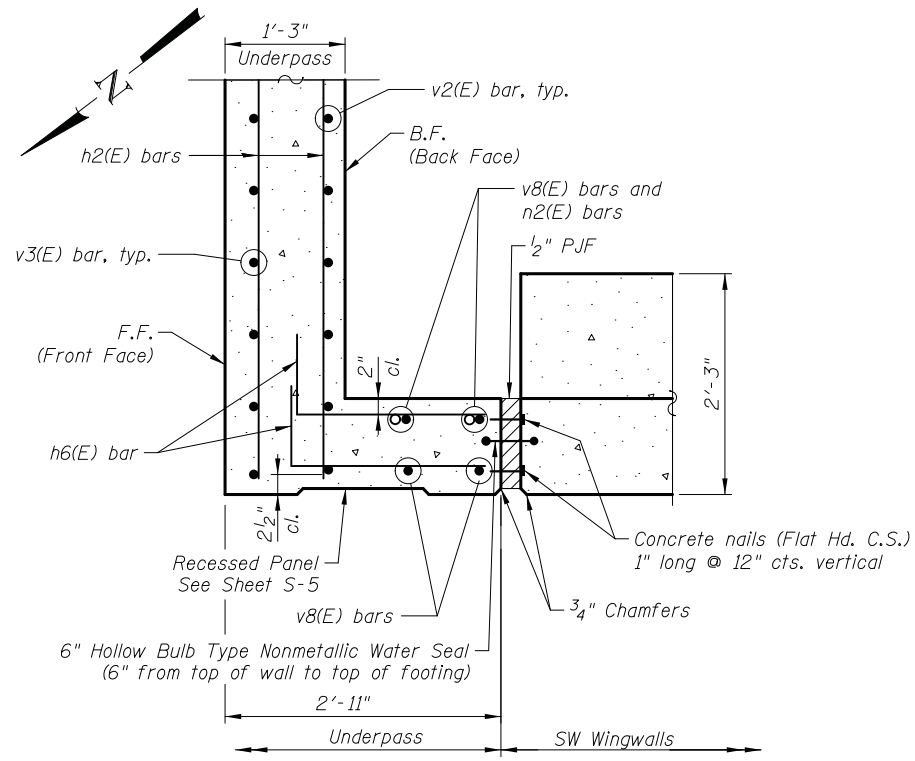
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DATE	- 11/25/2019	REVISED	-

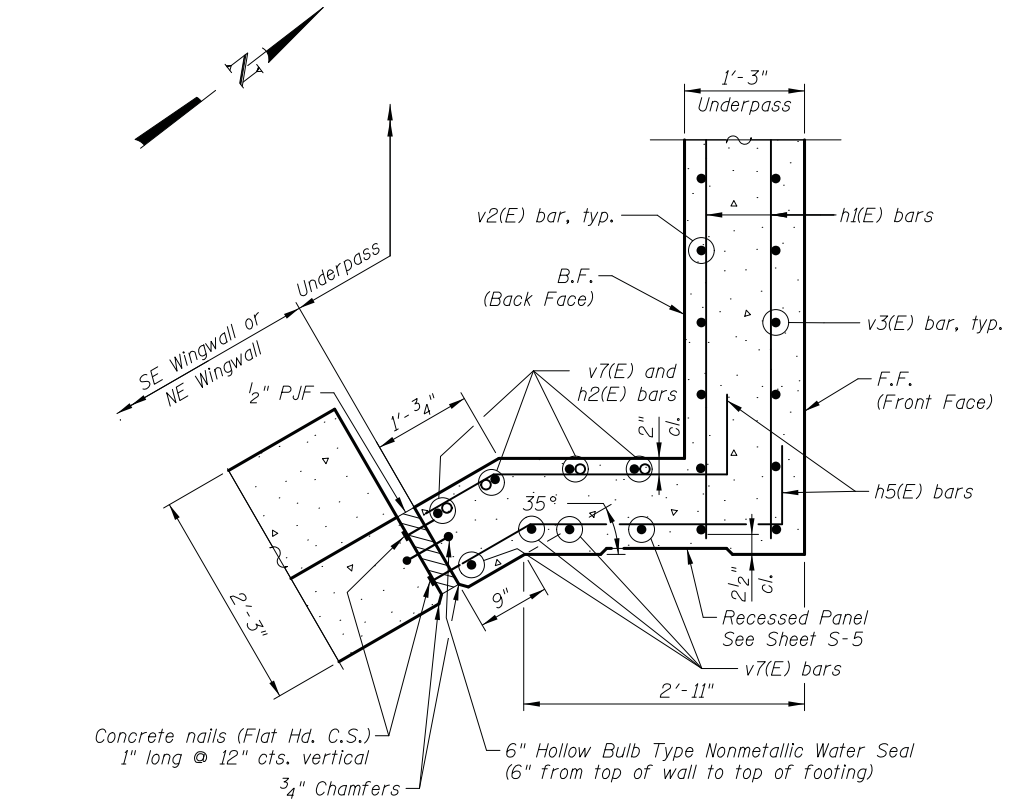
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CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



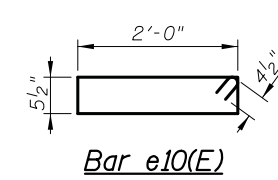
SECTION D-D
NW Corner



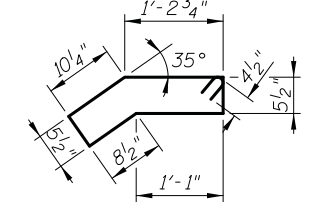
SECTION D-D
SW Corner



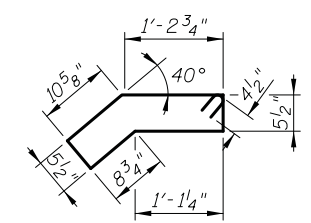
SECTION D-D
SE Corner Shown
NE Corner Equal and Opposite



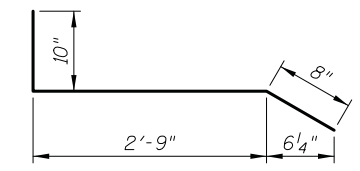
Bar e10(E)



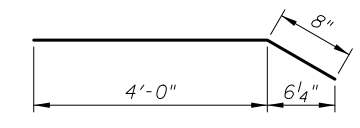
Bar e11(E)



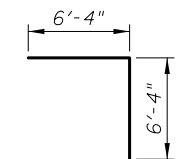
Bar e12(E)



BAR h5(E)



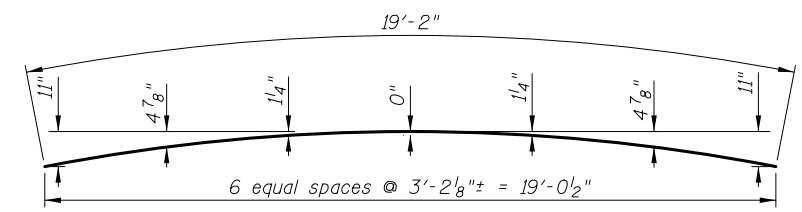
BAR h7(E)



BAR v1(E)

BARS d1(E), d2(E), d3(E), d10(E), h6(E), n1(E) & n2(E)

Bar	A	B
d1(E)	8"	4'-0"
d2(E)	1'-0"	6'-3"
d3(E)	1'-0"	7'-5"
d10(E)	1'-0"	4'-6"
h6(E)	10"	2'-0"
n1(E)	1'-2"	5'-2"
n2(E)	1'-2"	6'-2"



BAR a1(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	148	#7	19'-2"	
a2(E)	148	#7	20'-2"	
b1(E)	126	#5	23'-3"	
b2(E)	84	#5	25'-6"	
d1(E)	21	#4	4'-8"	
d2(E)	21	#5	7'-3"	
d3(E)	21	#5	8'-5"	
d10(E)	30	#6	5'-6"	
e10(E)	12	#4	5'-8"	
e11(E)	8	#4	5'-7"	
e12(E)	4	#4	5'-8"	
h1(E)	168	#5	23'-3"	
h2(E)	112	#5	25'-6"	
h3(E)	8	#4	20'-2"	
h4(E)	26	#4	23'-6"	
h5(E)	96	#5	4'-3"	
h6(E)	32	#5	2'-10"	
h7(E)	38	#5	4'-8"	
n1(E)	296	#7	6'-4"	
n2(E)	14	#7	7'-4"	
v1(E)	296	#8	12'-8"	
v2(E)	296	#6	12'-10"	
v3(E)	296	#5	14'-8"	
v4(E)	21	#4	4'-0"	
v5(E)	21	#4	5'-3"	
v6(E)	21	#4	6'-5"	
v7(E)	16	#6	20'-5"	
v8(E)	12	#6	21'-7"	
t1(E)	462	#7	6'-8"	
w1(E)	96	#5	23'-9"	
w2(E)	32	#5	25'-10"	
w3(E)	32	#5	20'-0"	

Item	Unit	Quantity
Concrete Structures	Cu. Yd.	356.7
Rubbed Finish	Sq. Ft.	3,894
Reinforcement bars Epoxy Coated	Pound	61,800
Membrane Waterproofing	Sq. Ft.	2,637
Geocomposite Wall Drain	Sq. Yd.	685
Staining Concrete Structures	Sq. Ft.	1,395
Anti-Graffiti Protective System	Sq. Ft.	5,290
Form Liner Textured Surface, Special	Sq. Ft.	1,395
Pipe Underdrain for Structures, 4"	Foot	480

Notes:
1. See Sheet S-5 for location of Section D-D.

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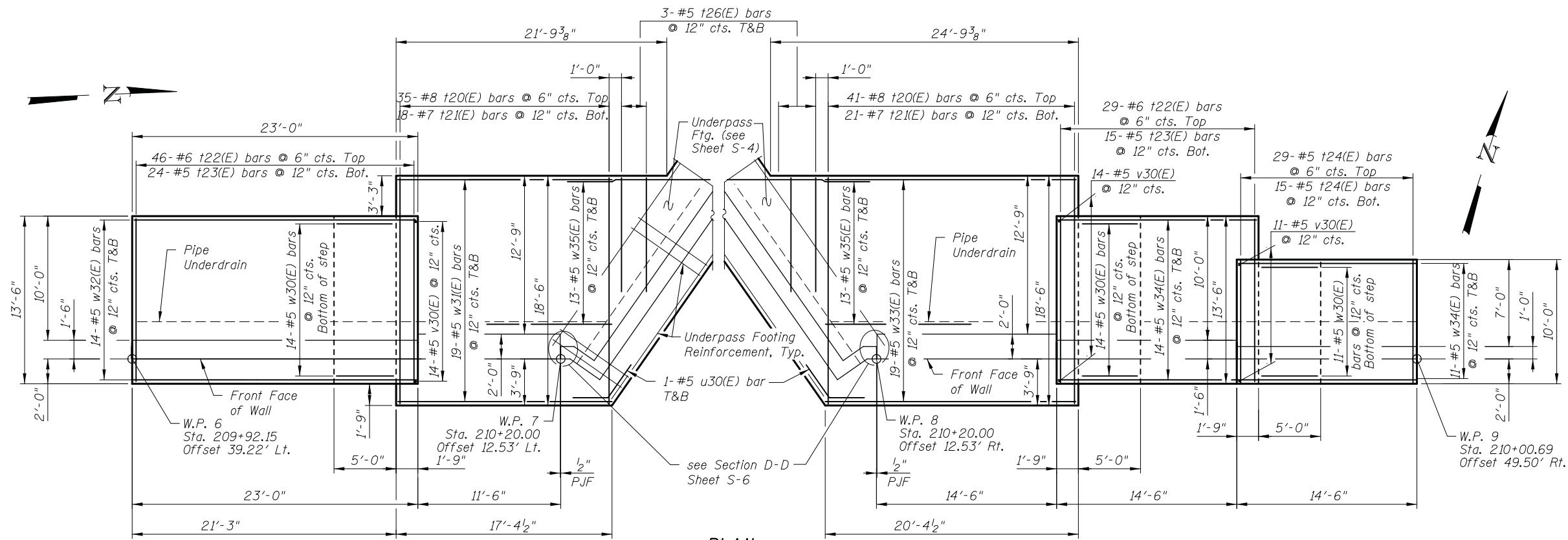
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 Itasca, Illinois 60143
 Tel: 630.773.3900 Fax: 630.773.3975
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DESIGNED	- E. VAYSMAN	REVISED	-
CHECKED	- G. HATLESTAD	REVISED	-
DATE	- 11/25/2019	REVISED	-

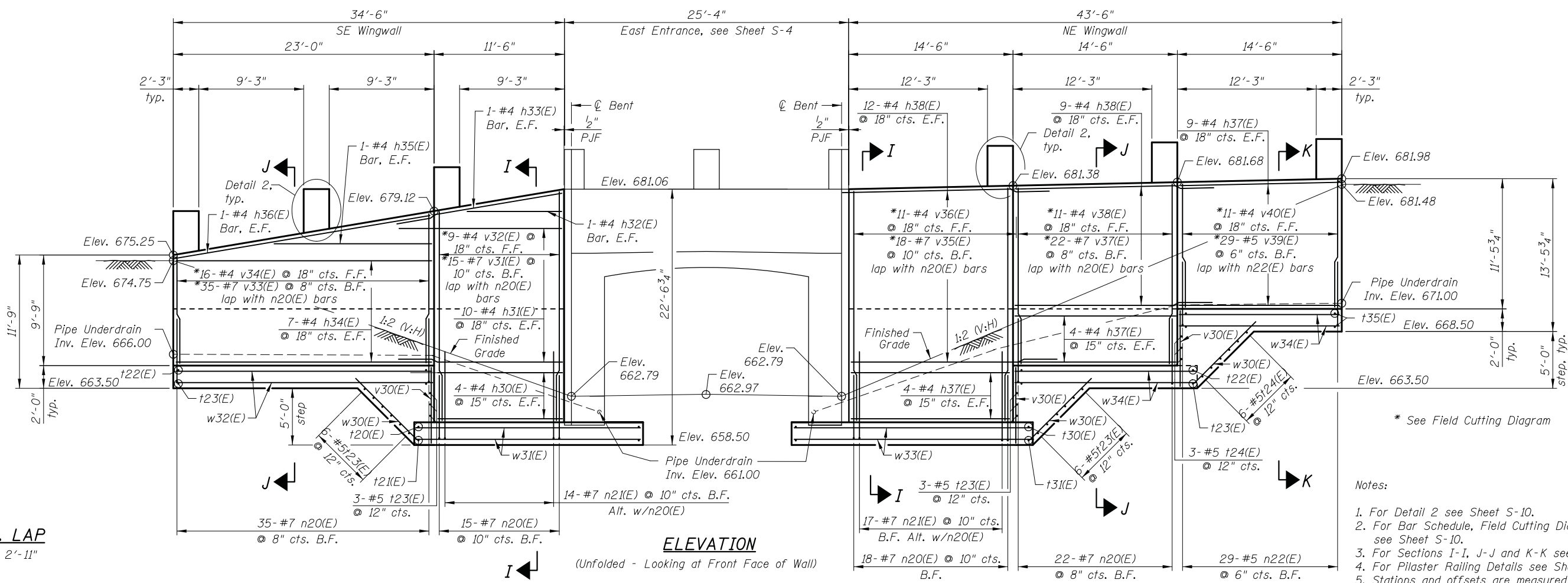
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

UNDERPASS DETAILS 2
HARGER ROAD OVER SALT CREEK TRAIL
STRUCTURE NO. 022-6858
 SHEET NO. S-6 OF S-14 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1446	17-00049-00-PV	DUPAGE	208	141
				CONTRACT NO. 61G16
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



PLAN



ELEVATION

(Unfolded - Looking at Front Face of Wall)

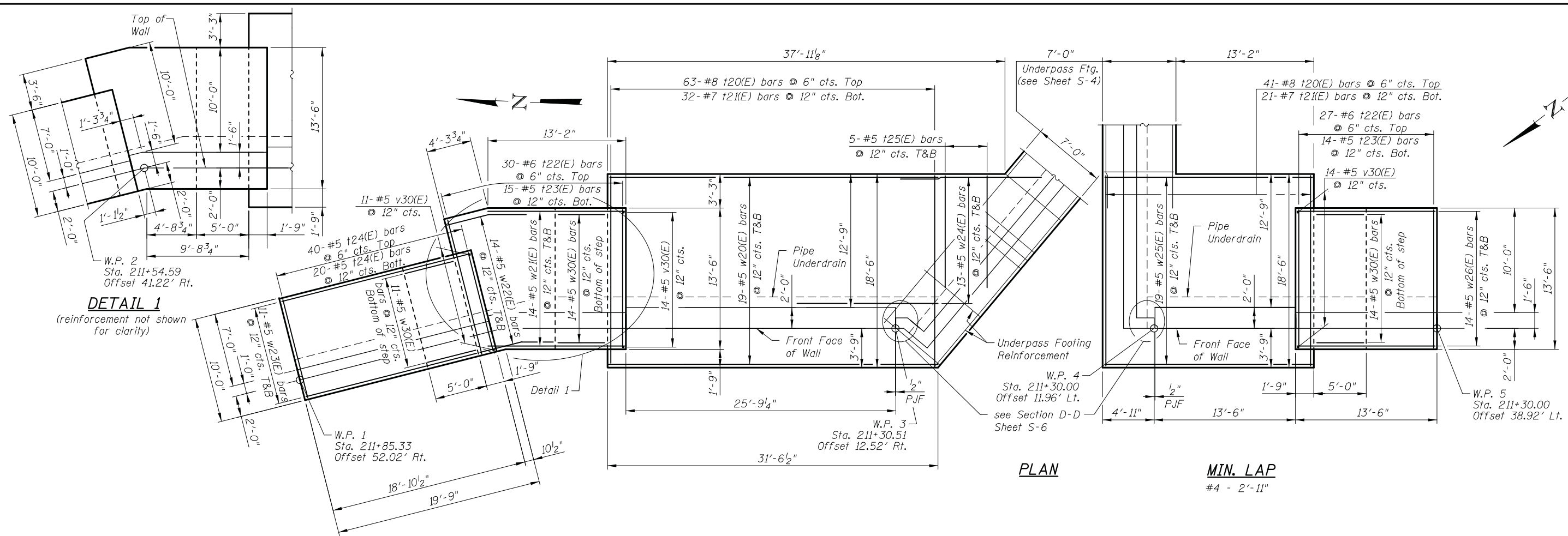
- Notes:
1. For Detail 2 see Sheet S-10.
 2. For Bar Schedule, Field Cutting Diagram and Bill of Material see Sheet S-10.
 3. For Sections I-I, J-J and K-K see Sheet S-9.
 4. For Pilaster Railing Details see Sheet S-12.
 5. Stations and offsets are measured from ϕ Salt Creek Trail.

MIN. LAP
#4 - 2'-11"

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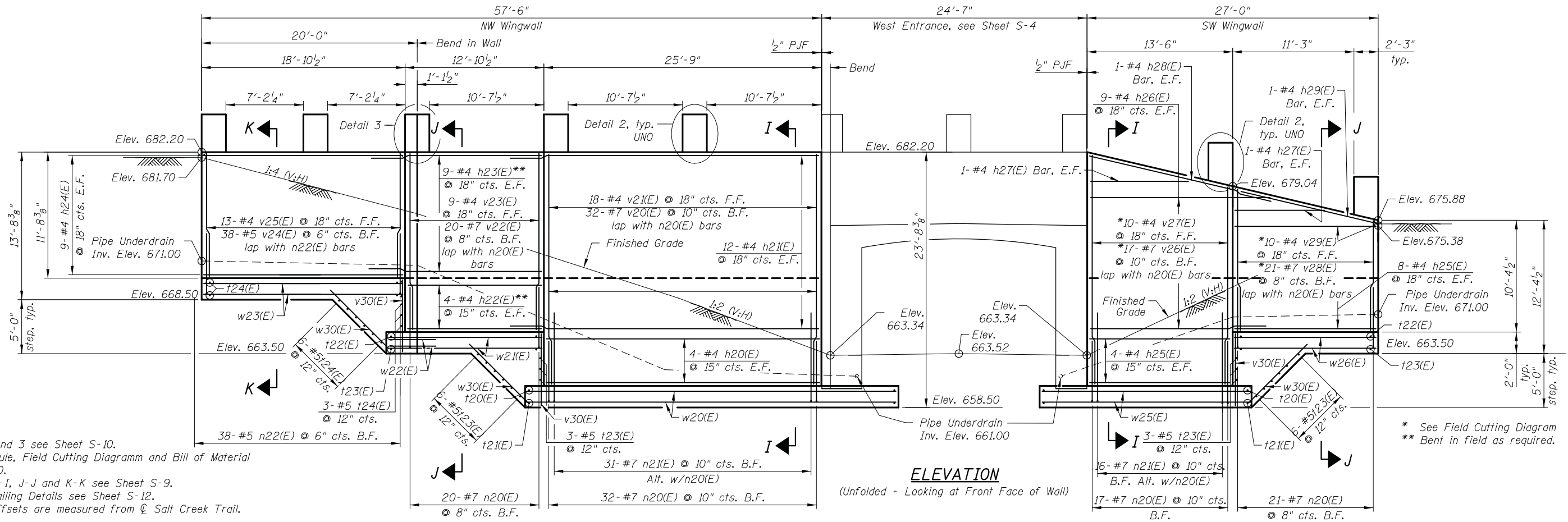
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DESIGNED	- E. VAYSMAN	REVISED	-
CHECKED	- G. HATLESTAD	REVISED	-
DATE	- 11/25/2019	REVISED	-

F.A.U. RT.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1446	17-00049-00-PV	DUPAGE	208	142
CONTRACT NO. 61G16			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	



DETAIL 1
(reinforcement not shown for clarity)

PLAN
MIN. LAP
#4 - 2'-11"



ELEVATION
(Unfolded - Looking at Front Face of Wall)

- Notes:
1. For Details 2 and 3 see Sheet S-10.
 2. For Bar Schedule, Field Cutting Diagram and Bill of Material see Sheet S-10.
 3. For Sections I-I, J-J and K-K see Sheet S-9.
 4. For Pilaster Railing Details see Sheet S-12.
 5. Stations and offsets are measured from Salt Creek Trail.

* See Field Cutting Diagram
** Bent in field as required.

10/5/04 AM c:\p\w\work\king\civiltech\production\pk\dms2503\08_west_wingwall.dfls.dgn

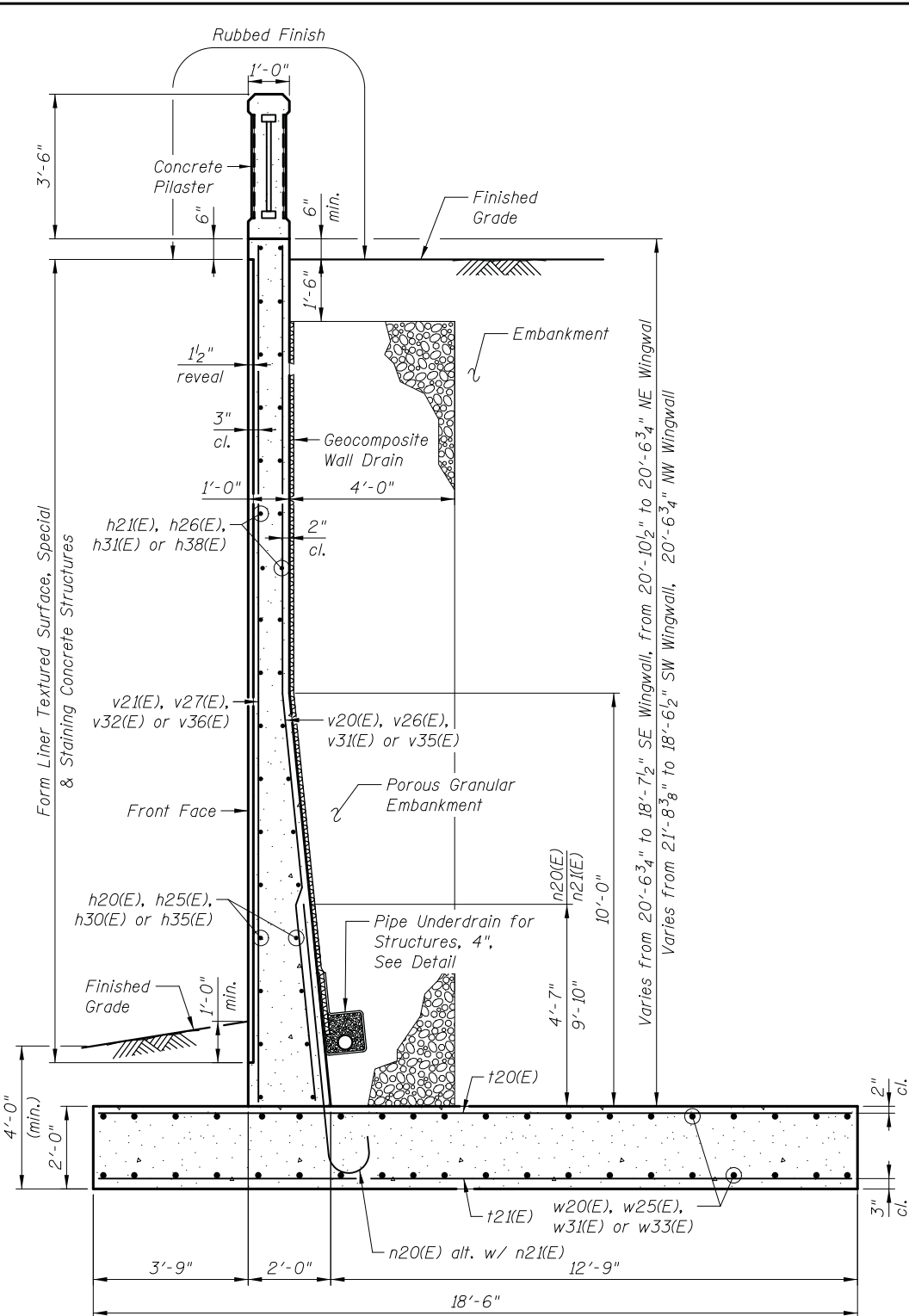
CIVILTECH
Two Pierce Place, Suite 1400
Itasca, Illinois 60143
Tel: 630.773.3900 Fax: 630.773.3975
www.civiltechinc.com

DRAWN	- E. VAYSMAN	REVISED	-
DESIGNED	- E. VAYSMAN	REVISED	-
CHECKED	- G. HATLESTAD	REVISED	-
DATE	- 11/25/2019	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

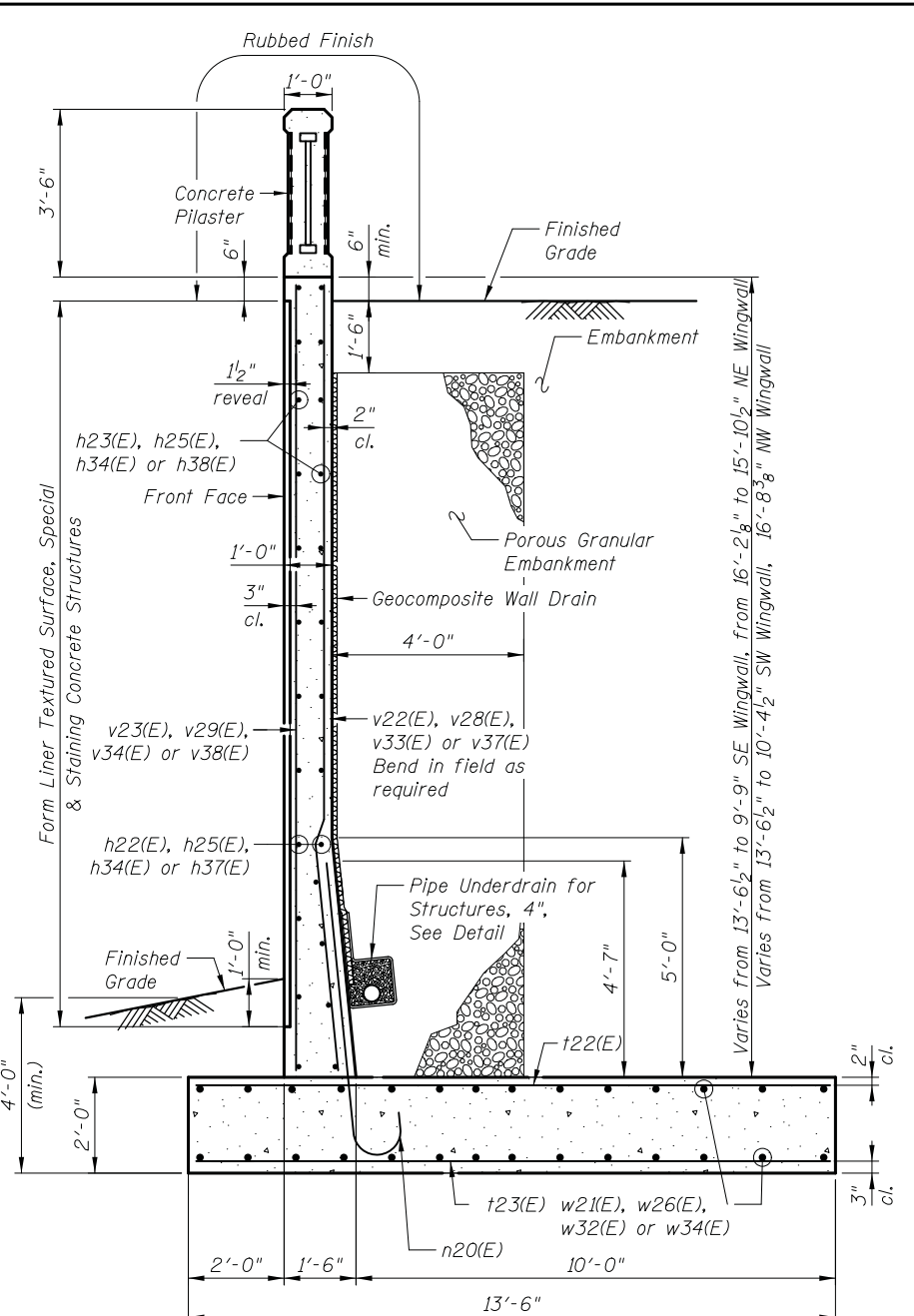
WEST WINGWALLS
HARGER ROAD OVER SALT CREEK TRAIL
STRUCTURE NO. 022-6858
SHEET NO. S-8 OF S-14 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1446	17-00049-00-PV	DUPAGE	208	143
				CONTRACT NO. 61G16
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

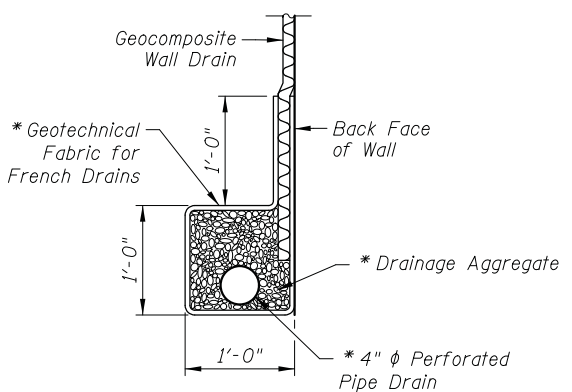


SECTION I-I

Maximum Applied Bearing Pressure = 5,075 psf
 Maximum Allowed Bearing Pressure = 6,000 psf

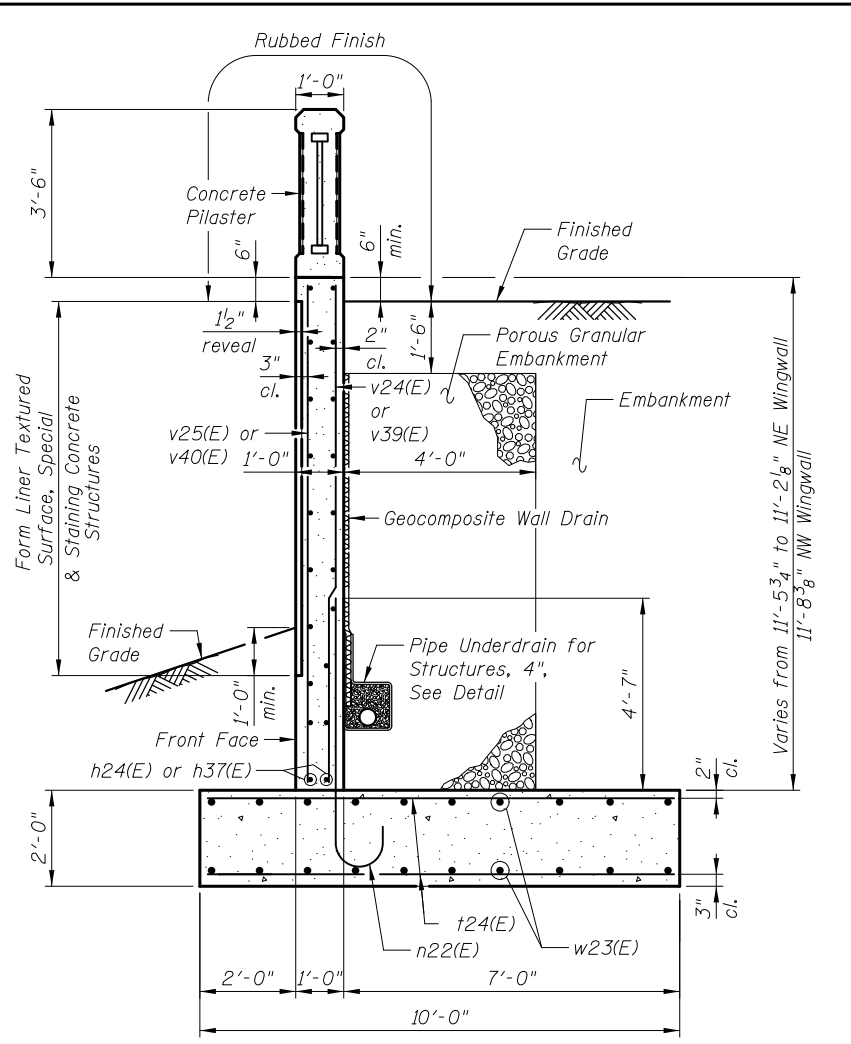


SECTION J-J



PIPE UNDERDRAIN DETAIL

* Included in the cost of Pipe Underdrains for Structures, 4"



SECTION K-K

Notes:

1. For location of Sections I-I, J-J and K-K see Sheet S-9.
2. For Bar Schedule and Bill of Material see Sheet S-10.

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DESIGNED	- E. VAYSMAN	REVISED	-
CHECKED	- G. HATLESTAD	REVISED	-
DATE	- 11/25/2019	REVISED	-

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**WINGWALL DETAILS 1
 HARGER ROAD OVER SALT CREEK TRAIL
 STRUCTURE NO. 022-6858**
 SHEET NO. S-9 OF S-14 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1446	17-00049-00-PV	DUPAGE	208	144
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

BAR LIST

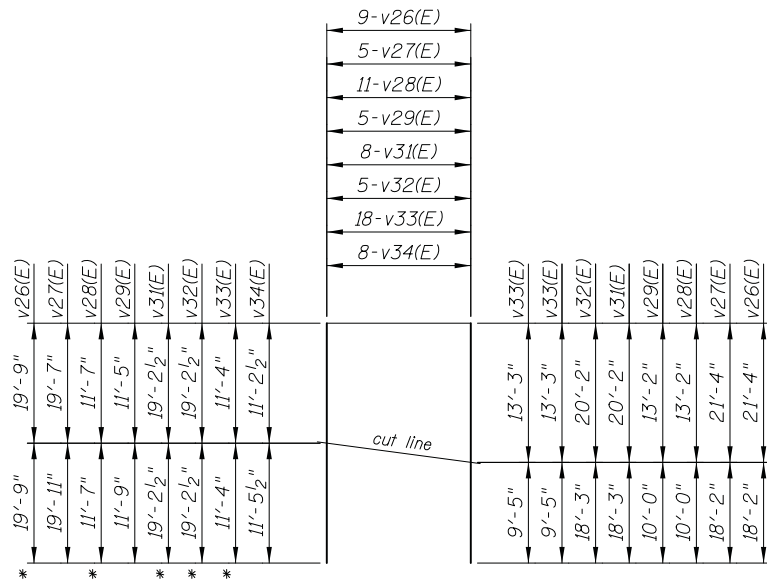
(for All 4 Wingwalls)

Bar	No.	Size	Length	Shape
d10(E)	78	#6	5'-6"	L
e10(E)	48	#4	5'-8"	U
e20(E)	4	#4	5'-11"	U
h20(E)	8	#4	25'-5"	—
h21(E)	24	#4	28'-8"	—
h22(E)	8	#4	12'-6"	—
h23(E)	18	#4	15'-9"	—
h24(E)	18	#4	10'-7"	—
h25(E)	24	#4	13'-2"	—
h26(E)	18	#4	16'-5"	—
h27(E)	4	#4	6'-0"	—
h28(E)	2	#4	16'-10"	—
h29(E)	2	#4	13'-6"	—
h30(E)	8	#4	11'-2"	—
h31(E)	20	#4	14'-5"	—
h32(E)	2	#4	8'-6"	—
h33(E)	2	#4	14'-8"	—
h34(E)	14	#4	22'-8"	—
h35(E)	2	#4	14'-1"	—
h36(E)	2	#4	23'-0"	—
h37(E)	34	#4	14'-2"	—
h38(E)	42	#4	17'-5"	—
n20(E)	178	#7	7'-2"	U
n21(E)	78	#7	12'-5"	U
n22(E)	69	#5	5'-8"	U
t20(E)	180	#8	18'-2"	—
t21(E)	92	#7	18'-2"	—
t22(E)	132	#6	13'-2"	—
t23(E)	104	#5	13'-2"	—
t24(E)	122	#5	9'-8"	—
t25(E)	10	#5	10'-8"	—
t26(E)	6	#5	9'-2"	—
v20(E)	32	#7	21'-4"	—
v21(E)	18	#4	21'-4"	—
v22(E)	20	#7	16'-4"	—
v23(E)	9	#4	16'-4"	—
v24(E)	38	#5	11'-4"	—
v25(E)	13	#4	11'-4"	—
v26(E)	9	#7	39'-6"	—
v27(E)	5	#4	39'-6"	—
v28(E)	11	#7	23'-2"	—
v29(E)	5	#4	23'-2"	—
v30(E)	78	#5	6'-7"	—
v31(E)	8	#7	38'-5"	—
v32(E)	5	#4	38'-5"	—
v33(E)	18	#7	22'-8"	—
v34(E)	8	#4	22'-8"	—
v35(E)	9	#7	40'-8"	—
v36(E)	6	#4	40'-8"	—
v37(E)	11	#7	31'-4"	—
v38(E)	6	#4	31'-4"	—
v39(E)	15	#5	22'-0"	—
v40(E)	6	#4	22'-0"	—
w20(E)	38	#5	31'-3"	—
w21(E)	28	#5	13'-0"	—
w22(E)	28	#5	7'-9"	—
w23(E)	22	#5	18'-6"	—
w24(E)	26	#5	13'-7"	—
w25(E)	38	#5	19'-10"	—
w26(E)	28	#5	13'-2"	—
w30(E)	78	#5	8'-0"	—
w31(E)	38	#5	17'-0"	—
w32(E)	28	#5	22'-8"	—
w33(E)	38	#5	20'-0"	—
w34(E)	50	#5	14'-2"	—
w35(E)	26	#5	11'-9"	—

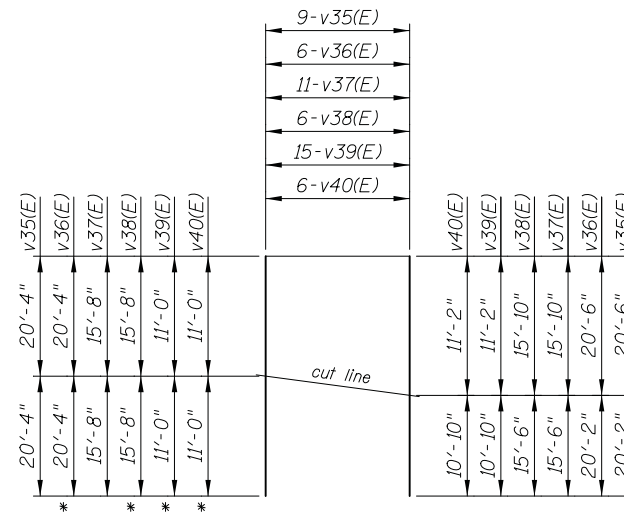
BILL OF MATERIAL

(for All 4 Wingwalls)

Item	Unit	Quantity
Concrete Structures	Cu. Yd.	346.7
Rubbed Finish	Sq. Ft.	464
Reinforcement bars Epoxy Coated	Pound	42,710
Geocomposite Wall Drain	Sq. Yd.	254
Staining Concrete Structures	Sq. Ft.	1,565
Anti-Graffiti Protective System	Sq. Ft.	1,661
Form Liner Textured Surface, Special	Sq. Ft.	1,565
Pipe Underdrain for Structures, 4"	Foot	176



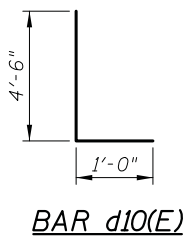
FIELD CUTTING DIAGRAM



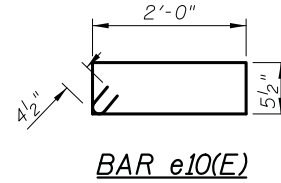
FIELD CUTTING DIAGRAM

* Indicates bar length to be discarded when an odd number of bars are required.

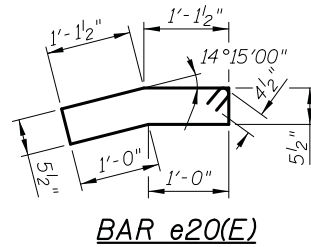
Order bars full length. Cut as shown and place at one end of the dimension line shown on the plans. Use the remainder of the bars at opposite end of the dimension line.



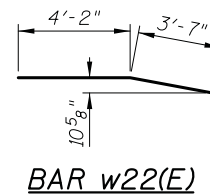
BAR d10(E)



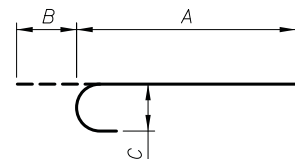
BAR e10(E)



BAR e20(E)

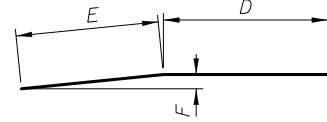


BAR w22(E)



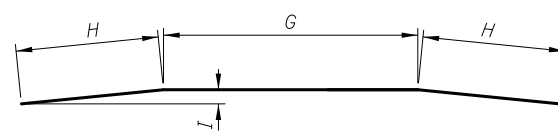
Bar	A	B	C
n20(E)	6'-4"	0'-10"	0'-7"
n21(E)	7'-2"	0'-10"	0'-7"
n22(E)	5'-1"	0'-7"	0'-5"

BARS n20(E) THRU n22(E)



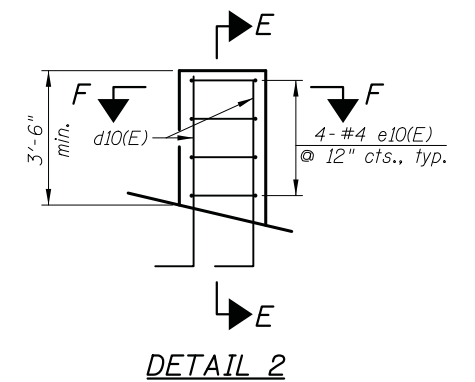
Bar	D	E	F
v20(E)	11'-5"	9'-11"	0'-11 ⁷ / ₈ "
v22(E)	11'-5"	4'-11"	0'-5 ³ / ₄ "

BARS v20(E) & v22(E)

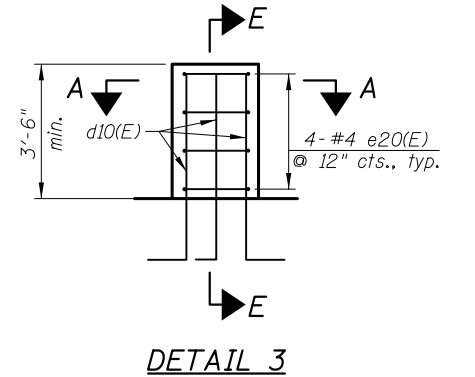


Bar	G	H	I
v26(E)	19'-8"	9'-11"	0'-11 ⁷ / ₈ "
v28(E)	13'-4"	4'-11"	0'-5 ³ / ₄ "
v31(E)	18'-7"	9'-11"	0'-11 ⁷ / ₈ "
v33(E)	12'-10"	4'-11"	0'-5 ³ / ₄ "
v35(E)	20'-10"	9'-11"	0'-11 ⁷ / ₈ "
v37(E)	21'-6"	4'-11"	0'-5 ³ / ₄ "

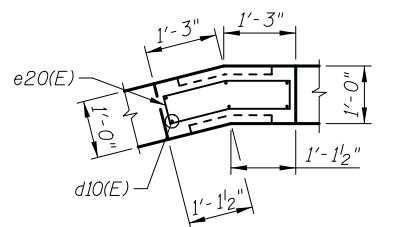
BARS v26(E), v28(E), v31(E), v33(E), v35(E) & v37(E)



DETAIL 2



DETAIL 3

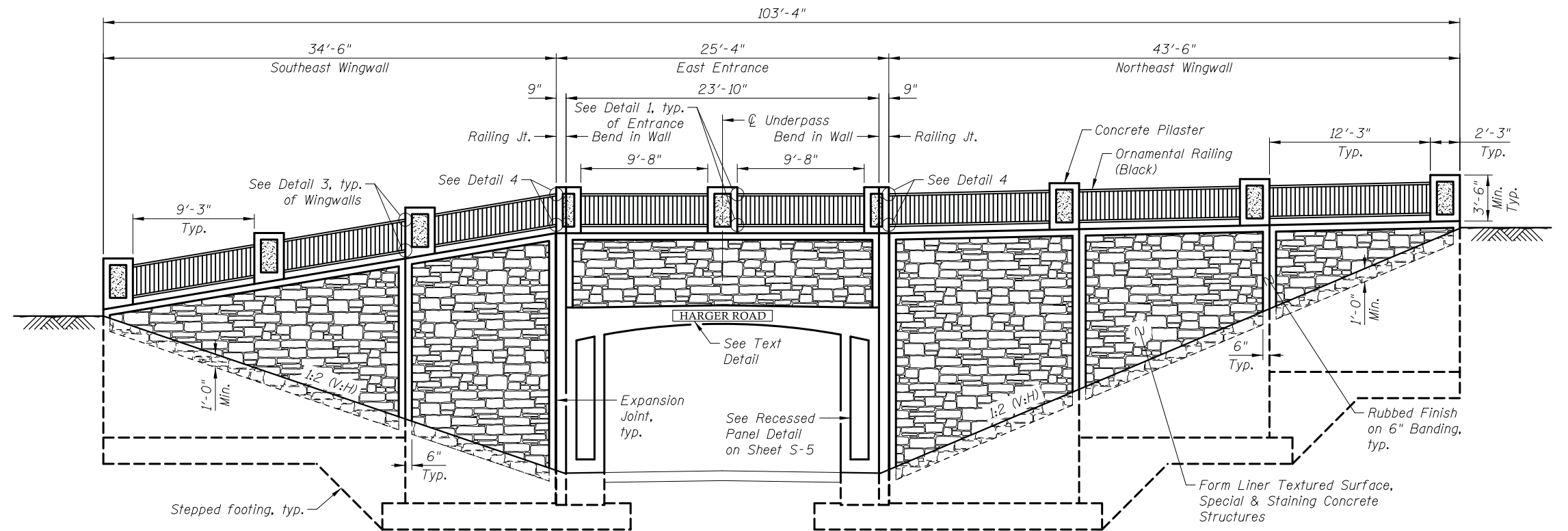


SECTION A-A

Notes:

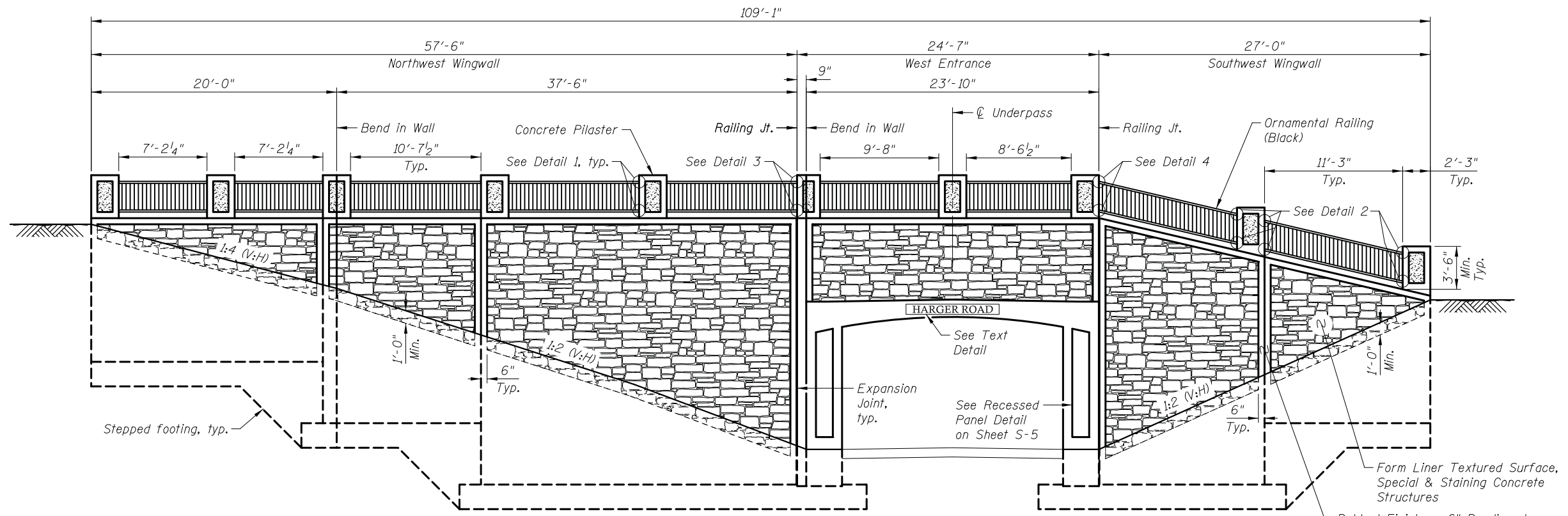
- For location of Details 2 and 3 see sheets S-7 and S-8.
- For Sections E-E and F-F see Sheet S-5.

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EAST END SECTION

(Looking West)
(Unfolded - Looking at Front Face of Wall)



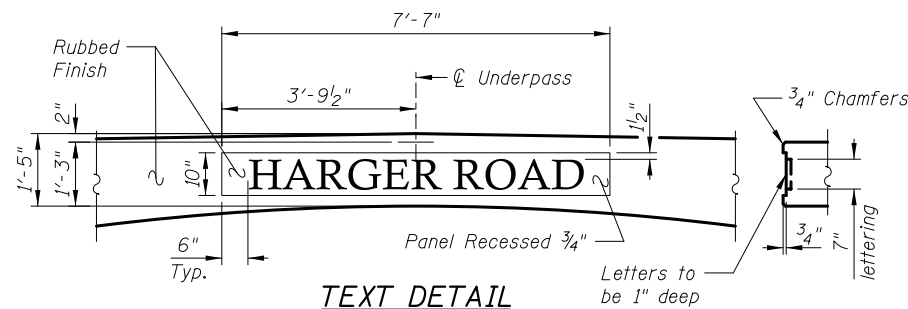
WEST END SECTION

(Looking East)
(Unfolded - Looking at Front Face of Wall)

Notes:

1. For Details 1 thru 4, Text Detail and Railing Details see Sheet S-12.

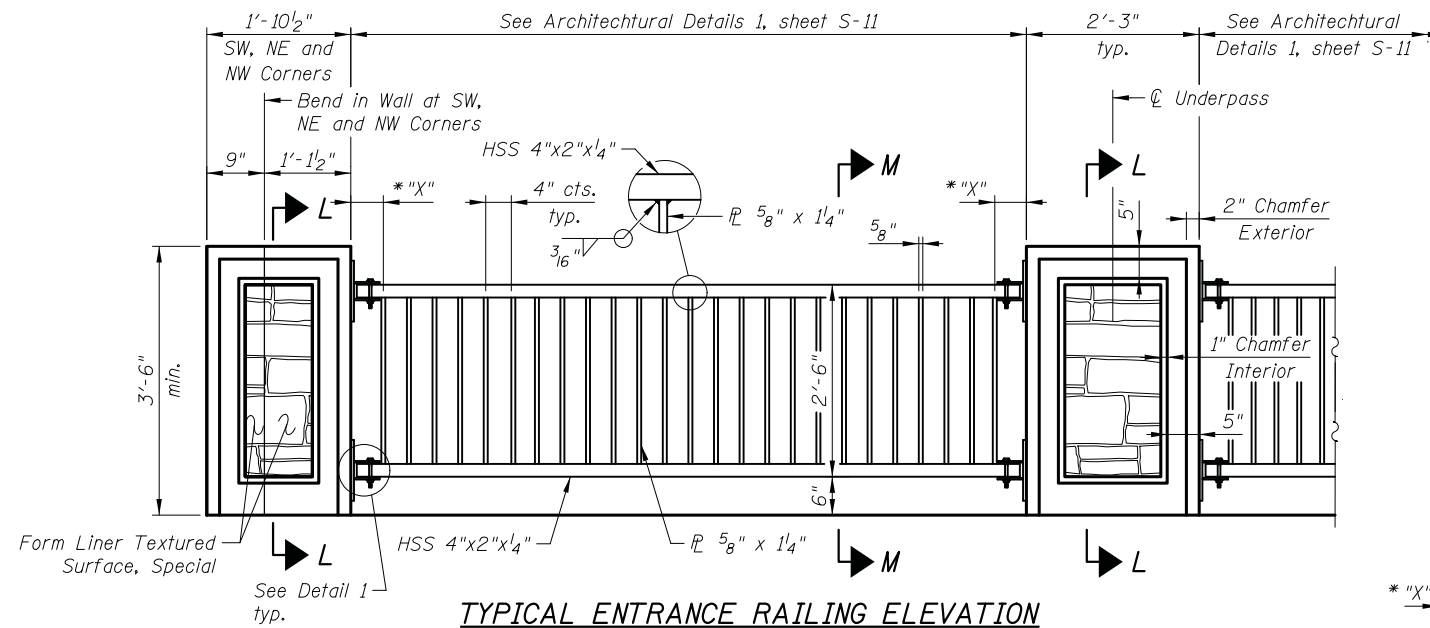
10/5/11 AM 12/24/2019 c:\p.w.\work\king\civiltech\production\pk\dms2503\il_arch_details.dgn



TEXT DETAIL

Font Style to be Calisto MT

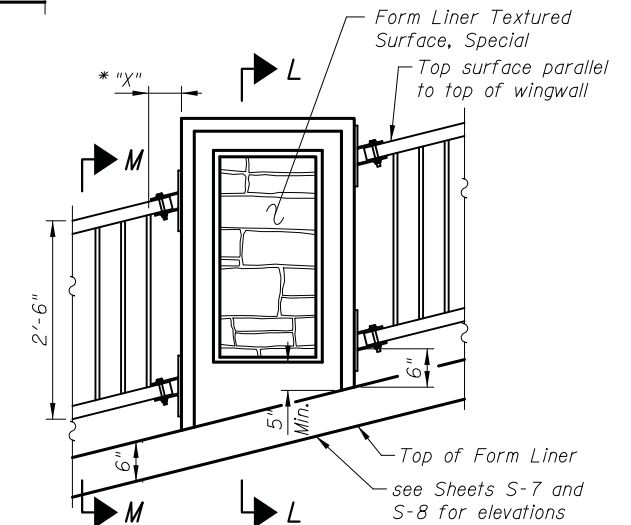
The Contractor shall provide a one-piece precast concrete name panel to be inset in the poured in place structure in the dimensions shown. This cost shall be included with Concrete Structures. Provide a shop drawing indications design mix, dimensions and attachment method.



TYPICAL ENTRANCE RAILING ELEVATION

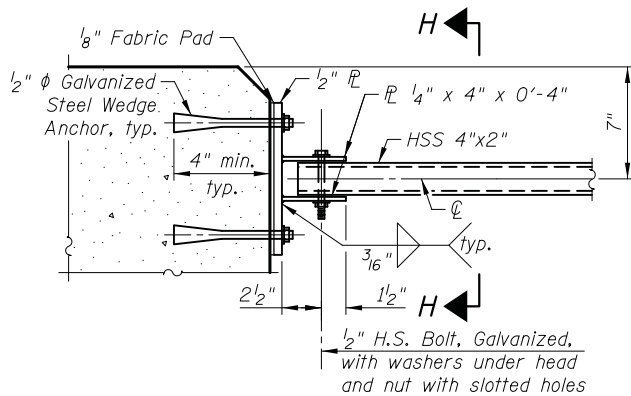
(Unfolded - Looking at Front Face of Wall)

* Dimension "X" equals remaining distance after even plate spacing

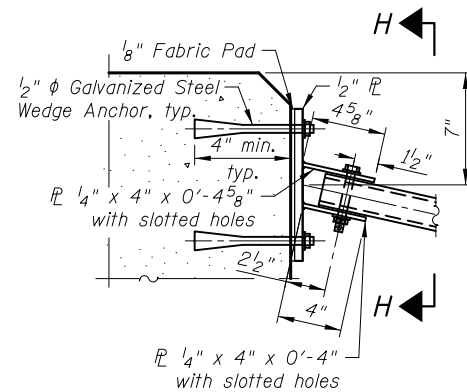


TYPICAL WINGWALL RAILING ELEVATION

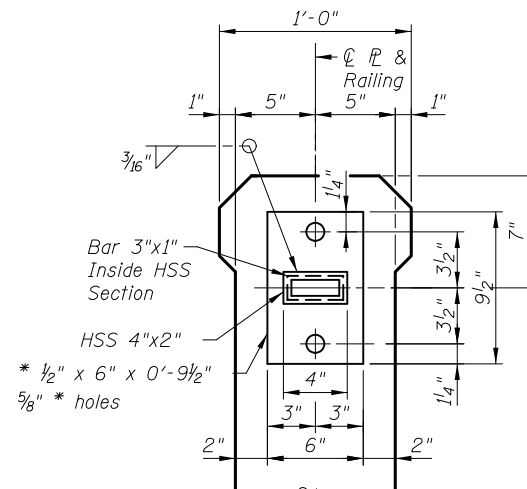
see TYPICAL ENTRANCE RAILING ELEVATION for additional details



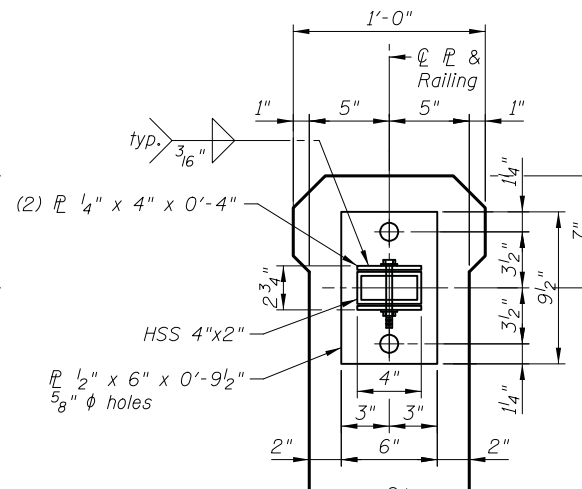
DETAIL 1



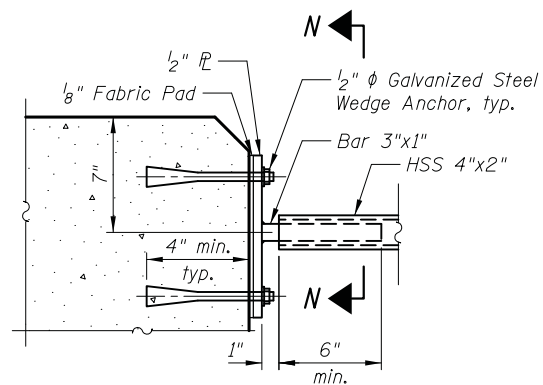
DETAIL 2



SECTION N-N

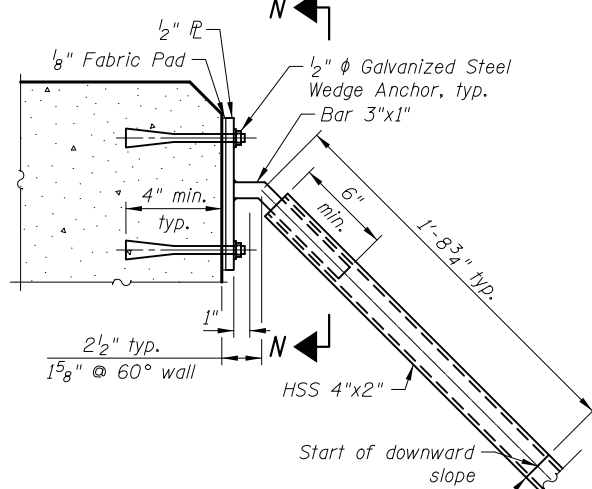


SECTION H-H



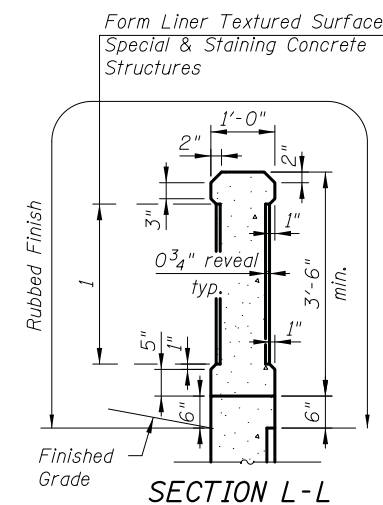
DETAIL 3

Railing Expansion Joint Detail

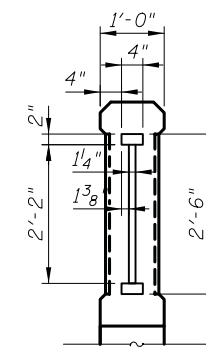


DETAIL 4

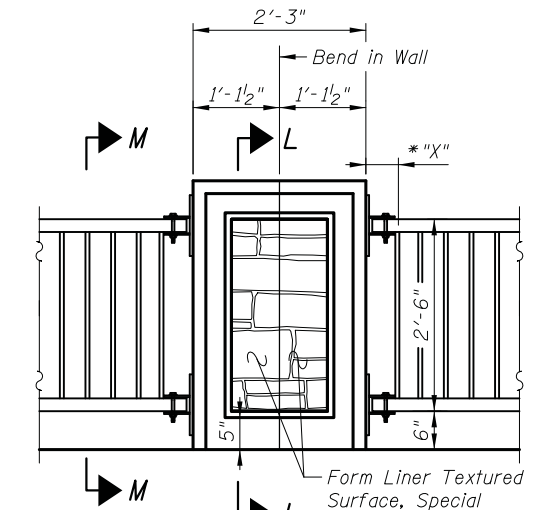
Railing Expansion Joint Detail



SECTION L-L



SECTION M-M



NORTHWEST WINGWALL RAILING ELEVATION AT BEND IN WALL

see TYPICAL ENTRANCE RAILING ELEVATION for additional details
(Unfolded - Looking at Front Face of Wall)

Notes:

1. For location of Details 1 thru 4 see Sheet S-11.

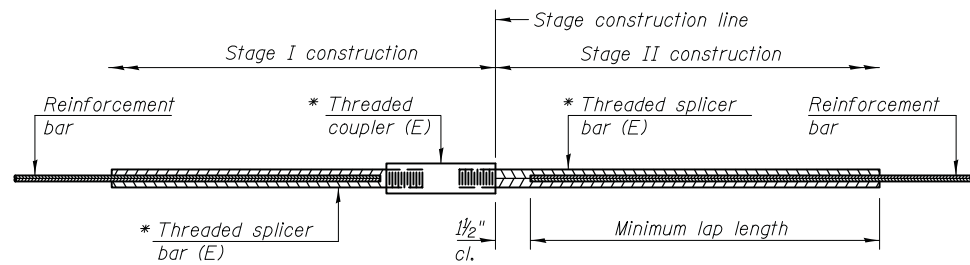
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARCHITECTURAL DETAILS 2
HARGER ROAD OVER SALT CREEK TRAIL
STRUCTURE NO. 022-6858
SHEET NO. S-12 OF S-14 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1446	17-00049-00-PV	DUPAGE	208	147
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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 12/24/2019

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DESIGNED	- E. VAYSMAN	REVISED	-
CHECKED	- G. HATLESTAD	REVISED	-
DATE	- 11/25/2019	REVISED	-

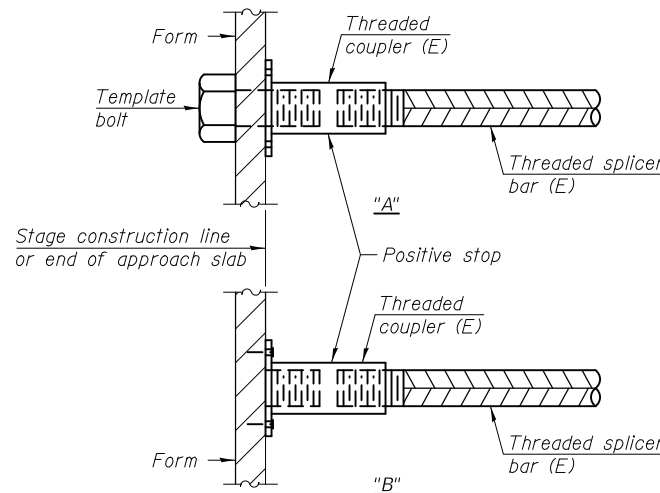


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1/2" + thread length

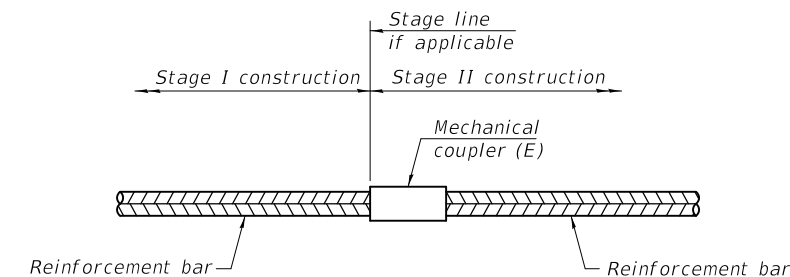
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Underpass Walls	#5	56	3'-7"
Underpass Top Slab	#5	42	3'-7"
Underpass Footings	#5	32	3'-7"



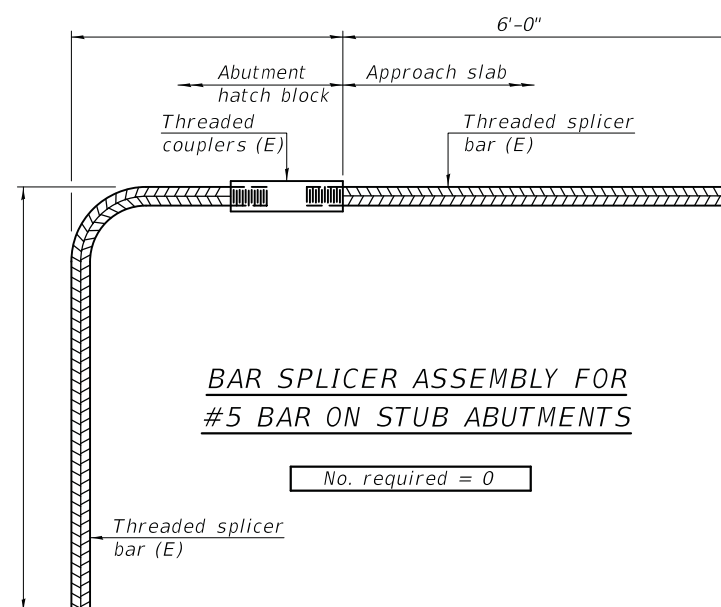
INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 0

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

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2-17-2017



Two Pierce Place, Suite 1400
 Itasca, Illinois 60143
 Tel: 630.773.3900 Fax: 630.773.3975
 www.civiltechinc.com

DRAWN	- E. VAYSMAN	REVISED	-
DESIGNED	- E. VAYSMAN	REVISED	-
CHECKED	- G. HATLESTAD	REVISED	-
DATE	- 11/25/2019	REVISED	-

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**


**BAR SPLICER ASSEMBLY DETAILS
 HARGER ROAD OVER SALT CREEK TRAIL
 STRUCTURE NO. 022-6858**

SHEET NO. S-13 OF S-14 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1446	17-00049-00-PV	DUPAGE	208	148
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G16	

MSET PROJECT NO.: 17312		LOG OF BORING NO. SB-4		Page 1 of 1					
PROJECT: York Road & Harger Road			SITE LOCATION: Oakbrook, Illinois						
BORING LOCATION: Underpass Structure			CLIENT: Civiltech Engineering, Inc.						
DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE		TESTS		REMARKS	
				TYPE/INTERVAL	NO.	N-VALUE Blows per ft.	Wc%		Dry Unit Weight, pcf
0		Dark Brown CLAY, with roots, A-6 Topsoil	673.1 672.8	SS 1	10	20		4.5+ Qp	
4		FILL: Dark Brown & Black Clay LOAM, A-6, trace RAP, hard to firm		SS 2	6	21	97	2.72	
8				SS 3	2	32	90	0.47	
8		Dark Grey CLAY, A-7-6	664.6	SS 4	4	29			
12		Brown, Grey, & Dark Grey CLAY, A-6 firm	662.6	SS 5A	3	31	31	0.97	
12		Brown & Grey CLAY, A-6 very stiff to hard	661.1	SS 5B	6	26	94	2.21	
16				SS 6	9	21	101	4.69	
16		sand seam at 17'	656.1	SS 7	13	16	111	3.65	
20		Grey CLAY, A-6 hard to very stiff	654.6	SS 8	14	15	112	4.66	
24				SS 9	9	23	99	3.88	
24				SS 10	10	20	106	4.07	
28				SS 11	21	21	100	3.88	
28				SS 12	10	22	105	3.72	
		End of Boring at 30 Feet	643.6						

WATER LEVEL OBSERVATIONS, ft.
DURING DRILLING: 6.5'
IMMEDIATELY AFTER DRILLING: 19.9'
DELAYED READING AFTER




MSET

BORING STARTED: 8/19/17
BORING COMPLETED: 8/19/17
LOGGED BY: GPF
BORING METHOD: HSA

Midland Standard Engineering & Testing, Inc. 558 Plate Drive Unit 6, East Dundee, IL 60118 (847) 844-1895 f(847) 844-3875

MSET PROJECT NO.: 17312		LOG OF BORING NO. SB-5		Page 1 of 1					
PROJECT: York Road & Harger Road			SITE LOCATION: Oakbrook, Illinois						
BORING LOCATION: Underpass Structure			CLIENT: Civiltech Engineering, Inc.						
DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE		TESTS		REMARKS	
				TYPE/INTERVAL	NO.	N-VALUE Blows per ft.	Wc%		Dry Unit Weight, pcf
0		Black CLAY, A-6 Topsoil 6"	678.1 677.6	SS 1	16	15		4.5+ Qp	
4		FILL: Brown & Grey Clay LOAM, A-6 hard		SS 2	9	17	106	7.37	
8				SS 3	9	20	104	4.66	
8		Red Brown & Grey CLAY, A-6 very stiff to hard	669.6	SS 4	10	24	96	3.22	
12		to brown & Grey	667.1	SS 5	11	18	100	5.24	
16				SS 6	16	16	112	5.63	
16				SS 7	16	21	100	3.30	
20				SS 8	13	14	116	3.10	
20				SS 9	14	20	102	6.21	
24		Grey CLAY, A-6 very stiff	656.1	SS 10	8	24	100	3.72	
28				SS 11	6	24	96	1.94	
28				SS 12	8	23	101	2.72	
		End of Boring at 30 Feet	648.6						

WATER LEVEL OBSERVATIONS, ft.
DURING DRILLING: None
IMMEDIATELY AFTER DRILLING: Dry
DELAYED READING AFTER



MSET

BORING STARTED: 8/19/17
BORING COMPLETED: 8/19/17
LOGGED BY: GPF
BORING METHOD: HSA

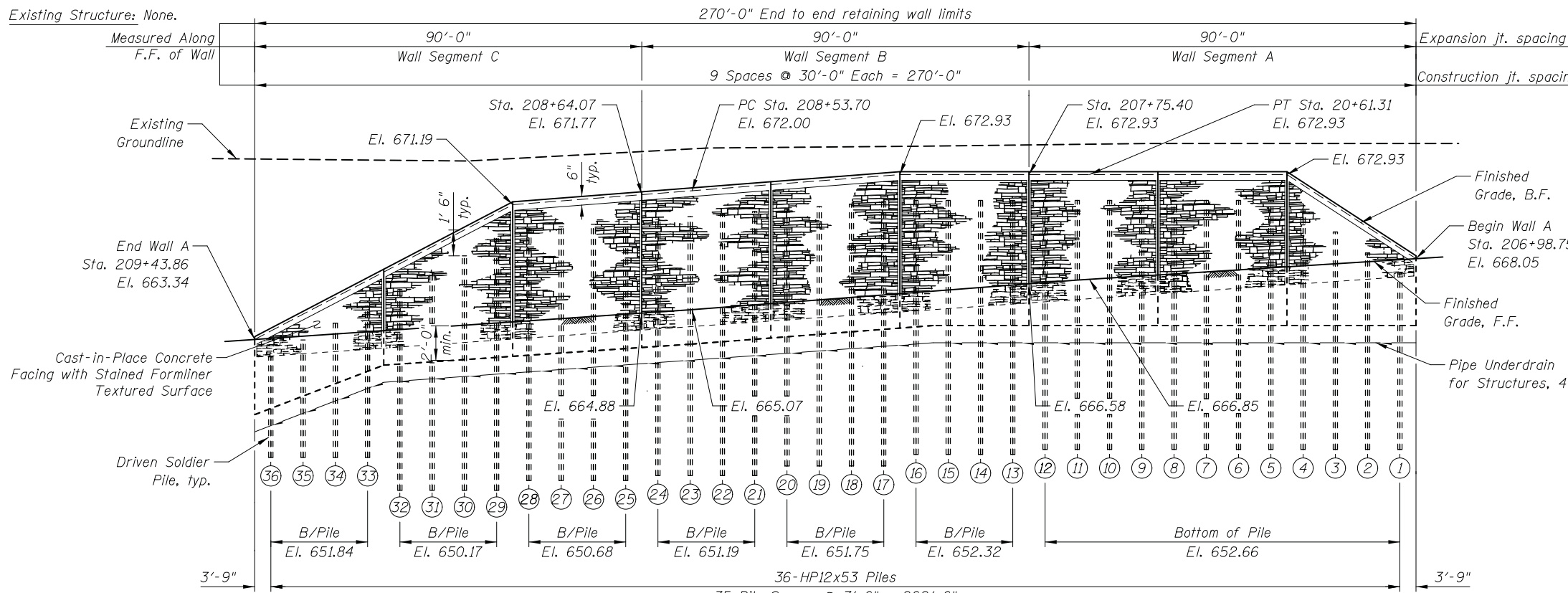
Midland Standard Engineering & Testing, Inc. 558 Plate Drive Unit 6, East Dundee, IL 60118 (847) 844-1895 f(847) 844-3875

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Benchmark: T.B.M. #2 Railroad Spike (Set) in Wood Light Pole in the Southwest Quadrant of the intersection of York Road and Harger Road. NAVD '88 Elevation 687.45

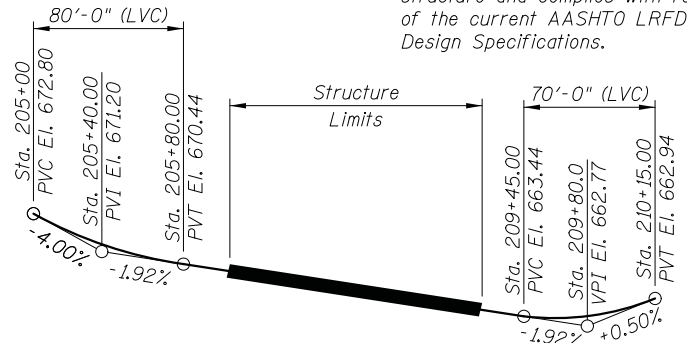
Maintenance of Traffic: Traffic will be staged during construction.

Existing Structure: None.



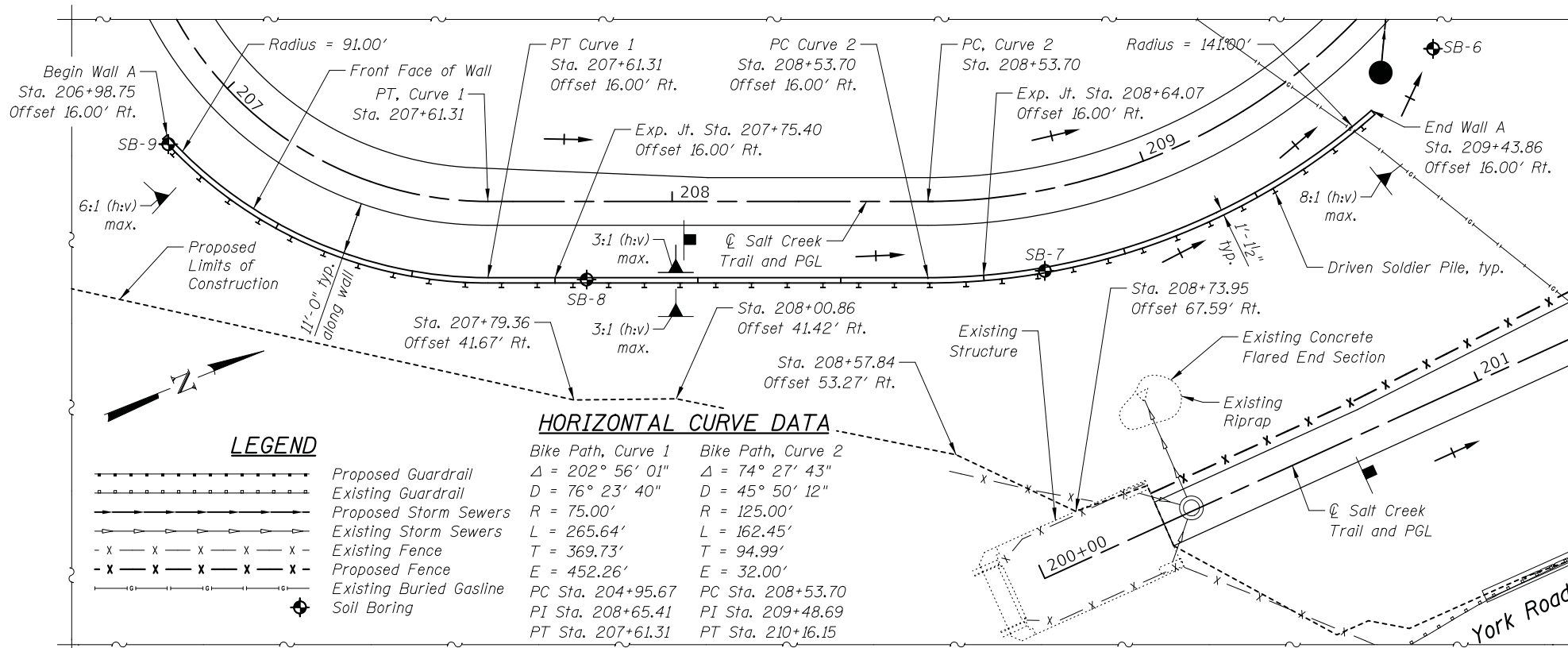
PROPOSED PROFILE GRADE

(Looking at Front Face of Wall, opposite of plan view - unfolded)



PROPOSED PROFILE GRADE

(Along Salt Creek Trail)



HORIZONTAL CURVE DATA

Curve	Radius (R)	Delta (Δ)	Length (L)	Tangent (T)	External (E)	PC Sta.	PT Sta.
Bike Path, Curve 1	75.00'	202° 56' 01"	265.64'	369.73'	452.26'	204+95.67	207+61.31
Bike Path, Curve 2	125.00'	74° 27' 43"	162.45'	94.99'	32.00'	208+53.70	210+16.15

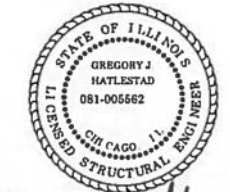
PLAN

Offsets are measured from Salt Creek

GENERAL NOTES

- All exposed edges shall have a 3/4" Chamfer.
- Reinforcement Bars designated (E) shall be Epoxy Coated.
- Anti-Graffiti Protection System shall be applied to the top of the wall and to the front face of the wall to 1-ft below the finished grade.

CIVILTECH ENGINEERING, INC.
GREGORY J. HATLESTAD, S.E.



GREGORY J. HATLESTAD, S.E.
081-005562

INDEX OF SHEETS

- WA1 General Plan & Elevation
- WA2 Retaining Wall Elevation I
- WA3 Retaining Wall Elevation II
- WA4 Retaining Wall Details
- WA5 Soil Boring Logs I
- WA6 Soil Boring Logs II

EXP 11-30-20

DATE 11-25-19

I certify that to the best knowledge, information and belief, this design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of the structure and complies with requirements of the current AASHTO LRFD Bridge Design Specifications.

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, Customary U.S. Units, 8th Edition

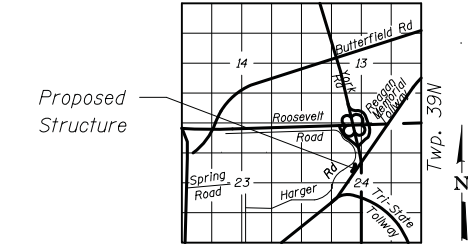
DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
SOLDIER PILES
fy = 50,000 psi (M270 Grade 50)

TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Structure Excavation	Cu. Yd.	688
Form Liner Textured Surface	Sq. Ft.	1,582
Stud Shear Connectors	Each	291
Reinforcement Bars, Epoxy Coated	Pound	7,600
Furnishing Soldier Piles (HP Section)	Foot	643
Driving Soldier Piles	Foot	643
Untreated Timber Lagging	Sq. Ft.	1,599
Concrete Structures (Retaining Wall)	Cu. Yd.	91.1
Geocomposite Wall Drain	Sq. Yd.	127
Anti-Graffiti Protection System	Sq. Ft.	2,041
Staining Concrete Structures	Sq. Ft.	1,582
Pipe Underdrain for Structures, 4"	Foot	270

LOCATION SKETCH



GENERAL PLAN & ELEVATION

RETAINING WALL A

HARGER ROAD, F.A.U. RTE 1446

SEC. 17-00049-00-PV

DUPAGE COUNTY

STA. 206+98.75 TO STA. 209+43.86

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DATE - 11/25/2019	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
RETAINING WALL A
HARGER ROAD; F.A.U. 1446

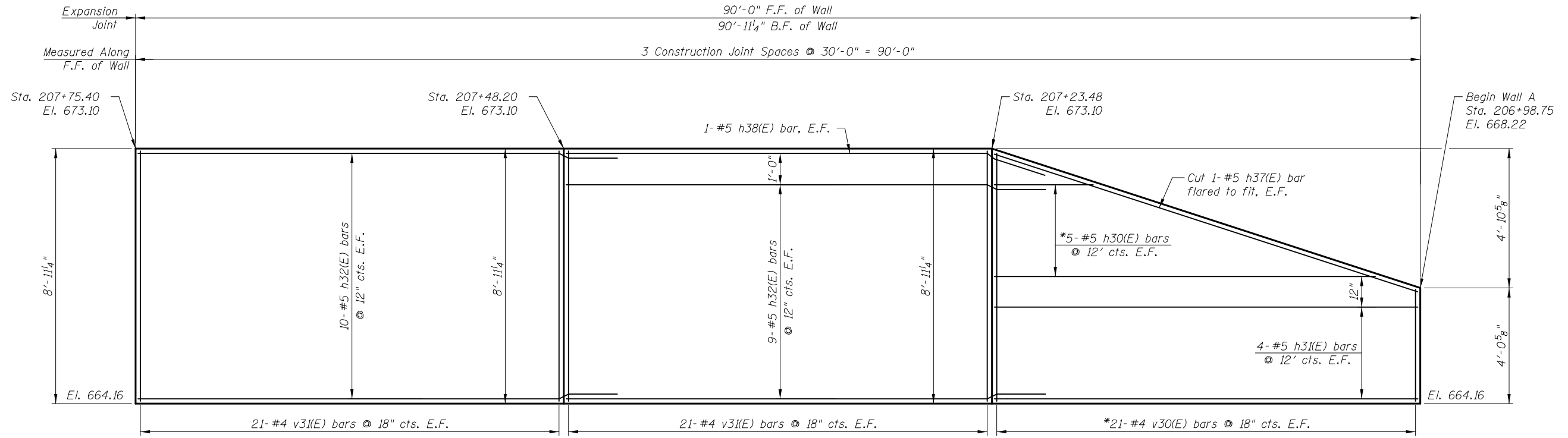
SHEET NO. WA1 OF WA6 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1446	17-00049-00-PV	DUPAGE	208	150
CONTRACT NO. 61G16				

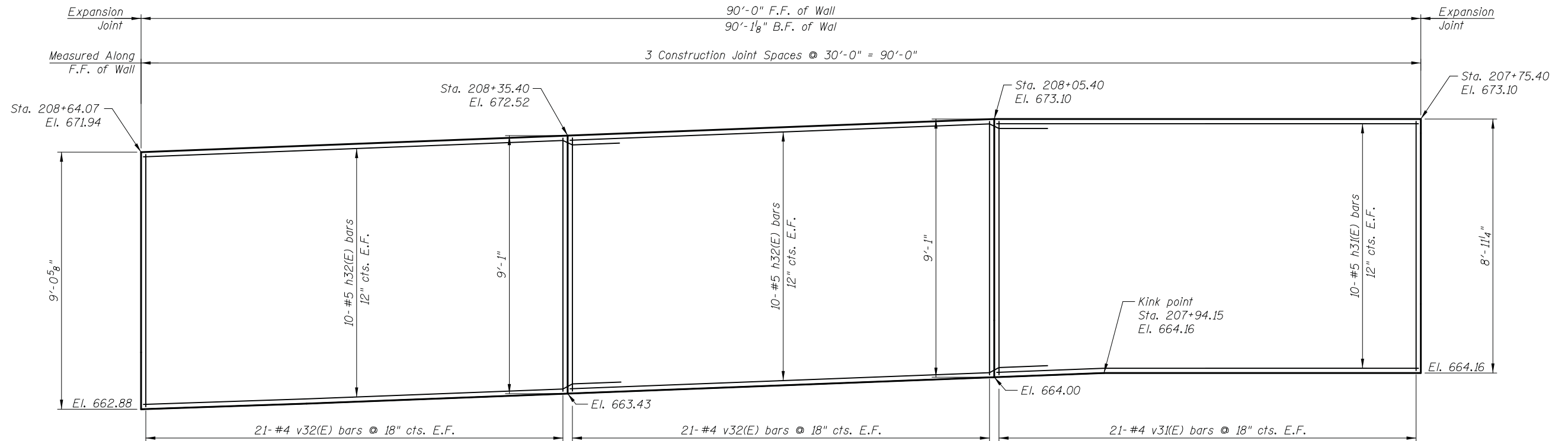
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

MINIMUM BAR LAP

#5 bar = 3'-7"



WALL SEGMENT A



WALL SEGMENT B

Note:
For construction joint details and typical retaining wall section, see Sheet WA4.
Stations are taken from front face of wall.

*See Field Cutting Diagram on Sheet WA3

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CHECKED	- GJH	REVISED	-
DATE	- 11/25/2019	REVISED	-

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

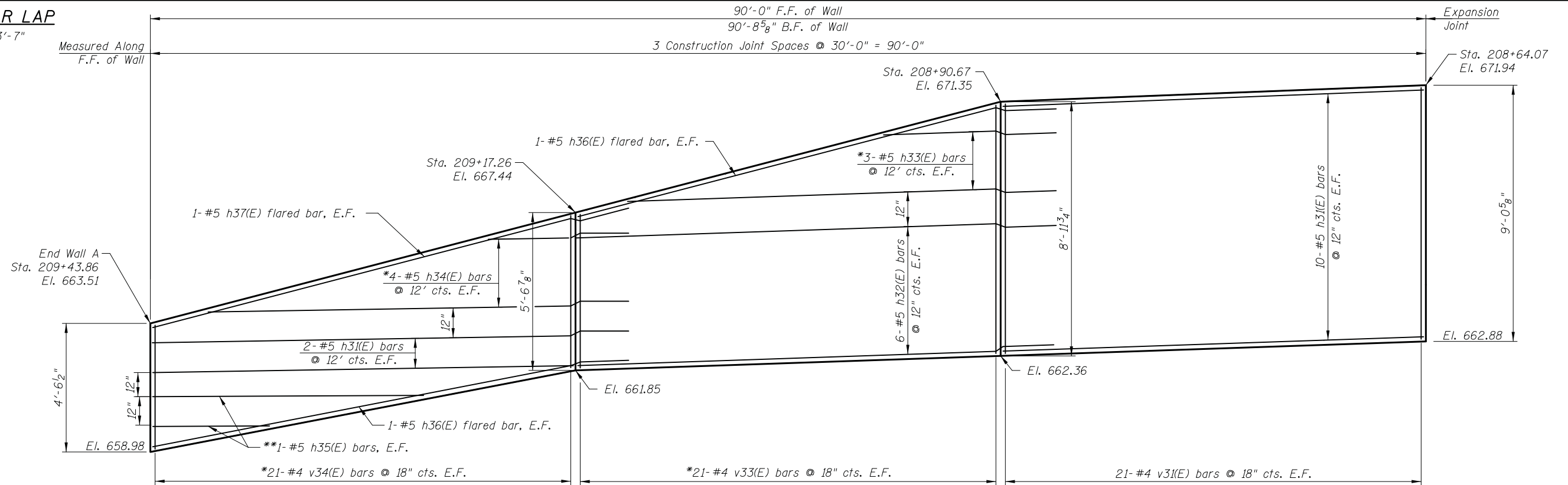
**RETAINING WALL ELEVATION I
RETAINING WALL A
HARGER ROAD; F.A.U. 1446**

SHEET NO. WA2 OF WA6 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1446	17-00049-00-PV	DUPAGE	208	151
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

MINIMUM BAR LAP

#5 bar = 3'-7"



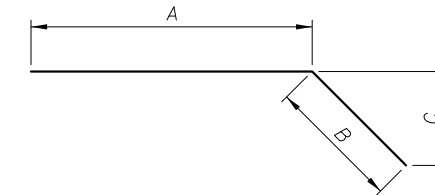
WALL SEGMENT C

PILE ELEVATIONS

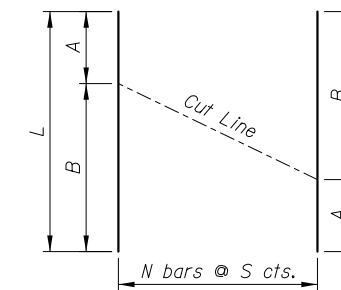
Pile No.	Centerline of Pile Station	Centerline of Pile Offset (Rt.)	Top of Pile Elevation	Bottom of CIP Facing	Stud Shear Connectors
1	207+01.84	17.62	667.16	664.16	5
2	207+08.02	17.62	668.38	664.16	6
3	207+14.20	17.62	669.60	664.16	7
4	207+20.38	17.62	670.82	664.16	8
5	207+26.57	17.62	671.43	664.16	9
6	207+32.75	17.62	671.43	664.16	9
7	207+38.93	17.62	671.43	664.16	9
8	207+45.11	17.62	671.43	664.16	9
9	207+51.29	17.62	671.43	664.16	9
10	207+57.47	17.62	671.43	664.16	9
11	207+64.15	17.62	671.43	664.16	9
12	207+71.65	17.62	671.43	664.16	9
13	207+79.15	17.62	671.43	664.16	9
14	207+86.65	17.62	671.43	664.16	9
15	207+94.15	17.62	671.43	664.16	9
16	208+01.65	17.62	671.43	664.07	9
17	208+09.15	17.62	671.36	663.93	9
18	208+16.65	17.62	671.22	663.79	9
19	208+24.15	17.62	671.07	663.64	9
20	208+31.65	17.62	670.92	663.50	9
21	208+39.15	17.62	670.78	663.35	9
22	208+46.65	17.62	670.63	663.21	9
23	208+54.10	17.62	670.49	663.07	9
24	208+60.75	17.62	670.34	662.94	9
25	208+67.40	17.62	670.20	662.81	9
26	208+74.05	17.62	670.05	662.68	9
27	208+80.70	17.62	669.91	662.56	9
28	208+87.35	17.62	669.76	662.43	9
29	208+94.00	17.62	669.20	662.30	8
30	209+00.64	17.62	668.22	662.17	8
31	209+07.29	17.62	667.24	662.05	7
32	209+13.94	17.62	666.26	661.92	6
33	209+20.59	17.62	665.28	661.49	5
34	209+27.24	17.62	664.30	660.77	5
35	209+33.89	17.62	663.33	660.06	5
36	209+40.54	17.62	662.35	659.34	5

REINFORCEMENT BAR LIST

Bar	No.	Size	Length	Shape
h30(E)	5	#5	33'-10"	—
h31(E)	52	#5	29'-8"	—
h32(E)	90	#5	33'-7"	—
h33(E)	3	#5	40'-8"	—
h34(E)	4	#5	40'-1"	—
h35(E)	2	#5	22'-6"	—
h36(E)	4	#5	36'-10"	—
h37(E)	4	#5	33'-8"	—
h38(E)	2	#5	33'-7"	—
v30(E)	21	#4	12'-4"	—
v31(E)	168	#4	8'-7"	—
v32(E)	84	#4	8'-9"	—
v33(E)	21	#4	13'-10"	—
v34(E)	21	#4	9'-5"	—
Item	Unit	Quantity		
Structure Excavation	Cu. Yd.	688		
Form Liner Textured Surface	Sq. Ft.	1,582		
Stud Shear Connectors	Each	291		
Reinforcement Bars, Epoxy Coated	Pound	7,600		
Furnishing Soldier Piles (HP Section)	Foot	643		
Driving Soldier Piles	Foot	643		
Untreated Timber Lagging	Sq. Ft.	1,599		
Concrete Structures (Retaining Wall)	Cu. Yd.	91.1		
Geocomposite Wall Drain	Sq. Yd.	127		
Staining Concrete Structures	Sq. Ft.	1,582		
Pipe Underdrain for Structures, 4"	Foot	270		



FIELD BEND DIAGRAM



FIELD CUTTING DIAGRAM

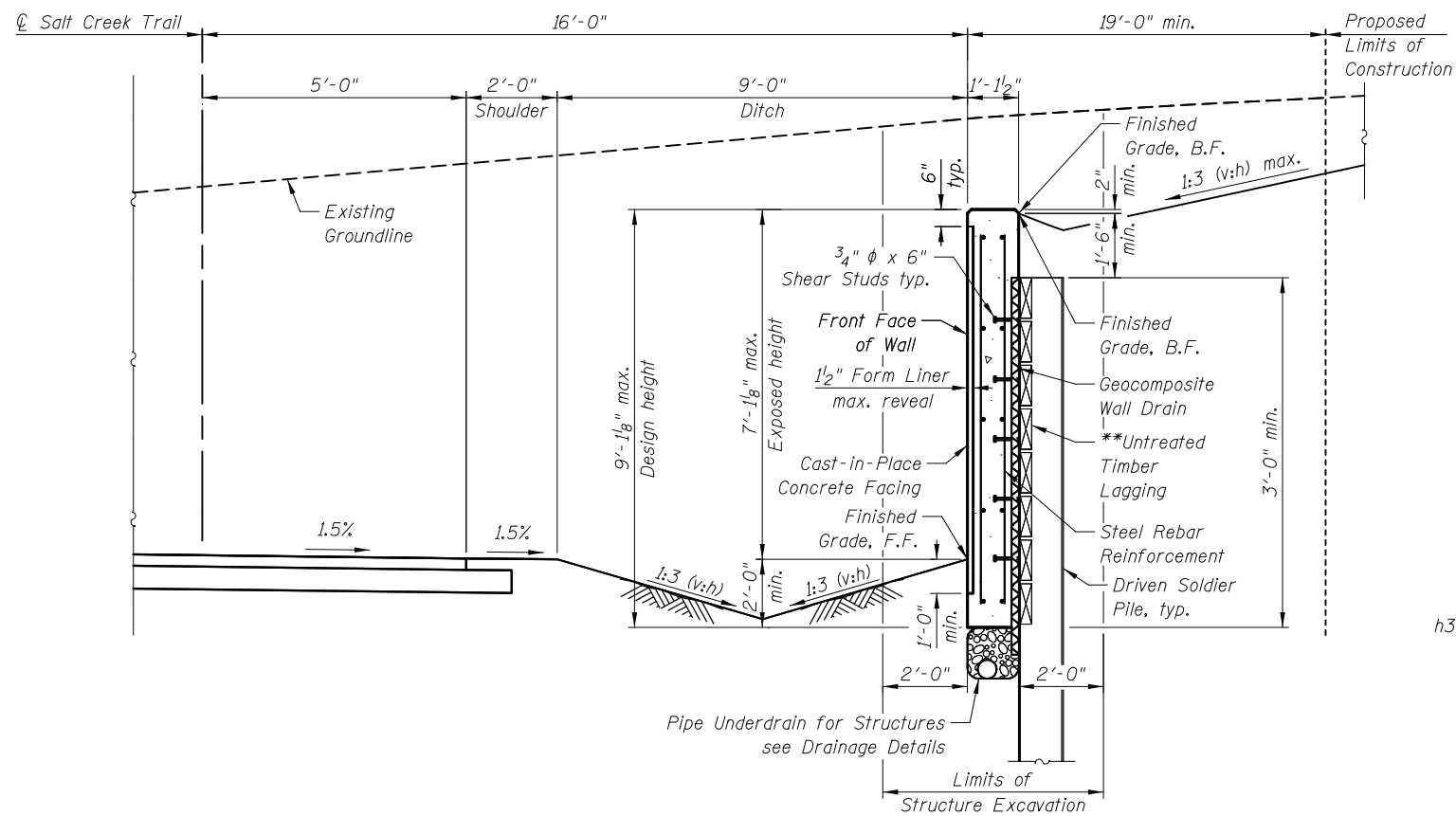
Bar	A	B	C
h36(E)	33'-3"	3'-7"	4"
h38(E)	30'-0"	3'-7"	7"

Bar	A	B	L	N	S
h30(E)	4'-11"	28'-11"	33'-10"	5	12"
h34(E)	7'-4"	32'-9"	40'-1"	4	12"
v30(E)	3'-9"	8'-7"	12'-4"	21	18"
v33(E)	5'-3"	8'-8"	13'-11"	21	18"
v34(E)	4'-2"	5'-3"	9'-5"	21	18"

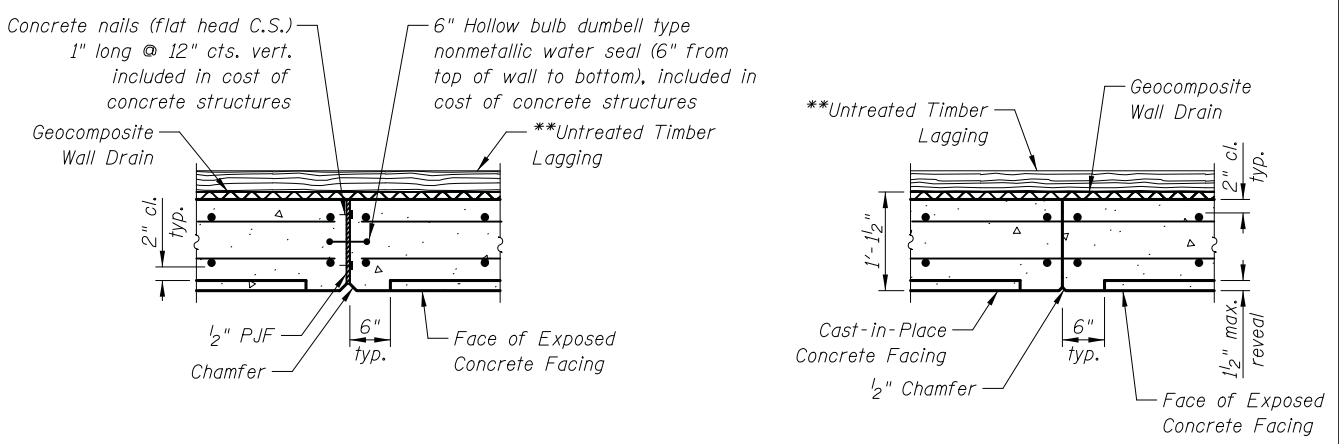
* See Field Cutting Diagram.
 ** Order h33(E) bar at full length, cut to fit and use remainder as designated.

Note:
 For Construction Joint Details and Typical Retaining Wall Section, see Sheet WA4.
 Stations are taken from front face of wall.

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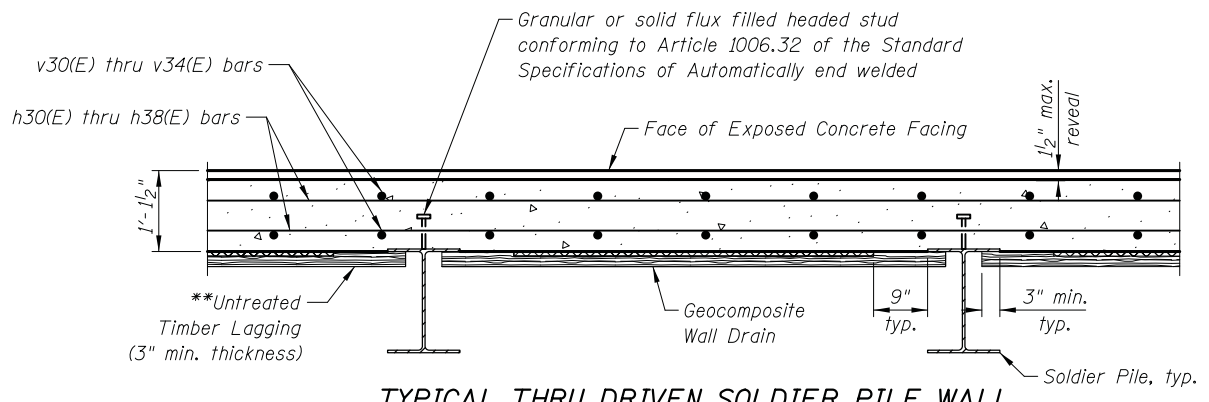
TYPICAL WALL SECTION



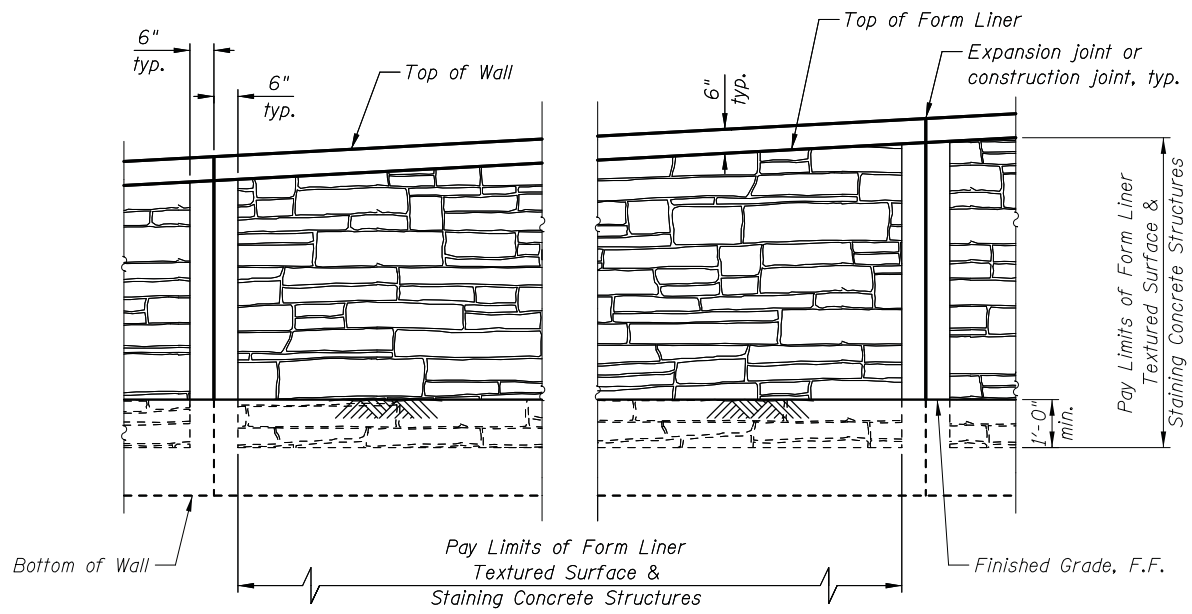
EXPANSION JOINT

CONSTRUCTION JOINT

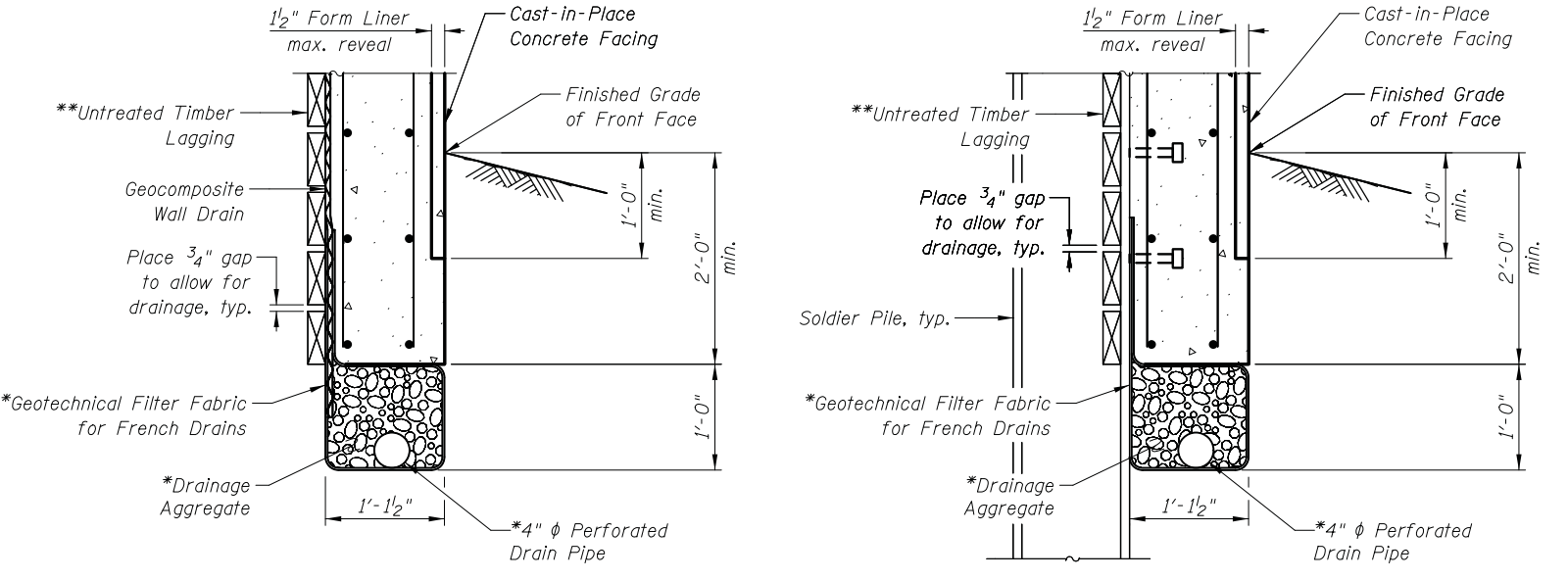
**The contractor is responsible for the design and performance of the lagging using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.



TYPICAL THRU DRIVEN SOLDIER PILE WALL



FORM LINER TEXTURED SURFACE DETAIL



DRAINAGE DETAILS

* Included in the cost of Pipe Underdrains for Structures, 4"

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**RETAINING WALL DETAILS
 RETAINING WALL A
 HARGER ROAD; F.A.U. 1446**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1446	17-00049-00-PV	DUPAGE	208	153
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SHEET NO. WA4 OF WA6 SHEETS

MSET PROJECT NO.: 17312		LOG OF BORING NO. SB-6		Page 1 of 1						
PROJECT: York Road & Harger Road			SITE LOCATION: Oakbrook, Illinois							
BORING LOCATION: N1890864, E1093053			CLIENT: Civiltech Engineering, Inc.							
DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE		TESTS		REMARKS		
				TYPE/INTERVAL	NO.	N-VALUE Blows per ft.	Wc%		Dry Unit Weight, pcf	Unconfined Compressive Strength, tsf
0		Dark Brown CLAY, A-6 Topsoil 4" FILL: Brown & Grey Clay LOAM, A-6, very stiff to hard	680.7 680.4	SS	1	6	21	101	3.92	
3.5				SS	2	14	21		4.5 Qp	
7				SS	3	14	12	108	4.38	
				SS	4	12	25	101	4.42	
10.5		Brown, Grey, & Dark Grey CLAY, A-6, very stiff to firm	670.2	SS	5	9	25	99	2.13	
14		Brown & Grey Clay LOAM, A-6, very stiff to hard	666.2	SS	6A	4	40	69	0.74	
				SS	6B	8	16	105	2.52	
17.5		Grey Clay LOAM, A-6, hard	662.7	SS	7	17	19	104	4.27	
				SS	8	16	20	107	5.28	
		End of Boring at 20 Feet	660.7							

WATER LEVEL OBSERVATIONS, ft.
 DURING DRILLING: None
 IMMEDIATELY AFTER DRILLING: Dry
 DELAYED READING AFTER



BORING STARTED: 12/19/18
 BORING COMPLETED: 12/19/18
 LOGGED BY: GPF
 BORING METHOD: HSA

Midland Standard Engineering & Testing, Inc. 558 Plate Drive Unit 6, East Dundee, IL 60118 (847) 844-1895 f(847) 844-3875

MSET PROJECT NO.: 17312		LOG OF BORING NO. SB-7		Page 1 of 1						
PROJECT: York Road & Harger Road			SITE LOCATION: Oakbrook, Illinois							
BORING LOCATION: N1890771, E1093066			CLIENT: Civiltech Engineering, Inc.							
DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE		TESTS		REMARKS		
				TYPE/INTERVAL	NO.	N-VALUE Blows per ft.	Wc%		Dry Unit Weight, pcf	Unconfined Compressive Strength, tsf
0		Black CLAY, A-6 Topsoil 10"	677.1							
		Brown & Grey Clay LOAM, A-6, very stiff to hard	676.3	SS	1	7	24	91	3.18	
3.5				SS	2	18	18	107	8.26	
7				SS	3	17	18	108	7.57	
				SS	4	12	17	107	4.38	
10.5				SS	5A	10	14	111	5.16	
		Brown & Grey Sandy Clay LOAM, A-2- 4, medium dense	665.1	SS	5B	12	22		-	
14		Brown & Grey Clay LOAM, A-6, very stiff	664.1	SS	6	13	23	101	2.99	
		Grey Clay LOAM, A-6, very stiff	661.6	SS	7	17	23	101	3.53	
17.5				SS	8	15	24	98	3.84	
21				SS	9	14	21	106	2.10	
24.5				SS	10	12	21	105	2.41	
		End of Boring at 25 Feet	652.1							

WATER LEVEL OBSERVATIONS, ft.
 DURING DRILLING: 12.0'
 IMMEDIATELY AFTER DRILLING: 15.0'
 DELAYED READING AFTER



BORING STARTED: 12/19/18
 BORING COMPLETED: 12/19/18
 LOGGED BY: GPF
 BORING METHOD: HSA

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Note:
 Log of Boring No. SB-6 refers to SB-1, as labeled on Boring Location Map in Geotechnical Report.
 Log of Boring No. SB-7 refers to SB-2, as labeled on Boring Location Map in Geotechnical Report.

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SOIL BORING LOGS I
 RETAINING WALL A
 HARGER ROAD; F.A.U. 1446
 SHEET NO. WA5 OF WA6 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1446	17-00049-00-PV	DUPAGE	208	154
CONTRACT NO. 61G16			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

MSET PROJECT NO.: 17312		LOG OF BORING NO. SB-8				Page 1 of 1			
PROJECT: York Road & Harger Road			SITE LOCATION: Oakbrook, Illinois						
BORING LOCATION: N1890681, E1093032			CLIENT: Civiltech Engineering, Inc.						
DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE		TESTS		REMARKS	
				TYPE/INTERVAL	NO.	N-VALUE Blows per ft.	Wc%		Dry Unit Weight, pcf
0		Black CLAY, A-6, Topsoil 10"	677.3						
		Brown & Grey Silty Clay LOAM, A-6, hard	676.5	SS	1	16	22	94	4.25
3.5				SS	2	21	15		4.5+ Qp
7				SS	3	28	16		4.5+ Qp
				SS	4	26	14		4.5+ Qp
10.5		Brown & Grey Clay LOAM, A-6, hard	666.8	SS	5	26	18	110	7.91
14				SS	6	27	18	106	6.29
				SS	7	27	17	110	5.98
17.5		Grey Clay LOAM, A-6, hard	659.3	SS	8	19	18	110	5.63
21				SS	9	19	19	108	6.75
24.5				SS	10	13	19	108	4.04
		End of Boring at 25 Feet	652.3						

WATER LEVEL OBSERVATIONS, ft.
 DURING DRILLING: None
 IMMEDIATELY AFTER DRILLING: Dry
 DELAYED READING AFTER



BORING STARTED: 12/19/18
 BORING COMPLETED: 12/19/18
 LOGGED BY: GPF
 BORING METHOD: HSA

Midland Standard Engineering & Testing, Inc. 558 Plate Drive Unit 6, East Dundee, IL 60118 (847) 844-1895 f(847) 844-3875

MSET PROJECT NO.: 17312		LOG OF BORING NO. SB-9				Page 1 of 1			
PROJECT: York Road & Harger Road			SITE LOCATION: Oakbrook, Illinois						
BORING LOCATION: N1890610, E1093973			CLIENT: Civiltech Engineering, Inc.						
DEPTH (feet)	SOIL TYPE	Material Description	Elevation	SAMPLE		TESTS		REMARKS	
				TYPE/INTERVAL	NO.	N-VALUE Blows per ft.	Wc%		Dry Unit Weight, pcf
0		Black CLAY, A-6, Topsoil 12"	678.9						
		Brown & Grey Clay LOAM, A-6, very stiff to hard	677.9	SS	1	10	24	94	2.87
3.5				SS	2	28	12		4.5+ Qp
7				SS	3	23	16	103	5.48
				SS	4	24	13	120	7.06
10.5				SS	5	23	17		4.5+ Qp
14				SS	6	25	17	114	5.01
				SS	7	22	18	101	4.54
17.5				SS	8	30	17	108	7.54
		End of Boring at 20 Feet	658.9						

WATER LEVEL OBSERVATIONS, ft.
 DURING DRILLING: None
 IMMEDIATELY AFTER DRILLING: Dry
 DELAYED READING AFTER



BORING STARTED: 12/19/18
 BORING COMPLETED: 12/19/18
 LOGGED BY: GPF
 BORING METHOD: HSA

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Note:
 Log of Boring No. SB-8 refers to SB-3, as labeled on Boring Location Map in Geotechnical Report.
 Log of Boring No. SB-9 refers to SB-4, as labeled on Boring Location Map in Geotechnical Report.

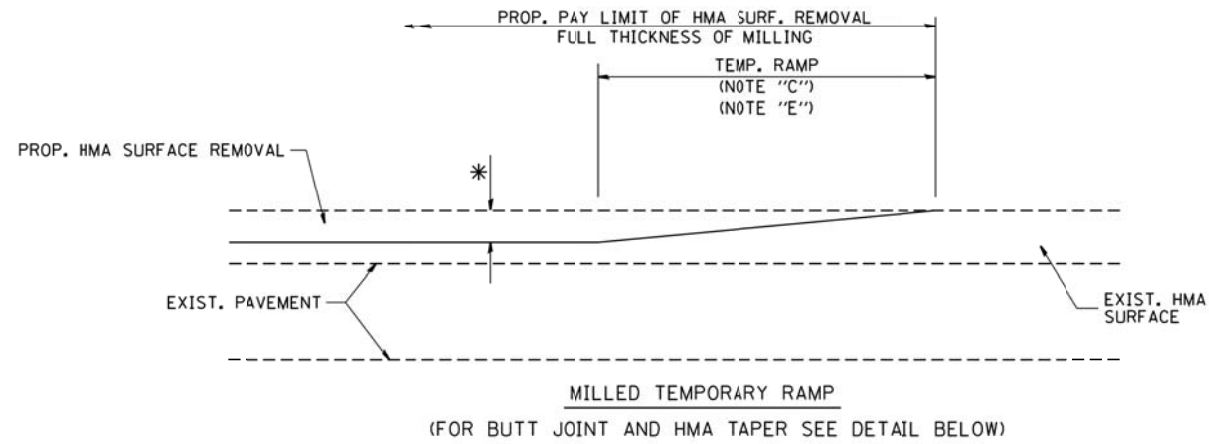
CIVILTECH
 Two Pierce Place, Suite 1400
 Itasca, Illinois 60143
 Tel: 630.773.3900 Fax: 630.773.3975
 www.civiltechinc.com

DRAWN - ITS	REVISED -
DESIGNED - MPR	REVISED -
CHECKED - GJH	REVISED -
DATE - 11/25/2019	REVISED -

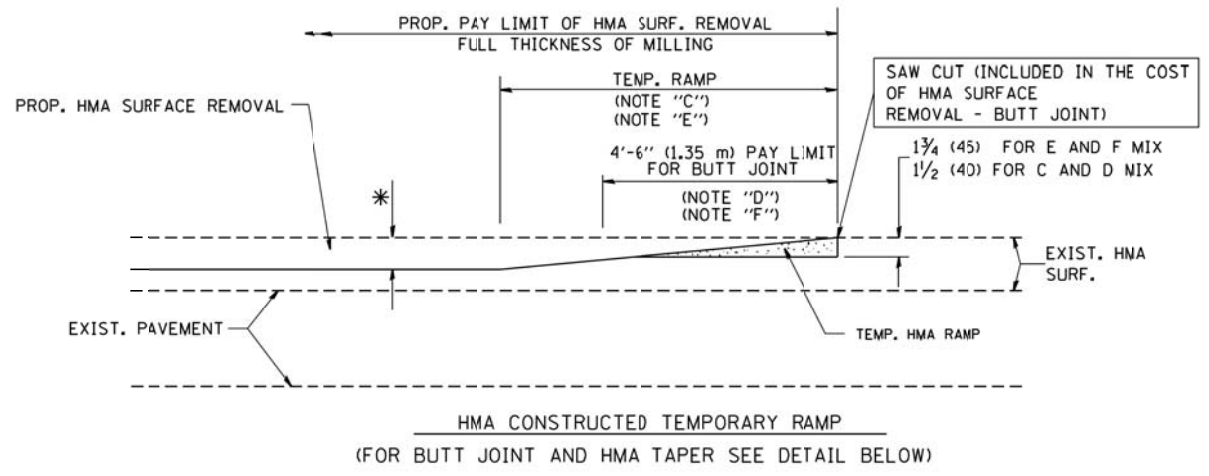
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS II
 RETAINING WALL A
 HARGER ROAD; F.A.U. 1446
 SHEET NO. WA6 OF WA6 SHEETS

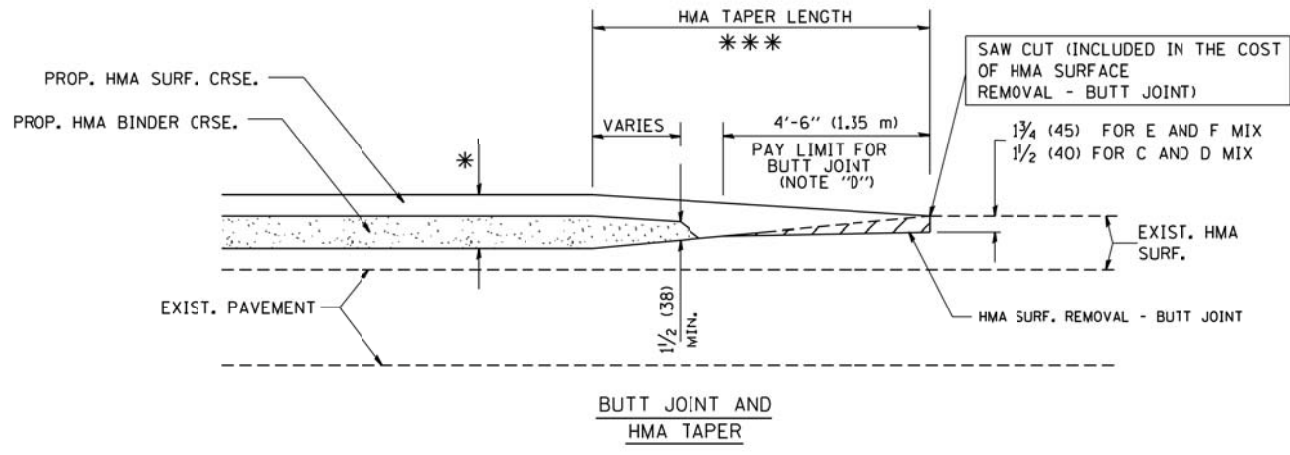
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CONTRACT NO. 61G16			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	



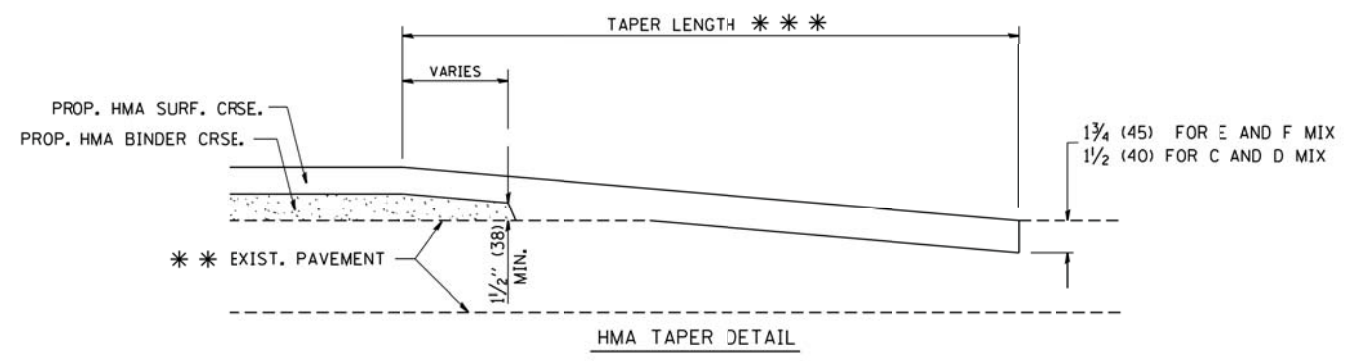
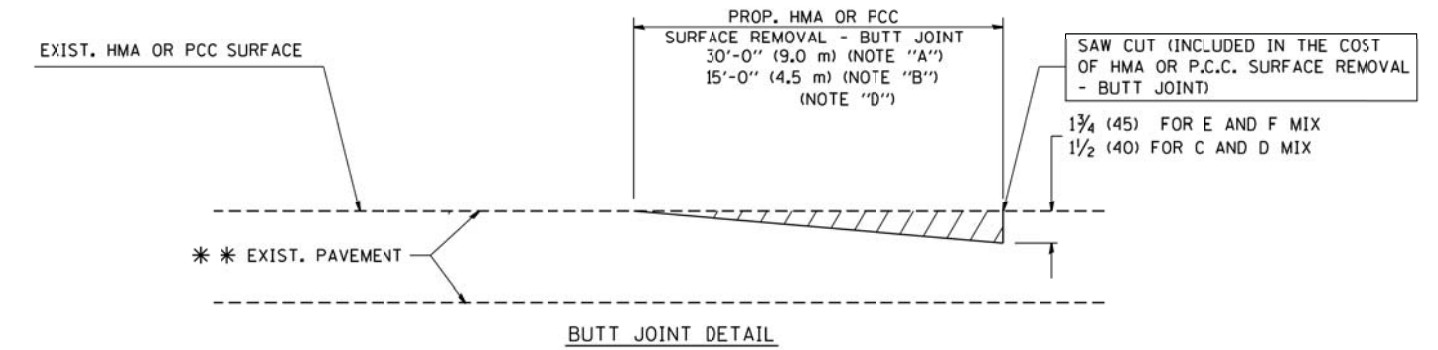
OPTION 1



OPTION 2
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

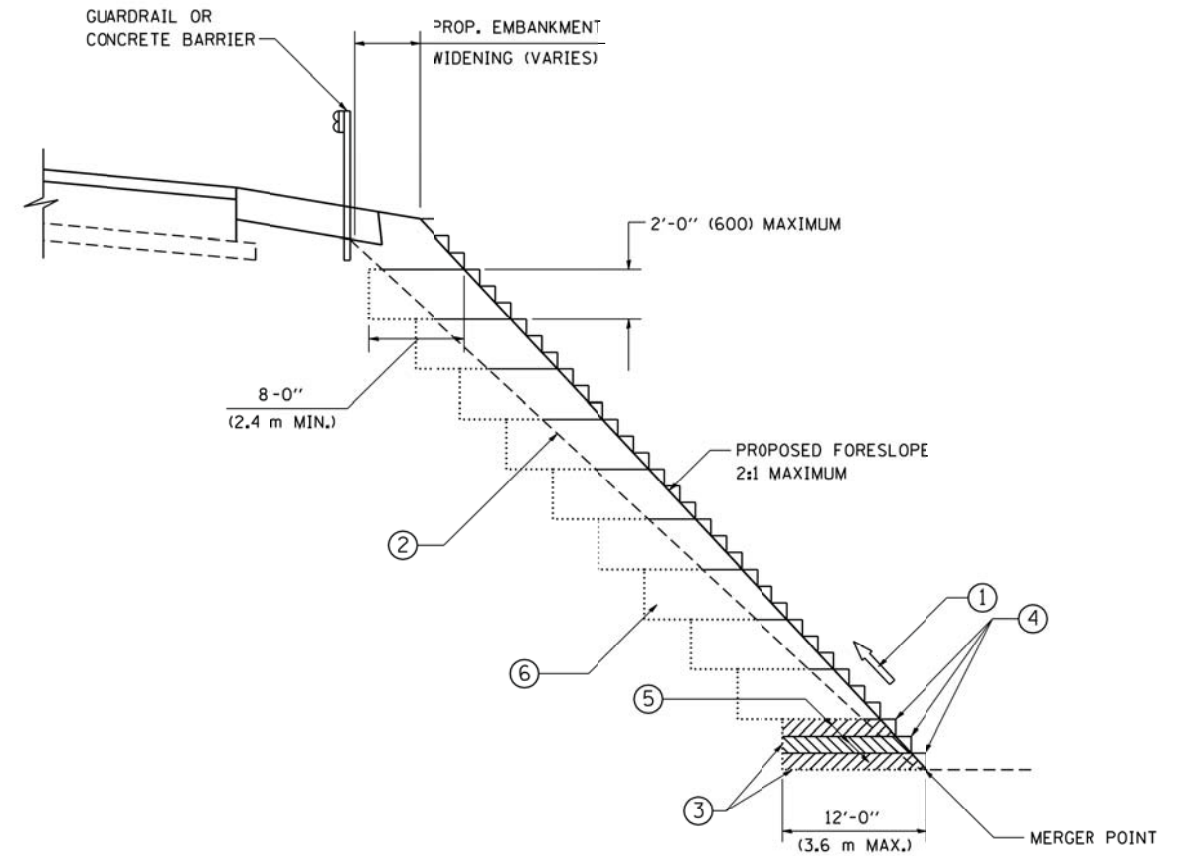
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BUTT JOINT AND HMA TAPER DETAILS	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

F.A.U. RTE. 2678 1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 156
BD400-05 BD32		CONTRACT NO. 61G16		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



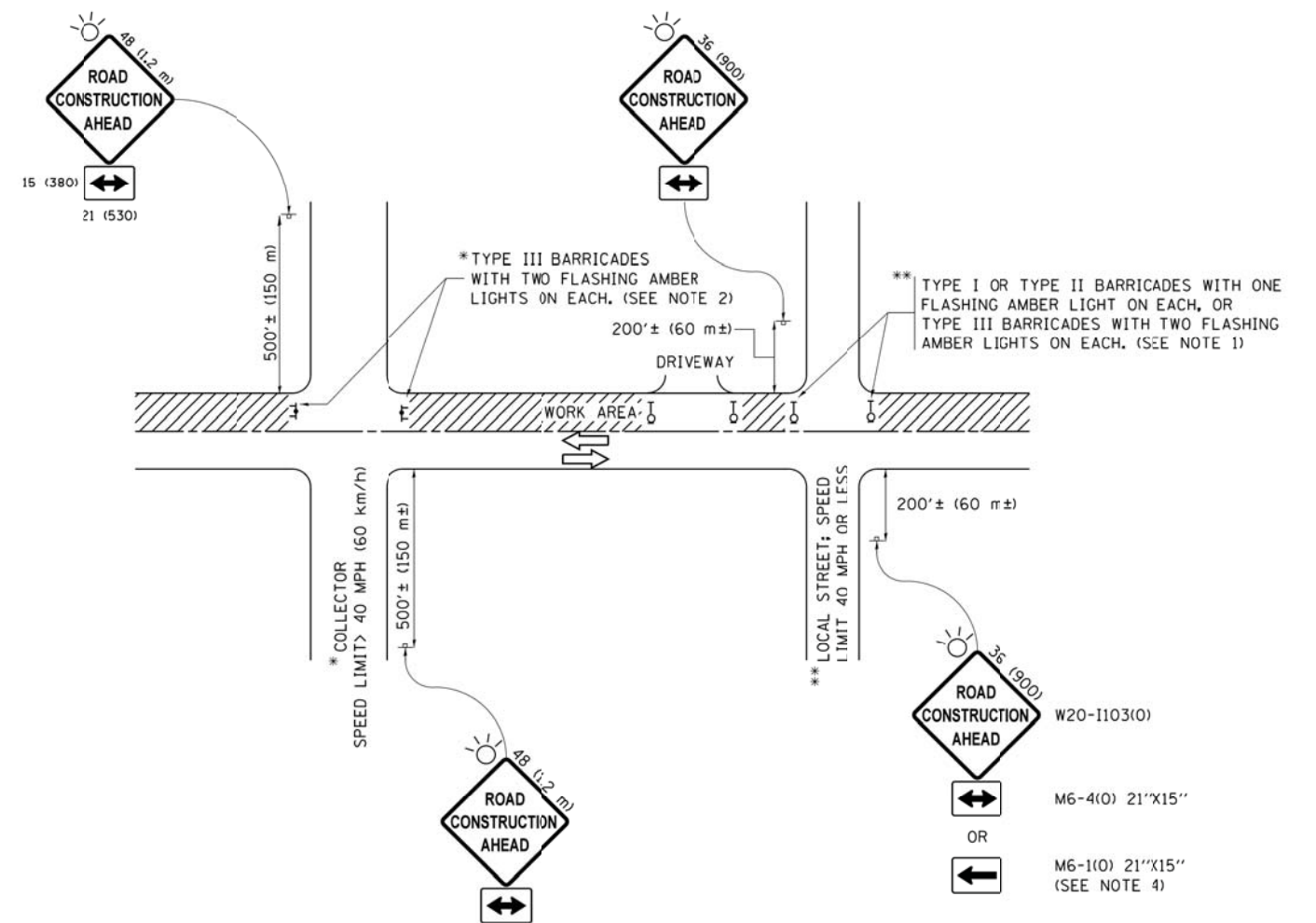
TYPICAL BENCHING DETAIL
FOR EMBANKMENT

NOTES:

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

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

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	PLOT SCALE = 50.0000' / IN.	DRAWN - CADD	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	2678 1446	17-00049-00-PV	DUPAGE	208 157
	PLOT DATE = 1/4/2008	CHECKED - S.E.B.	REVISED -						BD-51		CONTRACT NO. 61G16	
		DATE - 06-16-04	REVISED -						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			



NOTES:

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

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

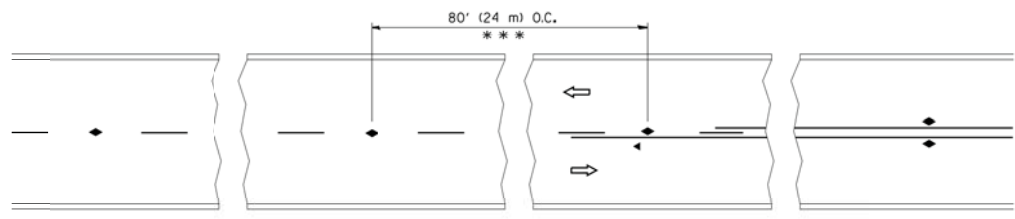
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

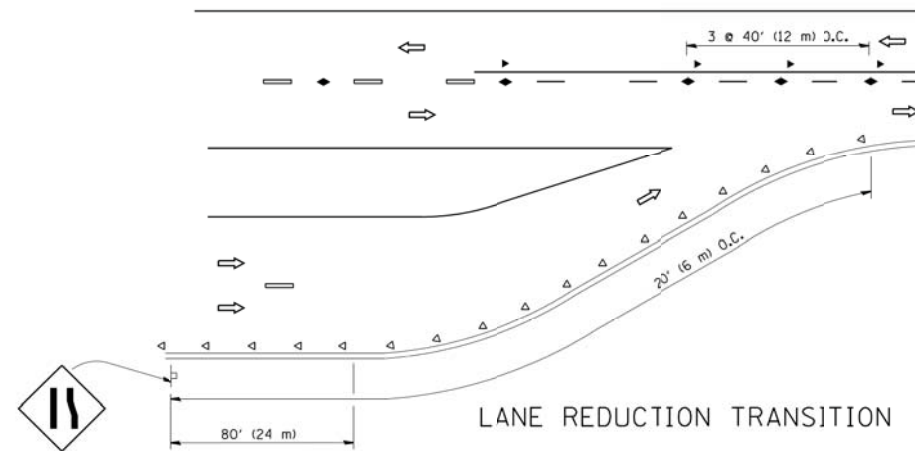
**TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

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

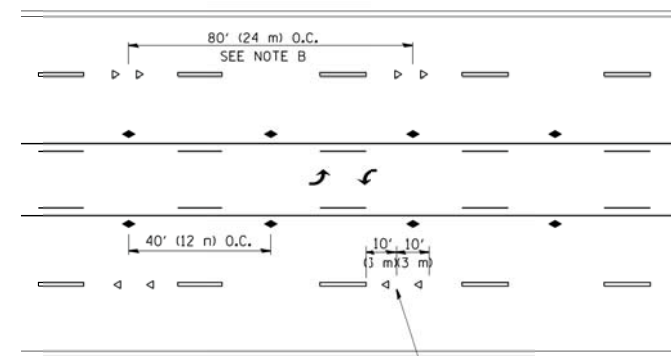
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TC-10			CONTRACT NO. 61G16	
ILLINOIS FED. AID PROJECT				



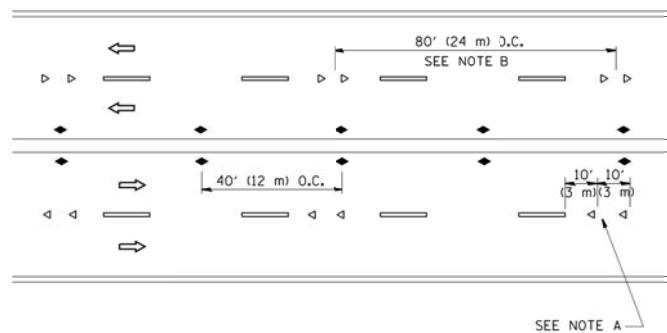
TWO-LANE/TWO-WAY



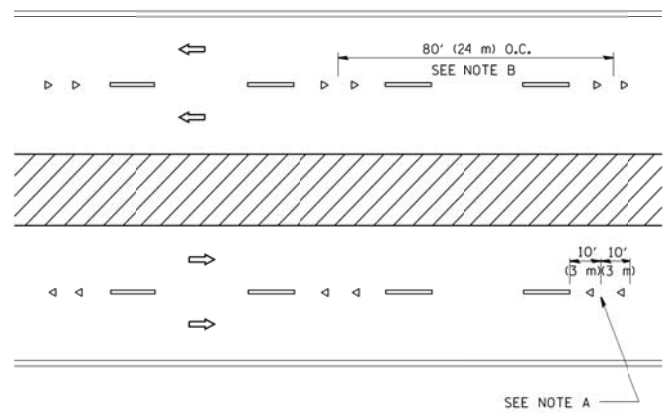
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

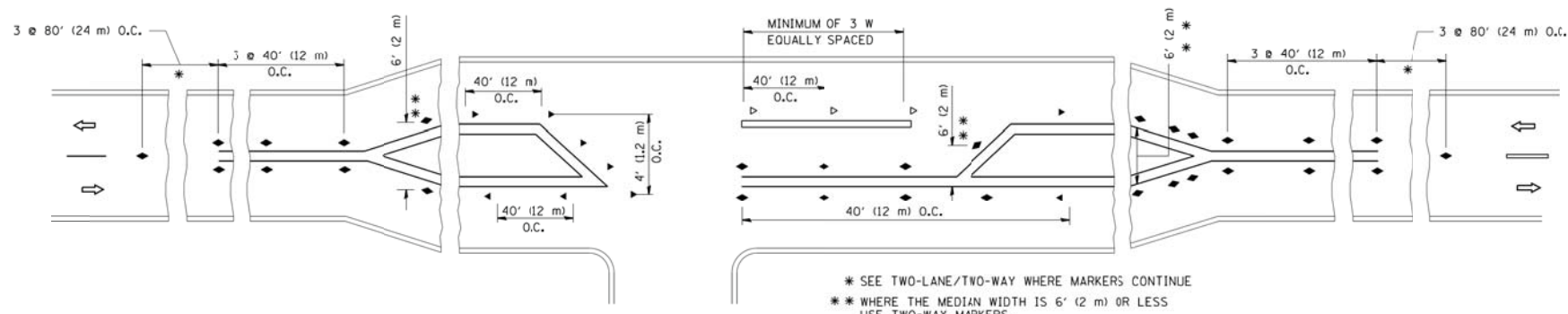
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

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

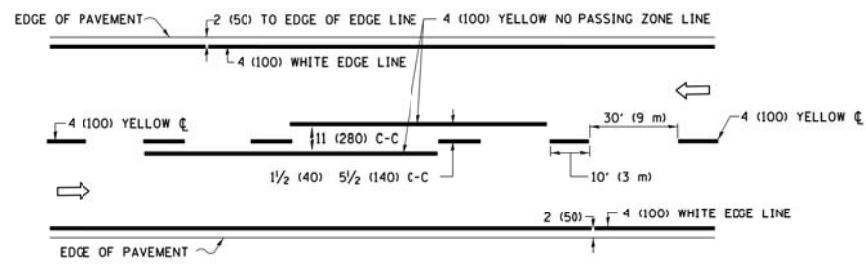
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

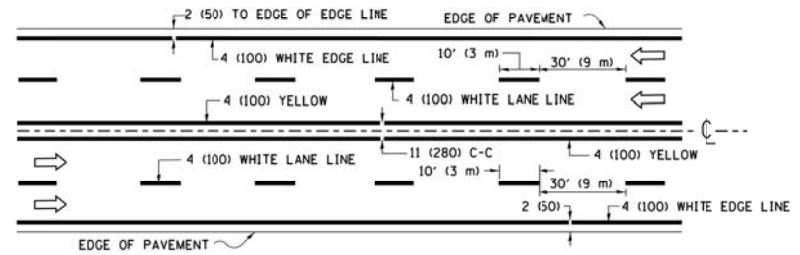
TYPICAL APPLICATIONS
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

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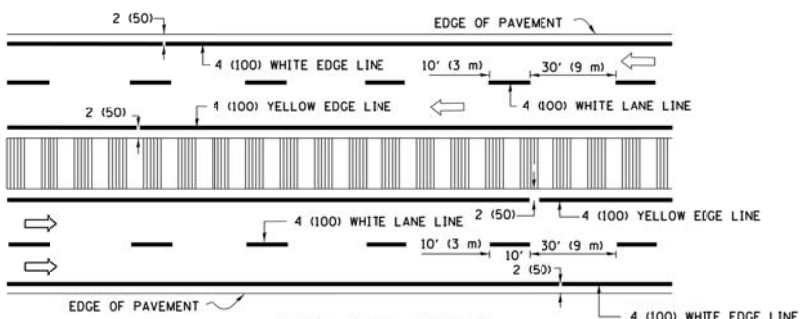
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2678 1446	17-00049-00-PV	DUPAGE	208	159
TC-11		CONTRACT NO. 61G16		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



2-LANE ROADWAY

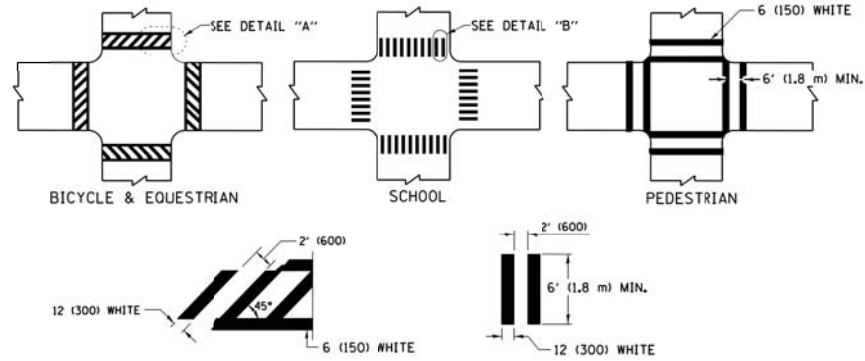


MULTI-LANE UNDIVIDED



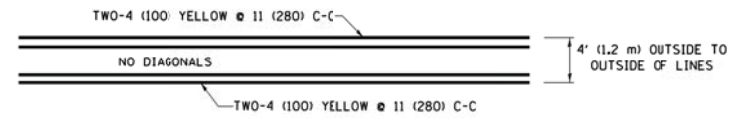
MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

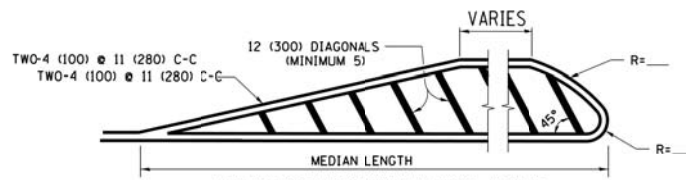


TYPICAL CROSSWALK MARKING

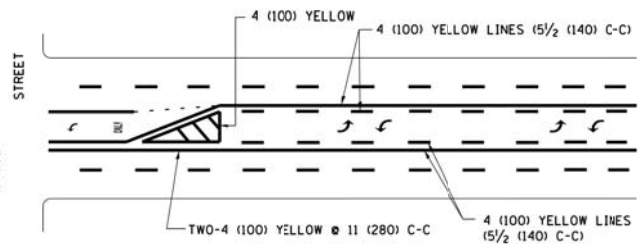
* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



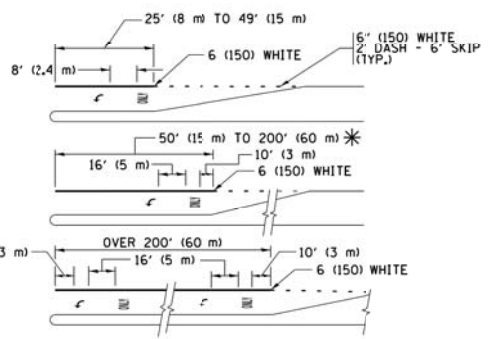
4' (1.2 m) WIDE MEDIANS ONLY



MEDIANS OVER 4' (1.2 m) WIDE



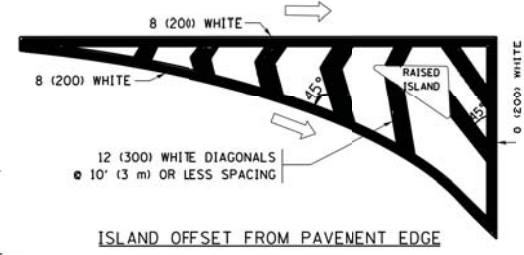
MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING



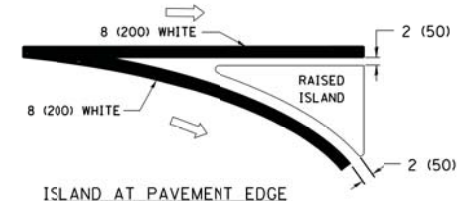
TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

FULL SIZE LETTERS 8" (2.4 m) AND ARROWS SHALL BE USED.
 * AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

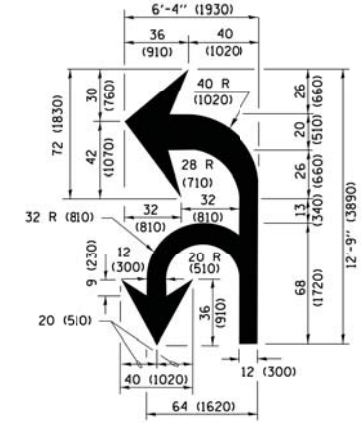


ISLAND OFFSET FROM PAVEMENT EDGE

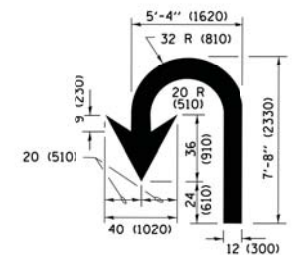


ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING



COMBINATION LEFT AND U-TURN



U-TURN

LANE REDUCTION TRANSITION
 * LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8" (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 1' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO-WAY TRAFFIC WHITE; ONE-WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA (FT): "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

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

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		DATE - 03-19-9C	REVISED - C. JUCIUS 04-12-16

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE			
TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.U. RTE. 2678 1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 160
TC-13		CONTRACT NO. 61G16	ILLINOIS/FED. AID PROJECT	

TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

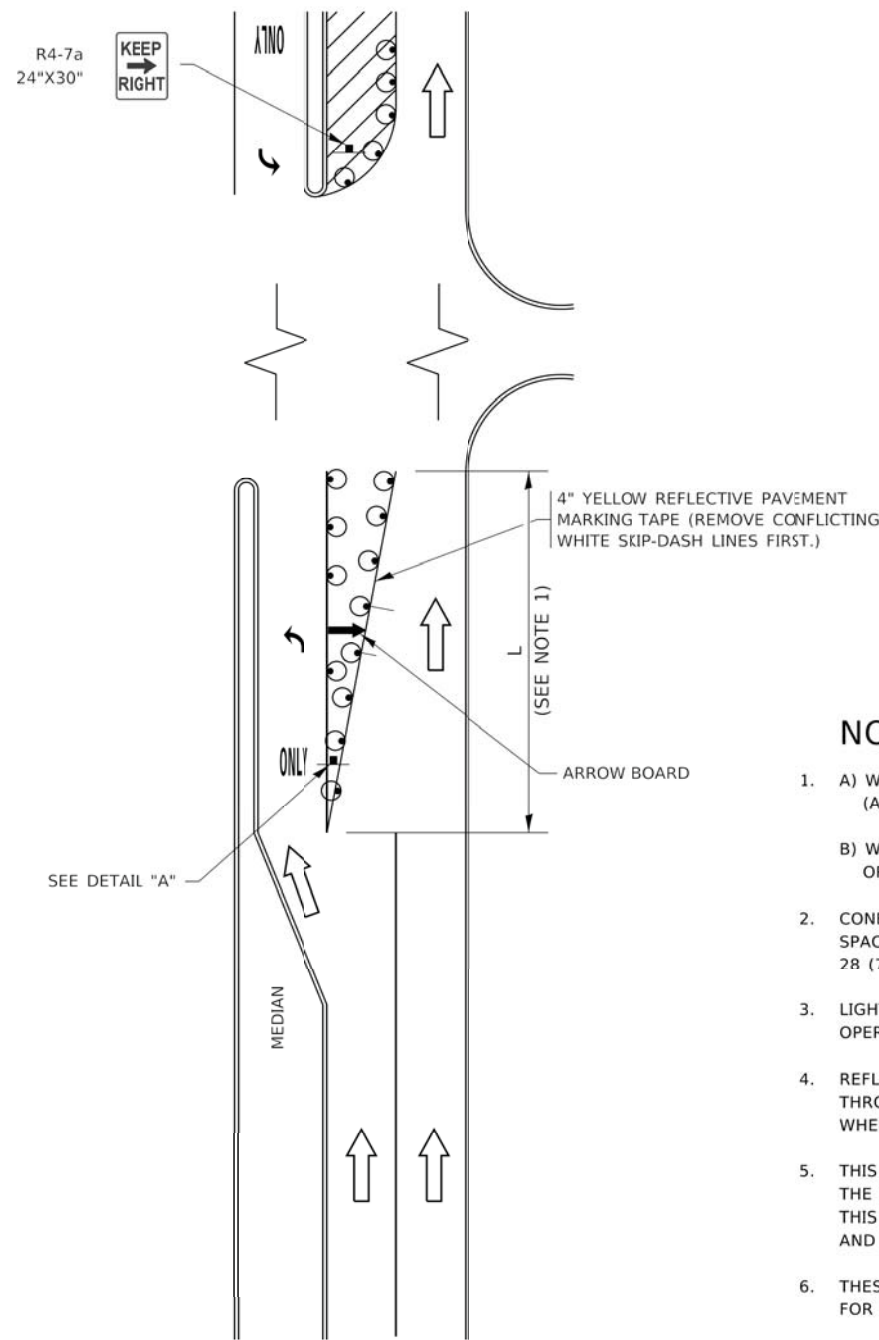


FIGURE 1

TURN BAY ENTRANCE WITHIN A LANE CLOSURE

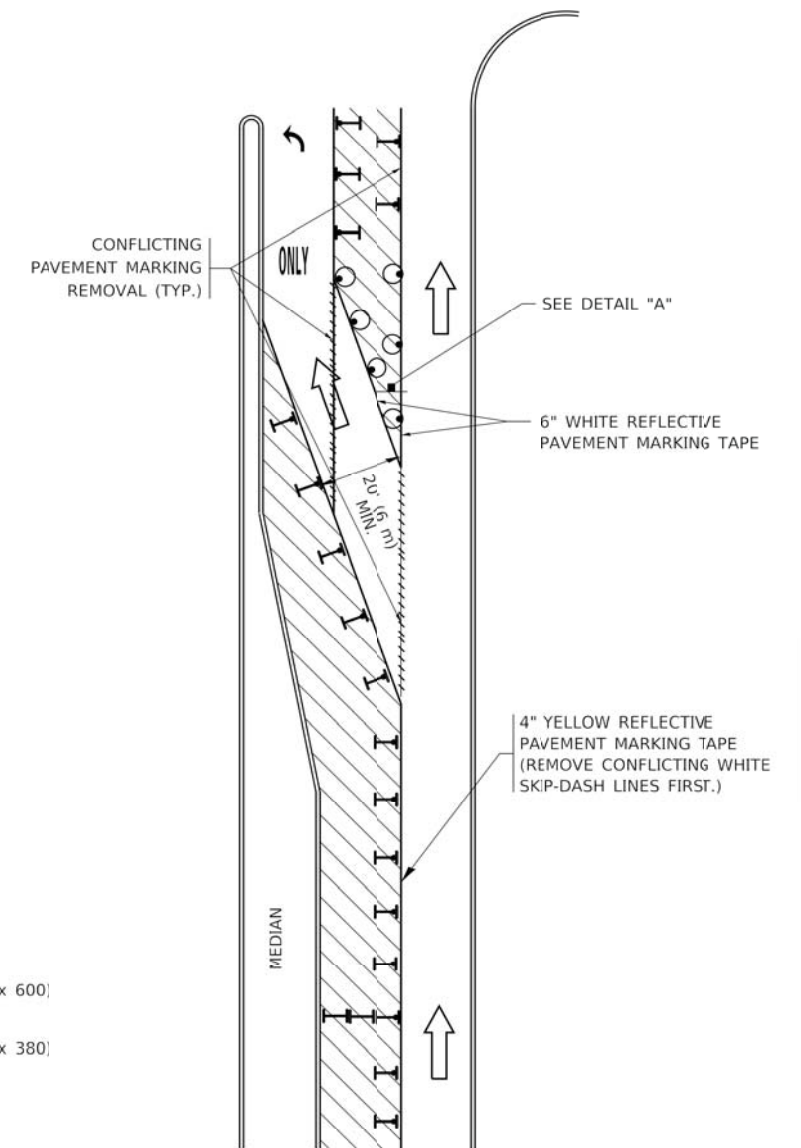
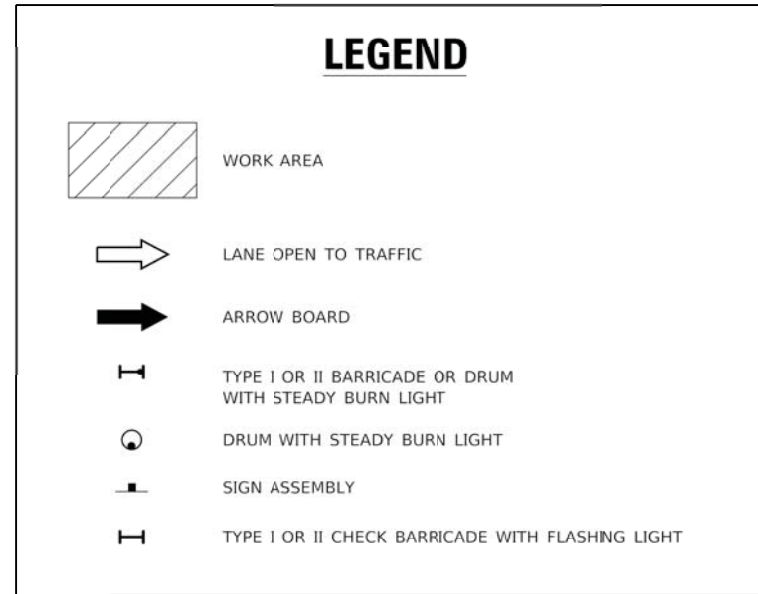
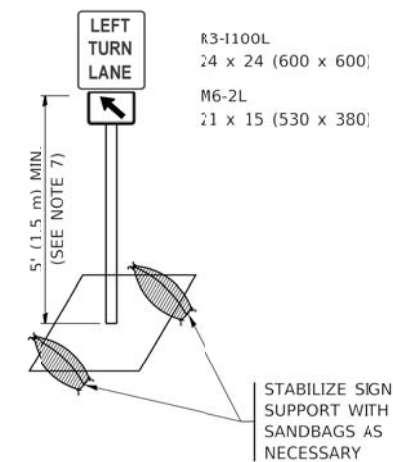


FIGURE 2



NOTES:

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



DETAIL A

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

MODEL: Default
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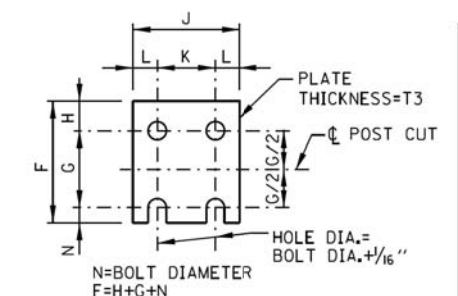
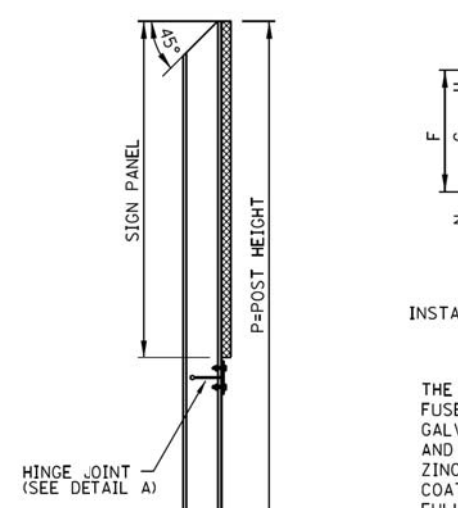
USER NAME = footemj	DESIGNED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
	DRAWN - A. HOUSEH 11-07-95	REVISED - A. SCHUETZE 07-01-13
PLLOT SCALE = 50.0000' / in.	CHECKED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16
PLLOT DATE = 3/4/2019	DATE - T. RAMMACHER 01-06-00	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

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

F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 161
TC-14		CONTRACT NO. 61G16		
ILLINOIS FED. AID PROJECT				

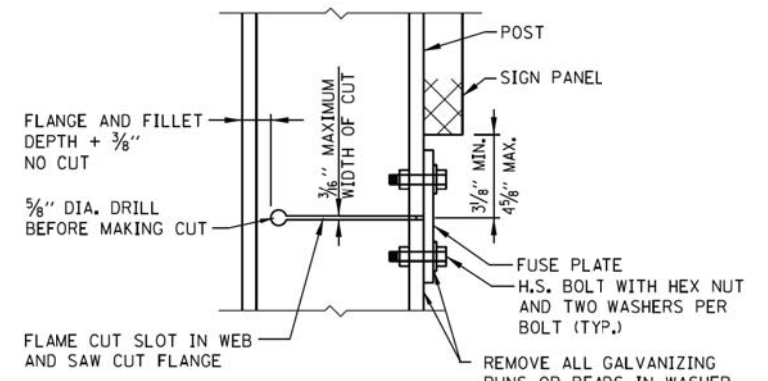


FUSE PLATE DETAIL
INSTALL WITH NOTCHES TOWARDS BASE

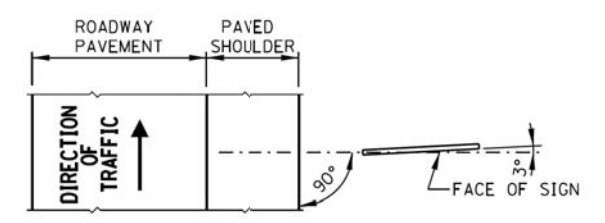
G & H DIM. TABLE		
BOLT DIA.	G	H
1/2"	2"	1 1/8"
5/8"	2 1/4"	1 1/4"
3/4"	2 1/2"	1 3/8"
7/8"	2 3/4"	1 1/2"
1"	3"	1 5/8"
1 1/8"	3 1/4"	1 3/4"
1 1/4"	3 1/2"	1 7/8"

FABRICATORS NOTES

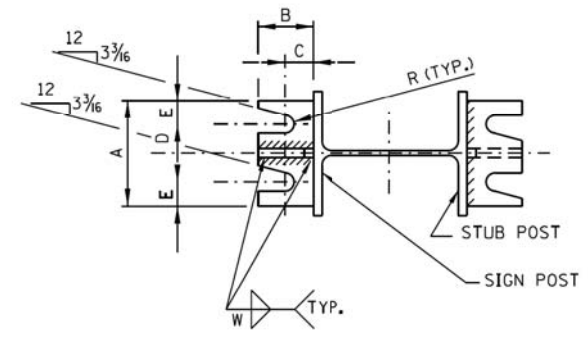
THE SLOT AND THE 3/8" DIA. HOLE IN THE WEB AND THE FUSE PLATE BOLT HOLES IN THE FLANGE SHALL BE MADE BEFORE GALVANIZING. POST FLANGE SHALL BE SAW CUT AFTER GALVANIZING AND BARE METAL SURFACES SHALL BE COATED WITH AN APPROVED ZINC SOLDER OR ZINC-RICH PAINT. THESE SURFACES SHALL NOT BE COATED UNTIL THE FUSE PLATE IS INSTALLED AND BOLTS FULLY TIGHTENED.



HINGE JOINT DETAIL A



LOCATION SKETCH

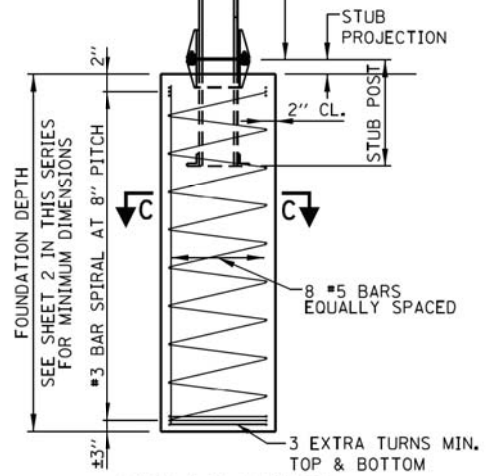


SEC. A-A

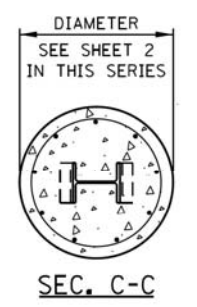
GENERAL NOTES

- DESIGN:** THE LATEST EDITION OF THE "AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRE AND TRAFFIC SIGNALS".
- CONSTRUCTION:** STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS.
- LOADING:** FOR 80 MPH WIND VELOCITY PLUS 30% GUST FACTOR NORMAL TO SIGN.
- DESIGN STRESSES:** STRUCTURAL STEEL - PER AASHTO 20,000 P.S.I. REINFORCING STEEL - 24,000 P.S.I. CLASS SI CONCRETE - 1,400 P.S.I.
- FOUNDATION:** MINIMUM UNCONFINED COMPRESSIVE STRENGTH, Q_u FOR ALL LAYERS FOR COHESIVE SOILS (CLAYS) SHALL BE 1.25 TON/SQ.FT.
- WELDING:** ALL WELDING TO BE CONTINUOUS UNLESS OTHERWISE SHOWN. ALL WELDING TO BE DONE IN ACCORDANCE WITH CURRENT AWS SPECIFICATIONS, AND STANDARD SPECIFICATIONS.
- MATERIALS:** ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 AND LRFD SPECIFICATIONS. ALL HIGH STRENGTH STEEL BOLTS, NUTS AND WASHERS SHALL CONFORM TO STANDARD SPECIFICATIONS. HIGH STRENGTH STEEL BOLTS, NUTS AND HARDENED WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M232. HIGH STRENGTH BOLTS IN BASE PLATES SHALL BE TIGHTENED TO THE TORQUE SHOWN ON SHEET 2 IN THIS SERIES. AFTER FABRICATION, THE POST, FUSE PLATE, BASE PLATE AND UPPER 6" OF STUB POST SHALL BE HOT-DIP GALVANIZED ACCORDING TO ASTM M111, EXCEPT AS NOTED UNDER FABRICATOR NOTES.

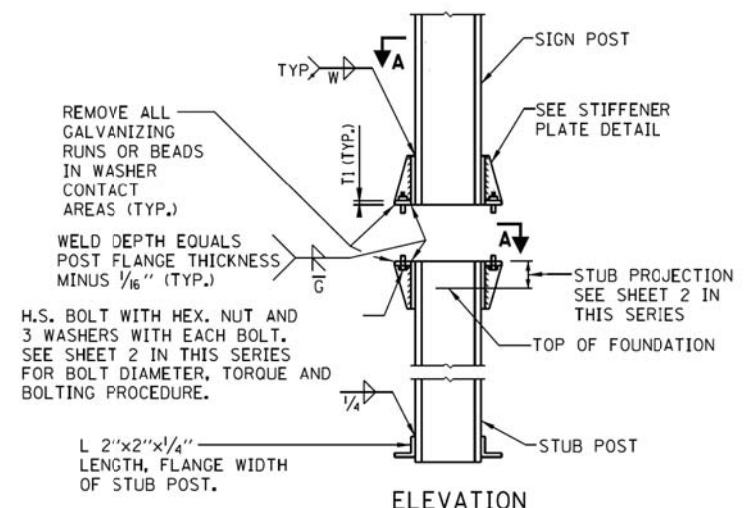
SHEET 1 OF 4



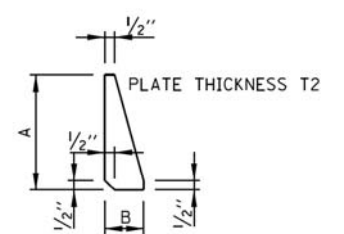
SIDE ELEVATION POST & FOUNDATION



SEC. C-C

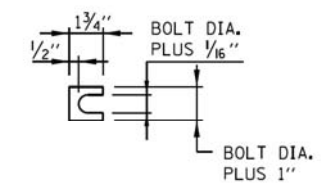


ELEVATION SIGN POST & STUB POST



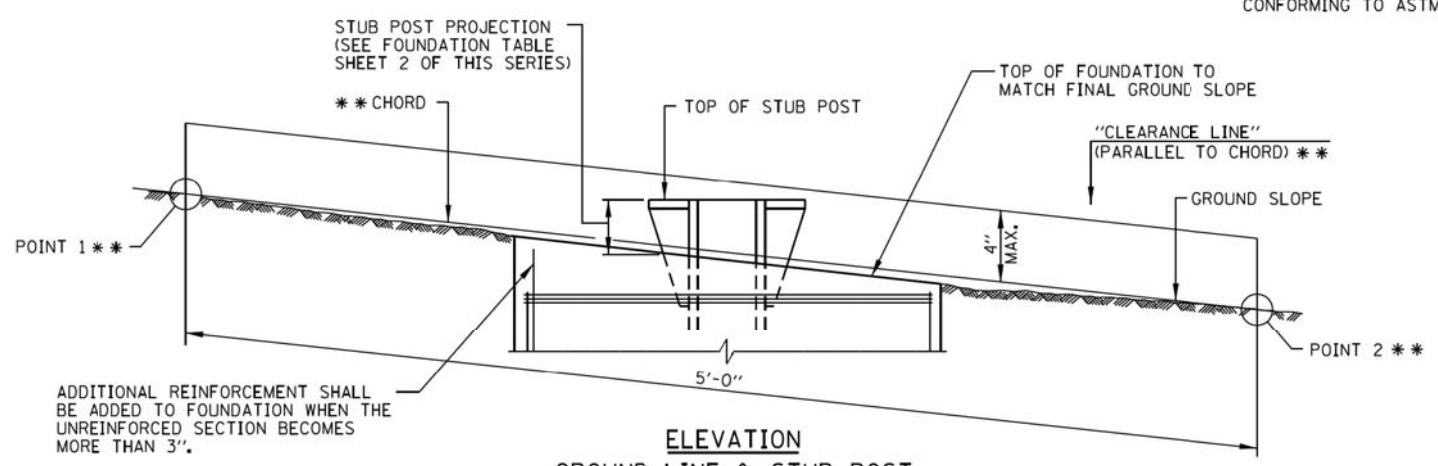
STIFFENER PLATE DETAIL

SEE SHEET 2 IN THIS SERIES FOR DIMENSIONS



SHIM DETAIL

FURNISH 2-.012" THICK AND 2-.032" THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK CONFORMING TO ASTM B36.



ELEVATION GROUND LINE & STUB POST

** FOR ALL "POINT 1" AND "POINT 2" LOCATIONS, "CLEARANCE LINE" MUST BE AT OR ABOVE TOP OF STUB POST.

APPROVED: *Paul Kovacs* CHIEF ENGINEER DATE 1-1-2010...

DATE	REVISIONS
2-7-2012	ADDED STUB POST CLEARANCE DIMENSIONS, REVISED SIGN INSTALLATION CLEARANCE DIMENSIONS
11-1-2012	REVISED NOTES, MODIFIED SLOPE REQUIREMENTS FOR BREAKAWAY SUPPORTS
3-01-2019	CLARIFIED DESIGN STRESS FOR SOIL PRESSURE

Illinois Tollway

BREAKAWAY SIGN SUPPORT DETAILS

STANDARD F9-05

POST	FOUNDATION TABLE									BASE CONNECTION DATA TABLE													
	FOUNDATION			REINFORCEMENT					STUB POST			BOLT SIZE AND TORQUE	A	B	C	D	E	T1	T2	W	R		
	DIA.	MIN. DEPTH	CY.* CONC.	VERTICAL NO.	VERTICAL SIZE	BAR SPIRALS LGTH.	BAR SPIRALS O.D.	BAR SPIRALS LGTH.	LBS.**	STUB LGTH.	STUB PROJECTION											LBS.***	
W6x9	2'-0"	6'-0"	.70	8	#5	5'-9"	#3	20 1/2"	79'	78	2'-3"	3"	44	5/8" ϕ x 3 1/4" LG. TORQUE = 450"	6"	2 1/4"	1 1/4"	3 1/2"	1 1/4"	3/4"	1/2"	1/4"	1/32"
W6x15	2'-0"	6'-0"	.70	8	#5	5'-9"	#3	20 1/2"	79'	78	2'-6"	3"	71	5/8" ϕ x 3 1/4" LG. TORQUE = 450"	6"	2 1/4"	1 1/4"	3 1/2"	1 1/4"	3/4"	1/2"	1/4"	1/32"
W8x18	2'-0"	6'-0"	.70	8	#5	5'-9"	#3	20 1/2"	79'	78	2'-6"	3"	85	3/4" ϕ x 3 3/4" LG. TORQUE = 750"	6"	2 1/2"	1 3/8"	3 1/4"	1 3/8"	1"	1/2"	5/16"	1/32"
W10x22	2'-6"	6'-6"	1.18	8	#5	6'-3"	#3	26 1/2"	105'	92	3'-0"	2 1/2"	110	3/4" ϕ x 3 3/4" LG. TORQUE = 750"	6"	2 1/2"	1 3/8"	3 1/4"	1 3/8"	1"	1/2"	5/16"	1/32"
W10x26	2'-6"	7'-0"	1.27	8	#5	6'-9"	#3	26 1/2"	112'	98	3'-0"	2 1/2"	137	3/4" ϕ x 3 3/4" LG. TORQUE = 750"	6"	2 1/2"	1 3/8"	3 1/4"	1 3/8"	1"	1/2"	5/16"	1/32"
W12x26	2'-6"	7'-9"	1.41	8	#5	7'-6"	#3	26 1/2"	119'	107	3'-0"	2 1/2"	140	7/8" ϕ x 4" LG. TORQUE = 950"	7"	2 3/4"	1 1/2"	4"	1 1/2"	1"	3/4"	3/8"	1/32"
W14x30	3'-0"	7'-3"	1.90	8	#5	7'-0"	#3	32 1/2"	145'	113	3'-0"	2 1/2"	150	7/8" ϕ x 4" LG. TORQUE = 950"	7"	2 3/4"	1 1/2"	4"	1 1/2"	1"	3/4"	3/8"	1/32"
W14x38	3'-0"	8'-0"	2.09	8	#5	7'-9"	#3	32 1/2"	153'	122	3'-6"	2 1/2"	208	1" ϕ x 4 1/2" LG. TORQUE = 1100"	7 1/2"	3"	1 3/4"	4"	1 3/4"	1 1/4"	3/4"	3/8"	1/32"
W16x45	3'-0"	8'-6"	2.23	8	#5	8'-3"	#3	32 1/2"	162'	130	3'-6"	2 1/2"	233	1" ϕ x 4 1/2" LG. TORQUE = 1100"	7 1/2"	3"	1 3/4"	4"	1 3/4"	1 1/4"	3/4"	3/8"	1/32"

- * QUANTITY OF CLASS SI CONCRETE CONSISTS OF ALL CONCRETE NECESSARY FOR ONE FOUNDATION. (CUBIC YARDS)
- ** THIS INCLUDES REINFORCEMENT BARS AND SPIRAL HOOPING REQUIRED FOR ONE FOUNDATION.
- *** INCLUDES WEIGHT OF STUB POST WITH ANGLES, GUSSETS, BASE PLATES, BOLTS, NUTS, WASHERS, PLUS BASE PLATES AND GUSSETS ON MAIN POST, PLUS FUSE PLATE (IF ANY) WITH BOLTS, NUTS AND WASHERS. (ONE POST)

EQUIVALENT TORQUE VALUES

- 450" = 37.5'
- 750" = 62.5'
- 950" = 79.2'
- 1100" = 91.7'

PROCEDURE FOR ASSEMBLY OF BASE CONNECTION:

1. ASSEMBLE POST TO STUB WITH H.S. BOLTS AND ONE OF THE THREE FLAT WASHERS ON EACH BOLT BETWEEN PLATES AS SHOWN.
2. SHIMS MAY BE USED BETWEEN PLATES TO LEVEL POST.
3. TIGHTEN BOLTS IN BASE PLATE IN A SYSTEMATIC ORDER TO THE REQUIRED TORQUE.
4. LOOSEN EACH BOLT AND RETIGHTEN TO THE REQUIRED TORQUE IN SAME ORDER AS INITIAL TIGHTENING.
5. BURR OR CENTER PUNCH THREADS AT JUNCTURE OF BOLT AND NUT TO PREVENT NUT FROM LOOSENING.

POST	FUSE PLATE DATA TABLE				FUSE PLATE BOLT SIZE TABLE											
	J	K	L	T3	SIGN DEPTH											
					4'	5'	6'	7'	8'	9'	10'	11'	12'	13'	14'	
W6x9	4"	2 1/4"	7/8"	1/4"	1/2" ϕ x 1 1/2"	1/2" ϕ x 1 1/2"	1/2" ϕ x 1 1/2"	5/8" ϕ x 1 3/4"	5/8" ϕ x 1 3/4"	5/8" ϕ x 1 3/4"	---	---	---	---	---	
W6x15	6"	3 1/2"	1 1/4"	3/8"	1/2" ϕ x 1 3/4"	1/2" ϕ x 1 3/4"	5/8" ϕ x 2"	5/8" ϕ x 2"	3/4" ϕ x 2"	3/4" ϕ x 2"	3/4" ϕ x 2"	3/4" ϕ x 2"	3/8" ϕ x 2 1/4"	3/8" ϕ x 2 1/4"	3/8" ϕ x 2 1/4"	
W8x18	5 1/4"	2 3/4"	1 1/4"	3/8"	1/2" ϕ x 1 3/4"	1/2" ϕ x 1 3/4"	5/8" ϕ x 2"	5/8" ϕ x 2"	3/4" ϕ x 2"	3/4" ϕ x 2"	3/4" ϕ x 2"	3/4" ϕ x 2"	3/8" ϕ x 2 1/4"	3/8" ϕ x 2 1/4"	3/8" ϕ x 2 1/4"	
W10x22	5 3/4"	2 3/4"	1 1/2"	1/2"	1/2" ϕ x 2"	1/2" ϕ x 2"	5/8" ϕ x 2"	5/8" ϕ x 2"	3/4" ϕ x 2 1/4"	3/4" ϕ x 2 1/4"	3/4" ϕ x 2 1/4"	3/4" ϕ x 2 1/4"	3/8" ϕ x 2 1/4"	3/8" ϕ x 2 1/4"	3/8" ϕ x 2 1/4"	
W10x26	5 3/4"	2 3/4"	1 1/2"	5/8"	1/2" ϕ x 2"	1/2" ϕ x 2"	5/8" ϕ x 2"	5/8" ϕ x 2"	3/4" ϕ x 2 1/4"	3/4" ϕ x 2 1/4"	3/4" ϕ x 2 1/2"	3/4" ϕ x 2 1/2"	3/8" ϕ x 2 1/2"	3/8" ϕ x 2 1/2"	1" ϕ x 2 3/4"	
W12x26	6 1/2"	3 1/2"	1 1/2"	5/8"	---	---	---	---	---	5/8" ϕ x 2 1/4"	---	---	3/8" ϕ x 2 1/2"	3/8" ϕ x 2 1/2"	1" ϕ x 2 1/2"	
W14x30	6 3/4"	3 1/2"	1 5/8"	1/2"	1/2" ϕ x 2"	1/2" ϕ x 2"	5/8" ϕ x 2"	5/8" ϕ x 2"	3/4" ϕ x 2 1/4"	3/4" ϕ x 2 1/4"	3/4" ϕ x 2 1/4"	3/4" ϕ x 2 1/4"	3/8" ϕ x 2 1/2"	3/8" ϕ x 2 1/2"	1" ϕ x 2 1/2"	
W14x38	6 3/4"	3 1/2"	1 5/8"	1/2"	---	1/2" ϕ x 2"	5/8" ϕ x 2"	5/8" ϕ x 2"	3/4" ϕ x 2 1/4"	3/4" ϕ x 2 1/4"	3/4" ϕ x 2 1/2"	3/4" ϕ x 2 1/2"	3/8" ϕ x 2 1/2"	3/8" ϕ x 2 1/2"	1" ϕ x 2 1/2"	
W16x45	7"	3 1/2"	1 3/4"	1/2"	---	---	---	1/2" ϕ x 2"	5/8" ϕ x 2 1/4"	5/8" ϕ x 2 1/4"	5/8" ϕ x 2 1/4"	5/8" ϕ x 2 1/4"	3/4" ϕ x 2 1/2"	3/4" ϕ x 2 1/2"	1" ϕ x 2 1/2"	

POST	FUSE PLATE DATA TABLE				FUSE PLATE BOLT SIZE TABLE											
	J	K	L	T3	SIGN DEPTH											
					15'	16'	17'	18'	19'	20'	21'	22'	23'	24'	---	
W6x9	4"	2 1/4"	7/8"	1/4"	---	---	---	---	---	---	---	---	---	---	---	---
W6x15	6"	3 1/2"	1 1/4"	3/8"	---	---	---	---	---	---	---	---	---	---	---	---
W8x18	5 1/4"	2 3/4"	1 1/4"	3/8"	3/8" ϕ x 2 1/4"	3/8" ϕ x 2 1/4"	---	---	---	---	---	---	---	---	---	---
W10x22	5 3/4"	2 3/4"	1 1/2"	1/2"	1" ϕ x 2 3/4"	1" ϕ x 2 3/4"	1" ϕ x 2 3/4"	1" ϕ x 2 3/4"	1" ϕ x 2 3/4"	1" ϕ x 2 3/4"	---	---	---	---	---	---
W10x26	5 3/4"	2 3/4"	1 1/2"	5/8"	1" ϕ x 2 3/4"	1 1/8" ϕ x 3"	1 1/8" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	---
W12x26	6 1/2"	3 1/2"	1 1/2"	5/8"	1" ϕ x 2 3/4"	1" ϕ x 2 3/4"	1 1/8" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	---
W14x30	6 3/4"	3 1/2"	1 5/8"	1/2"	1" ϕ x 2 3/4"	1" ϕ x 2 3/4"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	---
W14x38	6 3/4"	3 1/2"	1 5/8"	1/2"	1" ϕ x 2 1/2"	1" ϕ x 2 3/4"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	---
W16x45	7"	3 1/2"	1 3/4"	1/2"	3/8" ϕ x 2 1/2"	1" ϕ x 2 3/4"	1" ϕ x 2 3/4"	1 1/8" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	1 1/4" ϕ x 3"	---

PROCEDURE FOR FUSE PLATE BOLT TIGHTENING:

ALL FRICTION FUSE BOLTS SHALL BE TIGHTENED IN THE SHOP AS APPROVED BY THE ENGINEER ACCORDING TO ONE OF THE FOLLOWING METHODS:

1. TURN-OF-NUT TIGHTENING.
2. TIGHTENING BY USE OF A DIRECT TENSION INDICATOR.

THE ABOVE METHODS OF INSTALLATION AND TIGHTENING SHALL CONFORM TO THE LATEST ISSUE OF THE SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A-325 OR A-490 BOLTS, FOR SLIP-CRITICAL CONNECTIONS AS ISSUED BY THE RESEARCH COUNCIL ON RIVETED AND BOLTED STRUCTURAL JOINTS OF THE ENGINEERING FOUNDATION.

TIGHTENING SHALL BE TO SUCH A DEGREE AS TO OBTAIN THE FOLLOWING MINIMUM RESIDUAL TENSION IN EACH BOLT.

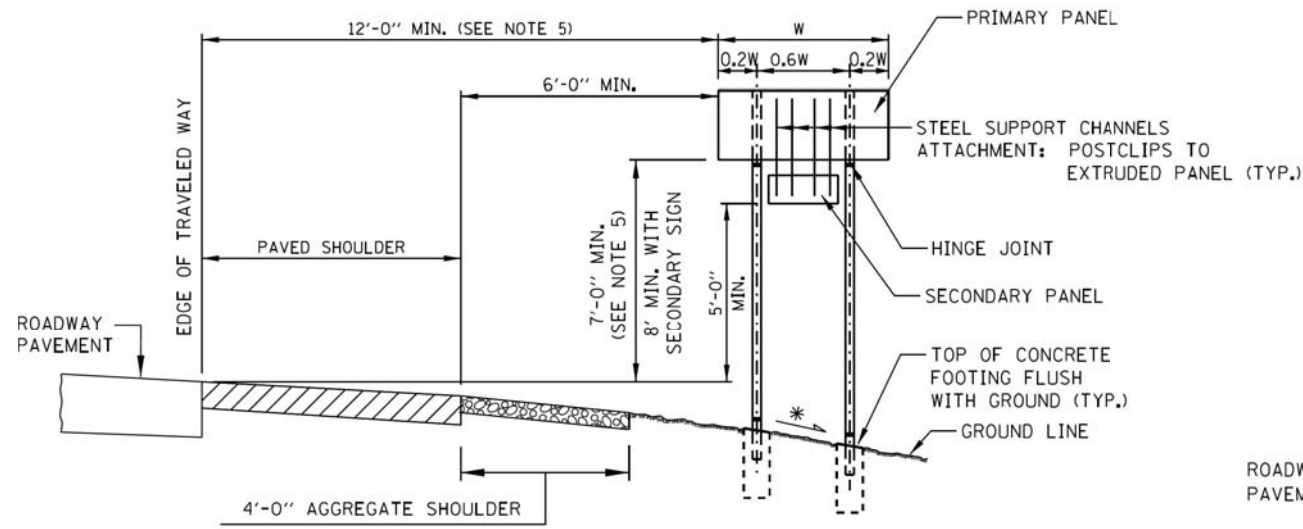
BOLT DIA.	MIN. RESIDUAL BOLT TENSION	BOLT DIA.	MIN. RESIDUAL BOLT TENSION	BOLT DIA.	MIN. RESIDUAL BOLT TENSION
1/2"	12,050	7/8"	39,250	1 1/4"	71,700
3/8"	19,200	1"	51,500		
3/4"	28,400	1 1/8"	56,450		



**BREAKAWAY SIGN SUPPORT
DETAILS**

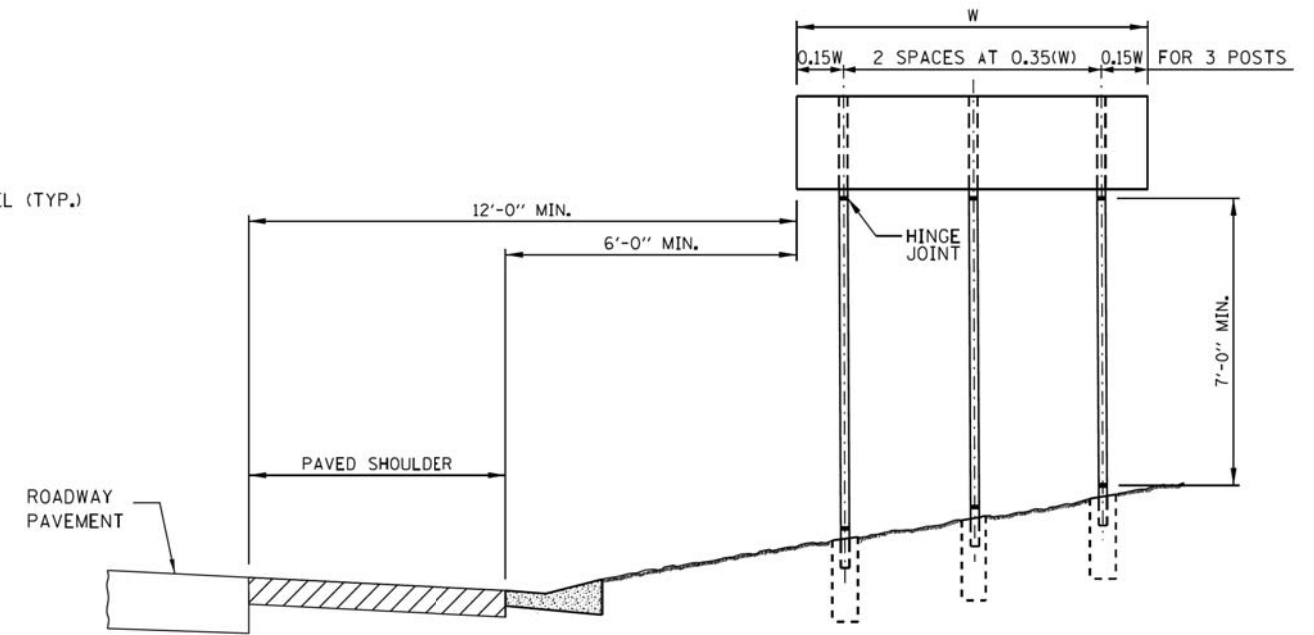
STANDARD F9-05

Paul Kovacs
APPROVED..... CHIEF ENGINEER DATE 1-1-2010.....

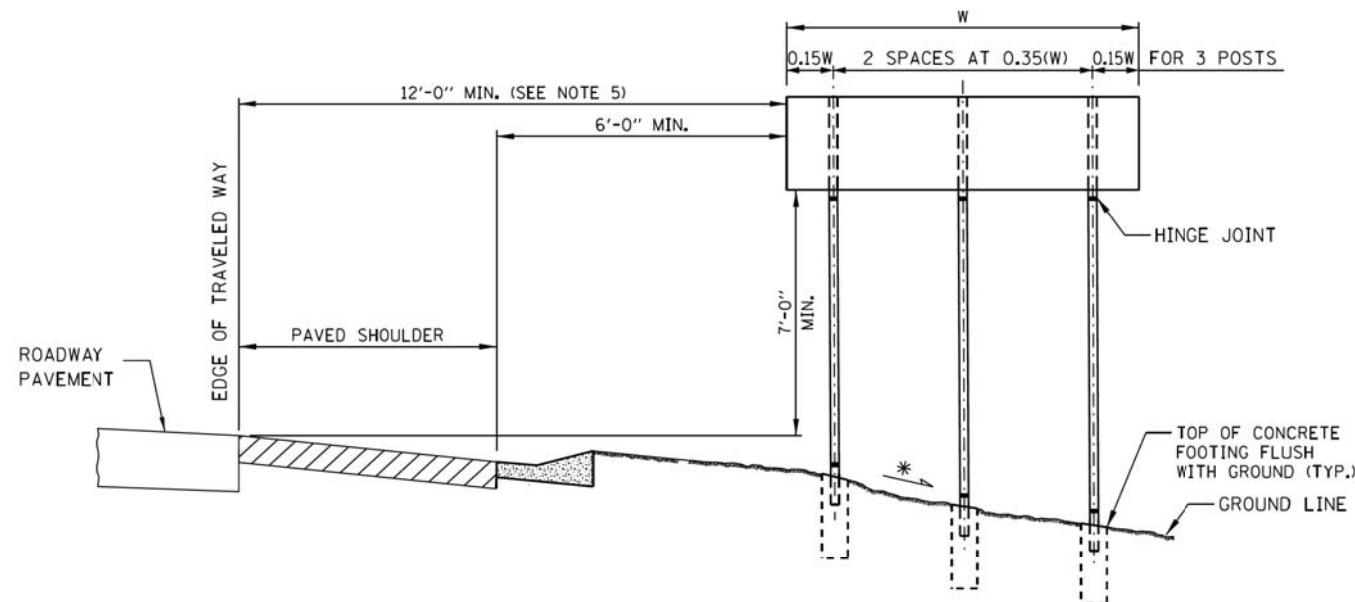


CONDITION 1 - SIGN INSTALLATION

(*) FORESLOPE 1:6 (V:H) OR FLATTER



CONDITION 3 - SIGN INSTALLATION



CONDITION 2 - SIGN INSTALLATION

(*) FORESLOPE 1:6 (V:H) OR FLATTER

NOTES:

1. SEE SIGN INSTALLATION SCHEDULE IN CONTRACT PLANS FOR DIMENSIONS.
2. THE DIMENSIONS OF ALL POSTS FOR GROUND MOUNTED SIGNS ARE BASED ON DESIGN CROSS SECTIONS. THE CONTRACTOR SHALL VERIFY REQUIRED POST LENGTHS IN THE FIELD, PRIOR TO SUBMITTING SHOP DRAWINGS AND POST FABRICATION TO MAINTAIN THE CLEARANCES SHOWN.
3. SIGN FOUNDATION ELEVATIONS TO BE BASED ON FINISHED SLOPES.
4. ANY ADDITIONAL SIGN TO BE ADDED LATER MUST BE SUPPORTED BY THE EXISTING SIGN PANEL AND NOT THE SIGN POST. MINIMUM CLEARANCES SHALL BE MAINTAINED.
5. SIGNS THAT ARE PLACED WELL OUTSIDE THE CLEAR ZONE MAY BE INSTALLED WITH A MINIMUM HEIGHT OF 5 FEET, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE HORIZONTAL ELEVATION OF THE NEAR EDGE OF TRAVELED ROADWAY.
6. MINIMUM HEIGHT OF LOWEST POST SHALL BE 7'-0" MEASURED BETWEEN STUB PROJECTION AND HINGE JOINT.
7. FOR TWO POSTS SPACED LESS THAN 7 FEET APART, EACH POST SHALL HAVE A MASS LESS THAN 18 lb/ft.
8. WHEN THE TOTAL COMBINED WEIGHT OF THE TWO POSTS LOCATED WITHIN 7 FEET OF EACH OTHER EXCEEDS 600 lbs., THE SIGN SHALL BE PLACED WELL OUTSIDE THE CLEAR ZONE OR BE SHIELDED FROM VEHICULAR IMPACT.

SHEET 3 OF 4

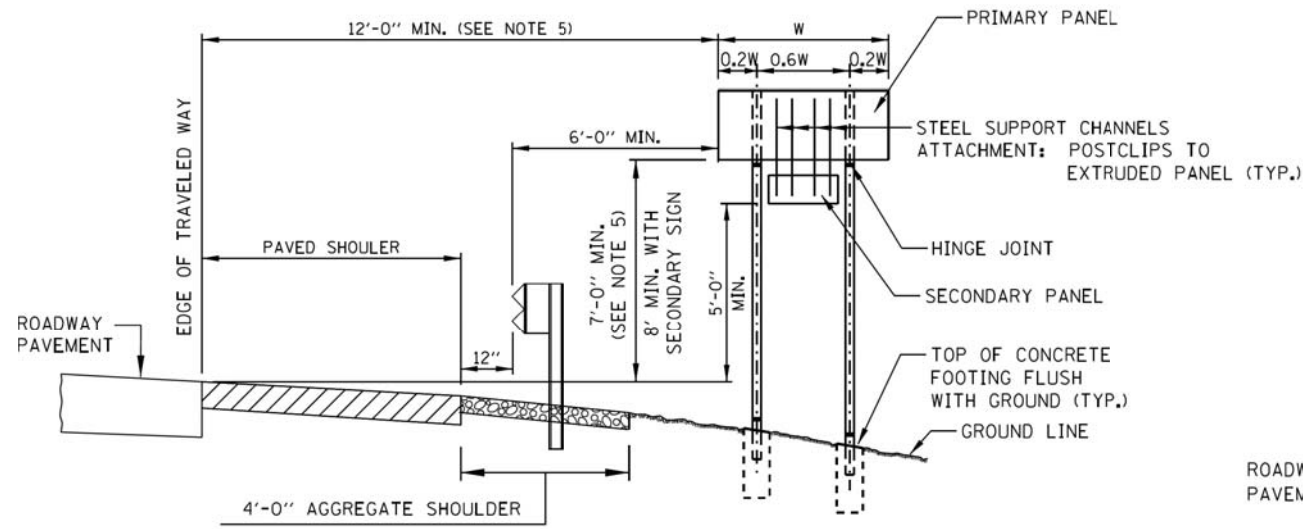


BREAKAWAY SIGN SUPPORT DETAILS

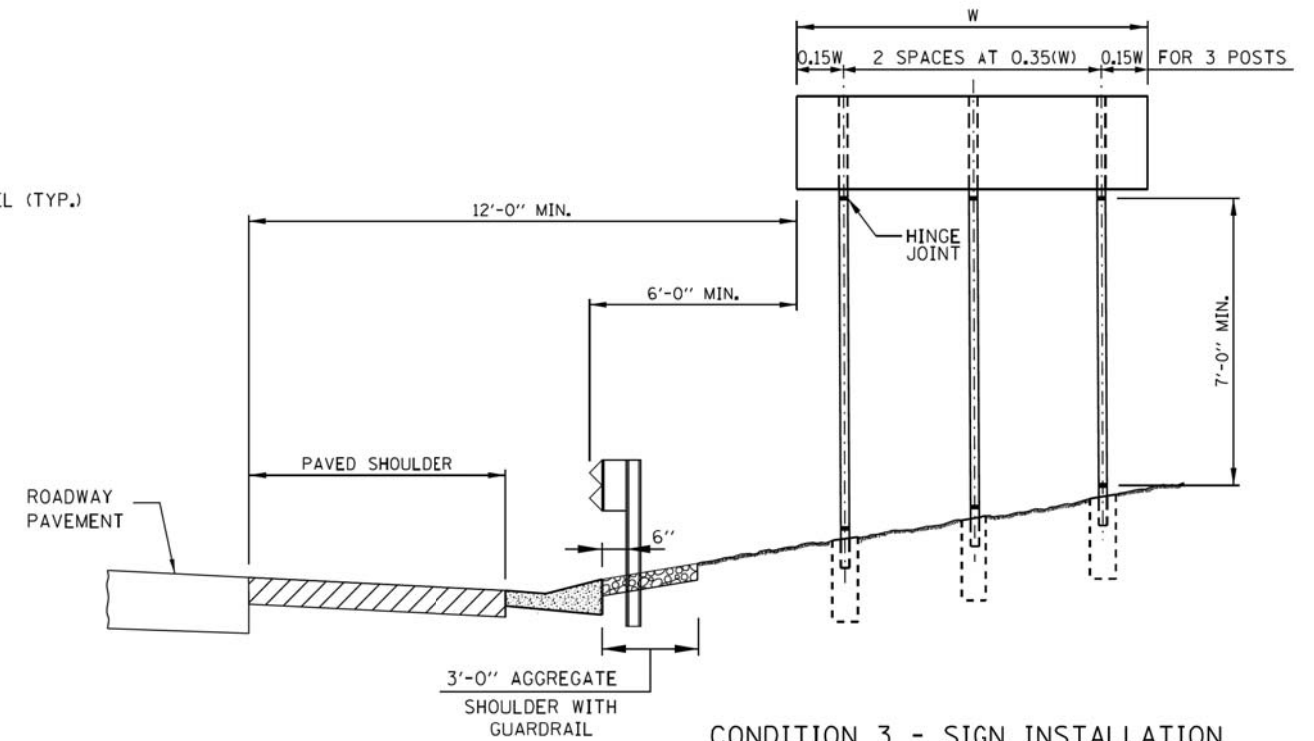
STANDARD F9-05

APPROVED: *Paul Kovacs* CHIEF ENGINEER DATE 1-1-2010...

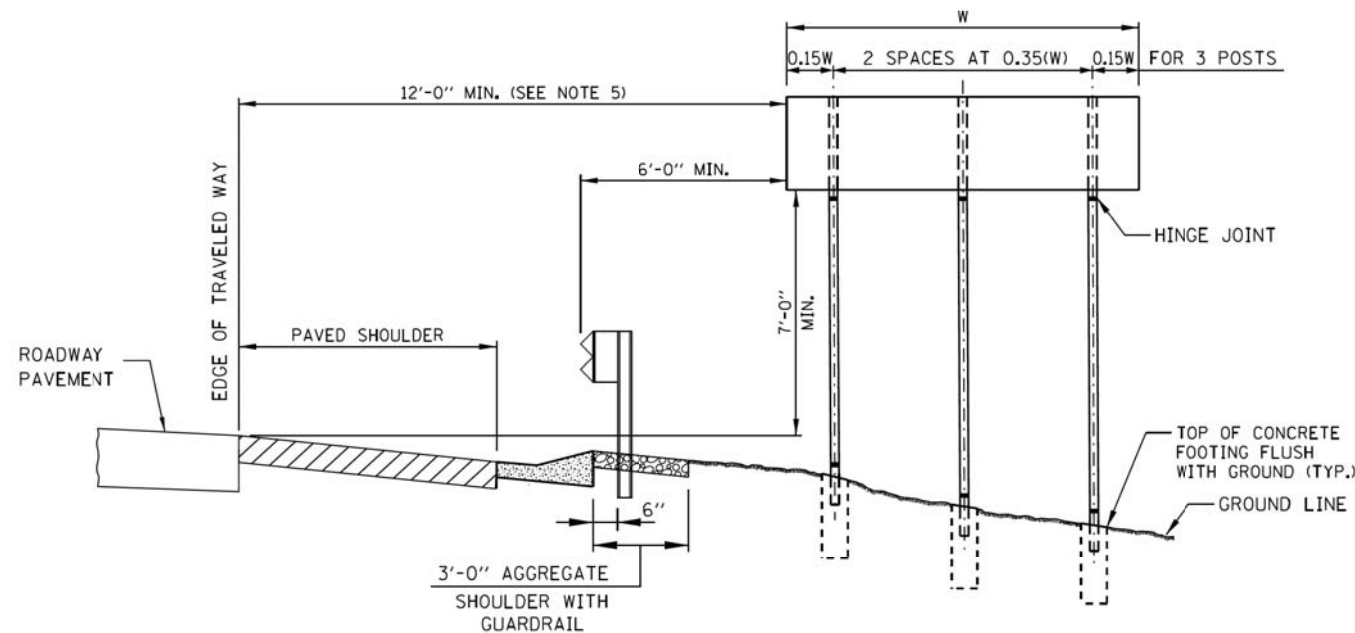
UNSHIELDED SLOPE



CONDITION 1 - SIGN INSTALLATION



CONDITION 3 - SIGN INSTALLATION



CONDITION 2 - SIGN INSTALLATION

SHIELDED SLOPE

NOTES:

1. SEE SIGN INSTALLATION SCHEDULE IN CONTRACT PLANS FOR DIMENSIONS.
2. THE DIMENSIONS OF ALL POSTS FOR GROUND MOUNTED SIGNS ARE BASED ON DESIGN CROSS SECTIONS. THE CONTRACTOR SHALL VERIFY REQUIRED POST LENGTHS IN THE FIELD, PRIOR TO SUBMITTING SHOP DRAWINGS AND POST FABRICATION TO MAINTAIN THE CLEARANCES SHOWN.
3. SIGN FOUNDATION ELEVATIONS TO BE BASED ON FINISHED SLOPES.
4. ANY ADDITIONAL SIGN TO BE ADDED LATER MUST BE SUPPORTED BY THE EXISTING SIGN PANEL AND NOT THE SIGN POST. MINIMUM CLEARANCES SHALL BE MAINTAINED.
5. SIGNS THAT ARE PLACED WELL OUTSIDE THE CLEAR ZONE MAY BE INSTALLED WITH A MINIMUM HEIGHT OF 5 FEET, MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE HORIZONTAL ELEVATION OF THE NEAR EDGE OF TRAVELED ROADWAY.
6. MINIMUM HEIGHT OF LOWEST POST SHALL BE 7'-0" MEASURED BETWEEN STUB PROJECTION AND HINGE JOINT.
7. FOR TWO POSTS SPACED LESS THAN 7 FEET APART, EACH POST SHALL HAVE A MASS LESS THAN 18 lb/ft.
8. WHEN THE TOTAL COMBINED WEIGHT OF THE TWO POSTS LOCATED WITHIN 7 FEET OF EACH OTHER EXCEEDS 600 lbs., THE SIGN SHALL BE PLACED WELL OUTSIDE THE CLEAR ZONE OR BE SHIELDED FROM VEHICULAR IMPACT.

SHEET 4 OF 4

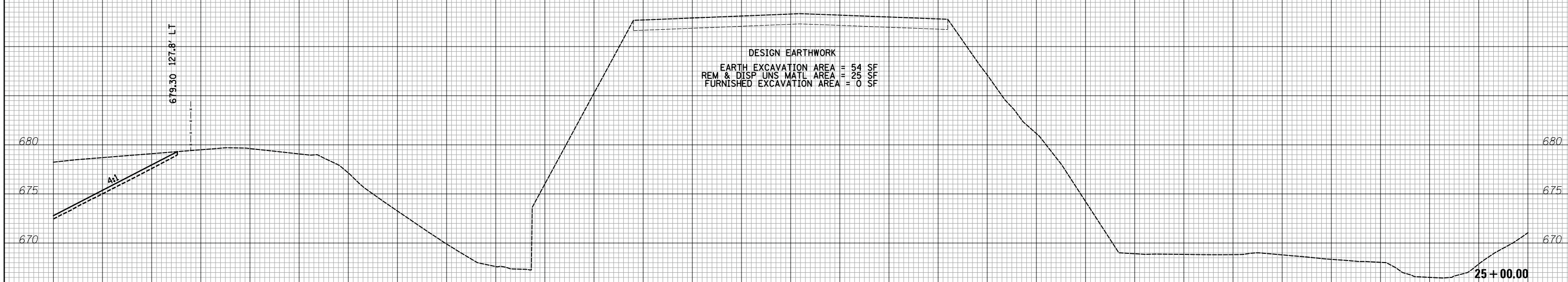
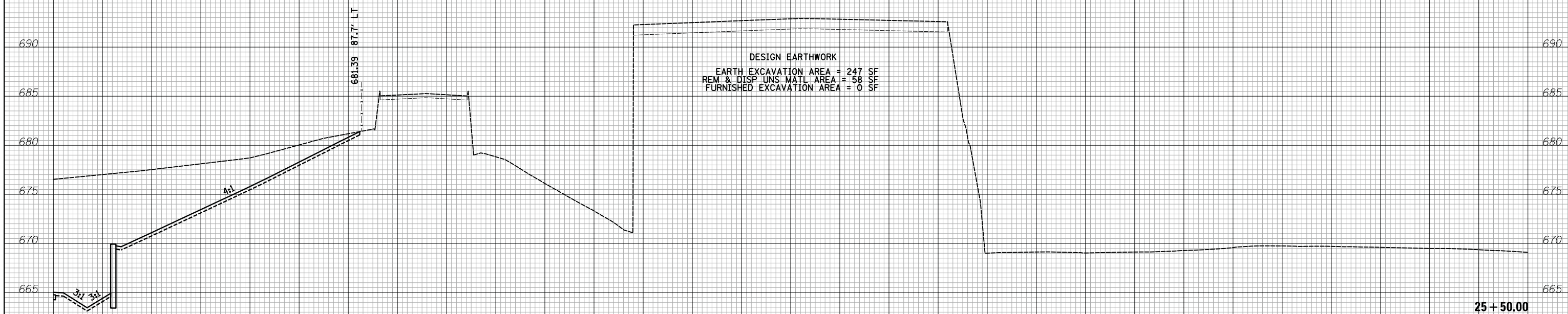


BREAKAWAY SIGN SUPPORT DETAILS

STANDARD F9-05

APPROVED: *Paul Kovacs* CHIEF ENGINEER DATE 1-1-2010...

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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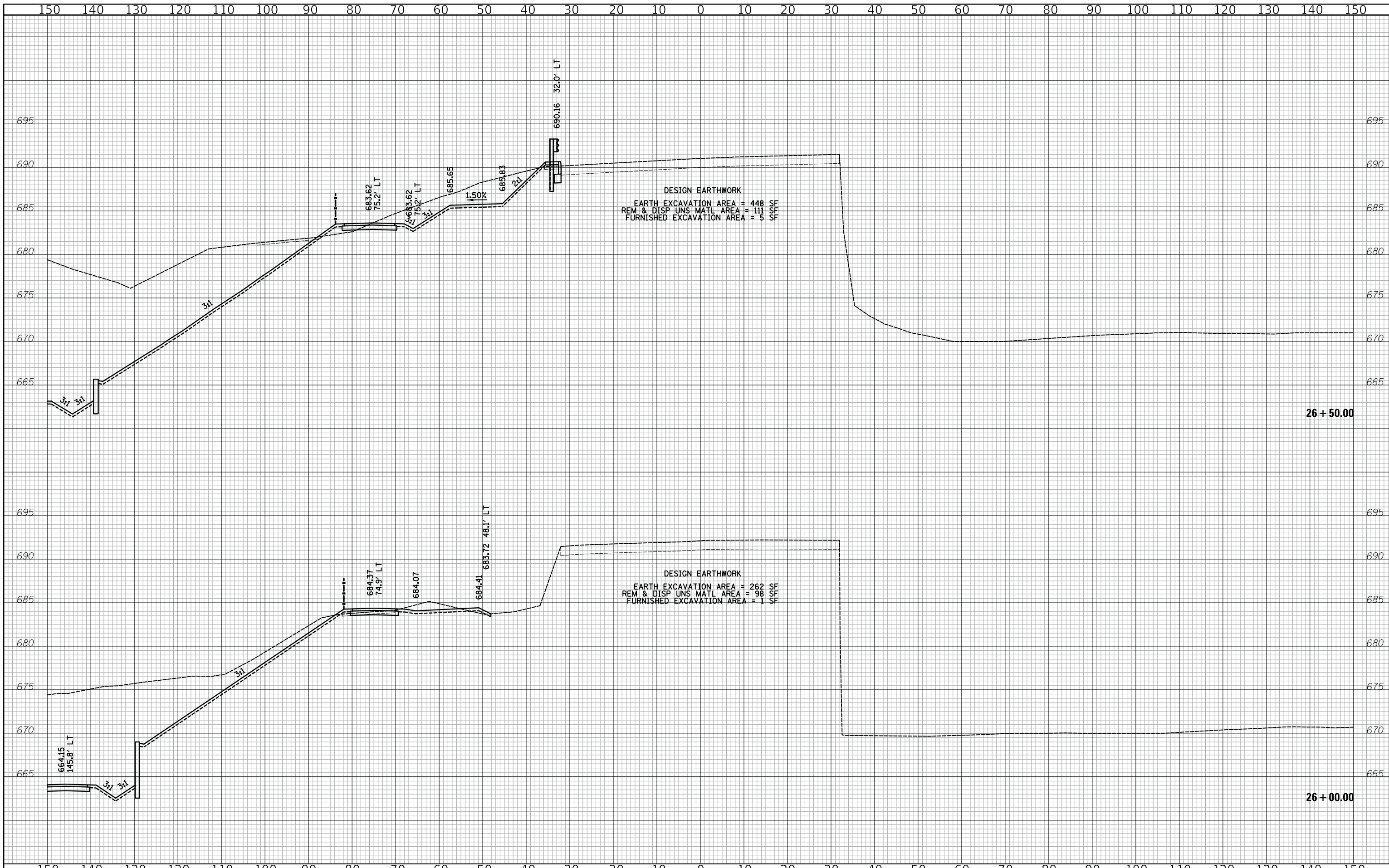
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**



CROSS SECTIONS - YORK ROAD

SHEET 1 OF 10 SHEETS STA. 25+00 TO STA. 25+50

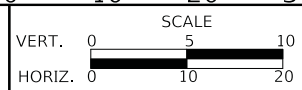
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	168
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G16	



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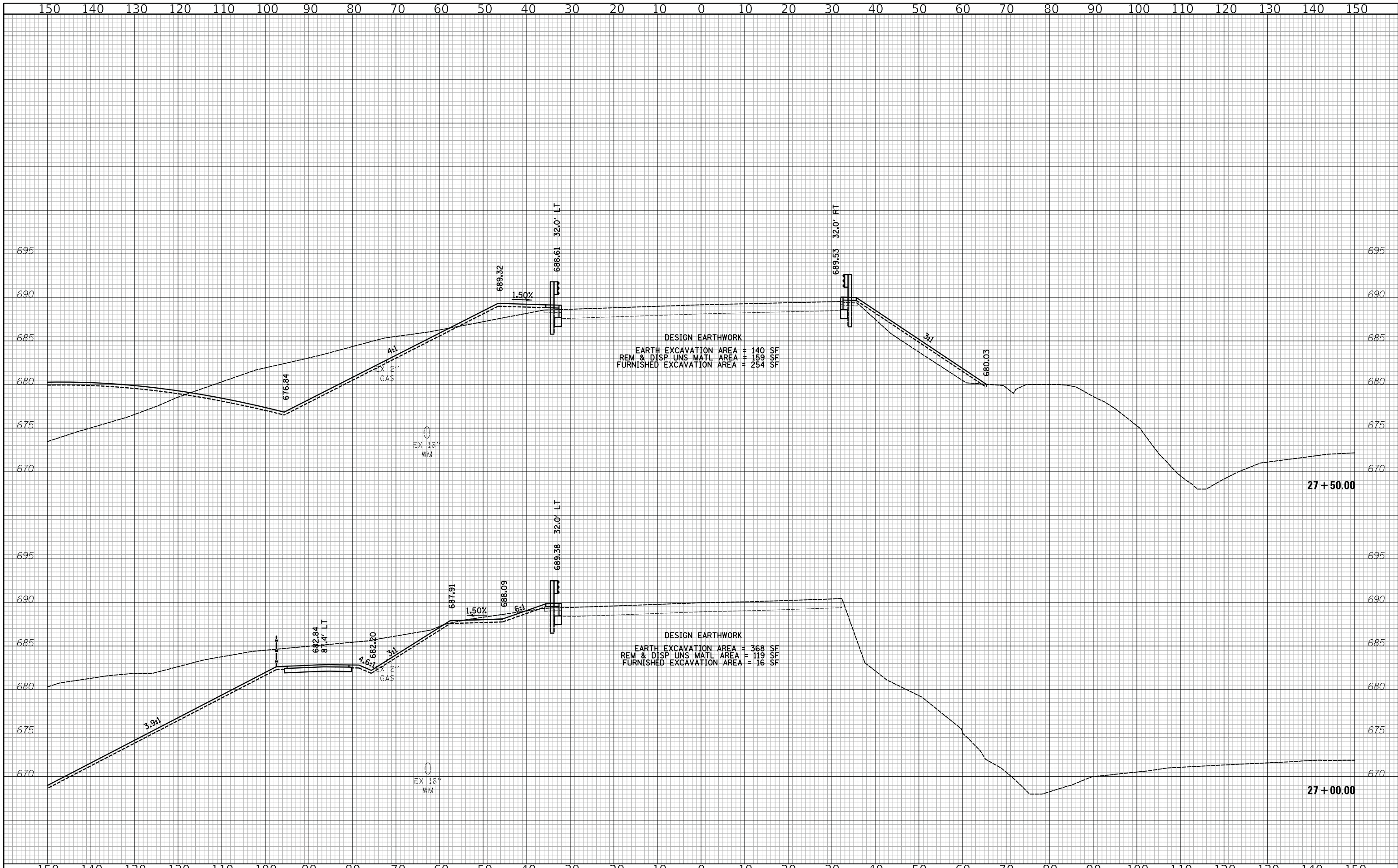
STATE OF ILLINOIS
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CROSS SECTIONS - YORK ROAD

SHEET 2 OF 10 SHEETS STA. 26+00 TO STA. 26+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	169
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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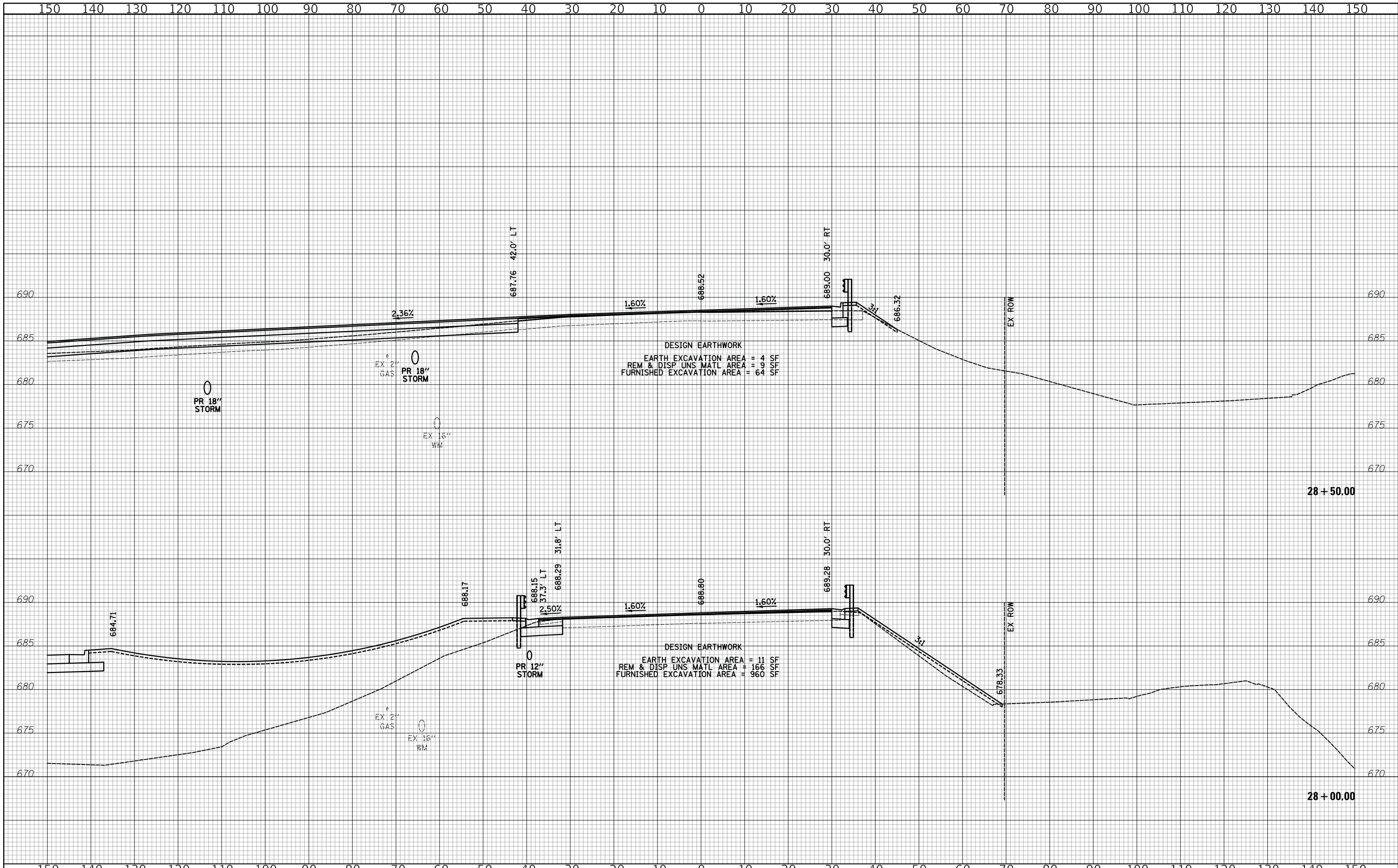
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**



CROSS SECTIONS - YORK ROAD

SHEET 3 OF 10 SHEETS STA. 27+00 TO STA. 27+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	170
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 4 SF
 REM & DISP UNS MATL AREA = 9 SF
 FURNISHED EXCAVATION AREA = 64 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 11 SF
 REM & DISP UNS MATL AREA = 166 SF
 FURNISHED EXCAVATION AREA = 960 SF



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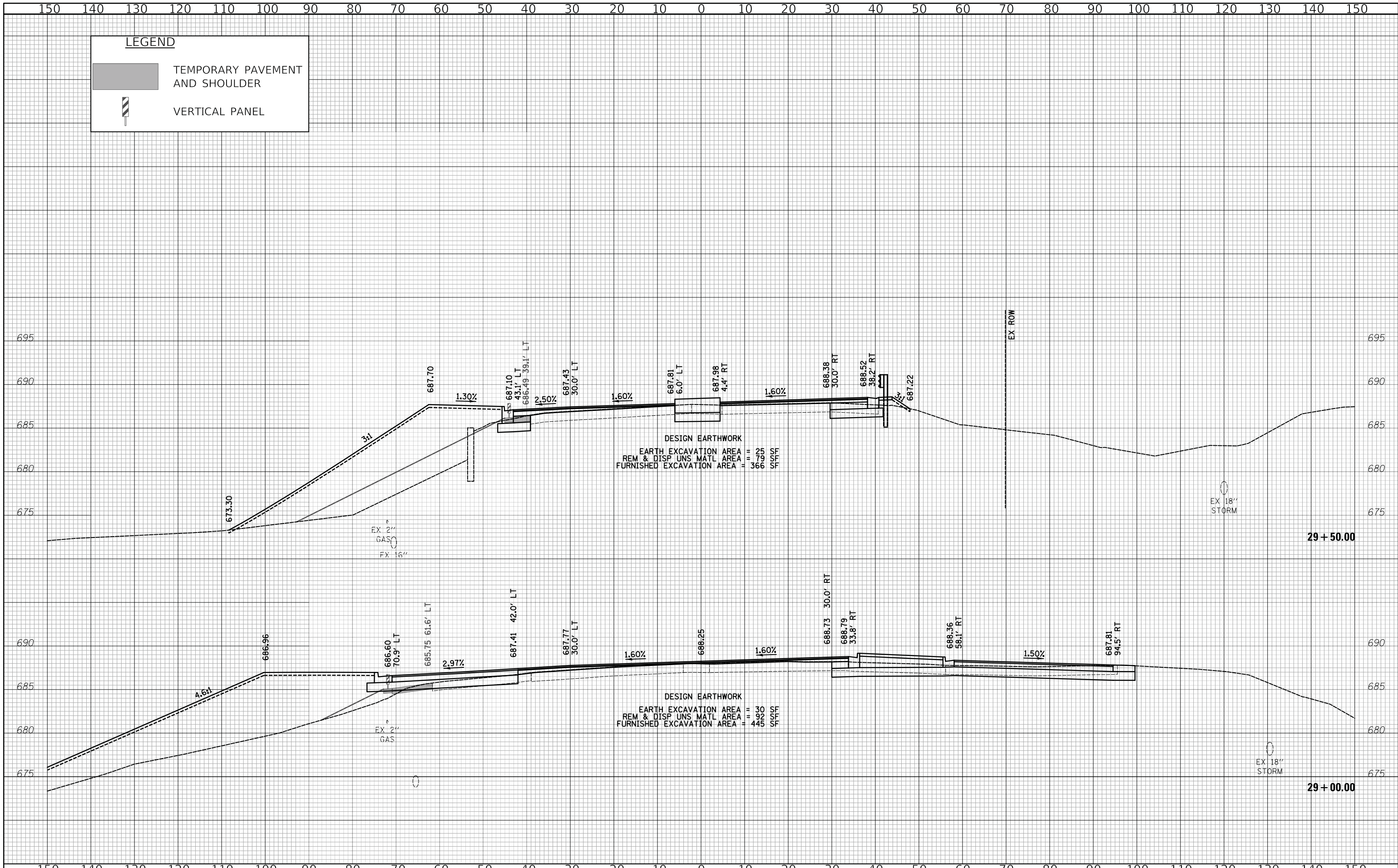
STATE OF ILLINOIS
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CROSS SECTIONS - YORK ROAD

SHEET 4 OF 10 SHEETS STA. 28+00 TO STA. 28+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	171
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G16	



LEGEND

- TEMPORARY PAVEMENT AND SHOULDER
- VERTICAL PANEL

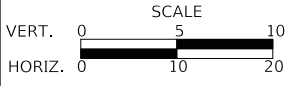
DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 25 SF
 REM & DISP UNS MATL AREA = 79 SF
 FURNISHED EXCAVATION AREA = 366 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 30 SF
 REM & DISP UNS MATL AREA = 92 SF
 FURNISHED EXCAVATION AREA = 445 SF

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CROSS SECTIONS - YORK ROAD

SHEET 5 OF 10 SHEETS STA. 29+00 TO STA. 29+50

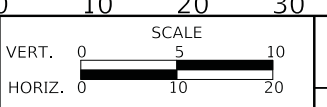
F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 172
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	




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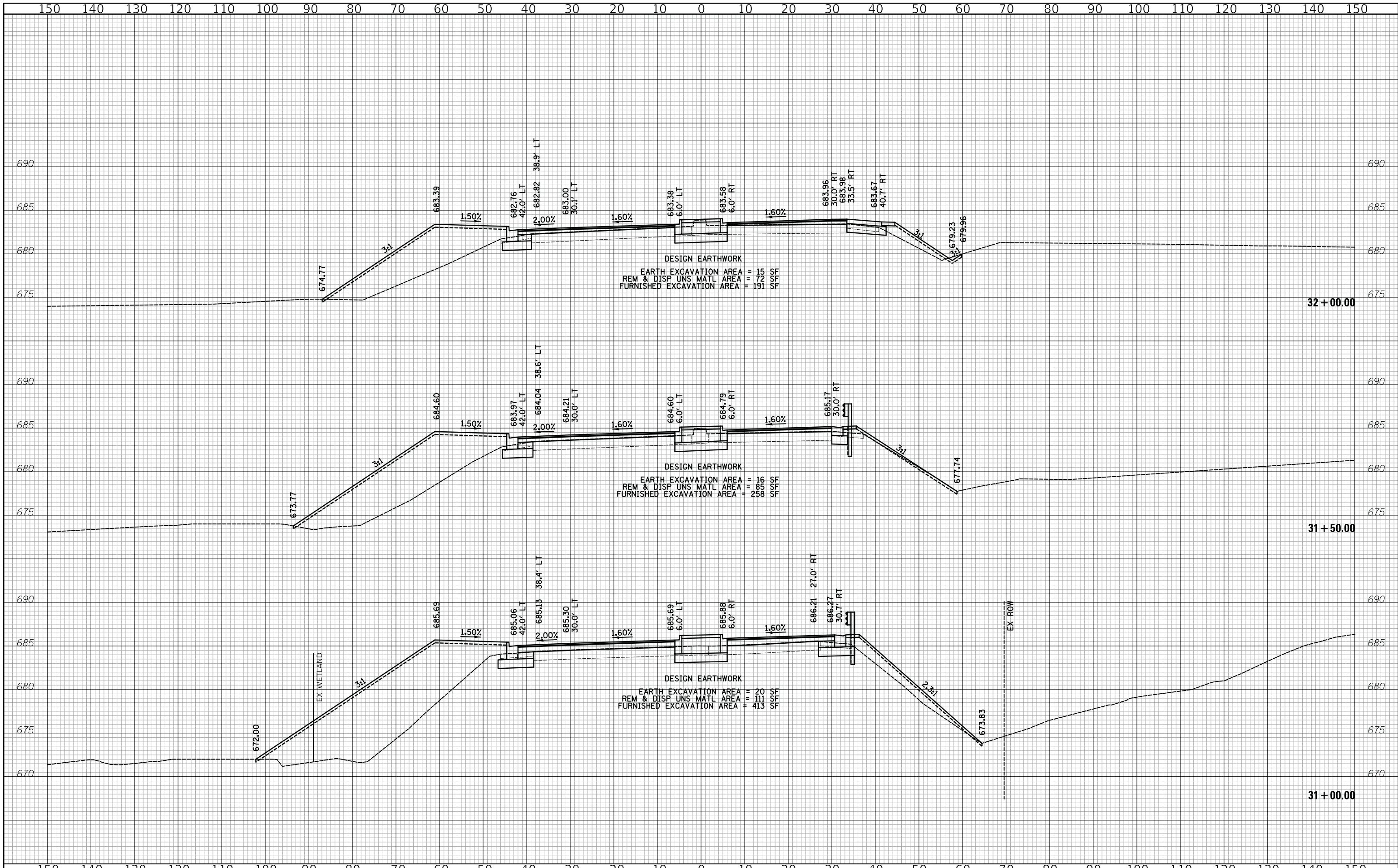
DESIGNED - PK	REVISED -
DRAWN - MC	REVISED -
CHECKED - JRV	REVISED -
DATE - 12/27/2019	REVISED -

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CROSS SECTIONS - YORK ROAD
 SHEET 6 OF 10 SHEETS STA. 30+00 TO STA. 30+50

F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 173
FED. ROAD DIST. NO. 1 ILLINOIS			FED. AID PROJECT	
CONTRACT NO. 61G16				



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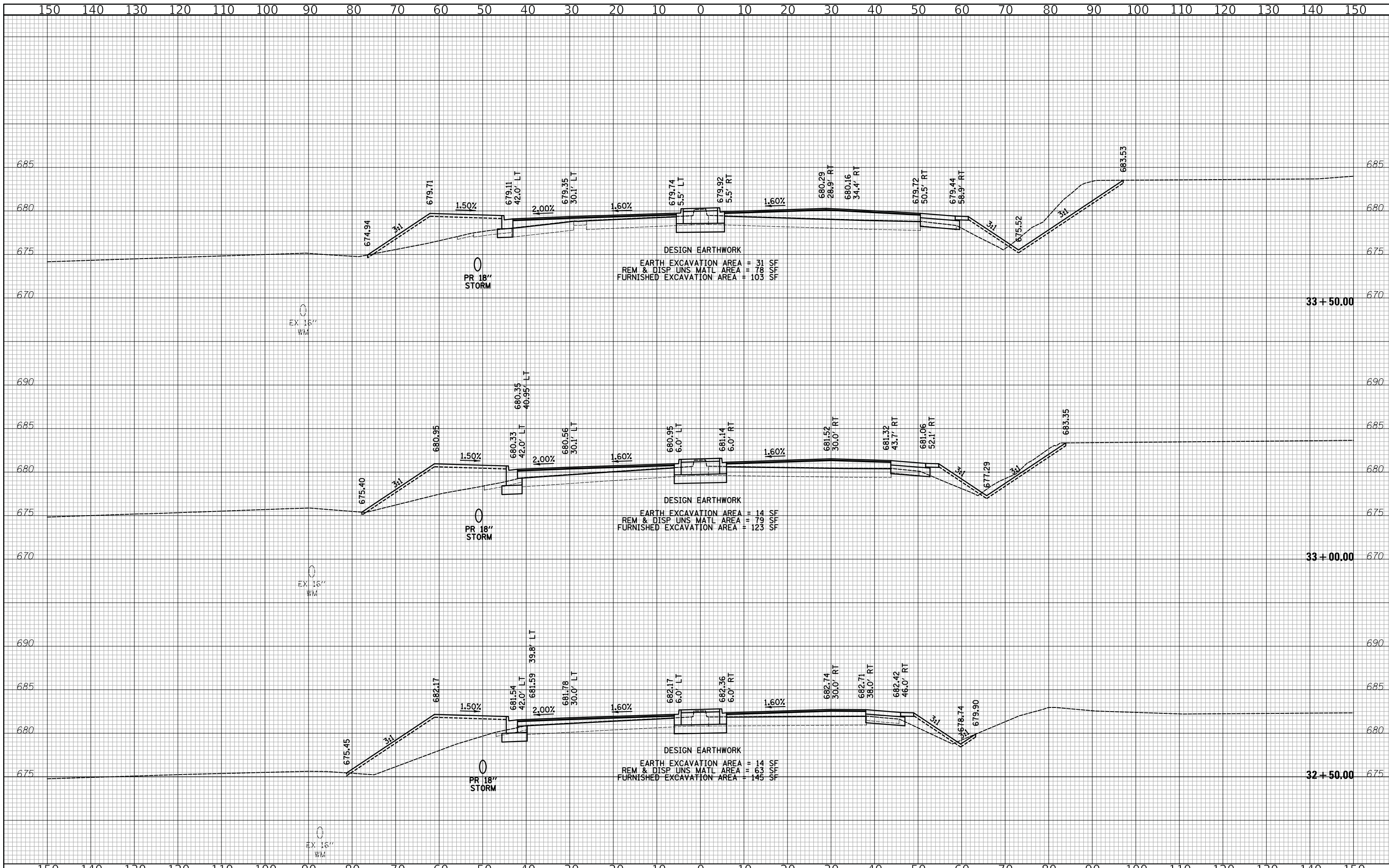
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CROSS SECTIONS - YORK ROAD

SHEET 7 OF 10 SHEETS STA. 31+00 TO STA. 32+00

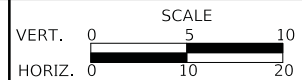
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	174
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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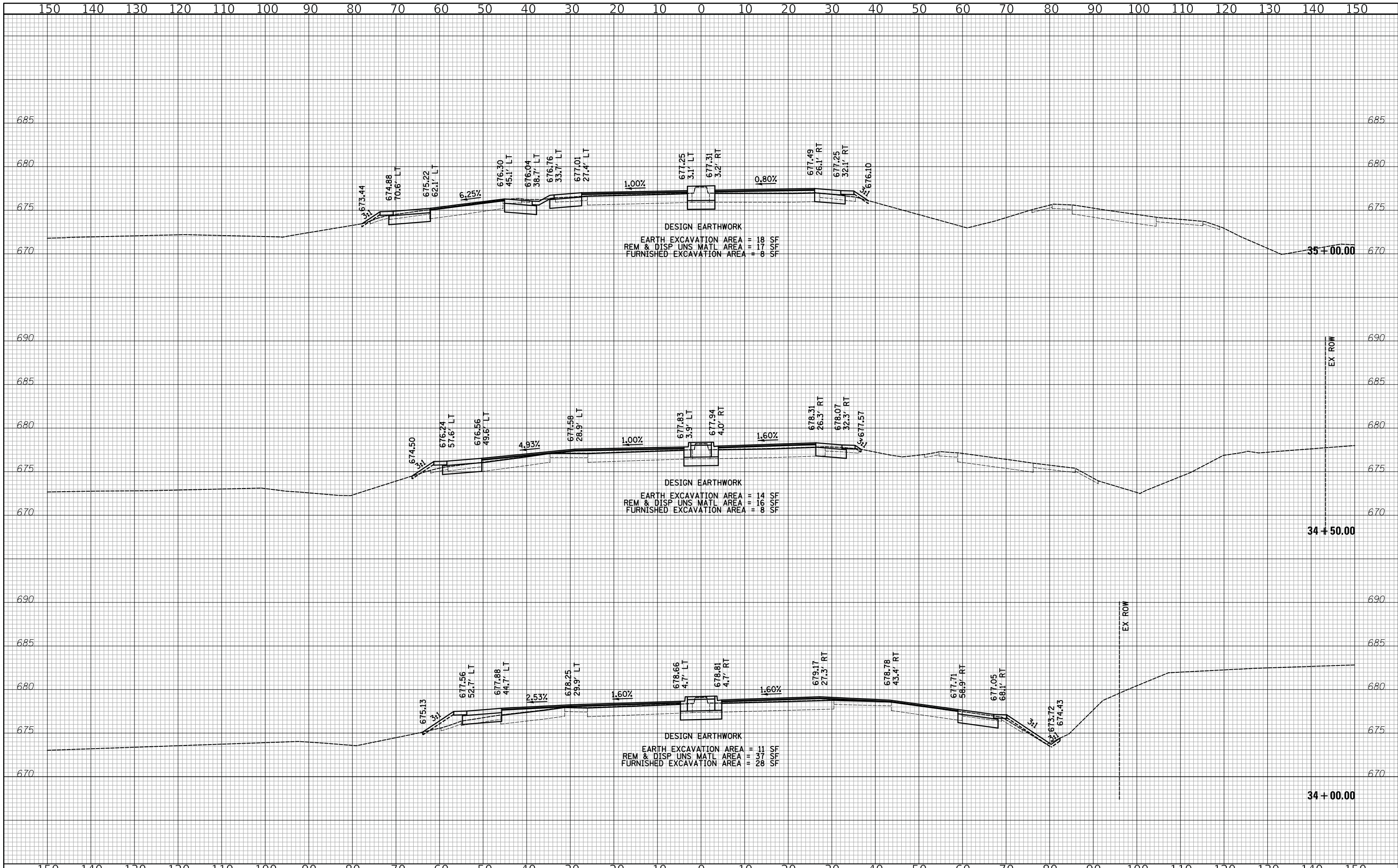
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**



CROSS SECTIONS - YORK ROAD

SHEET 8 OF 10 SHEETS STA. 32+50 TO STA. 33+50

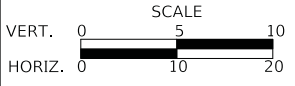
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	175
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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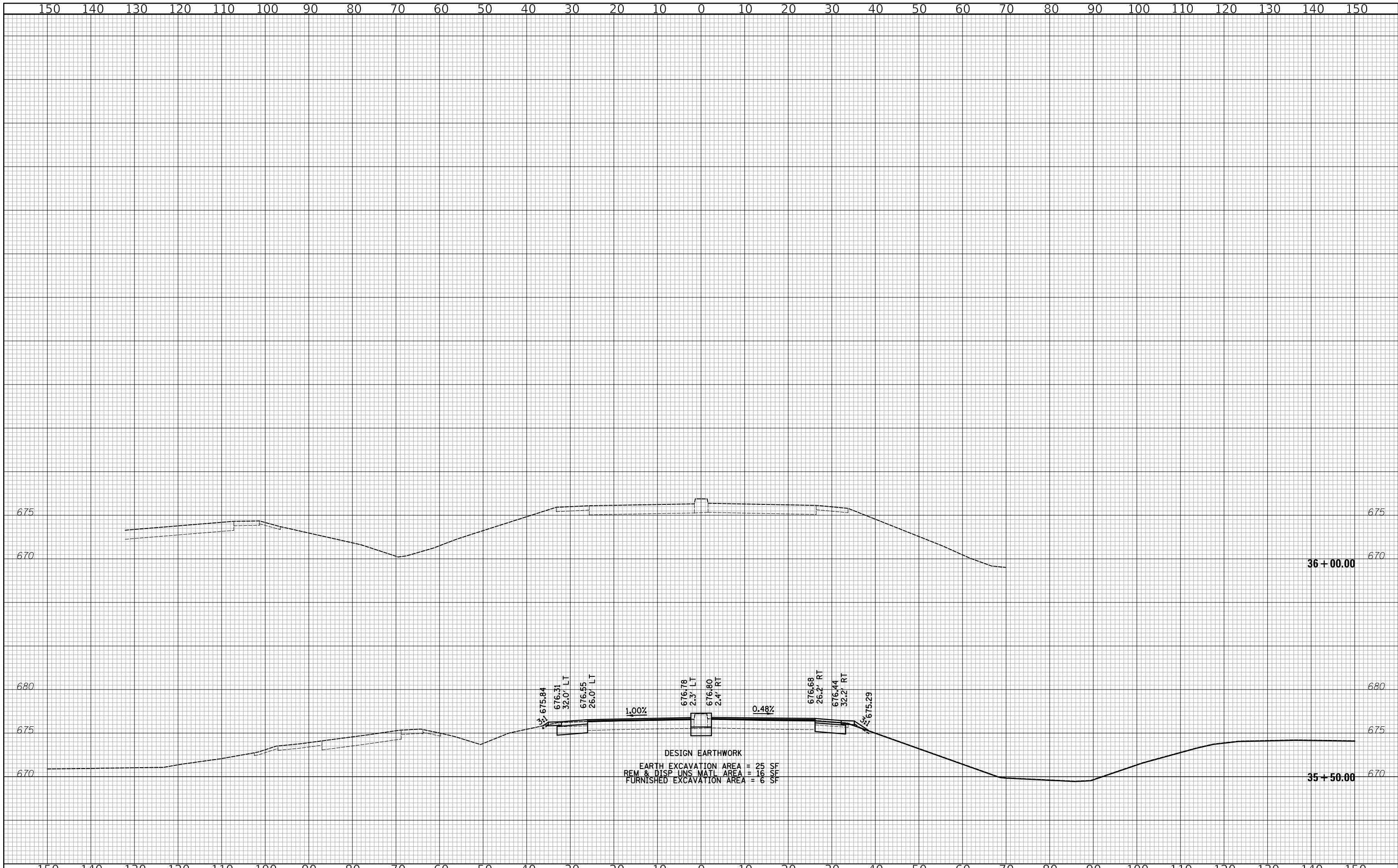
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CROSS SECTIONS - YORK ROAD

SHEET 9 OF 10 SHEETS STA. 34+00 TO STA. 35+00

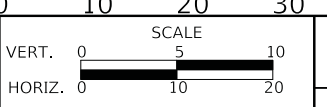
F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 176
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	



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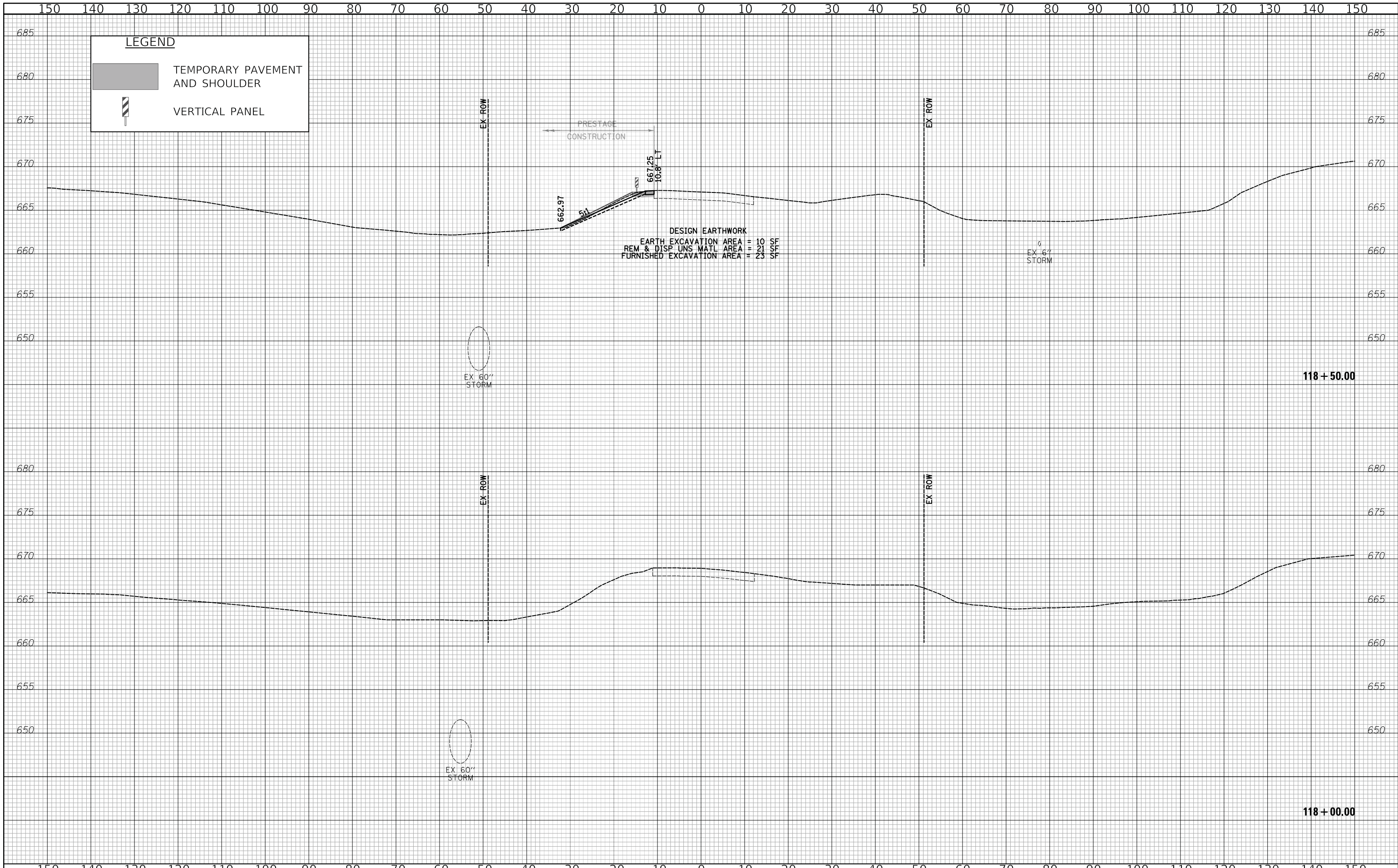
DESIGNED - PK	REVISED -
DRAWN - MC	REVISED -
CHECKED - JRV	REVISED -
DATE - 12/27/2019	REVISED -

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CROSS SECTIONS - YORK ROAD
 SHEET 10 OF 10 SHEETS STA. 35+50 TO STA. 36+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	177
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



LEGEND

- TEMPORARY PAVEMENT AND SHOULDER
- VERTICAL PANEL

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 10 SF
 REM & DISP UNS MATL AREA = 21 SF
 FURNISHED EXCAVATION AREA = 23 SF

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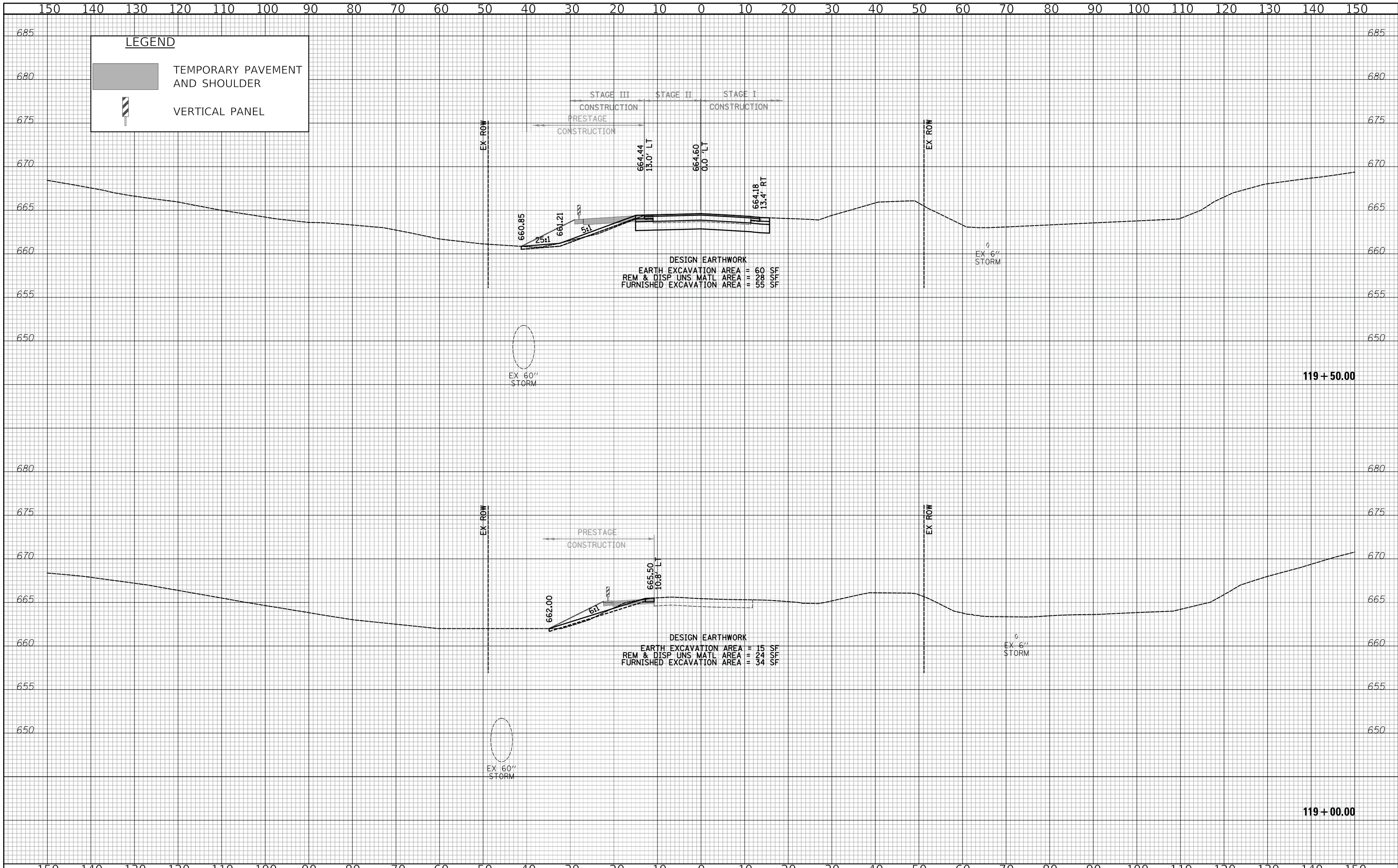
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CROSS SECTIONS - HARGER ROAD

SHEET 1 OF 14 SHEETS STA. 118+00 TO STA. 118+50

F.A.U. RTE. 2678 1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 178
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	
FED. AID PROJECT				

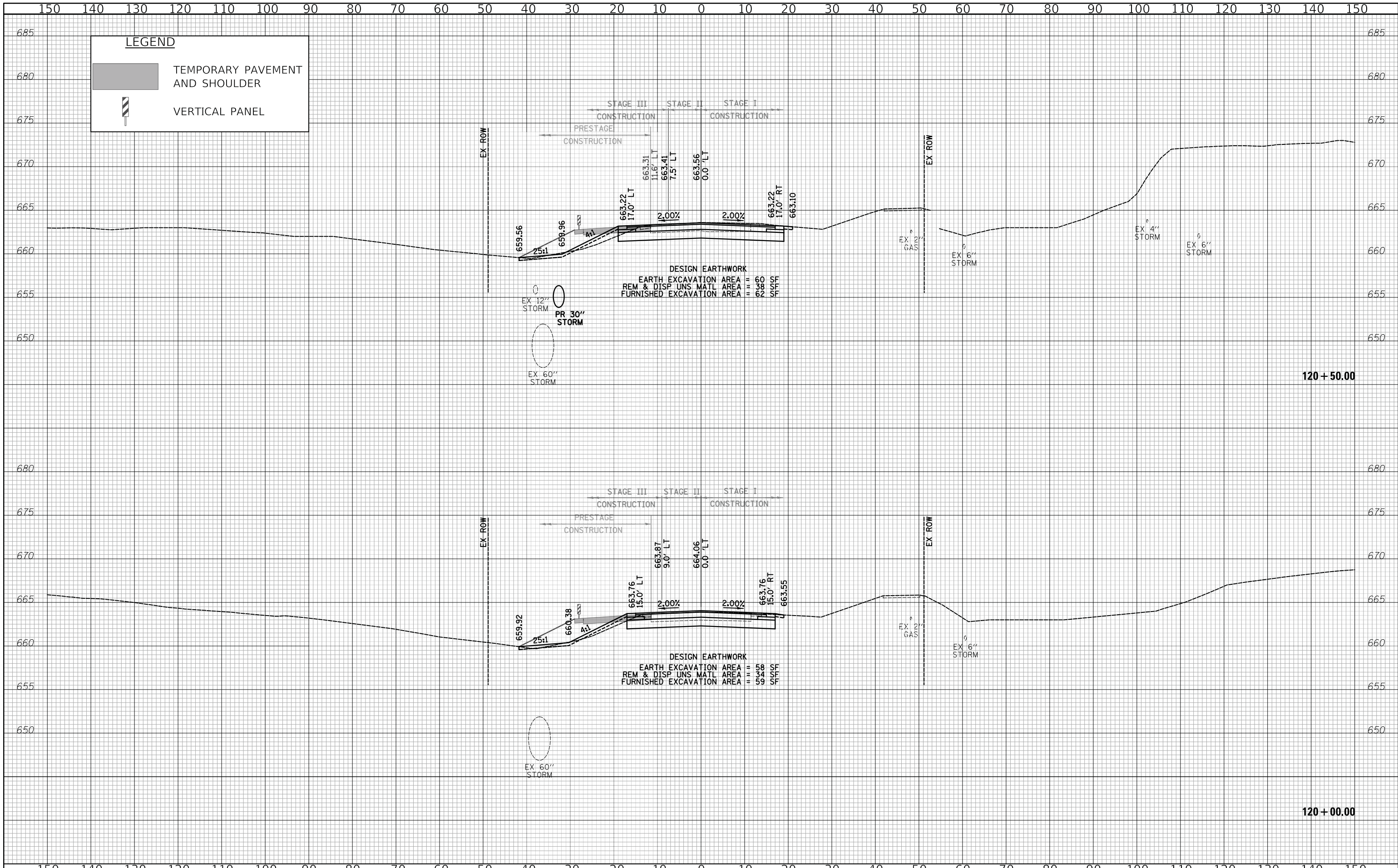


DESIGNED - PK	REVISED -
DRAWN - MC	REVISED -
CHECKED - JRV	REVISED -
DATE - 12/27/2019	REVISED -



CROSS SECTIONS - HARGER ROAD

F.A.U. RTE. 2678 1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 179
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G16	

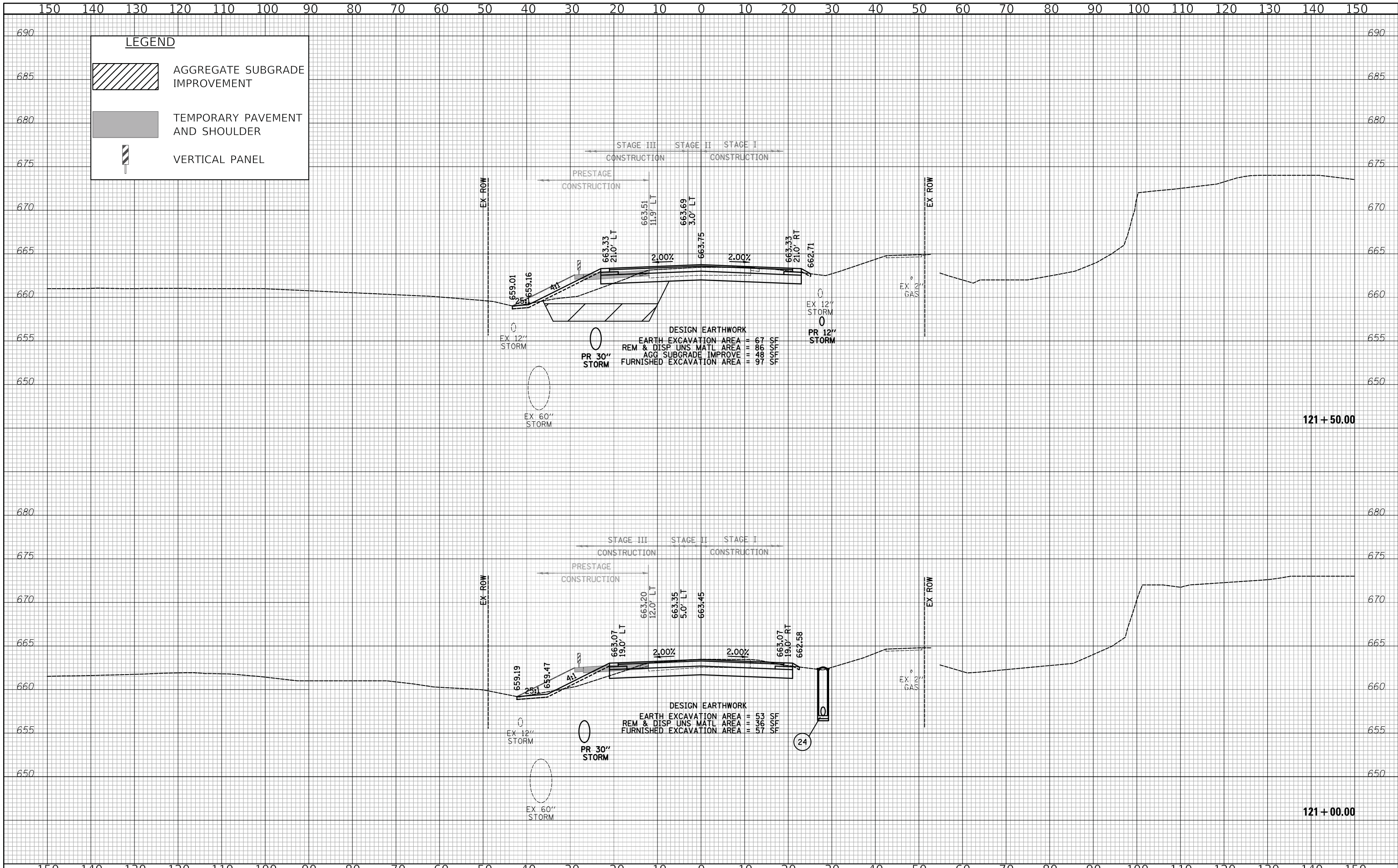


DESIGNED - PK	REVISED -
DRAWN - MC	REVISED -
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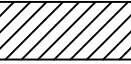



CROSS SECTIONS - HARGER ROAD

F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 180
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	
FED. AID PROJECT				



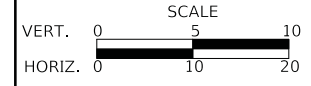
LEGEND

-  AGGREGATE SUBGRADE IMPROVEMENT
-  TEMPORARY PAVEMENT AND SHOULDER
- VERTICAL PANEL

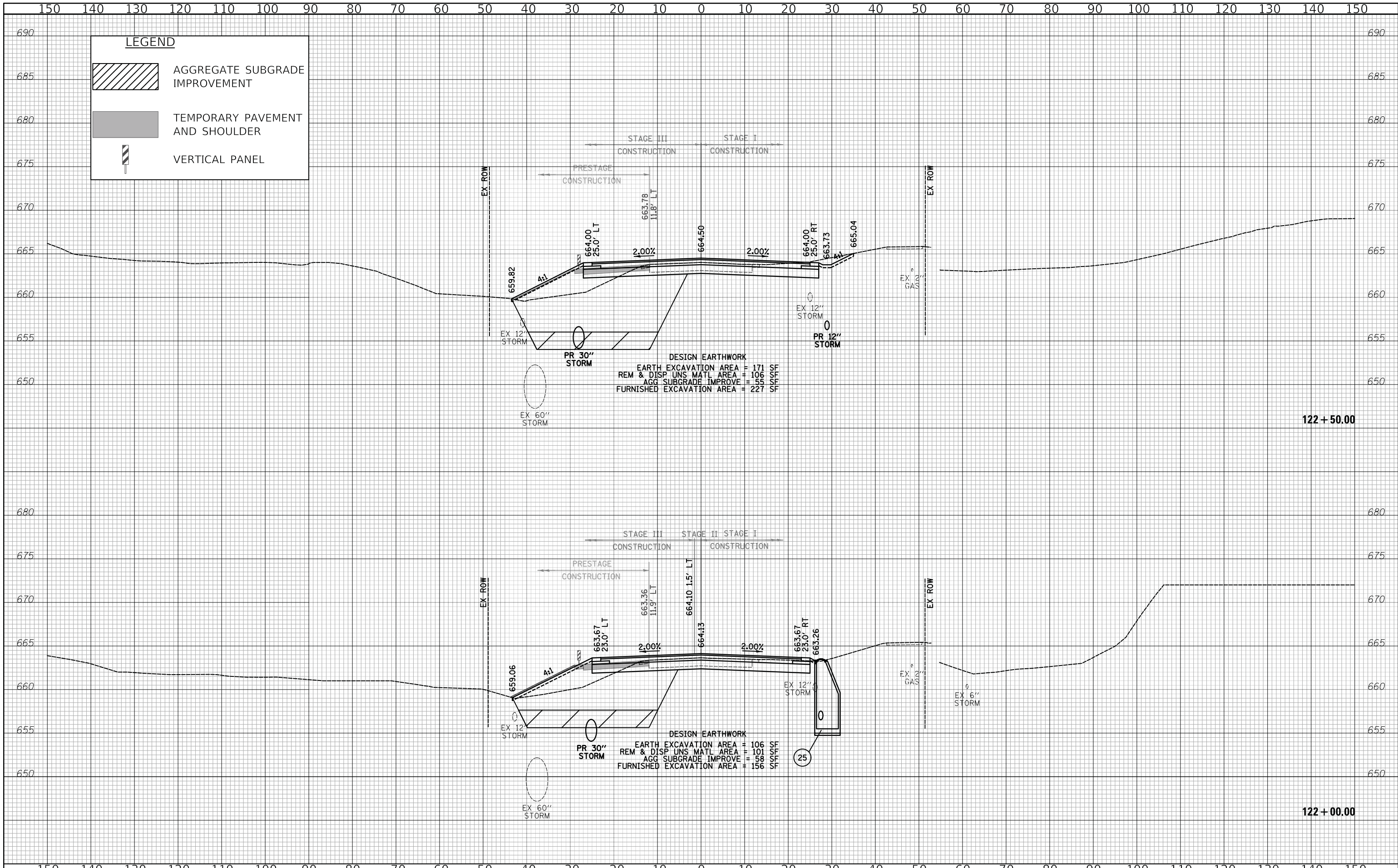
DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 67 SF
 REM & DISP UNS MATL AREA = 86 SF
 AGG SUBGRADE IMPROVE = 48 SF
 FURNISHED EXCAVATION AREA = 97 SF

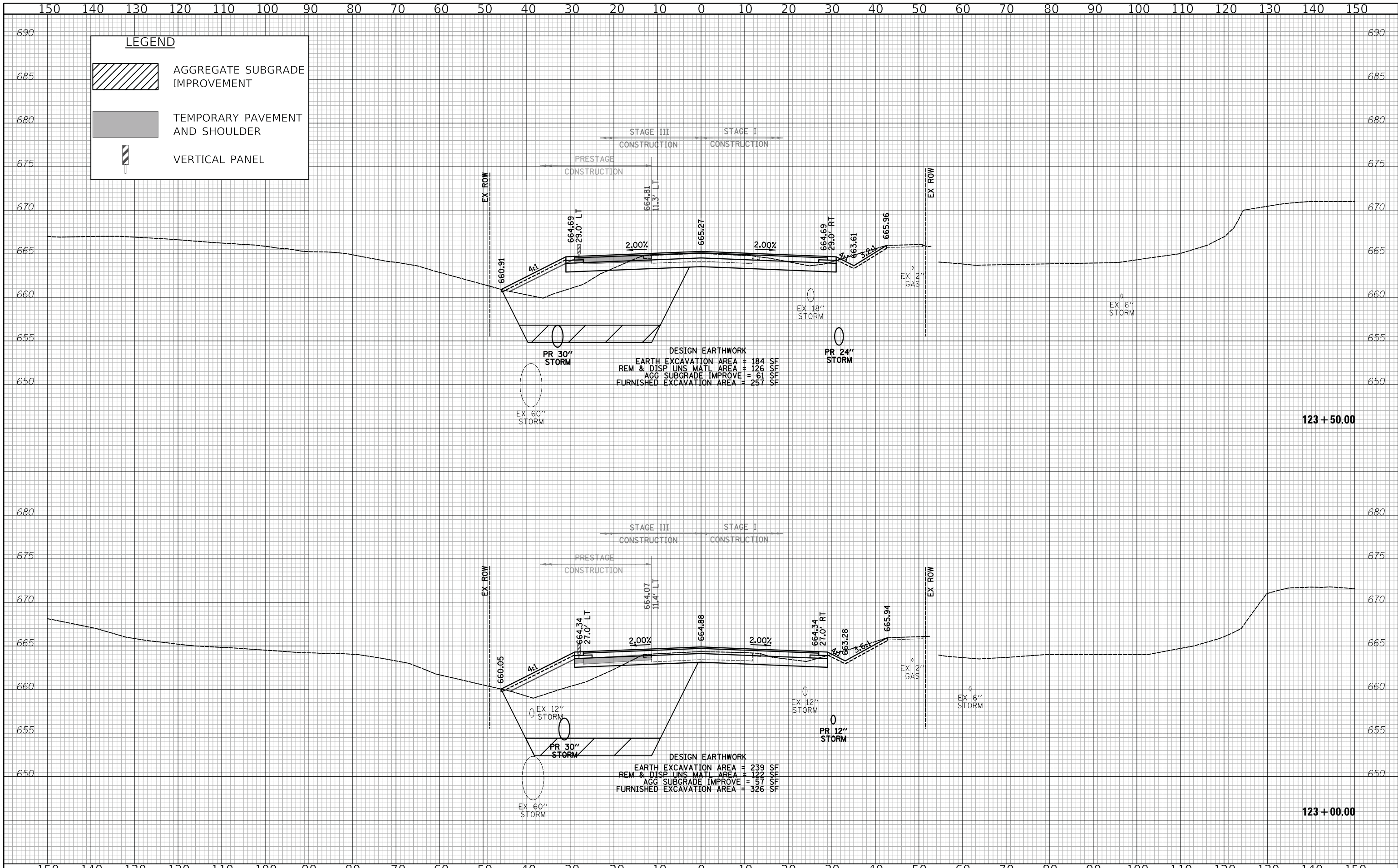
DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 53 SF
 REM & DISP UNS MATL AREA = 36 SF
 FURNISHED EXCAVATION AREA = 57 SF

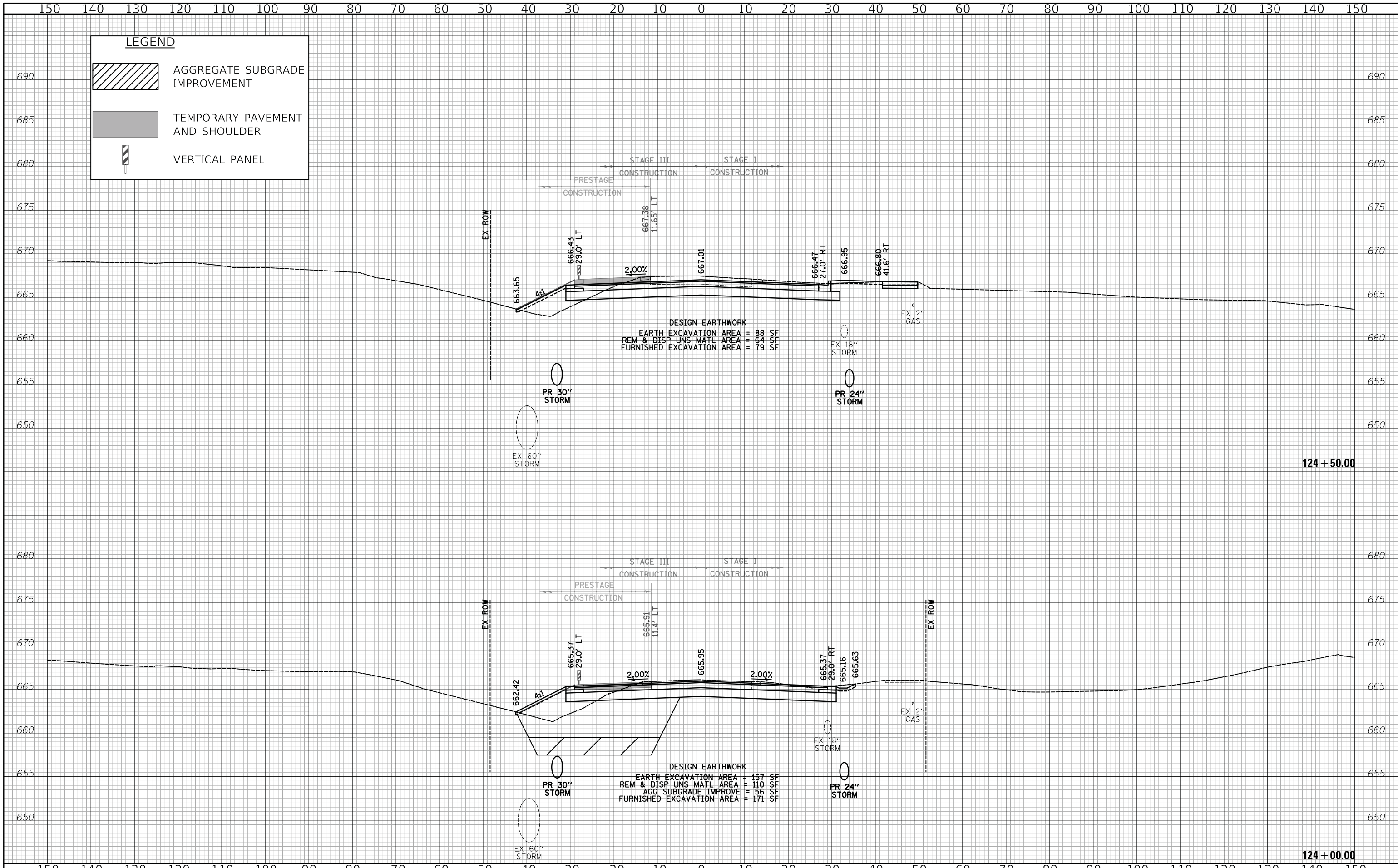
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DRAWN - MC	REVISED -
CHECKED - JRV	REVISED -
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F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 181
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	
FED. AID PROJECT				





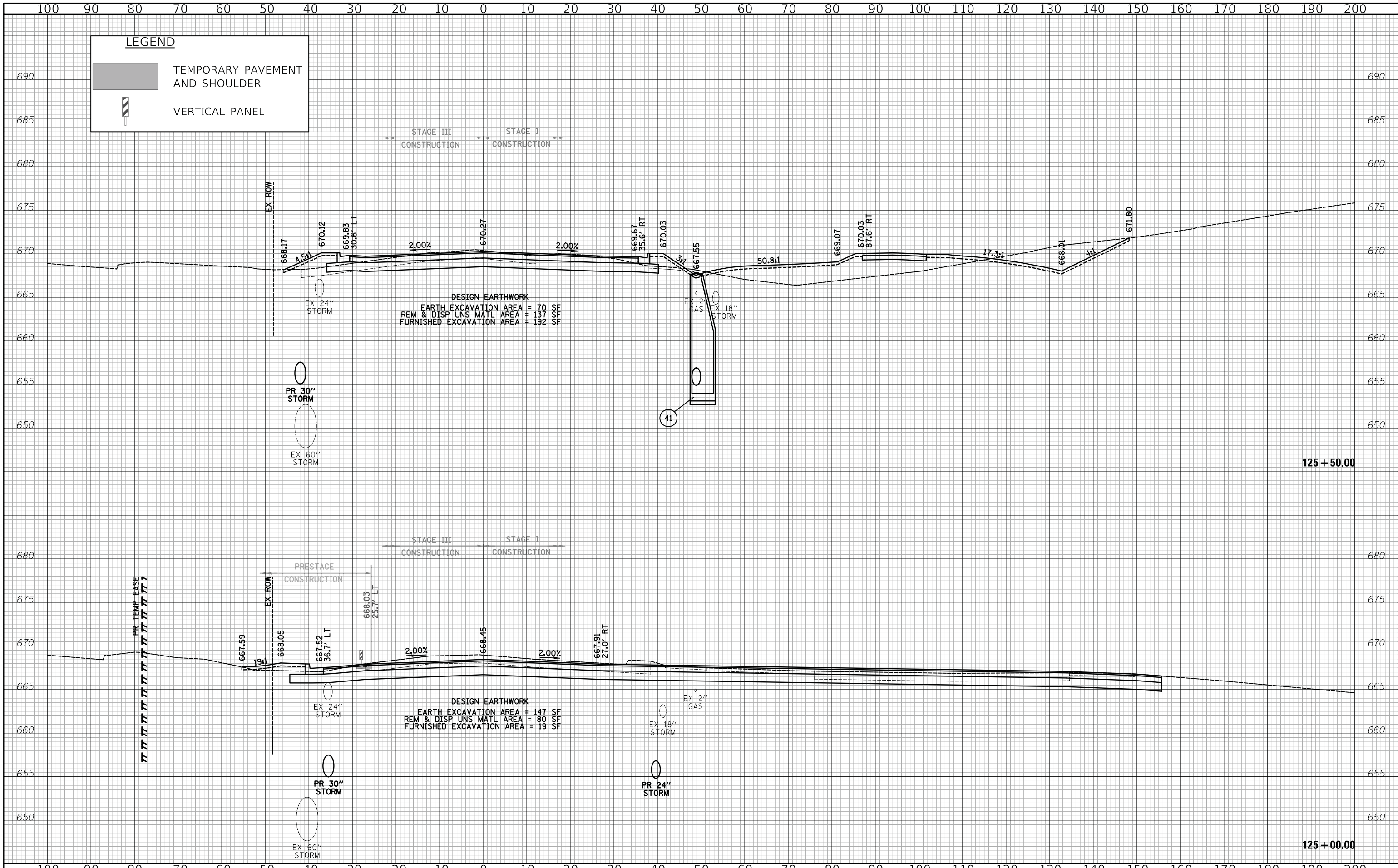


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CROSS SECTIONS - HARGER ROAD

F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 184
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	
FED. AID PROJECT				



LEGEND

- TEMPORARY PAVEMENT AND SHOULDER
- VERTICAL PANEL

STAGE III CONSTRUCTION STAGE I CONSTRUCTION

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 70 SF
 REM & DISP UNS MATL AREA = 137 SF
 FURNISHED EXCAVATION AREA = 192 SF

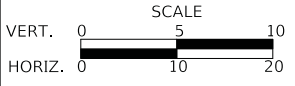
STAGE III CONSTRUCTION STAGE I CONSTRUCTION

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 147 SF
 REM & DISP UNS MATL AREA = 80 SF
 FURNISHED EXCAVATION AREA = 19 SF

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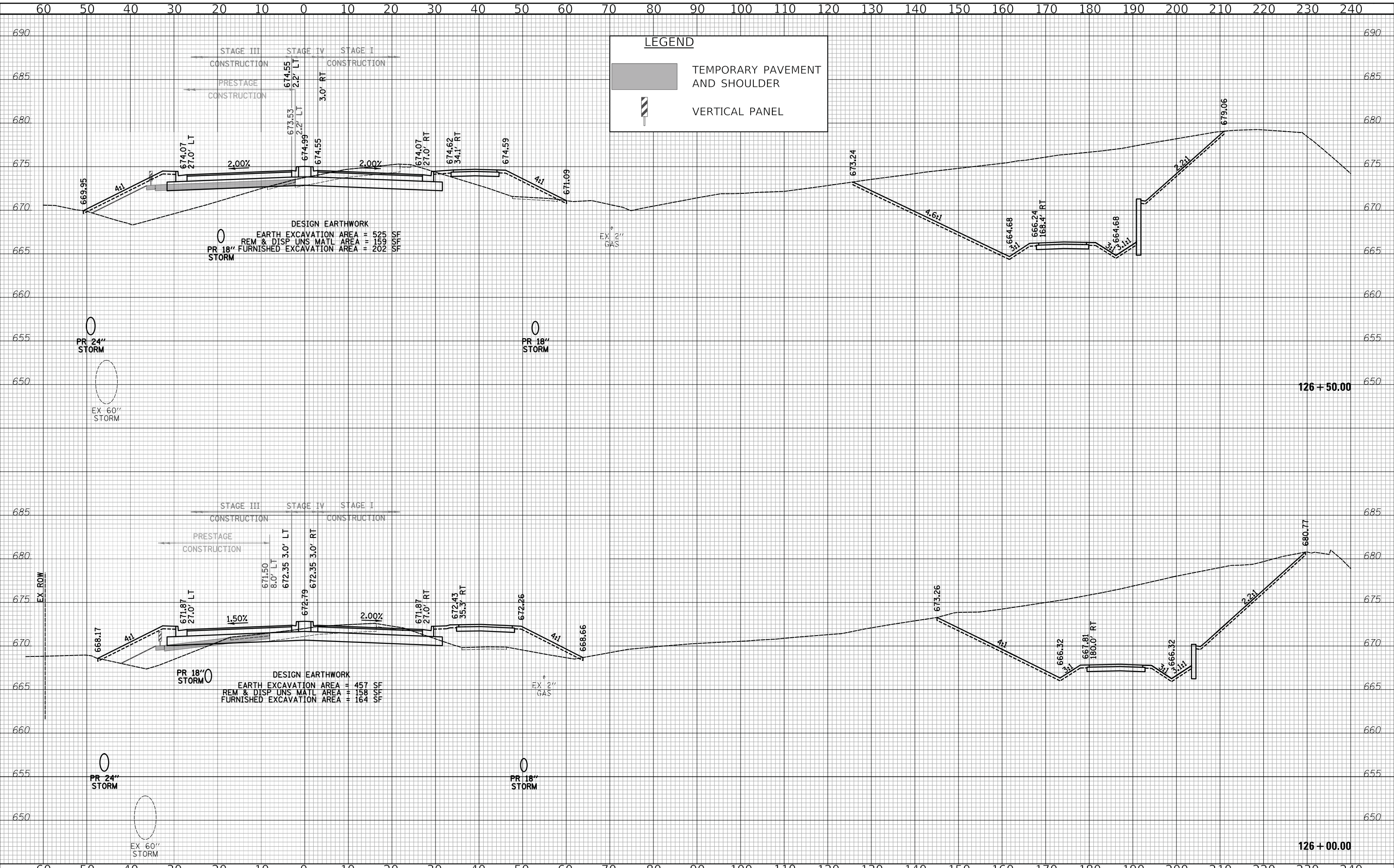
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 DEPARTMENT OF TRANSPORTATION**



CROSS SECTIONS - HARGER ROAD

SHEET 8 OF 14 SHEETS STA. 125+00 TO STA. 125+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	185
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G16	



LEGEND

- TEMPORARY PAVEMENT AND SHOULDER
- VERTICAL PANEL

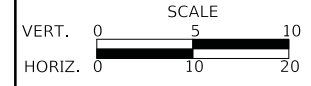
DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 525 SF
 REM & DISP UNS MATL AREA = 159 SF
 FURNISHED EXCAVATION AREA = 202 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 457 SF
 REM & DISP UNS MATL AREA = 158 SF
 FURNISHED EXCAVATION AREA = 164 SF

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CHECKED - JRV	REVISED -
DATE - 12/27/2019	REVISED -

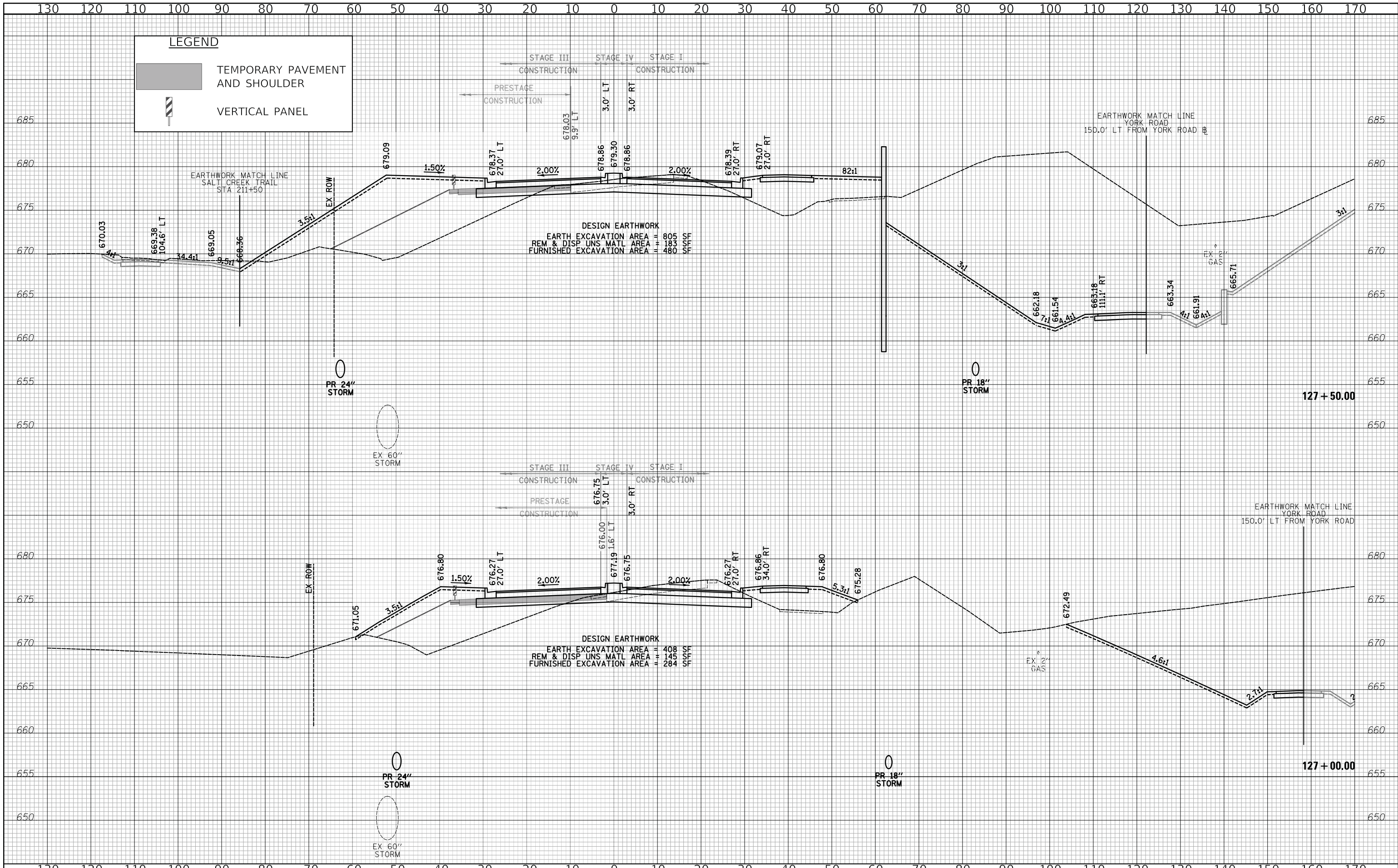
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CROSS SECTIONS - HARGER ROAD

SHEET 9 OF 14 SHEETS STA. 126+00 TO STA. 126+50

F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 186
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	



LEGEND

- TEMPORARY PAVEMENT AND SHOULDER
- VERTICAL PANEL

STAGE III CONSTRUCTION
 STAGE IV CONSTRUCTION
 STAGE I CONSTRUCTION
 PRESTAGE CONSTRUCTION

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 805 SF
 REM & DISP UNS MATL AREA = 183 SF
 FURNISHED EXCAVATION AREA = 480 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 408 SF
 REM & DISP UNS MATL AREA = 145 SF
 FURNISHED EXCAVATION AREA = 284 SF

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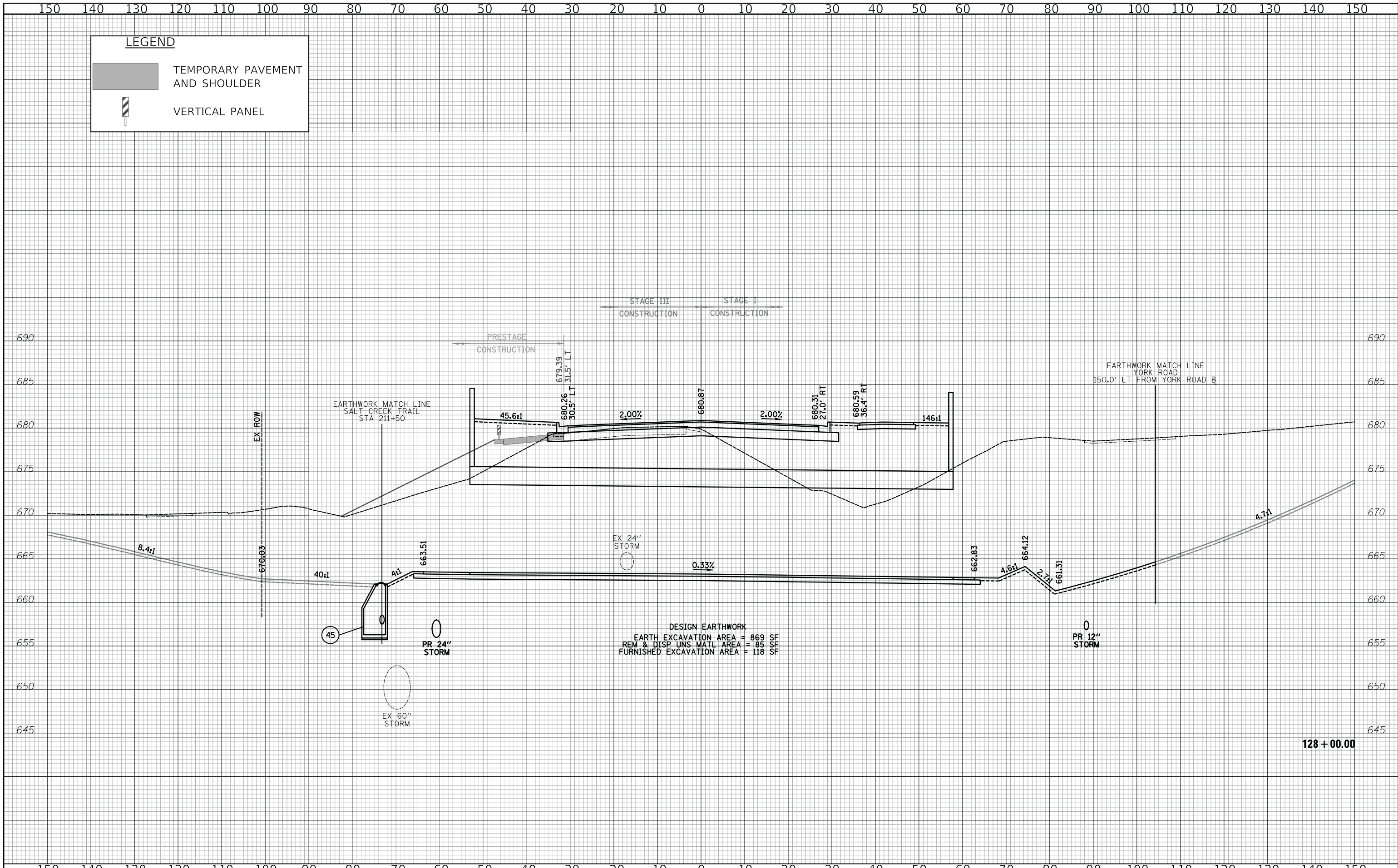
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CROSS SECTIONS - HARGER ROAD

SHEET 10 OF 14 SHEETS STA. 127+00 TO STA. 127+50

F.A.U. RTE. 2678 1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 187
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	



LEGEND

- TEMPORARY PAVEMENT AND SHOULDER
- VERTICAL PANEL

STAGE III CONSTRUCTION STAGE I CONSTRUCTION

PRESTAGE CONSTRUCTION

EARTHWORK MATCH LINE
YORK ROAD
150.0' LT FROM YORK ROAD

EARTHWORK MATCH LINE
SALT CREEK TRAIL
STA 211+50

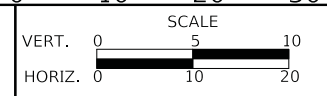
DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 869 SF
 REM & DISP UNS MATL AREA = 85 SF
 FURNISHED EXCAVATION AREA = 118 SF

128+00.00

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CHECKED - JRV	REVISED -
DATE - 12/27/2019	REVISED -

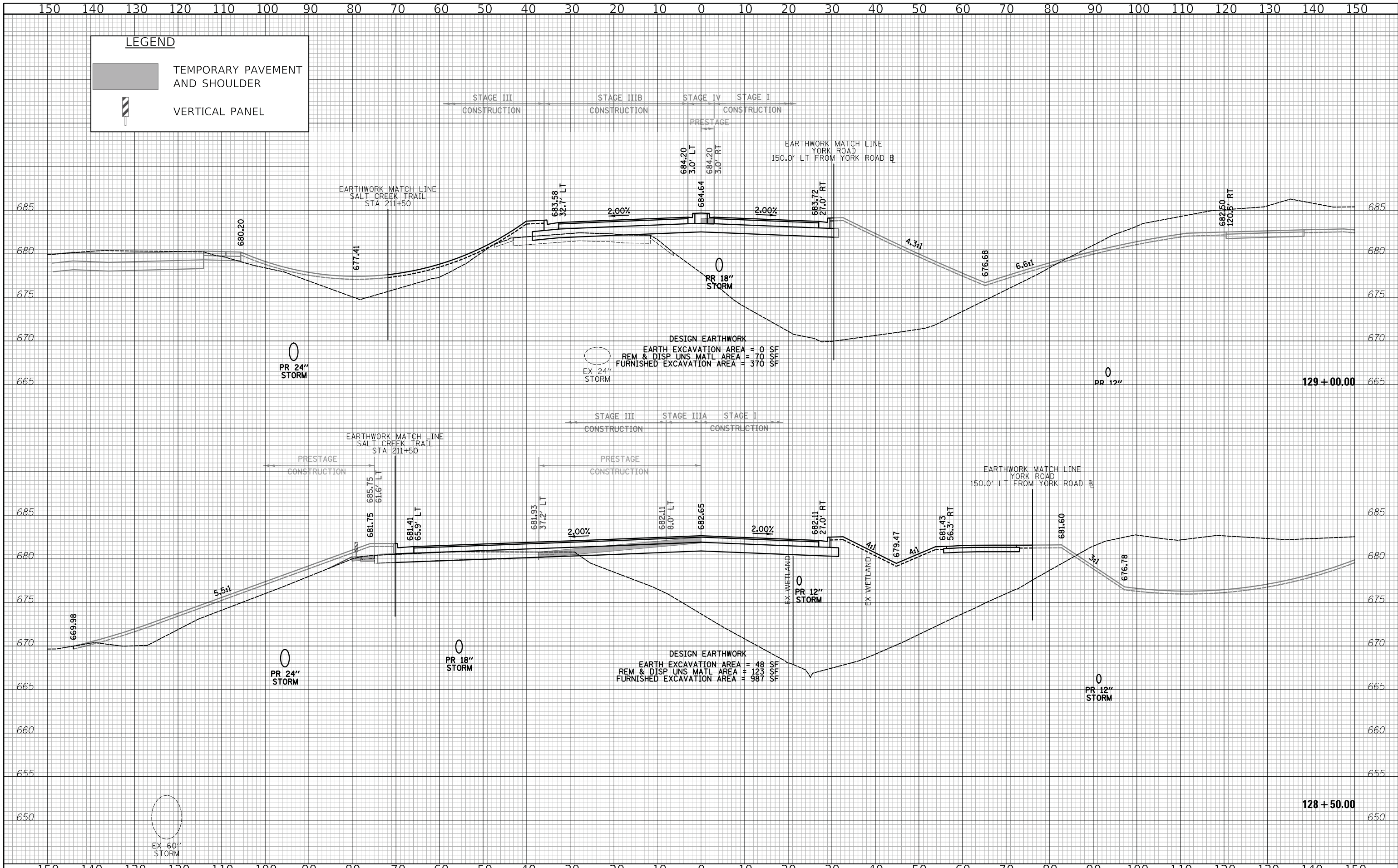
**STATE OF ILLINOIS
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CROSS SECTIONS - HARGER ROAD

SHEET 11 OF 14 SHEETS STA. 128+00 TO STA. 128+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	188
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G16	



LEGEND

- TEMPORARY PAVEMENT AND SHOULDER
- VERTICAL PANEL

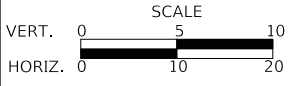
DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 0 SF
 REM & DISP UNS MATL AREA = 70 SF
 FURNISHED EXCAVATION AREA = 370 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 48 SF
 REM & DISP UNS MATL AREA = 123 SF
 FURNISHED EXCAVATION AREA = 987 SF

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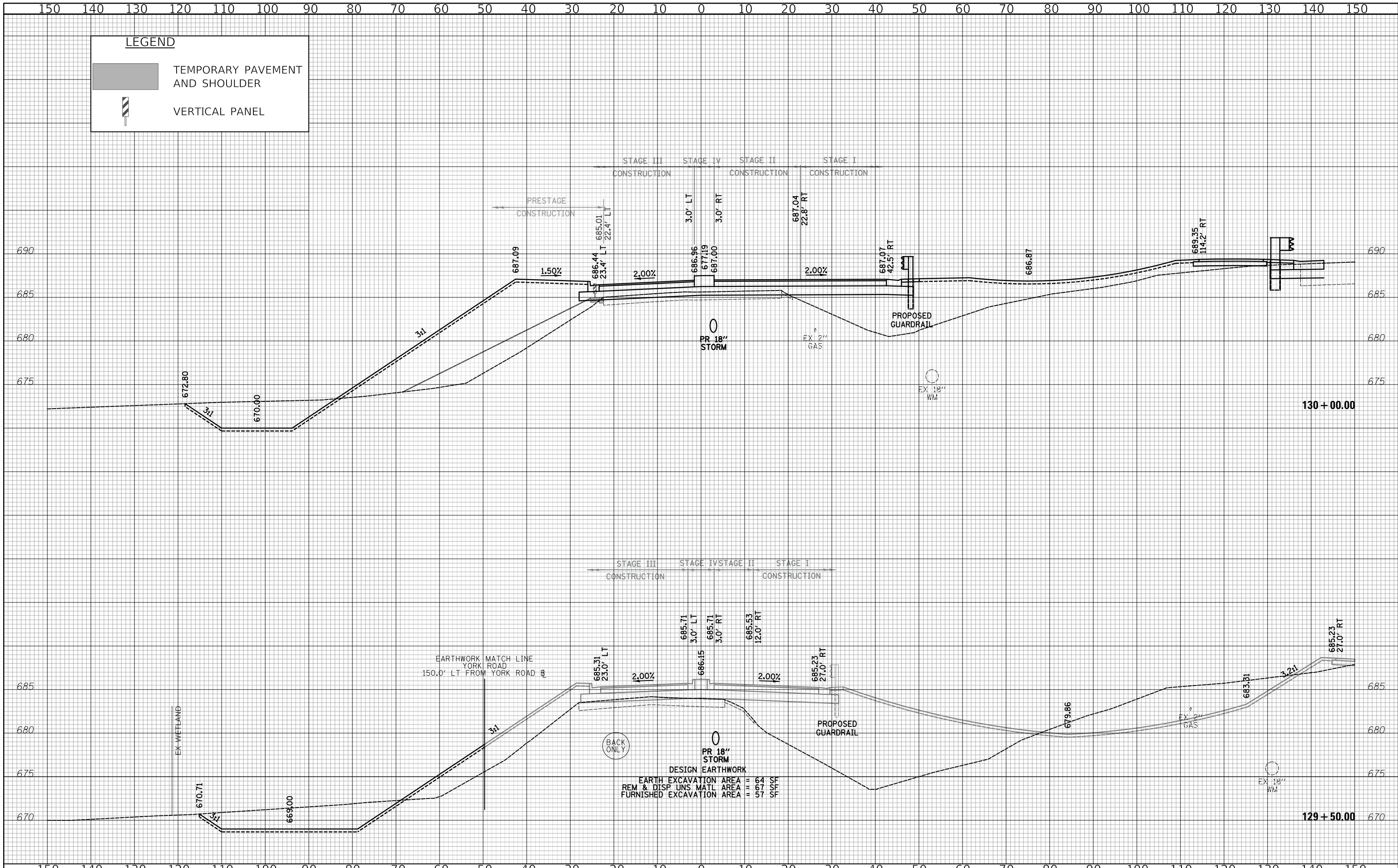
CROSS SECTIONS - HARGER ROAD

SHEET 12 OF 14 SHEETS STA. 128+50 TO STA. 129+00

F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 189
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	

129 + 00.00

128 + 50.00



LEGEND

- TEMPORARY PAVEMENT AND SHOULDER
- VERTICAL PANEL

STAGE III CONSTRUCTION STAGE IV CONSTRUCTION STAGE II CONSTRUCTION STAGE I CONSTRUCTION

PRESTAGE CONSTRUCTION

STAGE III CONSTRUCTION STAGE IV CONSTRUCTION STAGE II CONSTRUCTION STAGE I CONSTRUCTION

EARTHWORK MATCH LINE
YORK ROAD
150.0' LT FROM YORK ROAD

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 64 SF
 REM & DISP UNS MATL AREA = 67 SF
 FURNISHED EXCAVATION AREA = 57 SF

BACK ONLY

PR 18" STORM

PROPOSED GUARDRAIL

EX 2" GAS

EX 18" WM

PROPOSED GUARDRAIL

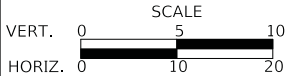
EX 2" GAS

EX 18" WM

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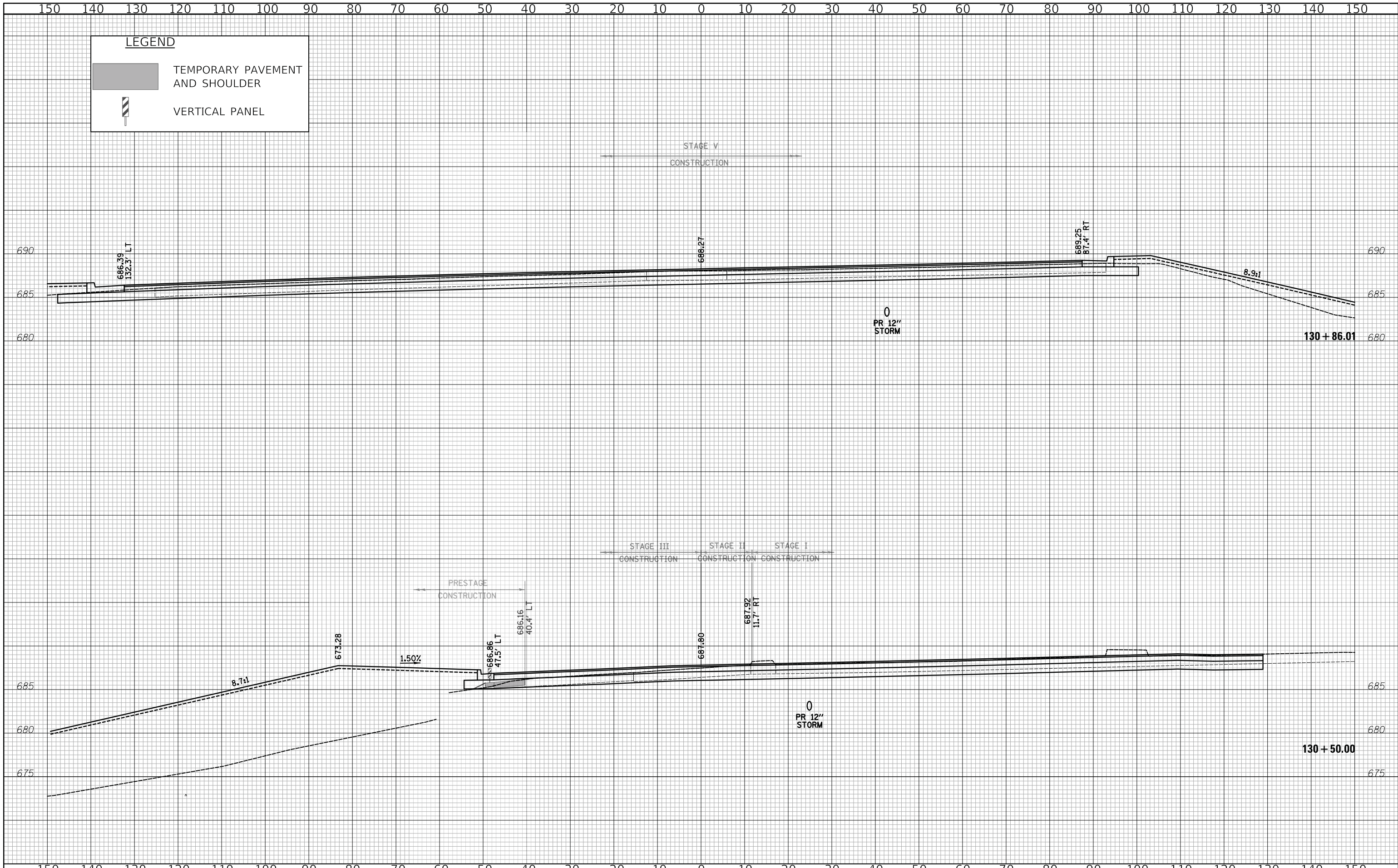
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CROSS SECTIONS - HARGER ROAD

SHEET 13 OF 14 SHEETS STA. 129+50 TO STA. 130+00

F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 190
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	



LEGEND

- TEMPORARY PAVEMENT AND SHOULDER
- VERTICAL PANEL

STAGE V
CONSTRUCTION

STAGE III CONSTRUCTION STAGE II CONSTRUCTION STAGE I CONSTRUCTION

PRESTAGE
CONSTRUCTION

0
PR 12"
STORM

0
PR 12"
STORM

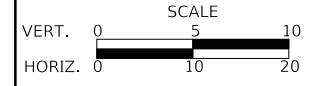
130 + 86.01

130 + 50.00

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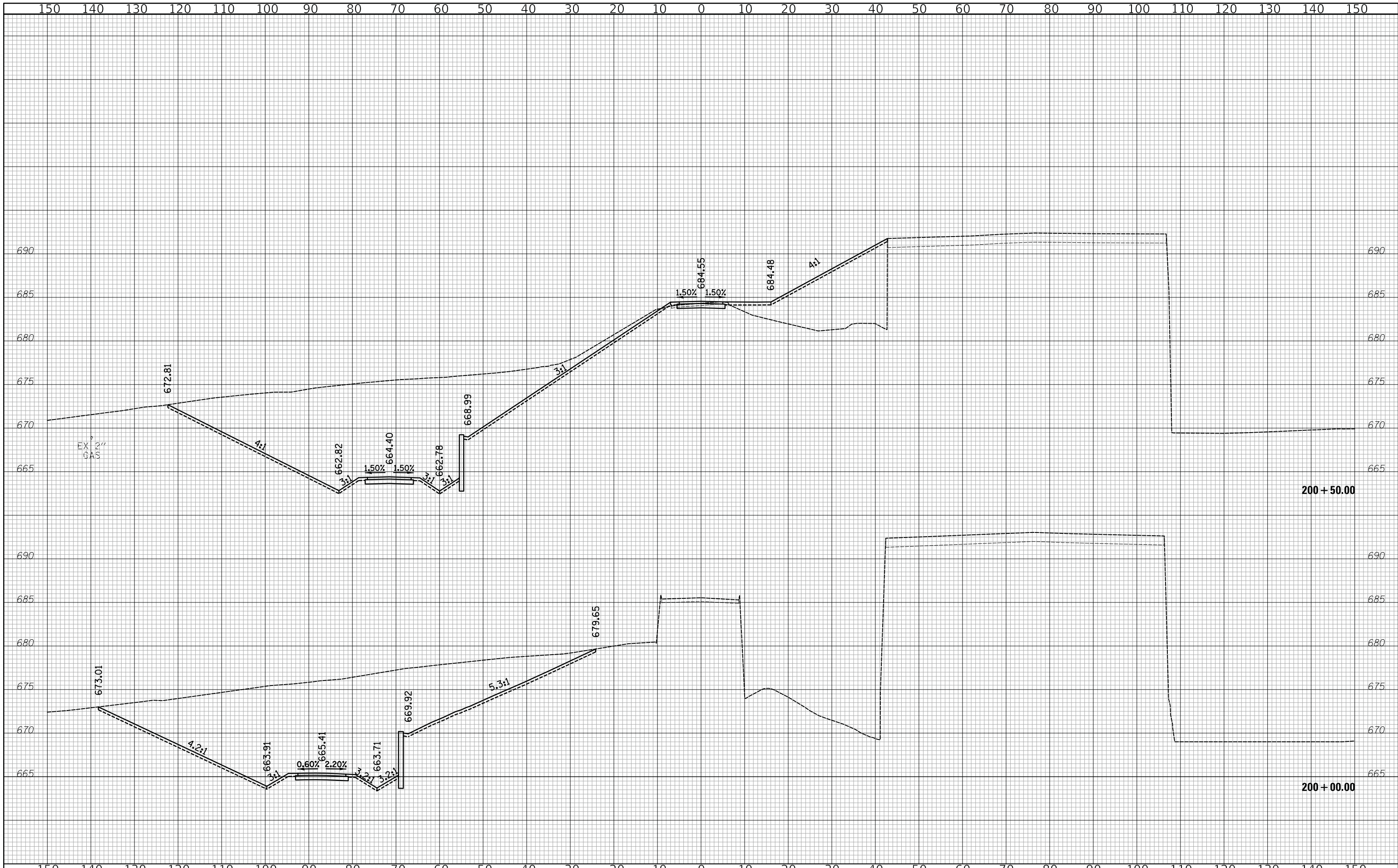
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CROSS SECTIONS - HARGER ROAD

SHEET 14 OF 14 SHEETS STA. 130+50 TO STA. 130+86.01

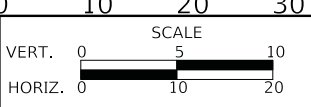
F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 191
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	
FED. AID PROJECT				




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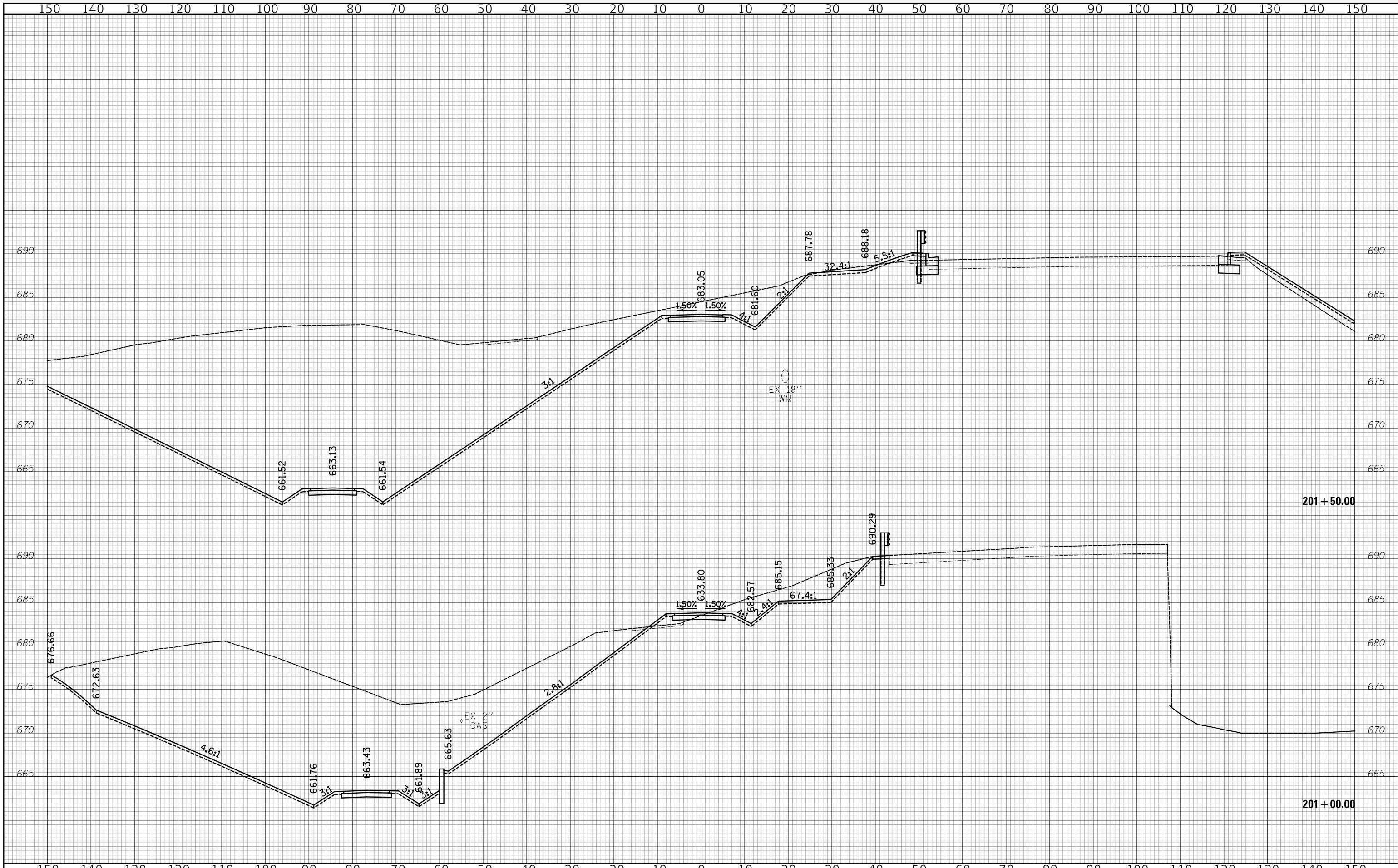
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CROSS SECTIONS - SALT CREEK TRAIL

SHEET 1 OF 17 SHEETS STA. 200+00 TO STA. 200+50

F.A.U. RTE. 2678 1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 192
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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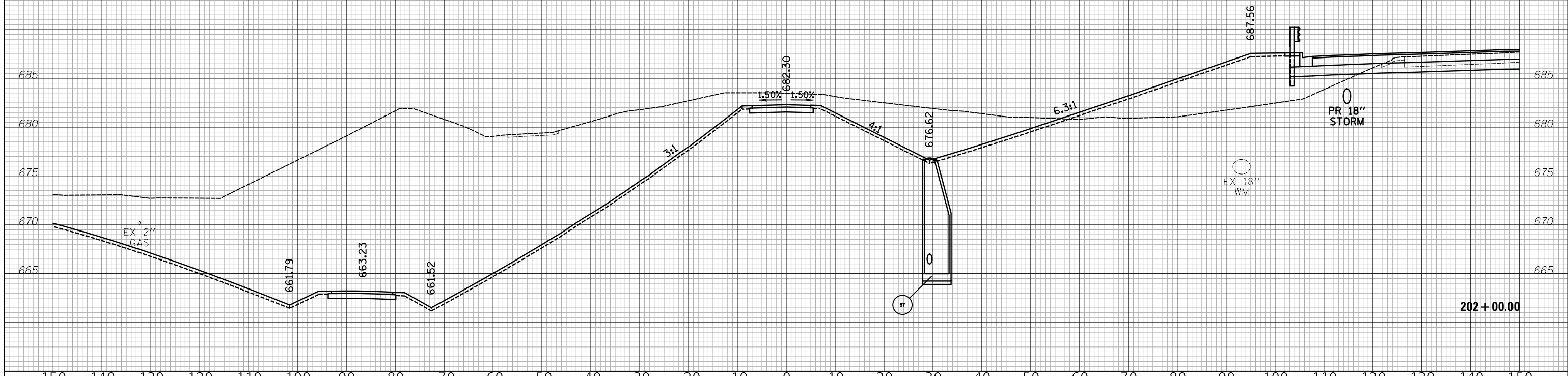
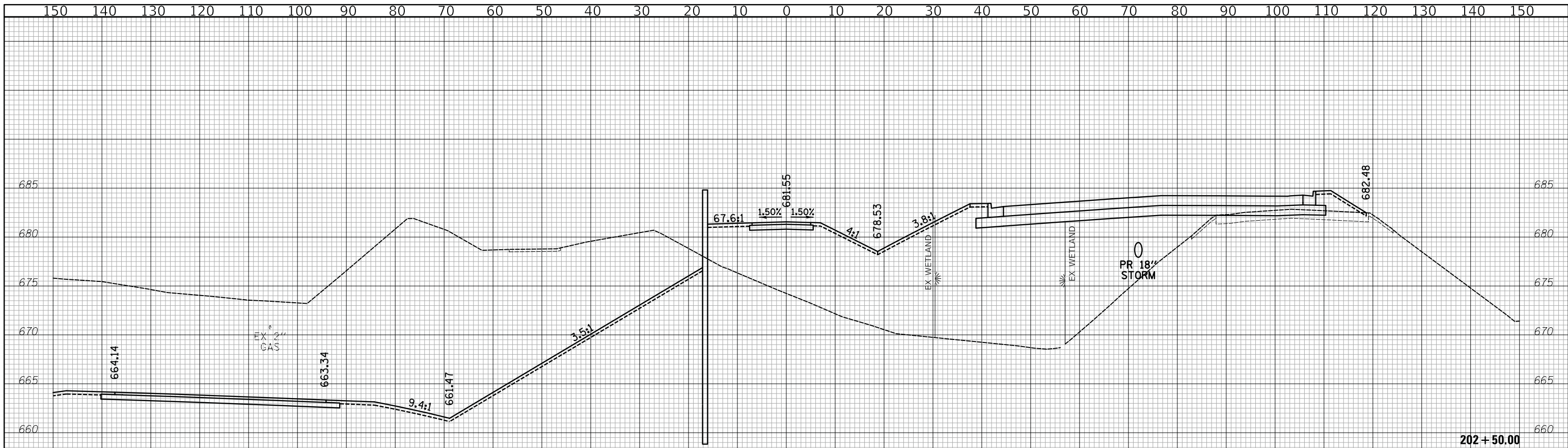
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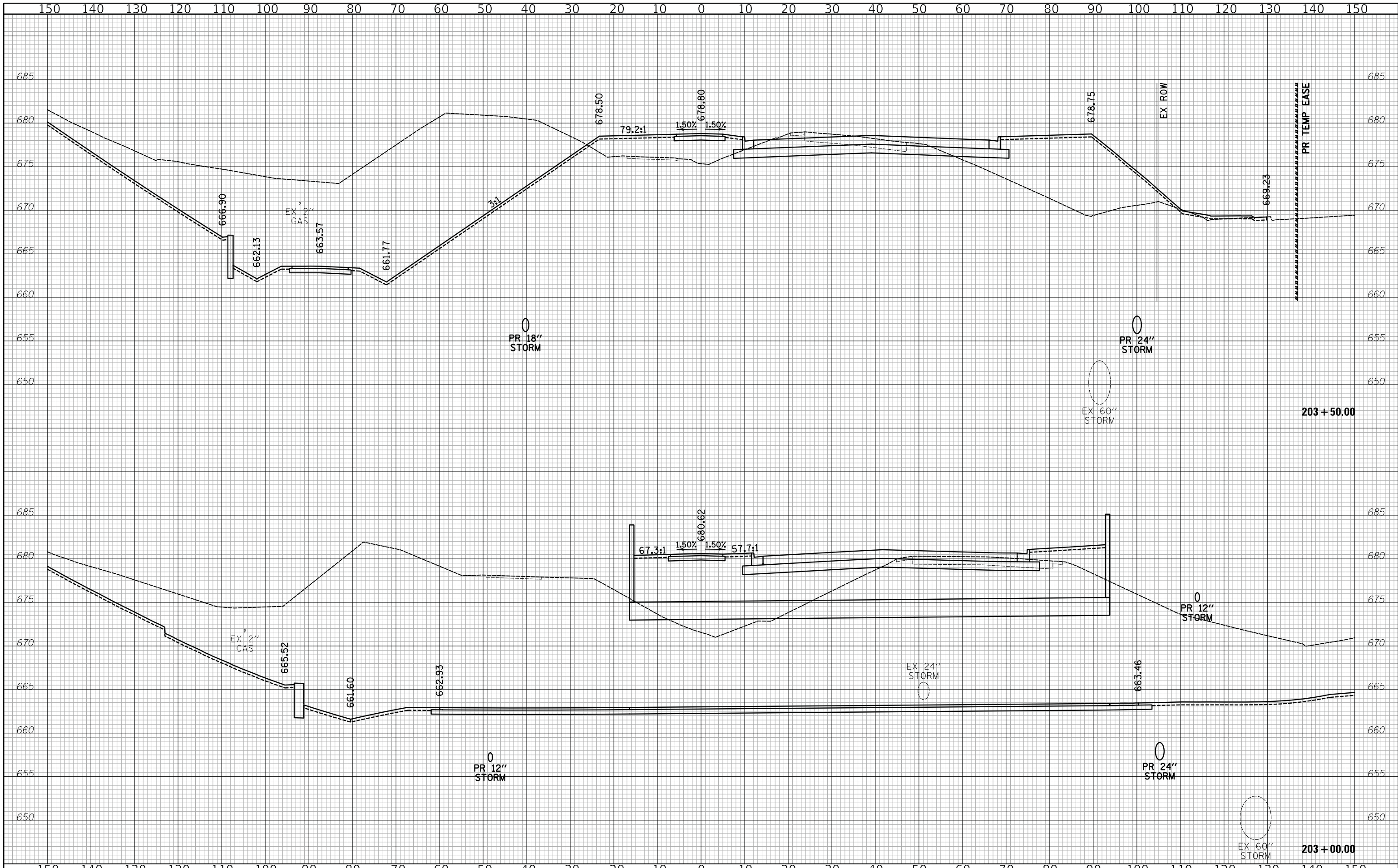


CROSS SECTIONS - SALT CREEK TRAIL

SHEET 2 OF 17 SHEETS STA. 201+00 TO STA. 201+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	193
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G16	

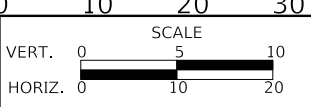





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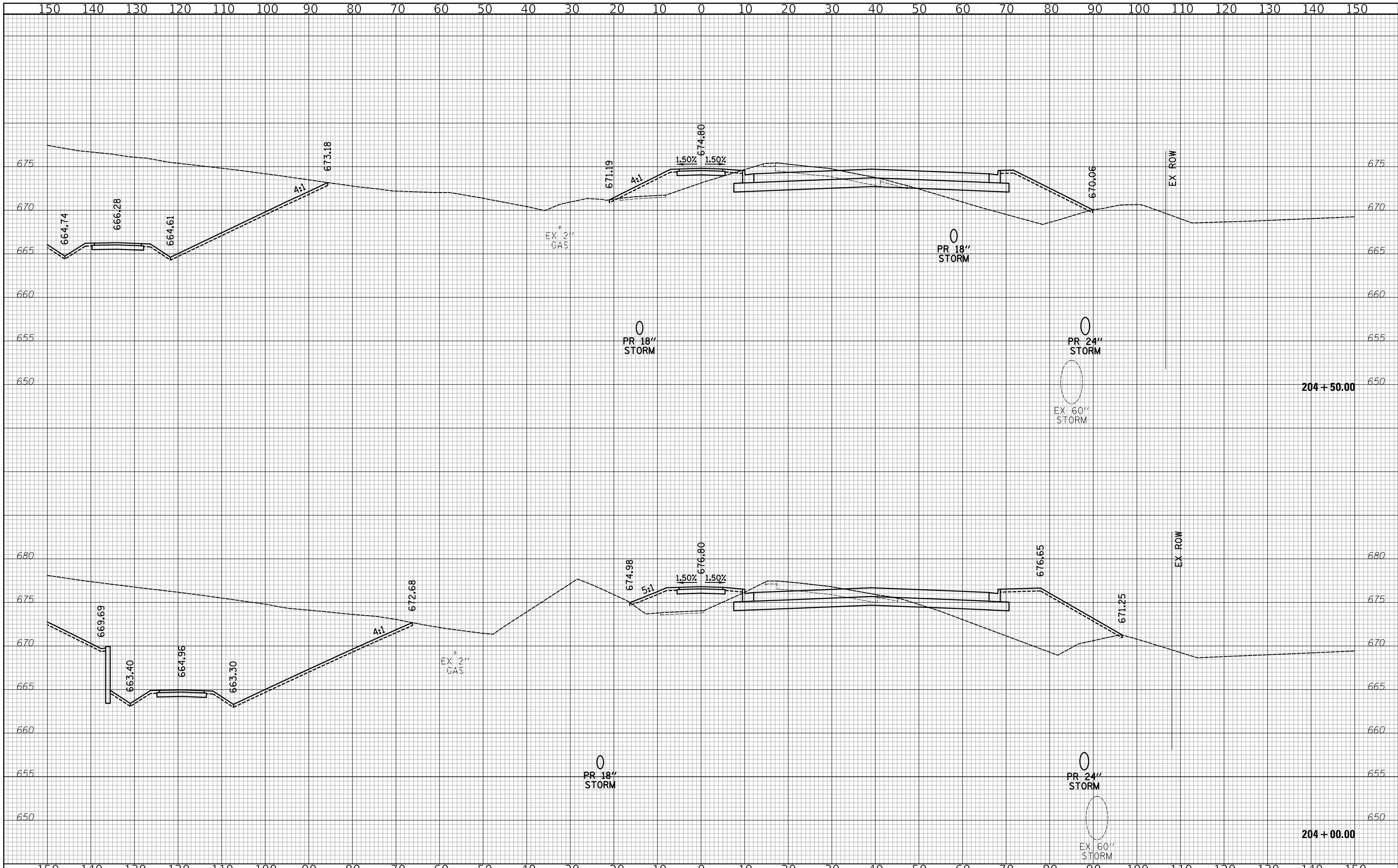
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CROSS SECTIONS - SALT CREEK TRAIL

SHEET 4 OF 17 SHEETS STA. 203+00 TO STA. 203+50

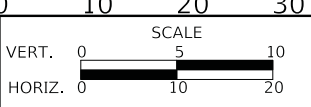
F.A.U. RTE. 2678 1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 195
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	
FED. AID PROJECT				




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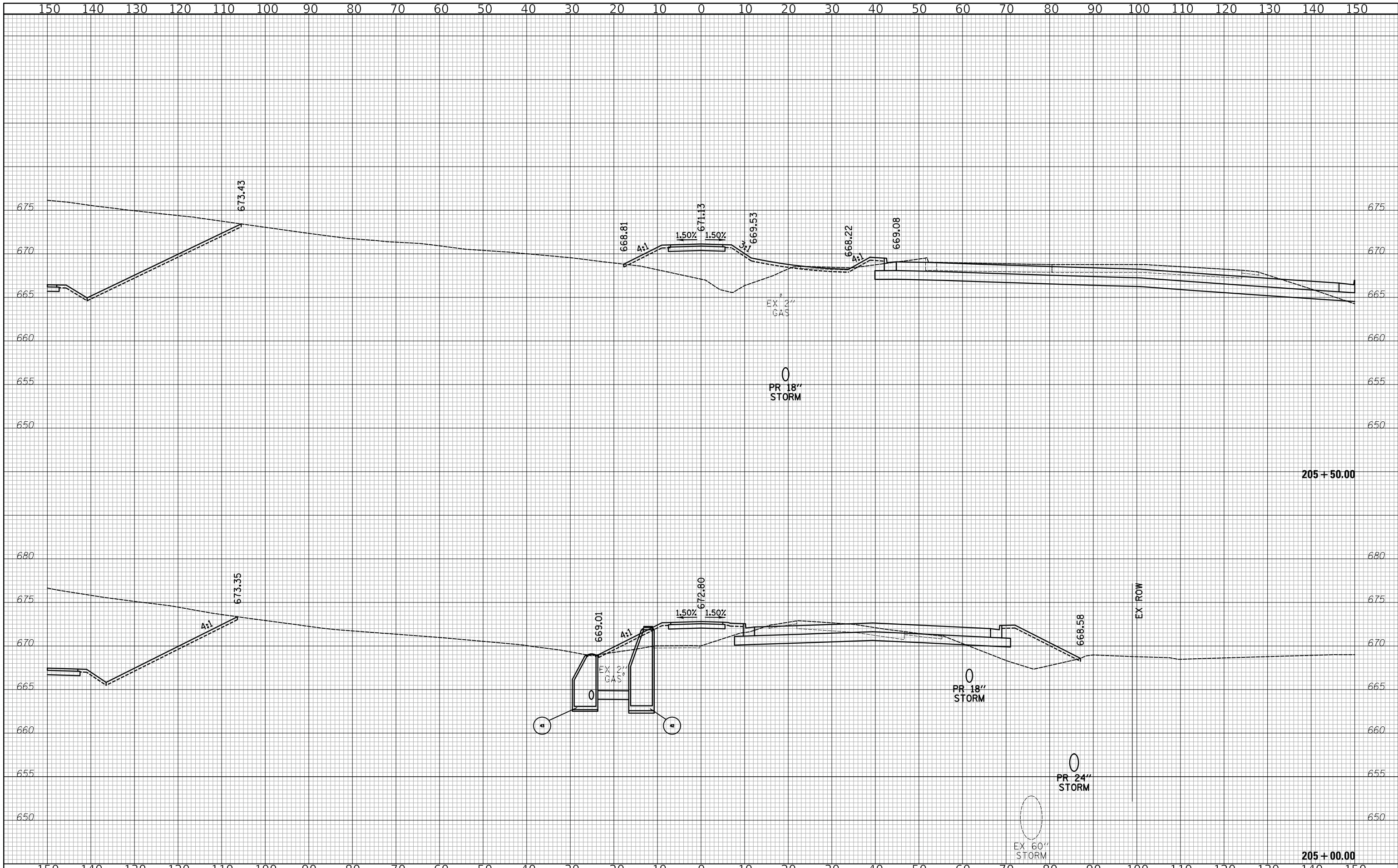
STATE OF ILLINOIS
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CROSS SECTIONS - SALT CREEK TRAIL

SHEET 5 OF 17 SHEETS STA. 204+00 TO STA. 204+50

F.A.U. RTE. 2678/1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 196
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	
FED. AID PROJECT				



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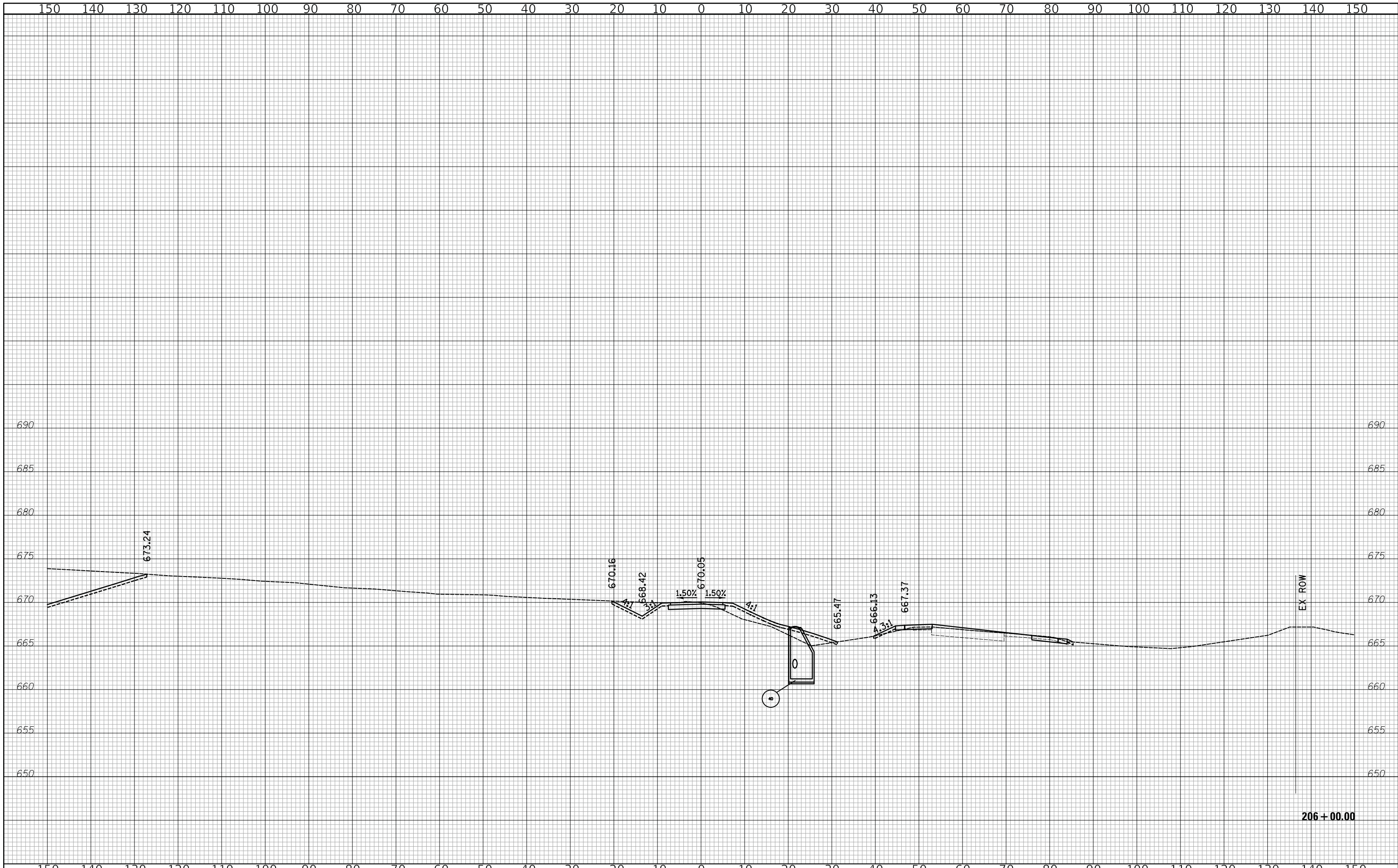
**STATE OF ILLINOIS
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CROSS SECTIONS - SALT CREEK TRAIL

SHEET 6 OF 17 SHEETS STA. 205+00 TO STA. 205+50

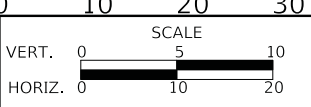
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	197
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				




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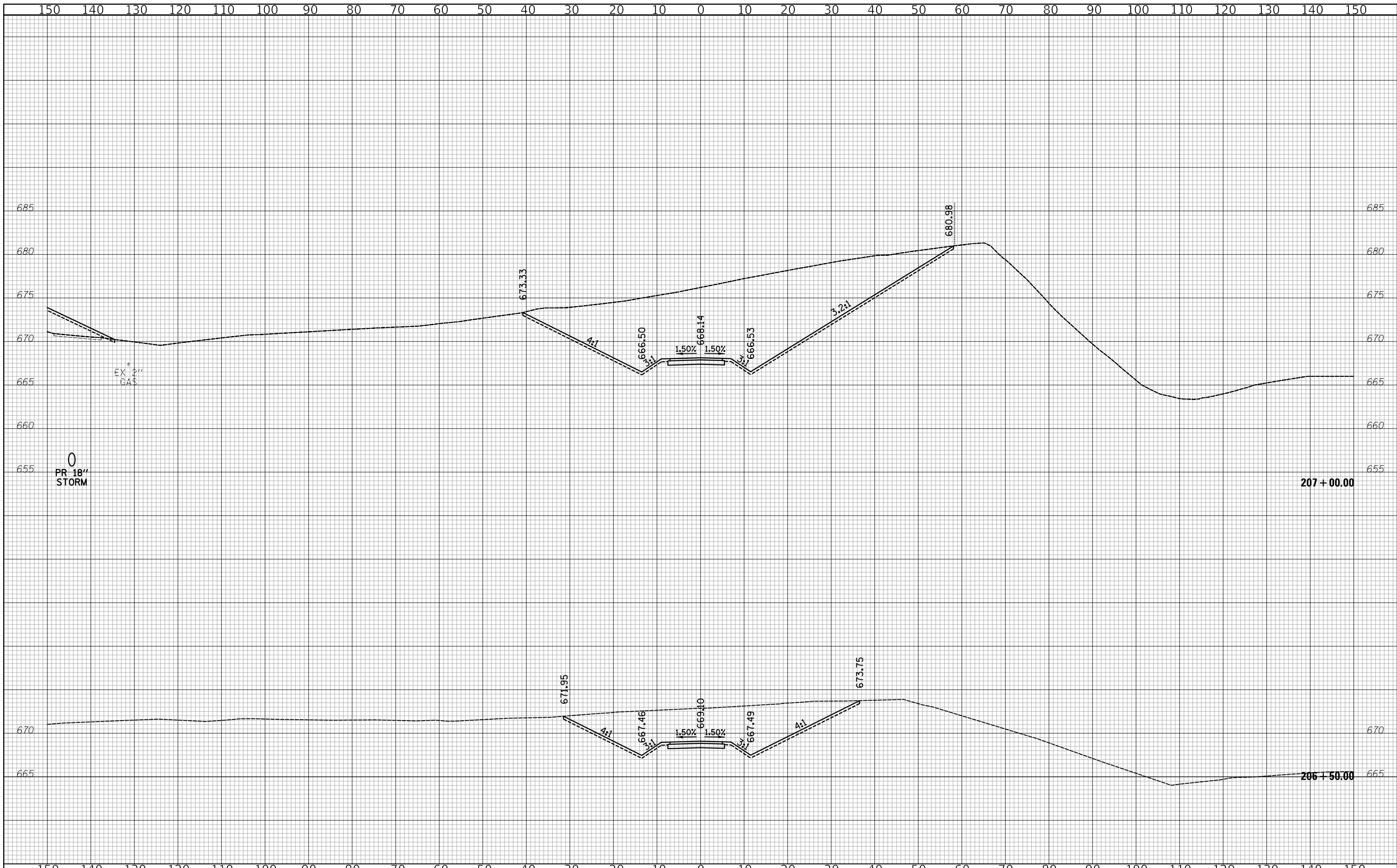
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



CROSS SECTIONS - SALT CREEK TRAIL

SHEET 7 OF 17 SHEETS STA. 206+00 TO STA. 206+00

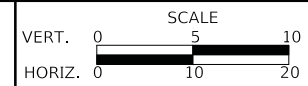
F.A.U. RTE. 2678 1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 198
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	
FED. AID PROJECT				



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CHECKED - JRV	REVISED -
DATE - 12/27/2019	REVISED -

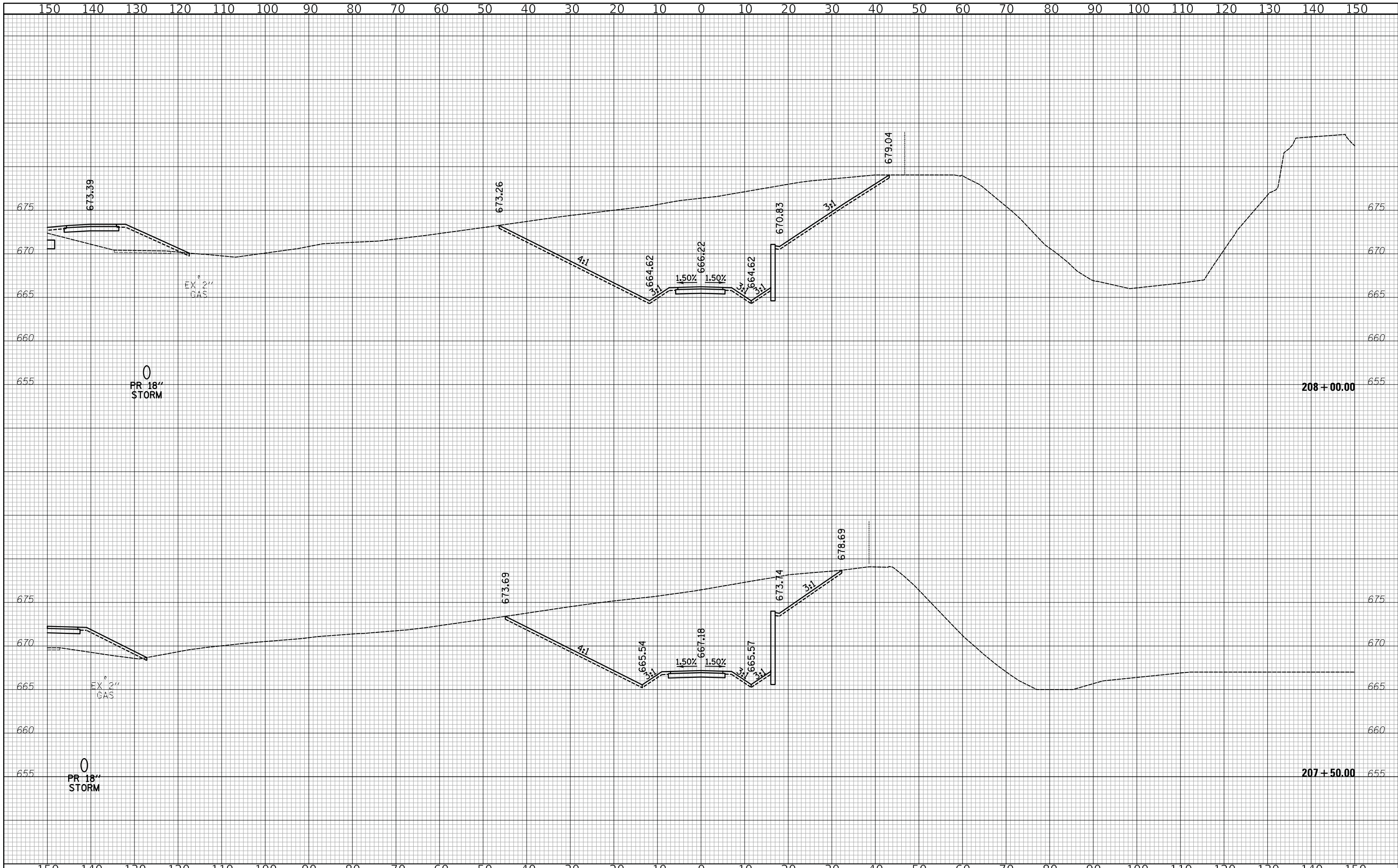
STATE OF ILLINOIS
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CROSS SECTIONS - SALT CREEK TRAIL

SHEET 8 OF 17 SHEETS STA. 206+50 TO STA. 207+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	199
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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DRAWN - MC	REVISED -
CHECKED - JRV	REVISED -
DATE - 12/27/2019	REVISED -

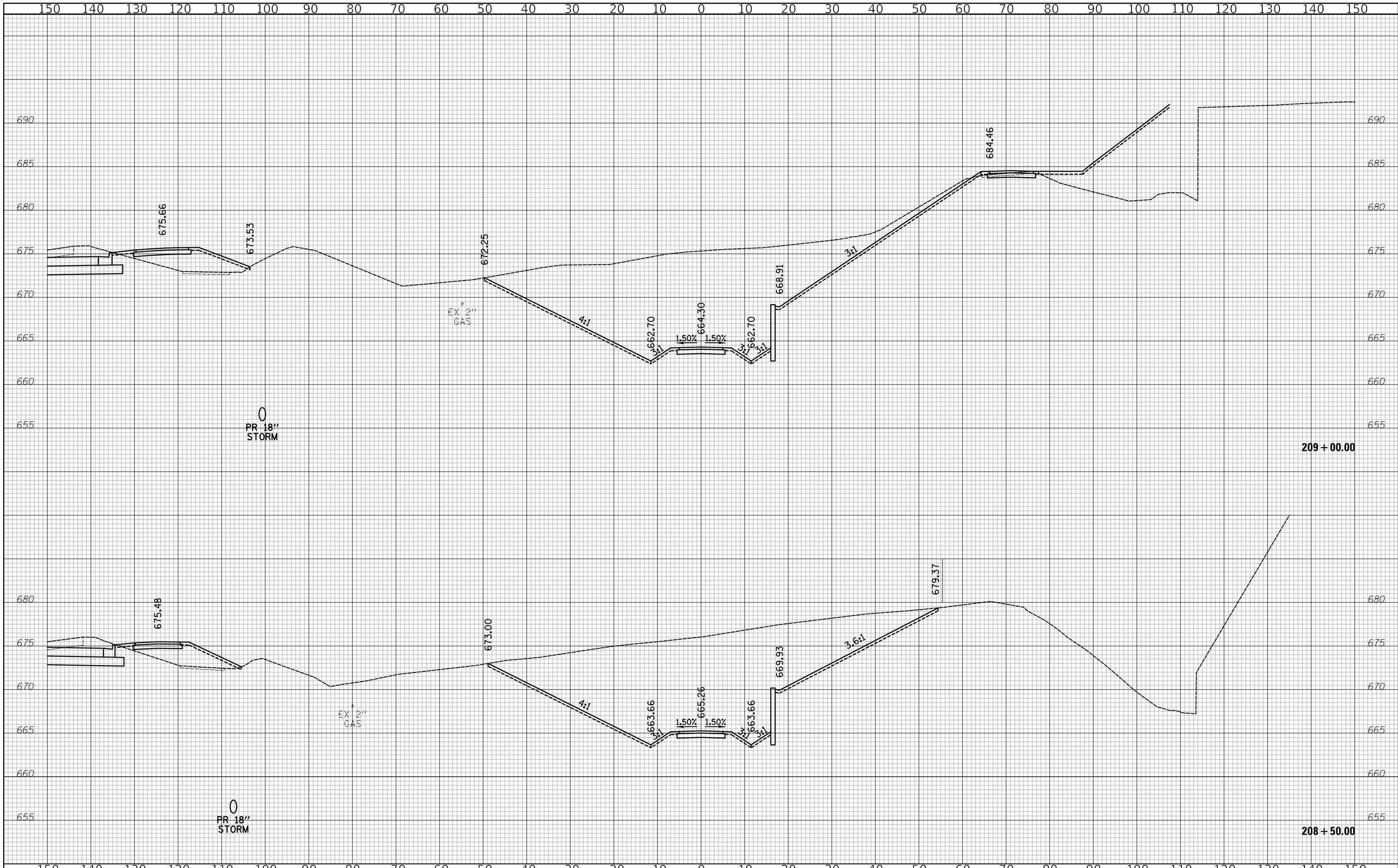
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CROSS SECTIONS - SALT CREEK TRAIL

SHEET 9 OF 17 SHEETS STA. 207+50 TO STA. 208+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	200
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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DRAWN - MC	REVISED -
CHECKED - JRV	REVISED -
DATE - 12/27/2019	REVISED -

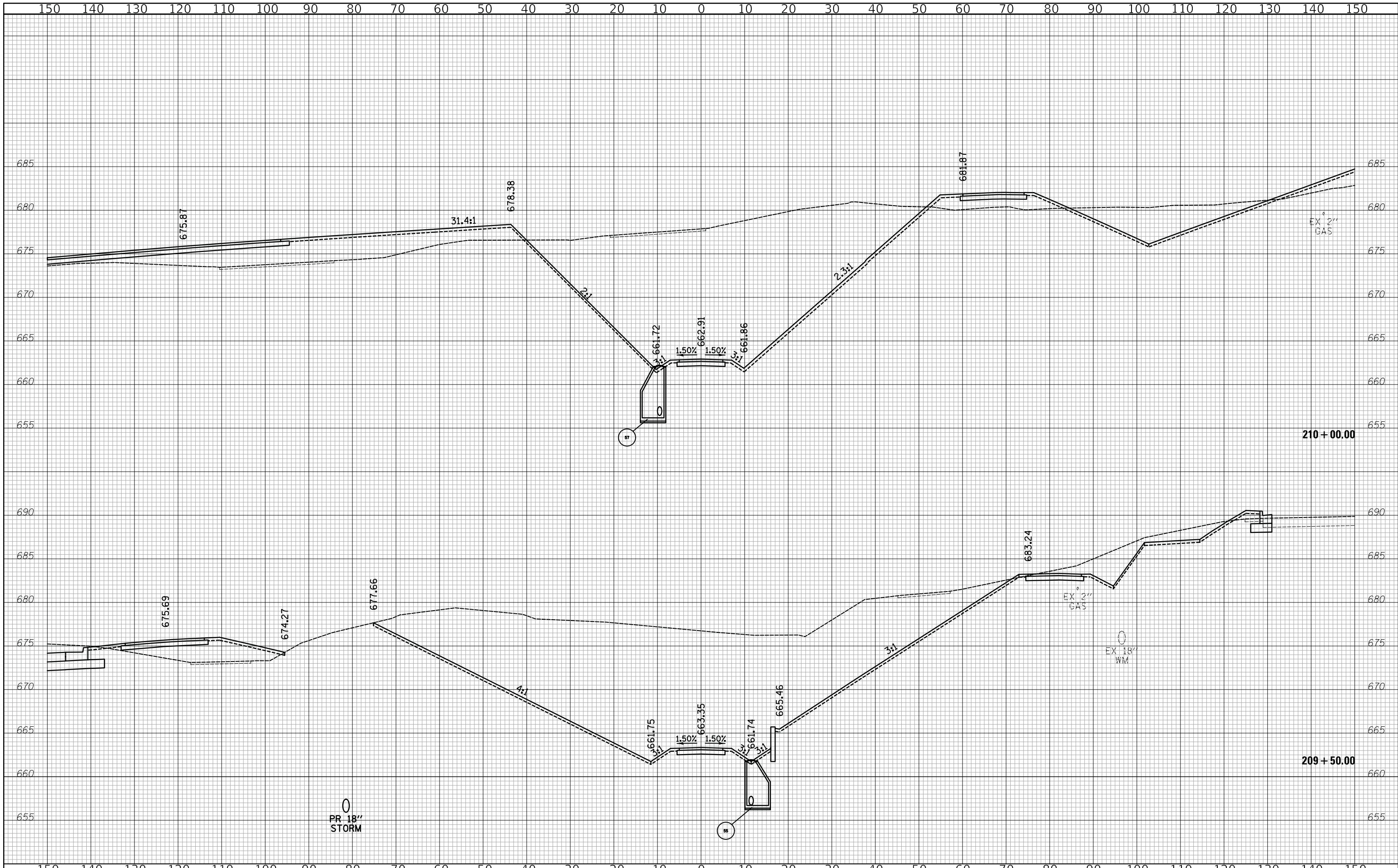
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CROSS SECTIONS - SALT CREEK TRAIL

SHEET 10 OF 17 SHEETS STA. 208+50 TO STA. 209+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	201
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



0
PR 18"
STORM

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DRAWN - MC	REVISED -
CHECKED - JRV	REVISED -
DATE - 12/27/2019	REVISED -

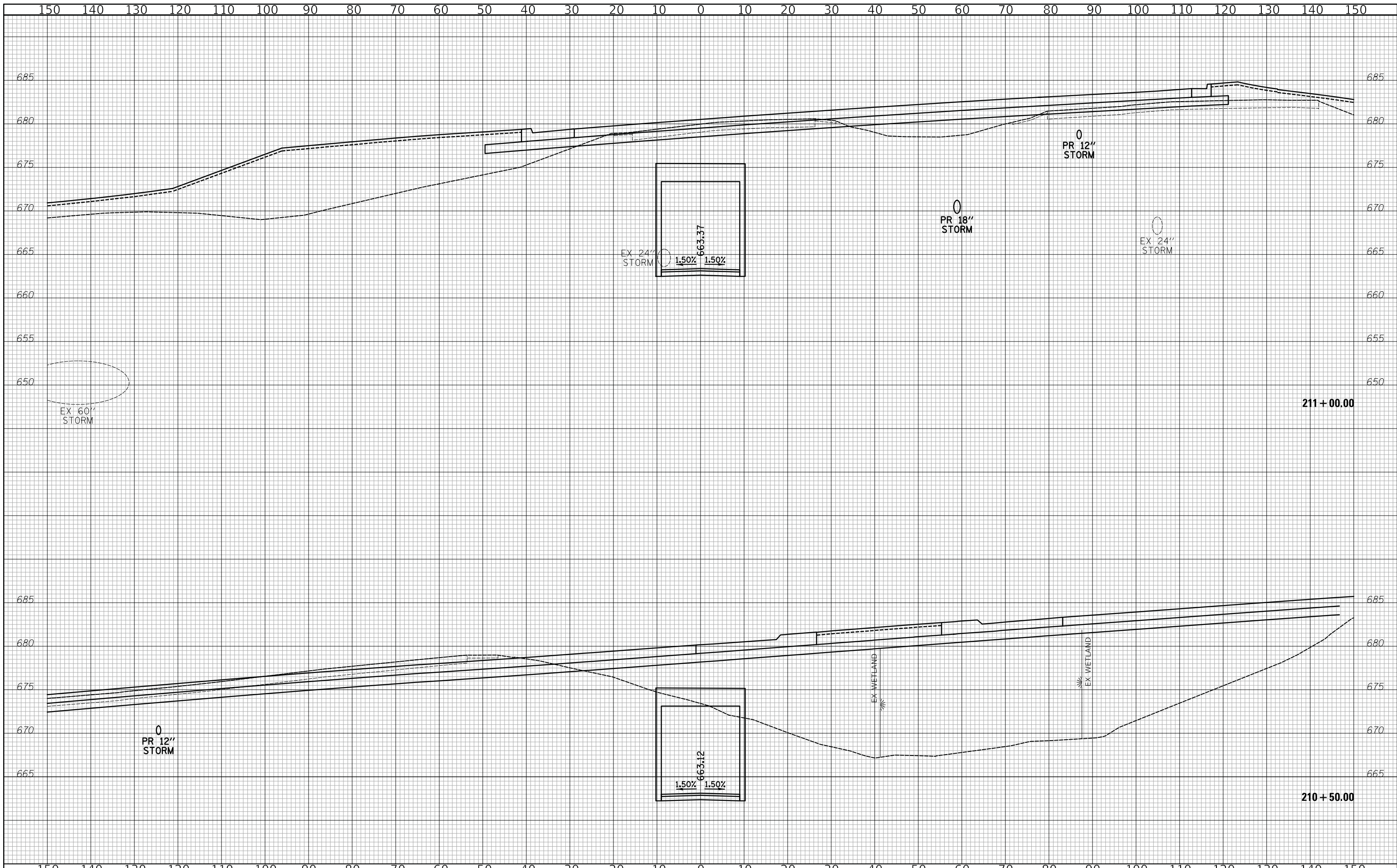
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CROSS SECTIONS - SALT CREEK TRAIL

SHEET 11 OF 17 SHEETS STA. 209+50 TO STA. 210+00

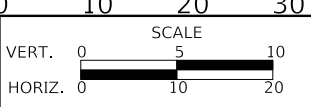
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	202
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				




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DATE - 12/27/2019	REVISED -

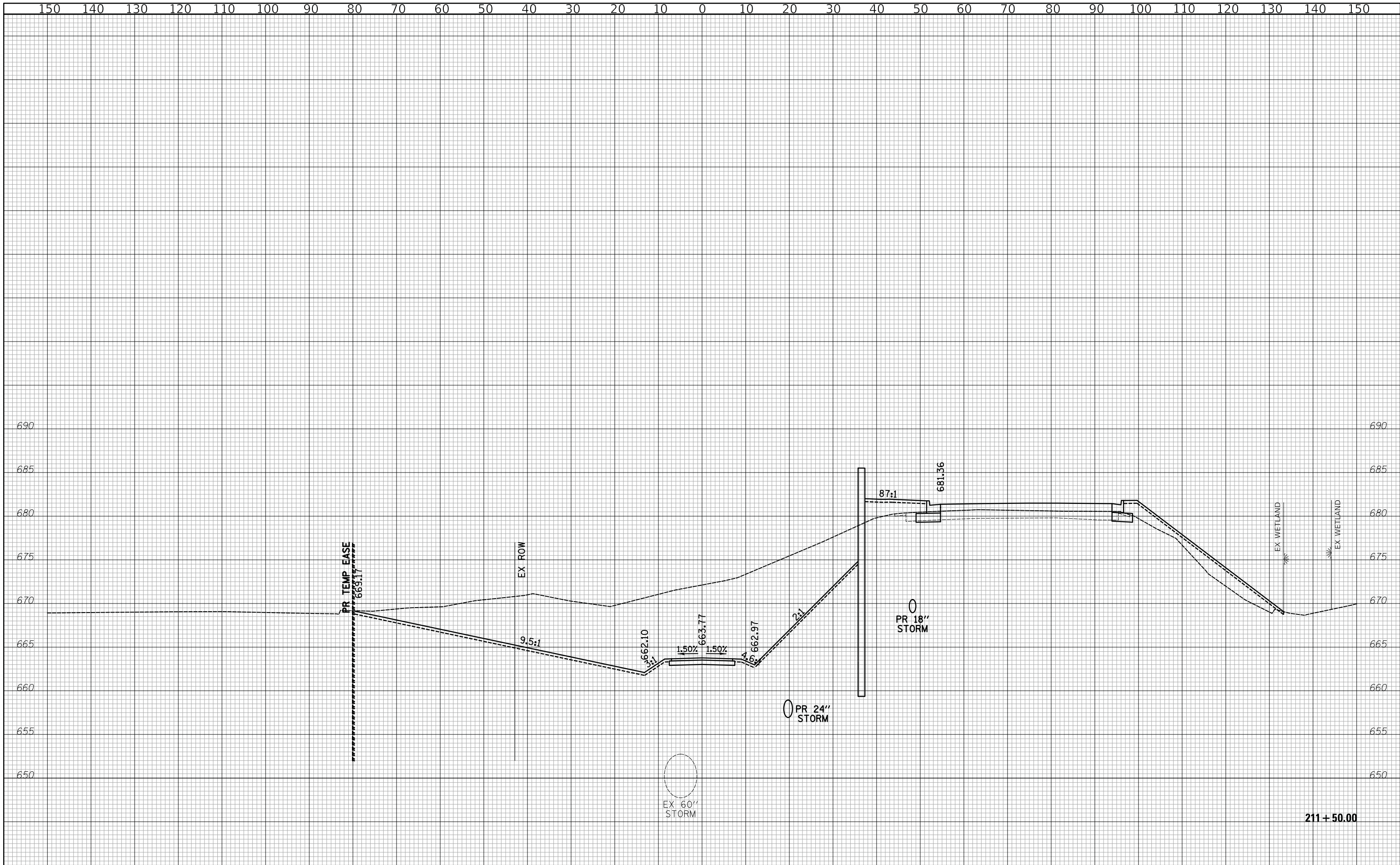
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CROSS SECTIONS - SALT CREEK TRAIL

SHEET 12 OF 17 SHEETS STA. 210+50 TO STA. 211+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	203
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G16	



211 + 50.00

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DATE - 12/27/2019	REVISED -

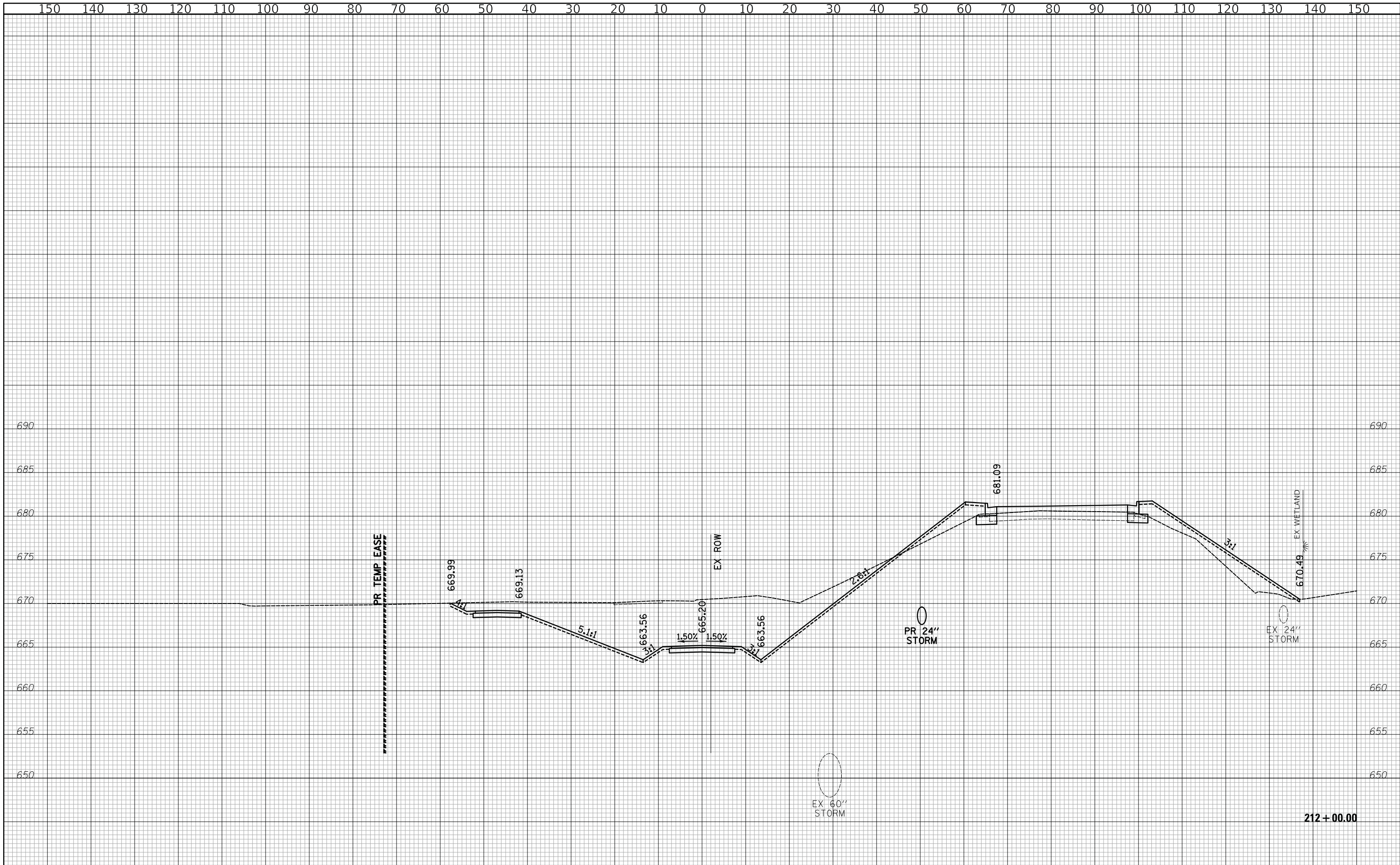
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CROSS SECTIONS - SALT CREEK TRAIL

SHEET 13 OF 17 SHEETS STA. 211+50 TO STA. 211+50

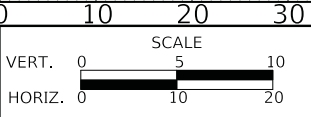
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	204
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				




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CHECKED - JRV	REVISED -
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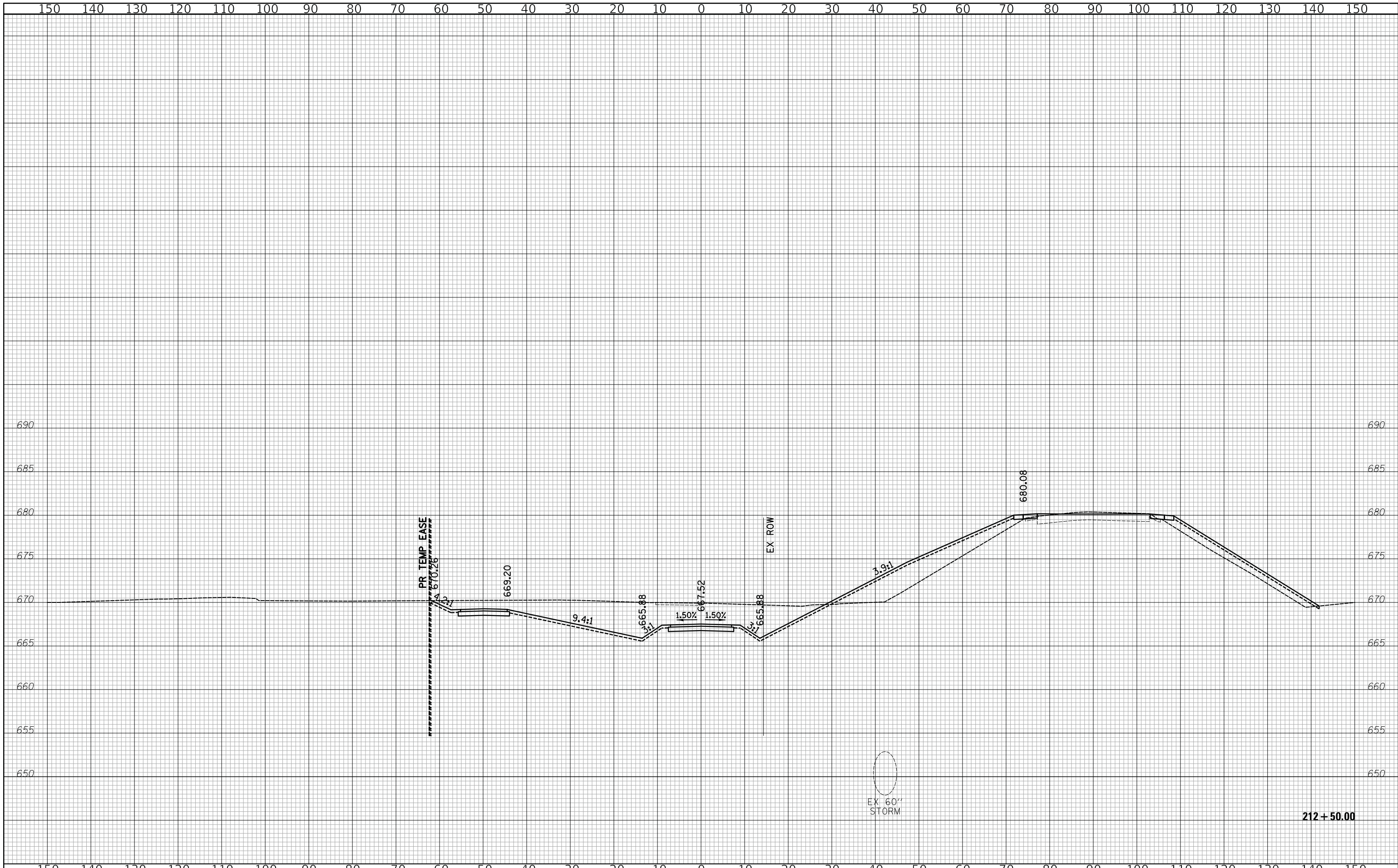


CROSS SECTIONS - SALT CREEK TRAIL

SHEET 14 OF 17 SHEETS STA. 212+00 TO STA. 212+00

F.A.U. RTE. 2678 1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 205
CONTRACT NO. 61G16				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

212+00.00



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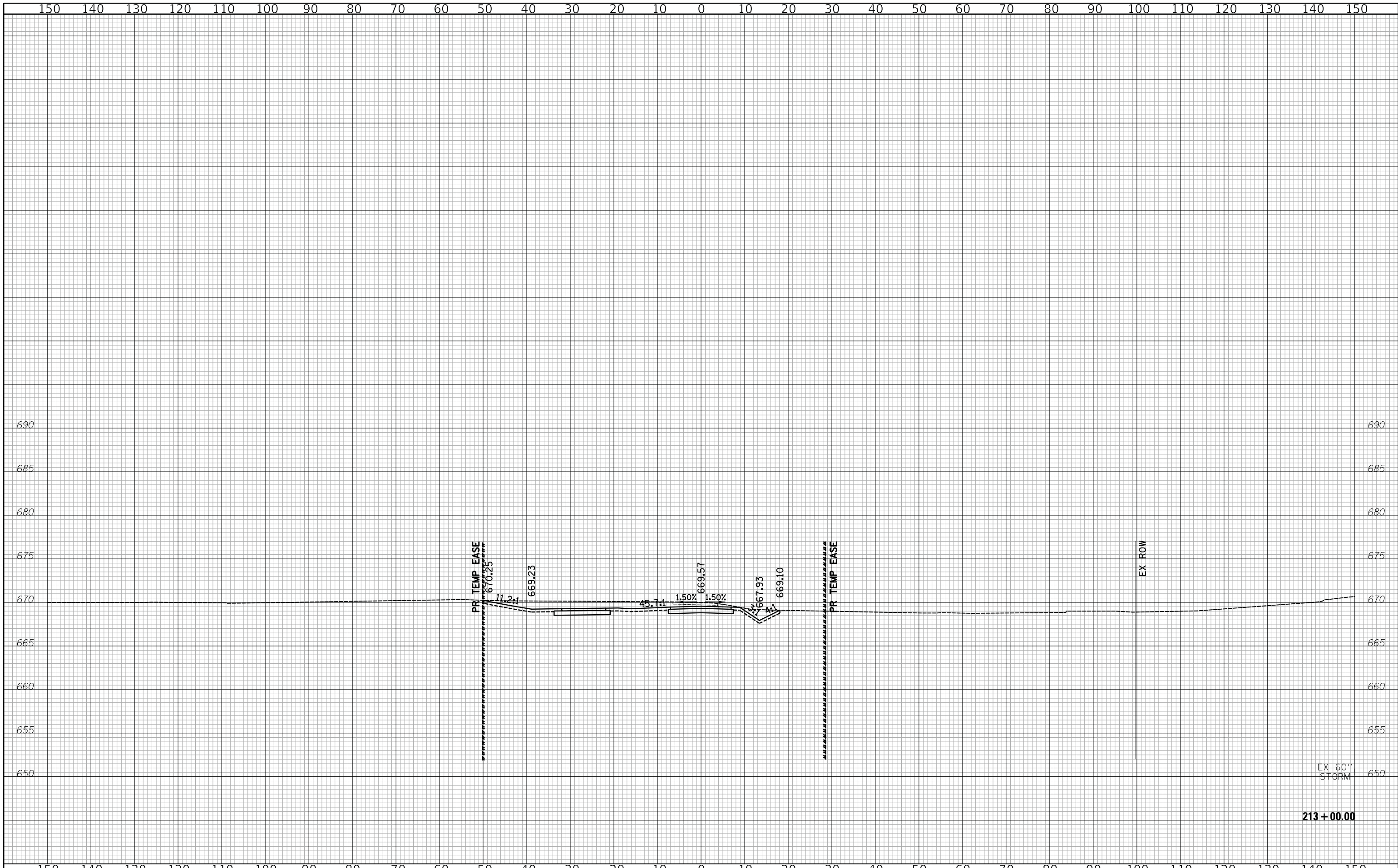
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CROSS SECTIONS - SALT CREEK TRAIL

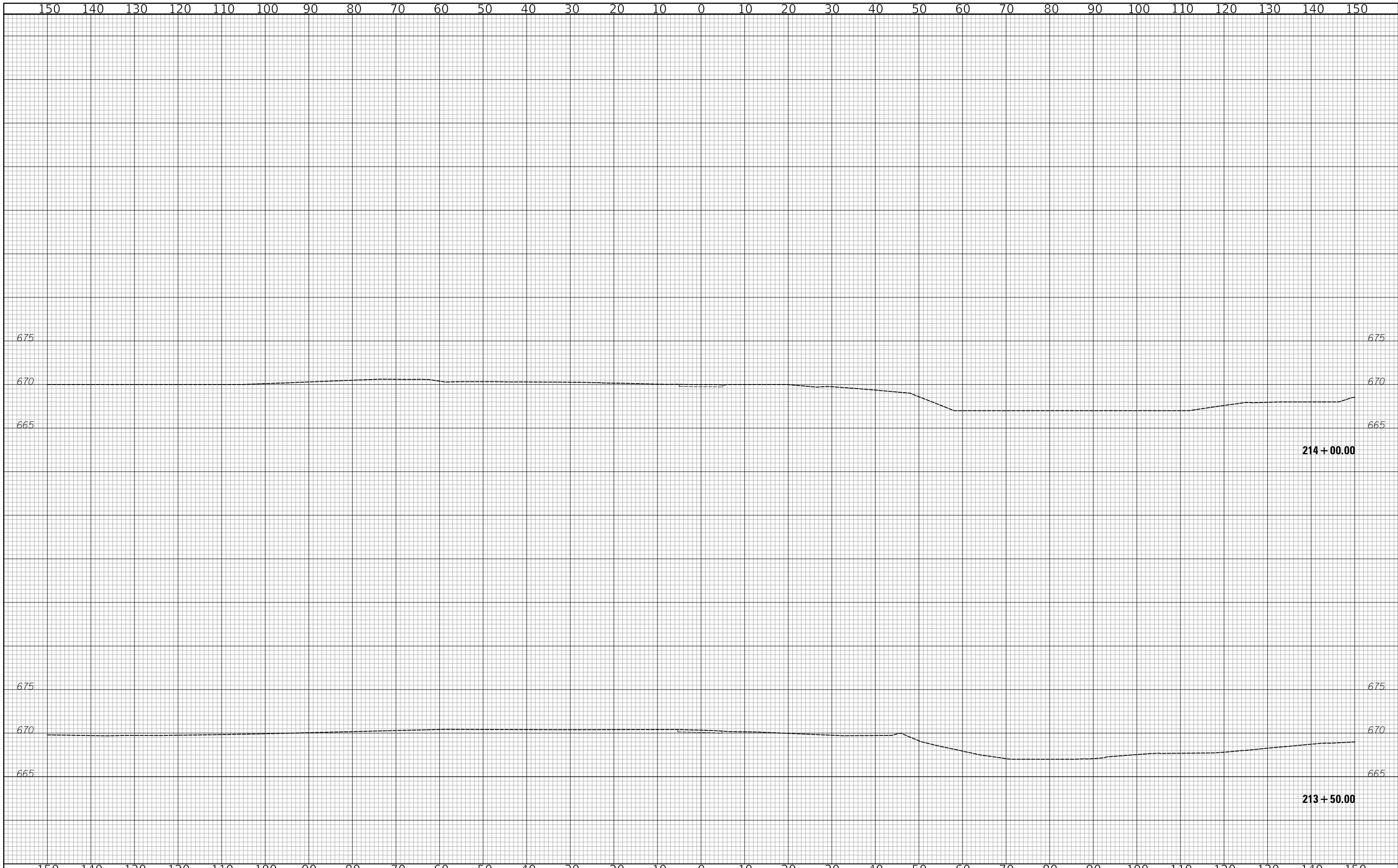
SHEET 15 OF 17 SHEETS STA. 212+50 TO STA. 212+50

F.A.U. RTE. 2678 1446	SECTION 17-00049-00-PV	COUNTY DUPAGE	TOTAL SHEETS 208	SHEET NO. 206
FED. ROAD DIST. NO. 1 ILLINOIS			CONTRACT NO. 61G16	
FED. AID PROJECT				



EX 60"
STORM

213 + 00.00



214 + 00.00

213 + 50.00



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CROSS SECTIONS - SALT CREEK TRAIL

SHEET 17 OF 17 SHEETS STA. 213+50 TO STA. 214+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2678 1446	17-00049-00-PV	DUPAGE	208	208
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 61G16	