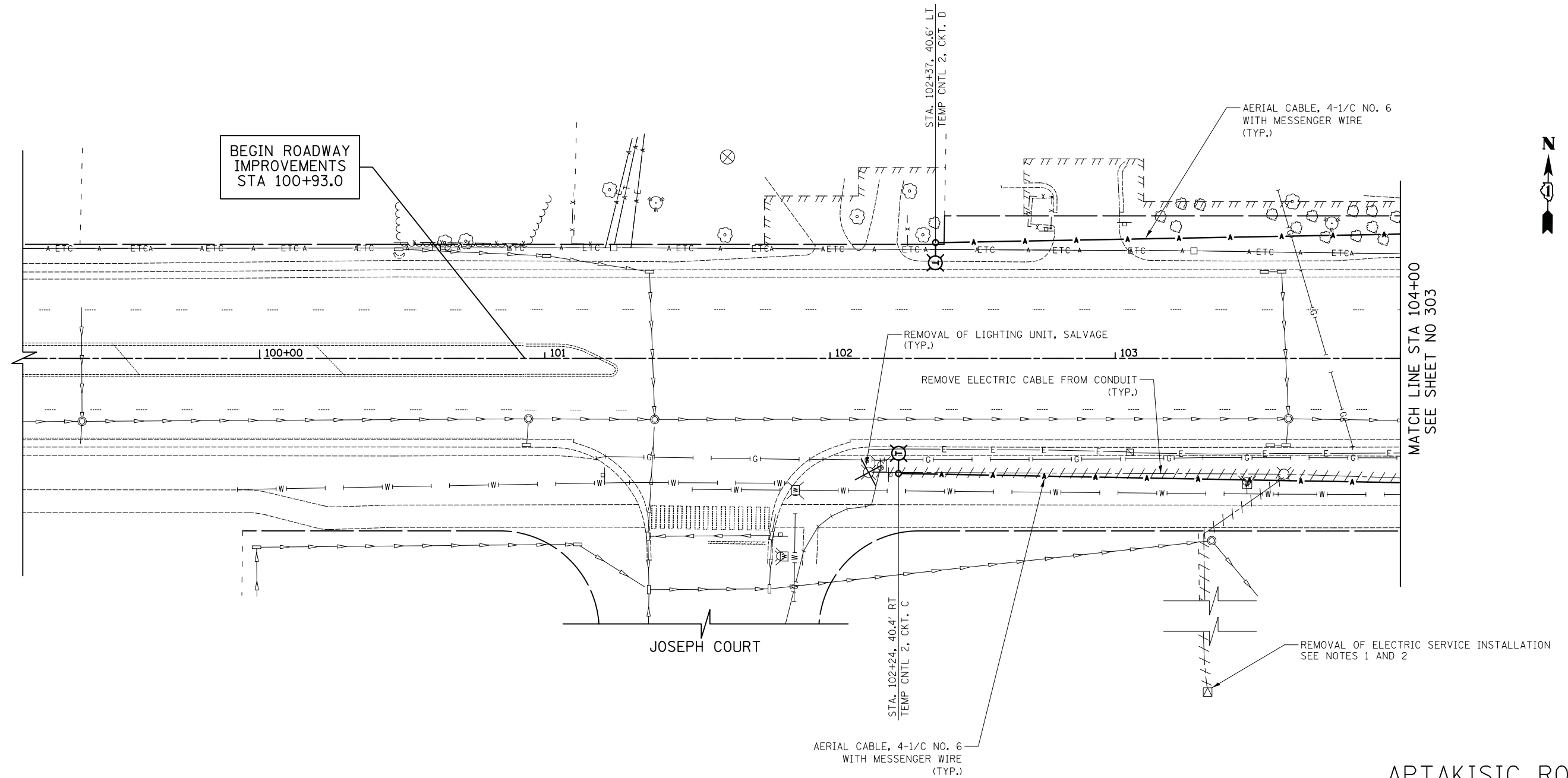


FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS	
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ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
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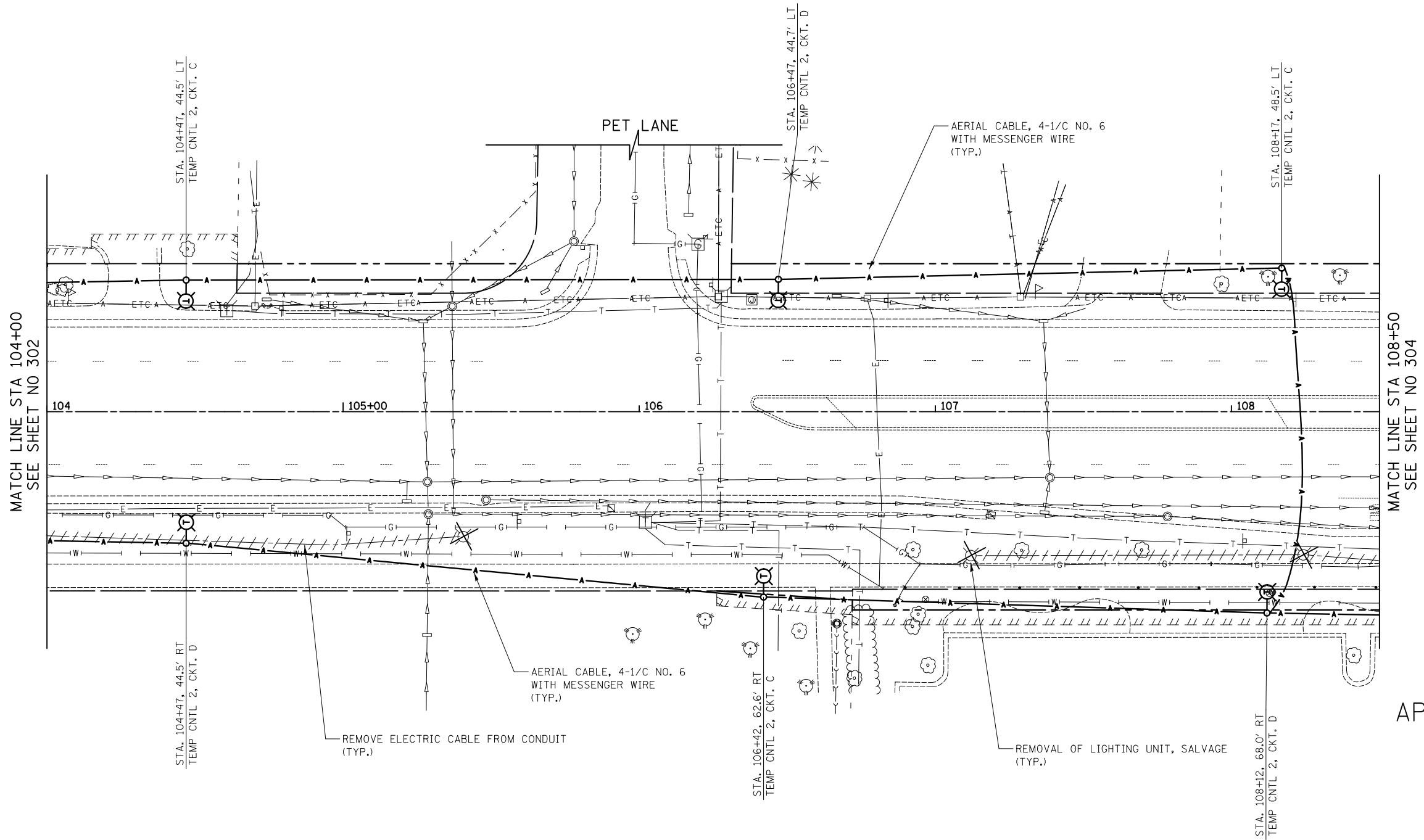


NOTE:

- CABLE IN CONDUIT OR DUCT SLEEVE SHALL BE REMOVED FROM THE THE CONDUIT OR DUCT SLEEVE AND WILL BE PAID FOR AS "REMOVE ELECTRIC CABLE FROM CONDUIT". DIRECT BURIED CABLES WITHOUT CONDUIT OR DUCT SLEEVE SHALL BE ABANDONED AND WILL NOT BE PAID FOR ABANDONING IT.
- CONTRACTOR MUST VERIFY THE ABANDONED DIRECT BURIED CABLES ARE NOT ENERGIZED AFTER REMOVAL OF ELECTRIC SERVICE INSTALLATION.

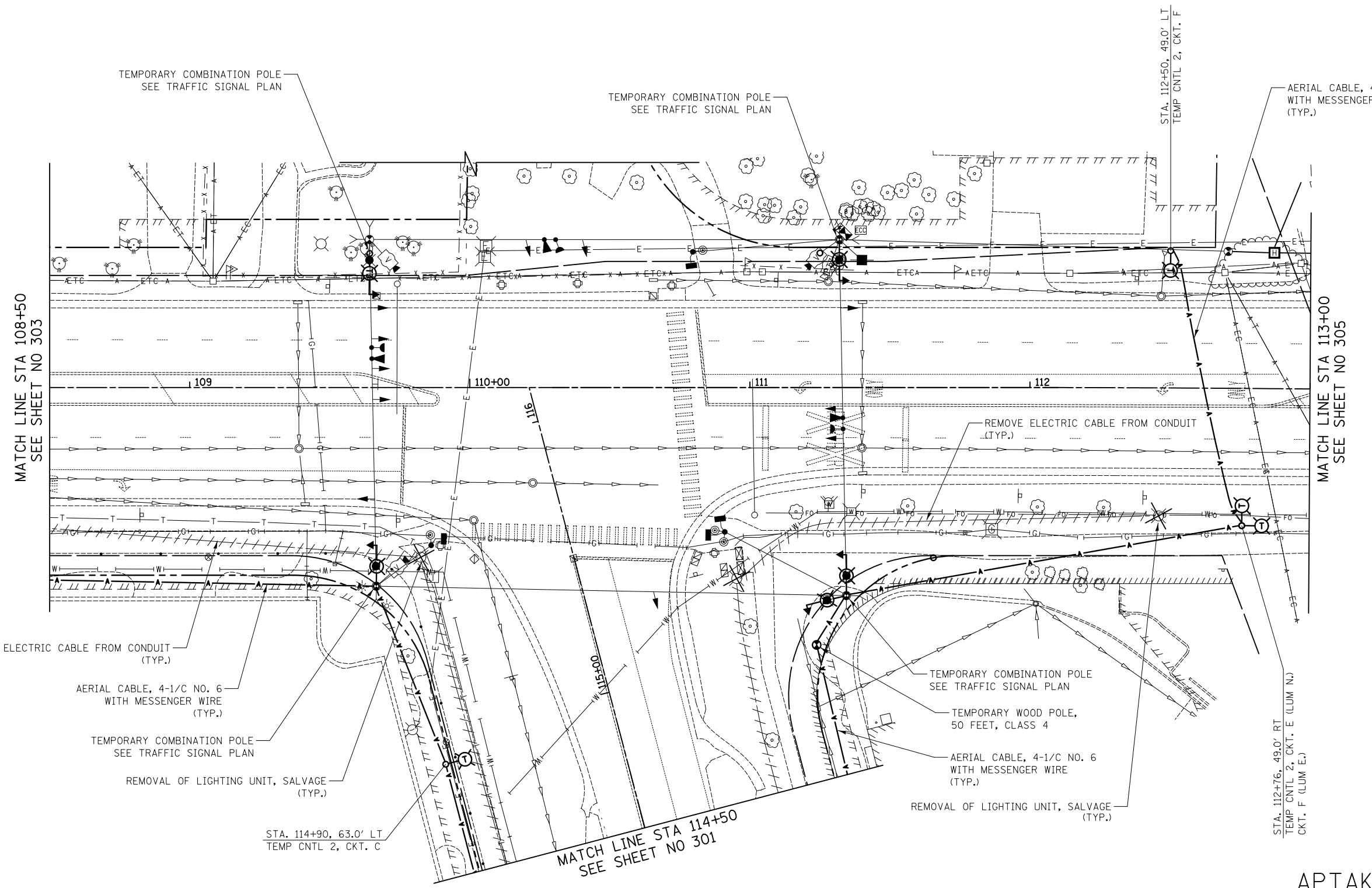
FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
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FINAL SURVEY	DATE
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TEMPLATE	
NOTE BOOK	
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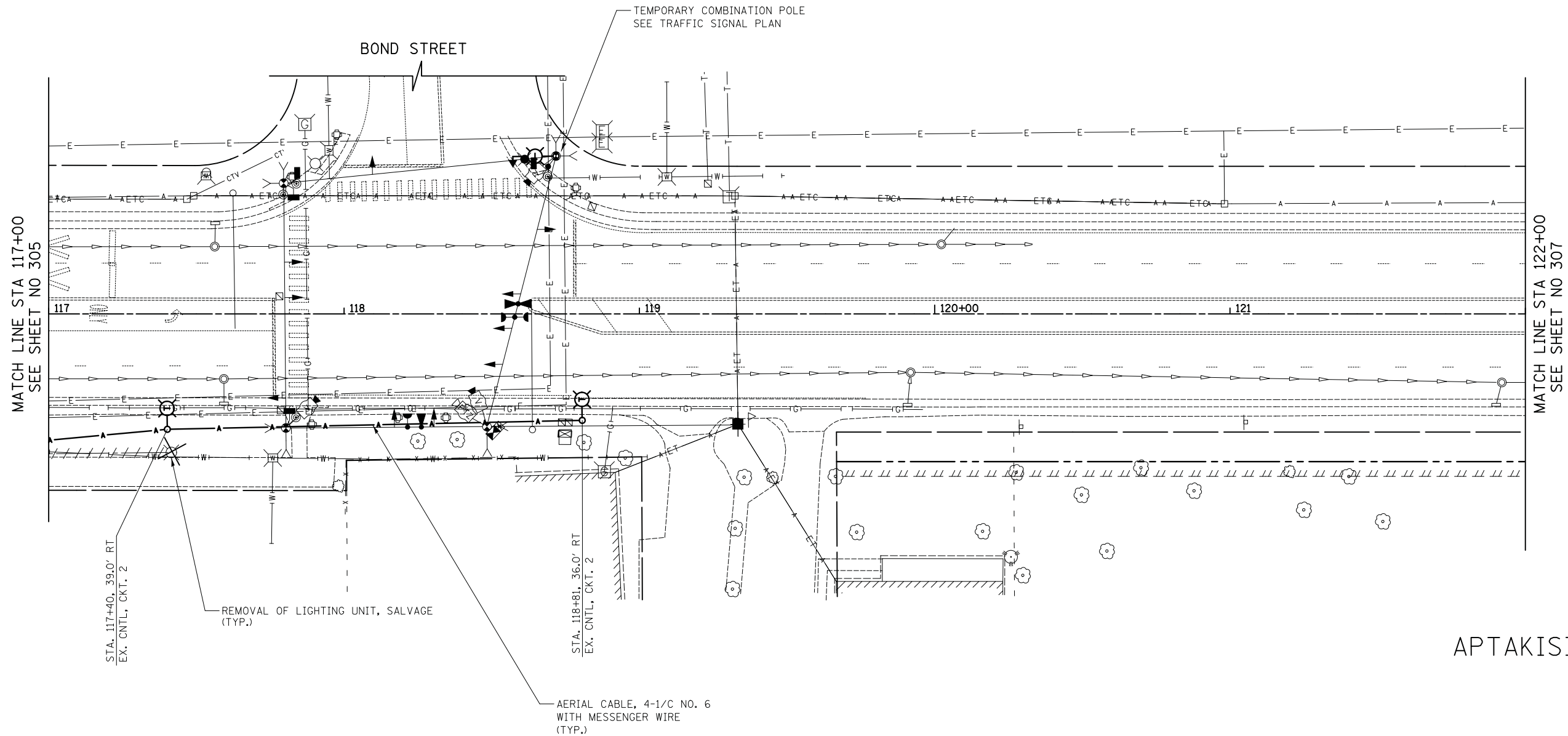
ORIGINAL SURVEY	DATE
SURVEYED	BY
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TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
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APTAKISIC ROAD

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		
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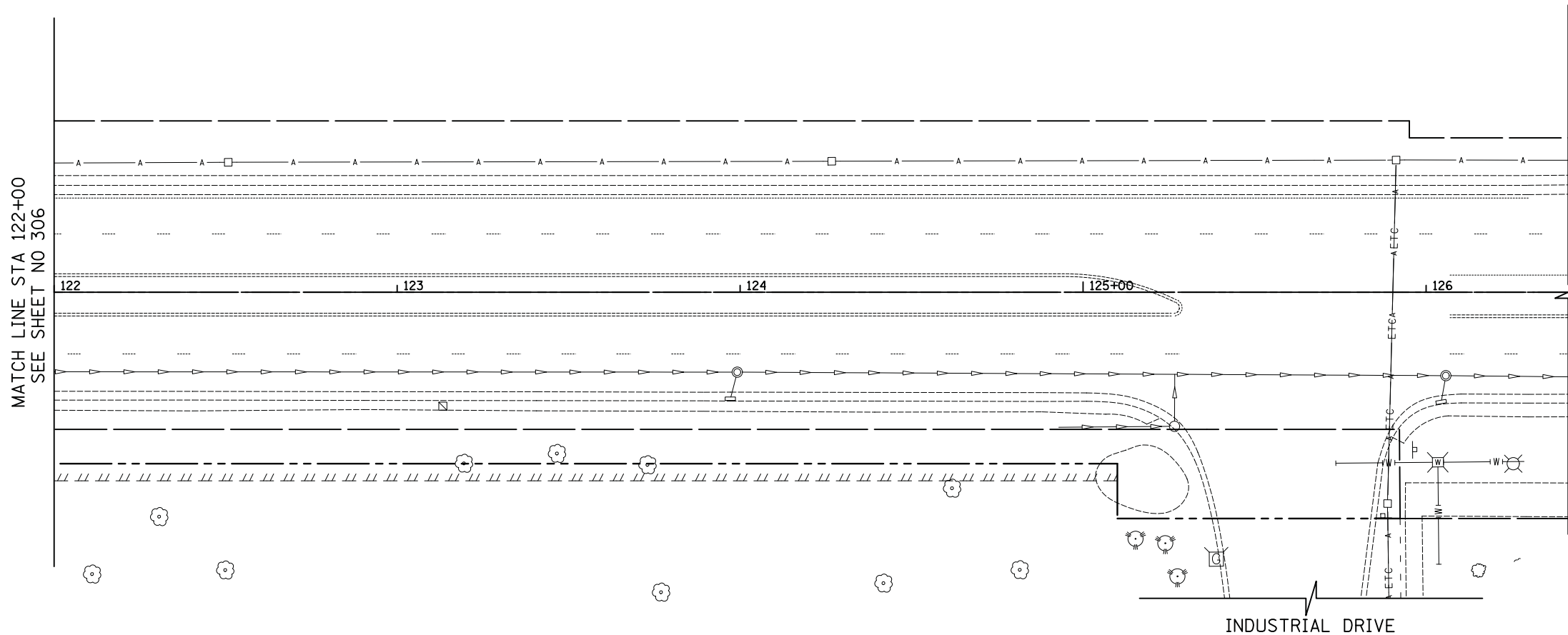
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NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		
	AREAS CHECKED		



APTAKISIC ROAD

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

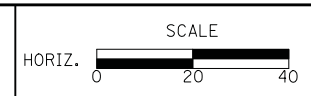
ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



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DATE - 6/10/2019	REVISED -

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DEPARTMENT OF TRANSPORTATION**



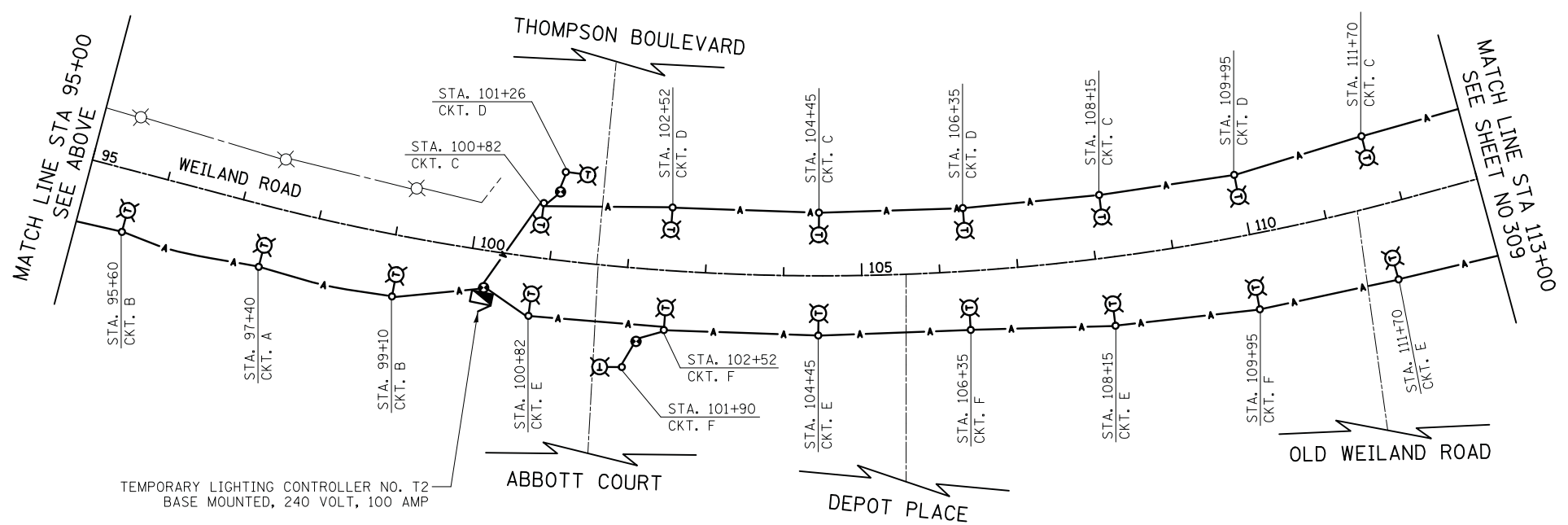
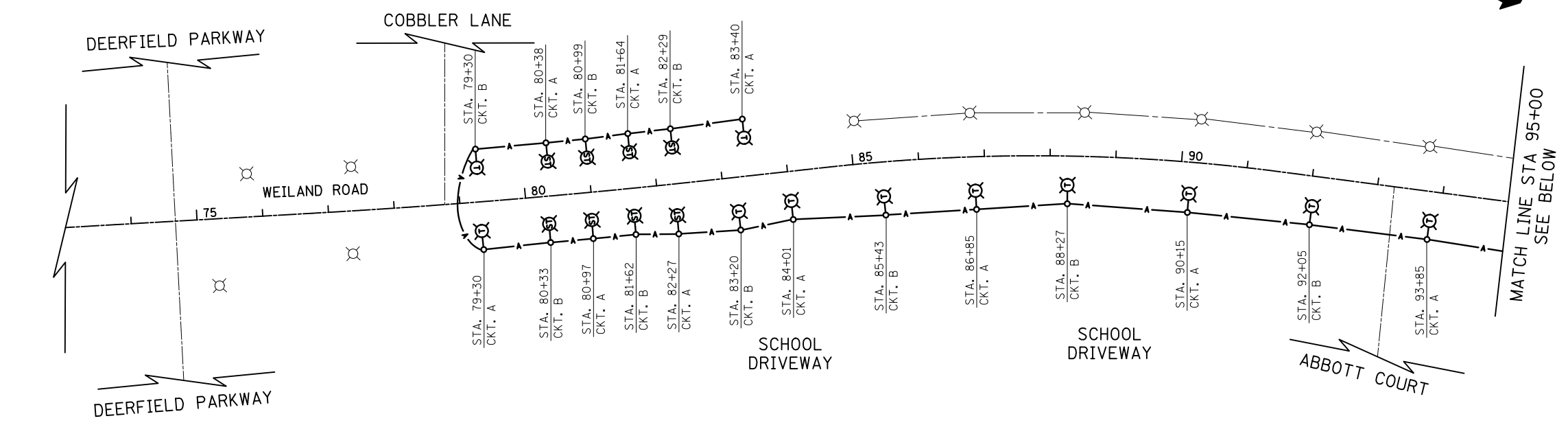
TEMPORARY LIGHTING PLAN

SHEET NO. 14 OF 14 SHEETS STA. 122+00.0 TO STA. 126+03.9

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	307
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NOTE BOOK	
NO.	

ORIGINAL SURVEY	DATE
SURVEYED	BY
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NOTE BOOK	
NO.	



**TEMPORARY LIGHTING CONTROLLER T2
CIRCUIT LOAD TABLE**

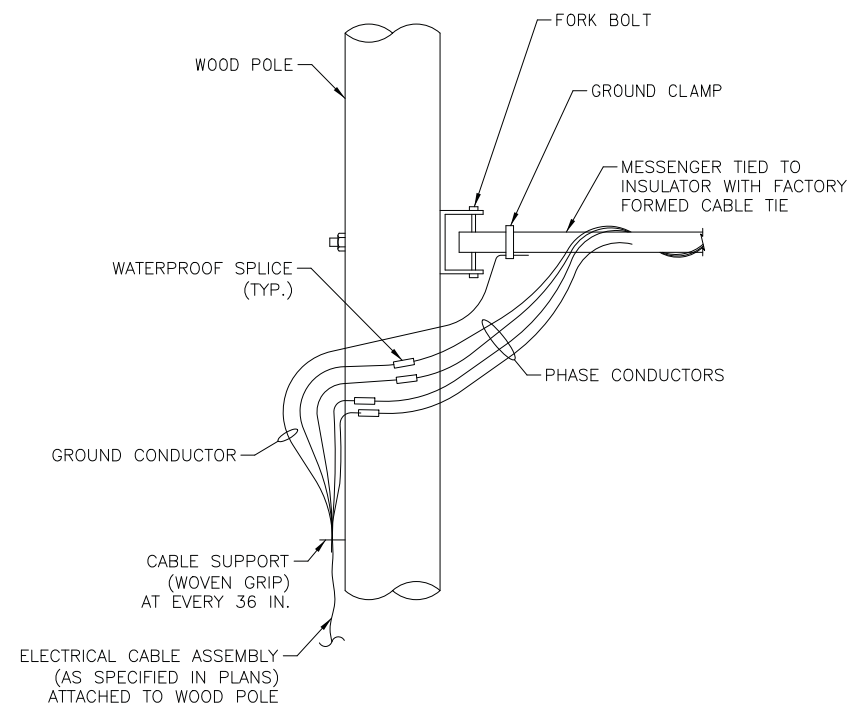
RED CABLE	QUANTITY	AMP	KW @ 120V	BLACK CABLE	QUANTITY	AMP	KW @ 120V
A	11	12.2	1.46	A	11	12.2	1.46
B	11	12.2	1.46	B	11	12.2	1.46
C	9	12.6	1.51	C	9	12.6	1.51
D	9	12.6	1.51	D	9	12.6	1.51
E	5	7.0	0.84	E	5	7.0	0.84
F	7	9.8	1.18	F	7	9.8	1.18
TOTAL:		66.4	7.96	TOTAL:		66.4	7.96

LUMINAIRE = HIGH PRESSURE SODIUM AT 240V (250 WATT) = 1.40 AMP
HIGH PRESSURE SODIUM AT 240V (100 WATT) = 0.60 AMP

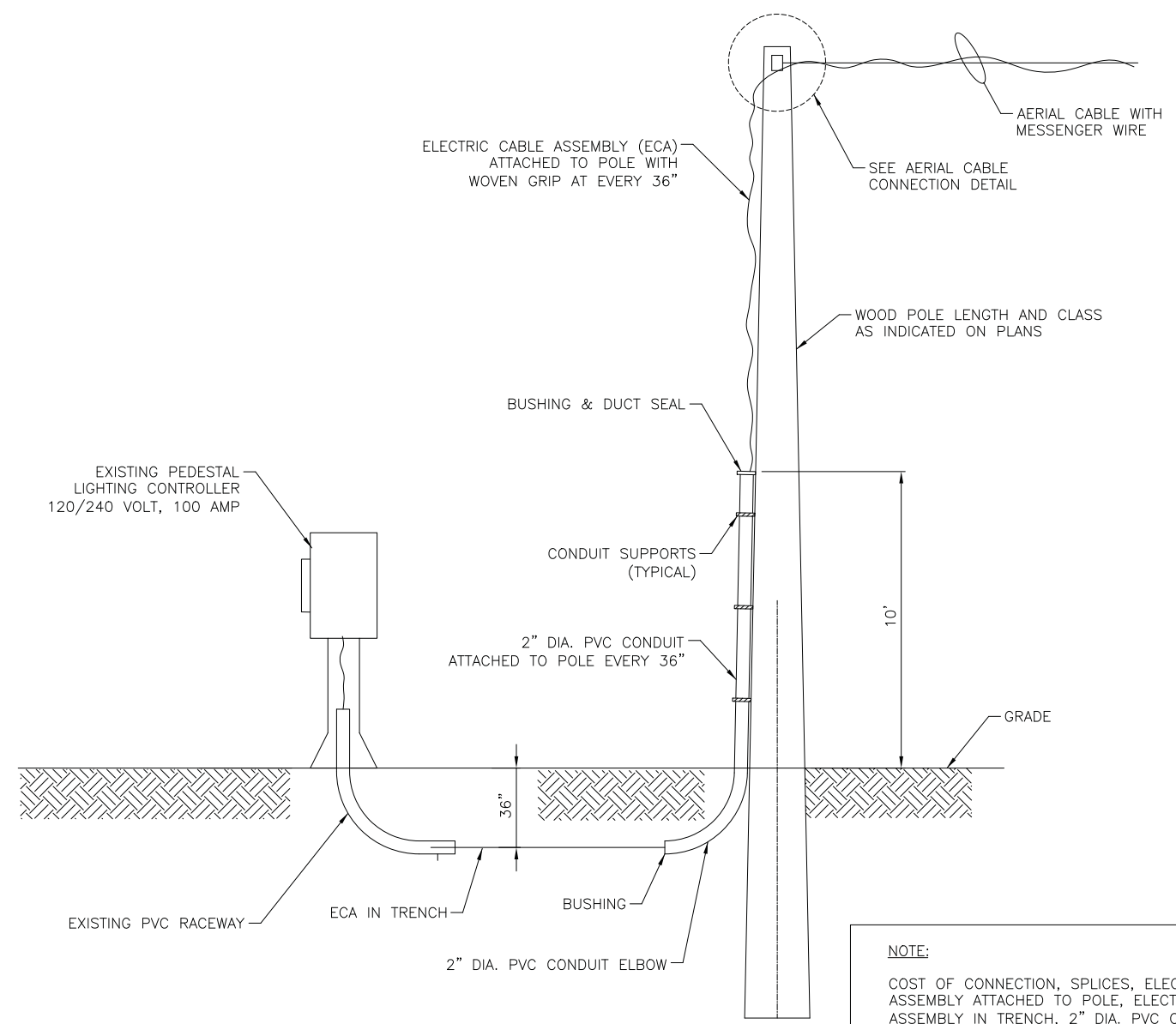
- LEGEND**
- TEMPORARY LIGHTING UNIT
LUMINAIRE, 250 WATT HPS, TYPE III DISTRIBUTION
TEMPORARY WOOD POLE, 50 FT. CLASS 4,
15 FT. MAST ARM (40 FT. M.H.)
 - TEMPORARY LIGHTING UNIT
LUMINAIRE, 100 WATT HPS, TYPE III DISTRIBUTION
TEMPORARY WOOD POLE, 25 FT.,
3 FT. MAST ARM (16 FT. M.H.)
 - TEMPORARY LIGHTING CONTROLLER
 - AERIAL CABLE
AERIAL CABLE, 4-1/C NO. 6 WITH MESSENGER WIRE
 - TEMPORARY WOOD POLE, 50 FT., CLASS 4
 - EXISTING LIGHTING UNIT
LUMINAIRE, 250 WATT HPS
35 FT. M.H., 6 FT. MAST ARM
 - EXISTING UNIT DUCT (SIZE AS SPECIFIED IN PLANS)

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINISH	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL	
NO.	



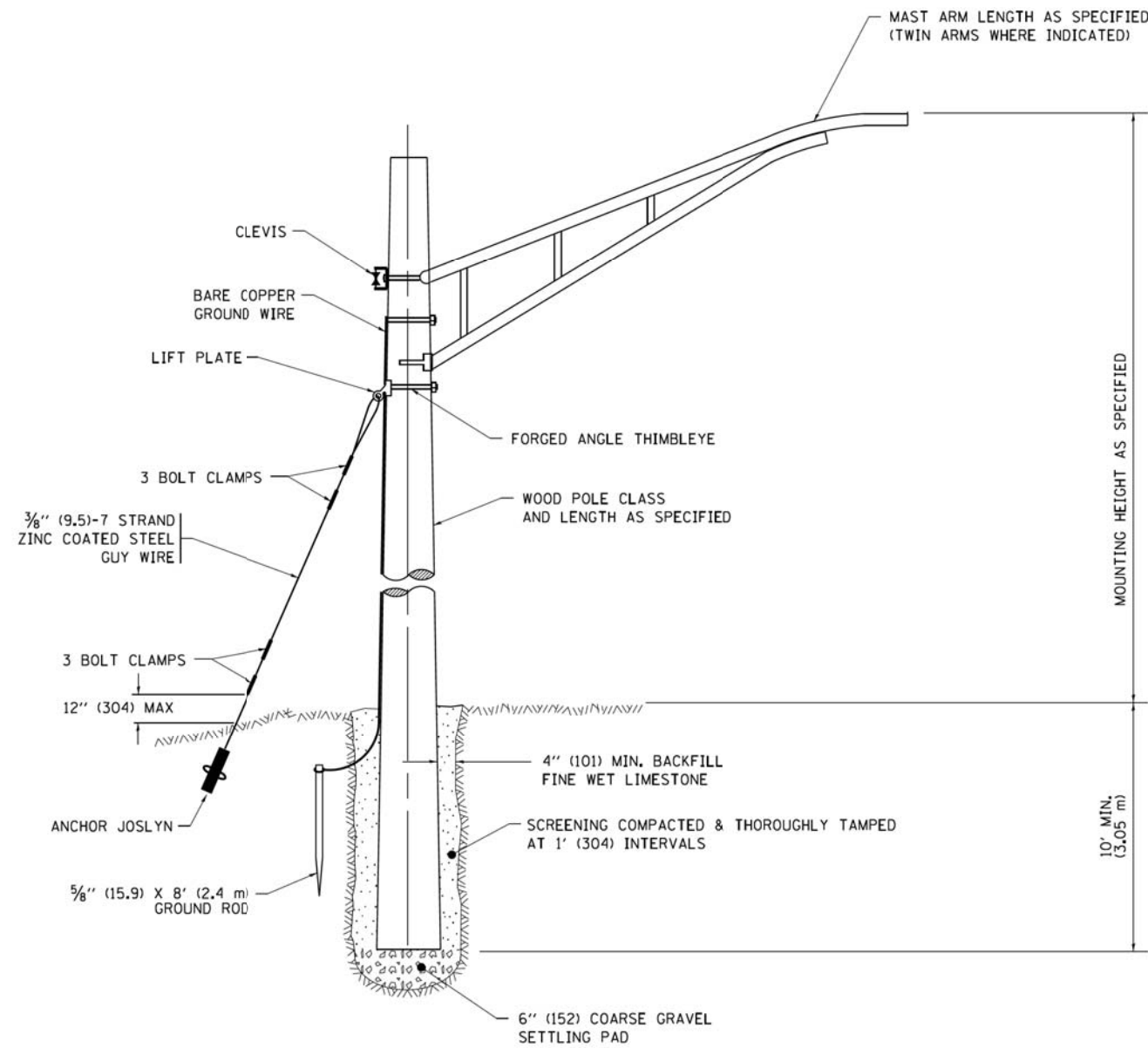
AERIAL CABLE CONNECTION DETAIL
N.T.S.



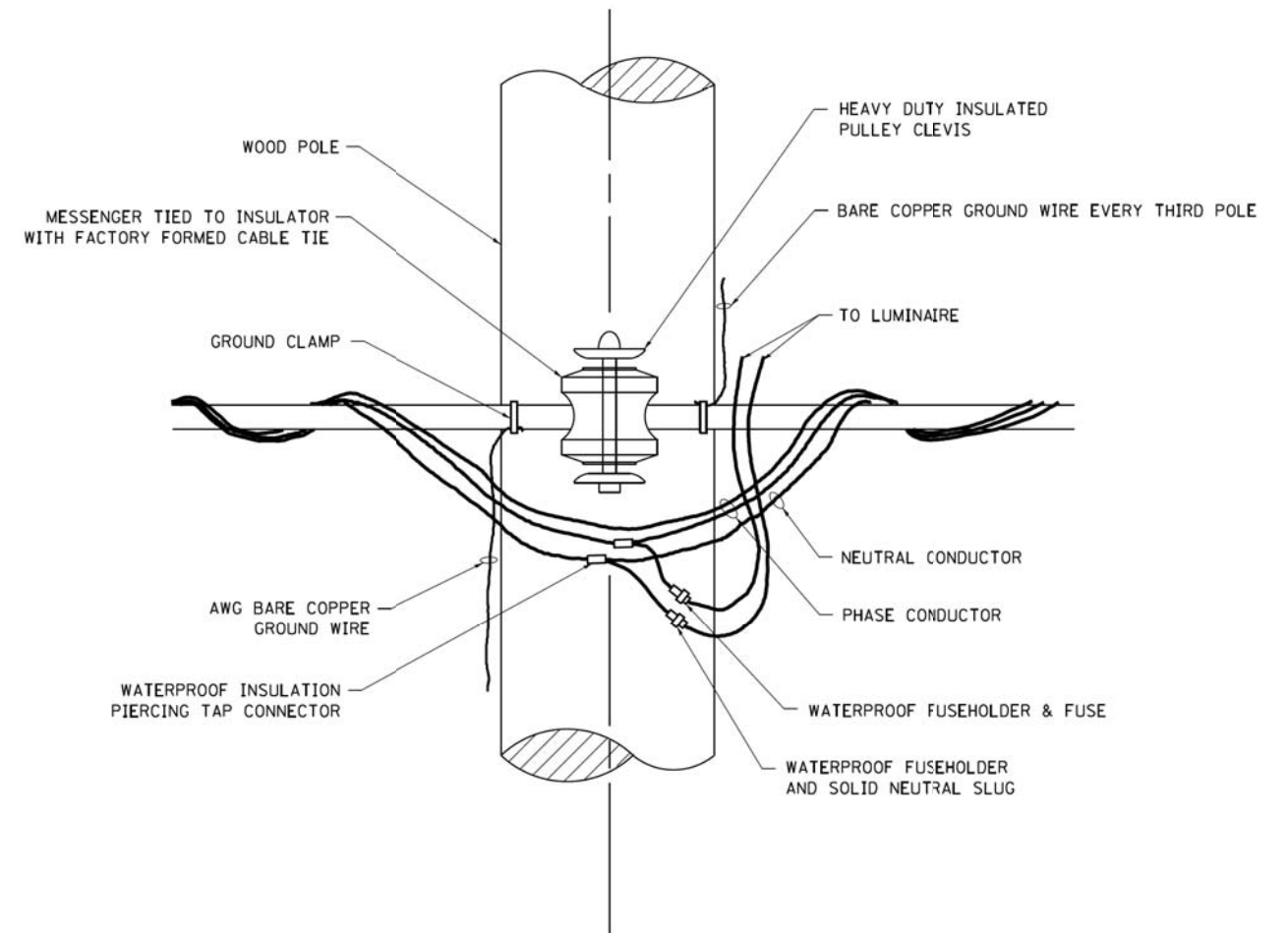
WIRING CONNECTION DETAIL
WOOD POLE TO EXISTING LIGHTING CONTROLLER
N.T.S.

NOTE:
COST OF CONNECTION, SPLICES, ELECTRIC CABLE ASSEMBLY ATTACHED TO POLE, ELECTRIC CABLE ASSEMBLY IN TRENCH, 2" DIA. PVC CONDUIT AND ELBOW, CONDUIT MOUNTING HARDWARE, BUSHING AND DUCT SEAL ARE INCIDENTAL TO THE UNIT PRICE FOR TEMPORARY ELECTRIC SERVICE CONNECTION.

WOOD POLE AND AERIAL CABLE WILL BE PAID FOR SEPARATELY.



TEMPORARY LIGHT POLE DETAIL



TEMPORARY LIGHT POLE ATTACHMENT DETAIL

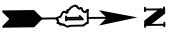
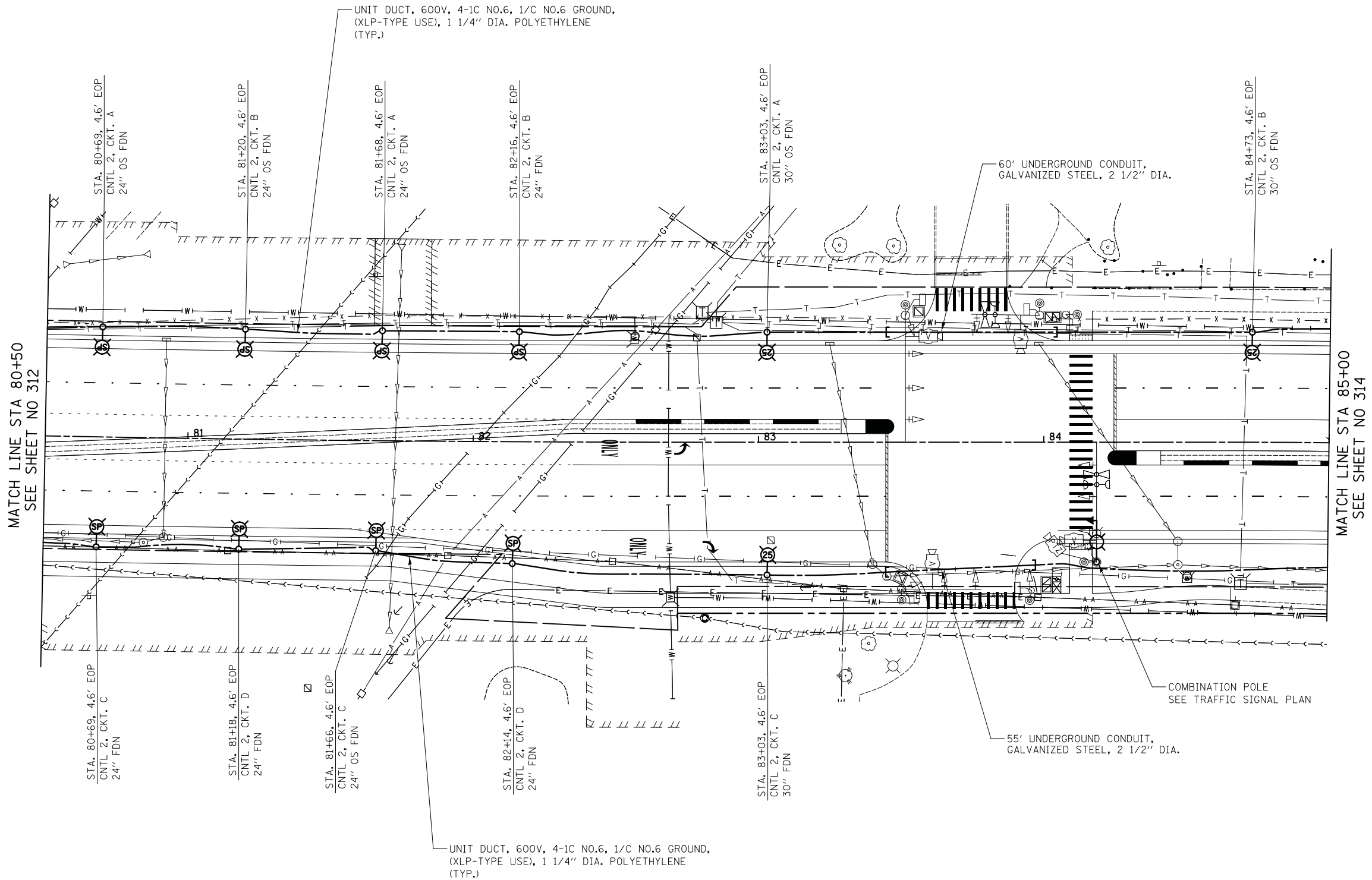
NOTE:

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\l\084EBIDINTEG\illinois.gov\PI00T\Documents\IDOT Offices\District 1\Projects\Dist 1\CA0Data\CA0sheets\be800.dgn	DRAWN	REVISOR - R.T. 07-26-16	2665					18-00158-13-WR	LAKE	623	311	
Default	PLOT SCALE = 50,000 / in	CHECKED -	REVISOR -		BE-800		CONTRACT NO. XXXXX					
	PLOT DATE = 9/1/2016	DATE -	REVISOR -		SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				

FINL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		
	AREAS CHECKED		

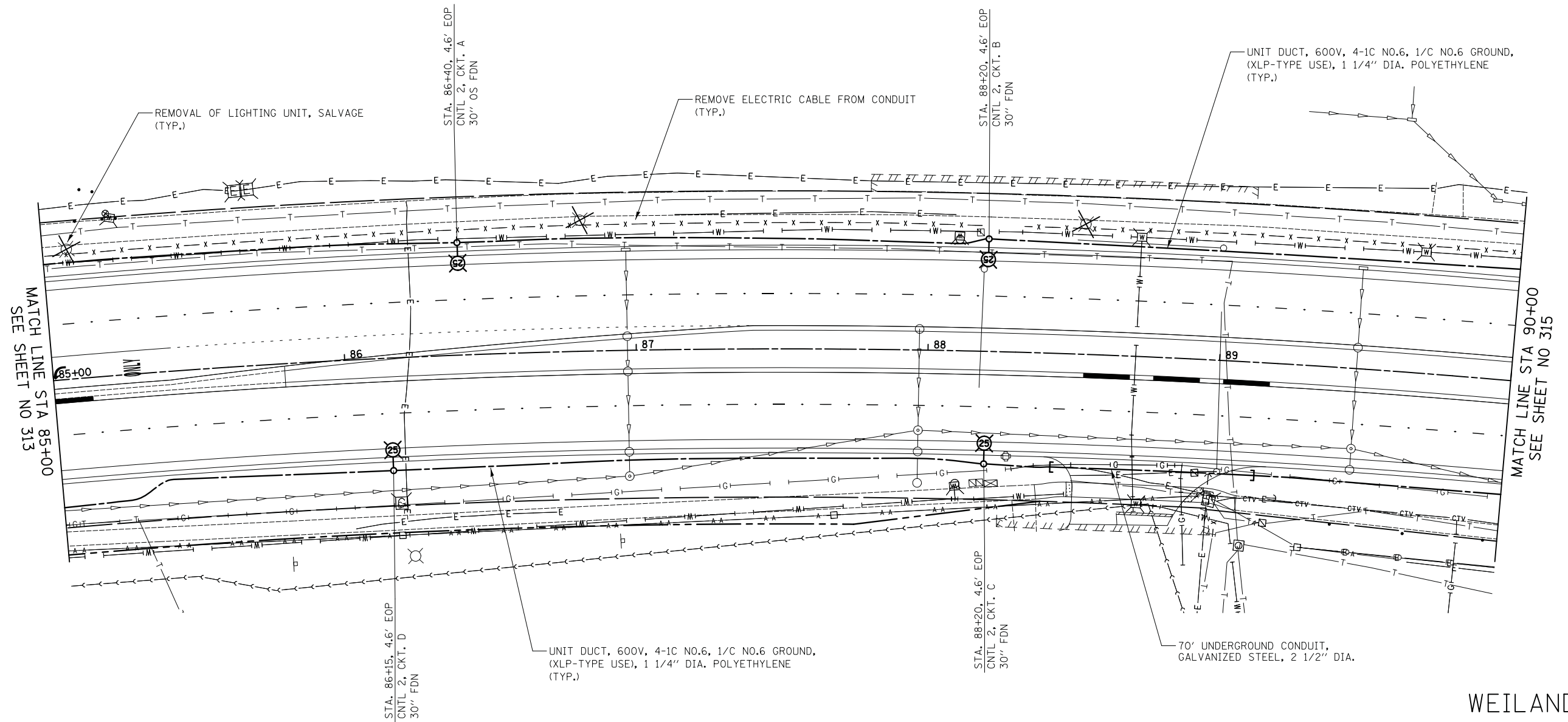
ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		
	AREAS CHECKED		



WEILAND ROAD

FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
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	AREAS CHECKED	
	AREAS CHECKED	

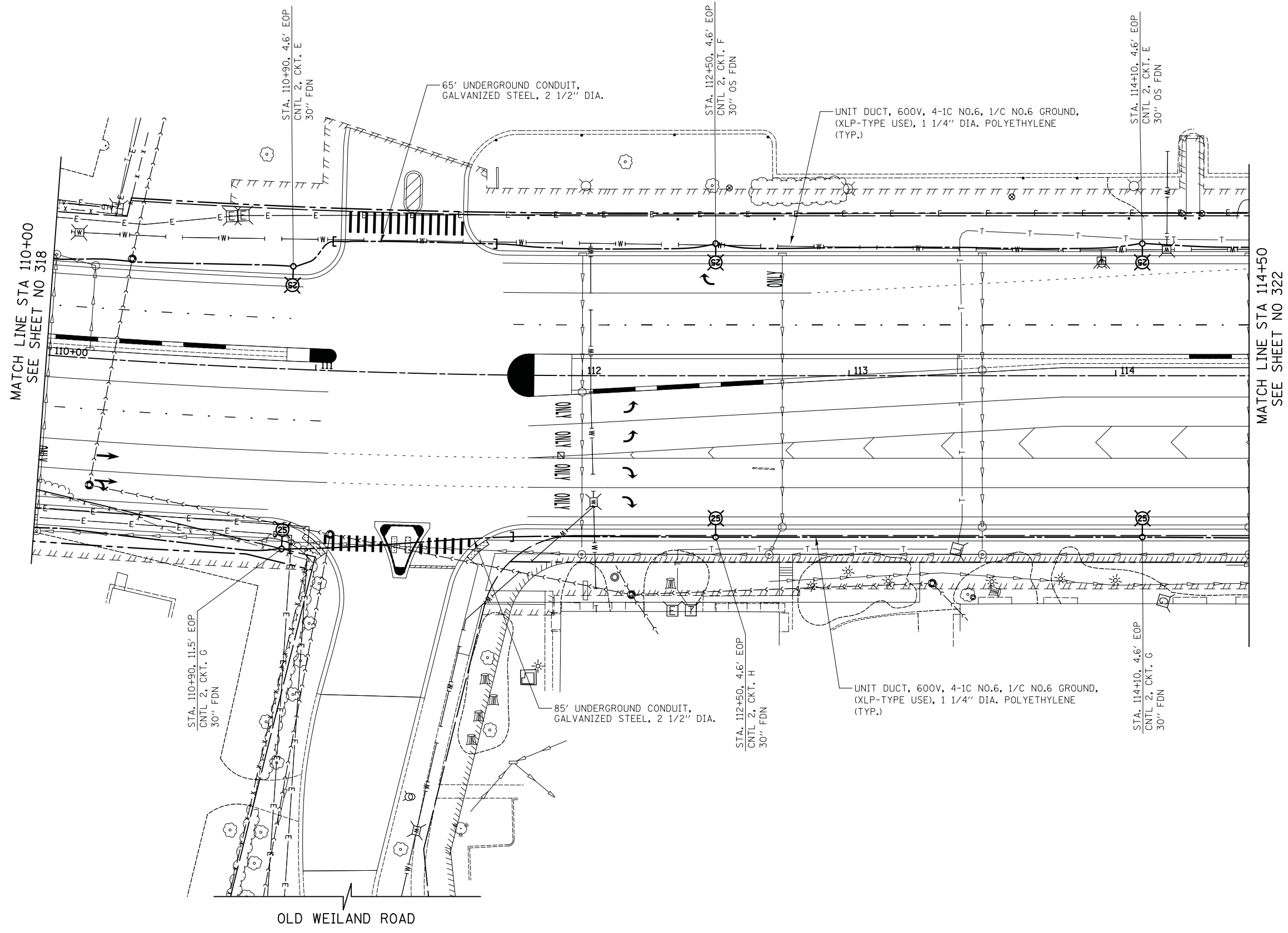
ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	BY
NO.	TEMPLATE	
	AREAS CHECKED	
	AREAS CHECKED	



WEILAND ROAD

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

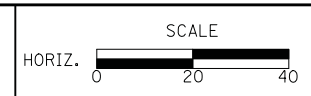
ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



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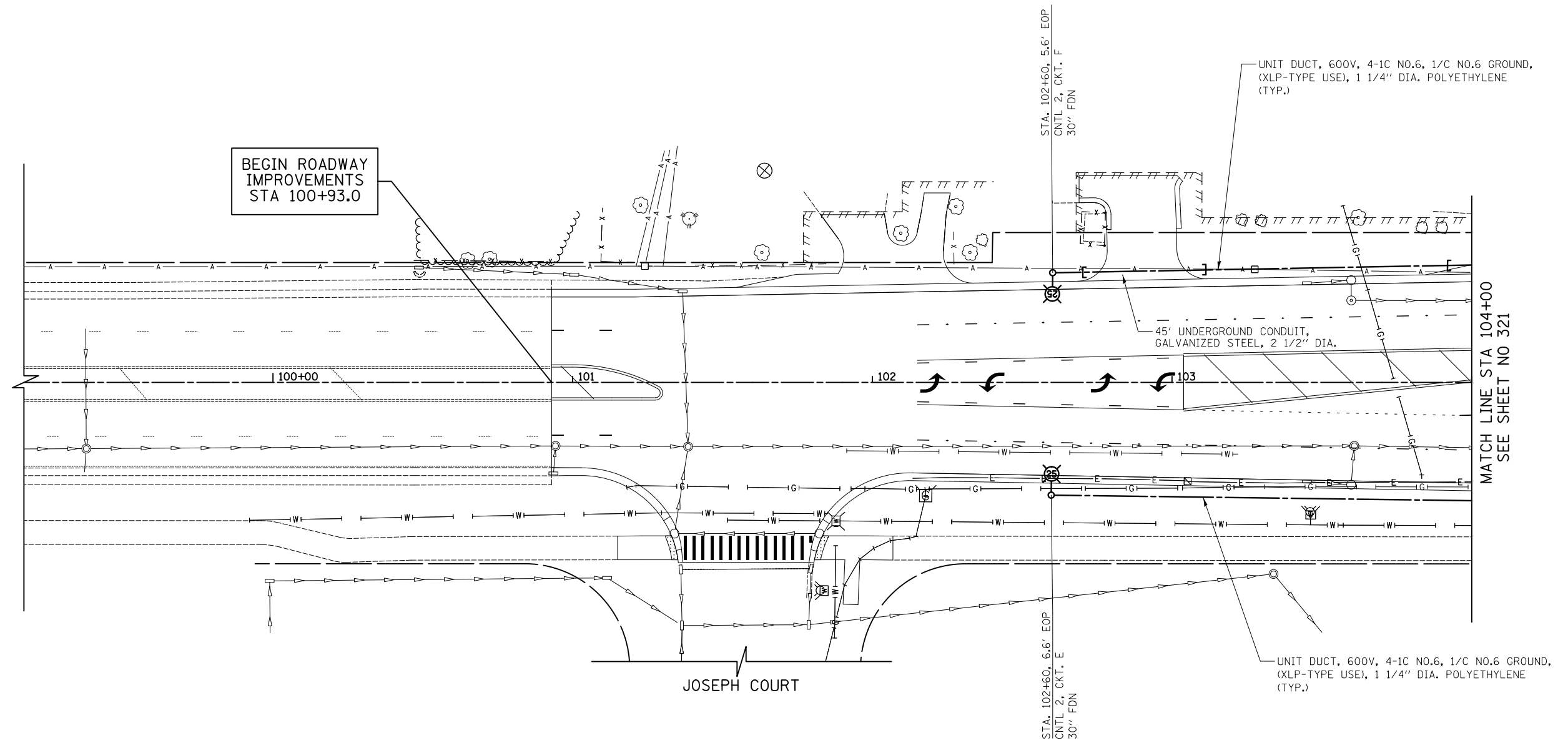


PROPOSED LIGHTING PLAN
SHEET NO. 8 OF 14 SHEETS STA. 110+00.0 TO STA. 114+50.0

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	319
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		

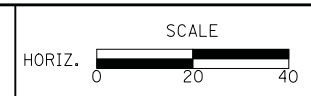


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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

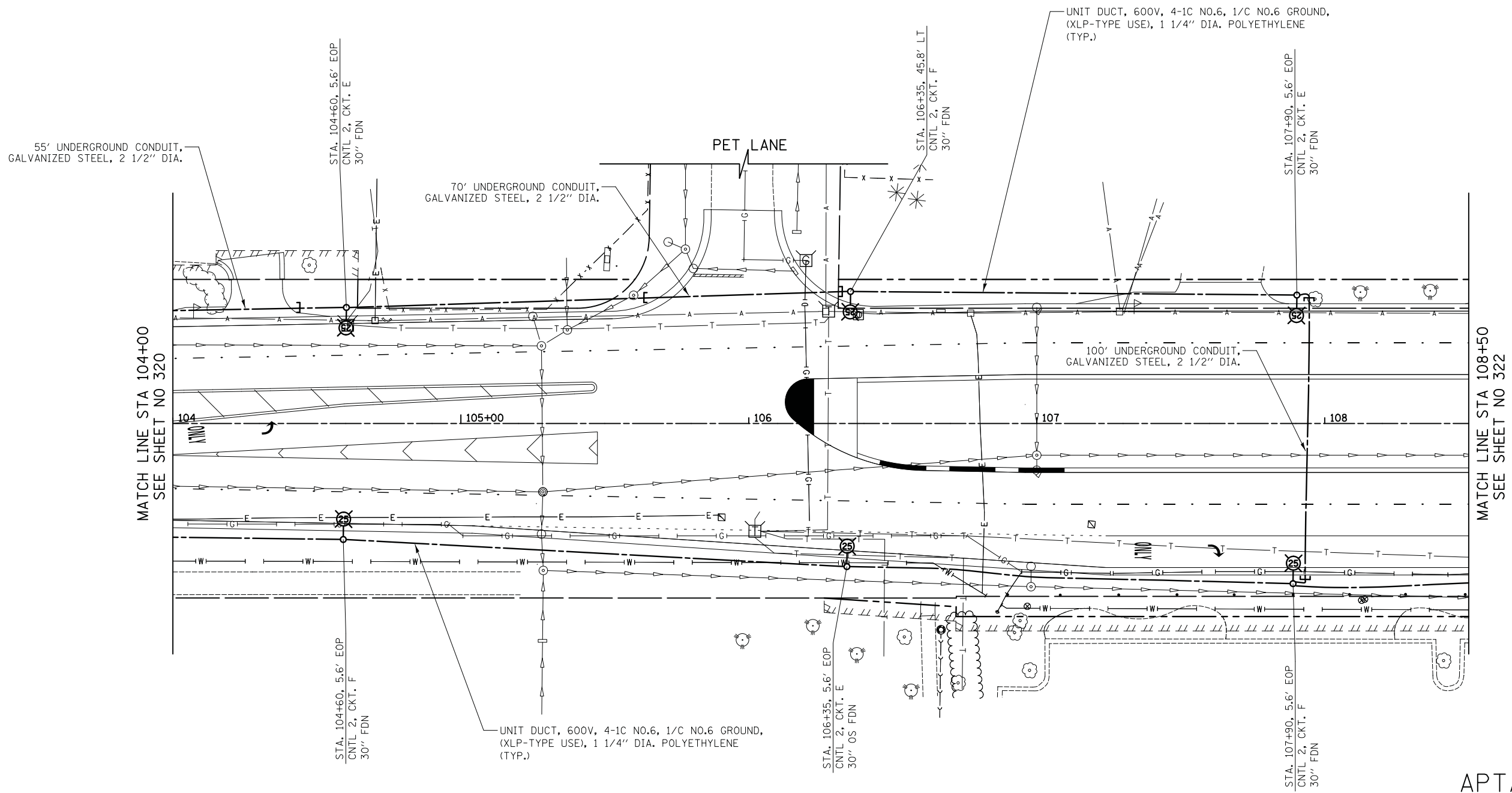


PROPOSED LIGHTING PLAN
 SHEET NO. 9 OF 14 SHEETS STA. 100+93.0 TO STA. 104+00.0

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	320
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		
NO.			

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		
NO.			

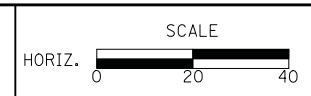


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DATE - 6/10/2019	REVISED -

**STATE OF ILLINOIS
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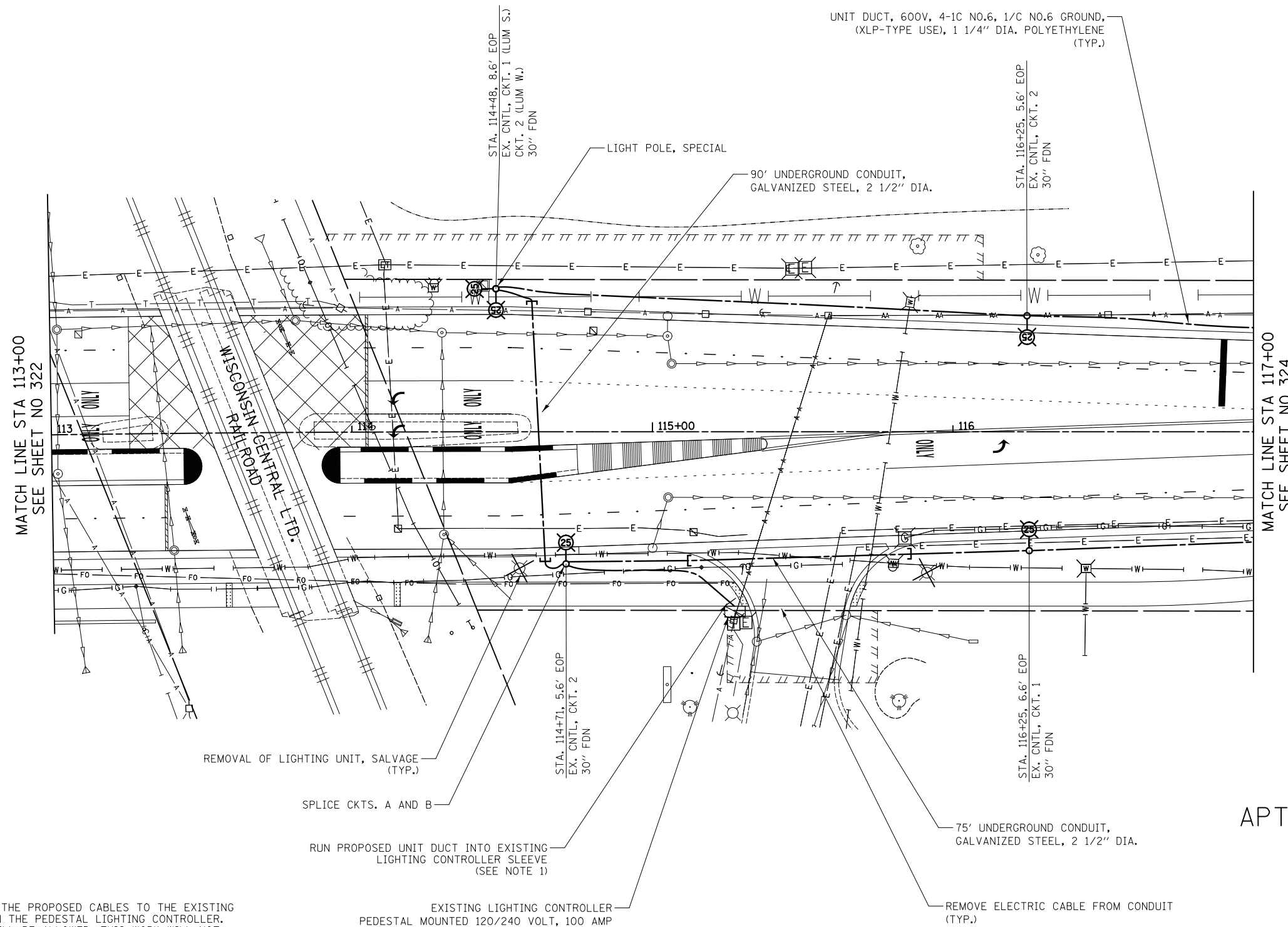
PROPOSED LIGHTING PLAN

SHEET NO. 10 OF 14 SHEETS STA. 104+00.0 TO STA. 108+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	321
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FINAL SURVEY	DATE
NO.	
SURVEYED	BY
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	

ORIGINAL SURVEY	DATE
NO.	
SURVEYED	BY
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	



NOTE:

1. CONTRACTOR SHALL CONNECT THE PROPOSED CABLES TO THE EXISTING 30 AMP CIRCUIT BREAKERS IN THE PEDESTAL LIGHTING CONTROLLER. NO UNDERGROUND SPLICING WILL BE ALLOWED. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE UNIT DUCT PAY ITEM.
2. THERE ARE 3 EXISTING 30 AMP CIRCUIT BREAKERS IN THE LIGHTING CONTROLLER. CIRCUIT BREAKERS WILL BE REFERRED TO AS #1 TO #3 FROM LEFT TO RIGHT.

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DATE - 6/10/2019	REVISED -

**STATE OF ILLINOIS
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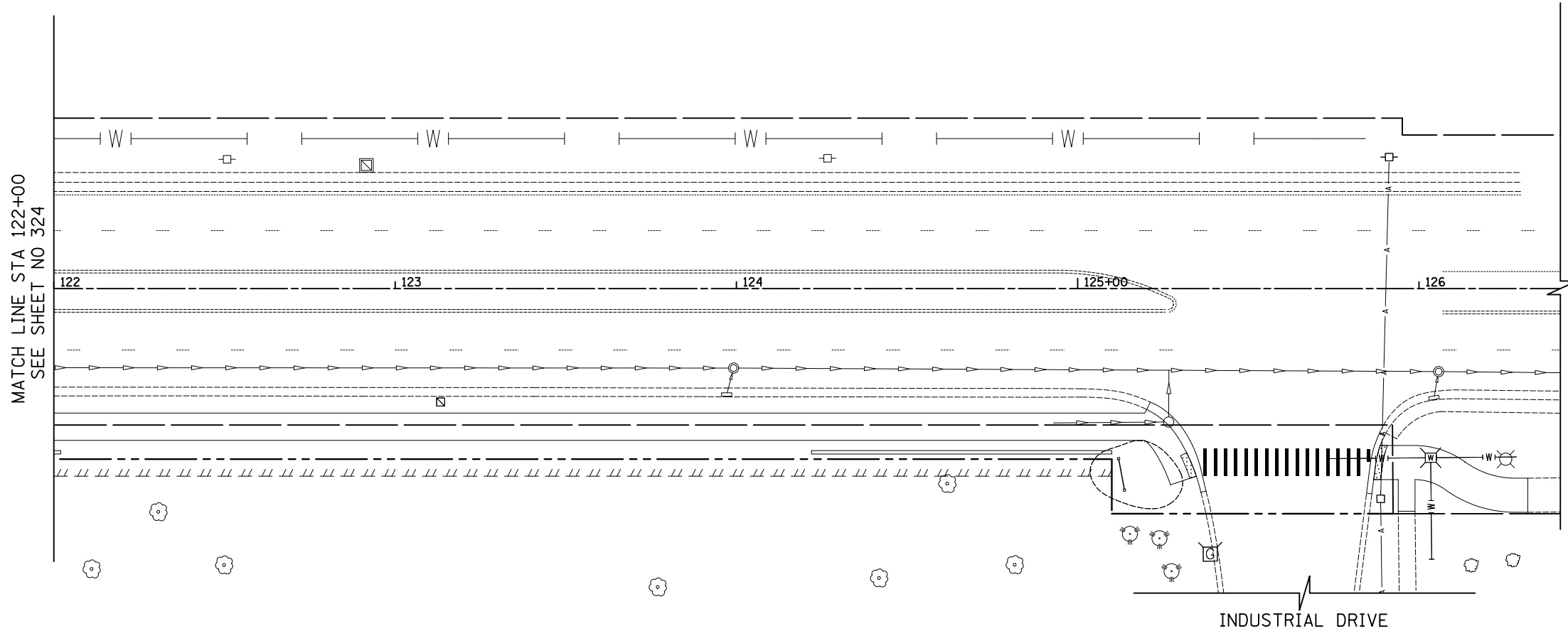
PROPOSED LIGHTING PLAN

SHEET NO. 12 OF 14 SHEETS STA. 113+00.0 TO STA. 117+00.0

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	323
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



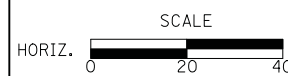
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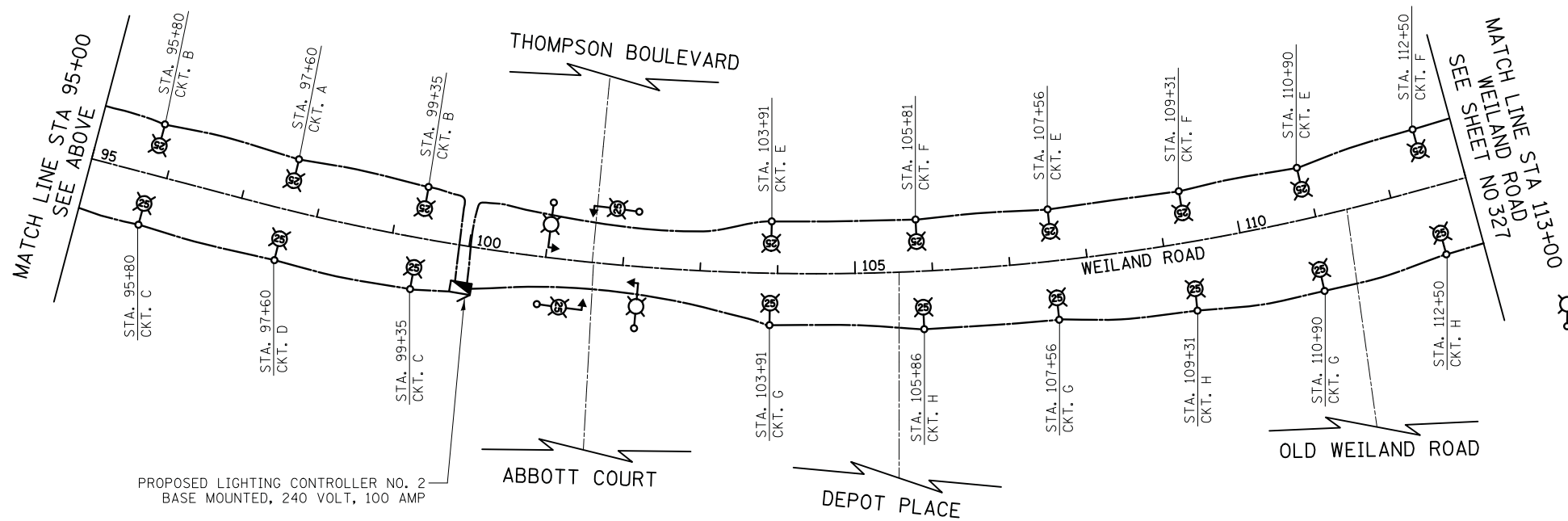
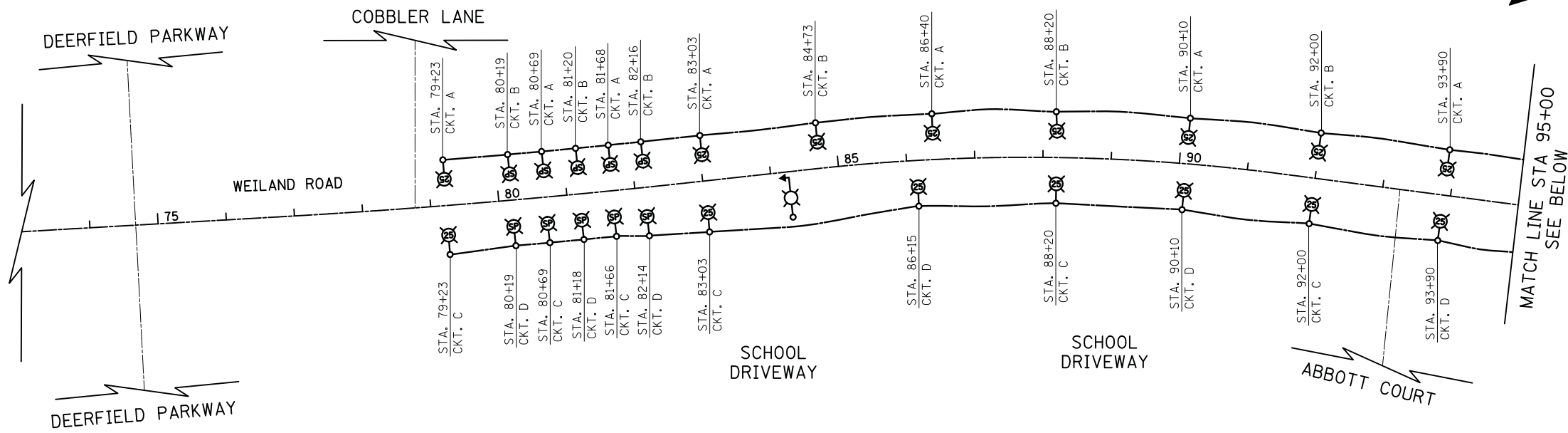
PROPOSED LIGHTING PLAN

SHEET NO. 14 OF 14 SHEETS STA. 122+00.0 TO STA. 126+03.9

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	325
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FINIAL SURVEY NO.	SURVEYED BY	DATE
NOTE BOOK NO.	PLOTTED	
AREAS CHECKED	TEMPLATE	
	AREAS CHECKED	

ORIGINAL SURVEY NO.	SURVEYED BY	DATE
NOTE BOOK NO.	PLOTTED	
AREAS CHECKED	TEMPLATE	
	AREAS CHECKED	



**PROPOSED LIGHTING CONTROLLER 2
CIRCUIT LOAD TABLE**

RED CABLE	QUANTITY	AMP	KW @ 120V	BLACK CABLE	QUANTITY	AMP	KW @ 120V
A	8	5.2	0.62	A	8	5.2	0.62
B	8	5.2	0.62	B	8	5.2	0.62
C	8	5.2	0.62	C	8	5.2	0.62
D	7	4.6	0.55	D	7	4.6	0.55
E	8	5.2	0.62	E	8	5.2	0.62
F	7	4.6	0.55	F	7	4.6	0.55
G	6	3.9	0.47	G	6	3.9	0.47
H	4	2.6	0.31	H	4	2.6	0.31
TOTAL:		36.5	4.36	TOTAL:		36.5	4.36

LUMINAIRE = LUMINAIRE INSTALLATION, TYPE 1 AT 240V (130 WATT) = 0.65 AMP

- LEGEND**
- PROPOSED LIGHTING UNIT
LUMINAIRE INSTALLATION, TYPE 1 - LUMINAIRE, 130 WATT, LED LIGHT POLE, WEATHERING STEEL, 35 FT. M.H., 6 FT. MAST ARM
 - PROPOSED LIGHTING UNIT
LUMINAIRE INSTALLATION, TYPE 2 - LUMINAIRE, 268 WATT, LED LIGHT POLE, WEATHERING STEEL, 15 FT. M.H., 3 FT. MAST ARM
 - PROPOSED COMBINATION TRAFFIC SIGNAL AND STREET LIGHT
LUMINAIRE INSTALLATION, TYPE 1 - LUMINAIRE, 130 WATT, LED 45 FT. M.H., 20 FT. MAST ARM
LUMINAIRE POWERED THROUGH TRAFFIC SIGNAL CONTROLLER (SEE TRAFFIC SIGNAL PLANS)
 - PROPOSED COMBINATION TRAFFIC SIGNAL AND STREET LIGHT
LUMINAIRE INSTALLATION, TYPE 2 - LUMINAIRE, 268 WATT, LED 45 FT. M.H., 20 FT. MAST ARM
LUMINAIRE POWERED THROUGH TRAFFIC SIGNAL CONTROLLER (SEE TRAFFIC SIGNAL PLANS)
 - PROPOSED LIGHTING CONTROLLER
 - PROPOSED UNIT DUCT
UNIT DUCT, 600V, 4-1/2" NO.6, 1/2" NO.6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE
 - EXISTING LIGHTING CONTROLLER

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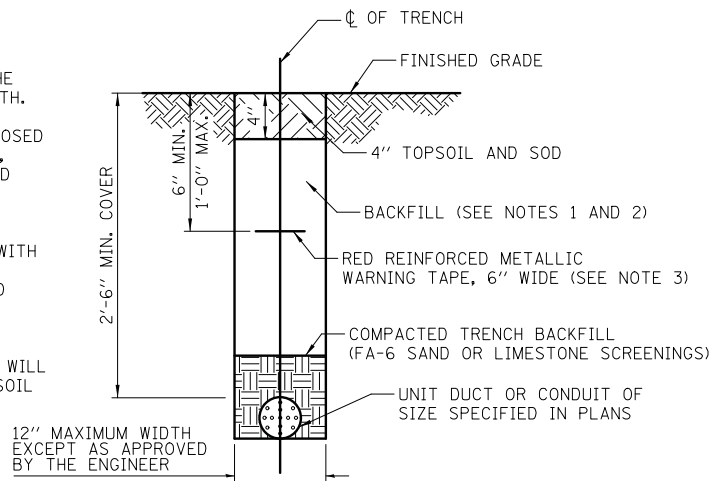
PROPOSED LIGHTING WIRING DIAGRAM

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	326
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

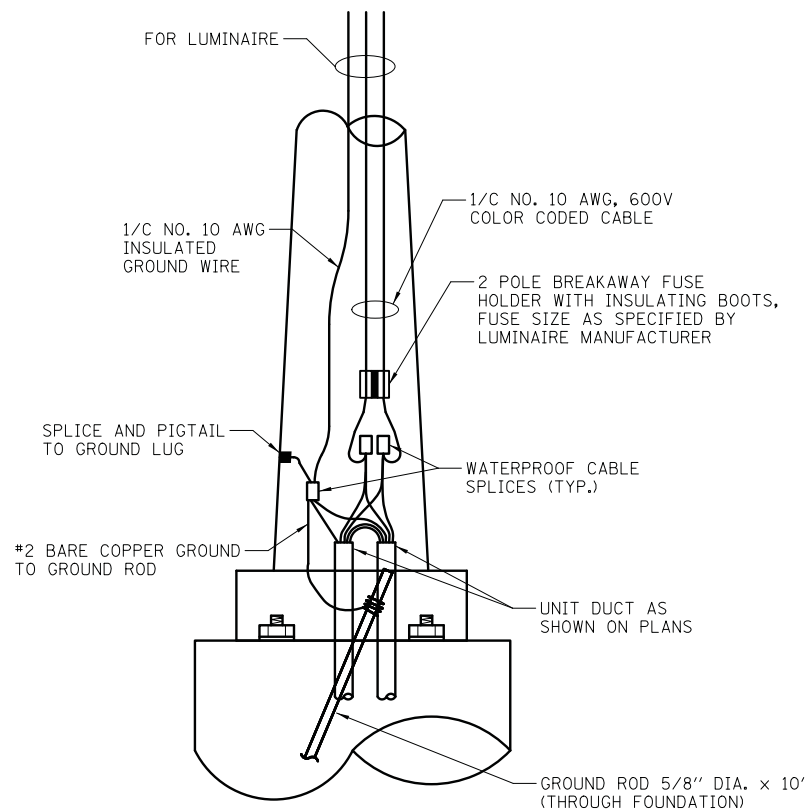
NOTES:

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.

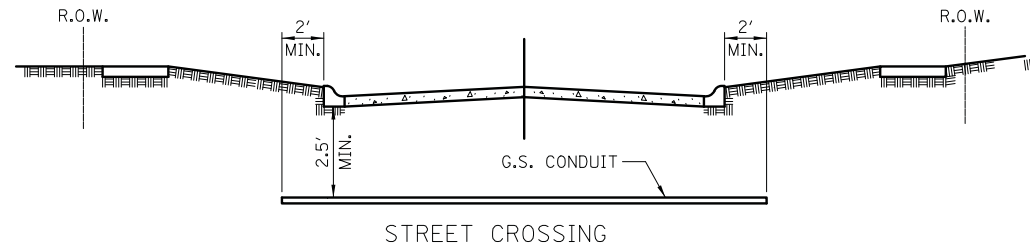


TYPICAL TRENCH CROSS SECTION

ALL CONDUCTORS SHALL BE INDIVIDUALLY COLOR-CODED. THE COLOR-CODED INSULATION FOR EACH WIRE SHALL RUN THE ENTIRE LENGTH OF THE CONDUCTOR FROM THE CIRCUIT BREAKER TO THE LUMINAIRE WITH THE SAME COLOR.

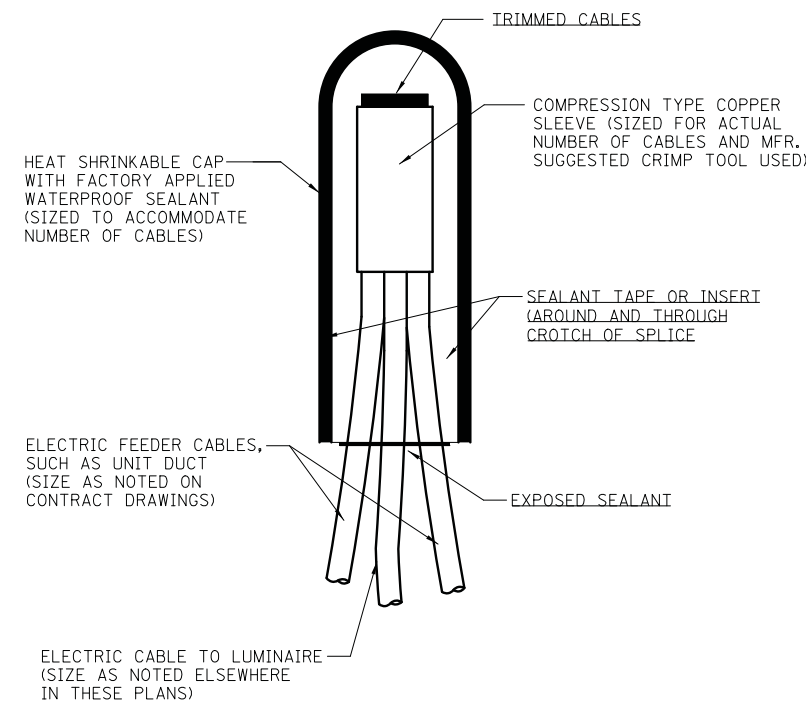


ROADWAY POLE HANDHOLE WIRING DIAGRAM
VILLAGE OF BUFFALO GROVE



- 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

DATE	BY	SURVEYED	PLOTTED	TEMPLATE	AREAS CHECKED
FINIAL SURVEY NOTE BOOK NO.					

DATE	BY	SURVEYED	PLOTTED	TEMPLATE	AREAS CHECKED
ORIGINAL SURVEY NOTE BOOK NO.					



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

DESIGNED - SJC	REVISED -
DRAWN - SJC	REVISED -
CHECKED - DNM	REVISED -
DATE - 6/10/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

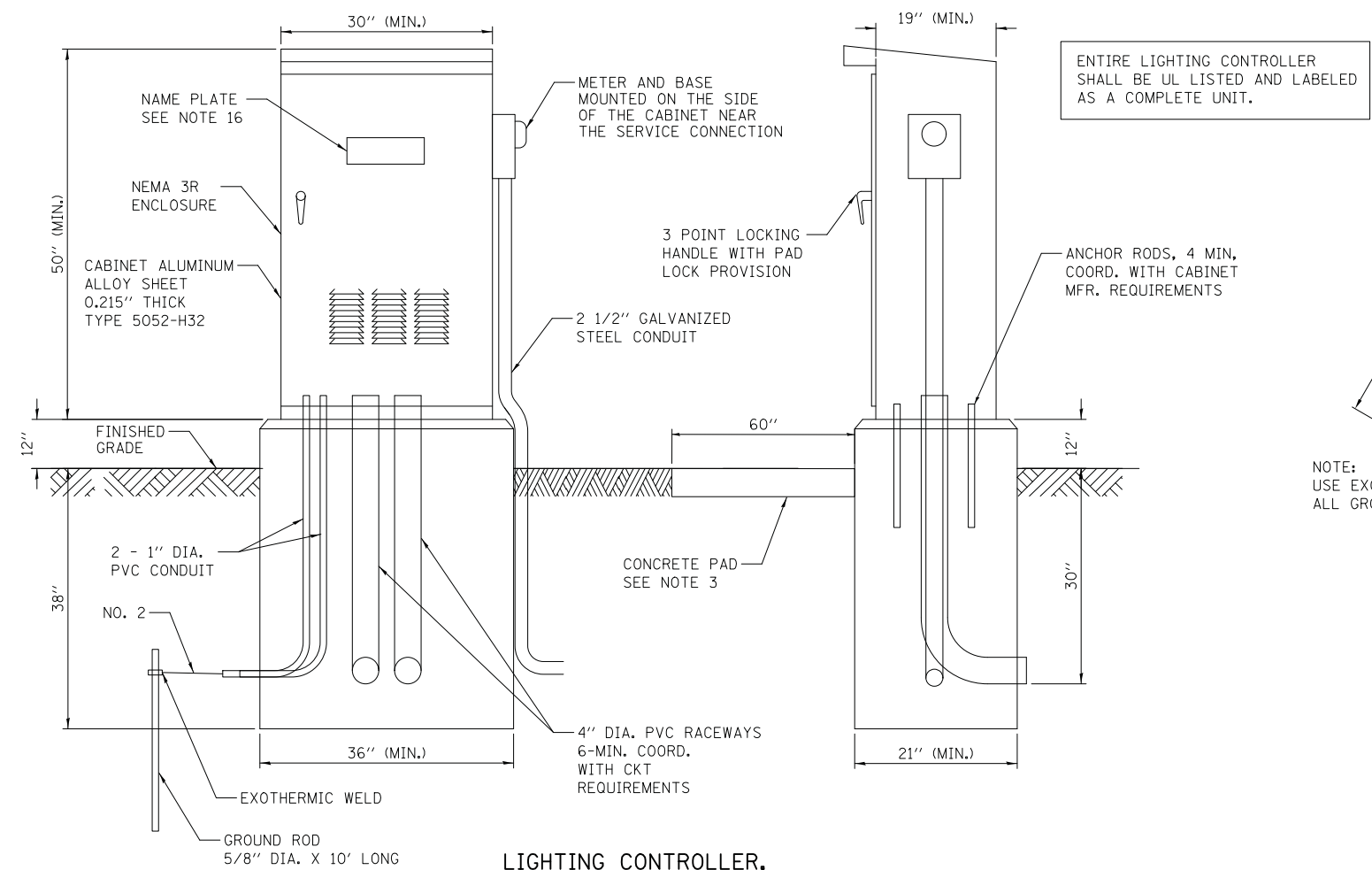
LIGHTING DETAILS

NOT TO SCALE SHEET NO. 1 OF 6 SHEETS

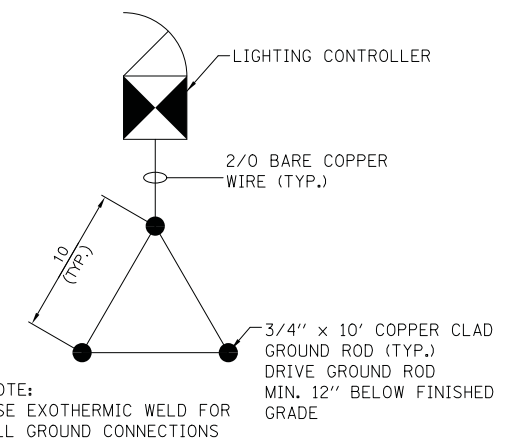
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	328
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
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TEMPLATE	
AREAS CHECKED	
FINISH SURVEY	
NOTE BOOK	
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ORIGINAL SURVEY	
NOTE BOOK	
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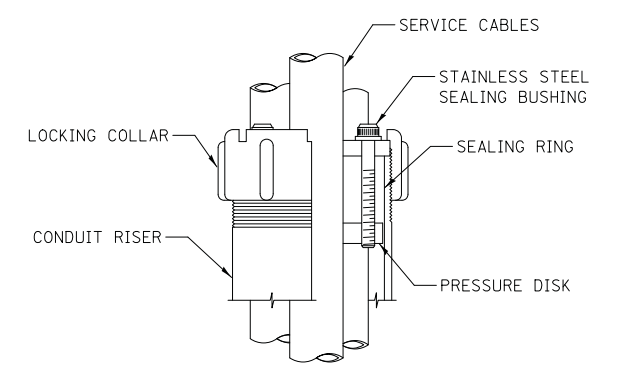


ENTIRE LIGHTING CONTROLLER SHALL BE UL LISTED AND LABELED AS A COMPLETE UNIT.



NOTE: USE EXOTHERMIC WELD FOR ALL GROUND CONNECTIONS

GROUND FIELD DETAIL

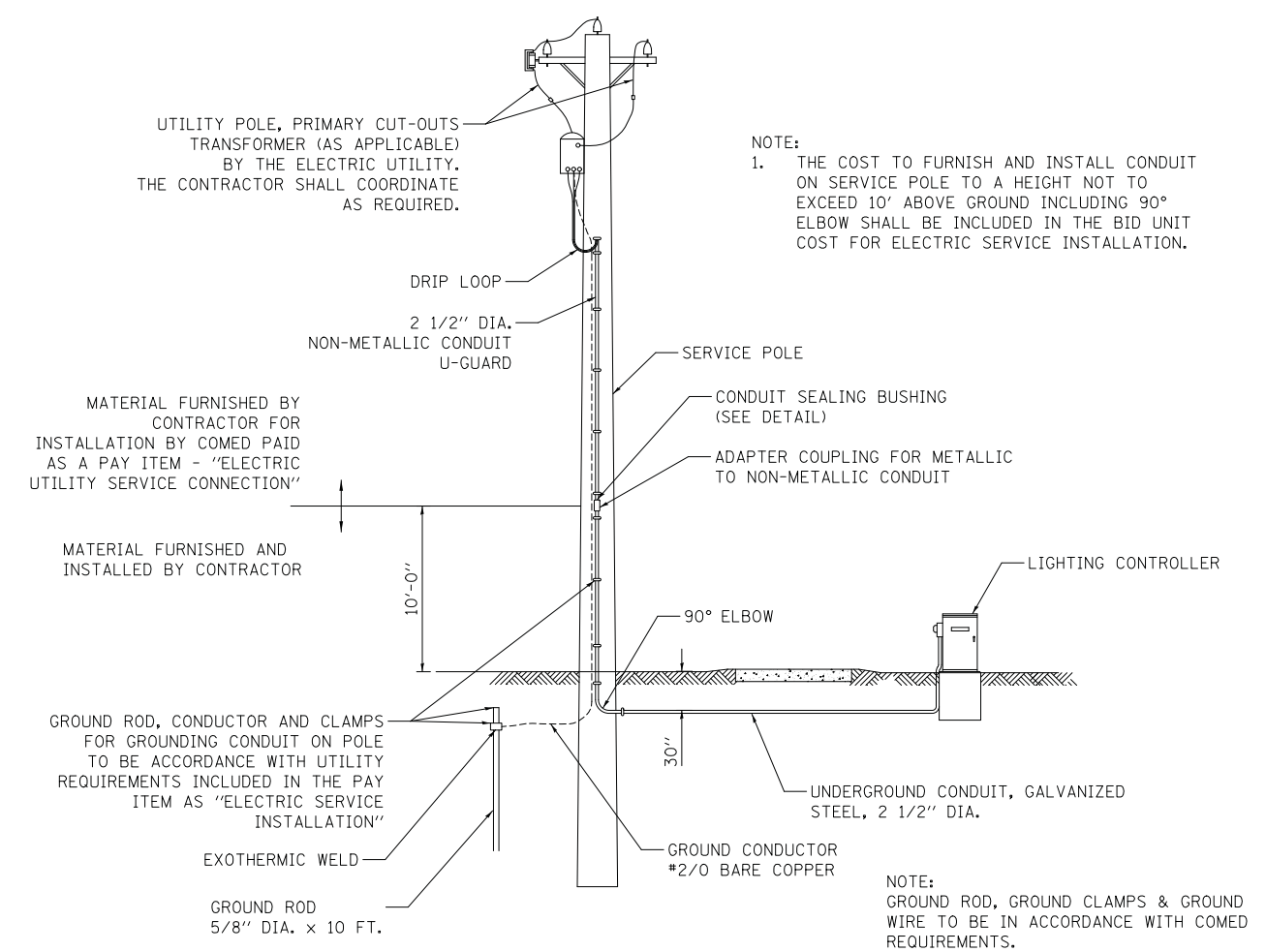


SEALING BUSHING DETAIL

NOTES:

LIGHTING CONTROLLER, BASE MOUNTED, 240 VOLT, 100 AMP

1. THE CABINET SHALL BE FABRICATED FROM 0.125" THICK ALUMINUM ALLOY SHEET AND SHALL BE REINFORCED WITH ALUMINUM ANGLES. THE CABINET DOOR SHALL BE NEMA TYPE 3R CONSTRUCTION WITH NEOPRENE GASKET.
2. FOUNDATION SIZE SHALL BE COORDINATED WITH CABINET SIZE AND MFR.
3. IN FRONT OF THE CONTROLLER CABINET DOOR, REMOVE VEGETATION AND 2" TOP SOIL, LEVEL THE AREA AND ON TOP, PLACE LENGTH WISE PARALLEL TO CONTROL CABINET, A CONCRETE PAD. THE COST OF LABOR AND MATERIALS ARE INCLUDED IN THE COST OF THE CONTROLLER. NOT REQUIRED IF ADJACENT TO SIDEWALK
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" DIA. STAINLESS STEEL HINGE PIN.
7. ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
8. CONTROL WIRING SHALL BE #12 AWG, 600V, TYPE "SIS" GRAY SWITCH BOARD WIRE, STRANDED COPPER. THE ENDS OF ALL CONTROL WIRES SHALL BE IDENTIFIED.
9. CABINET SHALL BE PRIMED AND PAINTED AS SPECIFIED.
10. THE HEADS OF CONNECTORS SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS.
11. ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
R = RED BL = BLUE W = WHITE
B = BLACK Y = YELLOW G = GREEN
12. PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICE IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
13. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
14. THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
15. 6" X 11" STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "VILLAGE OF BUFFALO GROVE LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.



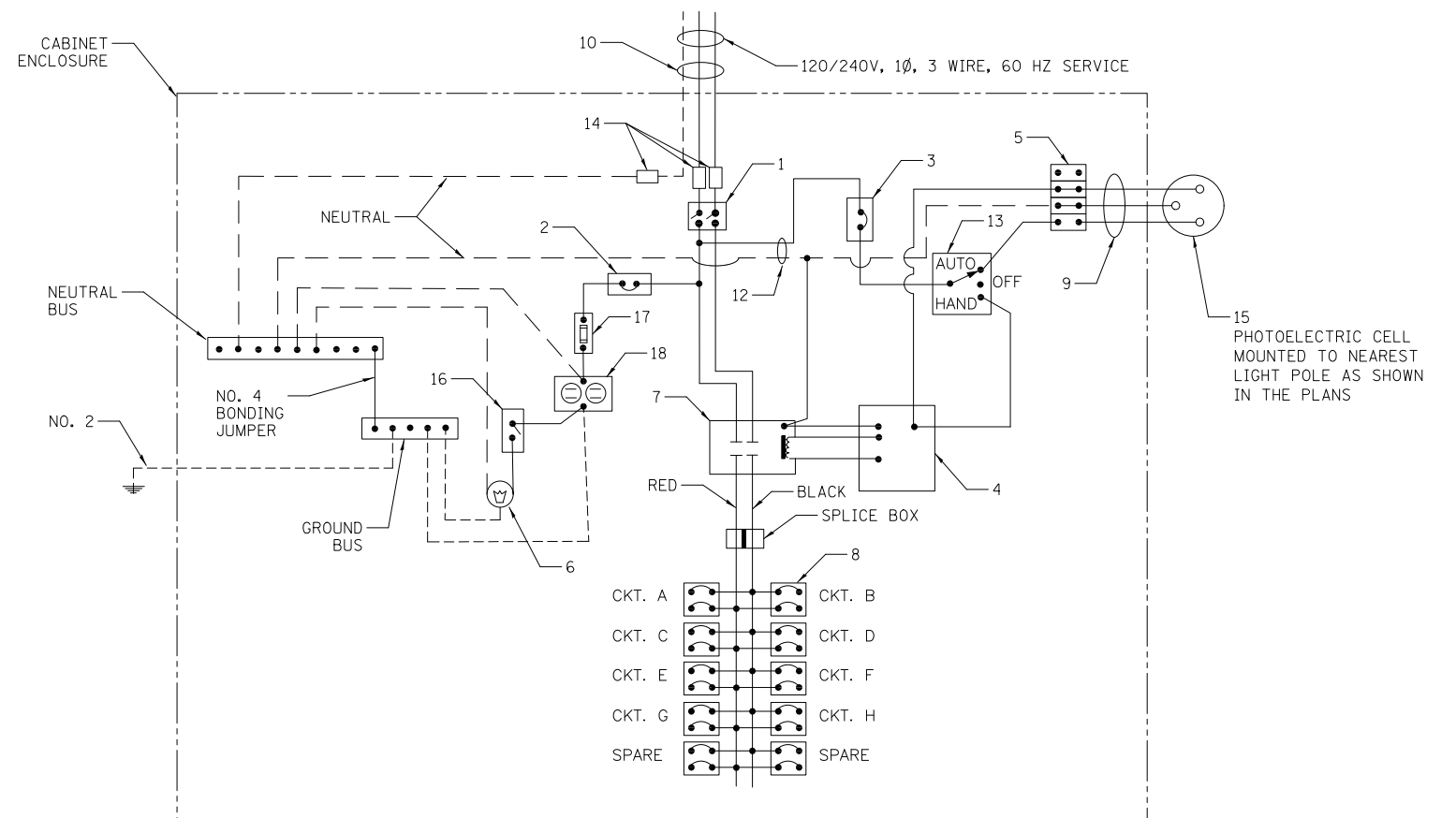
NOTE:
1. THE COST TO FURNISH AND INSTALL CONDUIT ON SERVICE POLE TO A HEIGHT NOT TO EXCEED 10' ABOVE GROUND INCLUDING 90° ELBOW SHALL BE INCLUDED IN THE BID UNIT COST FOR ELECTRIC SERVICE INSTALLATION.

ELECTRIC SERVICE INSTALLATION

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY NOTE BOOK NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY NOTE BOOK NO.	

LIGHTING CONTROLLER COMPONENT SCHEDULE	
ITEM	SPECIFICATION OR EQUAL
① MAIN CIRCUIT BREAKER	100 AMPERE, 2 POLE, 240 VOLT RATING INTERRUPTING CAPACITY NOT LESS THAN 25,000 RMS SYMMETRICAL AMPS AT 600V
② OUTLET CIRCUIT BREAKER	20 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	120 VOLT SWITCHED LAMPHOLDER
⑦ REMOTE CONTROL SWITCH - CONTACTOR	100 AMPERE 2 POLE, 240 VOLT RATING, 120V COIL, ELECTRICALLY OPERATED, MECHANICALLY HELD.
⑧ BRANCH LINE CIRCUIT BREAKERS	CKTS. A - H = 30 AMP, 2 POLE, 240 VOLT RATING ALL CIRCUITS SHALL BE INTERRUPTING CAPACITY NOT LESS THAN 10,000 RMS SYMMETRICAL AMPS AT 277V
⑨ PHOTOELECTRIC CELLCONTROL WIRE	3-600V XLP NO. 10
⑩ SERVICE CABLES	3-600V (XLP-TYPE USE) NO. 2
⑪ NOT USED	
⑫ CONTROL WIRE	2-600V XLP NO. 10
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
⑰ FUSE	20 AMP, 120 VOLT
⑱ OUTLET	120 VOLT SWITCHED LAMPHOLDER AND 20 AMP GFI DUPLEX RECEPTACLE. WEATHERPROOF SINGLE GANG CAST ALUMINUM BOX AND WEATHERPROOF COVER.



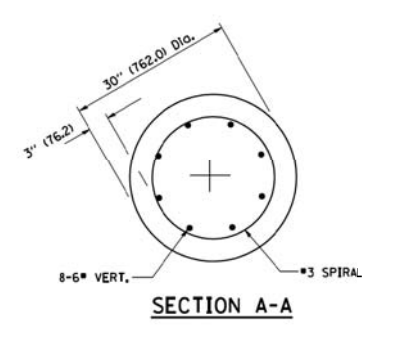
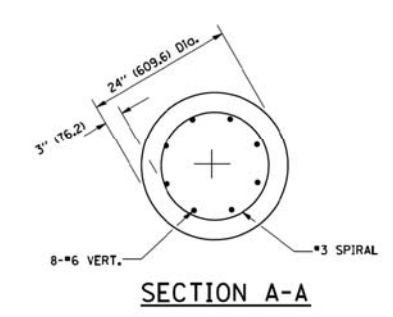
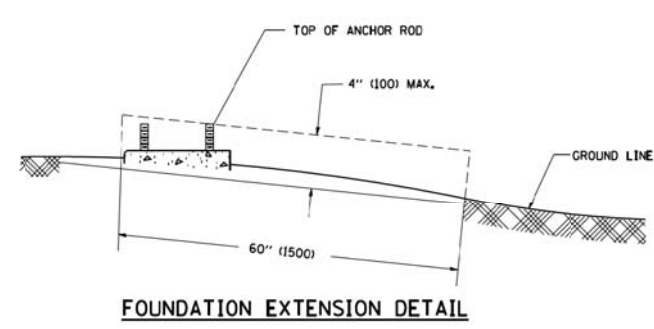
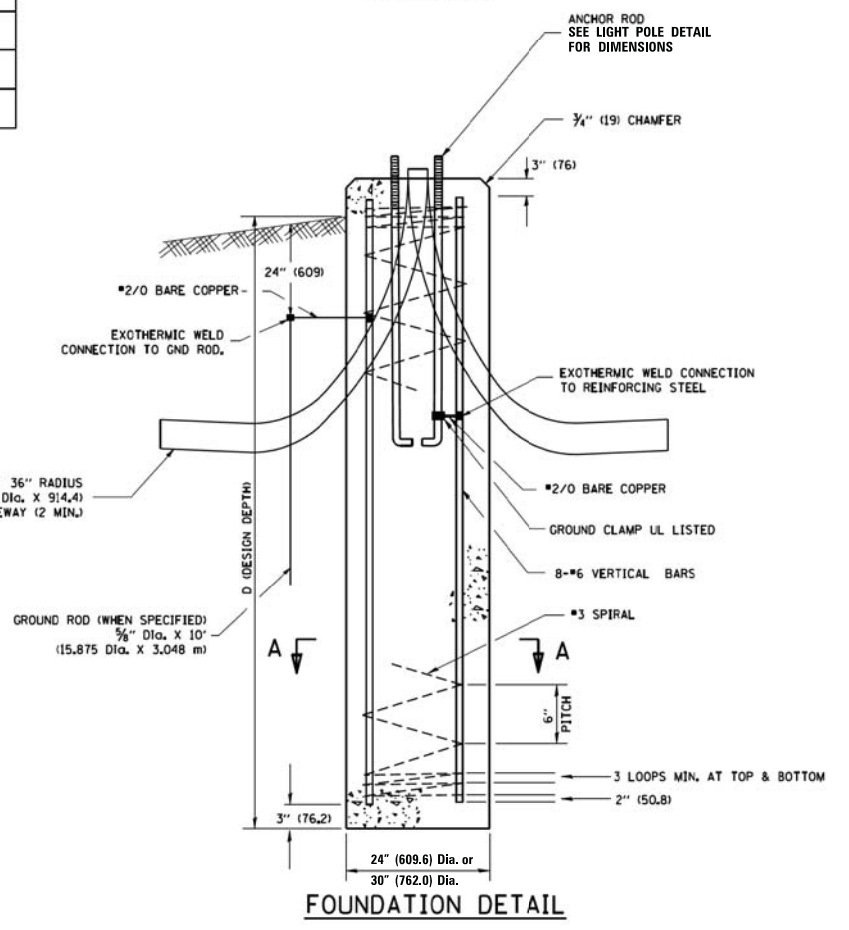
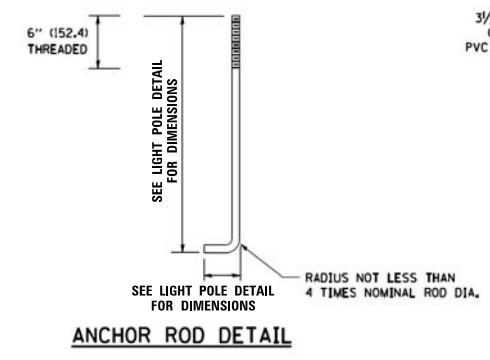
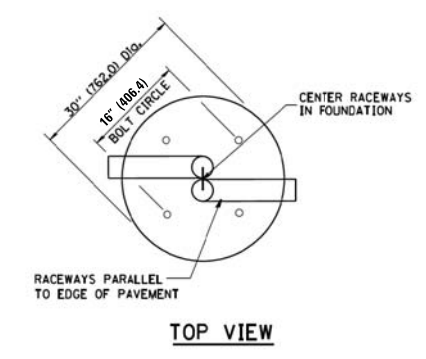
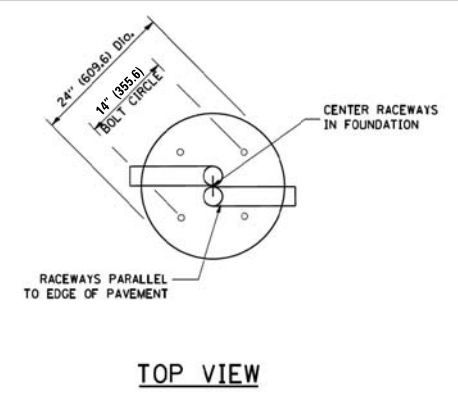
LIGHTING CONTROLLER WIRING DIAGRAM

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BY	
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PLOTTED	
TEMPLATE	
AREAS CHECKED	
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PLOTTED	
TEMPLATE	
AREAS CHECKED	
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LIGHT POLE FOUNDATION DEPTH TABLE

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Ou = 0.375 TON/SO. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY Ou = 0.75 TON/SO. FT.	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY Ou = 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)

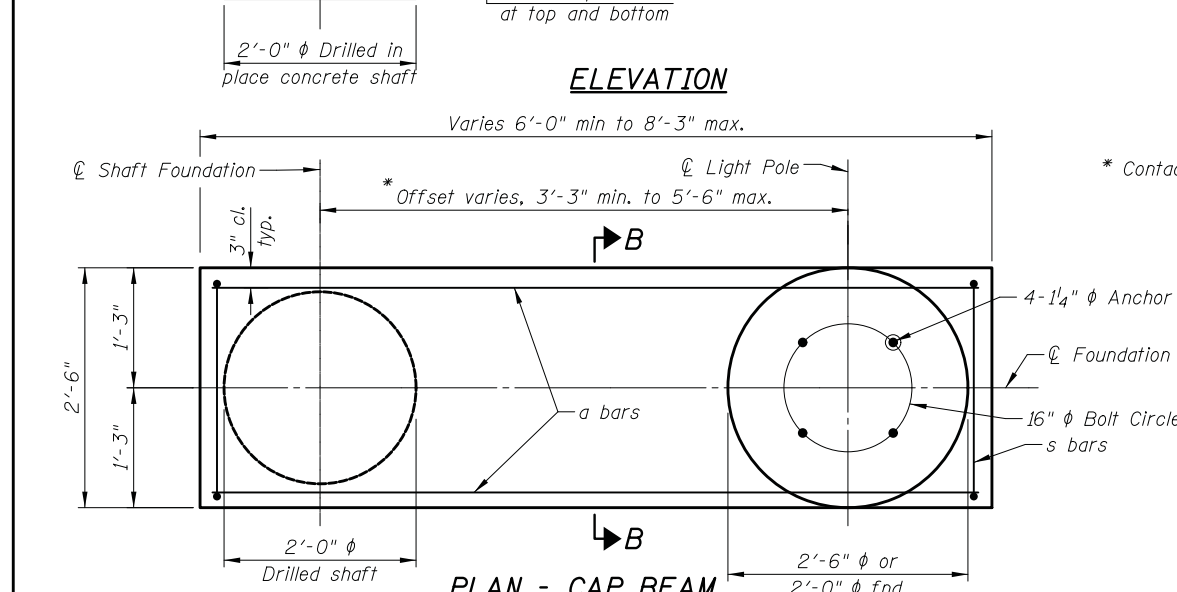
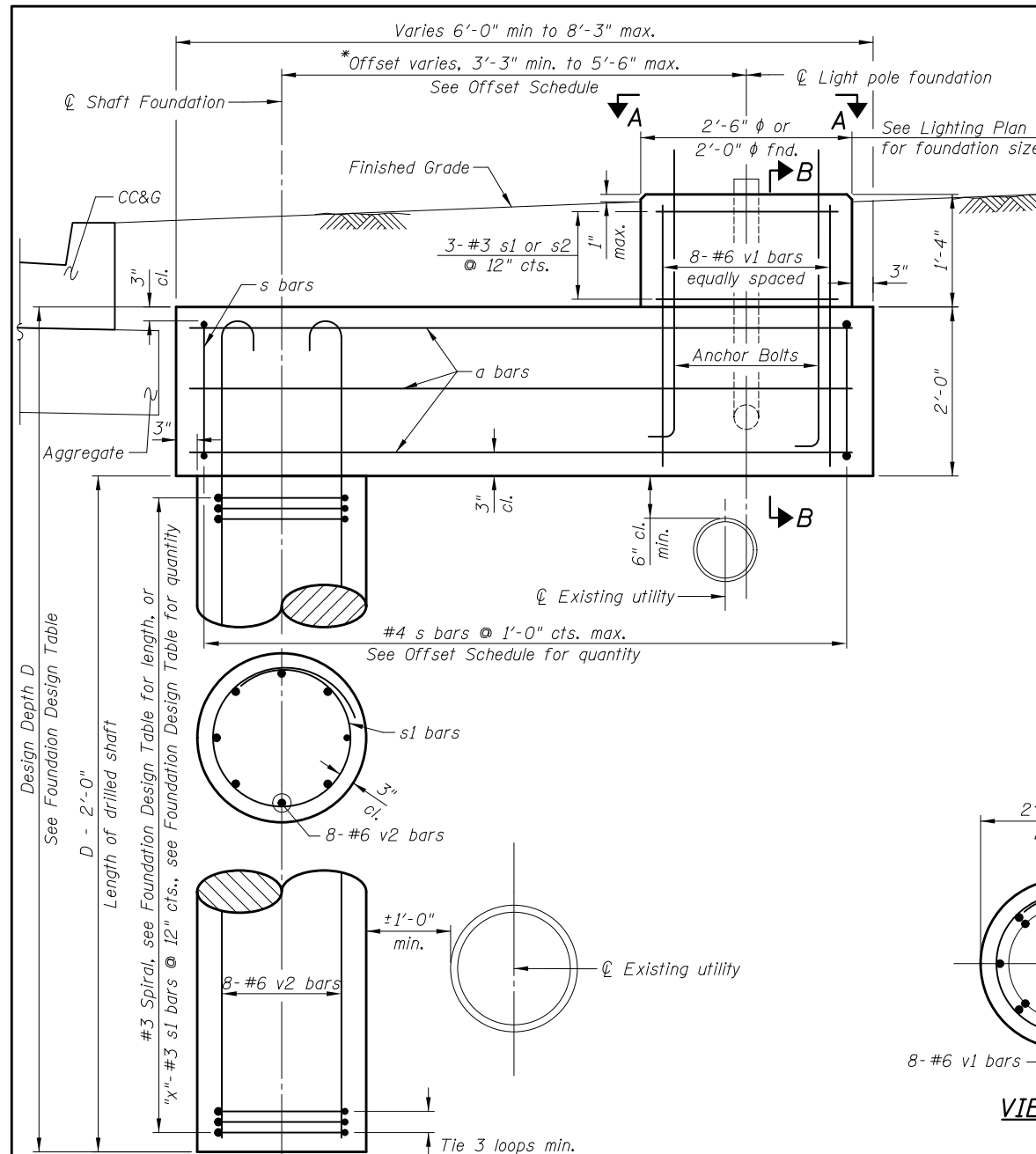


NOTES

- 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 1/4-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-DIPPED 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 1/4" (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.

DATE	
BY	
FINISHED SURVEY PLOTTED	
NOTE BOOK AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY PLOTTED	
NOTE BOOK AREAS CHECKED	
NO.	



FOUNDATION DESIGN TABLE

TYPE OF SOIL	DESIGN DEPTH OF FOUNDATION D	REINFORCEMENT IN SHAFT		
		v2 bars "h"	SPIRAL	"x" s1 bars
Soft Clay Qu < 0.75 TSF	13'-0"	12'-6"	#3x122'	12
Medium Clay 0.75 TSF < Qu < 1.50 TSF	9'-6"	9'-0"	#3x90'	11
Stiff Clay Qu > 1.5 TSF	7'-0"	6'-6"	#3x66'	8
Loose sand φ = 34°	9'-0"	8'-6"	#3x85'	10
Medium sand φ = 37.5°	8'-3"	8'-0"	#3x78'	9
Dense sand φ = 40°	7'-9"	7'-6"	#3x73'	9

Contact the Engineer if conditions other than represented in the table above are encountered.

OFFSET SCHEDULE

Offset	Length of bar a		No. of s bars
	2'-0" φ Fnd.	2'-6" φ Fnd.	
3'-3"	5'-3"	5'-6"	6
3'-9"	5'-9"	6'-0"	6
4'-6"	6'-6"	6'-9"	7
5'-0"	7'-0"	7'-3"	7
5'-6"	7'-6"	7'-9"	8

BILL OF MATERIAL
(For information only)

Mark	No.	Size	Length	Shape
a	12	6	See Offset Schedule	—
s	See Offset Schedule	4	7'-9"	□
s1	**"x" + 3	3	5'-9"	○
s2	** 3	3	7'-4"	○
v1	8	6	2'-9"	—
v2	8	6	See Design Table	—

NOTES:
 ** s2 bars for 2'-6" φ foundation only. "x" s1 bars in drilled shaft with 3 additional s1 bars in 2'-0" φ foundation.

- THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE. THE CONTRACTOR SHALL NOT ORDER REINFORCEMENT BARS UNTIL THE OFFSET AND DIMENSION "D" ARE DETERMINED.
- EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" OR 30" IN DIAMETER.
- THE CONTRACTOR SHALL USE #3 SPIRAL AT 6" PITCH OR AT HIS OPTION MAY SUBSTITUTE #3 TIES AT 12" CENTER.
- 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. 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.
- CONCRETE SHALL BE CLASS "SI". CONCRETE FOUNDATION MUST BE CURED FOR (10) TEN DAYS BEFORE THE LIGHT STANDARD IS ERECTED.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.
- 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" ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENSION WITH ENGINEER.
- A MINIMUM OF 3" OF THE THREADING ON THE ANCHOR BOLTS SHALL REMAIN BELOW THE TOP OF THE FOUNDATION.
- RACEWAYS SHALL PROJECT 1" ABOVE THE TOP OF THE FOUNDATION.
- FOUNDATION MAY BE OFFSET IN THE DIRECTION OF CURB AS SHOWN IN ELEVATION VIEW PROVIDED THE DRILLED SHAFT DOES NOT UNDERMINE CURB. OTHERWISE, FOUNDATION SHALL BE OFFSET IN DIRECTION AWAY FROM CURB.

Benchmark: T.B.M. #12 Cross cut (set) in southwest flange bolt of fire hydrant in the southwest quadrant of the intersection of Thompson Boulevard and Weiland Road. Sta. 100+74.42, Offset 43.59' Lt., Elevation 684.01

Existing Structure: None.

INDEX OF SHEETS

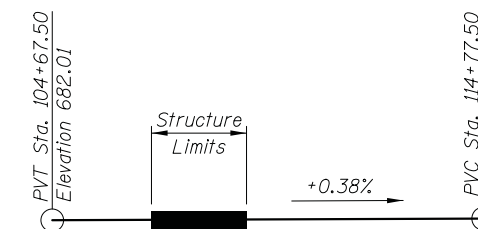
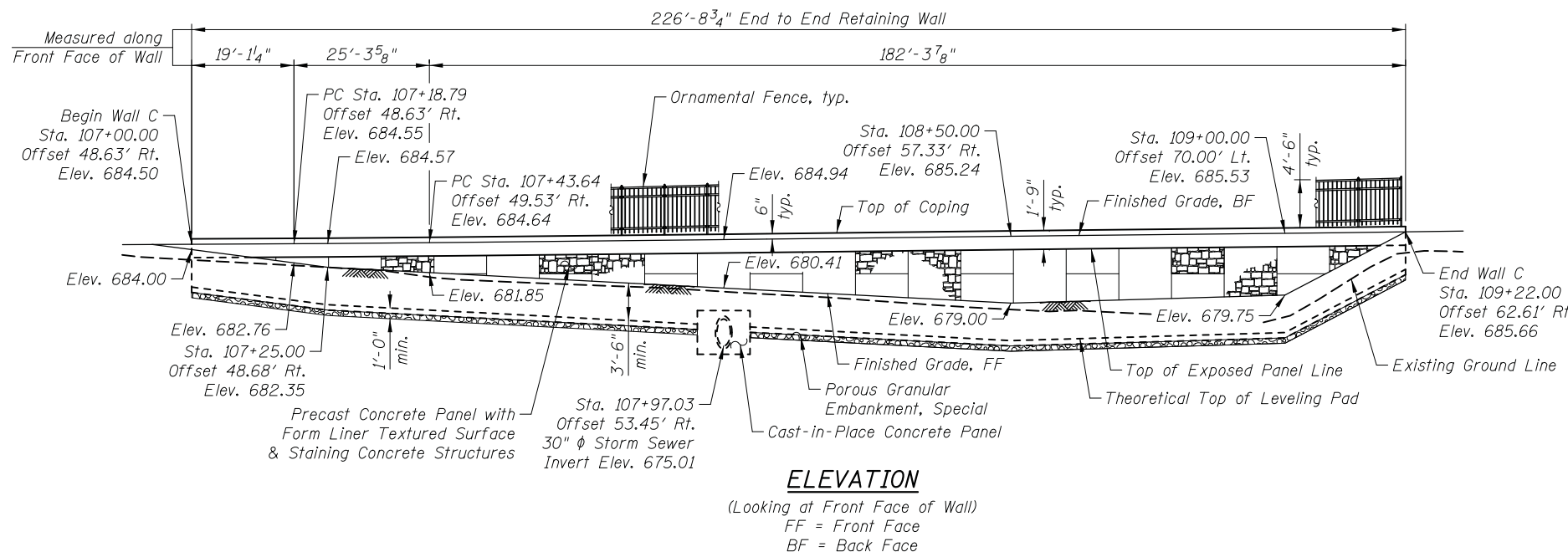
- C1 General Plan and Elevation
- C2 Retaining Wall Details
- C3 Soil Boring Logs I
- C4 Soil Boring Logs II

GENERAL NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Panels must be arranged to provide continuous vertical joints for the full height of the wall to accommodate potential differential settlement.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structure Excavation	Cu. Yd.	426
Form Liner Textured Surface	Sq. Ft.	1,455
Anti-Graffiti Protection System	Sq. Ft.	1,115
Porous Granular Embankment, Special	Cu. Yd.	103
Staining Concrete Structures	Sq. Ft.	1,115
Ornamental Fence	Foot	227
Mechanically Stabilized Earth Retaining Wall	Sq. Ft.	1,455



PROFILE GRADE

(along Proposed \varnothing Weiland Road)

CURVE DATA

- $\Delta = 29^\circ 54' 49.98''$ (Lt.)
- $D = 2^\circ 00' 00.00''$
- $R = 2,864.79'$
- $T = 765.31'$
- $L = 1,495.69'$
- $E = 100.46'$
- P.C. Sta. = 97+13.68
- P.T. Sta. = 112+09.37
- P.I. Sta. = 104+78.99
- S.E. = 2.60%

DESIGN STRESSES

FIELD UNITS

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

PRECAST UNITS

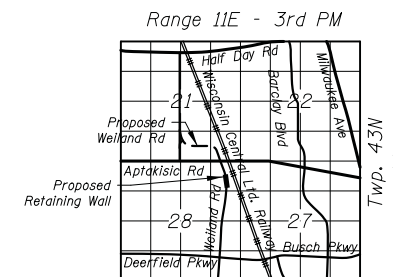
- $f'_c = 4,500$ psi (Precast Panels)

DESIGN SPECIFICATIONS

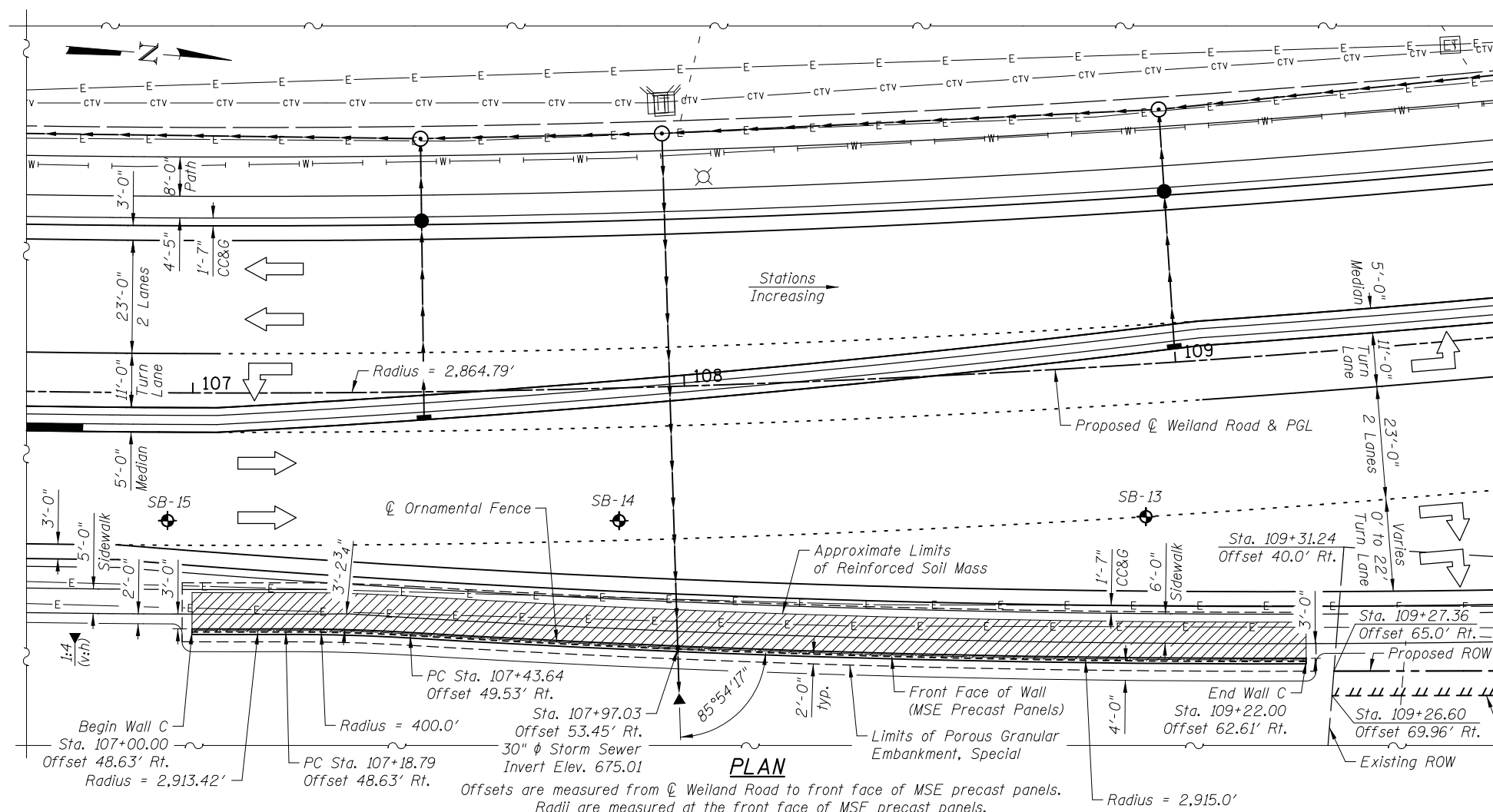
2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims

LEGEND

- W- Existing Water Main
- E- Existing Electric
- x-x-x- Existing Fence
- ctv- Existing Cable TV
- - - Proposed Storm Sewer
- [Hatched Area] Limits of Mechanically Stabilized Earth Retaining Wall Soil Mass
- [Dashed Line] Proposed Temporary Easement



LOCATION SKETCH



PLAN

Offsets are measured from \varnothing Weiland Road to front face of MSE precast panels. Radii are measured at the front face of MSE precast panels.

GENERAL PLAN & ELEVATION

WALL C

WEILAND ROAD, F.A.U. RTE 2665

SECTION 07-00094-00-PV

LAKE COUNTY

STA. 107+00.00 TO STA. 109+22.00

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CIVILTECH
 Two Pierce Place, Suite 1400
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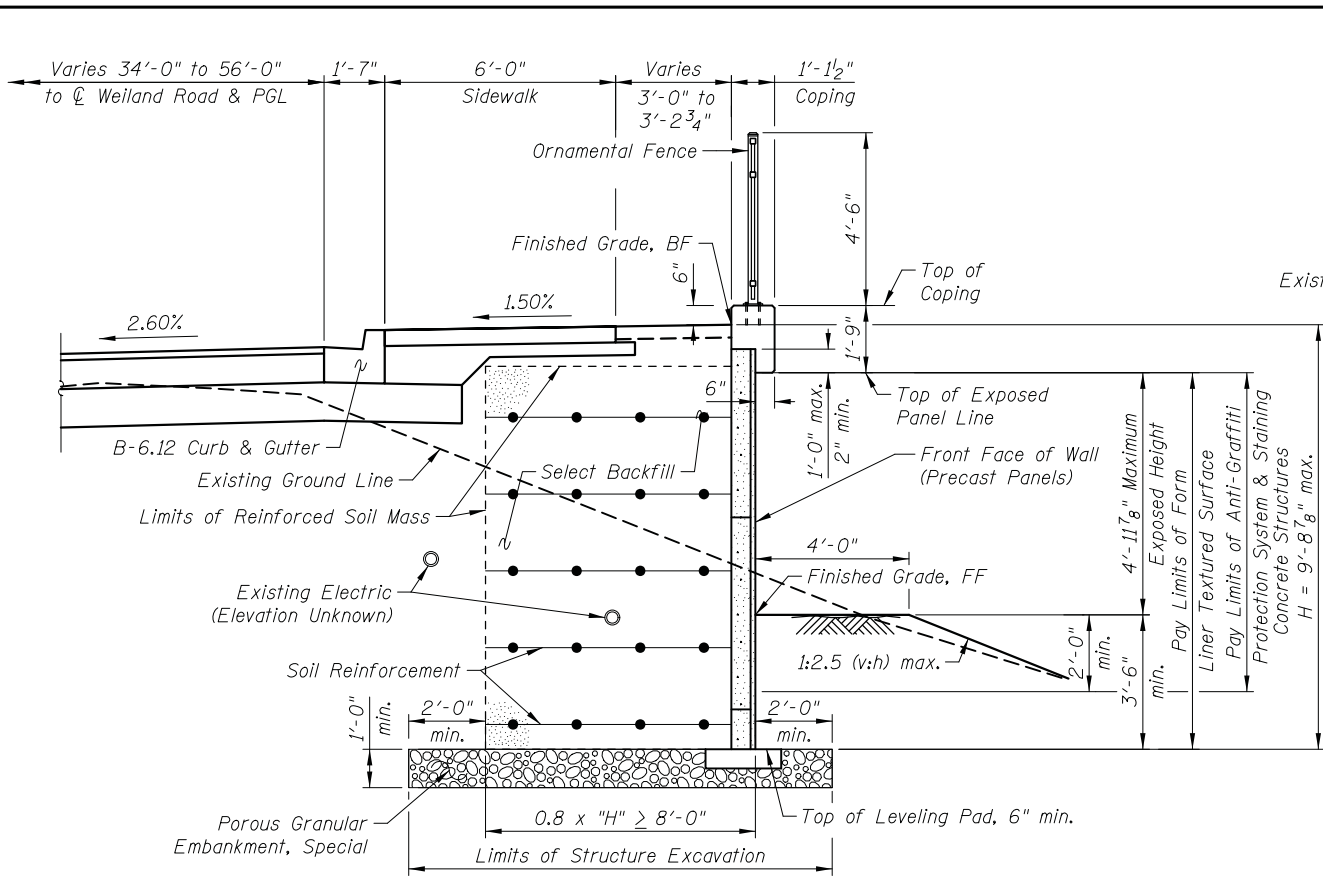
DRAWN - M. RENDINO	REVISED -
DESIGNED - M. RENDINO	REVISED -
CHECKED - G. HATLESTAD	REVISED -
DATE - 6/10/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

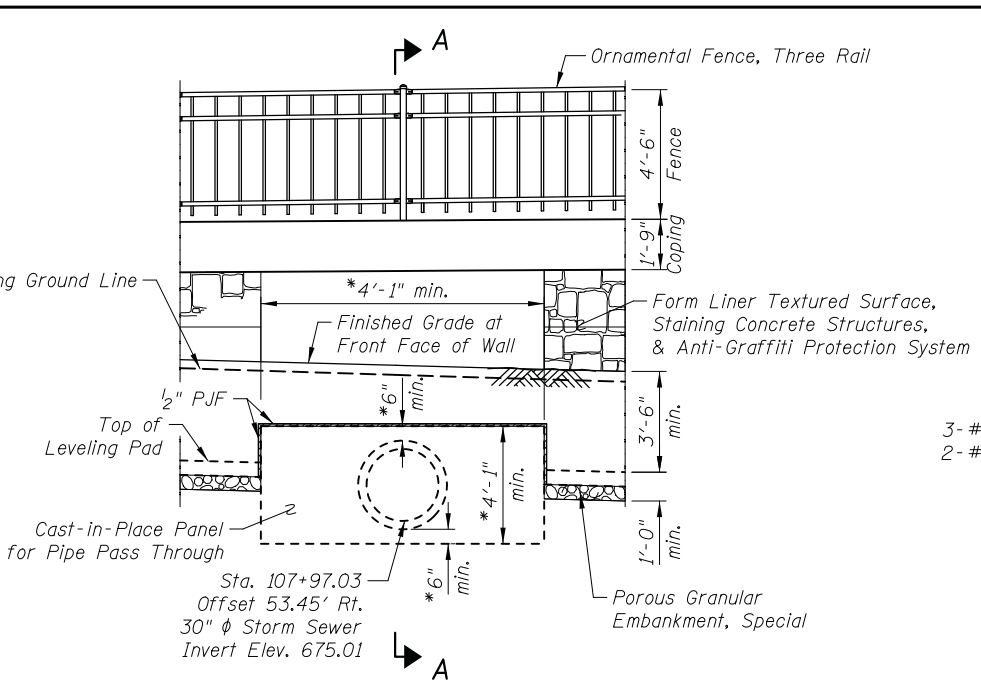
GENERAL PLAN AND ELEVATION
WALL C
WEILAND ROAD; F.A.U. 2665
 SHEET NO. C1 OF C4 SHEETS

F.A.U. RTE. 2665	SECTION 18-00158-13-WR	COUNTY LAKE	TOTAL SHEETS 623	SHEET NO. 334
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

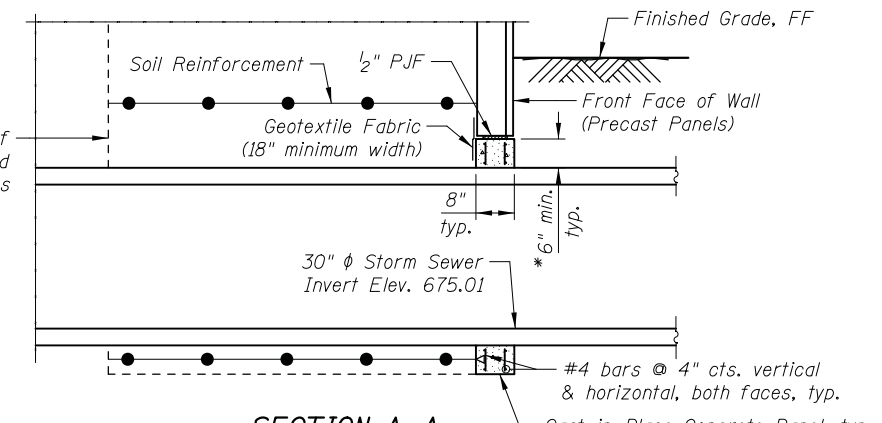
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TYPICAL SECTION

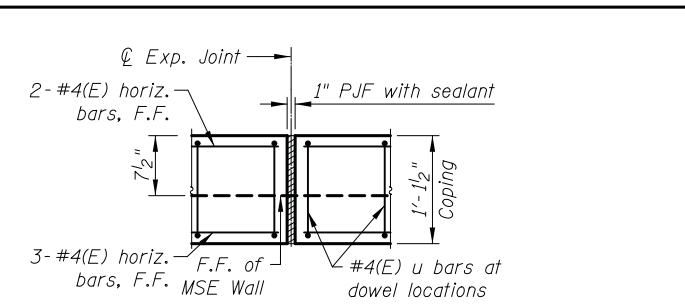


CAST-IN-PLACE PANEL FOR 30" Ø PIPE PASS THROUGH
 * Wall supplier to determine required dimensions.

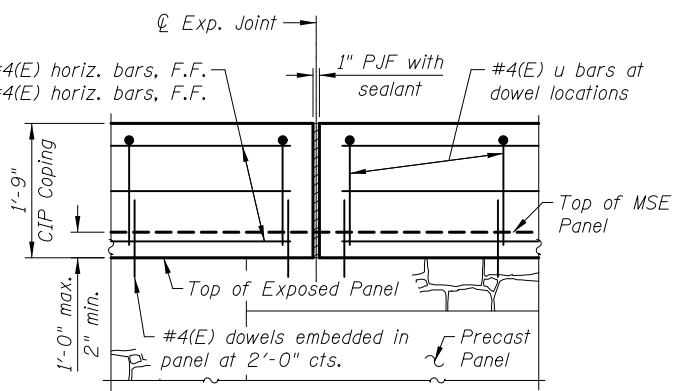


SECTION A-A

* Wall supplier to determine required dimensions.

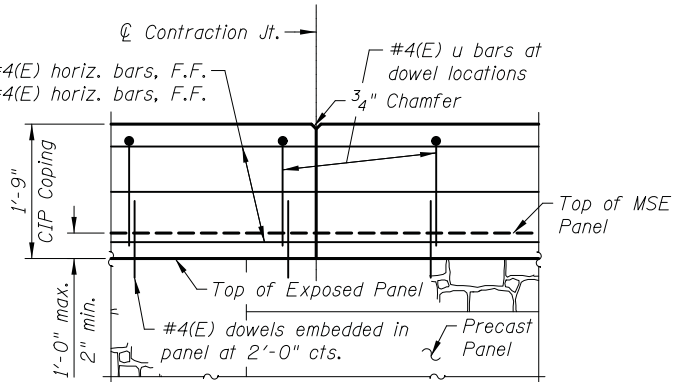


CAP EXPANSION JOINT - PLAN



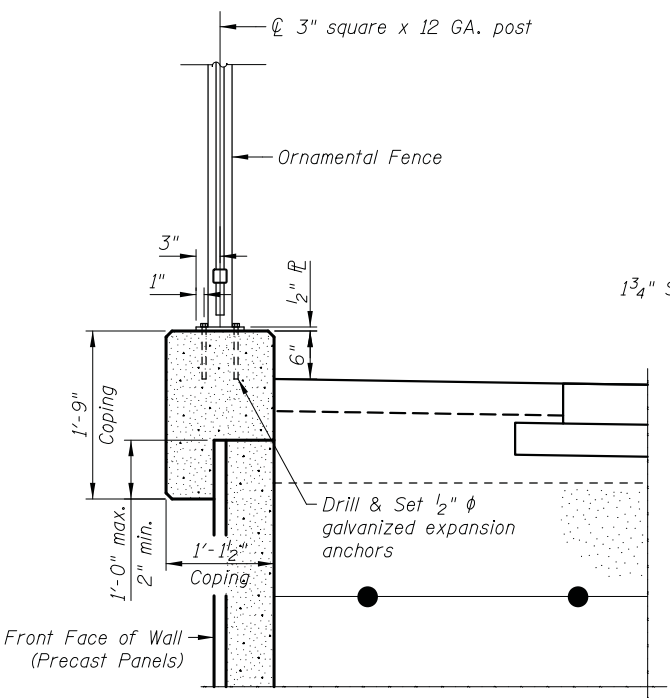
CAP EXPANSION JOINT - ELEVATION

(Provide expansion joints at a max. spacing of 90'-0")

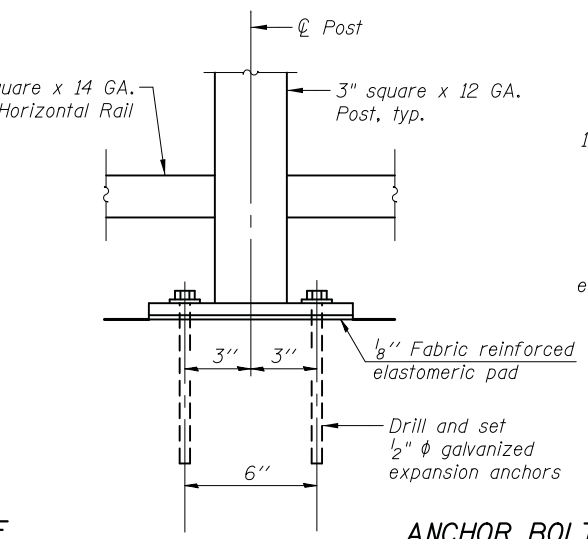


CAP CONTRACTION JOINT - ELEVATION

(Provide contraction joints at a max. spacing of 30'-0")

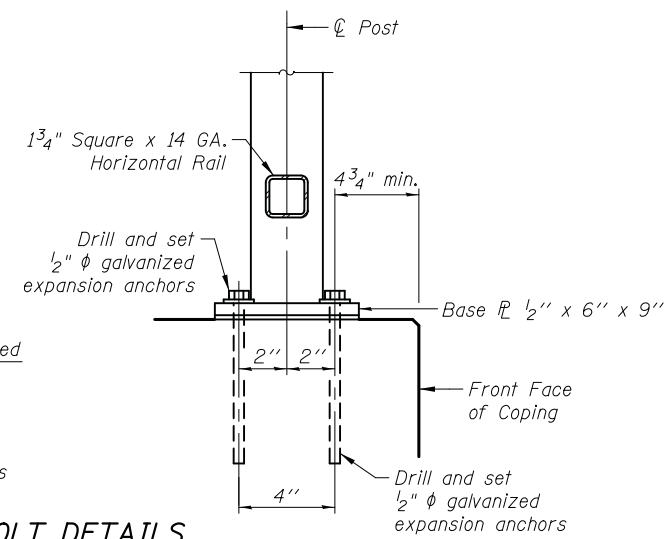


C.I.P. CONCRETE COPING WITH FENCE

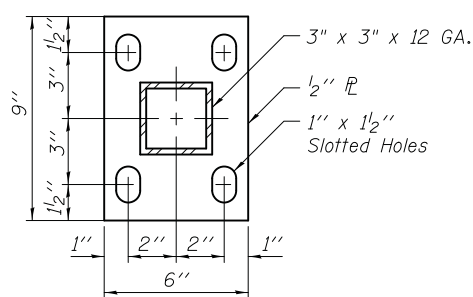


ANCHOR BOLT DETAILS

Embedment shall be according to the manufacturer's specifications.



BASE PL



- Notes:
- Reinforcing bars in CIP coping to be designed by MSE Wall Supplier and not included in Bill of Material.
 - Cast-in-place coping and reinforcing bars for retaining wall to be included in the cost of Mechanically Stabilized Earth Retaining Wall.
 - Base plates, stiffeners, and expansion anchors for mounting fence on retaining walls shall be included in the cost of Ornamental Fence.
 - If necessary, the size of the base plate and location of the expansion anchors may be adjusted to miss the wall reinforcement.

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DRAWN	- M. RENDINO	REVISED	-
DESIGNED	- M. RENDINO	REVISED	-
CHECKED	- G. HATLESTAD	REVISED	-
DATE	- 6/10/2019	REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL DETAILS
WALL C
WEILAND ROAD; F.A.U. 2665
 SHEET NO. C2 OF C4 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	335
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

MIDLAND STANDARD ENGINEERING & TESTING, INC.
STRUCTURE FOUNDATION BORING LOG

Page 1 of 1

Date 5/5/14

ROUTE FA 0187 DESCRIPTION Weiland Road LOGGED BY MHP

SECTION 07-00094-00-PV LOCATION Retaining Wall A

COUNTY Lake STRUCTURE NO. (Exist) (Prop.)

BORING NO. SB-13 DRILLING METHOD HSA HAMMER TYPE Automatic

Station 108+92
Offset 31' R of CL
Ground Surface Elev. 683.38 (ft.)

Groundwater Depth
First Encounter 12.0' (ft.)
Upon Completion 9.3' (ft.)
After Hrs. (ft.)

SOIL DESCRIPTION	(ft.)	(ft.)	/6"	(tsf)	(%)	SOIL DESCRIPTION	(ft.)	(ft.)	/6"	(tsf)	(%)		
Black CLAY TOPSOIL (14")							21						
682.18													
Brown and Grey CLAY, little Sand, trace Gravel, A-6, hard to very stiff		2	3-5	2.5	P	25			3	3-5	2.13	22	
	3												
		3	5-7	4.66		16			24	3	3-7	0.58	19
							658.38						
End of Boring at 25'													
	6												
		2	4-4	2.29		19							
	9												
moist silt seam at 9.5'		3	4-10	2.02		20							
672.88													
Grey CLAY, trace Sand, trace Gravel, A-6, very stiff		2		2.10		21							
671.38	12												
Grey Sandy LOAM, A-2-4, medium dense to slightly dense		6	9	--		14							
		4	4-5	--		20							
667.88	15												
Grey CLAY, trace Sand, trace Gravel, A-6, very stiff to firm		2	3-5	2.21		17							
	18												
		3	6-7	2.17		19							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).
The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

MIDLAND STANDARD ENGINEERING & TESTING, INC.
STRUCTURE FOUNDATION BORING LOG

Page 1 of 1

Date 5/5/14

ROUTE FA 0187 DESCRIPTION Weiland Road LOGGED BY MHP

SECTION 07-00094-00-PV LOCATION Retaining Wall A

COUNTY Lake STRUCTURE NO. (Exist) (Prop.)

BORING NO. SB-14 DRILLING METHOD HSA HAMMER TYPE Automatic

Station 107+86
Offset 27' R of CL
Ground Surface Elev. 682.65 (ft.)

Groundwater Depth
First Encounter 10.5' (ft.)
Upon Completion 9.2' (ft.)
After Hrs. (ft.)

SOIL DESCRIPTION	(ft.)	(ft.)	/6"	(tsf)	(%)	SOIL DESCRIPTION	(ft.)	(ft.)	/6"	(tsf)	(%)		
Black CLAY TOPSOIL (10")						Grey CLAY, trace Sand, trace Gravel, A 6, hard to very stiff							
681.85							21						
Brown and Grey CLAY, little Sand, trace Gravel, A-6 to A-7-6, very stiff to stiff		3	2-4	2.13		33			3	6-10	3.34	19	
	3												
		2	1-3	1.09		25			24	5	5-8	2.06	18
							657.65						
End of Boring at 25'													
	6												
		0	2-6	1.05		35							
	9												
673.65		3		1.36		23							
Grey Sandy Clay LOAM, A-2-4, moist		2	5	--		27							
672.15													
Grey SAND (f-c) and GRAVEL, A-1, wet, medium dense to slightly dense		4	7-8	--		9							
	12												
		4		--		13							
668.65		4		--		13							
Grey CLAY, trace Sand, trace Gravel, A-6, hard to very stiff		1	4	1.67		15							
	15												
		4	8-10	4.66		17							
intermittent sand seam at 17.0'													
	18												
		3	4-7	3.61		17							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer).
The Standard Penetration Test (SPT) N Value is per (AASHTO T206)

BBS 137 (9/05)

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DRAWN - M. RENDINO
DESIGNED - M. RENDINO
CHECKED - G. HATLESTAD
DATE - 6/10/2019

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

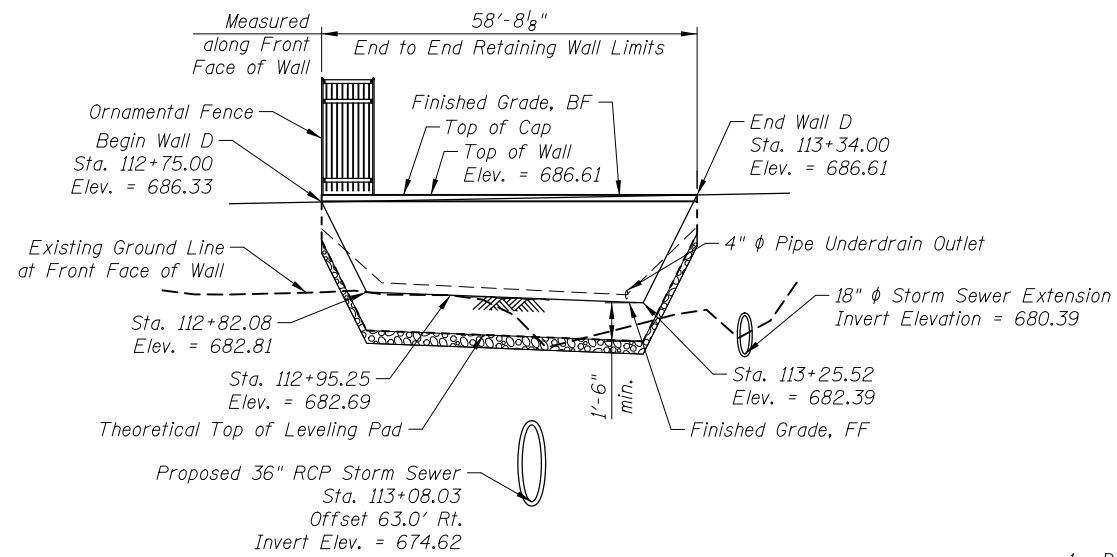
SOIL BORING LOGS I
WALL C
WEILAND ROAD; F.A.U. 2665

SHEET NO. C3 OF C4 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	336
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

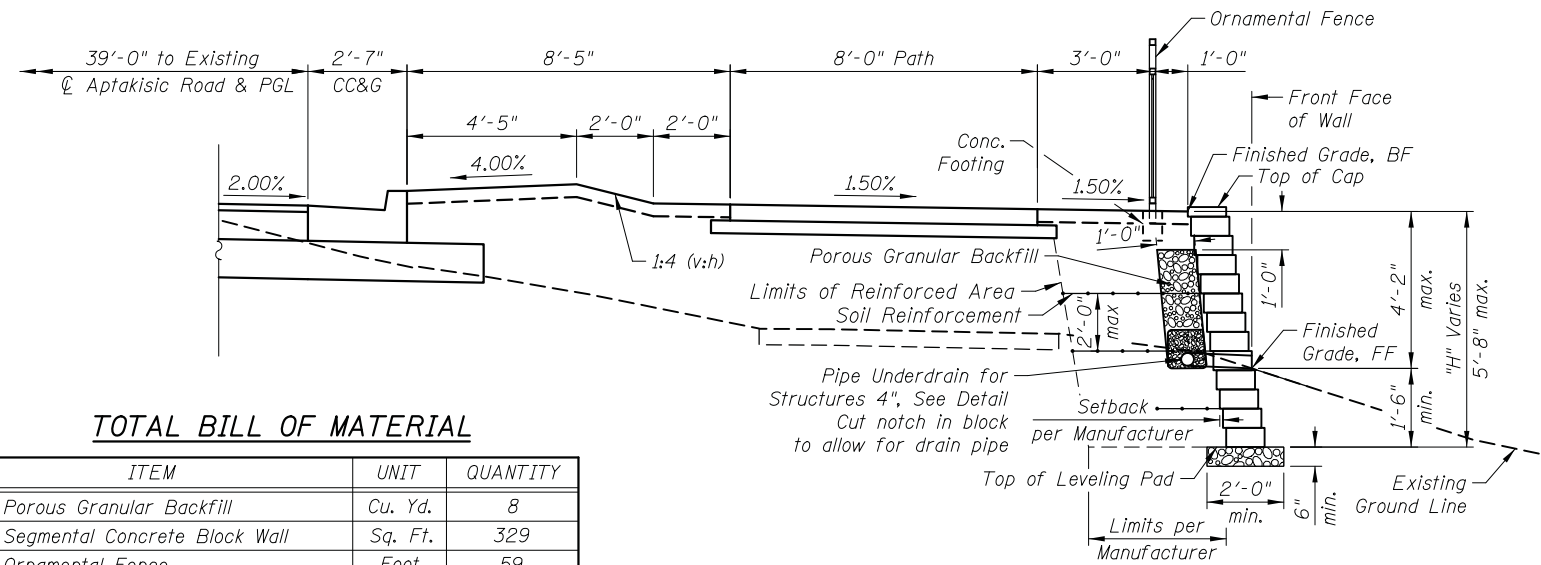
Benchmark: T.B.M. #13 Cross cut set in southeast flange bolt of fire hydrant in the southeast quadrant of the intersection of Weiland Road and Aptakisic Road.
Sta. 111+28.06, Offset 40.73' Rt., Elevation 685.60

Existing Structure: None.



ELEVATION

(Looking at Front Face of Wall)
FF = Front Face
BF = Back Face



TYPICAL CROSS SECTION

TOTAL BILL OF MATERIAL

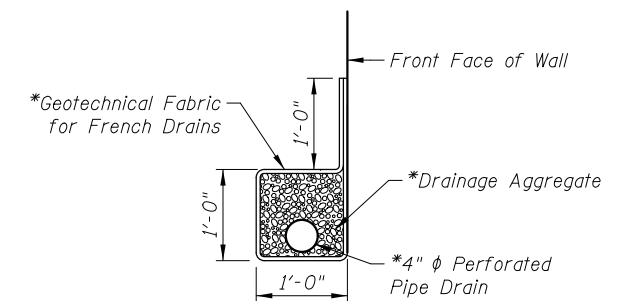
ITEM	UNIT	QUANTITY
Porous Granular Backfill	Cu. Yd.	8
Segmental Concrete Block Wall	Sq. Ft.	329
Ornamental Fence	Foot	59
Pipe Underdrain for Structures 4"	Foot	61

GENERAL NOTES:

- Design and installation of Segmental Concrete Block Wall (including need for Soil Reinforcement) to be in accordance with Wall System Manufacturer Design Requirements and Specifications.
- Sonotubes for Ornamental Railing must be placed as retaining wall is constructed.

INDEX OF SHEETS

- D1 General Plan and Elevation
- D2 Ornamental Fence Details
- D3 Soil Boring Logs

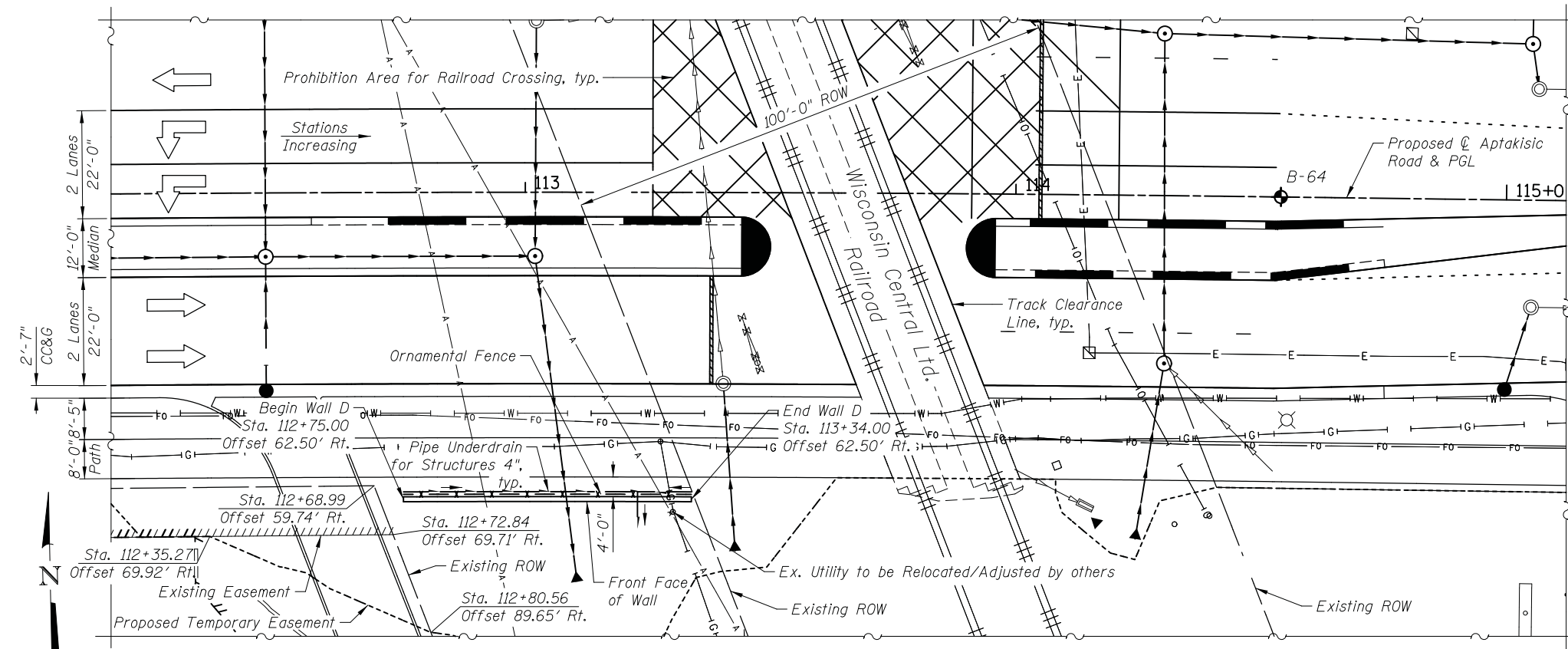


PIPE UNDERDRAIN DETAIL

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

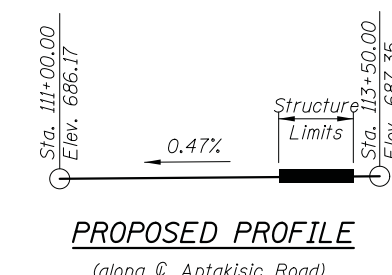
DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims



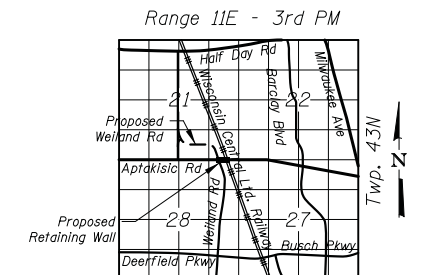
PLAN

Offsets are measured from \varnothing Aptakisic Road to the front face of the segmental concrete block retaining wall.

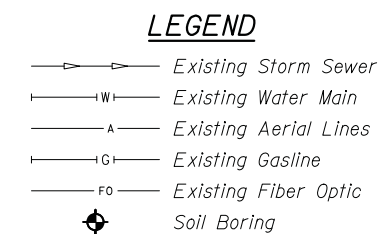


PROPOSED PROFILE

(along \varnothing Aptakisic Road)



LOCATION SKETCH

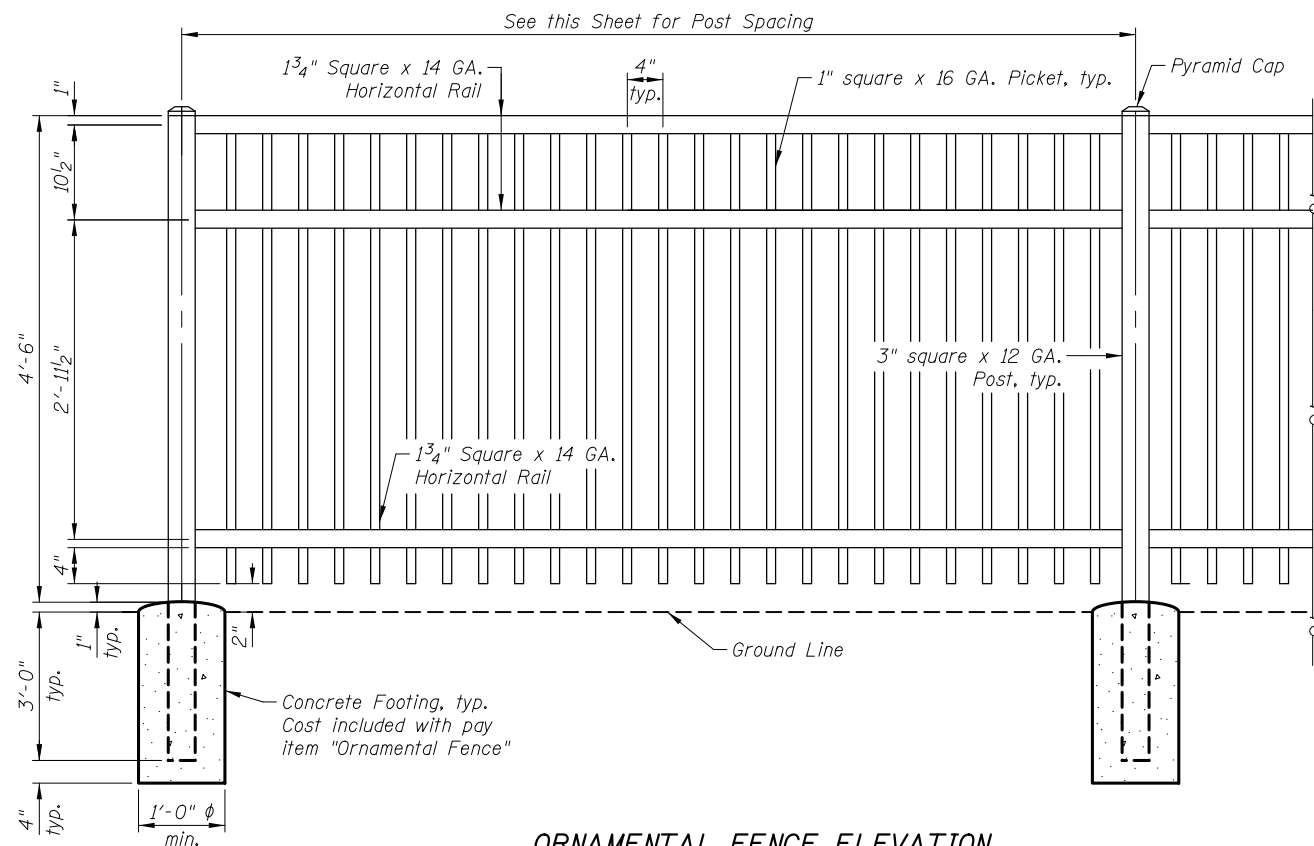


GENERAL PLAN & ELEVATION

WALL D
WEILAND ROAD, F.A.U. RTE 2665
SECTION 07-0094-00-PV
LAKE COUNTY

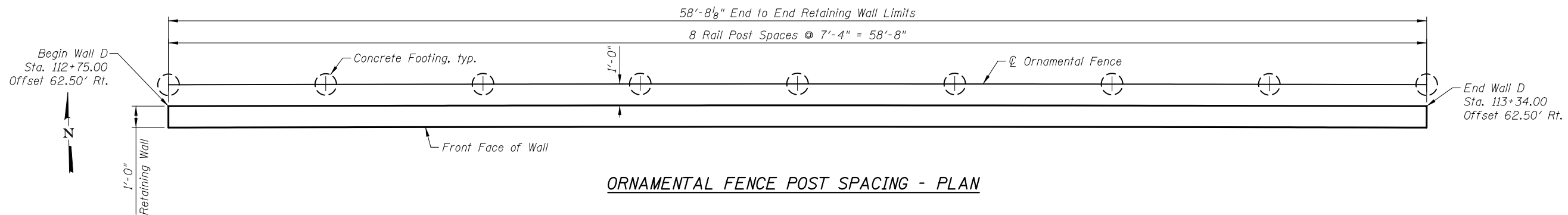
STA. 112+75.00 TO STA. 113+34.00

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ORNAMENTAL FENCE ELEVATION

All posts, railings, splices, anchor devices, and bent plates shall be painted black.



ORNAMENTAL FENCE POST SPACING - PLAN

BILL OF MATERIAL

Item	Unit	Quantity
Ornamental Fence	Foot	59

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DESIGNED	- M. RENDINO	REVISED	-
CHECKED	- G. HATLESTAD	REVISED	-
DATE	- 6/10/2019	REVISED	-

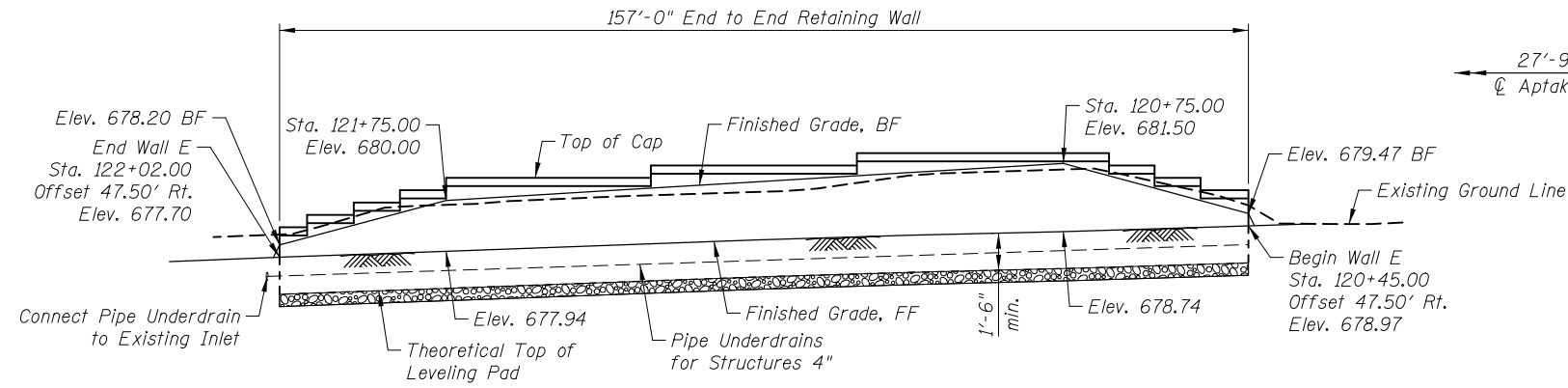
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ORNAMENTAL FENCE DETAILS
WALL D
WEILAND ROAD; F.A.U. 2665**
SHEET NO. D2 OF D3 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	339
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

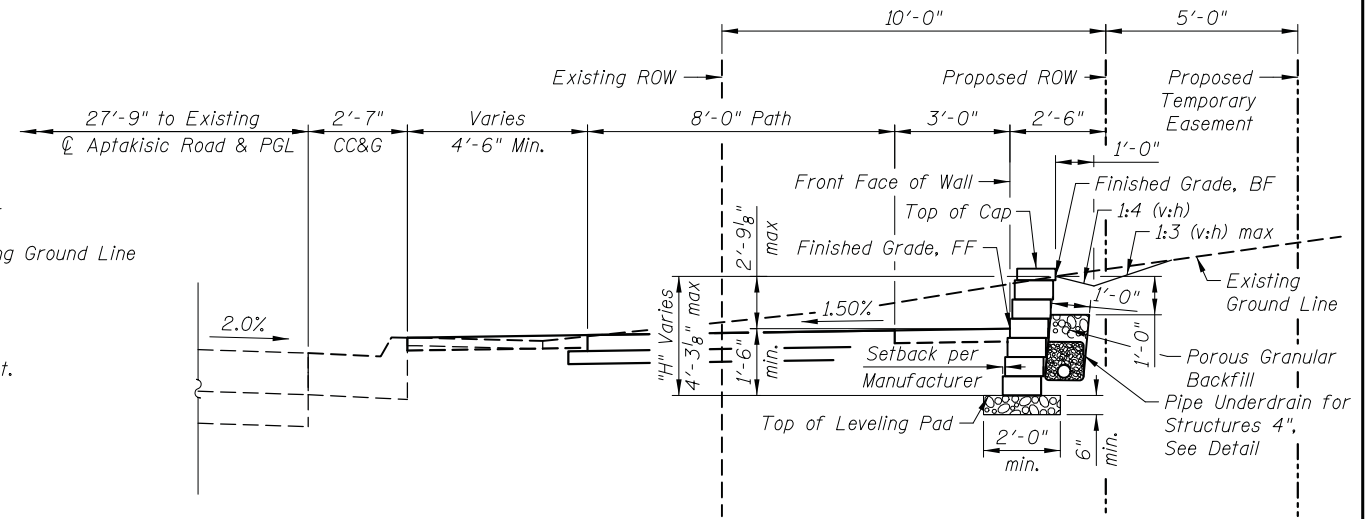
Benchmark: T.B.M. #14 Railroad spike in power pole on South side of Aptakasic Road, ±102'
East of \varnothing Bond Street, Sta. 119+33.40, Offset 37.34' Rt., Elevation 680.84

Existing Structure: None.



ELEVATION

(Looking at Front Face of Wall - Opposite of Plan View)
FF = Front Face
BF = Back Face



TYPICAL CROSS SECTION

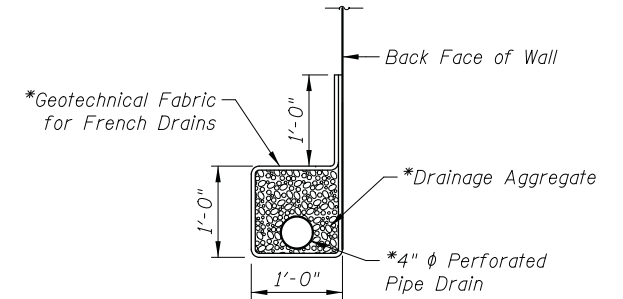
Note: Due to ROW constraints, segmental concrete block wall will need to be unreinforced.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Porous Granular Backfill	Cu. Yd.	12
Segmental Concrete Block Wall	Sq. Ft.	675
Pipe Underdrain for Structures 4"	Foot	183

GENERAL NOTES:

- Design and installation of Segmental Concrete Block Wall (including need for Soil Reinforcement) to be in accordance with Wall System Manufacturer Design Requirements and Specifications.

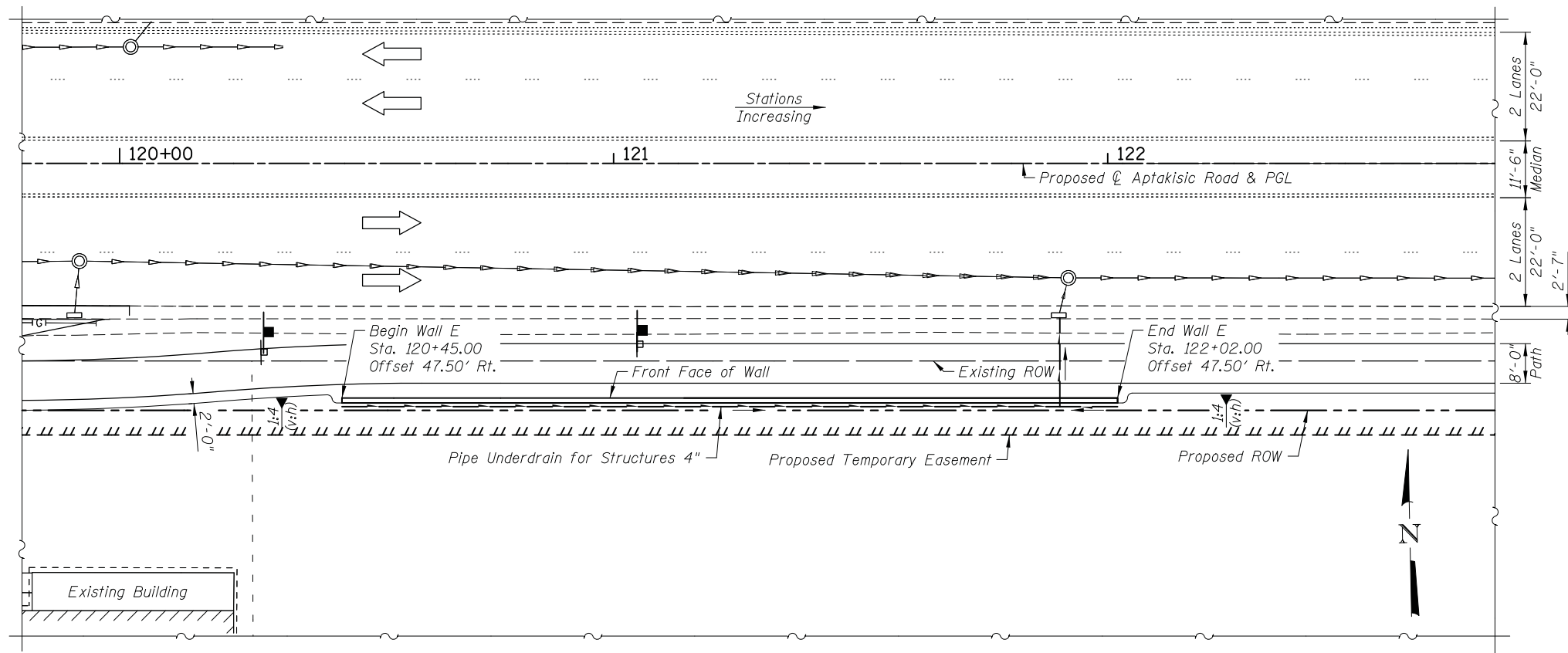


PIPE UNDERDRAIN DETAIL

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

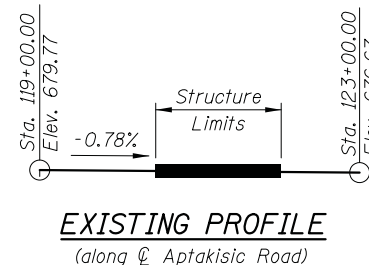
DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims



PLAN

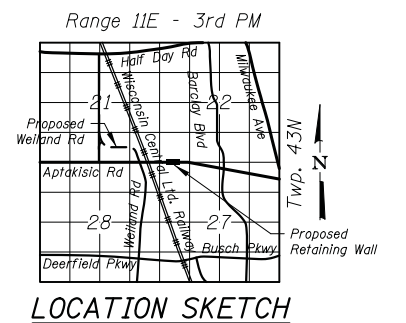
Offsets are measured from \varnothing Aptakasic Road to the front face of the segmental concrete block retaining wall.



EXISTING PROFILE
(along \varnothing Aptakasic Road)

LEGEND

- Existing Storm Sewer
- Existing Water Main
- Existing Aerial Lines



LOCATION SKETCH

GENERAL PLAN & ELEVATION

WALL E

WEILAND ROAD, F.A.U. RTE 2665

SECTION 07-00094-00-PV

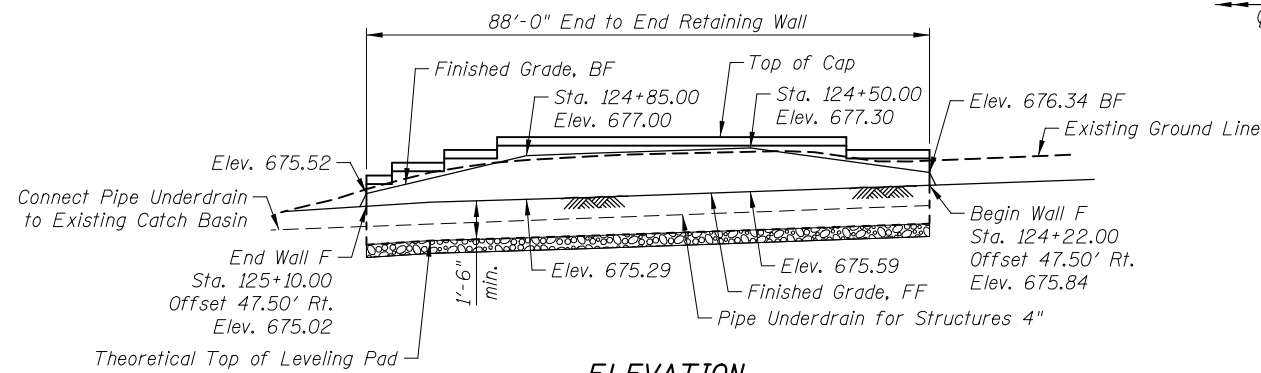
LAKE COUNTY

STA. 120+45.00 TO STA. 122+02.00

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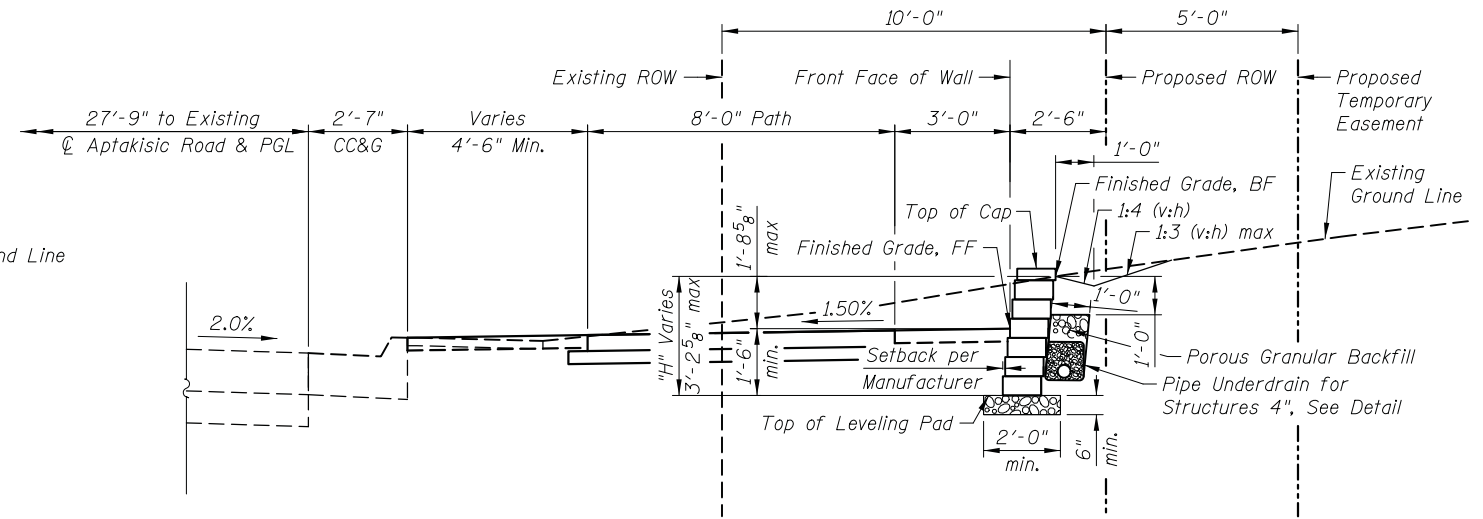
Benchmark: T.B.M. #28 Railroad spike set in power pole in the southeast quadrant of the intersection of Aptakistic Road & Industrial Drive. Sta. 125+88.77, Offset 61.64' Rt., Elevation 675.93

Existing Structure: None.



ELEVATION

(Looking at Front Face of Wall - Opposite of Plan View)
 FF = Front Face
 BF = Back Face



TYPICAL CROSS SECTION

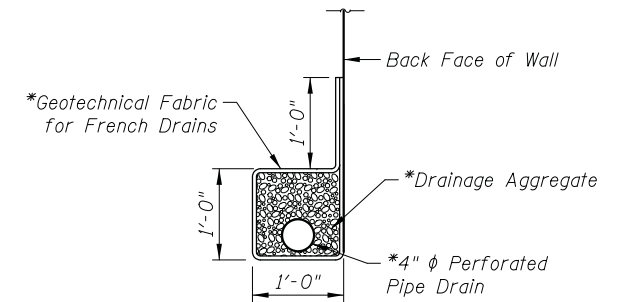
Note: Due to ROW constraints, segmental concrete block wall will need to be unreinforced.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Porous Granular Backfill	Cu. Yd.	5
Segmental Concrete Block Wall	Sq. Ft.	316
Pipe Underdrain for Structures 4"	Foot	107

GENERAL NOTES:

- Design and installation of Segmental Concrete Block Wall (including need for Soil Reinforcement) to be in accordance with Wall System Manufacturer Design Requirements and Specifications.

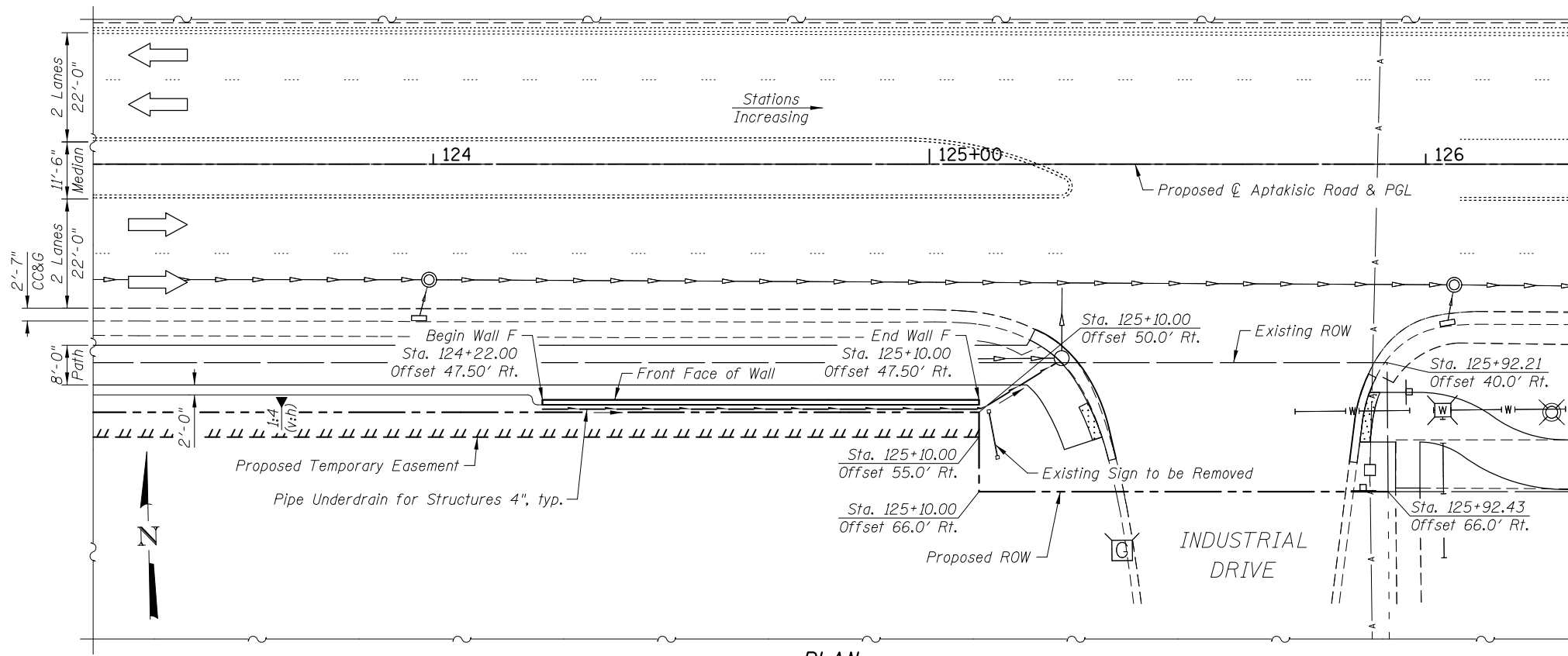


PIPE UNDERDRAIN DETAIL

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

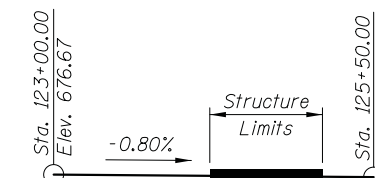
DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims



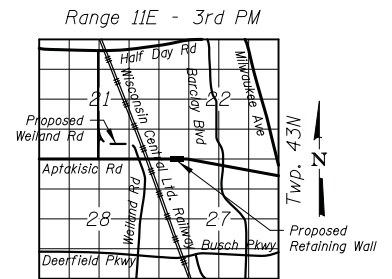
PLAN

Offsets are measured from $\text{\textcircled{C}}$ Aptakistic Road to the front face of the segmental concrete block retaining wall.



EXISTING PROFILE

(along $\text{\textcircled{C}}$ Aptakistic Road)



LOCATION SKETCH

LEGEND

- Existing Storm Sewer
- Existing Water Main
- Existing Aerial Lines

GENERAL PLAN & ELEVATION WALL F

WEILAND ROAD, F.A.U. RTE 2665 SECTION 07-00094-00-PV

LAKE COUNTY

STA. 124+22.00 TO STA. 125+10.00

GENERAL PLAN AND ELEVATION WALL F WEILAND ROAD; F.A.U. 2665 SHEET NO. F1 OF F1 SHEETS

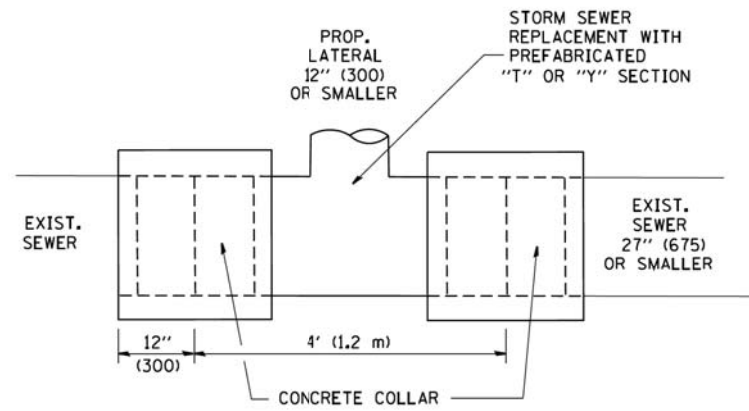
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	342
CONTRACT NO. 61F25				

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DESIGNED	- M. RENDINO	REVISED	-
CHECKED	- G. HATLESTAD	REVISED	-
DATE	- 6/10/2019	REVISED	-

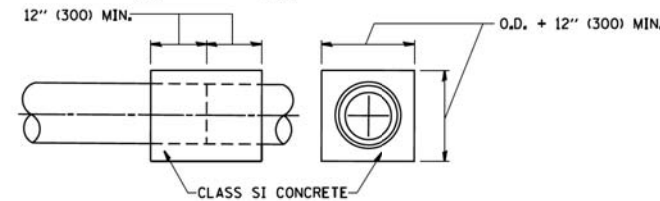
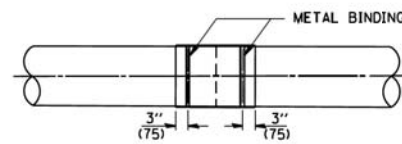
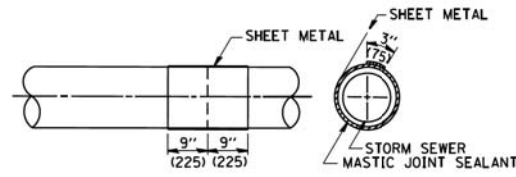
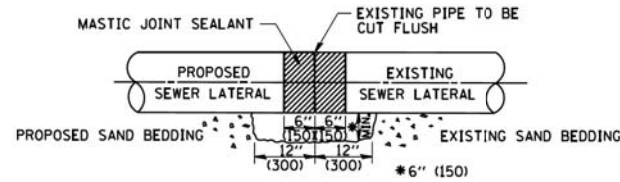
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER

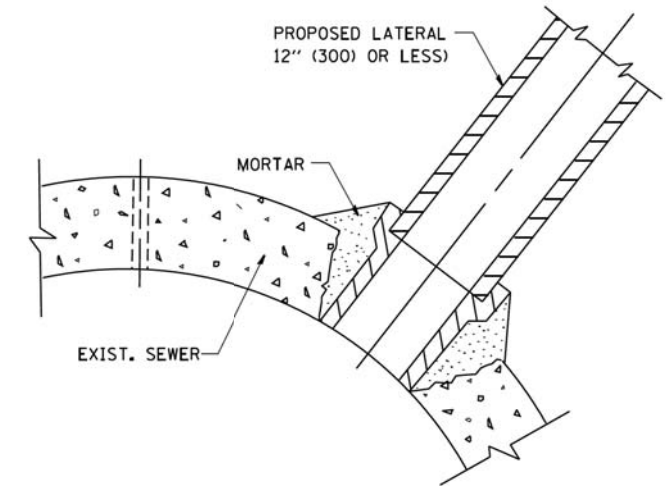


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12" x 6" (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

1. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
 - A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
 - B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS. THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

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

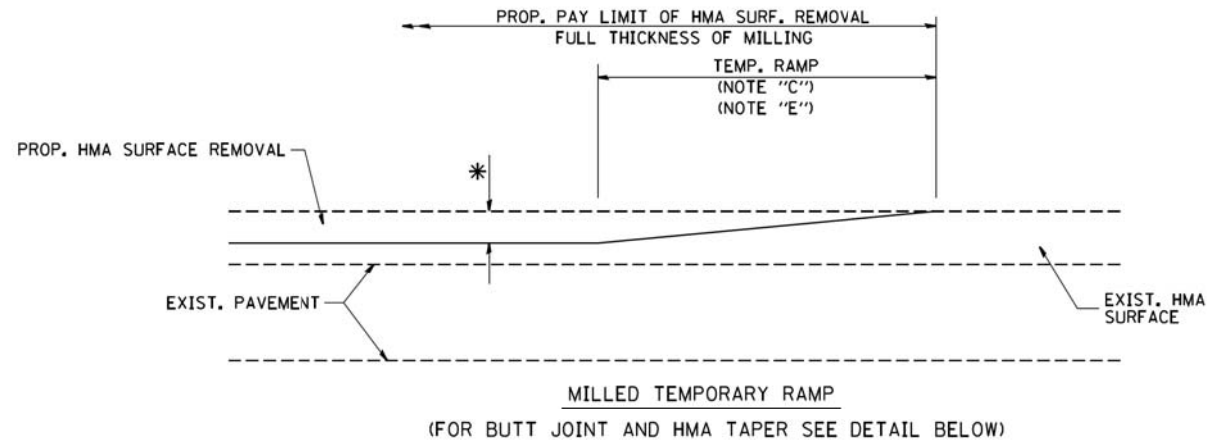
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	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - R. SHAH 10-25-94
	PLOT DATE = 1/4/2008	DATE - 07-25-90	REVISED - R. SHAH 06-12-96

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DETAIL OF STORM SEWER
CONNECTION TO EXISTING SEWER

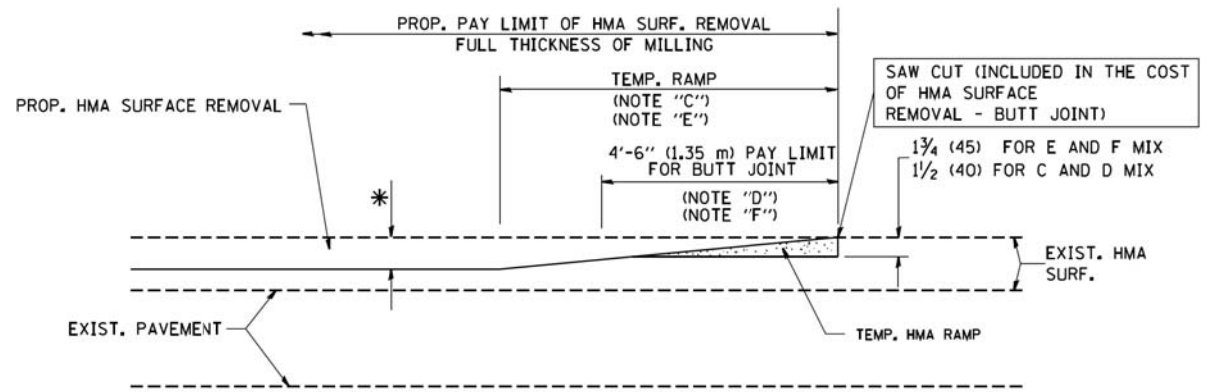
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	343
BD500-01 (BD-7)		CONTRACT NO. 61F25		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



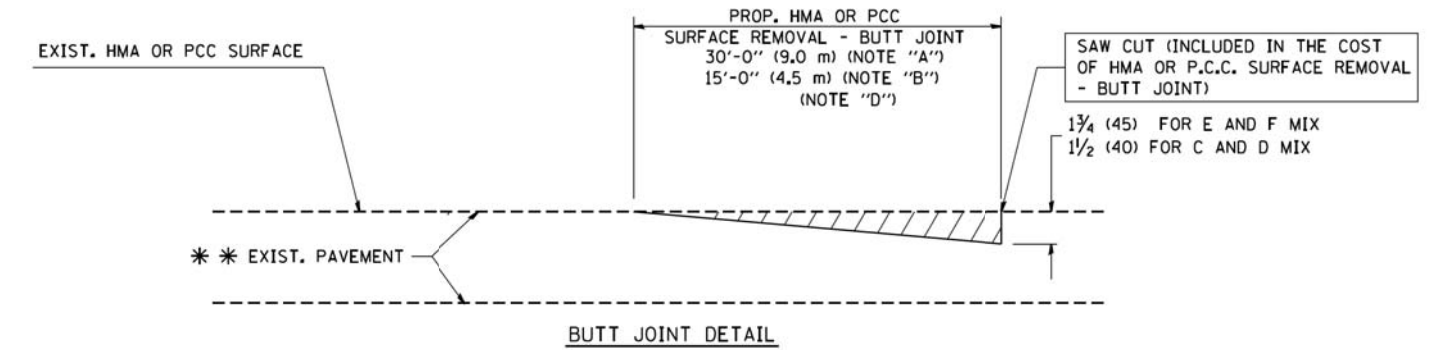
MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

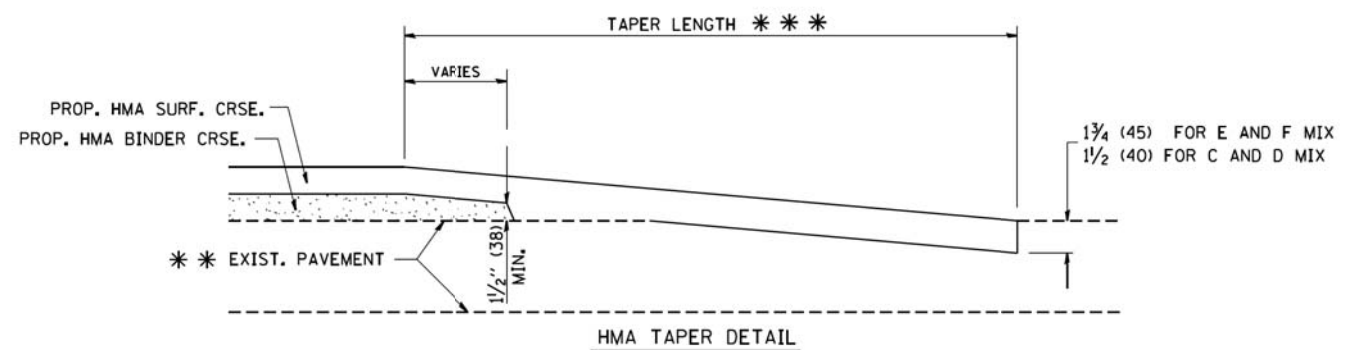


HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2
TYPICAL TEMPORARY RAMP



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

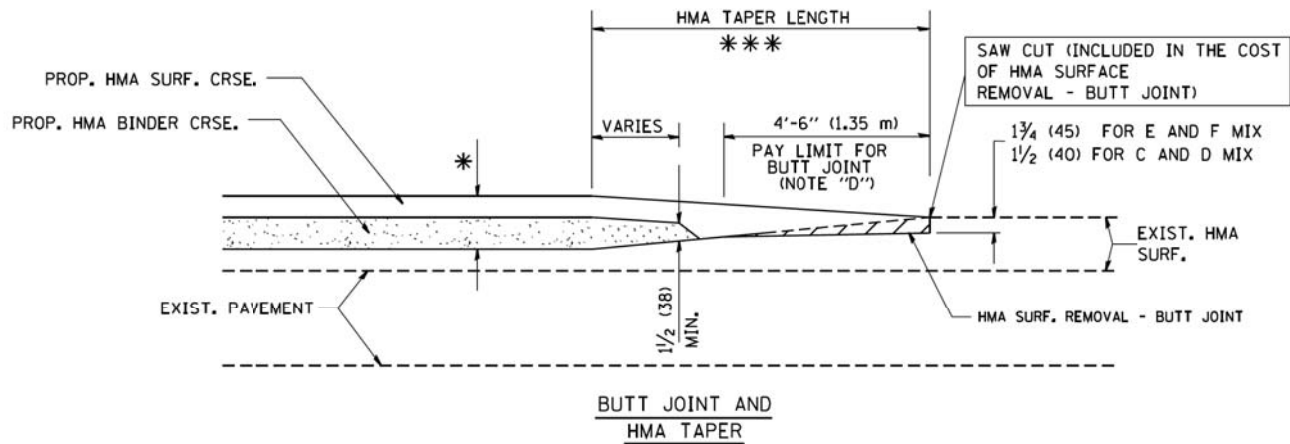
NOTES

- 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.



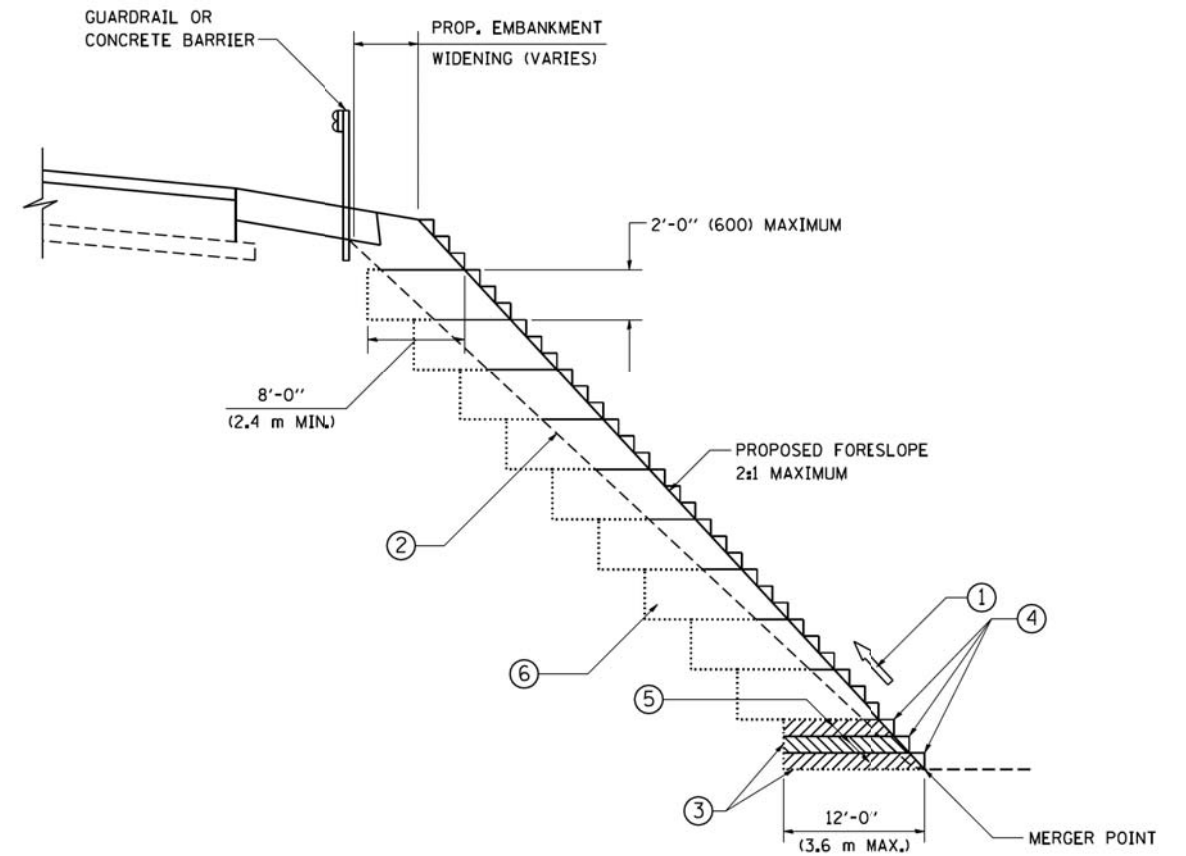
BUTT JOINT AND HMA TAPER
TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = geglianob	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000 "/td> <td>CHECKED -</td> <td>REVISED - M. GOMEZ 04-06-01</td>	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.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	344
BD400-05 BD32		CONTRACT NO. 61F25		
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).

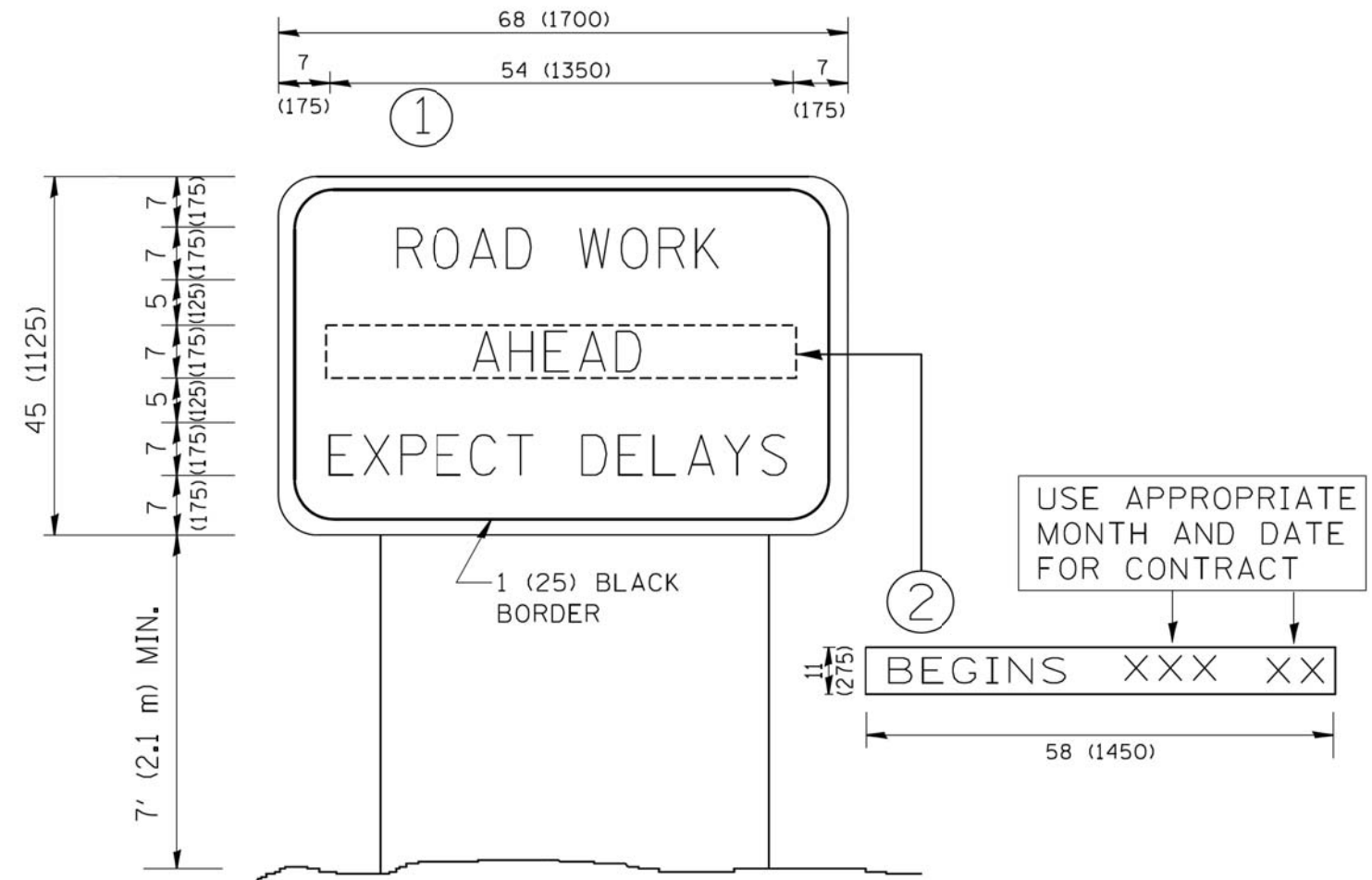
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\bd51.dgn	USER NAME = geglanoht	DESIGNED -	REVISED -
		DRAWN - CADD	REVISED -
		CHECKED - S.E.B.	REVISED -
		DATE - 06-16-04	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BENCHING DETAIL FOR EMBANKMENT WIDENING			
SCALE: NONE	SHEET NO. 1	OF 1 SHEETS	STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	345
BD-51			CONTRACT NO. 61F25	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTES:

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

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

FILE NAME = W:\distsd\22x34\tc22.dgn	USER NAME = geglano	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

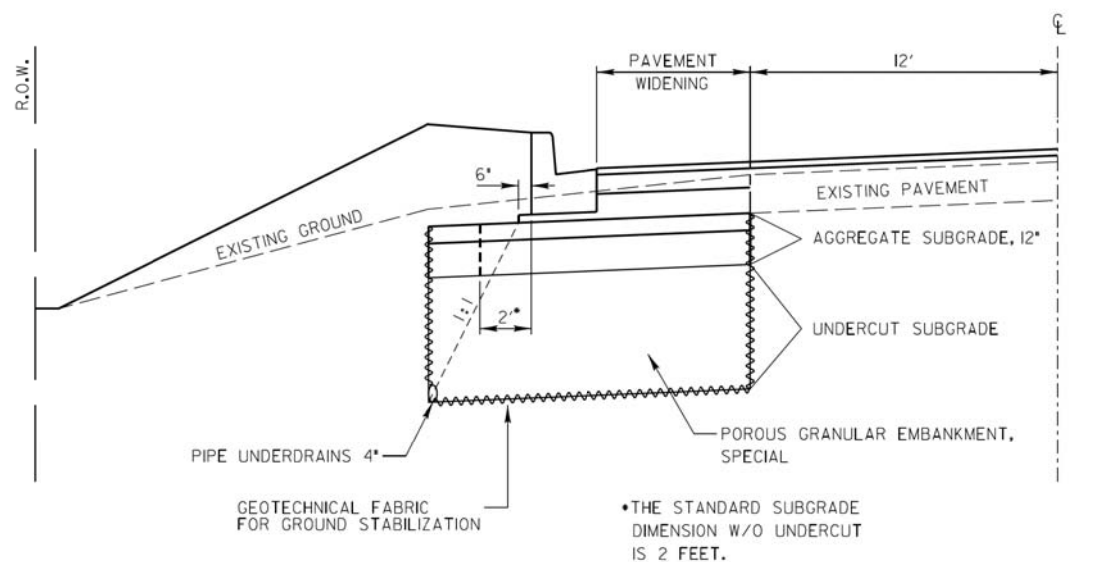
**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	346
TC-22			CONTRACT NO. 61F25	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	



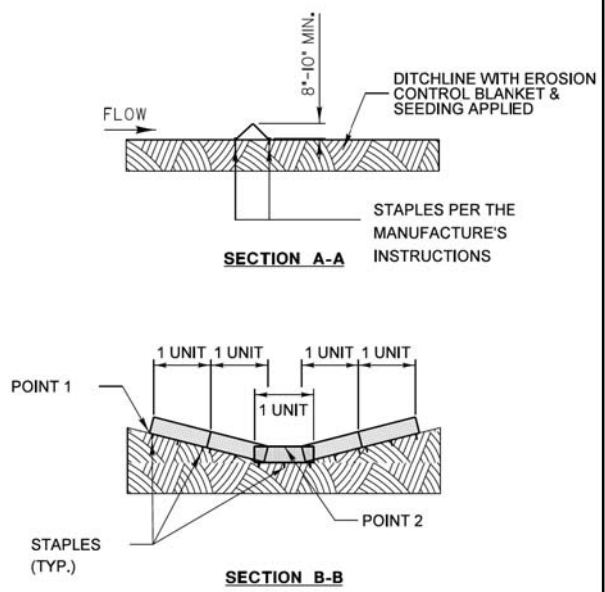
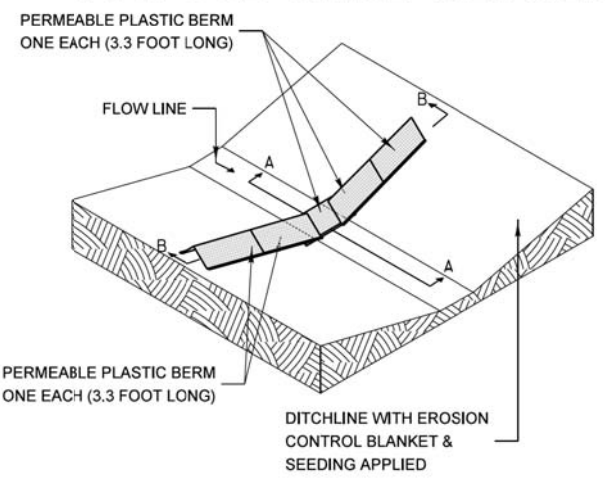
IN UNSTABLE AREAS, THE SUBGRADE SHALL BE:
 UNDERCUT (PAID FOR AS EARTH EXCAVATION PER CU YD);
 REINFORCED WITH GEOTECHNICAL FABRIC FOR GROUND STABILIZATION (PAID FOR PER SQ YD);
 DRAINED BY INSTALLATION OF PIPE UNDERDRAINS, 4" (PAID FOR PER FOOT);
 BACKFILLED WITH POROUS GRANULAR EMBANKMENT, SPECIAL (PAID FOR PER TON) AND;
 TOPPED WITH AGGREGATE SUBGRADE, 12" (300mm) (PAID FOR PER SQ YD).

SCALE:
 HORIZONTAL 1" = 5'
 VERTICAL 1" = 2.5'

REVISIONS	DATE	APPROVED BY: M. G. Zemaitis	DATE: APRIL 1, 2007

UNDERCUT DETAIL

FOR USE WHILE ESTABLISHING FINAL LANDSCAPING



NOTES:
 THE PERMEABLE PLASTIC BERM SHALL REPLACE THE TEMPORARY DITCH CHECK AFTER THE INSTALLATION OF EROSION CONTROL BLANKET AND SEEDING.

EACH PERMEABLE PLASTIC BERM IS 3.3 FEET IN LENGTH. THE MINIMUM INSTALLATION IN A DITCH SHALL BE THREE UNITS. THE INSTALLATION SHOWN WILL BE MEASURED AND PAID FOR AS A PERMEABLE PLASTIC BERM 15.5 FEET IN LENGTH (5 UNITS).

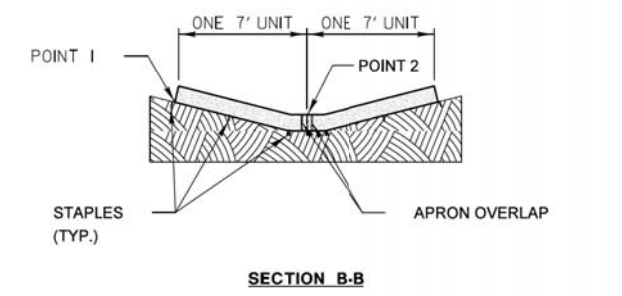
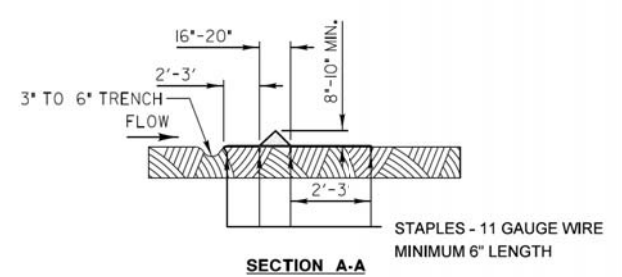
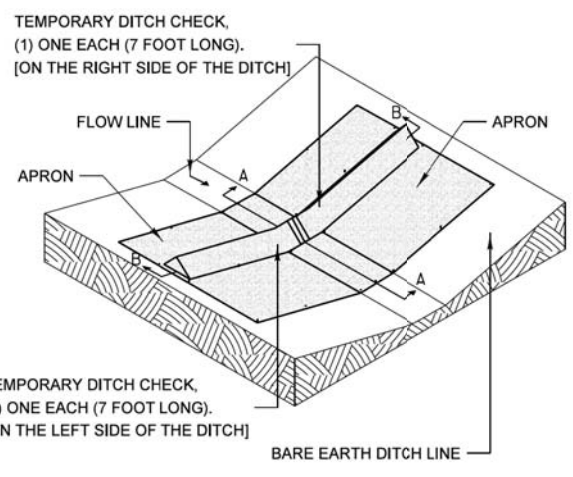
STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

POINT 1 MUST BE HIGHER THAN POINT 2 TO INSURE THAT WATER FLOWS THROUGH OR OVER THE BERM AND NOT AROUND THE ENDS.

REVISIONS	DATE	APPROVED BY: M. G. Zemaitis	DATE: APRIL 1, 2007
ADDED DIMENSIONS	04/18/08		
REVISED PAY ITEM	04/15/10		
ADDED PLASTIC BERM (pg2)	10/10/12		

TEMPORARY DITCH CHECK INSTALLATION FOR ROADWAY OR DRAINAGE DITCH

FOR BARE EARTH APPLICATION ONLY



NOTES:
 THE TEMPORARY DITCH CHECK SHALL BE USED IN BARE EARTH DITCH LINES AND SHALL BE REMOVED JUST PRIOR TO THE INSTALLATION OF EROSION CONTROL BLANKET AND SEEDING.

THE INSTALLATION SHOWN WILL BE MEASURED AND PAID FOR AS A TEMPORARY DITCH CHECK 14 FEET IN LENGTH.

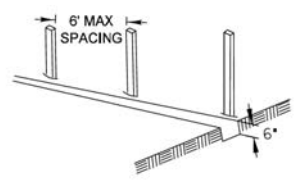
STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE 7' UNIT AS SHOWN ON THE DIAGRAM.

POINT 1 MUST BE HIGHER THAN POINT 2 TO INSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

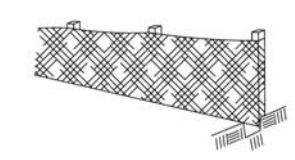
REVISIONS	DATE	APPROVED BY: M. G. Zemaitis	DATE: APRIL 1, 2007
ADDED DIMENSIONS	04/18/08		
REVISED PAY ITEM	04/15/10		
ADDED PLASTIC BERM (pg2)	10/10/12		

TEMPORARY DITCH CHECK INSTALLATION FOR ROADWAY OR DRAINAGE DITCH

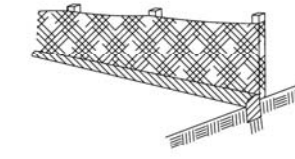
1. SET POSTS AND EXCAVATE OR SLIT-TRENCH A 6-INCH DEEP TRENCH UPSLOPE ALONG THE LINE OF POSTS



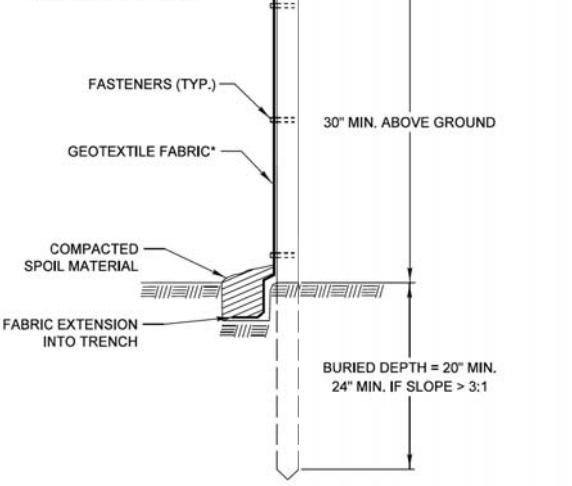
2. ATTACH GEOTEXTILE FILTER FABRIC TO EACH POST WITH A MINIMUM OF 3 (THREE) FASTENERS PER POST AND EXTEND FABRIC TO THE BOTTOM OF THE TRENCH



3. BACKFILL AND COMPACT THE EXCAVATED MATERIALS



POSTS - CHOICE OF:
 1.2" X 1.2" NOMINAL HARDWOOD POSTS
 2.6" X 2.6" NOMINAL NO.2 SOUTHERN PINE OR
 U, T, L, OR C-SHAPE STEEL POSTS WITH MIN. WEIGHT 1.33 LBS/FT



* NOTE: OPTIONAL WIRE SUPPORT
 - MIN. 30" HEIGHT
 - MIN. 14 GAUGE WIRE
 - MIN. 6 HORIZ. WIRES
 - MIN. 6" VERTICAL SPACING

SCALE 1" = 1'

Requirements	Test Methods	Wire Backed Supported Silt Fence	Unsupported Silt Fence	
			Geotextile Elongation >=50%	Geotextile Elongation <50%
Maximum Post Spacing		4 feet	4 feet	6 feet
Grab Strength	ASTM D 4632			
Machine direction		90 lbs	124 lbs	124 lbs
X-Machine direction		90 lbs	100 lbs	100 lbs
Permittivity	ASTM D 4491	0.05 sec ⁻¹	0.05 sec ⁻¹	0.05 sec ⁻¹
Apparent Opening Size	ASTM D 4751	0.024in maximum average roll value		
Ultraviolet stability (retained strength)	ASTM D 4355	70% after 500 hours of exposure		

REVISIONS	DATE	APPROVED BY: M. G. Zemaitis	DATE: JUNE 20, 2008
ORIG. by LCSMC	4/21/08		
Update Text	7/15/11		

PERIMETER EROSION BARRIER INSTALLATION

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

DESIGNED - PK
 DRAWN - PK
 CHECKED - JRV
 DATE - 6/10/2019

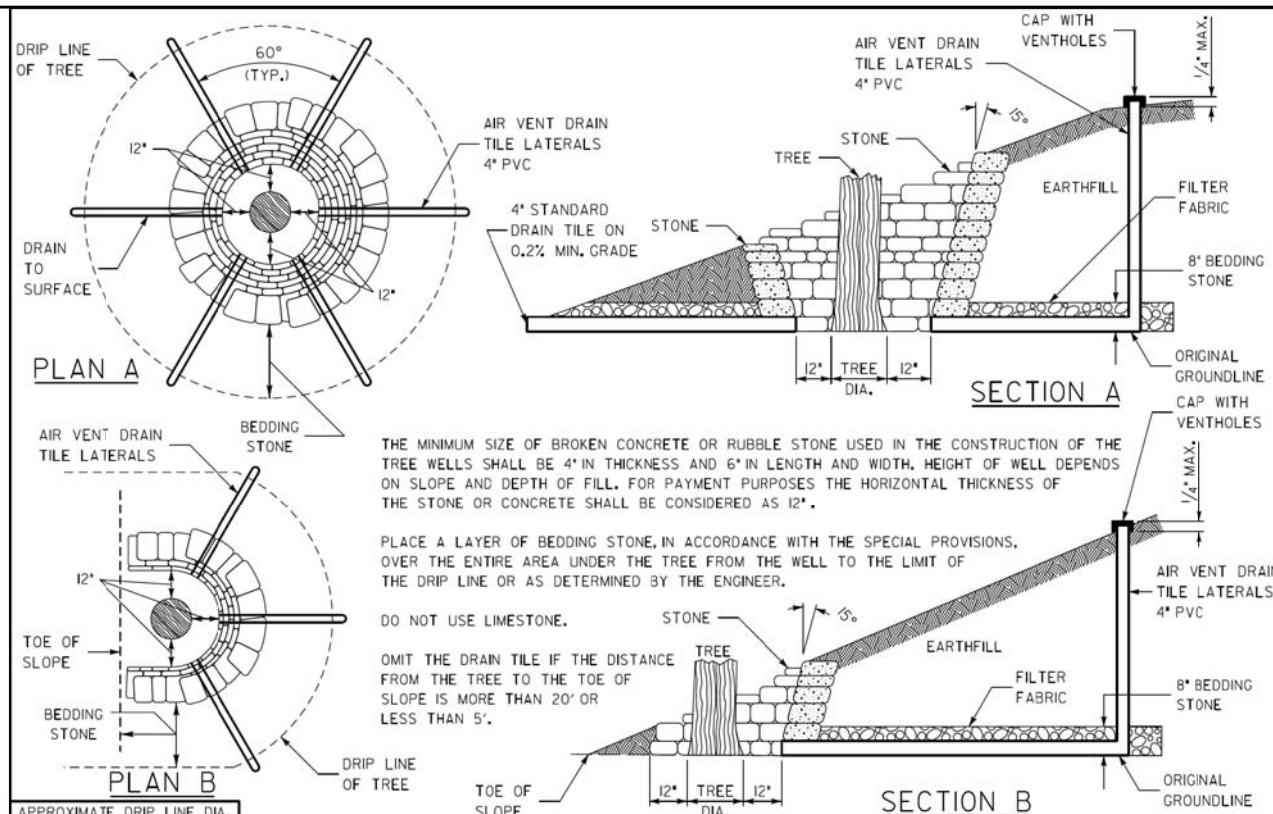
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

LCDOT HIGHWAY STANDARDS

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	348
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SHEET NO. 2 OF 17 SHEETS STA. TO STA.

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



APPROXIMATE DRIP LINE DIA. BASED ON TRUNK DIAMETER

TREE DIAMETER (INCHES)	DRIP LINE (FEET)
0-2	2
3-4	4
5-9	10
10-14	20
15-19	24
OVER 19	30

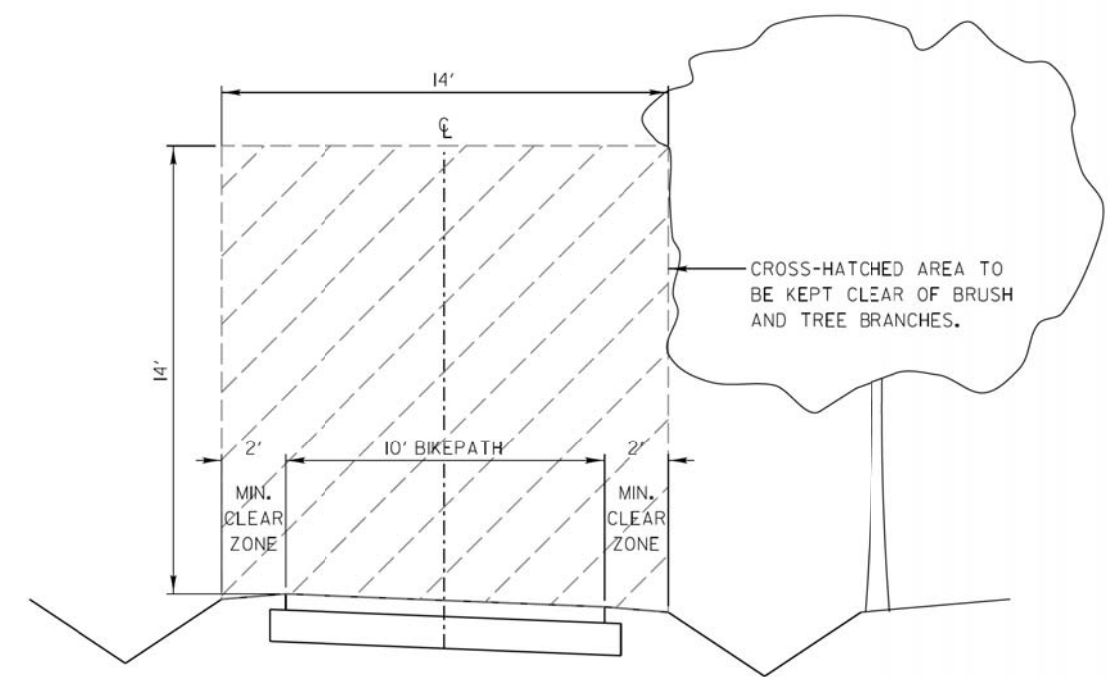
NOT TO SCALE

REVISIONS	DATE

LakeCounty Division of Transportation
APPROVED BY: M. G. ZEMAITIS
DATE: APRIL 1, 2007

DRY RUBBLE STONE OR BROKEN CONCRETE TREE WELLS

LC2100



SCALE:
VERTICAL 1" = 2'
HORIZONTAL 1" = 4'

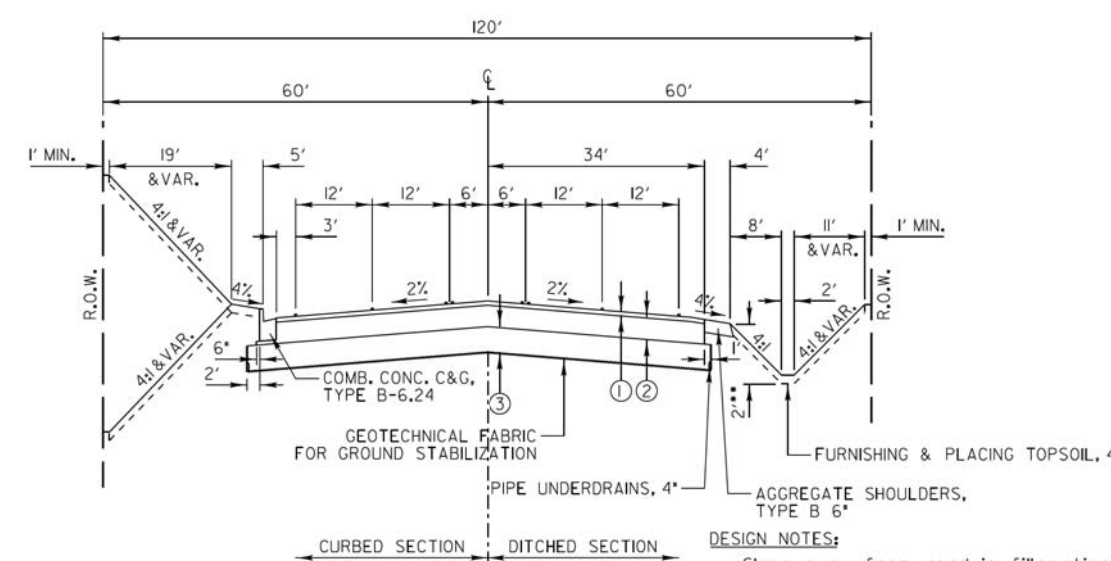
REVISIONS	DATE

LakeCounty Division of Transportation
APPROVED BY: M. G. ZEMAITIS
DATE: 04/10/13

VEGETATION MAINTENANCE REQUIRED CLEARANCE FOR 10' BIKEPATH

LC2200

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



- ① 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 ***
- ② 10" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 ***
- ③ AGGREGATE SUBGRADE, 12"

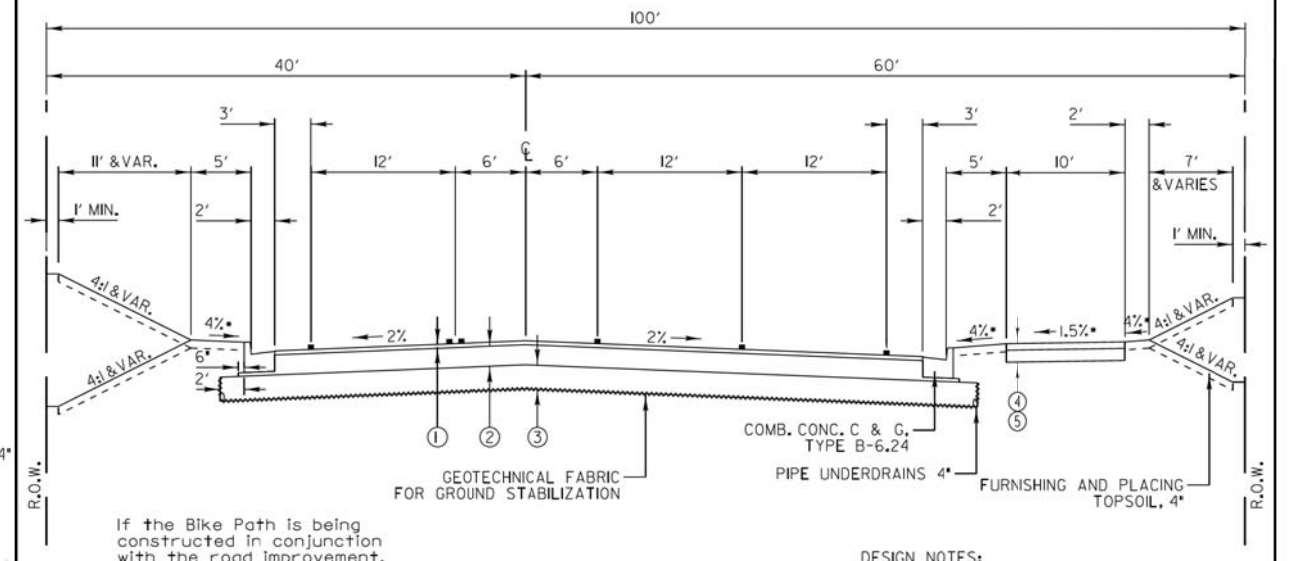
SCALE:
HORIZONTAL 1" = 20'
VERTICAL 1" = 5'

REVISIONS	DATE
Rev. HMA Shldr. Materials	5/6/08
Modified Agg./Binder Shoulder Ends	3/1/2011
Remove HMA Shldr. @ B/C	6/7/11
Revised HMA Shldr. Width	7/5/11
Revised Type A to Type B Aggregate	12/20/12
Curbed Section Shldr. Increased to 3'	8/3/2015

LakeCounty Division of Transportation
APPROVED BY: M. G. ZEMAITIS
DATE: APRIL 1, 2007

TYPICAL 5 LANE SECTION (12' LANES)

LC4021



If the Bike Path is being constructed in conjunction with the road improvement, then the Hot-Mix Asphalt mixes shall be the same as those used on the road in order to avoid multiple mix requirements.

- ① 2" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 ***
- ② 10" HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 ***
- ③ AGGREGATE SUBGRADE, 12"
- ④ 3" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50
- ⑤ AGGREGATE BASE COURSE, TYPE B 6"

SCALE:
HORIZONTAL 1" = 10'
VERTICAL 1" = 5'

REVISIONS	DATE
Changed BP to 3" Surface Rev. HMA Shldr. Materials	5/15/08
Remove HMA Shldr. @ B/C	6/7/11
Revised Type A to Type B Aggregate	12/20/12
Curbed Section Shldr. Increased to 3'	8/3/2015
1.5% Path Slope	9/8/15

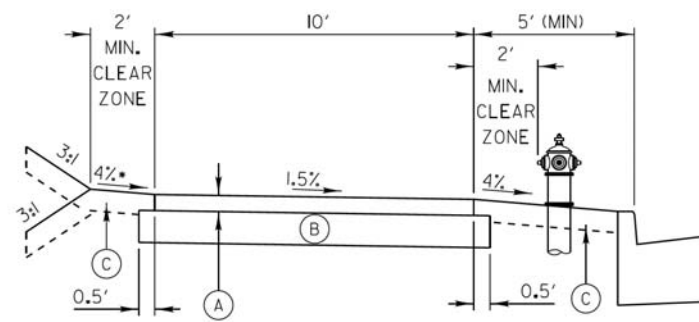
LakeCounty Division of Transportation
APPROVED BY: M. G. ZEMAITIS
DATE: APRIL 1, 2007

TYPICAL INTERSECTION APPROACH with LT & RT TURN LANES & ADJACENT MULTI-USE PATH

LC4031

DATE	
BY	
FINAL SURVEY PLOTTED	
NOTE BOOK	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY PLOTTED	
NOTE BOOK	
AREAS CHECKED	



- (A) 3" HOT-MIX ASPHALT SURFACE COURSE, MIX *D*, N50
- (B) AGGREGATE BASE COURSE, TYPE B 6"
- (C) FURNISHING AND PLACING TOPSOIL, 4", and SEEDING, CLASS 2A or SODDING

DESIGN NOTE:

•Slope away from road in fill sections
Slope toward road in cut sections

If the Bike Path is being constructed in conjunction with the road improvement, then the Hot-Mix Asphalt mixes shall be the same as those used on the road in order to avoid multiple mix requirements.

SCALE:
VERTICAL 1" = 2'
HORIZONTAL 1" = 4'

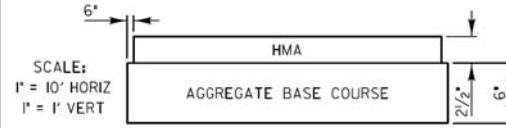
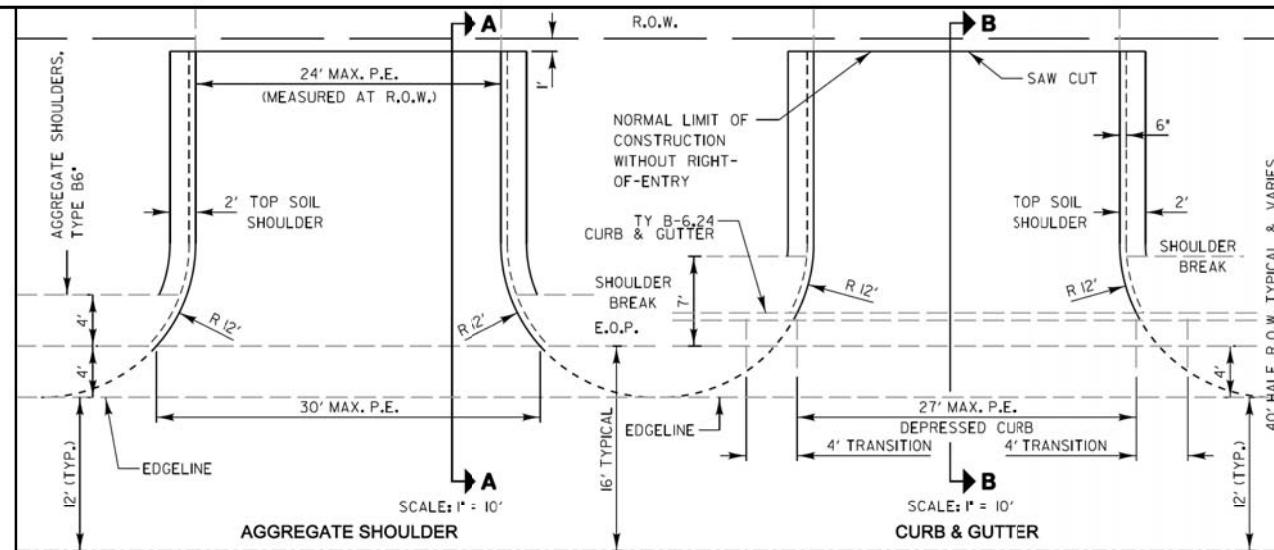
REVISIONS	DATE
Changed BP to 3" Surface	5/1/2008
Modified Agg. Base Course	3/1/2008
Change To Mix 10"	2/20/2012
Revised Type A to Type B Aggregate	12/20/12
1.5% Path Slope	9/11/2015

APPROVED BY: M. G. ZEMAITIS
DATE: APRIL 1, 2007

LakeCounty
Division of Transportation

**TYPICAL SECTION
10' HOT-MIX ASPHALT
BIKEPATH IN VICINITY OF
CURB & GUTTER**

LC4054



PEs: 2 1/2" HOT-MIX ASPHALT SURFACE COURSE ON 6" AGGREGATE BASE COURSE, TYPE B
Calculated Quantities for PRIVATE ENTRANCE w/o Curb and Gutter:
1. HMA Surface Course Weight Used = 112 lbs/Sq Yd/Inch thickness
Area = 63.0 Sq Yd
63.0 Sq Yd X 112 lb/Sq Yd/Inch x 2.5 Inches = **9 Ton**
2. Aggregate Base Course Weight Used = 2 Ton/Cu Yd
65.7 Sq Yd X 2 Ton/Cu Yd x 6 Inch thickness = **22 Ton**
Calculated Quantities for PRIVATE ENTRANCE with Curb and Gutter:
1. HMA Surface Course Weight Used = 112 lbs/Sq Yd/Inch thickness
Area = 55.0 Sq Yd
55.0 Sq Yd X 112 lb/Sq Yd/Inch x 2.5 Inches = **8 Ton**
2. Aggregate Base Course Weight Used = 2 Ton/Cu Yd
57.2 Sq Yd X 2 Ton/Cu Yd x 6 Inch thickness = **19 Ton**

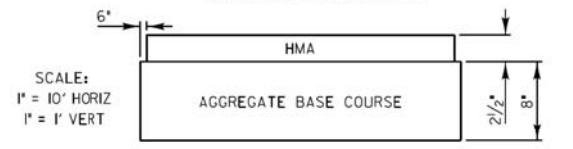
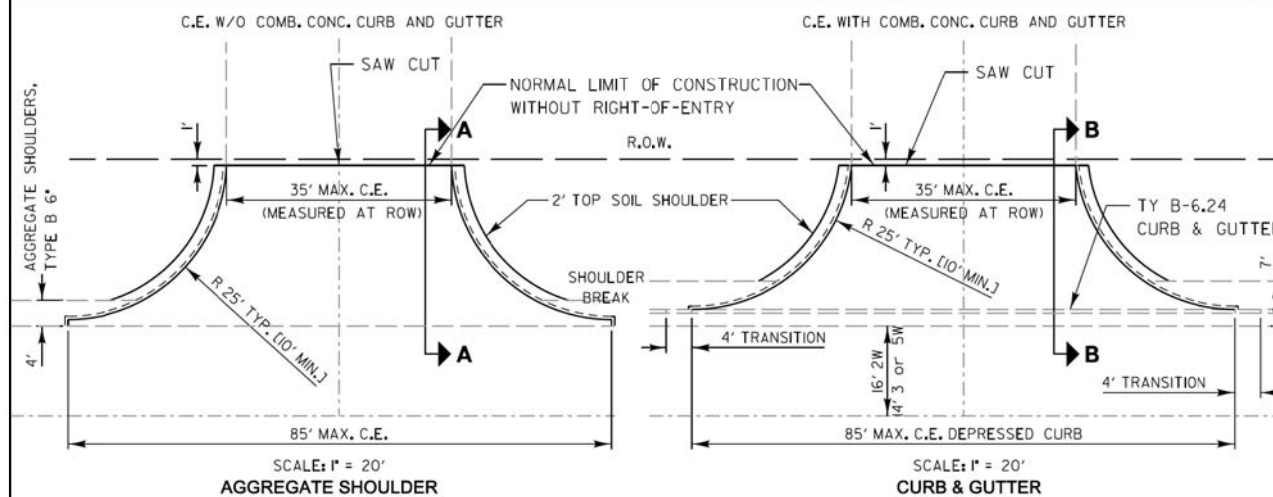
REVISIONS	DATE
Removed Prime Coat Qty	5/20/08
Revised Ent. EOP Radius	6/4/10
Revised Type A to Type B Aggregate	12/20/12
Revised Curb Transition	1/7/15

APPROVED BY: M. G. ZEMAITIS
DATE: APRIL 1, 2007

LakeCounty
Division of Transportation

**TYPICAL MINOR ACCESS
(PRIVATE ENTRANCE)**

LC4100



CEs: 2 1/2" HOT-MIX ASPHALT CONCRETE SURFACE COURSE ON 8" AGGREGATE BASE COURSE, TYPE B
Calculated Quantities for COMMERCIAL ENTRANCE w/o Curb & Gutter above:
1. HMA Surface Course Weight Used = 112 lbs/Sq Yd/Inch thickness
Area = 132.6 Sq Yd
132.6 Sq Yd x 112 lb/Sq Yd/Inch x 2.5 Inches = **19 Ton**
2. Aggregate Base Course Weight Used = 2 Ton/Cu Yd
137.0 Sq Yd x 2 Ton/Cu Yd x 8 Inch thickness = **61 Ton**
Calculated Quantities for COMMERCIAL ENTRANCE with Curb & Gutter above:
1. HMA Surface Course Weight Used = 112 lbs/Sq Yd/Inch thickness
Area = 116.3 Sq Yd
116.3 Sq Yd x 112 lb/Sq Yd/Inch x 2.5 Inches = **16 Ton**
2. Aggregate Base Course Weight Used = 2 Ton/Cu Yd
120.4 Sq Yd x 2 Ton/Cu Yd x 8 Inch thickness = **54 Ton**

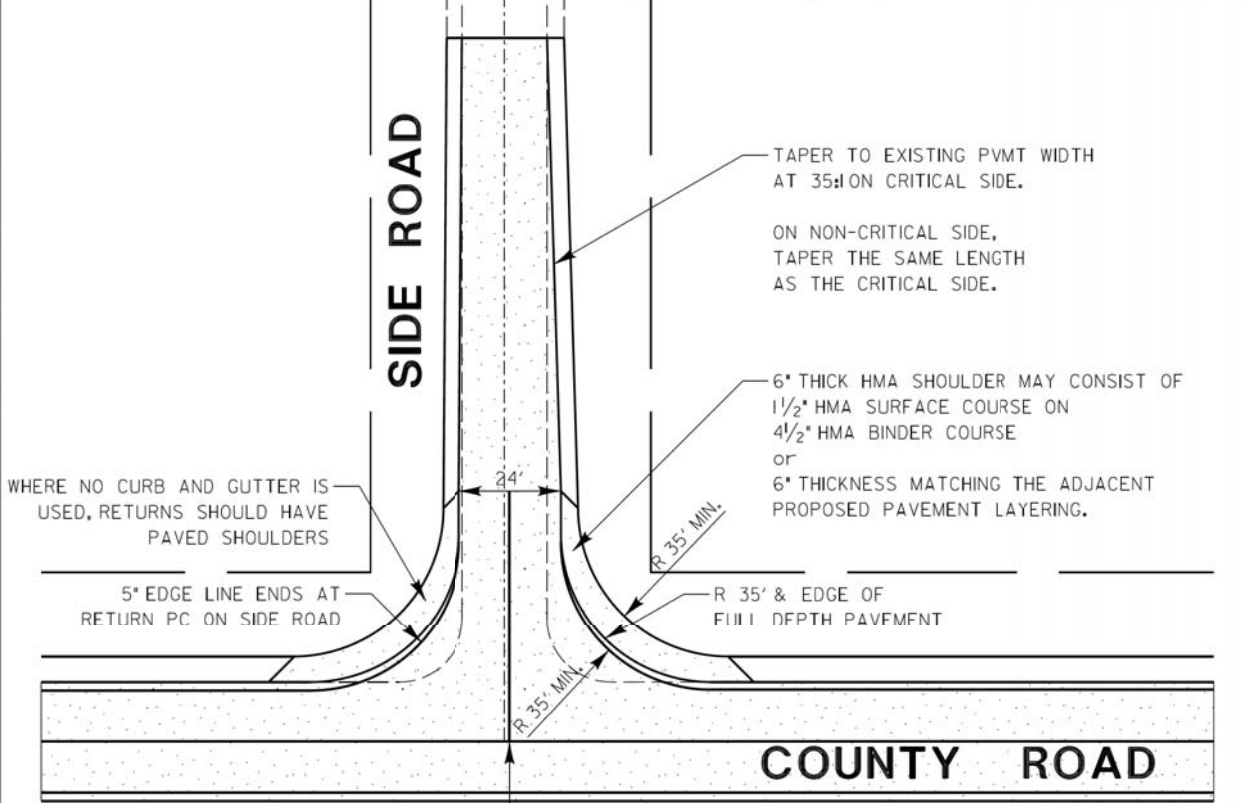
REVISIONS	DATE
Removed Prime Coat Qty	5/20/08
Revised Type A to Type B Aggregate	12/20/12
Revised Curb Transition	1/7/15

APPROVED BY: M. G. ZEMAITIS
DATE: APRIL 1, 2007

LakeCounty
Division of Transportation

**TYPICAL MAJOR ACCESS
(COMMERCIAL ENTRANCE)**

LC4101



PROPOSED SIDE ROAD SHOULD BE CENTERED IN RIGHT-OF-WAY EVEN IF EXISTING IS NOT.

SCALE: 1" = 30'

REVISIONS	DATE

APPROVED BY: M. G. ZEMAITIS
DATE: APRIL 1, 2007

LakeCounty
Division of Transportation

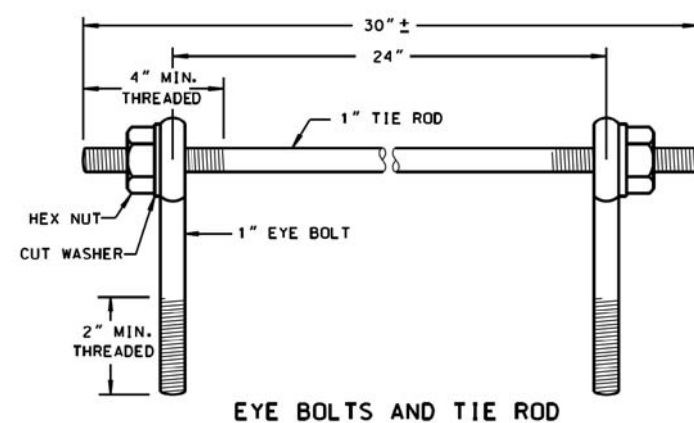
**TYPICAL MAJOR ACCESS
(SIDE ROAD)**

LC4102

DATE
BY
SURVEYED
PLOTTED
TEMPLATE
NOTE BOOK
AREAS CHECKED

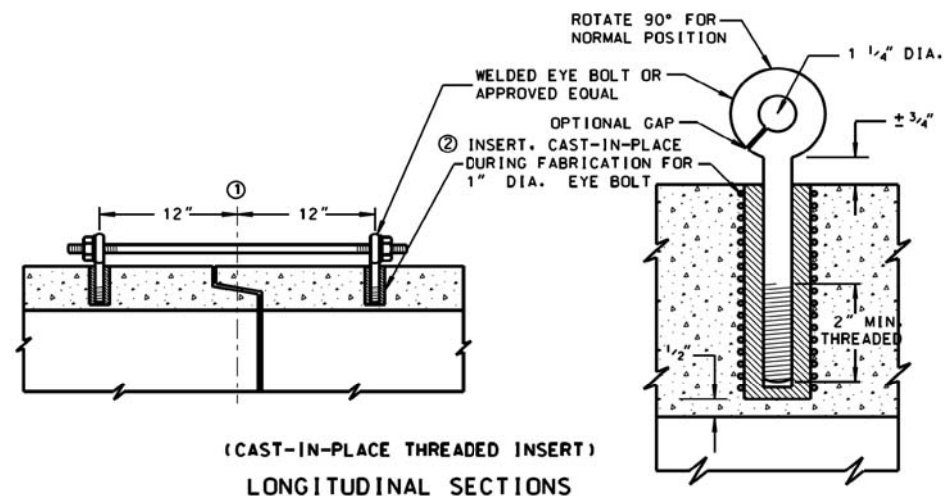
DATE
BY
SURVEYED
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TEMPLATE
NOTE BOOK
AREAS CHECKED

NO. /



EYE BOLTS AND TIE ROD

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



(CAST-IN-PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS. JOINT TIES AND HARDWARE SHALL BE GALVANIZED STEEL.

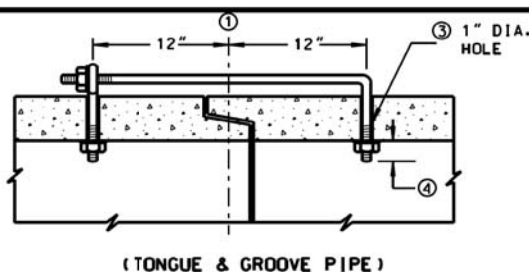
CONCRETE CULVERT PIPE AND SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT THE LAST THREE JOINTS BEFORE A FLARED END SECTION

THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR CONCRETE PIPE.

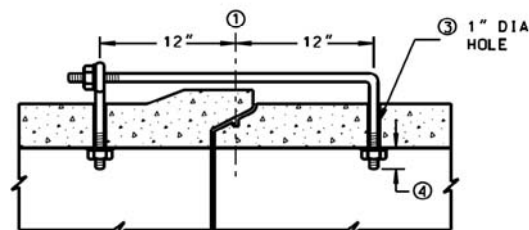
UNLESS OTHERWISE STATED IN THE CONTRACT THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE CULVERT PIPE AS INDICATED ON THE PLANS AND BY THIS DETAIL WILL BE CONSIDERED INCLUDED IN THE COST OF PIPE CULVERTS OR STORM SEWERS.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR GALVANIZED STEEL JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

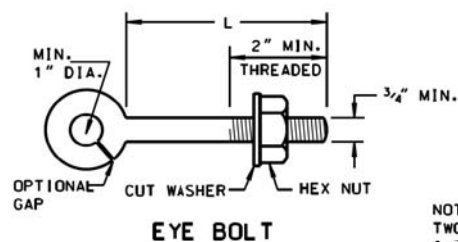
- ① 1/2" OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12" FROM 1/2" OF TONGUE AND GROOVE.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2".
- ⑤ OPENING TO BE ROD DIAMETER + 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

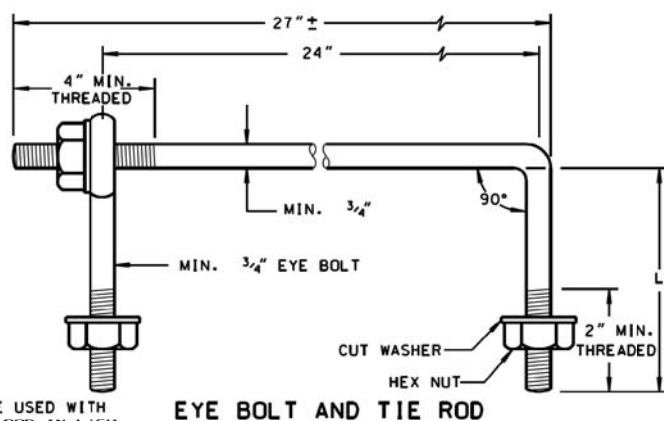


(MODIFIED BELL PIPE)
LONGITUDINAL SECTION



EYE BOLT

NOTE:
TWO EYE BOLTS MAY BE USED WITH
A 30" LONG THREADED ROD IN LIEU
OF THE 90° BENT TIE ROD.



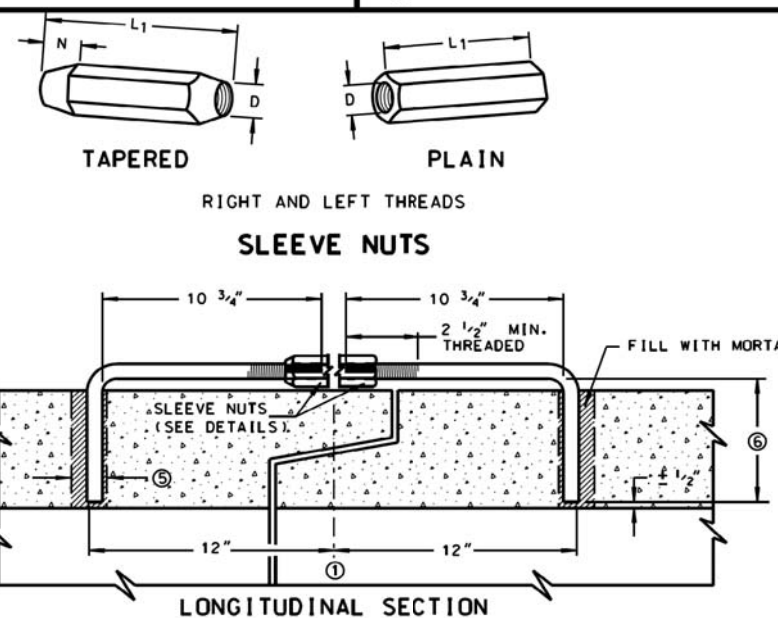
EYE BOLT AND TIE ROD

(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

EYE BOLT DIMENSION TABLE

PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



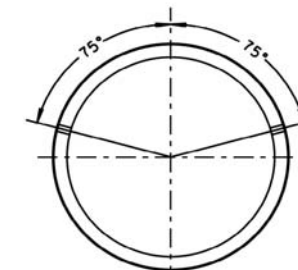
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)
ADJUSTABLE TIE ROD (ALTERNATE NO. 3)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

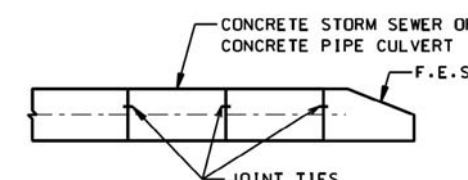
DIMENSIONS SHOWN ARE IN INCHES

NOT TO SCALE



PLACEMENT OF (2) CAST-IN-PLACE
INSERTS OR HOLES DURING FABRICATION
FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



TYPICAL JOINT TIE
LOCATIONS

REVISIONS	DATE
ADDED JOINT TIE MAT'L	7/8/11

Lake County
Division of Transportation

APPROVED BY: M. ZEMAITIS
DATE: 04/01/11

**JOINT TIES FOR
CONCRETE PIPE**

LC5402

NO.	REVISIONS / REMARKS	DATE	BY	SURVEYOR

Lake County
Division of Transportation

PROJECT NAME

LAKE COUNTY STANDARDS & DETAILS

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
CH		- - -	XX	XX



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

DESIGNED - PK	REVISED -
DRAWN - PK	REVISED -
CHECKED - JRV	REVISED -
DATE - 6/10/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LCDOT HIGHWAY STANDARDS

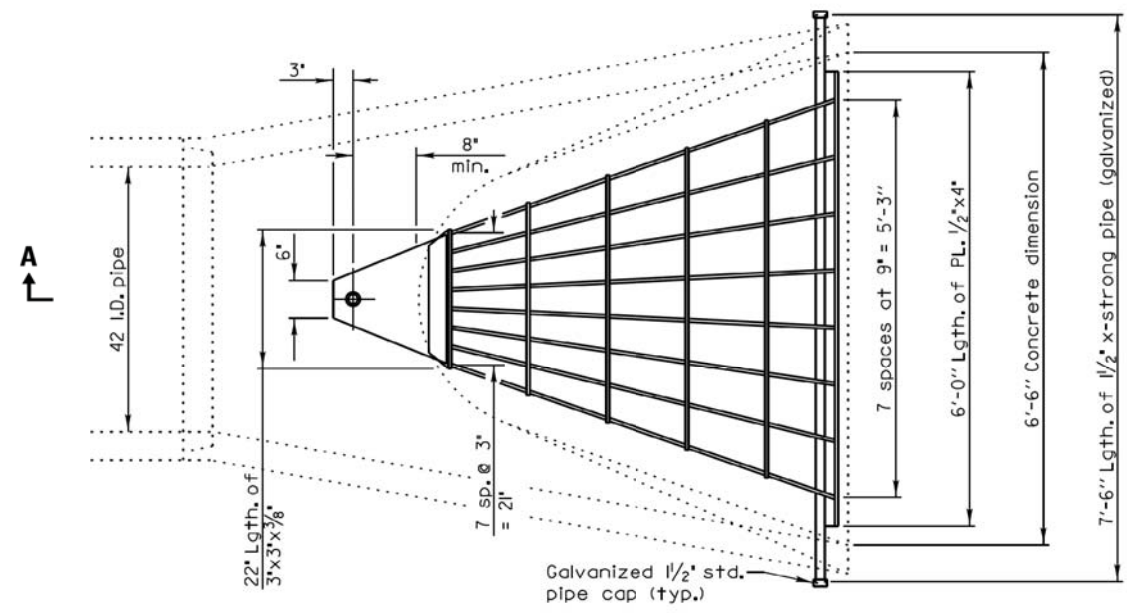
SHEET NO. 7 OF 17 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	353

CONTRACT NO. 61F25
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

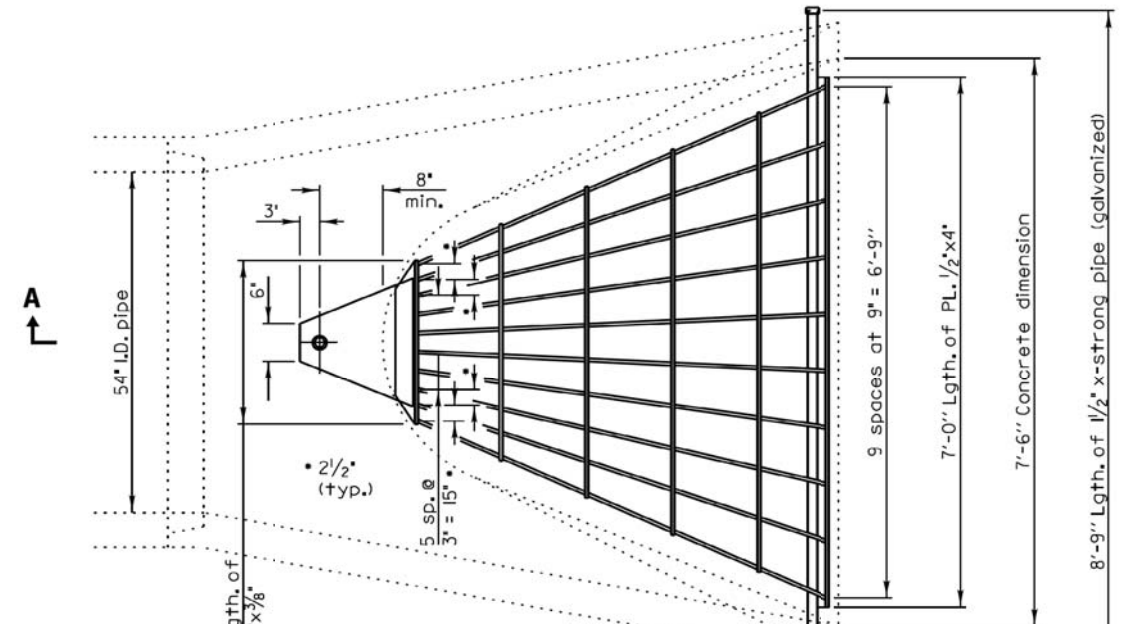
DATE	
BY	
SURVEYED	
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NOTE BOOK	
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NOTE BOOK	
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NO.	



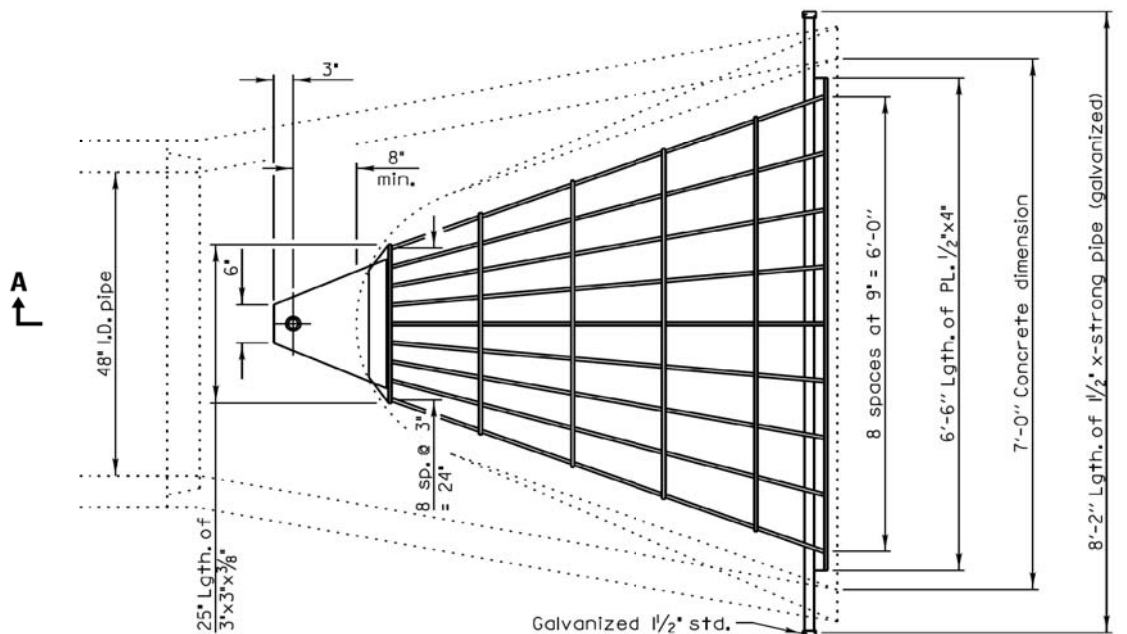
PLAN

Quantity of steel= 320 lbs.



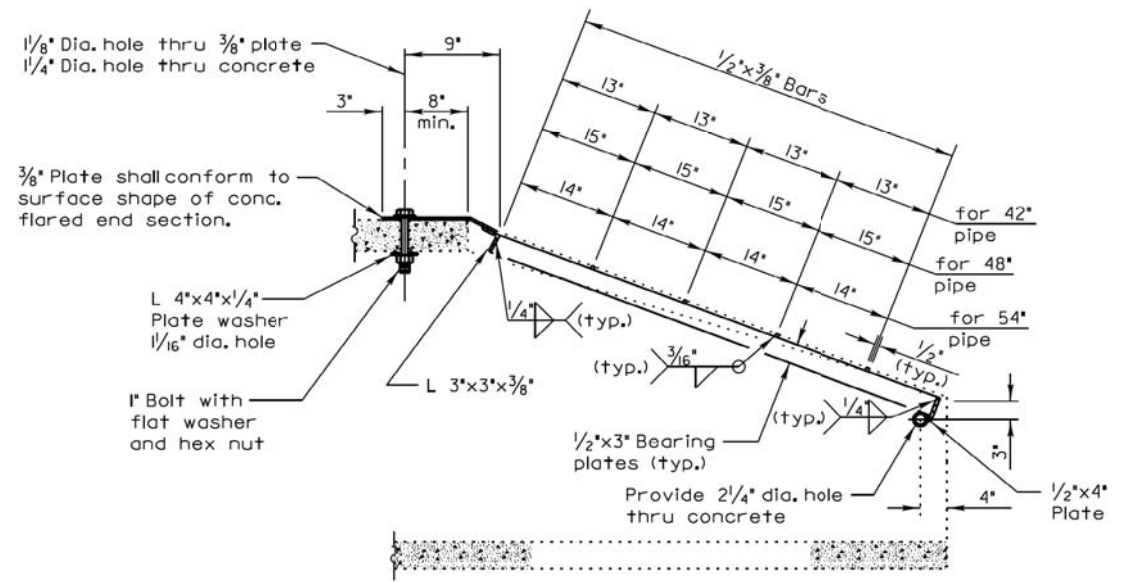
PLAN

Quantity of steel= 425 lbs.



PLAN

Quantity of steel= 400 lbs.



SECTION A-A

REVISIONS	DATE	 APPROVED BY: M. G. ZEMAITIS DATE: DEC. 18, 2014	LC5403
GRATING FOR CONCRETE FLARED END SECTIONS (24" - 54")		SHEET 2 OF 2	

NO.	REVISIONS / REMARKS	DATE	BY	SURVEYOR	DSGNER/LIAISON	PLOTTED BY

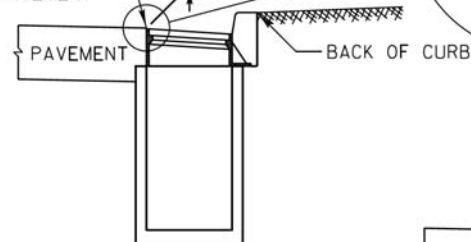
 Lake County Division of Transportation	PROJECT NAME LAKE COUNTY STANDARDS & DETAILS			ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
				CHXX	XXX	XX-00XXX-XX-XX	X	X

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

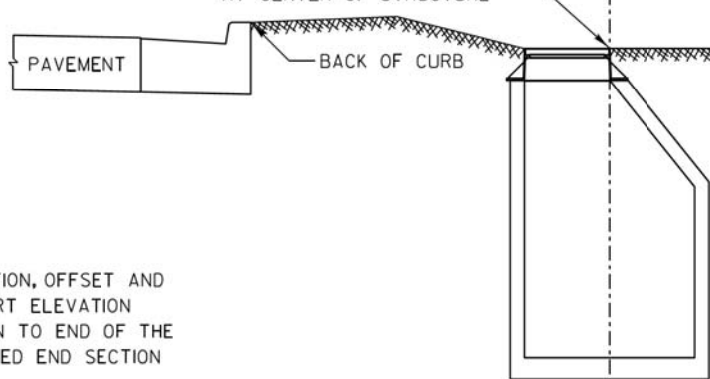
**DRAINAGE STRUCTURES
(EDGE OF PAVEMENT)**

RIM ELEVATION AND
OFFSET GIVEN AT
EDGE OF PAVEMENT

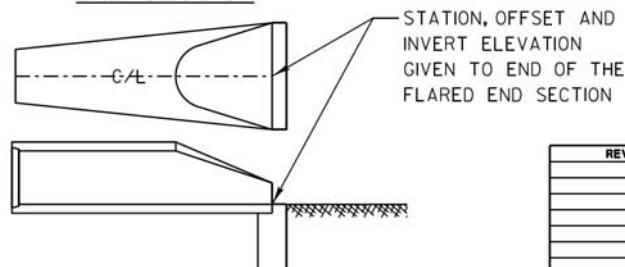


**DRAINAGE STRUCTURES
(OUTSIDE EDGE OF PAVEMENT)**

RIM ELEVATION AND OFFSET GIVEN
AT CENTER OF STRUCTURE

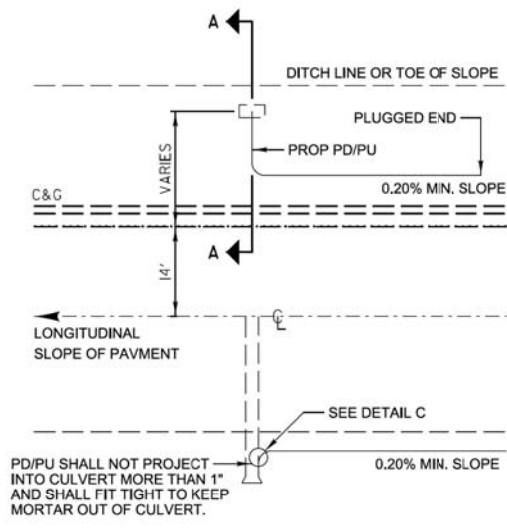


END SECTION



REVISIONS	DATE	APPROVED BY: MGZ DATE: 03/09/2012

**DRAINAGE STRUCTURE
RIM ELEVATIONS AND
OFFSETS**



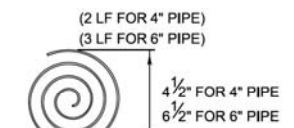
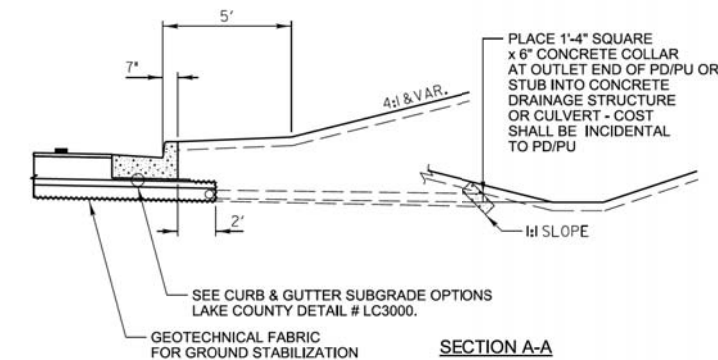
TYPICAL PIPE DRAIN/ PIPE UNDERDRAIN OUTLET

DESIGN NOTES:

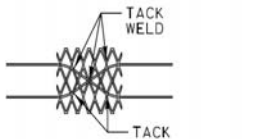
All work shall be according to the applicable portions of the "Standard Specifications" except as modified hereon.

In addition to the requirements of Article 601.08 of the "Standard Specifications", the contract unit price per foot for pipe drains 4" & 6" and pipe underdrains 4" shall include the cost of furnishing and placing the rodent shield.

The removable rodent shield shall be furnished and installed in accordance with one of the configurations shown. The shield shall be fabricated from steel wire, or expanded metal, as detailed above and shall be galvanized after fabrication in accordance with AASHTO M-111. Other submitted designs for a removable rodent shield will be allowed with the approval of the Engineer.

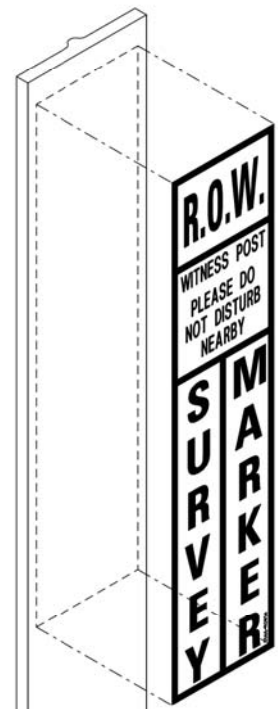


3/8" WIRE STOCK BENT TO A SPIRAL CONFIGURATION. TO INSTALL, TWIST INTO PD/PU END. (FOR CORRUGATED CIRCULAR METAL PIPE)



REVISIONS	DATE	APPROVED BY: M. G. ZEMAITIS DATE: APRIL 1, 2007
Pipe Drain Added to Labels	5/19/2009	
Revised Type A to Type B Aggregate	12/20/12	
Removed HMA Shkr & Agg	11/20/13	

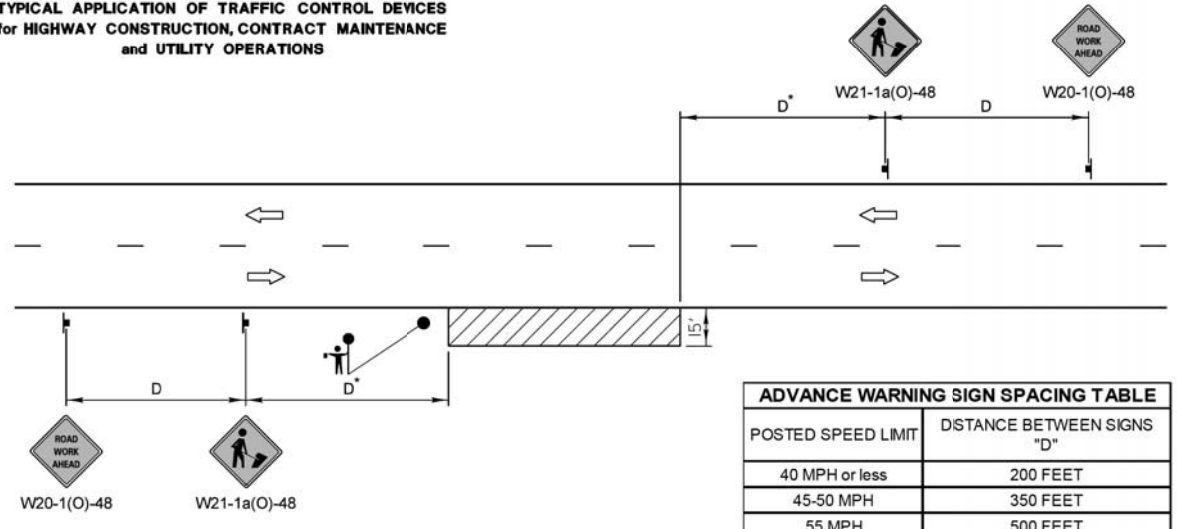
SUB-SURFACE DRAINS



REVISIONS	DATE	APPROVED BY: M. G. ZEMAITIS DATE: APRIL 1, 2007

WITNESS POST

**TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
for HIGHWAY CONSTRUCTION, CONTRACT MAINTENANCE
and UTILITY OPERATIONS**



POSTED SPEED LIMIT	DISTANCE BETWEEN SIGNS "D"
40 MPH or less	200 FEET
45-50 MPH	350 FEET
55 MPH	500 FEET

GENERAL NOTES:

This special detail is used at any time, any vehicle, equipment, workers or their activities require a stationary, intermittent or continuous moving operation within 15 feet of the traffic lane, where the average speed is 1 mph or less.

* Minimum distance "D" is shown in the Advance Warning Sign Spacing Table. If the work is a moving operation, the maximum distance "D" may be extended to 1/2 the length required for one normal working day's operation or 4 miles, whichever is less.

If the work operation does not exceed 60 minutes, traffic control may be according to I.D.O.T. Highway Standard 701301.

SYMBOLS	
	WORK AREA
	SIGN ON PORTABLE OR PERMANENT SUPPORT
	FLAGGER WITH TRAFFIC CONTROL SIGN WHEN REQUIRED

REVISIONS	DATE	APPROVED BY: A. KHAWAJA DATE: APRIL 1, 2007
Title Block Revision	8/1/09	
Reformat LCDOT Standard	7/15/10	
Updated IDOT Standard Version #	3/29/16	

**TWO LANE, TWO WAY,
OFF-ROAD OPERATIONS
DAY OPERATIONS ONLY**

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DESIGNED - PK	REVISED -
DRAWN - PK	REVISED -
CHECKED - JRV	REVISED -
DATE - 6/10/2019	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LCDOT HIGHWAY STANDARDS

SHEET NO. 10 OF 17 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	356
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	BY
SURVEYED	PLOTTED
NOTE BOOK	AREAS CHECKED
NO.	

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES for HIGHWAY CONSTRUCTION, CONTRACT MAINTENANCE and UTILITY OPERATIONS

CONES AT 25' CENTERS FOR 250'. ADDITIONAL CONES MAY BE PLACED AT 50' CENTERS. WHEN BARRICADES ARE USED, THE DISTANCE BETWEEN DEVICES MAY BE DOUBLED.

GENERAL NOTE:
This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement during shoulder operations or where construction requires lane closures in an urban area.

DESIGN NOTES:

- All warning signs shall have minimum dimensions of 48"x48". The Engineer may approve signs measuring 36"x36" when the posted speed limit is 30 mph or less.
- All signs not on the traveled way shall be post mounted if the closure time exceeds four calendar days. All signs shall be pointed with the bottom of the sign not less than 7' above the edge of pavement. "NO PARKING" signs shall be installed throughout the work area at the discretion of the Engineer.
- The distance "L" shall be defined as:

SPEED	FORMULA
≤ 40 MPH	$L = (W^2) / 50$
≥ 45 MPH	$L = LW \times S$

 W = Width of Closure in FEET
 S = Normal Posted Speed Limit in MPH
 LW = Lane Width in FEET
- Type II barricades with Type C steady burning lights shall be used in lieu of cones for night operations. All cones and barricades shall be according to IDOT Standard 701901.
- For raised median operations, where the raised median is less than 10' signing shall not be installed on the median. No signing shall be installed on any painted median.
- If the work operation is performed between 9:00 am and 3:00 pm and the work does not exceed 15 minutes, the traffic protection shall be as shown for IDOT Standard 701301. Signs, when required, shall be at the spacing specified in the advance warning sign spacing table.
- If the work area is in the parking lane and the parking exists during work hours, a "ROAD WORK AHEAD" sign shall be installed in advance of work area at the spacing specified in the Advance Warning Sign Spacing Table and the area protected with cones or barricades.
- Type A flashing lights shall be used on each approach in advance of the work area during hours of darkness and installed above the first two signs in each series and the high level warning devices.
- Longitudinal dimensions may be adjusted to fit field conditions.
- Form BT 725 is required.

ADVANCE WARNING SIGN SPACING TABLE

POSTED SPEED LIMIT	DISTANCE BETWEEN SIGNS		
	"A"	"B"	"C"
40 MPH or less	400 FEET	200 FEET	200 FEET
45-50 MPH	400 FEET	350 FEET	350 FEET
55 MPH	500 FEET	500 FEET	500 FEET

SYMBOLS

- WORK AREA
- CONE, BARRICADE, OR DRUM
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- ARROW BOARD
- TYPE II BARRICADE W/TYPE A FLASHING LIGHT
- HIGH LEVEL WARNING DEVICE **
- FLAGGER WITH TRAFFIC CONTROL SIGN

MODIFIED IDOT STANDARD 701701-10

URBAN LANE CLOSURE MULTILANE INTERSECTION

APPROVED BY: ANTHONY KHAWAJA
DATE: APRIL 1, 2007

REVISIONS: Title Block Revision 8/1/09, Reformatted LCDOT Standard 7/15/10, Removed "Warning" & "Flagger" signs 6/26/12, Updated IDOT Standard Version # 3/29/16

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES for HIGHWAY CONSTRUCTION, CONTRACT MAINTENANCE and UTILITY OPERATIONS

GENERAL NOTE:
This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement or where construction requires lane closures.

DESIGN NOTES:

- For a side road with a speed limit of 40 mph or less, the closed portion of the main route shall be protected by blocking with Type II barricades or drums, 1/3 of the cross section of the closed portion of the roadway.
- For a side road with a speed limit of 45 mph or greater, the closed portion of the main route shall be protected by blocking with Type II barricades or drums, 1/2 of the cross section of the closed portion of the roadway.
- All W20-1 "ROAD WORK AHEAD" signs shall be 48"x48" with fluorescent orange reflective sheeting with an amber Type A flashing light mounted on the sign.
- When the side road lies between the beginning of the mainline signing and the work zone, a M6-1 Single Headed Arrow shall be used in lieu of the M6-4 Double Headed Arrow.
- For a lane closure on a side road, use the applicable portions of the appropriate Highway Standard or Traffic Control Detail. The spacing of the signs and barricades or drums shall be adjusted for field conditions as directed by the engineer. The directional arrow shall be covered or removed when no longer consistent with the side road closure.
- Advance warning signs shall be omitted on driveways unless otherwise noted.
- The traffic control and protection for side roads and intersections shall be included in the contract lump sum price for "TRAFFIC CONTROL AND PROTECTION, SPECIAL."

ADVANCE WARNING SIGN SPACING TABLE

POSTED SPEED LIMIT	DISTANCE BETWEEN SIGNS "D"	
	40 MPH or less	45-50 MPH
40 MPH or less	200 FEET	200 FEET
45-50 MPH	350 FEET	350 FEET
55 MPH	500 FEET	500 FEET

SYMBOLS

- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE II BARRICADE W/TYPE A FLASHING LIGHT
- DRUM WITH STEADY BURNING LIGHT

MODIFIED IDOT DISTRICT ONE SIDE ROAD DETAIL

APPROVED BY: ANTHONY KHAWAJA
DATE: APRIL 1, 2007

REVISIONS: Title Block Revision 8/1/09, Reformatted LCDOT Standard 7/15/10, Use of Drums in Lieu of Type II Barricade 4/22/14

TRAFFIC CONTROL and PROTECTION for SIDEROADS, INTERSECTIONS and DRIVEWAYS

DATE	BY
SURVEYED	PLOTTED
NOTE BOOK	AREAS CHECKED
NO.	

DIRECTION INDICATOR BARRICADES

GENERAL NOTES

- Direction Indicator Barricades shall be constructed from non-metallic Type II barricades meeting the requirements of Article 1106.02 of the Standard Specifications, except where modified by this detail.
- The Direction Indicator Barricades shall be equipped with Type C steady burning lights if used to channelize traffic during the hours of darkness.
- The reflective sheeting for the top panel shall be Type AZ fluorescent orange. The diagonal panels shall have orange and white Type A or better reflective sheeting.

ARROW DETAIL

APPROVED BY: ANTHONY KHAWAJA
DATE: APRIL 1, 2007

REVISIONS: Text Update 7/15/11

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES for HIGHWAY CONSTRUCTION, CONTRACT MAINTENANCE and UTILITY OPERATIONS

DIRECTION INDICATOR BARRICADES

DRIVEWAY

TEMPORARY CONSTRUCTION INFORMATION SIGNING NOTES:

- The driveway and chevron signs shall be mounted back to back on the near side of the roadway where the entrance is located. There will be two sign assemblies per driveway.
- Temporary construction information signs shall be post mounted 7' above the near edge of pavement and shall be a minimum of 6' beyond the edge of the nearest traveled lane, or as directed by the Engineer.
- The retroreflective sign face shall be a minimum of Type "A" material.
- The temporary construction information signs shall be removed or relocated when the Engineer determines the signs to be no longer necessary.
- Existing traffic control signs and messages that are in conflict with the proposed maintenance of traffic shall be covered or modified with a temporary overlay as shown in the plans and/or as directed by the Engineer.
- Install additional temporary sign panel assemblies as shown in the plans and/or directed by the Engineer.

APPROVED BY: ANTHONY KHAWAJA
DATE: APRIL 1, 2007

REVISIONS: Revised Signs & Text 1/1/09, Text Update 7/15/11

TEMPORARY CONSTRUCTION INFORMATION SIGNS

SHEET 1 OF 2

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	



48" X 36"
 BLACK ON FLUORESCENT ORANGE
 REFLECTIVE BACKGROUND
 1" BORDER WITH 1/4" INSET
 LETTER SIZE 6D
 *LETTER SIZE 6E BOLD

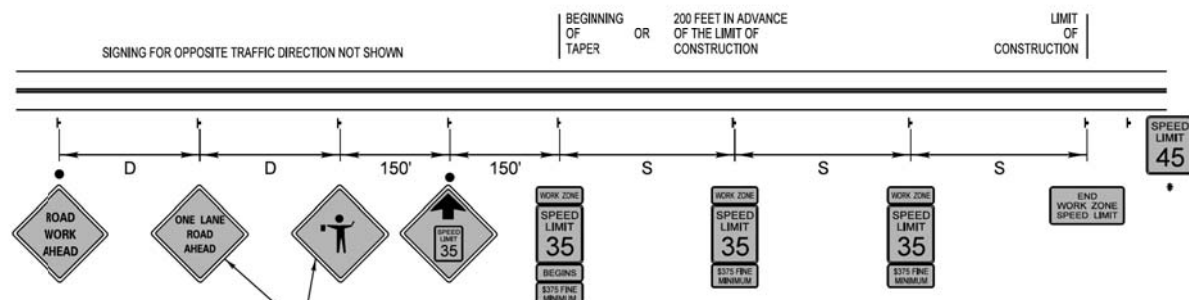
REVISIONS	DATE	APPROVED BY: A. KHAWAJA
Revised Signs & Text	1/1/09	DATE: APRIL 1, 2007
Text Update	7/15/11	

Lake County
 Division of Transportation

TEMPORARY CONSTRUCTION INFORMATION SIGNS
 SHEET 2 OF 2

LC7201

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	



- NOTES:**
- * * EXISTING SPEED LIMIT BEFORE CONSTRUCTION.
 - THE SIGN SPACING BETWEEN WORK ZONE SPEED LIMIT SIGNS SHALL BE THE SAME AS COMPARABLE REGULAR SPEED LIMIT SIGNING AS STATED IN THE L.C.D.O.T. POLICY FOR THE ESTABLISHMENT AND POSTING OF SPEED LIMITS ON COUNTY AND TOWNSHIP HIGHWAYS WITHIN LAKE COUNTY, ILLINOIS. A MINIMUM OF 2 WORK ZONE SPEED LIMIT SIGNS SHALL BE REQUIRED PER DIRECTION OF TRAFFIC.
 - EXISTING SPEED LIMIT SIGNS AND POST SHALL BE REMOVED AND RETURNED TO THE L.C.D.O.T.'S SIGN SHOP WITHIN 24 HOURS OF REMOVAL.
 - ON MULTILANE HIGHWAYS, WORK ZONE SPEED LIMIT AND ADVANCE CONSTRUCTION SIGNING SHALL BE ON THE RIGHT SIDE RIGHT-OF-WAY AND THE LEFT MEDIAN, WHEN THE MEDIAN IS NOT PAVED AND THE WIDTH IS 16 FEET OR GREATER.
 - ALL SIGNS SHALL BE PERMANENTLY POST MOUNTED IF THE SIGNS WILL BE DISPLAYED FOR MORE THAN 48 HOURS.

NOTE: SPEED LIMIT VALUES SHOWN FOR EXAMPLE ONLY

ROAD TYPE (EXISTING SPEED LIMIT)	DISTANCE BETWEEN SIGNS "D"
URBAN-LOW SPEED (40 MPH or less)	200 FEET
URBAN-HIGH SPEED (45-50 MPH)	350 FEET
RURAL (55 MPH or greater)	500 FEET

WORK ZONE SPEED LIMIT	DISTANCE BETWEEN SIGNS "S"
35 TO 40 MPH	990 FEET to 1,980 FEET
45 TO 50 MPH	1,320 FEET to 2,640 FEET

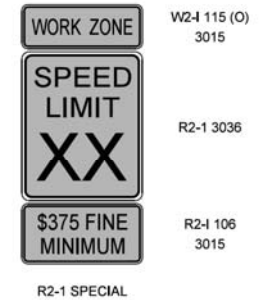
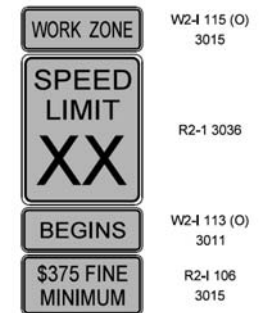
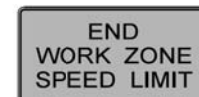
REVISIONS	DATE	APPROVED BY: A. KHAWAJA
Reformat LCDOT Standard	7/15/10	DATE: 4/14/09
Revised Labels	6/26/12	

Lake County
 Division of Transportation

WORK ZONE SPEED LIMIT SIGNING DIAGRAM
 (SHEET 1 OF 2)

LC7203

WORK ZONE SPEED LIMIT SIGNS



REVISIONS	DATE	APPROVED BY: A. KHAWAJA
Reformat LCDOT Standard	7/15/10	DATE: 4/14/09
Revised Labels	6/26/12	

Lake County
 Division of Transportation

WORK ZONE SPEED LIMIT SIGNING DIAGRAM
 (SHEET 2 OF 2)

LC7203

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

DESIGNED - PK	REVISED -
DRAWN - PK	REVISED -
CHECKED - JRV	REVISED -
DATE - 6/10/2019	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

LCDOT HIGHWAY STANDARDS

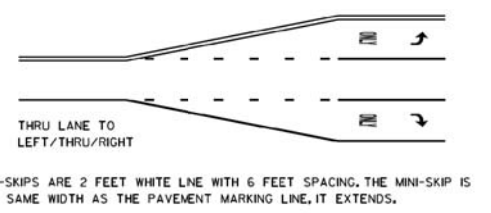
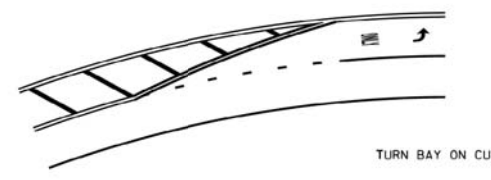
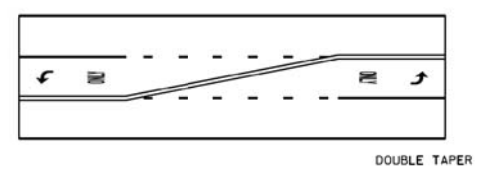
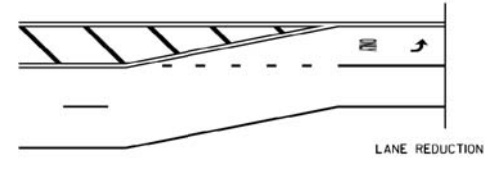
SHEET NO. 12 OF 17 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	358
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

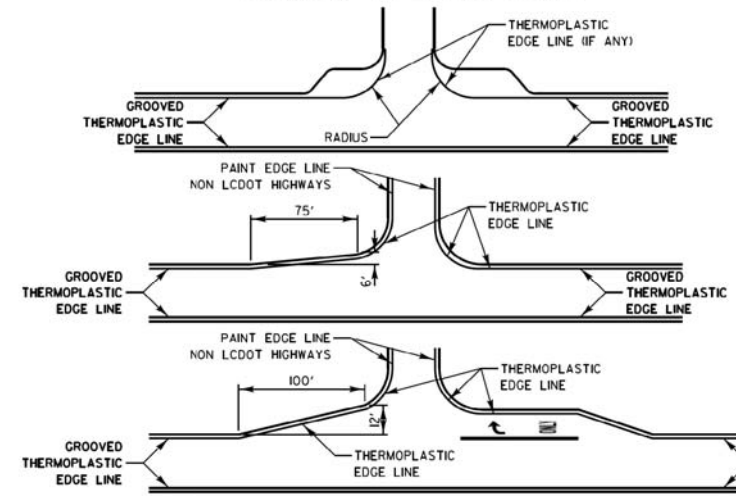
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

TYPICAL MINI-SKIP PAVEMENT MARKINGS

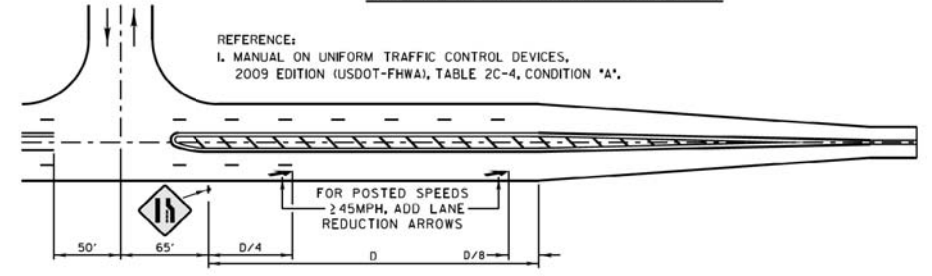


TYPICAL PAVEMENT MARKINGS

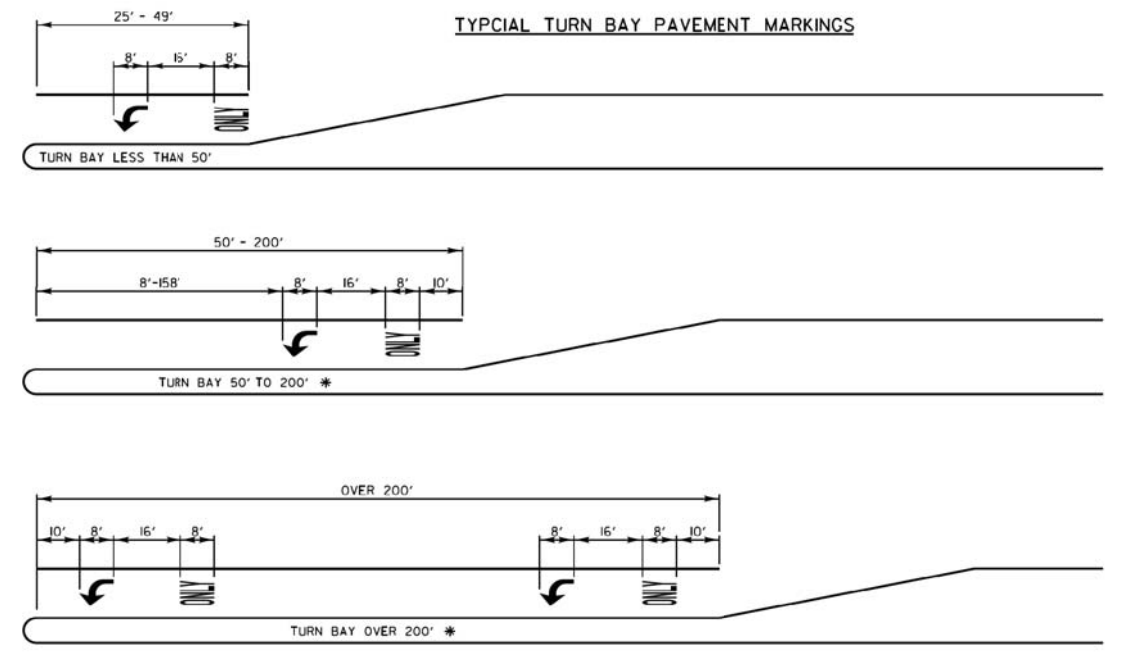
EDGE LINE RADII AT SIDE STREETS



LANE REDUCTION ARROW PLACEMENT



TYPICAL TURN BAY PAVEMENT MARKINGS



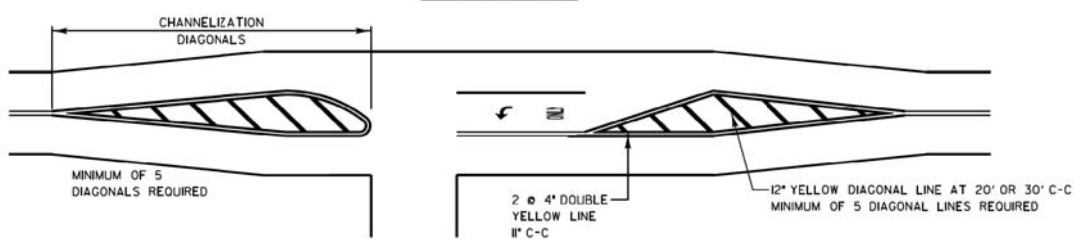
* AT INTERSECTIONS WITH VIDEO DETECTION, THE ARROW AND ONLY PAVEMENT MARKINGS SHALL BE A MINIMUM OF 30' BEHIND THE STOP BAR.

AREA = 15.6 SQ. FT.

ONLY AREA = 20.8 SQ. FT.

FULL SIZE LETTERS (8") AND ARROWS SHALL BE USED. TURN LANES IN EXCESS OF 400' IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW W/ "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW W/ "ONLY".

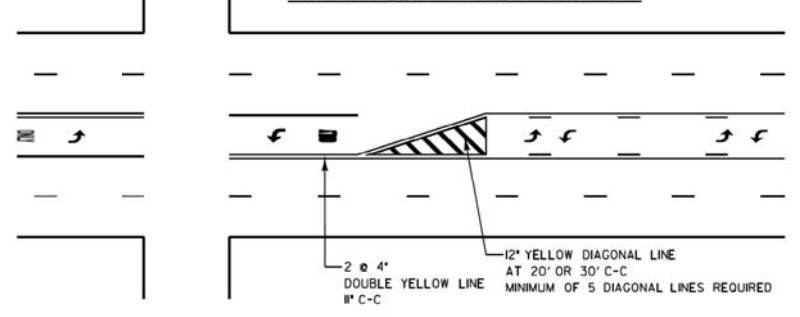
TWO LANE ROAD



TYPICAL DIAGONAL SPACING

SPEED LIMIT RANGE	CONTINUOUS	INTERSECTION CHANNELIZATION
30-45 MPH	75 FT.	20 FT.
OVER 45 MPH	150 FT.	30 FT.

TWO-WAY LEFT TO LEFT TURN BAY



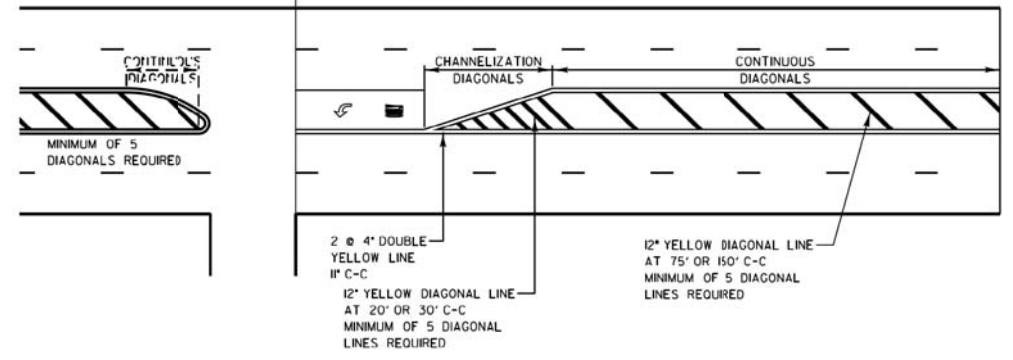
DUAL LEFT TURN ARROWS



A MINIMUM OF TWO PARS OF DUAL LEFT TURN ARROWS SHALL BE USED. THE DUAL LEFT TURN ARROWS SHALL BE WHITE IN COLOR. THE INTERVAL BETWEEN SETS OF DUAL LEFT TURN ARROWS SHOULD BE 200' AND 300'.

31.2 SQ. FT. MINIMUM OF 2 SETS REQUIRED

3 OR 5 LANE ROAD



REVISIONS	DATE
SEPARATED RAILROAD SHEET	06/02/08
ADDED LANE REDUCTION ARROWS	07/1/12
RAISED TO RECESSED MARKERS	12/2/13
REMOVE STATION NUMBERS	5/30/14
THERMO EDGELINES AT RETURNS	11/18/16
ALL PM TO GROOVED THERMO	1/26/17
REVISED EDGELINES AT RETURNS	4/10/17
REVISED STOP BAR/DBL YELLOW	8/31/17



APPROVED BY: A. KHAWAJA
DATE: APRIL 1, 2007

TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS

SHEET 1 OF 2

LC7800

NO.	REVISIONS / REMARKS	DATE	BY	SURVEYOR	DSGNR/LIAISON	PLOTTED BY

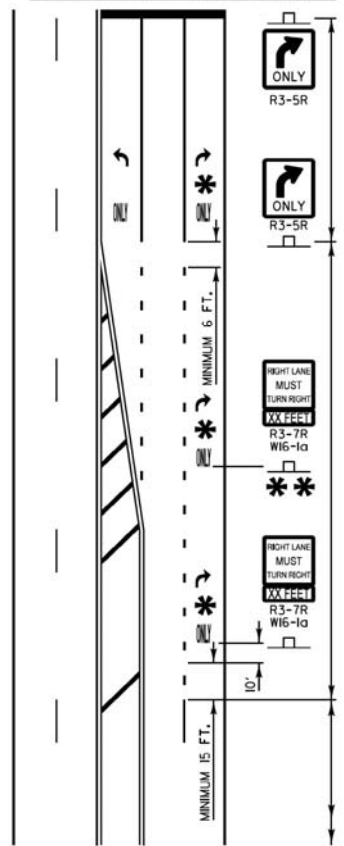


PROJECT NAME					
LAKE COUNTY STANDARDS & DETAILS					
ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS	
CHXX	XXX	XX-XXXXX-XX-XX	XXX	XXX	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

THRU LANE TO TURN LANE CONVERSION



TURN LANE
6' WHITE LINE
(ADDITIONAL PAVEMENT MARKINGS AS SHOWN ON SHEET ONE OF THE L.C.D.O.T. TYPICAL PAVEMENT MARKINGS DETAIL SHEETS)

TRANSITION ZONE
6' WHITE 3'/12' SKIP DASH LANE LINE

THRU LANE
4' WHITE 10'/30' SKIP DASH LANE LINE

MINIMUM TRANSITION ZONE LENGTH

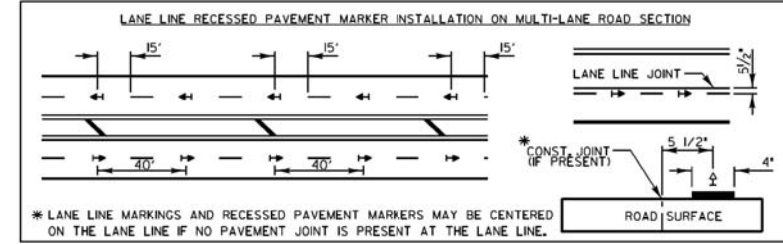
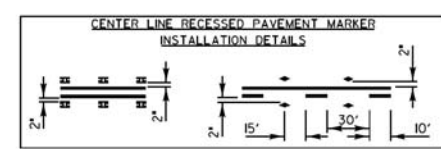
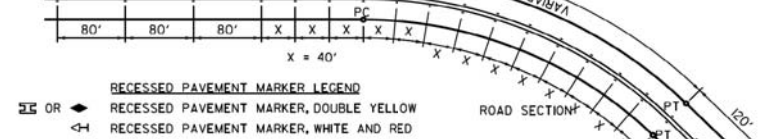
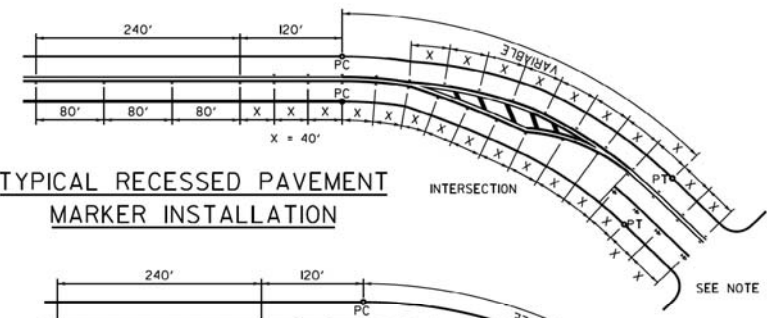
POSTED SPEED	LENGTH
25 M.P.H.	255 FT
30 M.P.H.	330 FT
35 M.P.H.	405 FT
40 M.P.H.	480 FT
45 M.P.H.	555 FT
50 M.P.H.	630 FT
55 M.P.H.	705 FT

*** LOCATION OF PAV'T MARKINGS**
(MEASURED FROM BEGINNING OF TRANSITION ZONE)

POSTED SPEED	LOCATION OF PAV'T MARKINGS
25 M.P.H.	10 FT, 260 FT
30 M.P.H.	10 FT, 170 FT, 340 FT
35 M.P.H.	10 FT, 210 FT, 410 FT
40 M.P.H.	10 FT, 170 FT, 330 FT, 490 FT
45 M.P.H.	10 FT, 190 FT, 370 FT, 560 FT
50 M.P.H.	10 FT, 170 FT, 330 FT, 490 FT, 640 FT
55 M.P.H.	10 FT, 180 FT, 350 FT, 520 FT, 710 FT

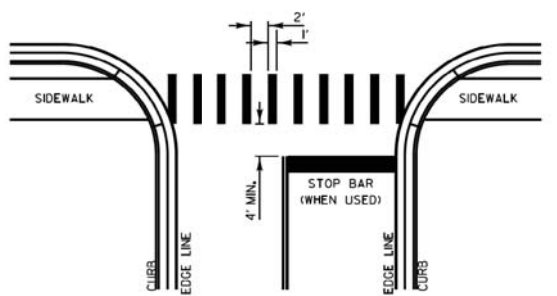
****** FOR POSTED SPEEDS 40 M.P.H. OR GREATER A SECOND R3-7/W16-1a SIGN INSTALLATION SHALL BE LOCATED HALFWAY BETWEEN THE BEGINNING OF THE TRANSITION ZONE AND THE BEGINNING OF THE TURN LANE

TYPICAL PAVEMENT MARKINGS AND RECESSED PAVEMENT MARKERS



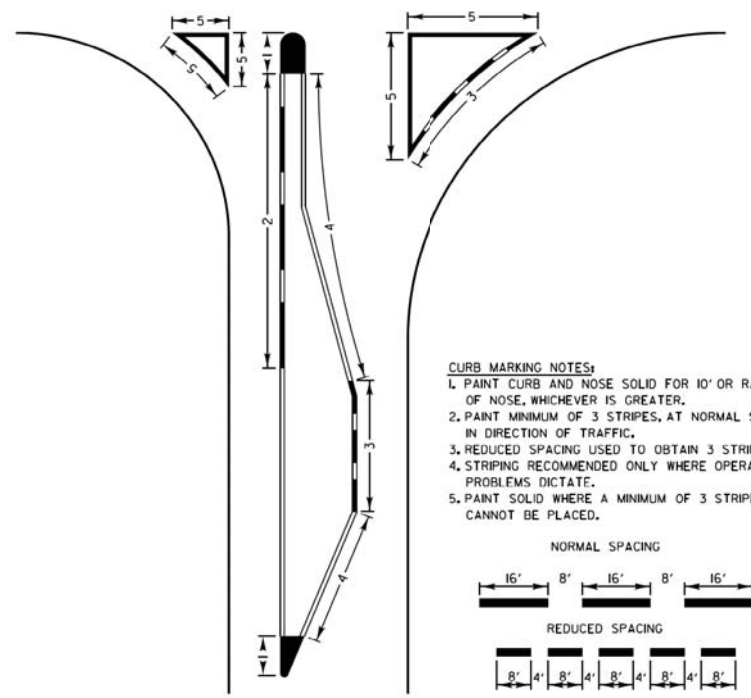
- RECESSED PAVEMENT MARKER NOTES:**
- CENTERLINE RECESSED PAVEMENT MARKERS (RPM's) SHALL BE PLACED ON ALL TWO AND THREE LANE HIGHWAYS WITH CURVES OVER 3 1/2 DEGREES, UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
 - SPACING = 40' FOR CENTERLINE MARKERS.
 - ALL RPM's ON CENTERLINE ARE 2-WAY YELLOW. LANE LINE MARKERS ARE WHITE/RED.
 - MARKERS SHALL BE INSTALLED ACCORDING TO F.H.W.A. MEMORANDUM HO-24.
 - MARKERS SHALL BE FIELD ADJUSTED TO BE LOCATED IN CENTER OF THE 30' GAP OF A 30'/10' SKIP/DASH CENTERLINE.
 - RPM's WHICH ARE TO BE LOCATED WITHIN THE INTERSECTION OF A CROSS STREET, SHALL NOT BE INSTALLED.
 - A MINIMUM OF 4 WHITE/RED MARKERS SHALL BE INSTALLED ALONG THE TURN LANE LINE.
 - RPM's INSTALLED ON MULTI-LANE ROAD SECTIONS SHALL BE INSTALLED ON THE WHITE SKIP-DASH LANE LINE ONLY. THESE RPM'S SHALL BE LOCATED IN CENTER OF THE 30' GAP OF A 30'/10' SKIP/DASH LANE LINE.

CROSSWALKS



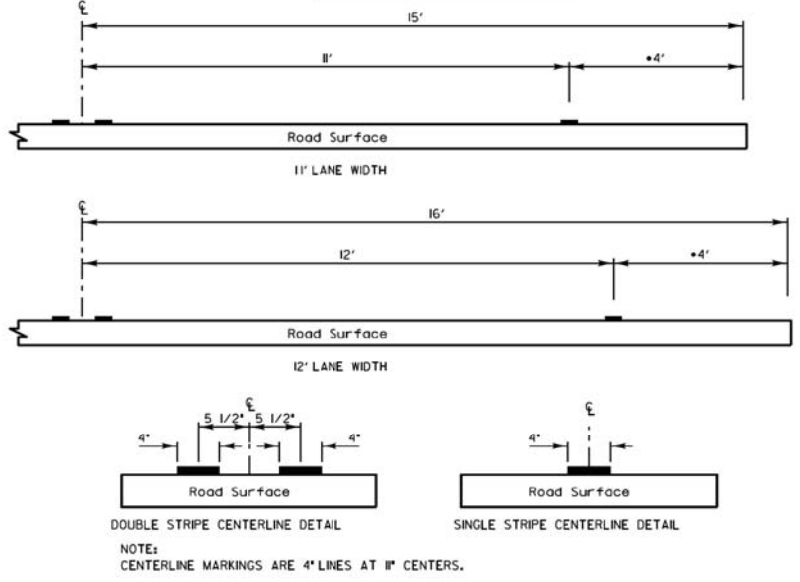
- CROSSWALK NOTES:**
- THE WIDTH OF THE CROSSWALK IS GENERALLY 6' EXCEPT AT SCHOOL CROSSINGS AND MULTIPURPOSE PATH CROSSINGS, WHICH CAN BE 8' OR 10' WIDE.
 - THE STOP BAR SHALL BE INSTALLED A MINIMUM OF 4' IN ADVANCE OF THE CROSSWALK.

CURB MARKING



- CURB MARKING NOTES:**
- PAINT CURB AND NOSE SOLID FOR 10' OR RADIUS OF NOSE, WHICHEVER IS GREATER.
 - PAINT MINIMUM OF 3 STRIPES, AT NORMAL SPACING, IN DIRECTION OF TRAFFIC.
 - REDUCED SPACING USED TO OBTAIN 3 STRIPE MINIMUM.
 - STRIPING RECOMMENDED ONLY WHERE OPERATIONAL PROBLEMS DICTATE.
 - PAINT SOLID WHERE A MINIMUM OF 3 STRIPES CANNOT BE PLACED.

PAVEMENT CROSS SECTION SHOWING TYPICAL PAVEMENT MARKINGS (2-LANE ROADWAY)



PAVEMENT MARKING GUIDELINES				
TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE OF 2 LANE PAVEMENT	4 IN.	SKIP-DASH	YELLOW	10 FT. LINE WITH 30 FT. SPACE
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 IN.	SOLID	YELLOW	5 1/2 IN. C-C FROM SKIP-DASH CENTERLINE
CENTERLINE ON MULTI-LANE UNDIVIDED	4 IN.	SKIP-DASH	WHITE	11 IN. C-C
LANE LINES	4 IN.	SKIP-DASH	WHITE	10 FT. LINE WITH 30 FT. SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2 FT. LINE WITH 6 FT. SPACE
EDGE LINES	5 IN. WHITE 4 IN. YELLOW	SOLID	WHITE - RIGHT YELLOW - LEFT	OUTLINE RAISED MEDIANS IN YELLOW
TURN LANE MARKINGS	6 IN. LINE FULL SIZE LETTERS AND SYMBOLS (8 FT.)	SOLID	WHITE	TURN ARROW 15.6 50. FT. STRAIGHT ARROW 11.5 50. FT. ONLY 20.8 50. FT. COMB. ARROW 26.0 50. FT.
TWO WAY LEFT TURN MARKING	2 @ 4 IN. EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10 FT. LINE WITH 30 FT. SPACE FOR SKIP-DASH 5 1/2 IN. C-C BETWEEN SKIP-DASH LINE AND SOLID LINE
CROSSWALK	8 FT. LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
STOP BARS	12 IN. @ 90°	SOLID	WHITE	12 IN. LONGITUDINAL BAR WITH 24 IN. SPACE 6 FT. TO 12 FT. WIDE SEE TYPICAL CROSSWALK MARKING DETAIL
PAINTED MEDIANS	2 @ 4 IN. @ 45° 12 IN. DIAGONALS @ 45° NO DIAGONALS USED FOR 4 FT. WIDE MEDIAN	SOLID	YELLOW: 2-WAY TRAFFIC WHITE: 1-WAY TRAFFIC	11 IN. C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING DETAIL MINIMUM OF 5 DIAGONALS
GORE MARKING AND CHANNELIZING LINES	8 IN. WITH 12 IN. DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS 15 FT. C-C (LESS THAN 30 M.P.H.) 20 FT. C-C (30 TO 45 M.P.H.) 30 FT. C-C (OVER 45 M.P.H.) MINIMUM OF 5 DIAGONALS
R.R. CROSSING	24 IN. TRANSVERSE LINES RR IS 6 FT. LETTER 16 IN. LINE FOR "X"	SOLID	WHITE	SEE L.C.D.O.T. STD. 78000 50 FT. AREA OF: "H" = 3.6 50. FT. / "H" "X" = 54.0 50. FT.
SHOULDER DIAGONALS (FOR PAVED SHOULDER 2 @ 6 FT.)	12 IN. @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50 FT. C-C (LESS THAN 30 M.P.H.) 75 FT. C-C (30 TO 45 M.P.H.) 150 FT. C-C (OVER 45 M.P.H.) MINIMUM OF 5 DIAGONALS

ALL PAVEMENT MARKINGS TO BE GROOVED THERMOPLASTIC, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO PART "MARKINGS" IN THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AND THE LATEST L.C.D.O.T. HIGHWAY STANDARD 78000.

NO.	DESCRIPTION	DATE	BY	SURVEYOR	REVISIONS / REMARKS

REVISIONS	DATE
SEPARATED RAILROAD SHEET	06/02/08
REVISED RPM DETAILS	07/11/12
RAISED TO RECESSED MARKERS	12/2/13
REMOVE STATION NUMBERS	5/30/14
THERMO EDGELINES AT RETURNS	11/18/16
ALL PM TO GROOVED THERMO	1/26/17
REVISED EDGELINES AT RETURNS	4/10/17
REVISED STOP BAR/DBL YELLOW	8/31/17

Lake County
Division of Transportation

APPROVED BY: A. KHAWAJA
DATE: APRIL 1, 2007

TYPICAL PAVEMENT MARKINGS FOR COUNTY HIGHWAYS
SHEET 2 OF 2

PROJECT NAME		ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
LAKE COUNTY STANDARDS & DETAILS		CHXX	XXX	XX-XXXXX-XX-XX	XXX	XXX

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

DESIGNED - PK	REVISED -
DRAWN - PK	REVISED -
CHECKED - JRV	REVISED -
DATE - 6/10/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Lake County
Division of Transportation

LCDOT HIGHWAY STANDARDS

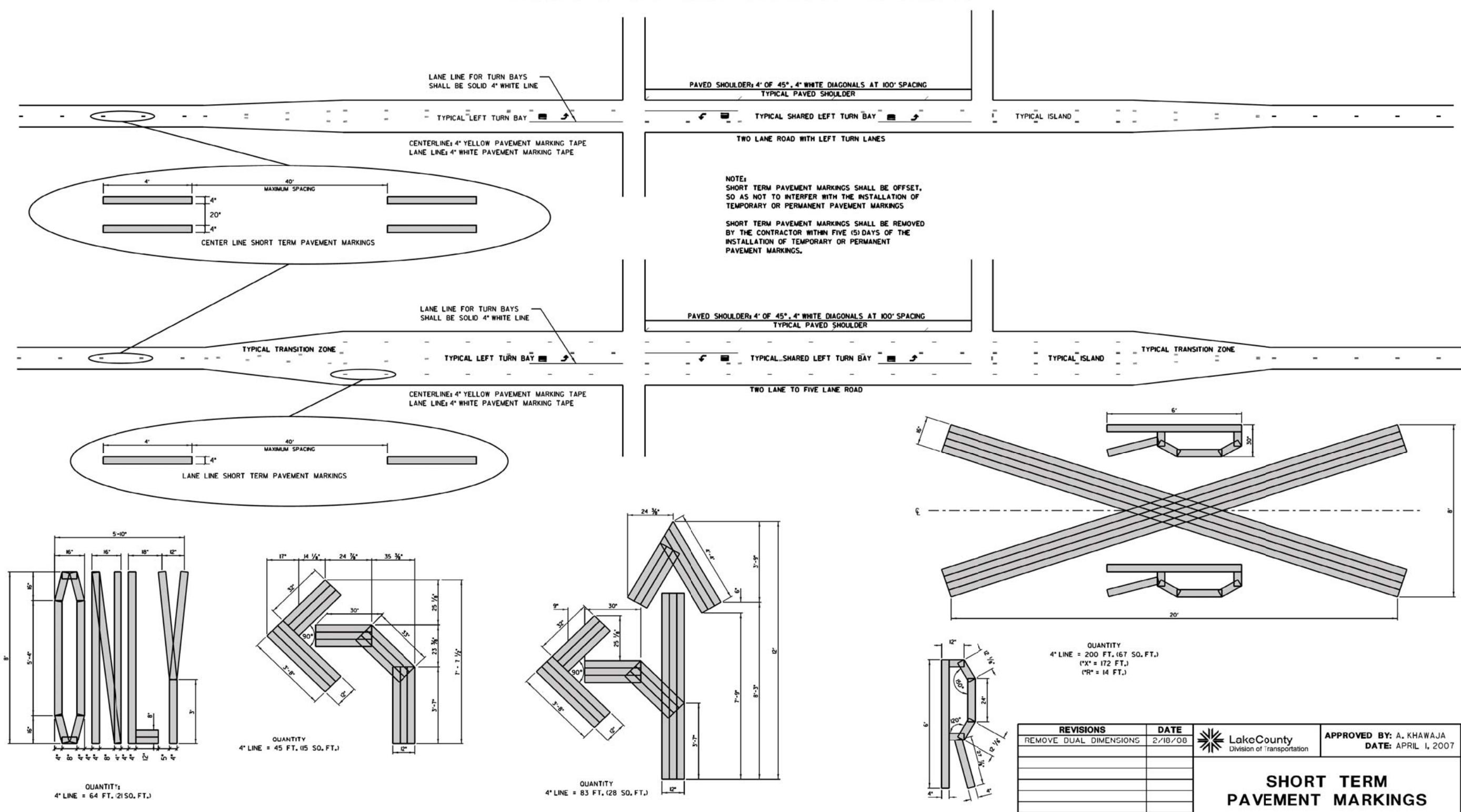
SHEET NO. 14 OF 17 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	360
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TYPICAL SHORT TERM PAVEMENT MARKINGS

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	



REVISIONS	DATE	APPROVED BY: A. KHAWAJA DATE: APRIL 1, 2007
REMOVE DUAL DIMENSIONS	2/18/08	

Lake County
Division of Transportation

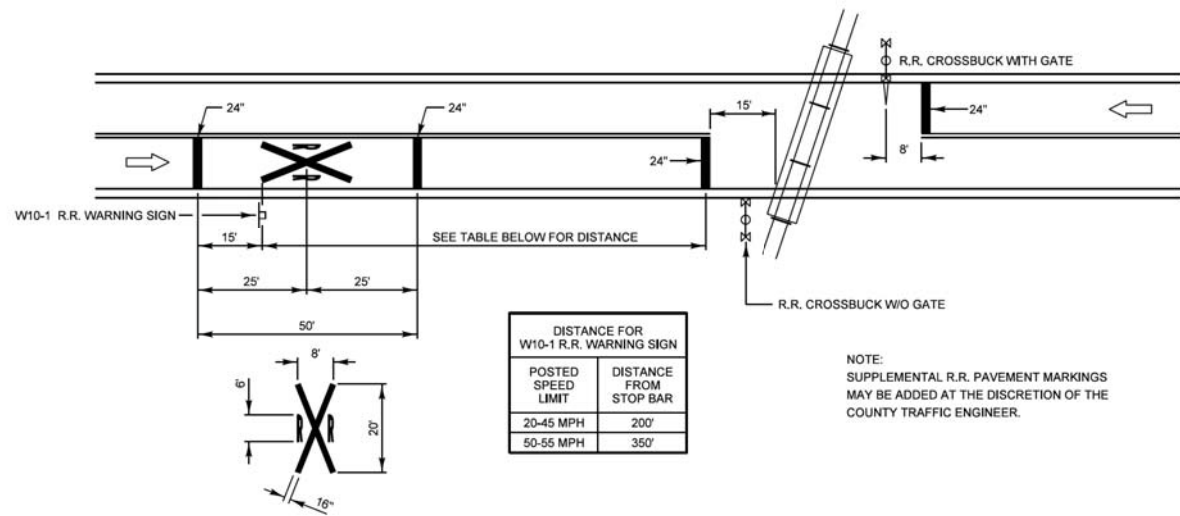
SHORT TERM PAVEMENT MARKINGS

LC7802

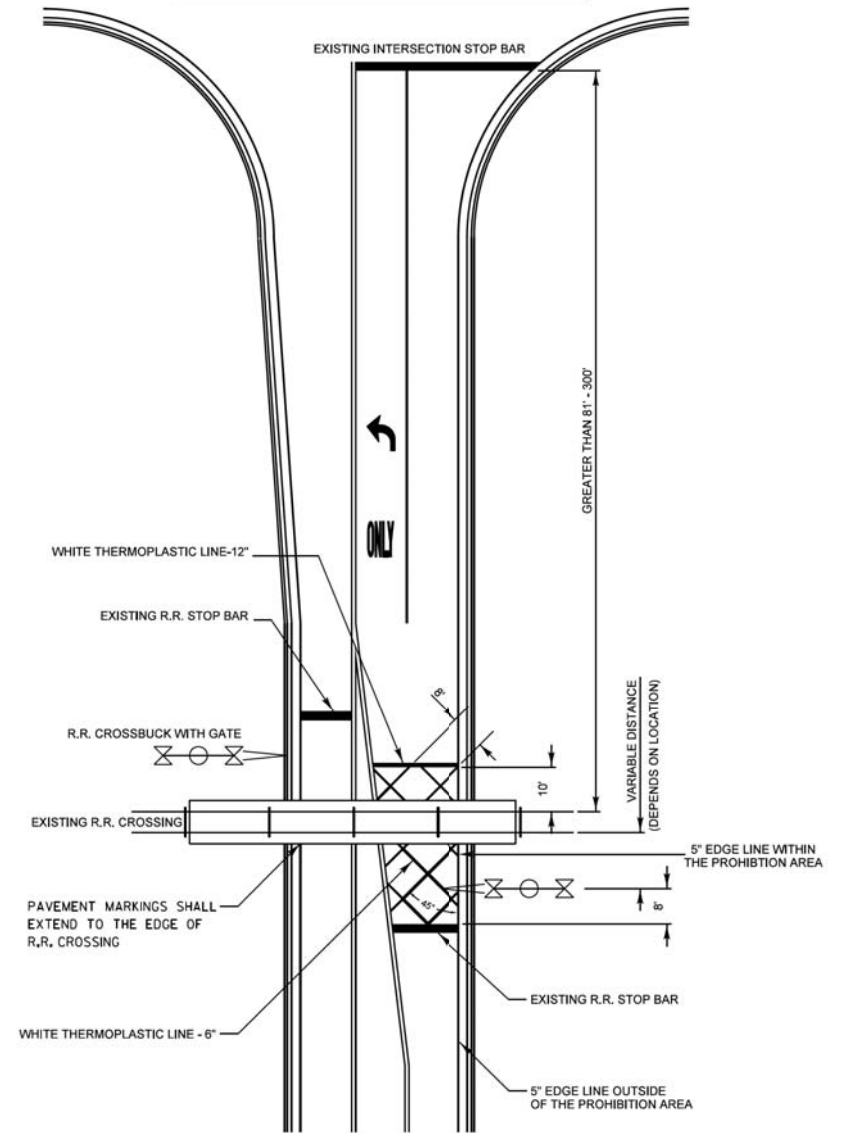
REVISIONS / REMARKS				PROJECT NAME		ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
NO.	DESCRIPTION	DATE	BY	LAKE COUNTY STANDARDS & DETAILS		CHXX	XXX	XX-XXXXX-XX-XX	XX	XX

TYPICAL RAILROAD RELATED PAVEMENT MARKINGS

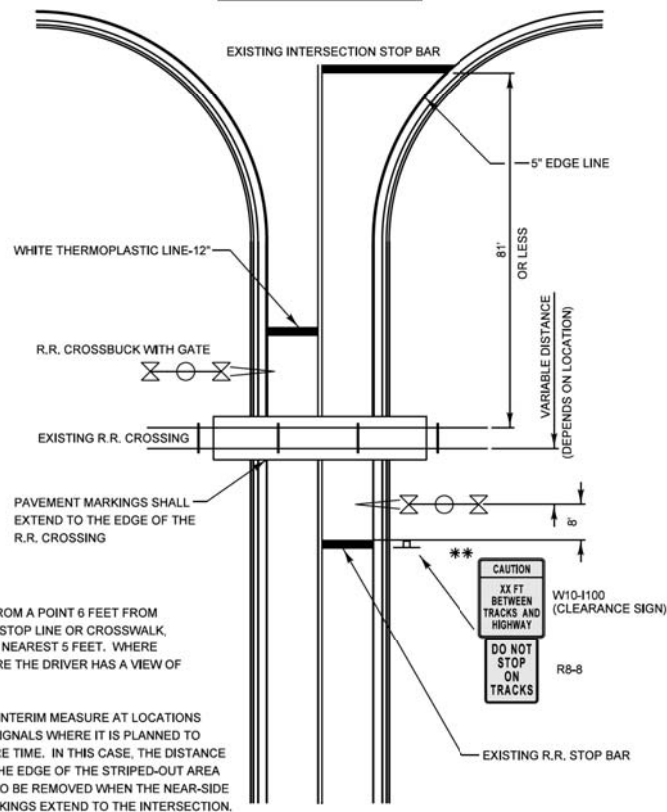
TYPICAL PLACEMENT OF R.R. WARNING SIGNS AND PAVEMENT MARKINGS ON COUNTY HIGHWAYS



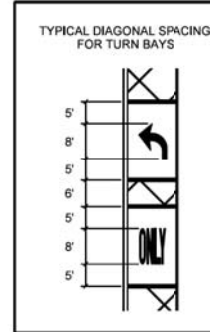
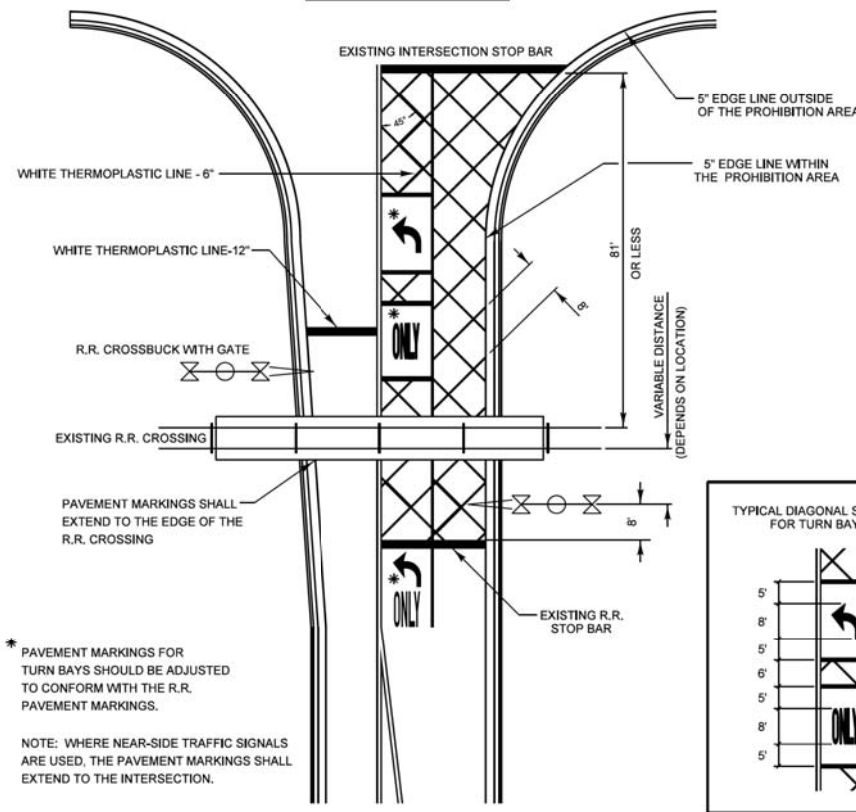
PAVEMENT MARKINGS FOR R.R. CROSSINGS AT SIGNALIZED INTERSECTIONS GREATER THAN 81 FEET - 300 FEET



PAVEMENT MARKINGS FOR R.R. CROSSINGS AT NON-SIGNALIZED INTERSECTIONS 81 FEET OR LESS



PAVEMENT MARKINGS FOR R.R. CROSSINGS AT SIGNALIZED INTERSECTIONS 81 FEET OR LESS



REVISIONS	DATE
Separated Railroad Sheet	06/02/08
Reformat LCDOT Standard	07/15/10
Revised to IDOT DI Standard	07/1/12
Rev Stop Bar/Dbi Yellow Lines	08/31/17

LakeCounty
Division of Transportation

APPROVED BY: A. KHAWAJA
DATE: June 2, 2008

TYPICAL PAVEMENT MARKINGS FOR RAILROAD CROSSINGS ON COUNTY HIGHWAYS

LC7803

NO.	REVISIONS / REMARKS	DATE	BY	SURVEYOR
1	REVISED TO IDOT DI TYPICAL X-ING	6/12/12	DNK	DSGMR/LIAISON
				PLOTTED BY: hdmrc 9/1/2017

LakeCounty
Division of Transportation

PROJECT NAME

LAKE COUNTY STANDARDS & DETAILS

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
CHXX	XXX	XX-XXXXX-XX-XX	XXX	XXX

CIVILTECH
Two Pierce Place, Suite 1400
Itasca, Illinois 60143
Tel: 630.773.3900 Fax: 630.773.3975
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DESIGNED - PK
DRAWN - PK
CHECKED - JRV
DATE - 6/10/2019

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

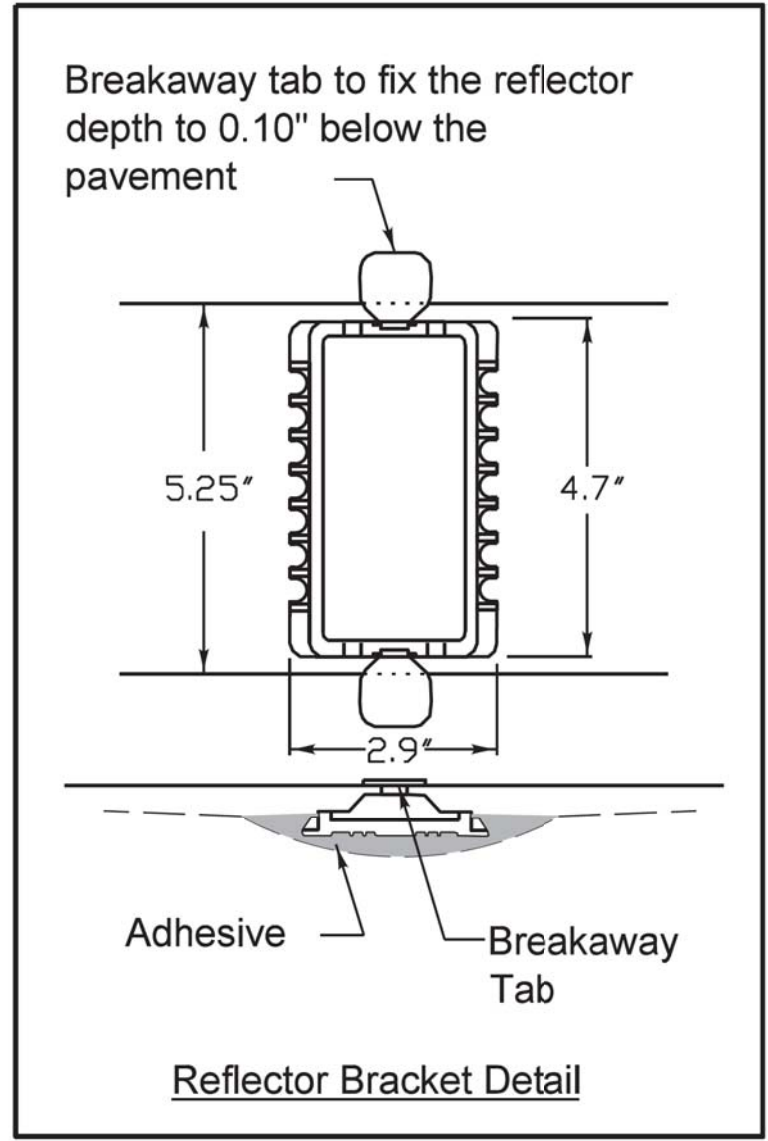
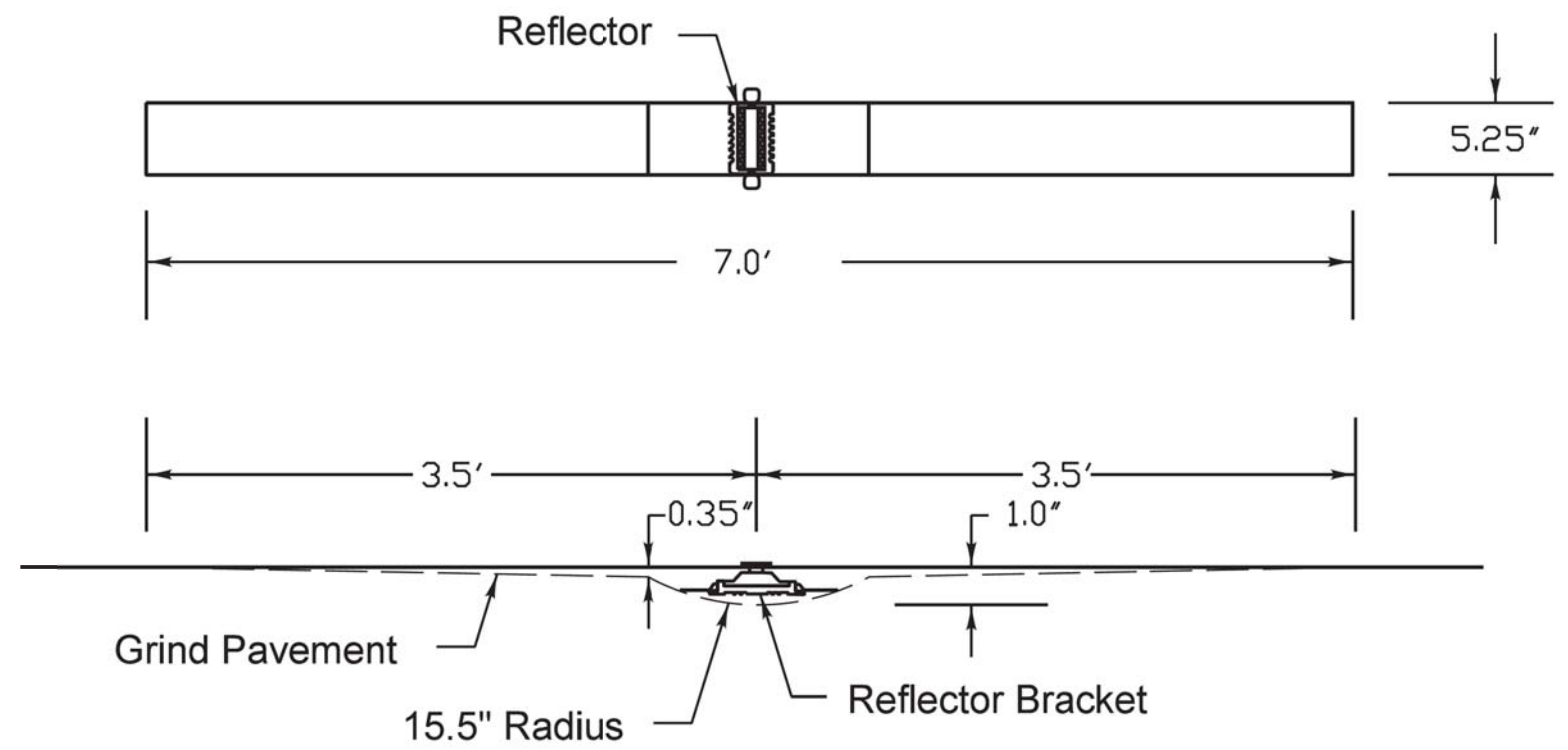
LCDOT HIGHWAY STANDARDS

SHEET NO. 16 OF 17 SHEETS STA. TO STA.

F.A.U. SECTION COUNTY TOTAL SHEETS SHEET NO.
2665 18-00158-13-WR LAKE 623 362
CONTRACT NO. 61F25
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



Notes

1. The reflective pavement marker lens shall be a 3M 190 series pavement marker
 2. The reflector bracket shall be made of a polycarbonate and shall be a MarkerOne Series R100
 3. The adhesive used shall meet the requirements of AASHTO M237 specification for adhesives to be used in cementing asphalt surfaces.
- Markers shall be placed at 40' intervals on lane lines and painted medians and 40' intervals on curves and approaching intersections as shown on LCDOT standard LC7800.

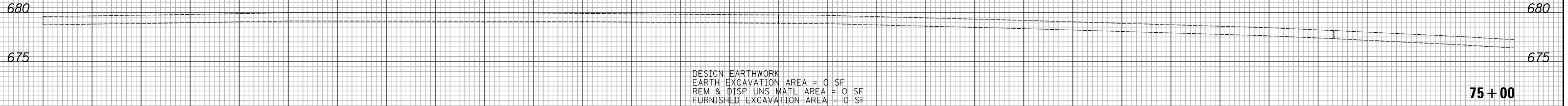
REVISIONS	DATE

	APPROVED BY: JN DATE: 12/02/13
	RECESSED REFLECTIVE PAVEMENT MARKER

LC7805

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

BY	DATE
FINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED
	TEMPLATE AREAS CHECKED



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

75+00

BY	DATE
ORIGINAL SURVEY NO.	SURVEYED PLOTTED AREAS CHECKED
	TEMPLATE AREAS CHECKED

CONSTRUCTION
 BASELINE

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

CIVILTECH
 Two Pierce Place, Suite 1400
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 Tel: 630.773.3900 Fax: 630.773.3975
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CHECKED - JRV	REVISED -
DATE - 6/10/2019	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**



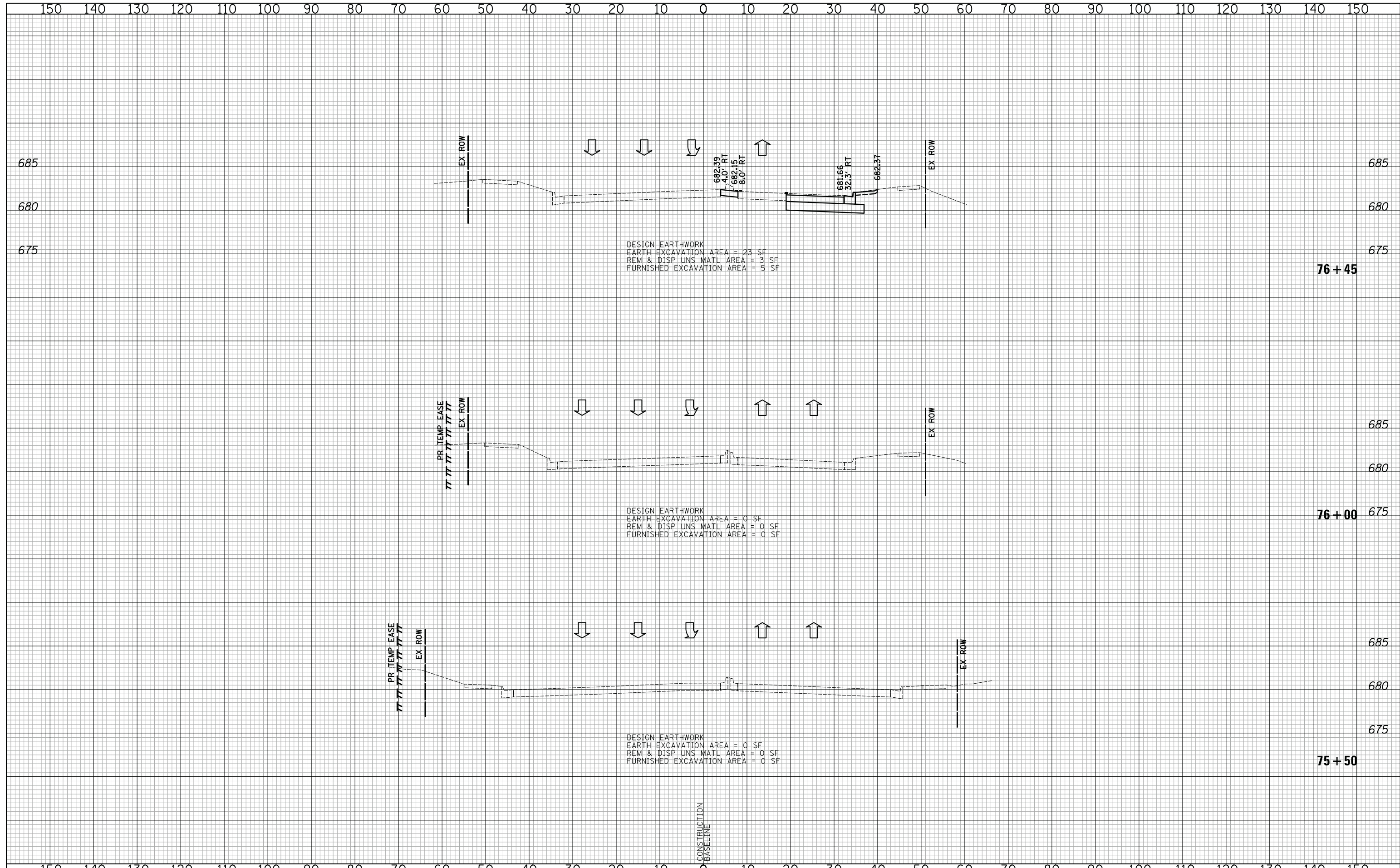
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 1 OF 36 SHEETS STA. 74+00 TO STA. 75+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	364
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



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

DESIGNED - PK	REVISED -
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CHECKED - JRV	REVISED -
DATE - 6/10/2019	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**



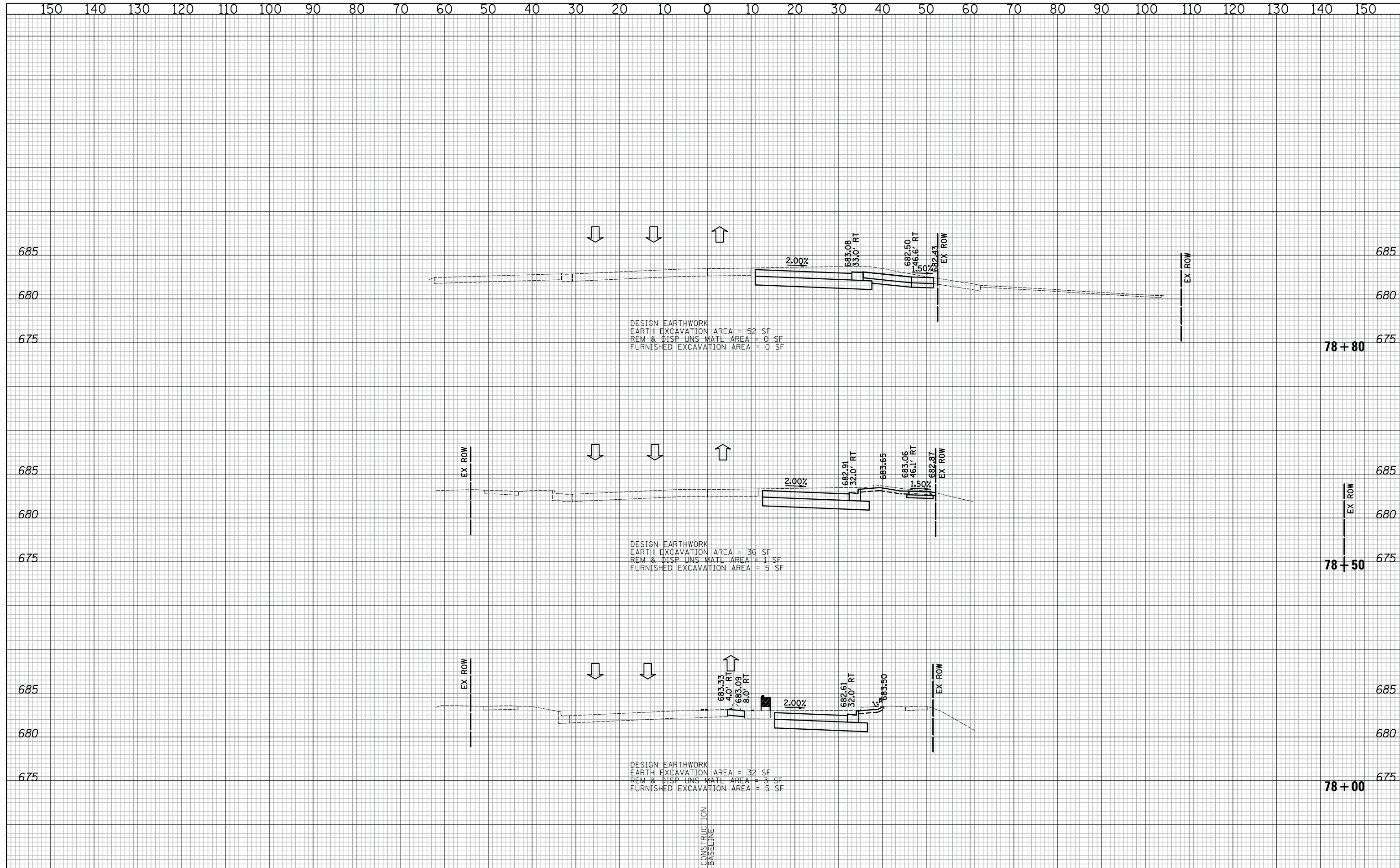
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 2 OF 36 SHEETS STA. 75+50 TO STA. 76+45

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	365
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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TEMPLATE	
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DATE	
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SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
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NO.	



DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 52 SF
 REM & DISP UNS MATL AREA = 0 SF
 FURNISHED EXCAVATION AREA = 0 SF

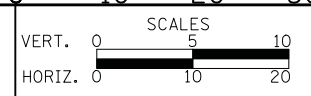
DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 36 SF
 REM & DISP UNS MATL AREA = 1 SF
 FURNISHED EXCAVATION AREA = 5 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 32 SF
 REM & DISP UNS MATL AREA = 3 SF
 FURNISHED EXCAVATION AREA = 5 SF

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CROSS SECTIONS STAGE I - WEILAND ROAD

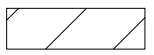
SHEET NO. 4 OF 36 SHEETS | STA. 78+00 TO STA. 78+80

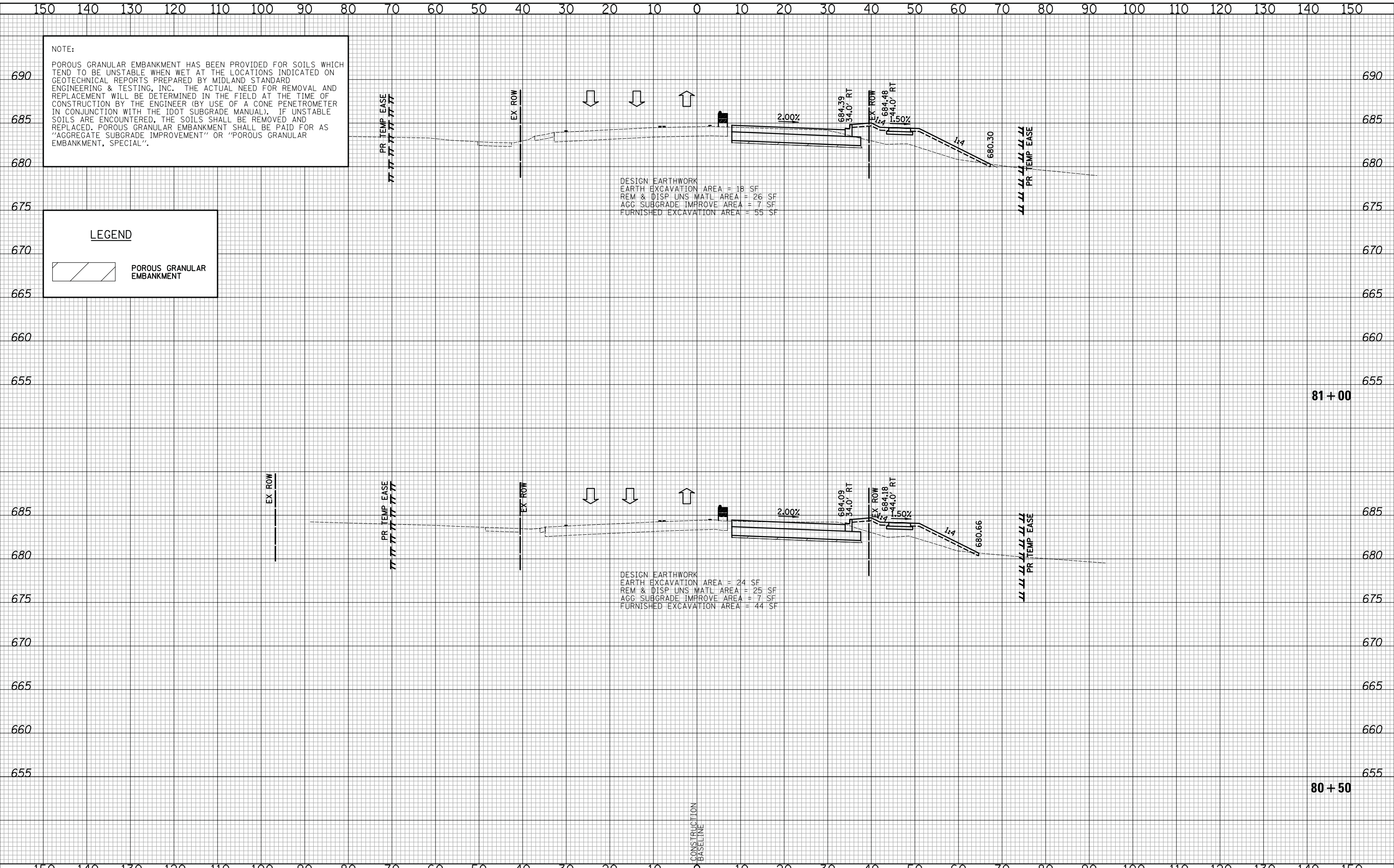
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	367
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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PLOTTED	
TEMPLATE	
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CHECKED	
FINAL SURVEY	
NOTE BOOK	
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TEMPLATE	
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ORIGINAL SURVEY	
NOTE BOOK	
NO.	

NOTE:
 POROUS GRANULAR EMBANKMENT HAS BEEN PROVIDED FOR SOILS WHICH TEND TO BE UNSTABLE WHEN WET AT THE LOCATIONS INDICATED ON GEOTECHNICAL REPORTS PREPARED BY MIDLAND STANDARD ENGINEERING & TESTING, INC. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER (BY USE OF A CONE PENETROMETER IN CONJUNCTION WITH THE IDOT SUBGRADE MANUAL). IF UNSTABLE SOILS ARE ENCOUNTERED, THE SOILS SHALL BE REMOVED AND REPLACED. POROUS GRANULAR EMBANKMENT SHALL BE PAID FOR AS "AGGREGATE SUBGRADE IMPROVEMENT" OR "POROUS GRANULAR EMBANKMENT, SPECIAL".

LEGEND
 POROUS GRANULAR EMBANKMENT



DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 18 SF
 REM & DISP UNS MATL AREA = 26 SF
 AGG SUBGRADE IMPROVE AREA = 7 SF
 FURNISHED EXCAVATION AREA = 55 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 24 SF
 REM & DISP UNS MATL AREA = 25 SF
 AGG SUBGRADE IMPROVE AREA = 7 SF
 FURNISHED EXCAVATION AREA = 44 SF

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 DEPARTMENT OF TRANSPORTATION**

VERT. 0 5 10
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SCALES

CROSS SECTIONS STAGE I - WEILAND ROAD

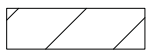
SHEET NO. 6 OF 36 SHEETS STA. 80+50 TO STA. 81+00

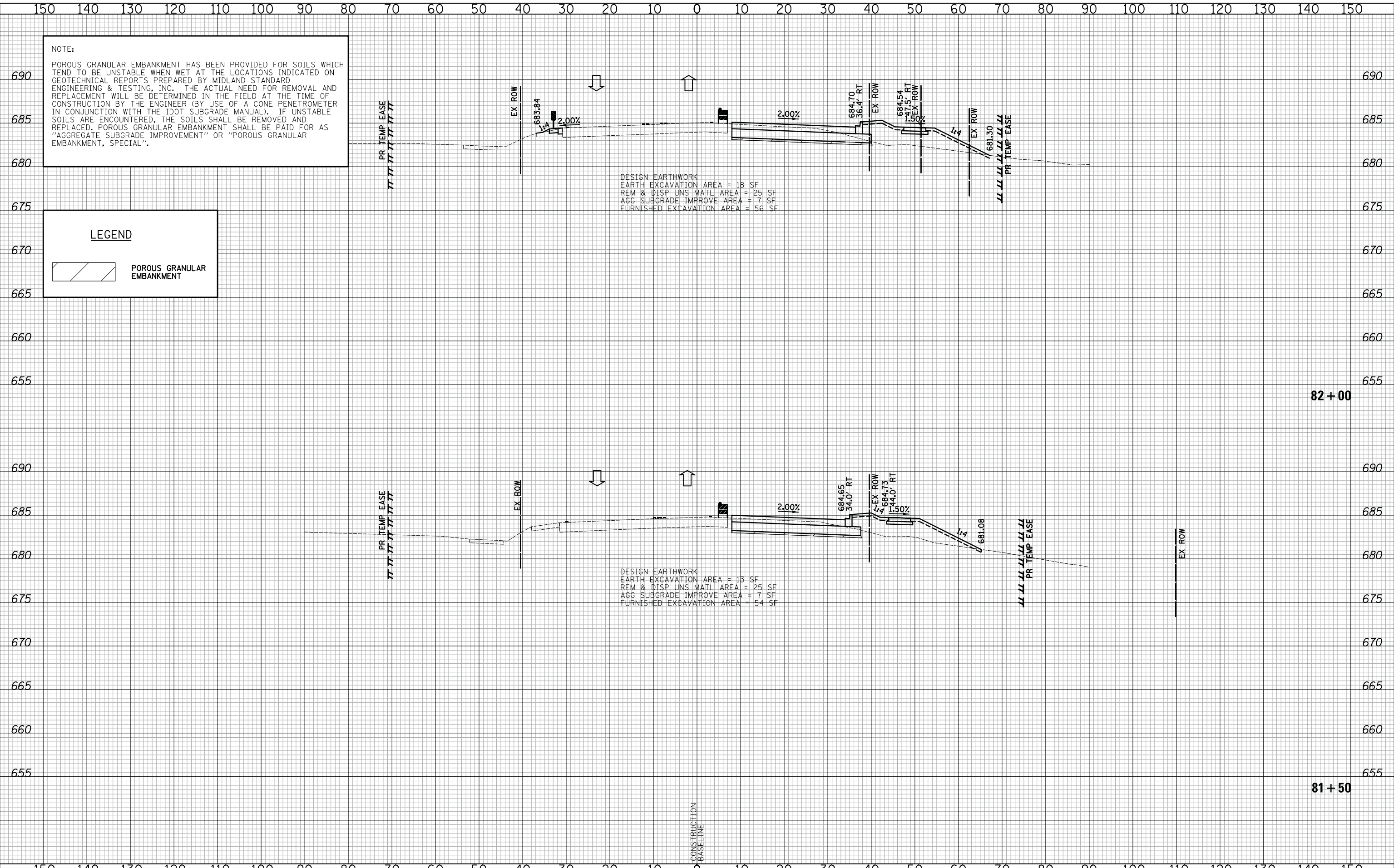
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	369
				CONTRACT NO. 61F25
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
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FINAL	
SURVEY	
NOTE BOOK	
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DATE	
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TEMPLATE	
AREAS	
CHECKED	
ORIGINAL	
SURVEY	
NOTE BOOK	
NO.	

NOTE:
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LEGEND
 POROUS GRANULAR EMBANKMENT



DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 18 SF
 REM & DISP UNS MATL AREA = 25 SF
 AGG SUBGRADE IMPROVE AREA = 7 SF
 FURNISHED EXCAVATION AREA = 56 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 13 SF
 REM & DISP UNS MATL AREA = 25 SF
 AGG SUBGRADE IMPROVE AREA = 7 SF
 FURNISHED EXCAVATION AREA = 54 SF

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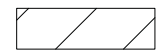
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SCALES

CROSS SECTIONS STAGE I - WEILAND ROAD
 SHEET NO. 7 OF 36 SHEETS STA. 81+50 TO STA. 82+00

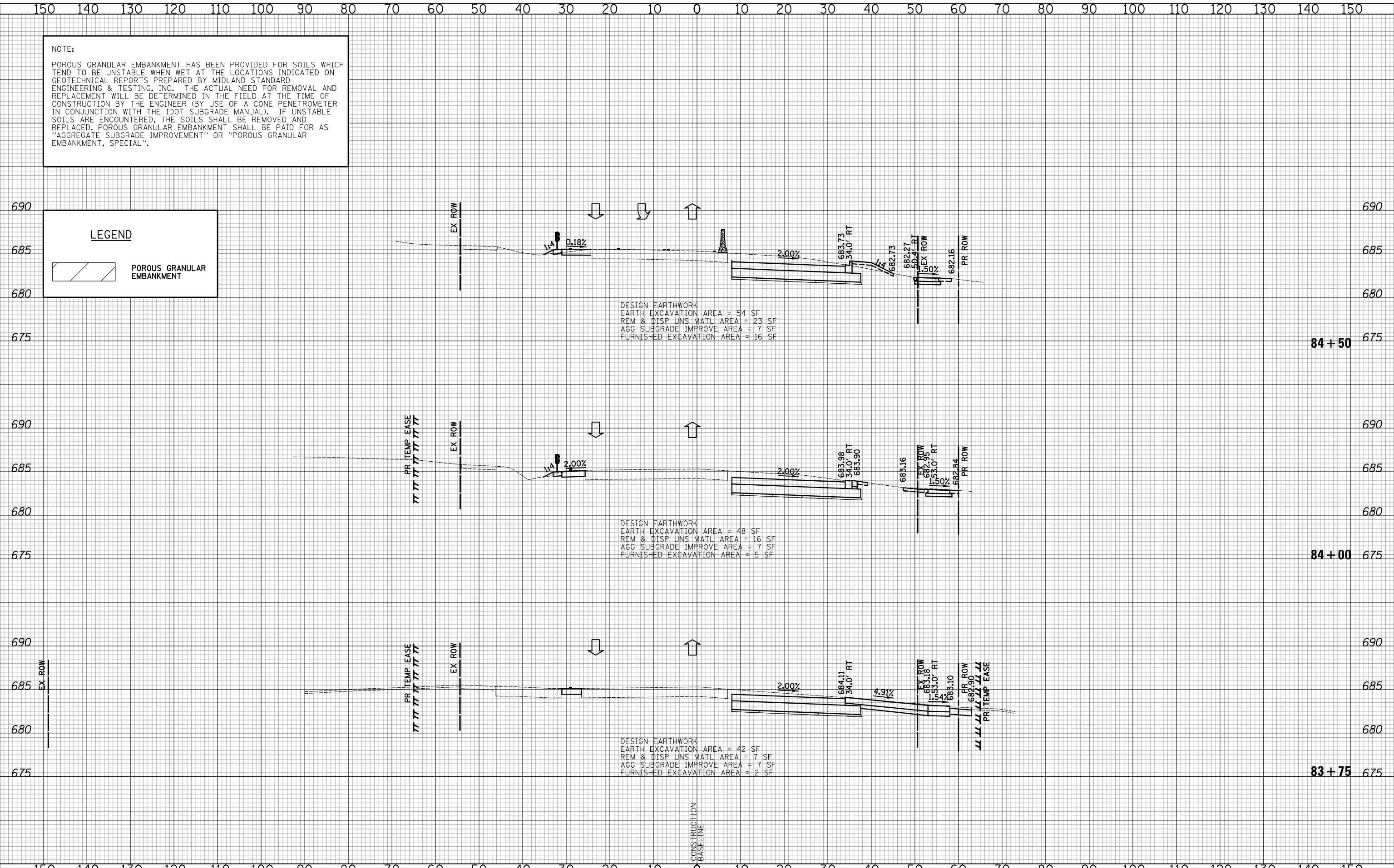
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	370
				CONTRACT NO. 61F25
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

NOTE:
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LEGEND
 POROUS GRANULAR EMBANKMENT

DATE	
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PLOTTED	
TEMPLATE	
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DATE	
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DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 54 SF
 REM & DISP UNS MATL AREA = 23 SF
 AGG SUBGRADE IMPROVE AREA = 7 SF
 FURNISHED EXCAVATION AREA = 16 SF

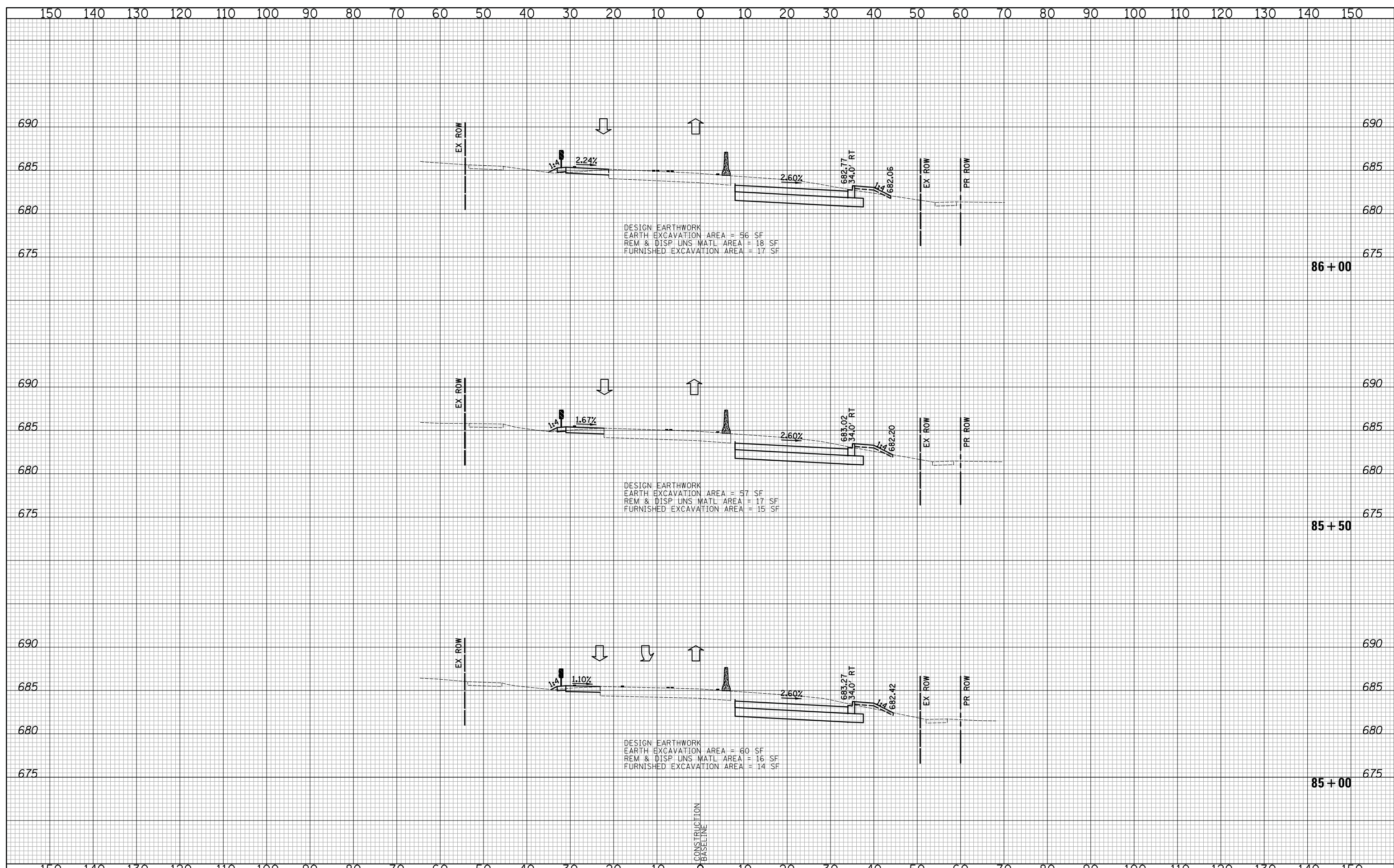
DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 48 SF
 REM & DISP UNS MATL AREA = 16 SF
 AGG SUBGRADE IMPROVE AREA = 7 SF
 FURNISHED EXCAVATION AREA = 5 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 42 SF
 REM & DISP UNS MATL AREA = 7 SF
 AGG SUBGRADE IMPROVE AREA = 7 SF
 FURNISHED EXCAVATION AREA = 2 SF

CONSTRUCTION
 BASELINE

DATE	
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FINAL SURVEY	
NOTE BOOK	
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TEMPLATE	
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CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 56 SF
 REM & DISP UNS MATL AREA = 18 SF
 FURNISHED EXCAVATION AREA = 17 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 57 SF
 REM & DISP UNS MATL AREA = 17 SF
 FURNISHED EXCAVATION AREA = 15 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 60 SF
 REM & DISP UNS MATL AREA = 16 SF
 FURNISHED EXCAVATION AREA = 14 SF

CONSTRUCTION
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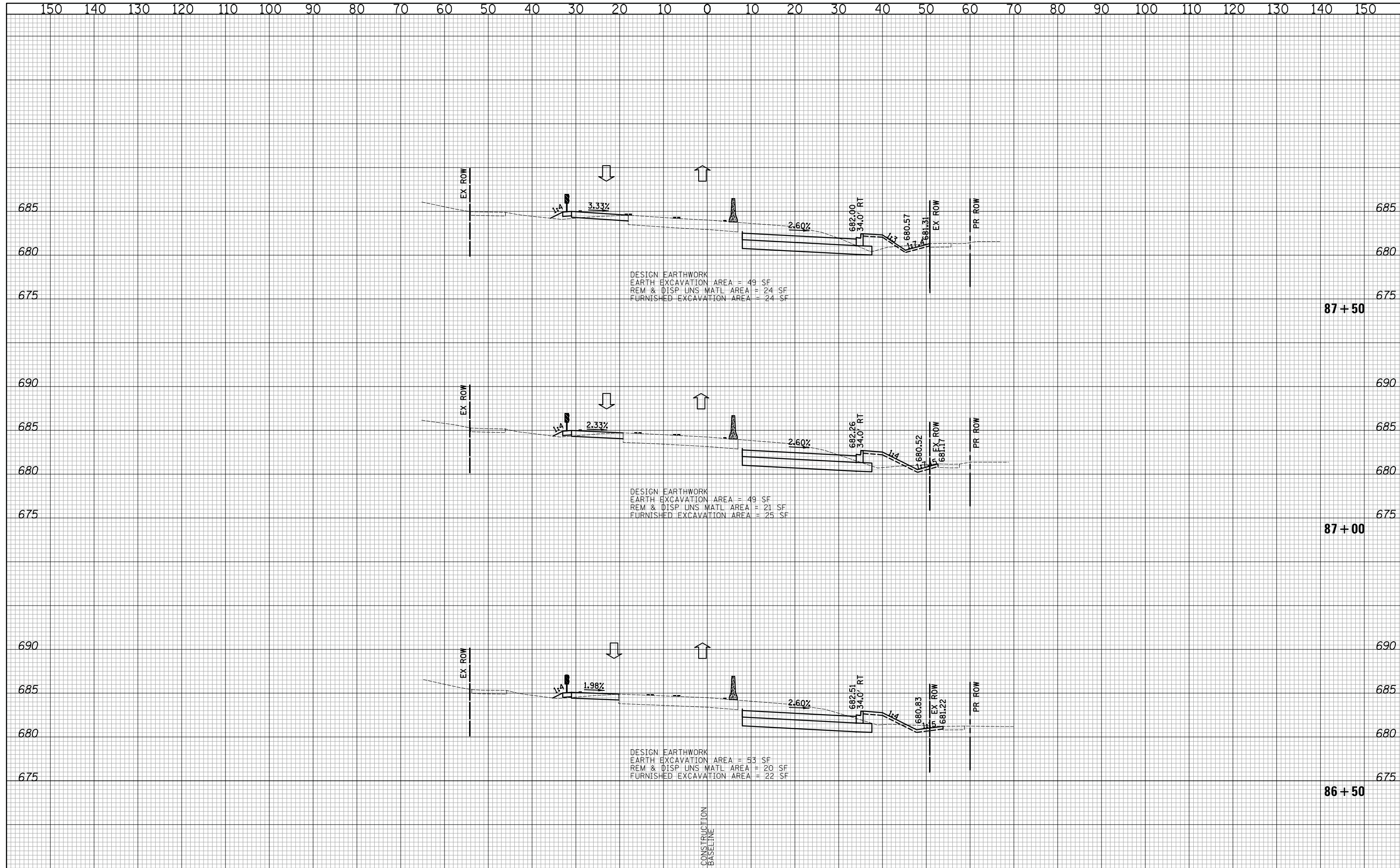
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 10 OF 36 SHEETS STA. 85+00 TO STA. 86+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	373
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
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SURVEYED	
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NOTE BOOK	
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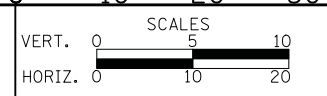
DATE	
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NOTE BOOK	
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CROSS SECTIONS STAGE I - WEILAND ROAD

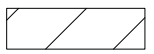
SHEET NO. 11 OF 36 SHEETS STA. 86+50 TO STA. 87+50

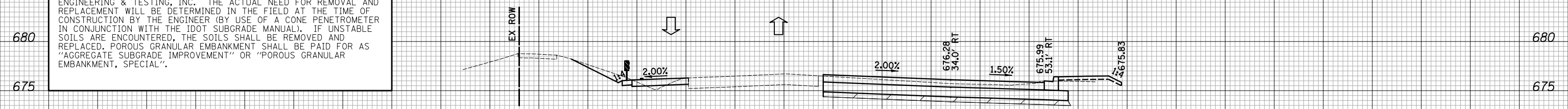
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	374
				CONTRACT NO. 61F25
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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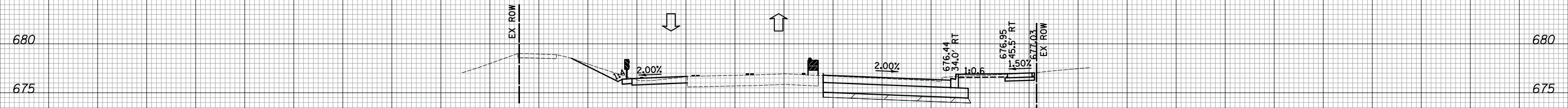
DATE	
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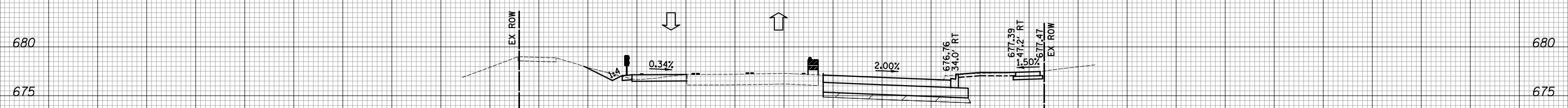
LEGEND
 POROUS GRANULAR EMBANKMENT



DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 32 SF
 REM & DISP UNS MATL AREA = 50 SF
 AGG SUBGRADE IMPROVE AREA = 25 SF
 FURNISHED EXCAVATION AREA = 22 SF



DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 29 SF
 REM & DISP UNS MATL AREA = 36 SF
 AGG SUBGRADE IMPROVE AREA = 15 SF
 FURNISHED EXCAVATION AREA = 13 SF



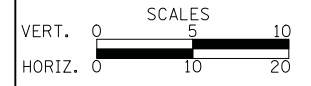
DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 32 SF
 REM & DISP UNS MATL AREA = 35 SF
 AGG SUBGRADE IMPROVE AREA = 15 SF
 FURNISHED EXCAVATION AREA = 16 SF

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CROSS SECTIONS STAGE I - WEILAND ROAD

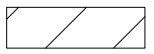
SHEET NO. 15 OF 36 SHEETS STA. 92+00 TO STA. 93+00

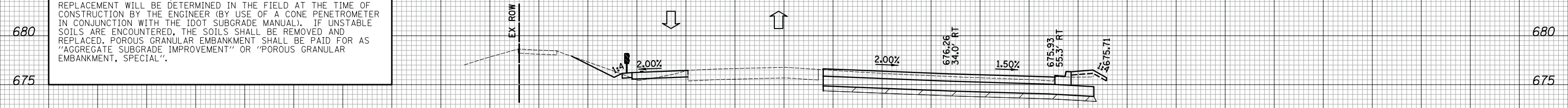
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	378
				CONTRACT NO. 61F25
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
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NOTE BOOK	
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NOTE BOOK	
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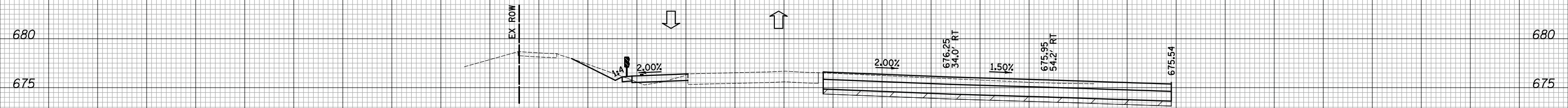
NOTE:
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LEGEND
 POROUS GRANULAR EMBANKMENT



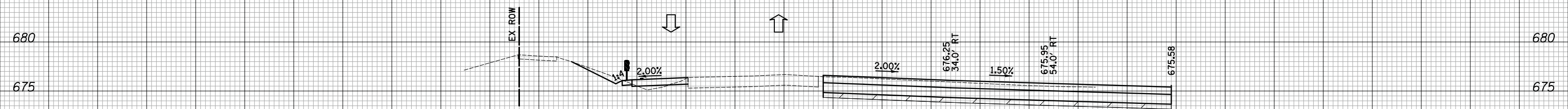
DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 33 SF
 REM & DISP UNS MATL AREA = 47 SF
 AGG SUBGRADE IMPROVE AREA = 28 SF
 FURNISHED EXCAVATION AREA = 20 SF

93+50



DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 38 SF
 REM & DISP UNS MATL AREA = 49 SF
 AGG SUBGRADE IMPROVE AREA = 36 SF
 FURNISHED EXCAVATION AREA = 11 SF

93+30.03



DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 38 SF
 REM & DISP UNS MATL AREA = 49 SF
 AGG SUBGRADE IMPROVE AREA = 36 SF
 FURNISHED EXCAVATION AREA = 12 SF

93+26

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CROSS SECTIONS STAGE I - WEILAND ROAD

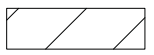
SHEET NO. 16 OF 36 SHEETS STA. 93+26 TO STA. 93+50

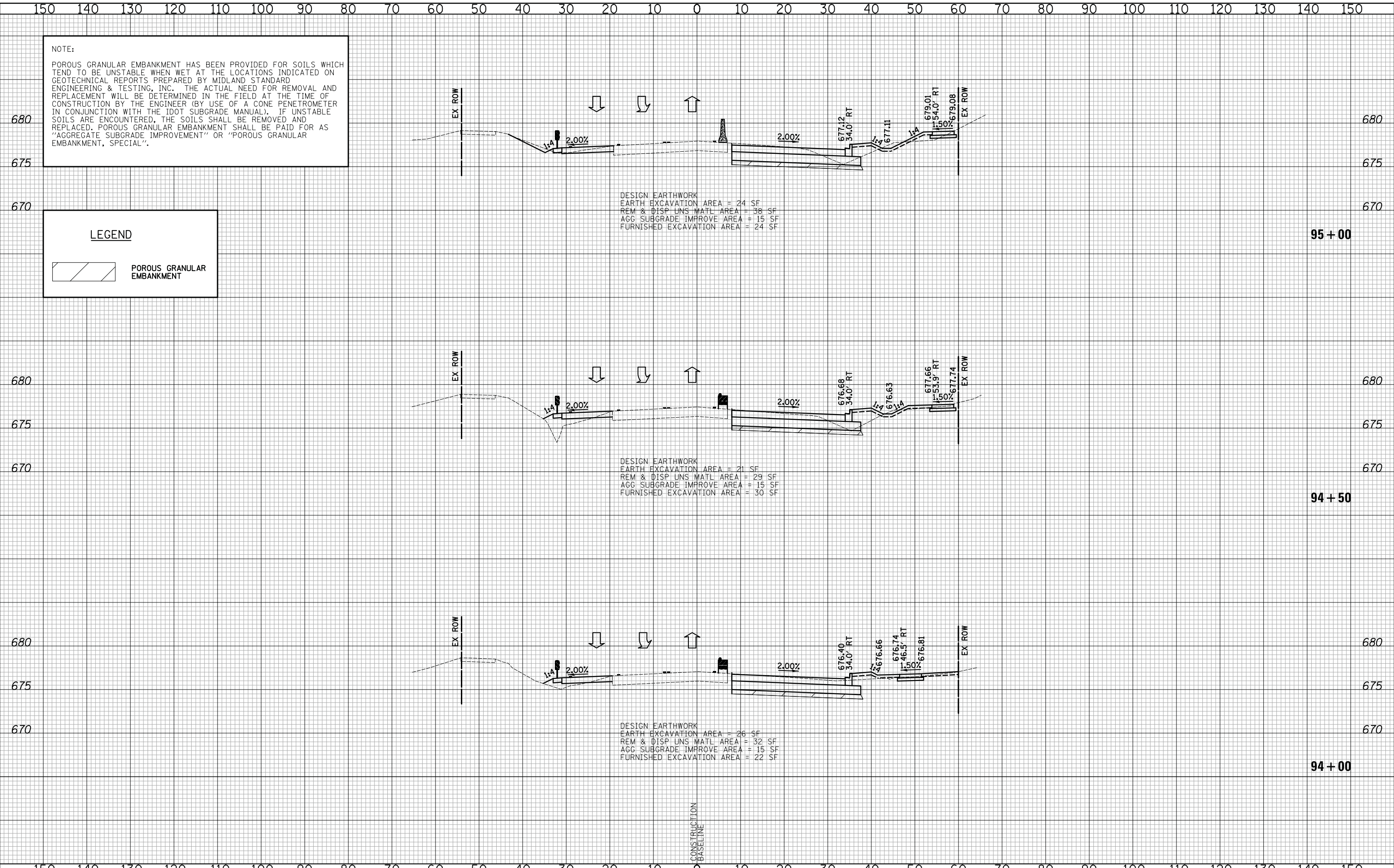
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	379
				CONTRACT NO. 61F25
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
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SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
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NO.	

DATE	
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PLOTTED	
TEMPLATE	
AREAS	
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NO.	

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LEGEND
 POROUS GRANULAR EMBANKMENT



DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 24 SF
 REM & DISP UNS MATL AREA = 38 SF
 AGG SUBGRADE IMPROVE AREA = 15 SF
 FURNISHED EXCAVATION AREA = 24 SF

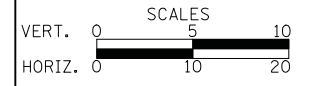
DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 21 SF
 REM & DISP UNS MATL AREA = 29 SF
 AGG SUBGRADE IMPROVE AREA = 15 SF
 FURNISHED EXCAVATION AREA = 30 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 26 SF
 REM & DISP UNS MATL AREA = 32 SF
 AGG SUBGRADE IMPROVE AREA = 15 SF
 FURNISHED EXCAVATION AREA = 22 SF

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION



CROSS SECTIONS STAGE I - WEILAND ROAD

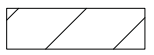
SHEET NO. 17 OF 36 SHEETS STA. 94+00 TO STA. 95+00

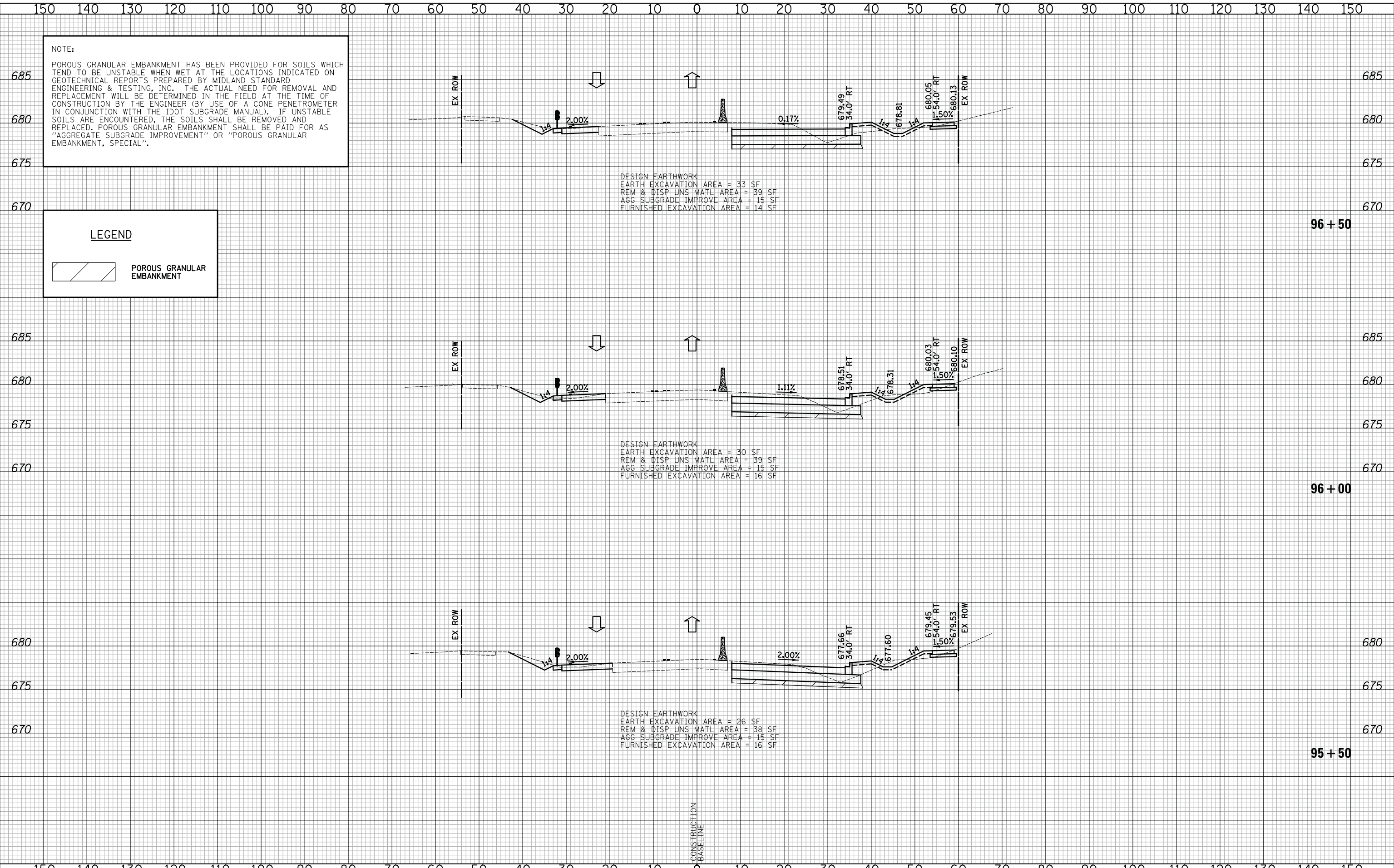
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	380
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
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TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

NOTE:
 POROUS GRANULAR EMBANKMENT HAS BEEN PROVIDED FOR SOILS WHICH TEND TO BE UNSTABLE WHEN WET AT THE LOCATIONS INDICATED ON GEOTECHNICAL REPORTS PREPARED BY MIDLAND STANDARD ENGINEERING & TESTING, INC. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER (BY USE OF A CONE PENETROMETER IN CONJUNCTION WITH THE IDOT SUBGRADE MANUAL). IF UNSTABLE SOILS ARE ENCOUNTERED, THE SOILS SHALL BE REMOVED AND REPLACED. POROUS GRANULAR EMBANKMENT SHALL BE PAID FOR AS "AGGREGATE SUBGRADE IMPROVEMENT" OR "POROUS GRANULAR EMBANKMENT, SPECIAL".

LEGEND
 POROUS GRANULAR EMBANKMENT



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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

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SCALES

CROSS SECTIONS STAGE I - WEILAND ROAD

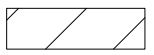
SHEET NO. 18 OF 36 SHEETS STA. 95+50 TO STA. 96+50

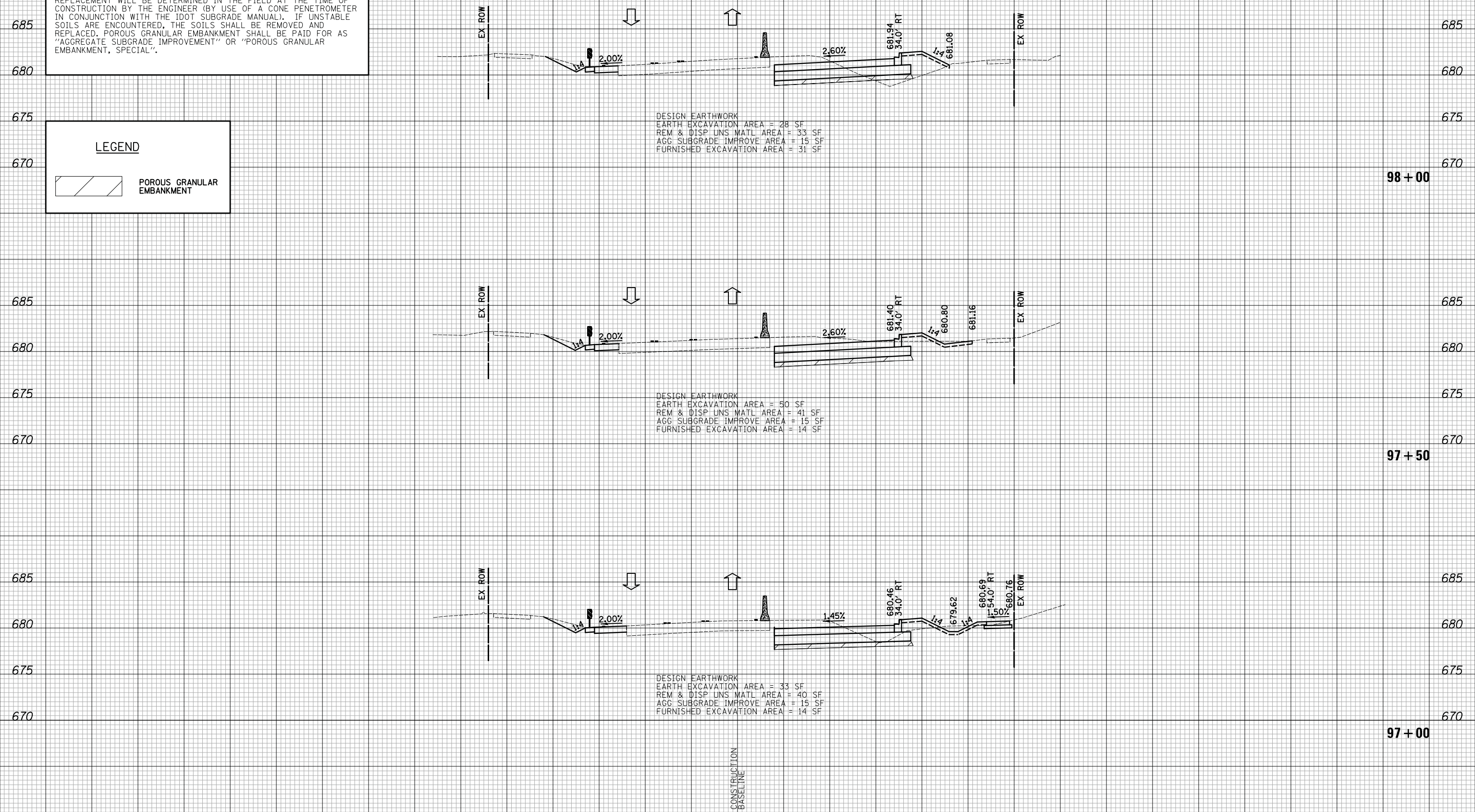
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	381
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
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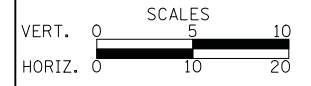
LEGEND
 POROUS GRANULAR EMBANKMENT



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CROSS SECTIONS STAGE I - WEILAND ROAD

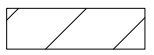
SHEET NO. 19 OF 36 SHEETS STA. 97+00 TO STA. 98+00

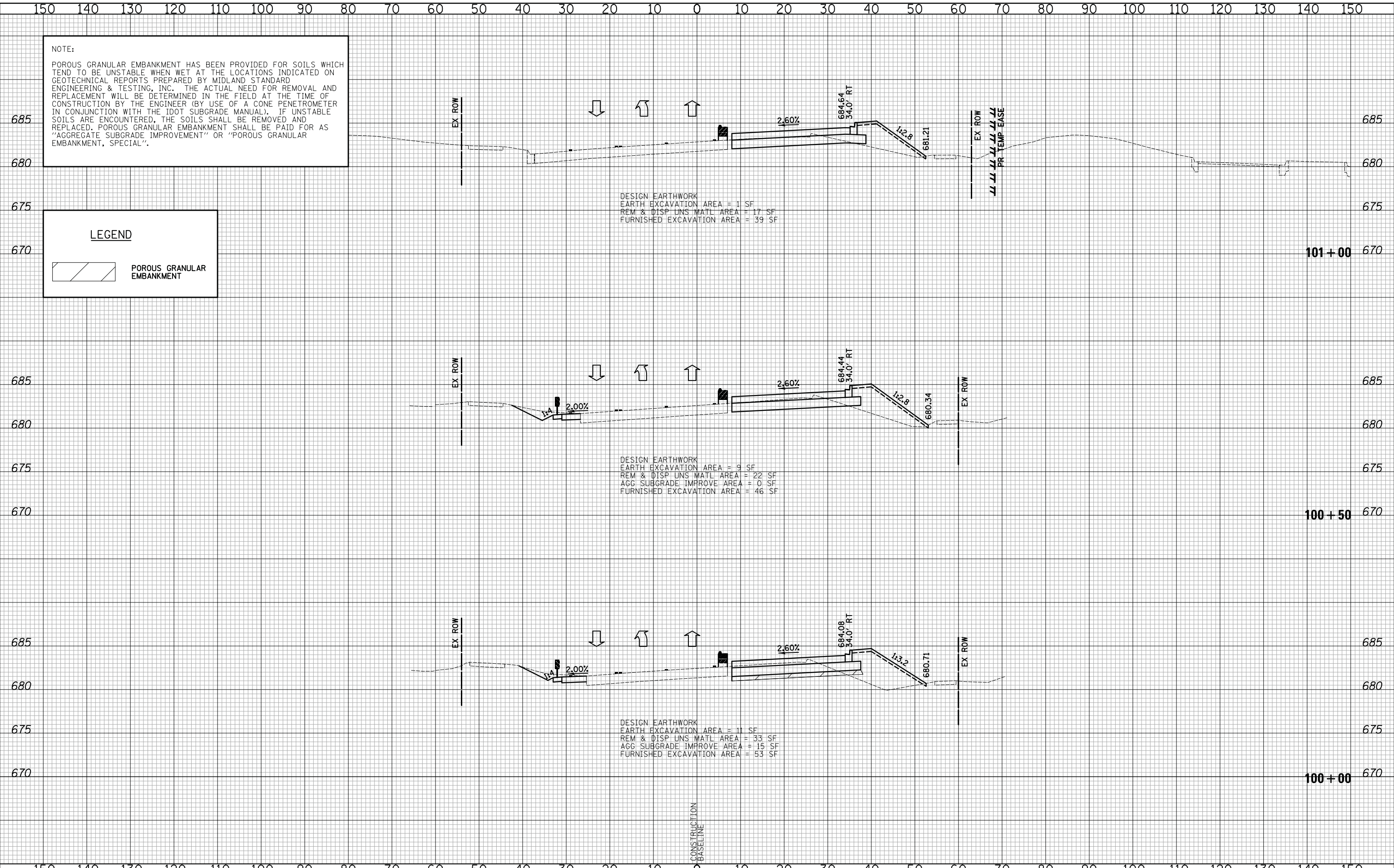
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	382
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
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NOTE BOOK	
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TEMPLATE	
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ORIGINAL	
SURVEY	
NOTE BOOK	
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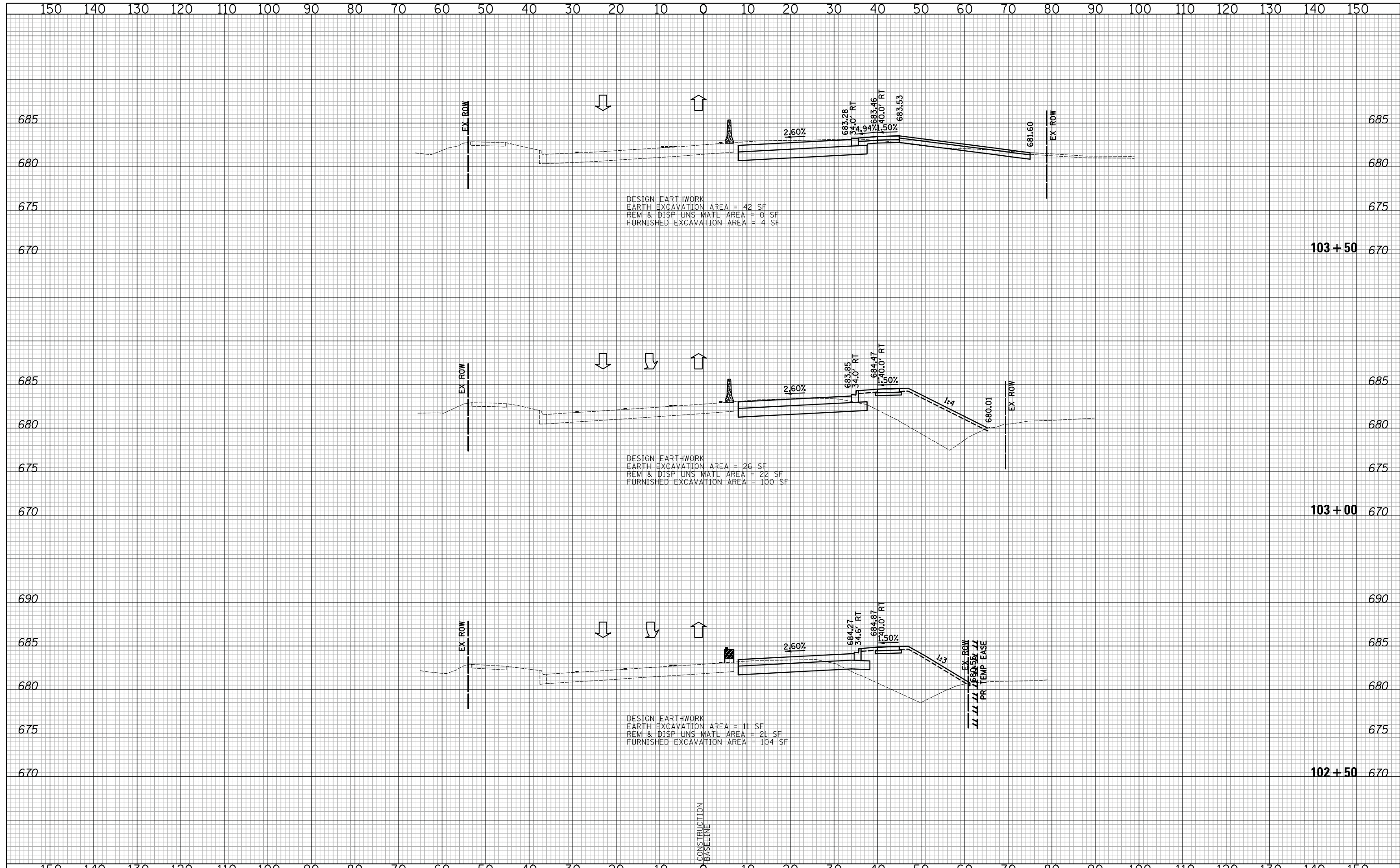
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 21 OF 36 SHEETS STA. 100+00 TO STA. 101+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	384
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				CONTRACT NO. 61F25

DATE	
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NOTE BOOK	
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ORIGINAL SURVEY	
NOTE BOOK	
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SCALES

CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 23 OF 36 SHEETS STA. 102+50 TO STA. 103+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	386
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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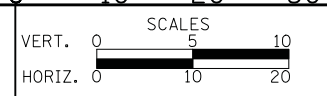
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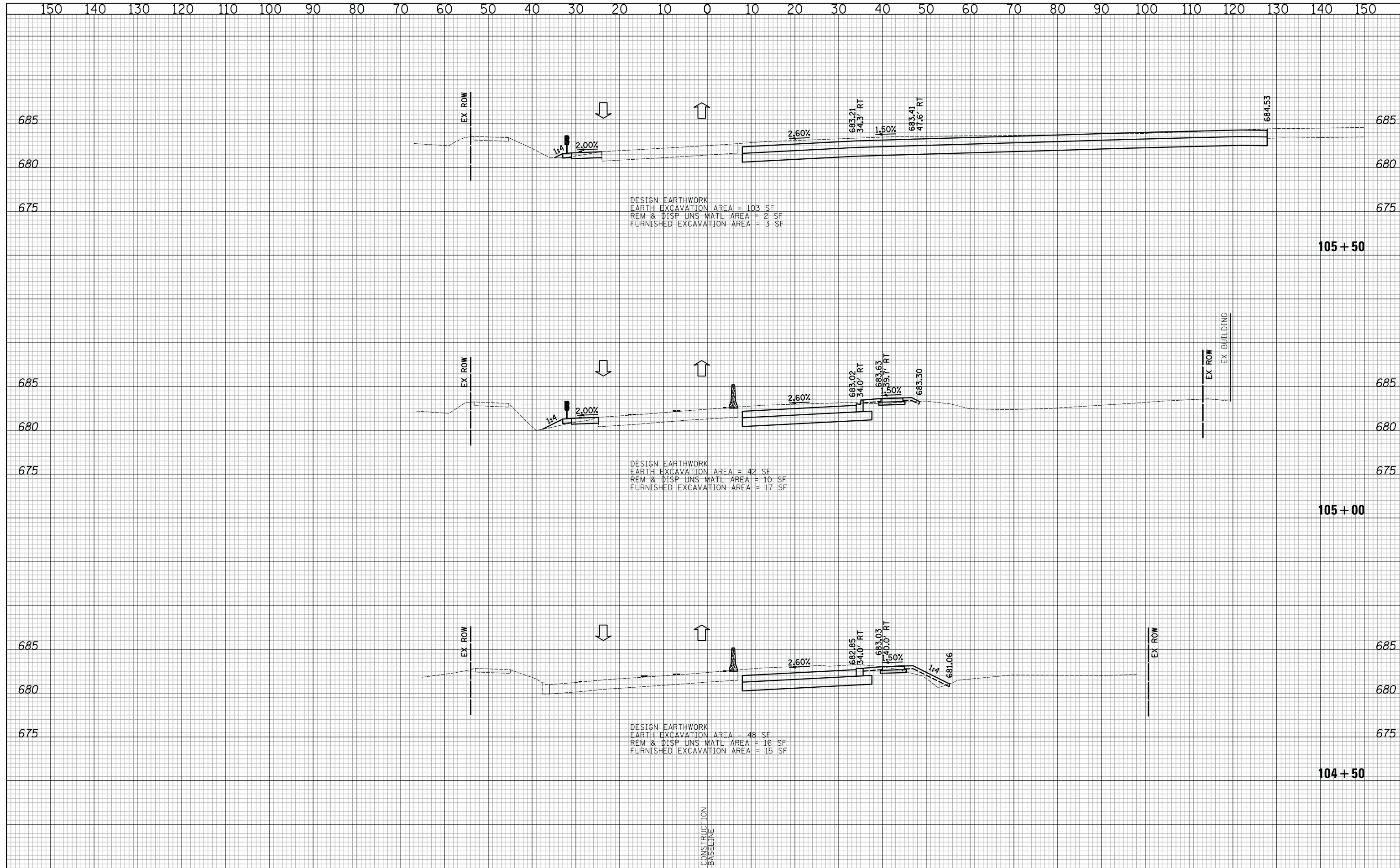
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 24 OF 36 SHEETS | STA. 104+00 TO STA. 104+35.90

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	387
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE AREAS CHECKED	
NOTE BOOK AREAS CHECKED	

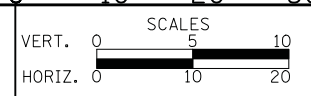
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ORIGINAL SURVEY NO.	
SURVEYED PLOTTED AREAS CHECKED	
TEMPLATE AREAS CHECKED	
NOTE BOOK AREAS CHECKED	



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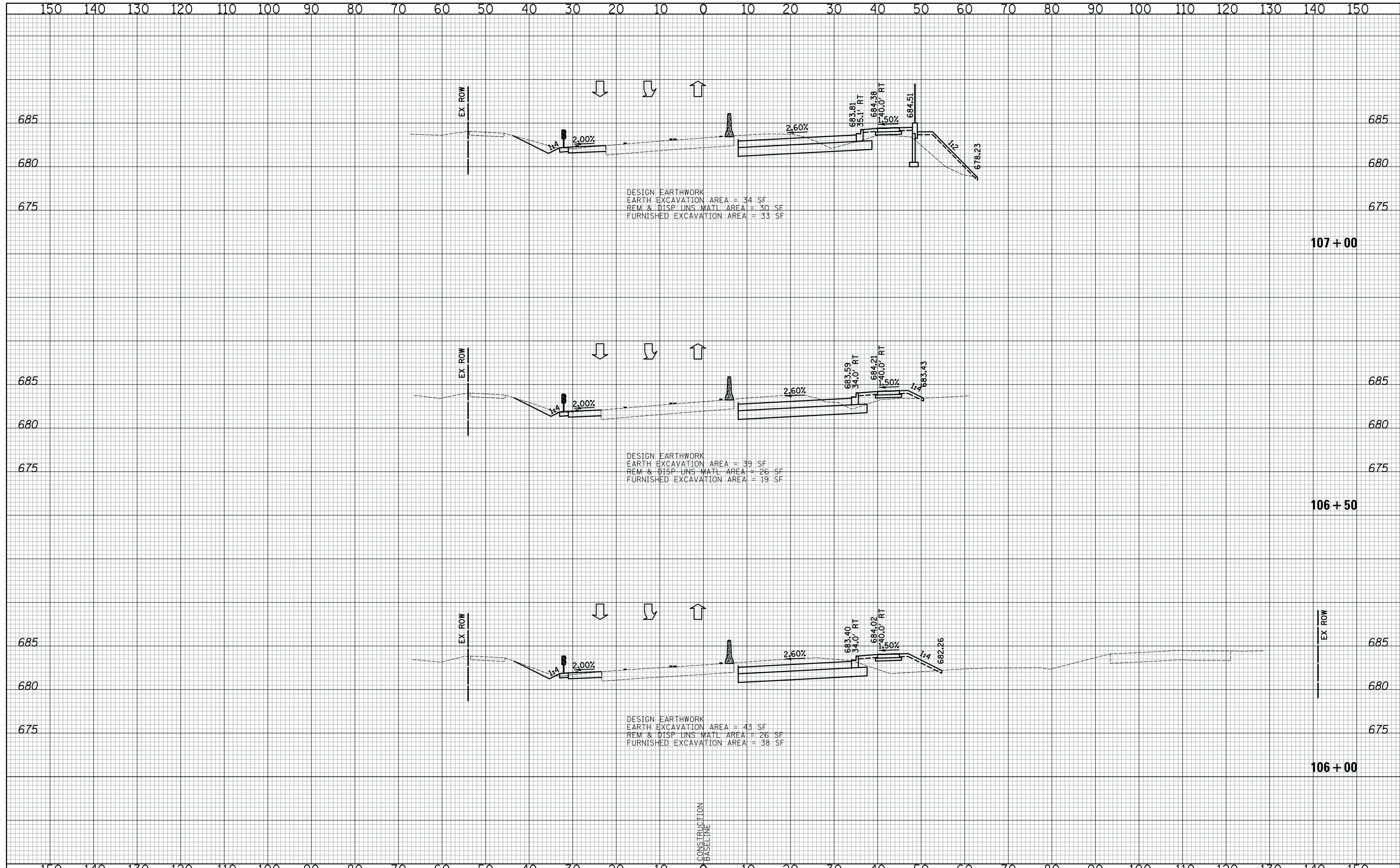
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 25 OF 36 SHEETS STA. 104+50 TO STA. 105+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	388
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
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PLOTTED	
TEMPLATE	
AREAS	
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FINAL SURVEY	
NOTE BOOK	
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SURVEYED	
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TEMPLATE	
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ORIGINAL SURVEY	
NOTE BOOK	
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DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 34 SF
 REM & DISP UNS MATL AREA = 30 SF
 FURNISHED EXCAVATION AREA = 33 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 39 SF
 REM & DISP UNS MATL AREA = 26 SF
 FURNISHED EXCAVATION AREA = 19 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 43 SF
 REM & DISP UNS MATL AREA = 26 SF
 FURNISHED EXCAVATION AREA = 38 SF

CONSTRUCTION
 BASELINE



CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 26 OF 36 SHEETS STA. 106+00 TO STA. 107+00

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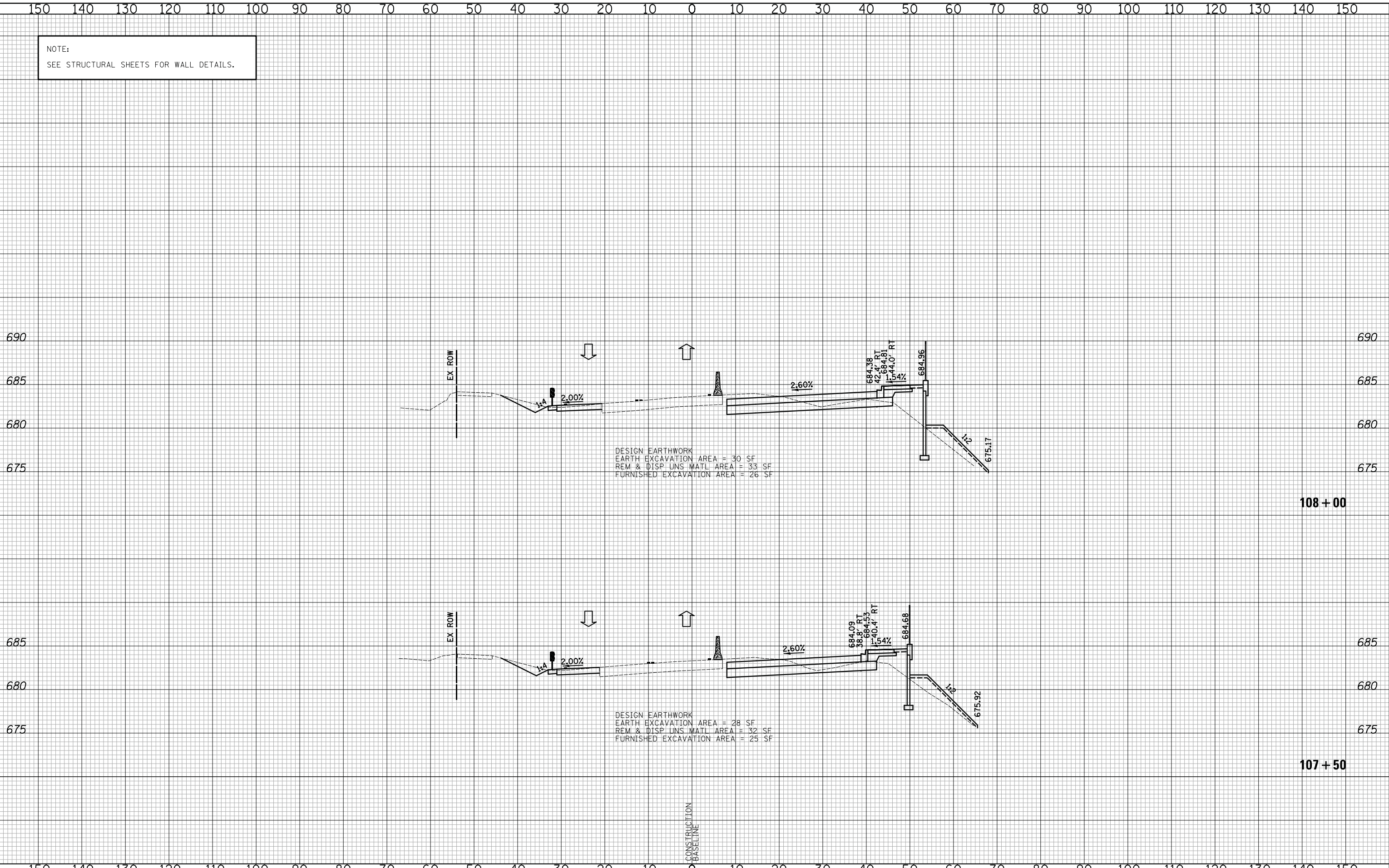
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	389
				CONTRACT NO. 61F25
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

NOTE:
SEE STRUCTURAL SHEETS FOR WALL DETAILS.

DATE	
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TEMPLATE	
AREAS	
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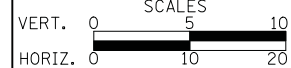
DATE	
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SURVEYED	
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TEMPLATE	
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CROSS SECTIONS STAGE I - WEILAND ROAD

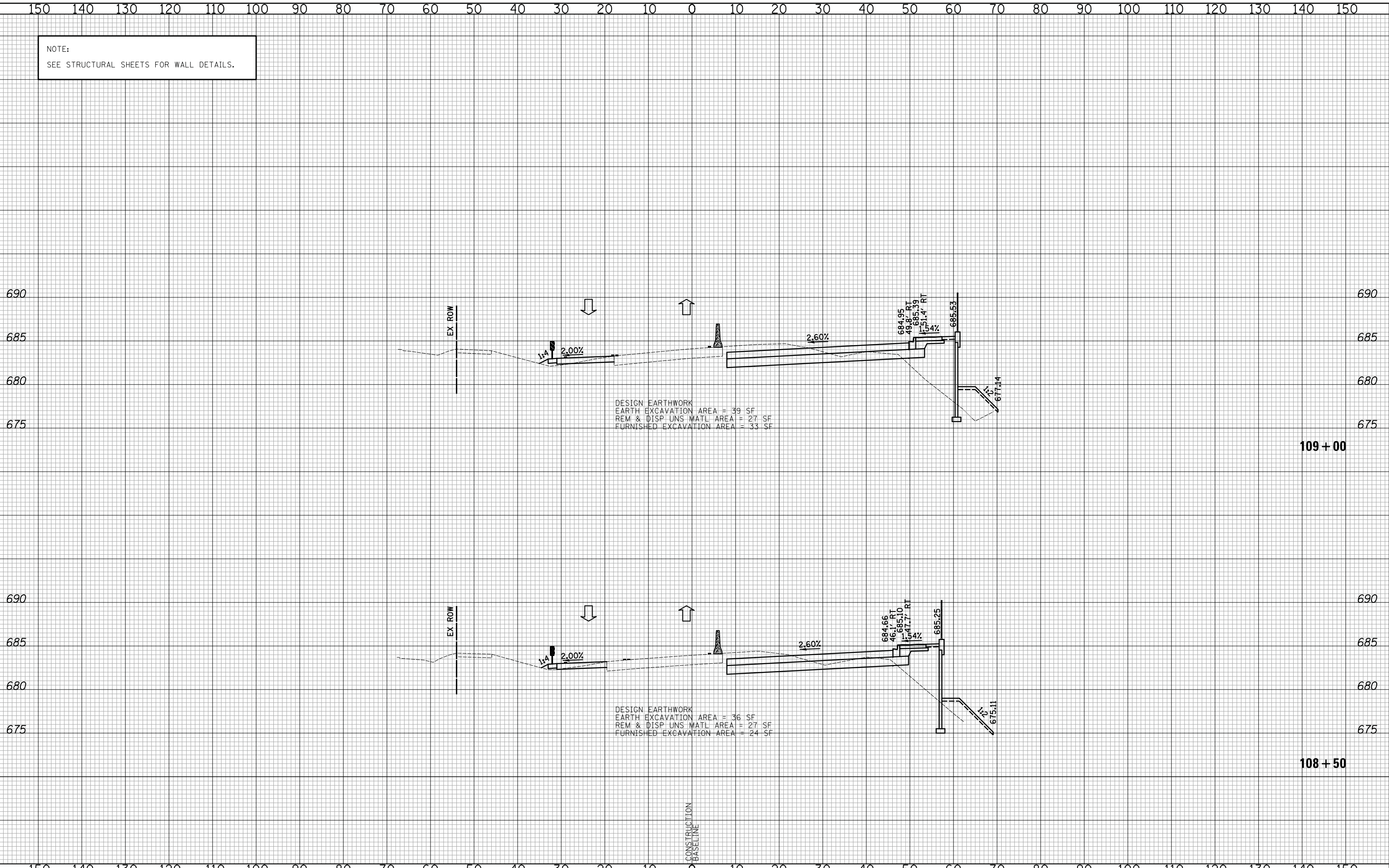
SHEET NO. 27 OF 36 SHEETS STA. 107+50 TO STA. 108+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	390
				CONTRACT NO. 61F25
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

NOTE:
SEE STRUCTURAL SHEETS FOR WALL DETAILS.

DATE	
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SURVEYED	
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DATE	
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TEMPLATE	
AREAS	
AREAS CHECKED	
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DESIGN EARTHWORK
EARTH EXCAVATION AREA = 39 SF
REM & DISP UNS MATL AREA = 27 SF
FURNISHED EXCAVATION AREA = 33 SF

DESIGN EARTHWORK
EARTH EXCAVATION AREA = 36 SF
REM & DISP UNS MATL AREA = 27 SF
FURNISHED EXCAVATION AREA = 24 SF

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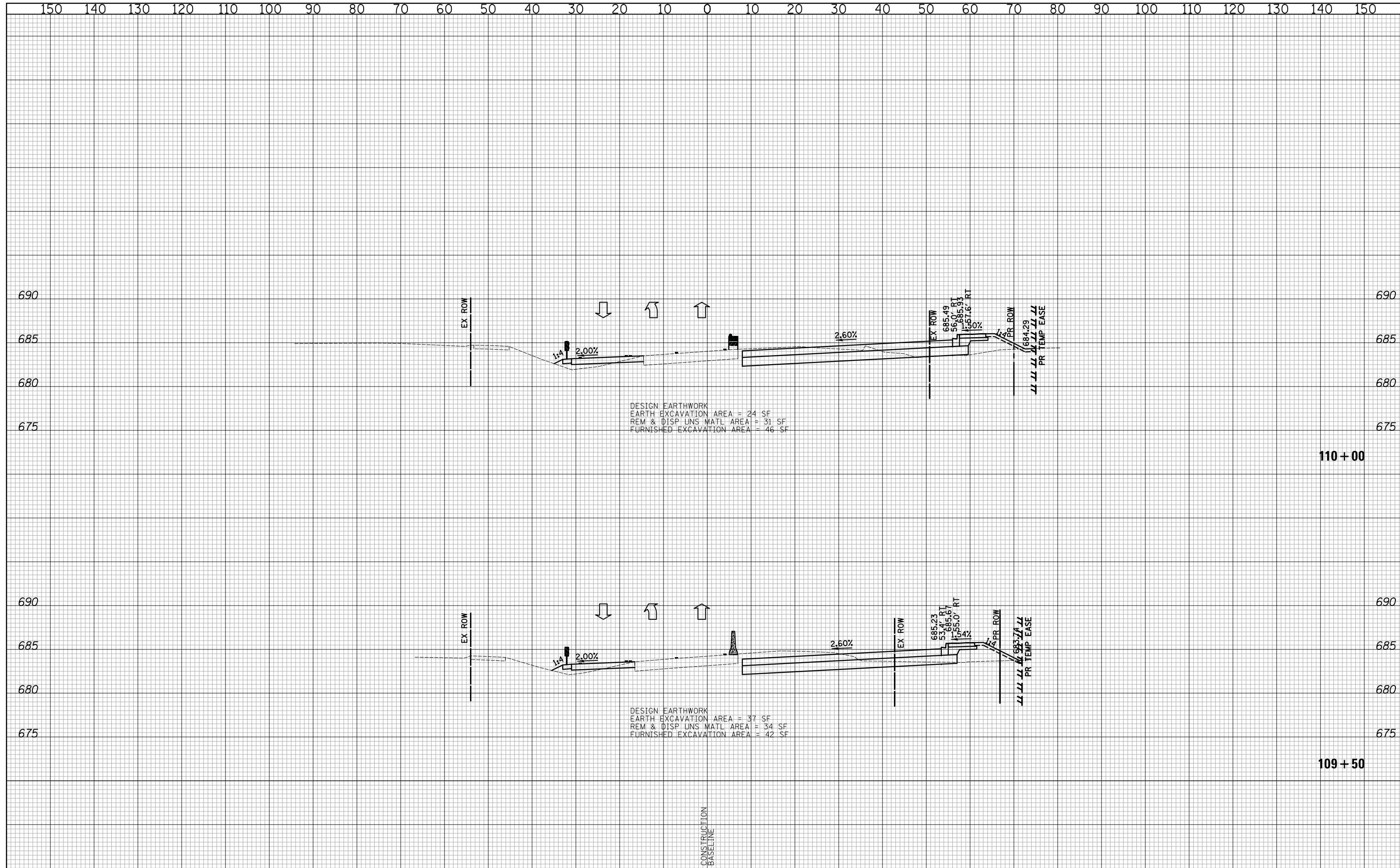
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 28 OF 36 SHEETS STA. 108+50 TO STA. 109+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	391
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
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SURVEYED	
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TEMPLATE	
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DATE	
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SURVEYED	
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TEMPLATE	
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DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 24 SF
 REM & DISP UNS MATL AREA = 31 SF
 FURNISHED EXCAVATION AREA = 46 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 37 SF
 REM & DISP UNS MATL AREA = 34 SF
 FURNISHED EXCAVATION AREA = 42 SF

CONSTRUCTION
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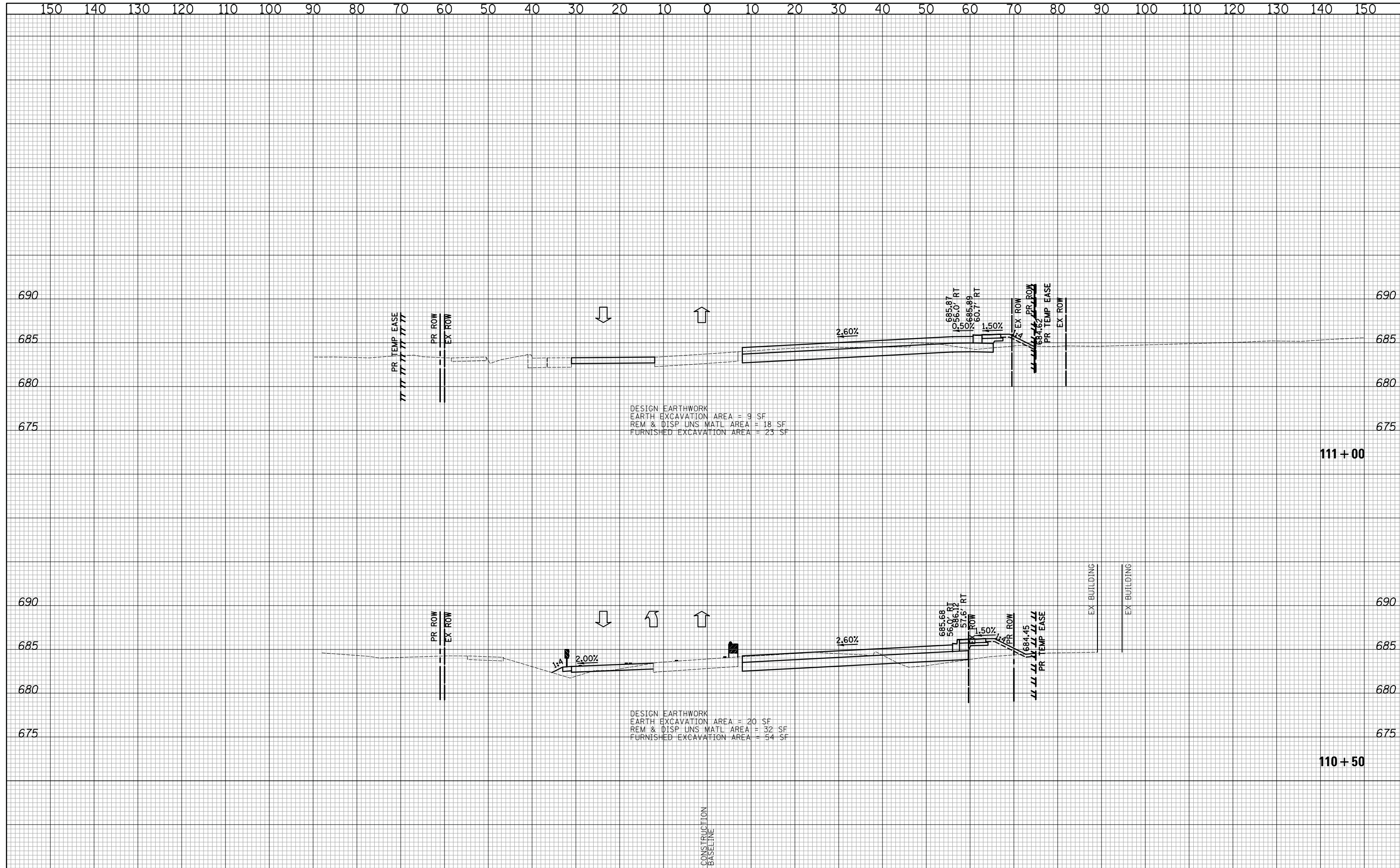
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 29 OF 36 SHEETS STA. 109+50 TO STA. 110+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	392
				CONTRACT NO. 61F25
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	TEMPLATE	
	AREAS CHECKED	

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	TEMPLATE	
	AREAS CHECKED	



DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 9 SF
 REM & DISP UNS MATL AREA = 18 SF
 FURNISHED EXCAVATION AREA = 23 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 20 SF
 REM & DISP UNS MATL AREA = 32 SF
 FURNISHED EXCAVATION AREA = 54 SF

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DATE -	6/10/2019	REVISED -

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SCALES

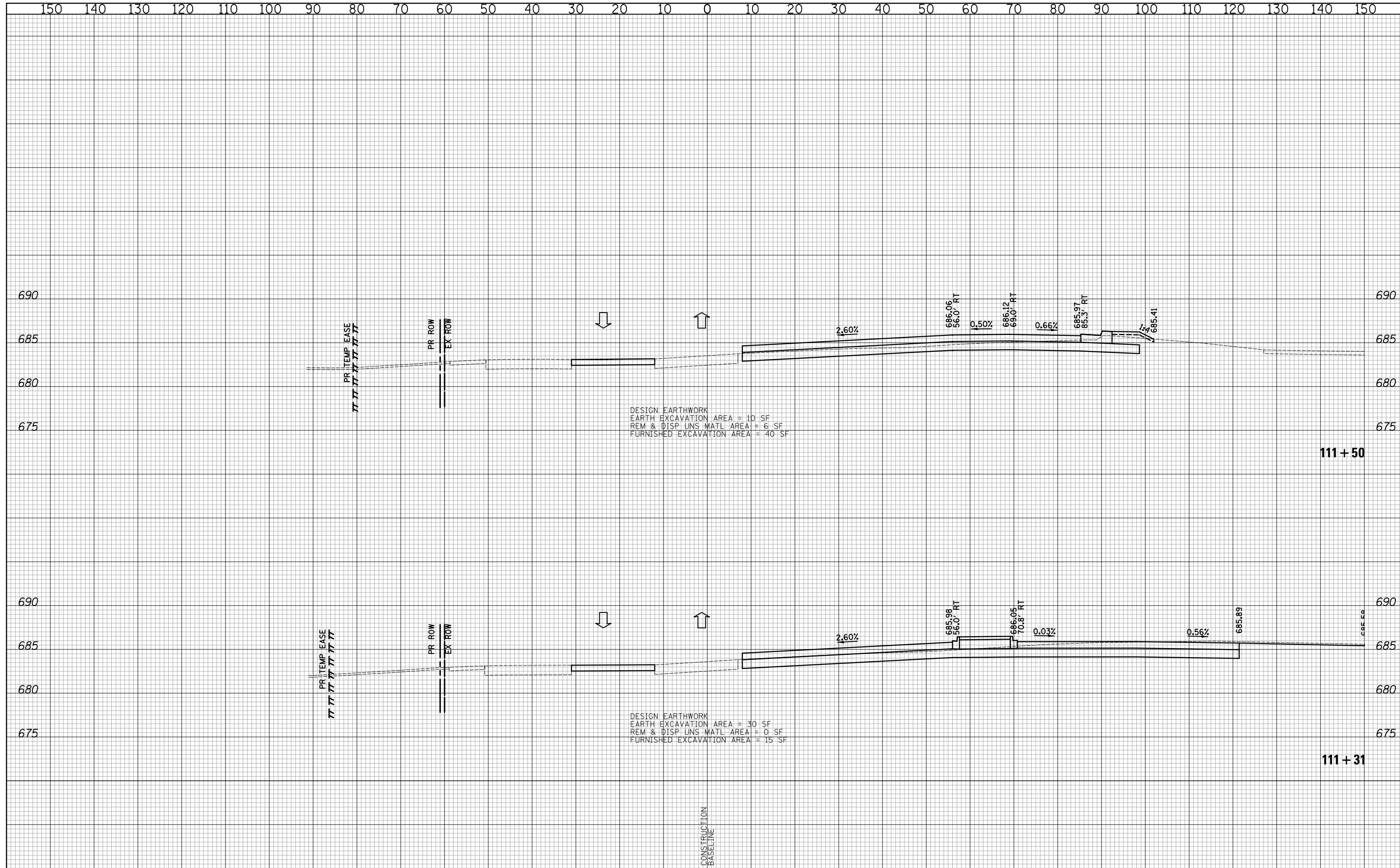
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 30 OF 36 SHEETS STA. 110+50 TO STA. 111+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	393
				CONTRACT NO. 61F25
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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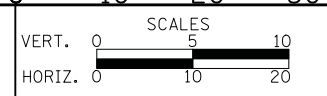
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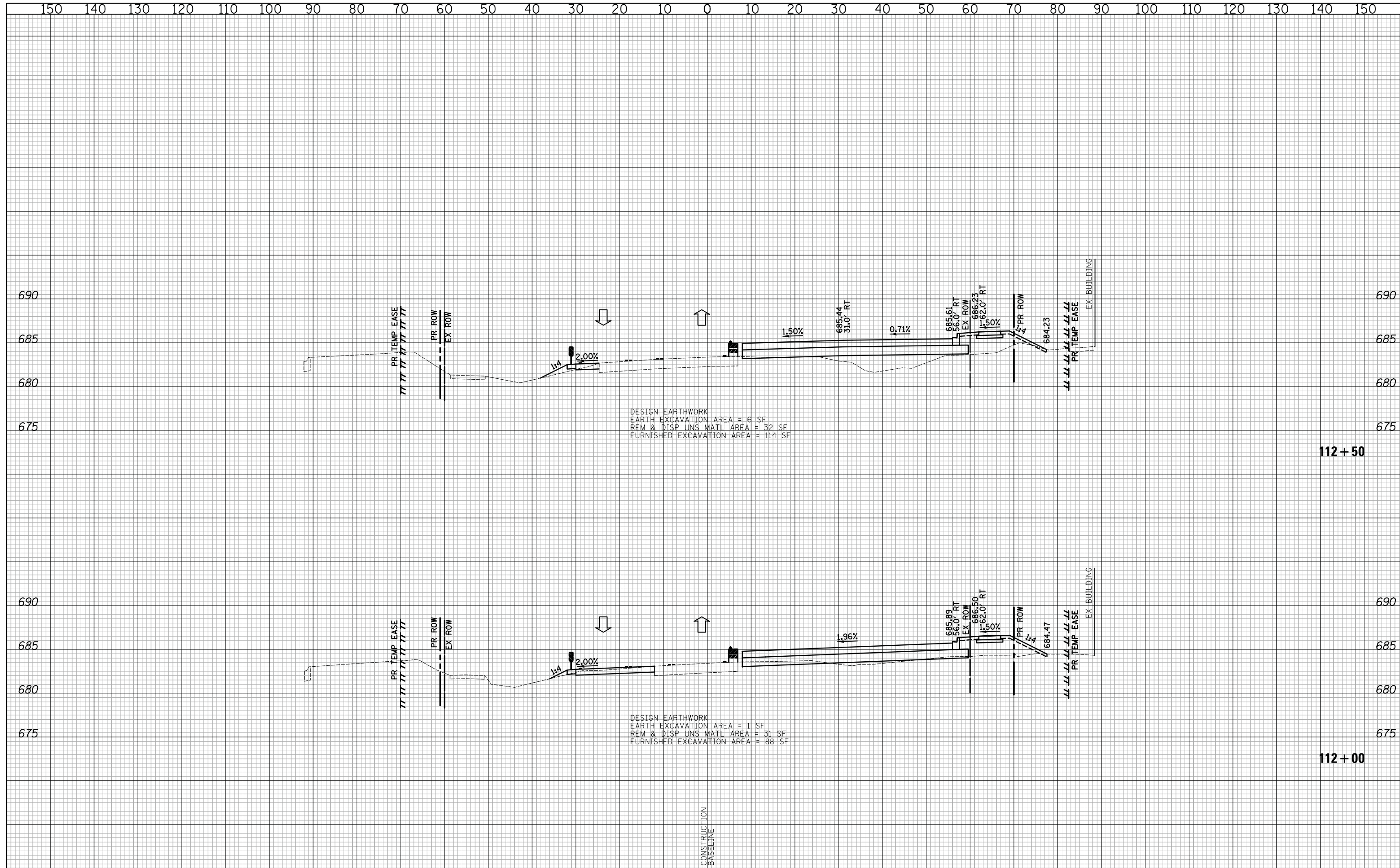
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 31 OF 36 SHEETS STA. 111+31 TO STA. 111+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	394
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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	AREAS CHECKED

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ORIGINAL SURVEY	SURVEYED
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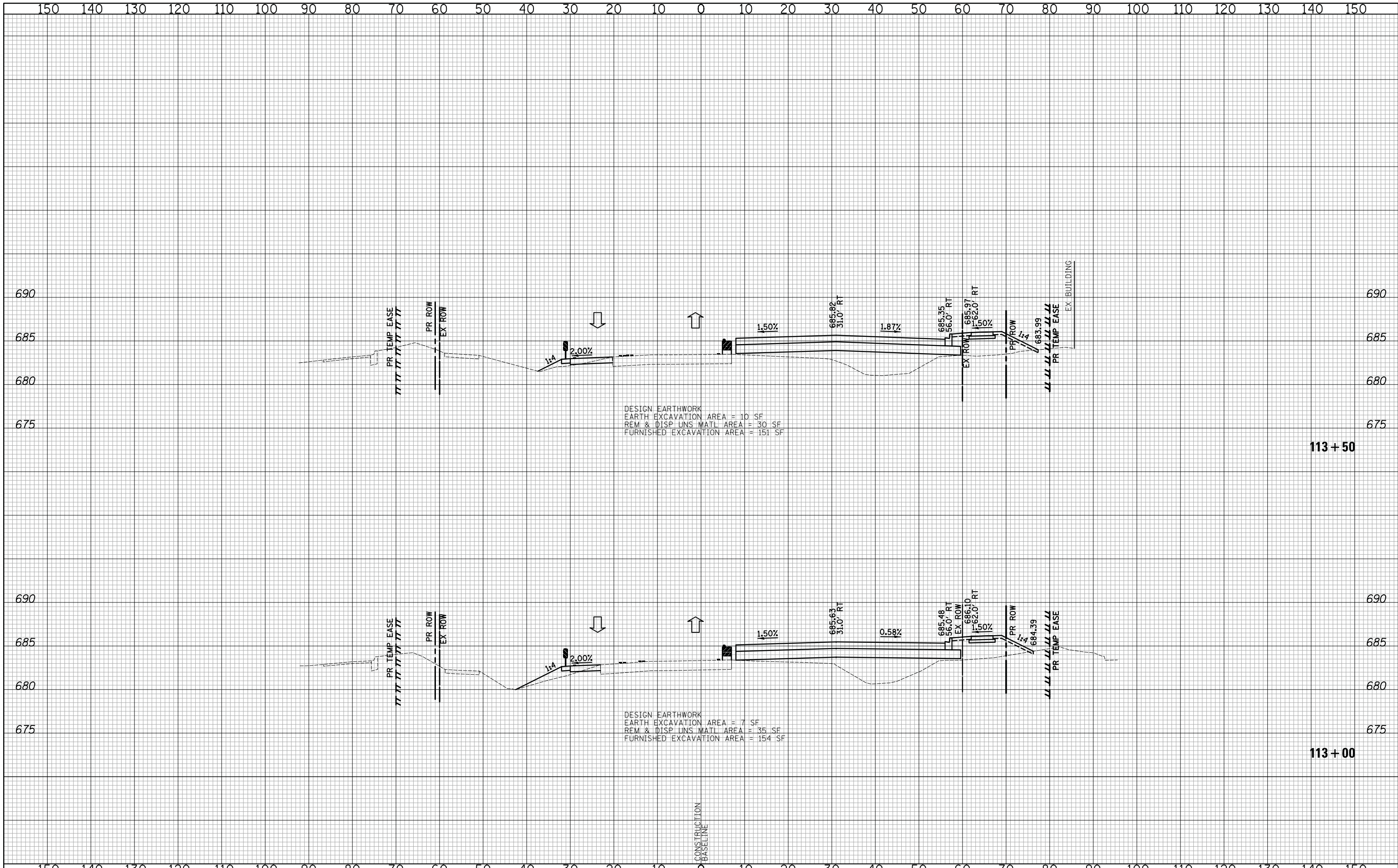
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 SCALES

CROSS SECTIONS STAGE I - WEILAND ROAD
 SHEET NO. 32 OF 36 SHEETS STA. 112+00 TO STA. 112+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	395
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				CONTRACT NO. 61F25

DATE	
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AREAS CHECKED	
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SURVEYED	
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TEMPLATE	
AREAS CHECKED	
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DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 10 SF
 REM & DISP UNS MATL AREA = 30 SF
 FURNISHED EXCAVATION AREA = 151 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 7 SF
 REM & DISP UNS MATL AREA = 35 SF
 FURNISHED EXCAVATION AREA = 154 SF

113 + 50

113 + 00



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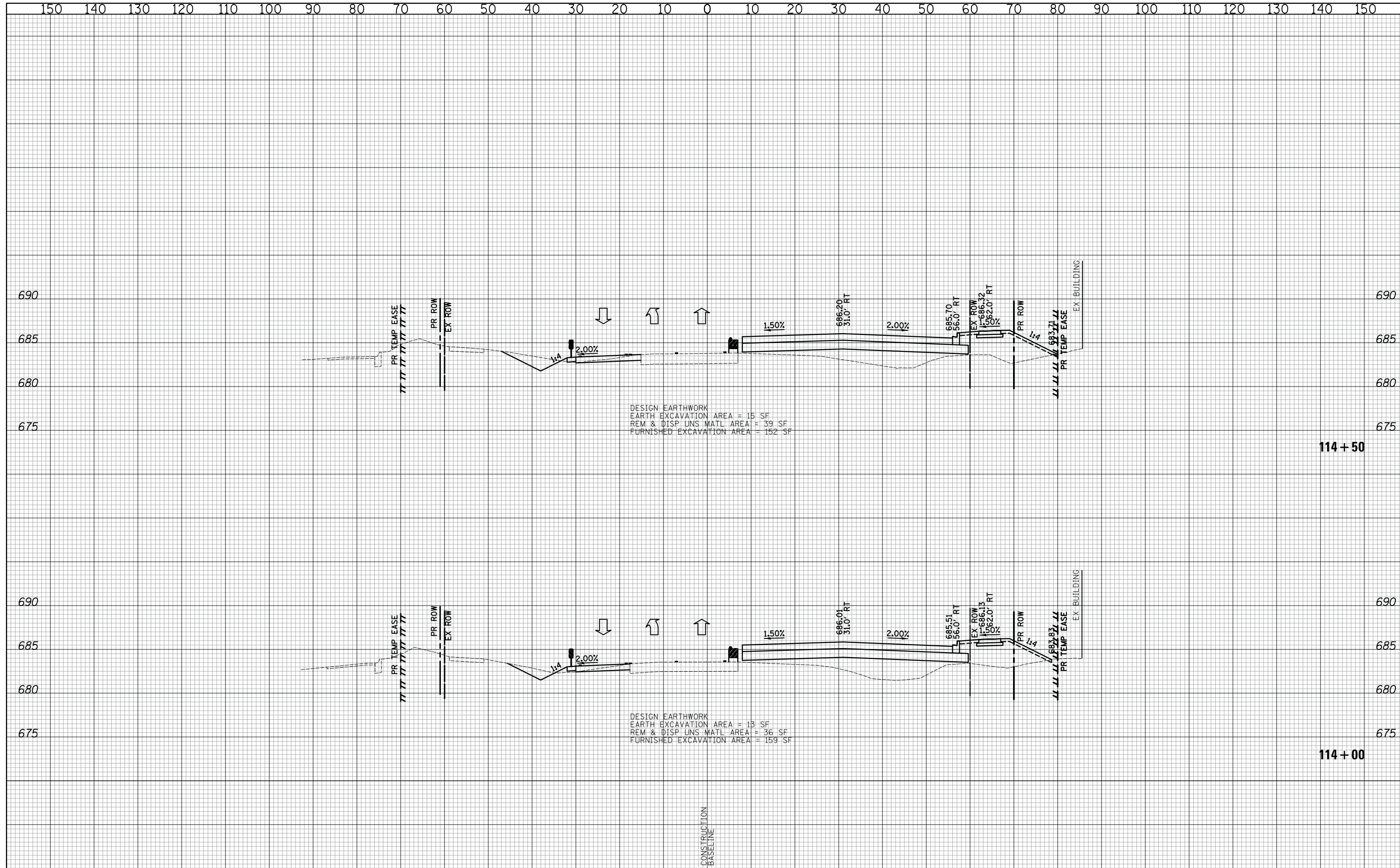
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 33 OF 36 SHEETS STA. 113+00 TO STA. 113+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	396
				CONTRACT NO. 61F25
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
AREAS CHECKED	TEMPLATE
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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 15 SF
 REM & DISP UNS MATL AREA = 39 SF
 FURNISHED EXCAVATION AREA = 152 SF

DESIGN EARTHWORK
 EARTH EXCAVATION AREA = 13 SF
 REM & DISP UNS MATL AREA = 36 SF
 FURNISHED EXCAVATION AREA = 159 SF

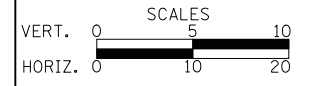
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION



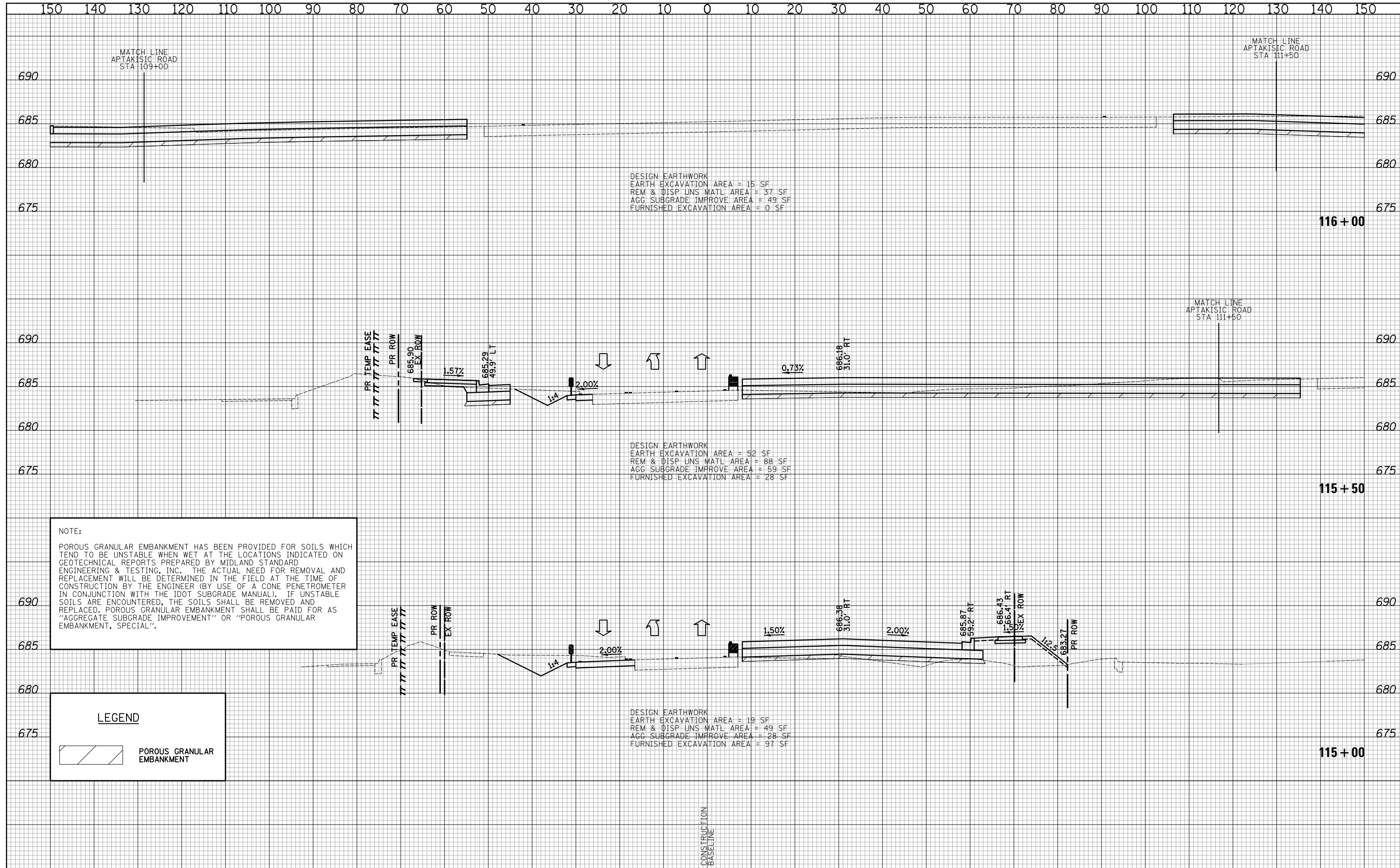
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 34 OF 36 SHEETS STA. 114+00 TO STA. 114+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	397
				CONTRACT NO. 61F25
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



NOTE:
 POROUS GRANULAR EMBANKMENT HAS BEEN PROVIDED FOR SOILS WHICH TEND TO BE UNSTABLE WHEN WET AT THE LOCATIONS INDICATED ON GEOTECHNICAL REPORTS PREPARED BY MIDLAND STANDARD ENGINEERING & TESTING, INC. THE ACTUAL NEED FOR REMOVAL AND REPLACEMENT WILL BE DETERMINED IN THE FIELD AT THE TIME OF CONSTRUCTION BY THE ENGINEER (BY USE OF A CONE PENETROMETER IN CONJUNCTION WITH THE IDOT SUBGRADE MANUAL). IF UNSTABLE SOILS ARE ENCOUNTERED, THE SOILS SHALL BE REMOVED AND REPLACED. POROUS GRANULAR EMBANKMENT SHALL BE PAID FOR AS "AGGREGATE SUBGRADE IMPROVEMENT" OR "POROUS GRANULAR EMBANKMENT, SPECIAL".

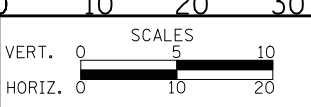
LEGEND

POROUS GRANULAR EMBANKMENT

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

DESIGNED - PK	REVISED -
DRAWN - PK	REVISED -
CHECKED - JRV	REVISED -
DATE - 6/10/2019	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



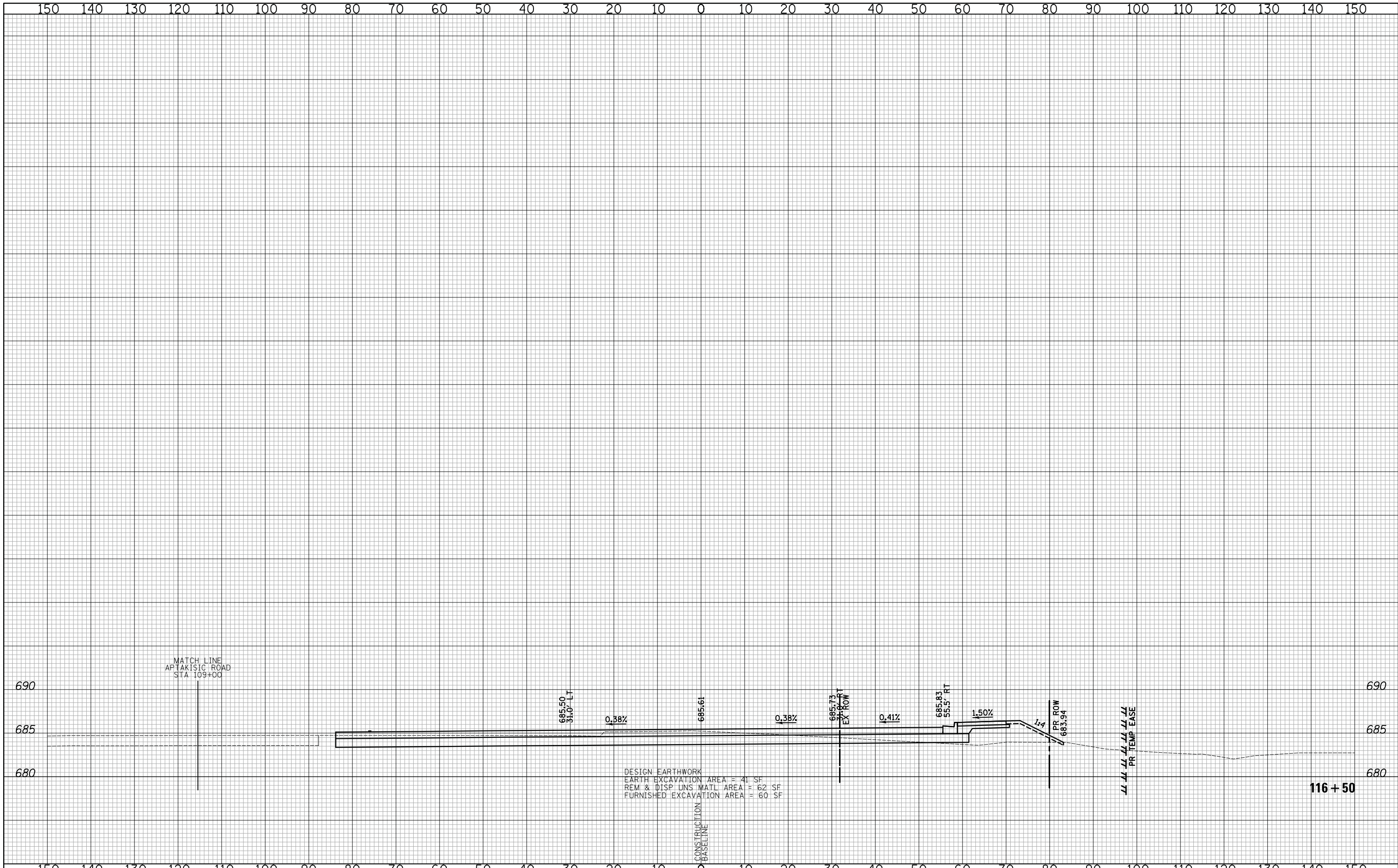
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 35 OF 36 SHEETS STA. 115+00 TO STA. 116+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	398
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				CONTRACT NO. 61F25

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

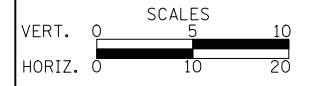
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



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DATE - 6/10/2019	REVISED -

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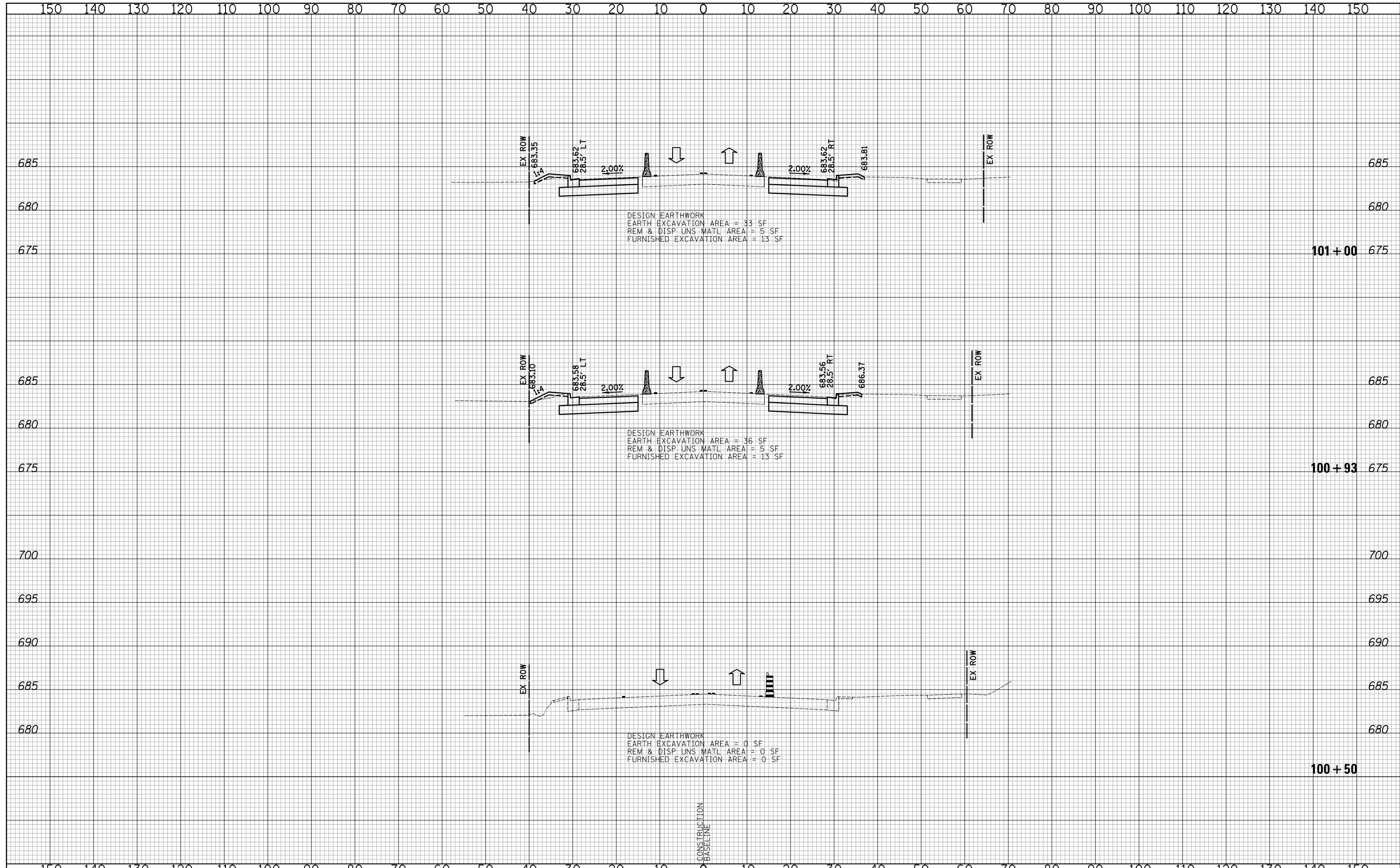
CROSS SECTIONS STAGE I - WEILAND ROAD

SHEET NO. 36 OF 36 SHEETS STA. 116+50 TO STA. 118+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	399
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



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CHECKED - JRV	REVISED -
DATE - 6/10/2019	REVISED -

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DEPARTMENT OF TRANSPORTATION



CROSS SECTIONS STAGE I - APTAKISIC ROAD

SHEET NO. 1 OF 22 SHEETS STA. 100+50 TO STA. 101+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2665	18-00158-13-WR	LAKE	623	400
CONTRACT NO. 61F25				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				