

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

F.A. 7	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
RT-1	MAUTINO 2019	BUREAU	43	1
		ILLINOIS	CONTRACT NO. 46917	

D-3

INDEX OF SHEETS

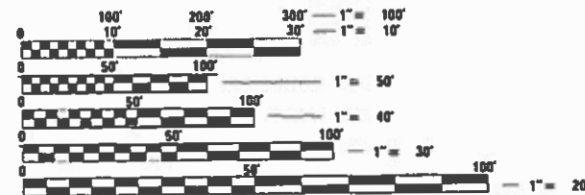
- 1 COVER SHEET
  - 2 GENERAL NOTES, HIGHWAY STANDARDS, COMMITMENTS
  - 3-5 SUMMARY OF QUANTITIES
  - 6-7 TYPICAL SECTIONS
  - 8-9 SCHEDULE OF QUANTITIES
  - 10-11 ALIGNMENT, TIES & BENCHMARKS
  - 12-17 BITUMINOUS SURFACE TREATMENT PLANS
  - 18-20 NORTH ROAD WIDENING PLAN & PROFILES
  - 21-33 NORTH ROAD WIDENING CROSS SECTIONS
  - 34 WATER & CULVERT PLAN
  - 35 GENERAL PLAN AND ELEVATION - STATION 32+06
  - 36 GENERAL DATA - STATION 32+06
  - 37-38 BOX CULVERT END SECTIONS, CULVERT NO 1
  - 39-40 BOX CULVERT END SECTIONS, CULVERT NO 2
  - 41 TRAVERSABLE PIPE GRATE FOR CONCRETE END SECTION
  - 42-43 DETAILS
- FOR LIST OF STANDARDS, SEE SHEET NO. 2

**PROPOSED  
HIGHWAY PLANS**

MAUTINO STATE FISH AND WILDLIFE AREA  
MAUTINO 2019  
CULVERT REPLACEMENT AND ROADWAY IMPROVEMENTS  
BUREAU COUNTY

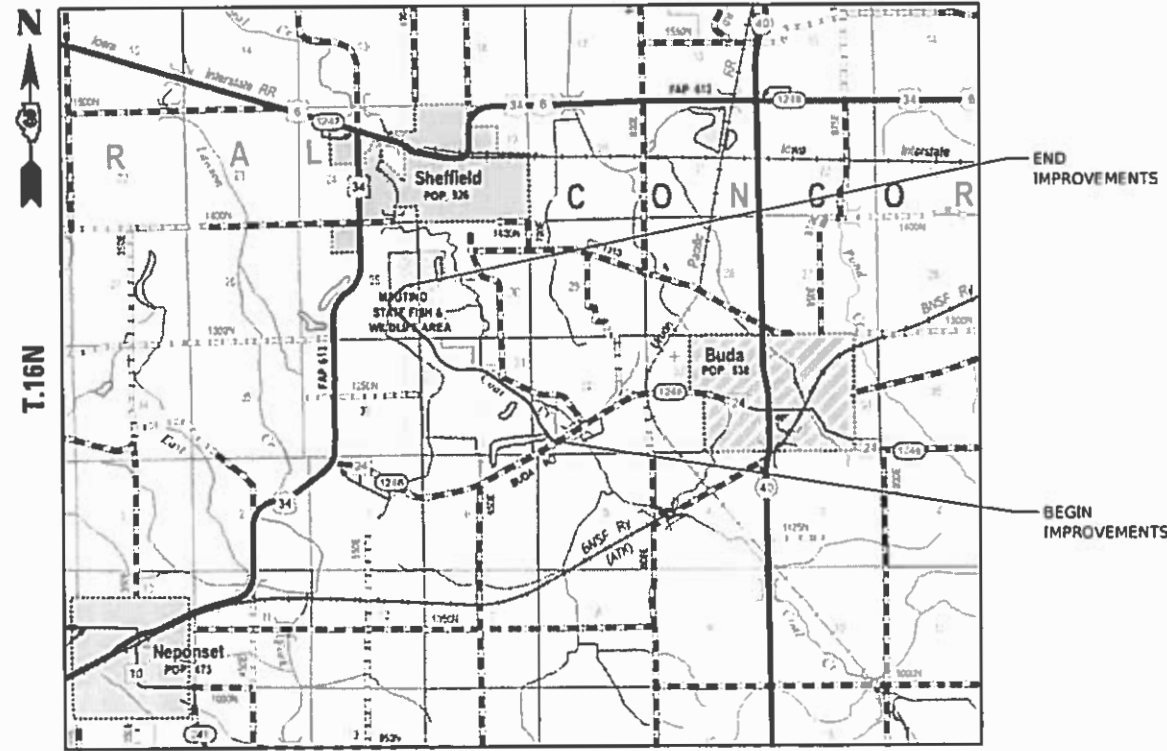
C-30-007-19  
IDNR PROJECT 1-19-006

R.6E /R.7E



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

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



LOCATION MAP  
N.T.S.

GROSS LENGTH = 10,601.91 FT. = 2.008 MILES  
NET LENGTH = 10,601.91 FT. = 2.008 MILES

**Farnsworth**  
GROUP  
2709 MCGRAW DRIVE  
BLOOMINGTON, ILLINOIS 61704  
(309) 663-8435 / info@f-w.com

PROJECT ENGINEER: VINCE MADONIA, PE  
CONTRACT NO. 46917



*Joseph G. Grimm* 3-29-19  
JOSEPH G. GRIMM, P.E.  
LICENSED PROFESSIONAL ENGINEER  
ILLINOIS NO. 062-065119 EXPIRES 11-30-19  
DATE

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED May 10 2019 REGION ENGINEER  
May 10 2019 ENGINEER OF DESIGN AND ENVIRONMENT  
May 10 2019 DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION 3

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

## GENERAL NOTES

- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED APRIL 1, 2016, THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
- UTILITIES INTERFERENCES ARE NOT ANTICIPATED ON THIS CONTRACT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS CONSTRUCTION ACTIVITIES WITH THE VARIOUS UTILITY OWNERS. ALL POTENTIAL CONFLICTS SHALL BE INVESTIGATED AND REMEDIAL ACTION TAKEN PRIOR TO INTERRUPTION OF THE CONTRACTOR'S PROGRESS. NO ADDITIONAL COST SHALL BE ADDED TO THE CONTRACT RESULTING FROM UTILITY CONFLICTS. J.U.L.I.E. - JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS SYSTEM. 1-800-892-0123 OR 811.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES BEFORE BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES AND SHALL BE LIABLE FOR ANY DAMAGE TO THEM RESULTING FROM HIS OPERATIONS.
- EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
- TRAFFIC CONTROL ITEMS SHALL BE PAID FOR BY LUMP SUM TRAFFIC CONTROL AND PROTECTION, (SPECIAL). SEE HIGHWAY STANDARDS AND SPECIAL PROVISIONS FOR ADDITIONAL DETAILS. ALL SIGNS SHALL BE INCLUDED IN THE PAY ITEM.
- FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.
- ANY STANDARDS REFERENCED THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST HIGHWAY STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION AS SHOWN ON THE SCHEDULE OF HIGHWAY STANDARDS ON THIS SHEET.
- THE CONTRACTOR SHALL NOTIFY IDOT AT LEAST 48 HOURS IN ADVANCE OF THE START OR RESTART OF CONSTRUCTION.
- ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- HORIZONTAL COORDINATES ARE BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD 83 (1983).
- ALL AREAS DISTURBED FOR ANY REASON SHALL BE PERMANENTLY SEEDED AS DIRECTED BY THE ENGINEER. ALL AREAS DISTURBED BY THE CONTRACTOR OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE SEEDED AT THE CONTRACTOR'S EXPENSE.
- SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

## COMMITMENTS

- NONE.

## HIGHWAY STANDARDS

000001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-09	PAVEMENT JOINTS
604021-03	BASE FRAME AND LIDS, TYPE 5
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701901-08	TRAFFIC CONTROL DEVICES
BLR 14-12	PORTLAND CEMENT CONCRETE PAVEMENT (NONREINFORCED)
BLR 17-4	TRAFFIC CONTROL DEVICES - DAY LABOR CONSTRUCTION
BLR 18-6	TRAFFIC CONTROL DEVICES - DAY LABOR MAINTENANCE
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

## RATES OF APPLICATION TABLE

AGGREGATE (SURFACE, BASE, SUBBASE OR BACKFILL).....	2.05 TON / CU YD
SUBBASE GRANULAR MATERIAL, TYPE B .....	2.05 TON / CU YD
HOT-MIX ASPHALT	
BITUMINOUS MATERIAL (TACK COAT) (ON PAVEMENT).....	0.05 LB / SQ FT
BITUMINOUS MATERIAL (PRIME COAT) (ON AGGREGATE) .....	0.25 LB / SQ FT
HOT-MIX ASPHALT SURFACE/ BINDER (112 lbs.) .....	0.056 TON / SQ YD * IN
SEEDING AREAS:	
NITROGEN FERTILIZER NUTRIENT .....	90 LBS / ACRE
PHOSPHOROUS FERTILIZER NUTRIENT .....	90 LBS / ACRE
POTASSIUM FERTILIZER NUTRIENT .....	90 LBS / ACRE

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, HIGHWAY STANDARDS, COMMITMENTS  
MAUTINO SF&W AREA

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	2
CONTRACT NO. 46917				
ILLINOIS		FED. AID PROJECT		

CODE NO.	ITEM	0004 UNIT	TOTAL QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	45
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	48
20200100	EARTH EXCAVATION	CU YD	763
20400800	FURNISHED EXCAVATION	CU YD	895
20700220	POROUS GRANULAR EMBANKMENT	CU YD	58
21101610	TOPSOIL FURNISH AND PLACE, 3"	SQ YD	5,232
25000314	SEEDING, CLASS 4B	ACRE	0.25
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	98
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	98
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	98
25100115	MULCH, METHOD 2	ACRE	1.25
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	108
28000305	TEMPORARY DITCH CHECKS	FOOT	60
28000400	PERIMETER EROSION BARRIER	FOOT	1,263
28000500	INLET AND PIPE PROTECTION	EACH	2
28100105	STONE RIPRAP, CLASS A3	SQ YD	235
28200200	FILTER FABRIC	SQ YD	235



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES MAUTINO SF&W AREA			
SCALE: NO SCALE	SHEET 1 OF 3 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	3
			CONTRACT NO. 46917	
		ILLINOIS	FED. AID PROJECT	

CODE NO.	ITEM	0004 UNIT	TOTAL QUANTITY
31100300	SUBBASE GRANULAR MATERIAL, TYPE A 4"	SQ YD	80
35102000	AGGREGATE BASE COURSE, TYPE B 8"	SQ YD	2,554
35800200	AGGREGATE BASE REPAIR	TON	450
40300200	BITUMINOUS MATERIALS (PRIME COAT)	TON	49
40300400	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	TON	102
40300500	COVER COAT AGGREGATE	TON	448
40300600	SEAL COAT AGGREGATE	TON	418
42000100	PORTLAND CEMENT CONCRETE PAVEMENT 6"	SQ YD	73
44000100	PAVEMENT REMOVAL	SQ YD	6
50105220	PIPE CULVERT REMOVAL	FOOT	20
54001001	BOX CULVERT END SECTIONS, CULVERT NO. 1	EACH	1
54001002	BOX CULVERT END SECTIONS, CULVERT NO. 2	EACH	1
54010402	PRECAST CONCRETE BOX CULVERTS 4' X 2'	FOOT	55
54260315	TRAVERSABLE PIPE GRATE FOR CONCRETE END SECTION	FOOT	4
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	46
60406200	FRAMES AND LIDS, TYPE 5, OPEN LID	EACH	1
X0301852	DEWATERING STRUCTURE NO. 1	EACH	1



USER NAME = jgr/mm	DESIGNED - JGG	REVISED
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

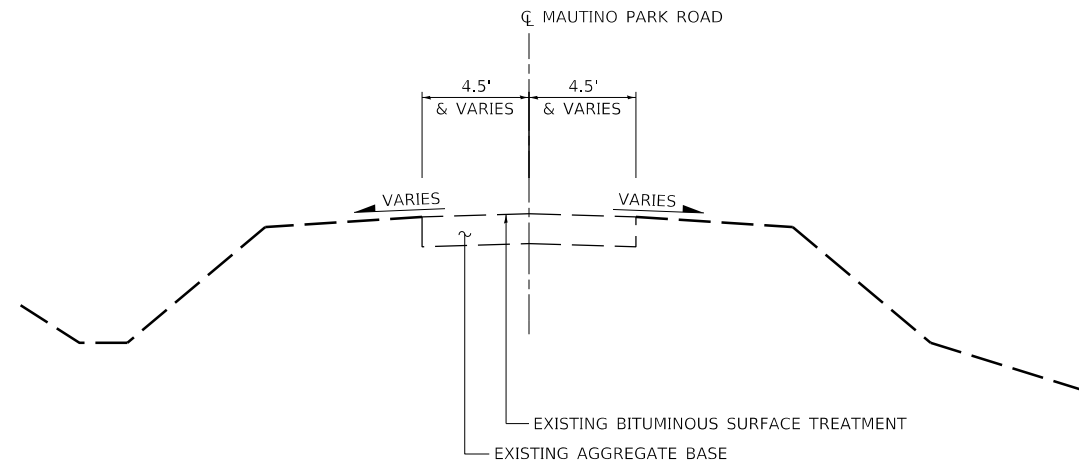
SUMMARY OF QUANTITIES MAUTINO SF&W AREA			
SCALE: NO SCALE	SHEET 2 OF 3 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	4
			CONTRACT NO. 46917	
		ILLINOIS	FED. AID PROJECT	

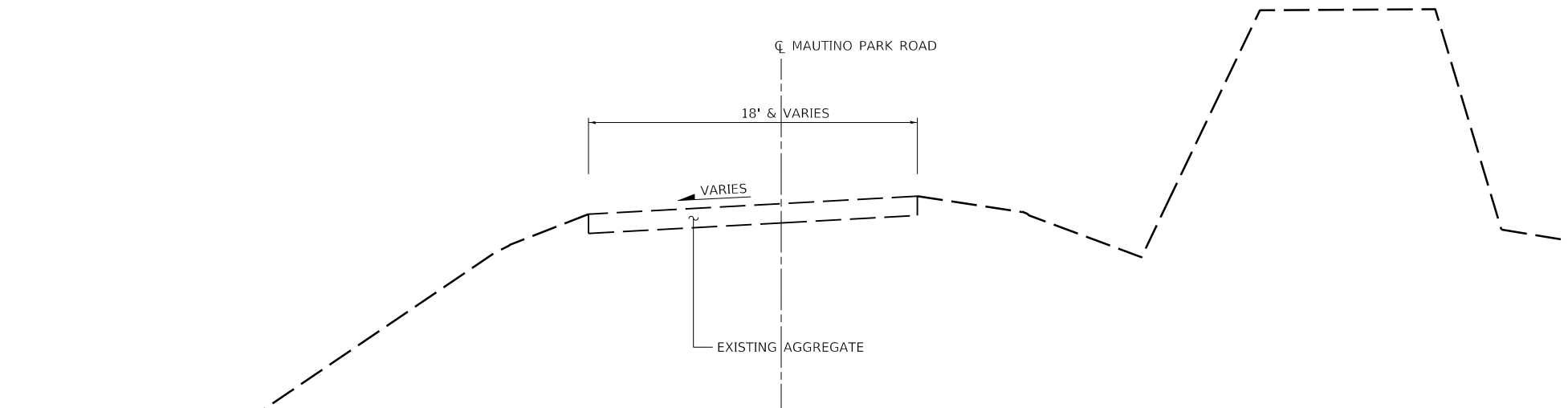


CODE NO.	ITEM	0004 UNIT	TOTAL QUANTITY
X0301853	DEWATERING STRUCTURE NO. 2	EACH	1
X0323013	TUBULAR STEEL GATE	EACH	2
X0900064	MEMBRANE WATERPROOFING SYSTEM FOR BURIED STRUCTURES	SQ YD	46
X1900009	SEEDING, MESIC PRAIRIE	ACRE	1.0
X4200406	PORTLAND CEMENT CONCRETE PAVEMENT 6", SPECIAL	SQ YD	115
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1
X0100022	TILL, RESHAPE, AND COMPACT ROADBED	SQ YD	4,500

\* PAY ITEMS WITH SPECIAL PROVISION



**1** **EXISTING TYPICAL SECTION**  
**MAUTILNO PARK ROAD – ROAD WIDENING**



**2** **EXISTING TYPICAL SECTION**  
**MAUTILNO PARK ROAD – CULVERT REPLACEMENT**

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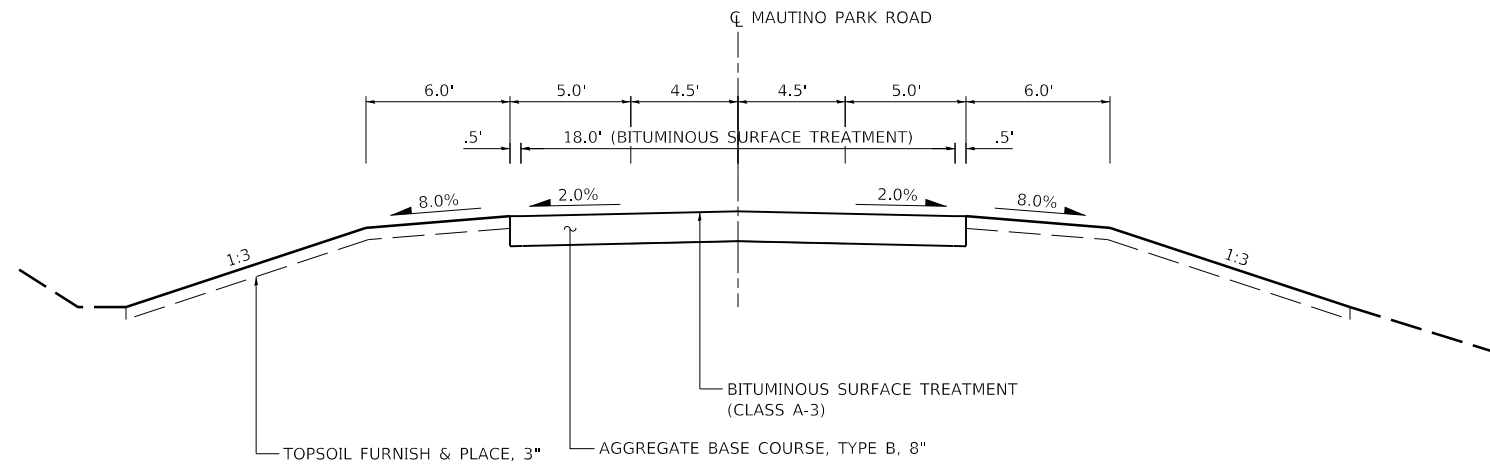


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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

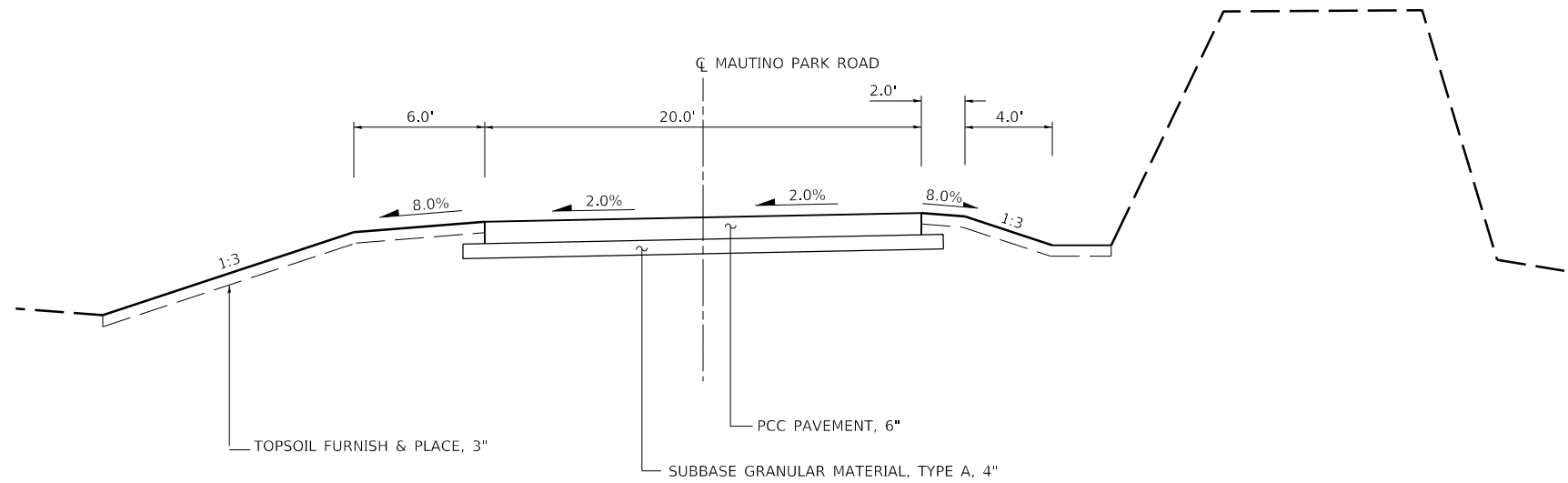
<b>TYPICAL SECTIONS</b>	
<b>MAUTILNO SF&amp;W AREA</b>	
SCALE: N.T.S.	SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTILNO 2019	BUREAU	43	6
			CONTRACT NO. 46917	
		ILLINOIS	FED. AID PROJECT	



**1** **PROPOSED TYPICAL SECTION**  
**MAUTINO PARK ROAD – ROAD WIDENING**

NOTE: 1. BITUMINOUS SURFACE TREATMENT (CLASS A-3) USED ON ROAD WIDENING SECTION (STA. 0+00 TO 12+10)  
 2. BITUMINOUS SURFACE TREATMENT (CLASS A-2) USED ON EXISTING ROAD OUTSIDE OF ROAD WIDENING SECTION



**2** **PROPOSED TYPICAL SECTION**  
**MAUTINO PARK ROAD – CULVERT REPLACEMENT**

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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>TYPICALS SECTIONS</b>	
<b>MAUTINO SF&amp;W AREA</b>	
SCALE: N.T.S.	SHEET 2 OF 2 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	7
			CONTRACT NO. 46917	
		ILLINOIS	FED. AID PROJECT	

AGGREGATE						
LOCATION	SUBBASE GRANULAR MATERIAL, TYPE A 4"	AGGREGATE BASE COURSE, TYPE B 8"	AGGREGATE BASE REPAIR	COVER COAT AGGREGATE	SEAL COAT AGGREGATE	TILL, RESHAPE, AND COMPACT ROADBED
DESCRIPTION	SQ YD	SQ YD	TON	TON	TON	SQ YD
ENTRANCE FROM HWY 24 ROADWAY (20' WIDTH)			200	136	136	2000
BOSS LAKE PARKING LOT			45	43	43	450
GOOSE POND PARKING LOT			10	10	10	100
OSPREY LAKE PARKING LOT			30	29	29	300
PARK LOT S. OF LEDGE POND				4	4	
RDWY (18' WIDTH) (E. OF CULV.)			40	37	37	400
RDWY (18' WIDTH) (W. OF CULV.)			80	76	76	800
1ST DRIVE E. OF CULVERT				1	1	
1ST DRIVE W. OF CULVERT				1	1	
2ND DRIVE W. OF CULVERT				1	1	
MIRROR LAKE PARKING LOT			15	12	12	150
S. ENDCAP OF 18' WIDTH ROAD				7	7	
HIGH WALL LAKE PARKING LOT			20	23	23	200
ROADWAY S. OF HIGH WALL			10	6	6	100
BUMP OUT ON HIGH WALL RD				1	1	
WIDENING CULVERT	80	2554		61	30	
<b>TOTAL</b>	<b>80</b>	<b>2554</b>	<b>450</b>	<b>448</b>	<b>418</b>	<b>4500</b>

EROSION CONTROL					
LOCATION	TEMPORARY EROSION CONTROL SEEDING	TEMPORARY DITCH CHECKS	PERIMETER EROSION BARRIER	INLET AND PIPE PROTECTION	
DESCRIPTION	OFFSET	POUND	FOOT	FOOT	EACH
WIDEN (0+00 TO 2+25)	RT			230	
WIDEN (0+00 TO 12+41)	LT	53			
WIDEN (0+00 TO 12+10)	RT	46			
WIDEN (1+25 TO 2+50)	LT			121	
WIDEN (3+75 TO 4+00)	LT			26	
3+97.6	LT		10		
4+41.3	LT		10		
5+16.1	LT		10		
5+90.7	LT		10		
6+65.2	LT		10		
7+38.1	LT		10		
WIDEN (7+50 TO 12+10)	RT			478	
WIDEN (8+00 TO 12+10)	LT			410	
CULVERT	RT	2			2
BERM	RT	6			
WEIR	RT	1			
<b>TOTAL</b>		<b>108</b>	<b>60</b>	<b>1263</b>	<b>2</b>

CULVERTS				
LOCATION	STONE RIPRAP, CLASS A3	FILTER FABRIC	DEWATERING STRUCTURE NO. 1	DEWATERING STRUCTURE NO. 2
DESCRIPTION	SQ YD	SQ YD	EACH	EACH
CULVERT			1	
WEIR	235	235		1
<b>TOTAL</b>	<b>235</b>	<b>235</b>	<b>1</b>	<b>1</b>

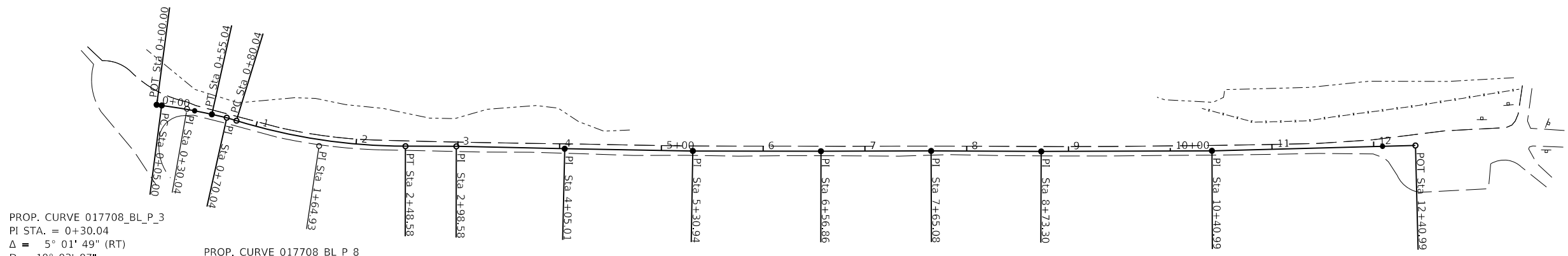
LANDSCAPING								
LOCATION	TOPSOIL FURNISH AND PLACE, 3"	SEEDING, CLASS 4B	SEEDING, MESIC PRAIRE	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	MULCH, METHOD 2	
DESCRIPTION	OFFSET	SQ YD	ACRE	ACRE	POUND	POUND	POUND	ACRE
WIDENING (STA. 0+00 TO 12+41)	LT	2545		0.53	48	48	48	0.53
WIDENING (STA. 0+00 TO 12+10)	RT	2244		0.46	41	41	41	0.46
CULVERT	RT/LT	102	0.02		2	2	2	0.02
BERM	RT	306	0.06		6	6	6	0.06
WEIR	RT	35	0.01		1	1	1	0.01
<b>TOTAL</b>		<b>5232</b>	<b>0.25</b>	<b>1.0</b>	<b>98</b>	<b>98</b>	<b>98</b>	<b>1.25</b>

MISCELLANEOUS	
LOCATION	TUBULAR STEEL GATE
DESCRIPTION	EACH
MIRROR LAKE PARKING LOT	1
HIGH WALL LAKE PARKING LOT	1
<b>TOTAL</b>	<b>2</b>

PAVEMENT				
LOCATION	BITUMINOUS MATERIALS (PRIME COAT)	BITUMINOUS MATERIALS (COVER AND SEAL COATS)	PORTLAND CEMENT CONCRETE PAVEMENT 6"	PORTLAND CEMENT CONCRETE PAVEMENT 6", SPECIAL
DESCRIPTION	TON	TON	SQ YD	SQ YD
ENTRANCE FROM HWY 24 ROADWAY (20' WIDTH)	0.2	0.4		
BOSS LAKE PARKING LOT	5.0	10.0		
GOOSE POND PARKING LOT	1.2	2.4		
OSPREY LAKE PARKING LOT	3.4	6.8		
PARK LOT S. OF LEDGE POND	0.5	0.9		
RDWY (18' WIDTH) (E. OF CULV.)	4.3	8.6		
RDWY (18' WIDTH) (W. OF CULV.)	9.0	18.0		
1ST DRIVE E. OF CULVERT	0.1	0.2		
1ST DRIVE W. OF CULVERT	0.1	0.2		
2ND DRIVE W. OF CULVERT	0.0	0.1		
MIRROR LAKE PARKING LOT	1.4	2.7		
S. ENDCAP OF 18' WIDTH ROAD	0.8	1.7		
HIGH WALL LAKE PARKING LOT	2.8	5.5		
ROADWAY S. OF HIGH WALL	0.7	1.4		
BUMP OUT ON HIGH WALL RD	0.1	0.1		
WIDENING	3.6	10.7		
WEIR				115
CULVERT			73	
<b>TOTAL</b>	<b>49</b>	<b>102</b>	<b>73</b>	<b>115</b>

REMOVAL				
LOCATION	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	TREE REMOVAL (OVER 15 UNITS DIAMETER)	PAVEMENT REMOVAL	
DESCRIPTION	OFFSET	UNIT	UNIT	SQ YD
2+76.0	RT		24	
3+14.1	RT	15		
3+16.6	RT	15		
3+19.0	RT	15		
3+48.0	RT		24	
WEIR				6
<b>TOTAL</b>		<b>45</b>	<b>48</b>	<b>6</b>

EARTHWORK SCHEDULE							
LOCATION			1	2	3	4	5
			20200100	[1] X [1 - 0.25]		[3] - [2]	
			EARTH EXCAVATION	NO PAY ITEM	NO PAY ITEM	NO PAY ITEM	20400800
			(CU YD)	MATERIALS TO BE USED IN EMBANK. (ADJUST. FOR SHRINKAGE) (CU YD)	EMBANKMENT (CU YD)	EARTHWORK BALANCE WASTE (-) OR SHORTAGE (+) (CU YD)	FURNISHED EXCAVATION (CU YD)
<b>PARK ROAD WIDENING AREA</b>							
0+00	TO	12+25	660	495	1,268	773	773
<b>PARK ROAD CULVERT AREA</b>							
29+46	TO	35+42	103	77	199	122	122
<b>TOTAL</b>			<b>763</b>	<b>572</b>	<b>1,467</b>	<b>895</b>	<b>895</b>



PROP. CURVE 017708\_BL\_P\_3  
 PI STA. = 0+30.04  
 $\Delta = 5^\circ 01' 49''$  (RT)  
 $D = 10^\circ 03' 07''$   
 $R = 570.00'$   
 $T = 25.04'$   
 $L = 50.04'$   
 $E = 0.55'$   
 $e = \text{---}$   
 $T.R. = \text{---}$   
 $S.E. RUN = \text{---}$   
 $P.C. STA. = 0+05.00$   
 $P.T. STA. = 0+55.04$

PROP. CURVE 017708\_BL\_P\_8  
 PI STA. = 1+64.93  
 $\Delta = 16^\circ 51' 10''$  (LT)  
 $D = 9^\circ 59' 57''$   
 $R = 573.00'$   
 $T = 84.88'$   
 $L = 168.54'$   
 $E = 6.25'$   
 $e = \text{---}$   
 $T.R. = \text{---}$   
 $S.E. RUN = \text{---}$   
 $P.C. STA. = 0+80.04$   
 $P.T. STA. = 2+48.58$

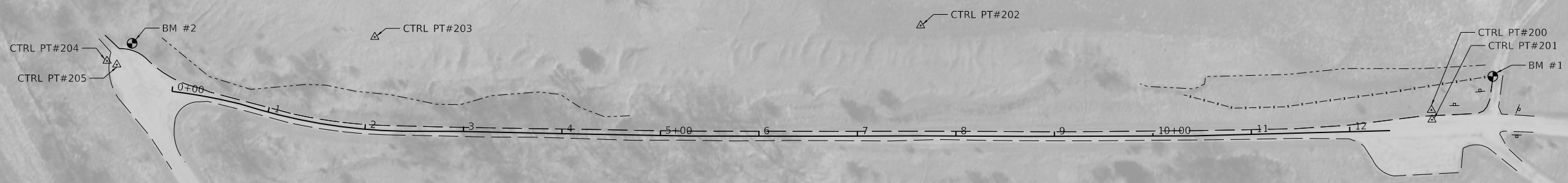
MAUTINO PARK ROAD (ROAD WIDENING AREA)  
**HORIZONTAL ALIGNMENT**  
 NOT TO SCALE



MAUTINO PARK ROAD CONTROL PTS		
Control Point #	Northing	Easting
200	1701515.072	2413353.093
201	1701506.124	2413357.306
202	1701400.113	2412840.187
203	1701181.536	2412330.766
204	1701057.238	2412087.937
205	1701057.448	2412098.499

MAUTINO PARK ROAD ALIGNMENT		
Control Type	Northing	Easting
PI 0+00.00	1701053.369	2412160.549
PC 0+05.00	1701054.619	2412165.391
PT 0+55.04	1701064.987	2412214.331
PI 0+70.04	1701067.448	2412229.128
PC 0+80.04	1701068.321	2412239.089
PT 2+48.58	1701107.342	2412402.427
PI 2+98.58	1701125.961	2412448.831
PI 4+05.01	1701163.658	2412548.361
PI 5+30.94	1701208.800	2412665.913
PI 6+56.86	1701255.784	2412782.741
PI 7+65.08	1701296.605	2412882.967
PI 8+73.30	1701336.731	2412983.472
PI 10+40.99	1701400.137	2413138.717
PI 12+40.99	1701479.946	2413322.103

MAUTINO PARK ROAD BENCHMARK DATA		
B.M. NO.	DESCRIPTION	ELEVATION
1	MAG NAIL SET IN SOUTH SIDE OF 6 X 6 GATE POST, EAST SIDE OF GATE, ±50' NE OF CTRL PT #200	725.02
2	MAG NAIL SET IN 6 X 6 POST AT AREA FISHING REGULATION SIGN AT NW SIDE OF ROADWAY BEND TO NORTH, ±30' NORTH OF CTRL PT #204	711.54



MAUTINO PARK ROAD (ROAD WIDENING AREA)  
**CONTROL POINTS**  
 NOT TO SCALE



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 PEN TABLE: DRIVER  
 SHEET

**Farnsworth GROUP**  
 2211 BRADLEY AVENUE  
 CHAMPAIGN, ILLINOIS 61821  
 (217) 352-7408 / info@f-w.com

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PLOT SCALE = 24,000' / ft.	DRAWN - RJT	REVISED
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	DATE - 03/28/19	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES & BENCHMARKS MAUTINO SF&W AREA		
SCALE: AS SHOWN	SHEET 1 OF 2 SHEETS	STA. TO STA.

F.A.P. RTE. ***	SECTION MAUTINO 2019	COUNTY BUREAU	TOTAL SHEETS 43	SHEET NO. 10
ILLINOIS FED. AID PROJECT			CONTRACT NO. 46917	

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MAUTINO PARK ROAD BENCHMARK DATA		
B.M. NO.	DESCRIPTION	ELEVATION
213	CUT SQUARE IN NW CORNER OF 3' X 3' CONCRETE OVERFLOW ON SOUTH SIDE OF ROAD ON NORTH SIDE OF OSPREY LAKE AT ACCESS GATE	690.72
251	BENCH TIE IN WEST 4 X 4 SIGN POST ON NORTH SIDE OF ROAD AT BERM ON WEST END OF POND	693.41

MAUTINO PARK ROAD CONTROL PTS		
Control Point #	Northing	Easting
206	1699701.724	2414348.606
207	1699706.676	2414356.231
208	1699500.164	2414481.577
209	1699312.828	2414777.184

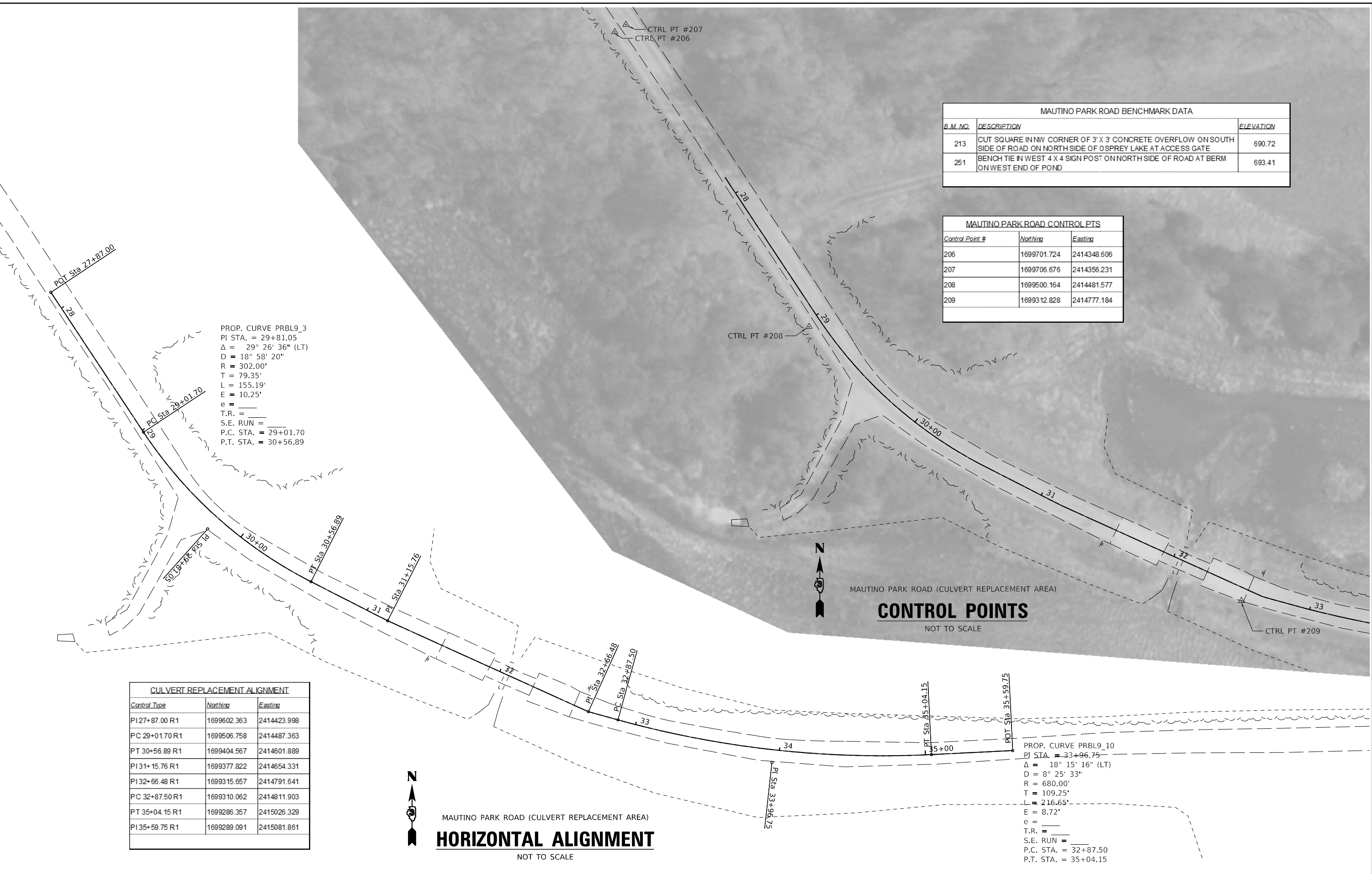
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 $D = 18^\circ 58' 20''$   
 $R = 302.00'$   
 $T = 79.35'$   
 $L = 155.19'$   
 $E = 10.25'$   
 $e =$   
 $T.R. =$   
 $S.E. RUN =$   
 P.C. STA. = 29+01.70  
 P.T. STA. = 30+56.89

PROP. CURVE PRBL9\_10  
 PI STA. = 33+96.75  
 $\Delta = 18^\circ 15' 16''$  (LT)  
 $D = 8^\circ 25' 33''$   
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 $e =$   
 $T.R. =$   
 $S.E. RUN =$   
 P.C. STA. = 32+87.50  
 P.T. STA. = 35+04.15

CULVERT REPLACEMENT ALIGNMENT		
Control Type	Northing	Easting
PI 27+87.00 R1	1699602.363	2414423.998
PC 29+01.70 R1	1699506.758	2414487.363
PT 30+56.89 R1	1699404.567	2414601.889
PI 31+15.76 R1	1699377.822	2414654.331
PI 32+66.48 R1	1699315.657	2414791.641
PC 32+87.50 R1	1699310.062	2414811.903
PT 35+04.15 R1	1699286.357	2415026.329
PI 35+59.75 R1	1699289.091	2415081.861

MAUTINO PARK ROAD (CULVERT REPLACEMENT AREA)  
**HORIZONTAL ALIGNMENT**  
 NOT TO SCALE

MAUTINO PARK ROAD (CULVERT REPLACEMENT AREA)  
**CONTROL POINTS**  
 NOT TO SCALE



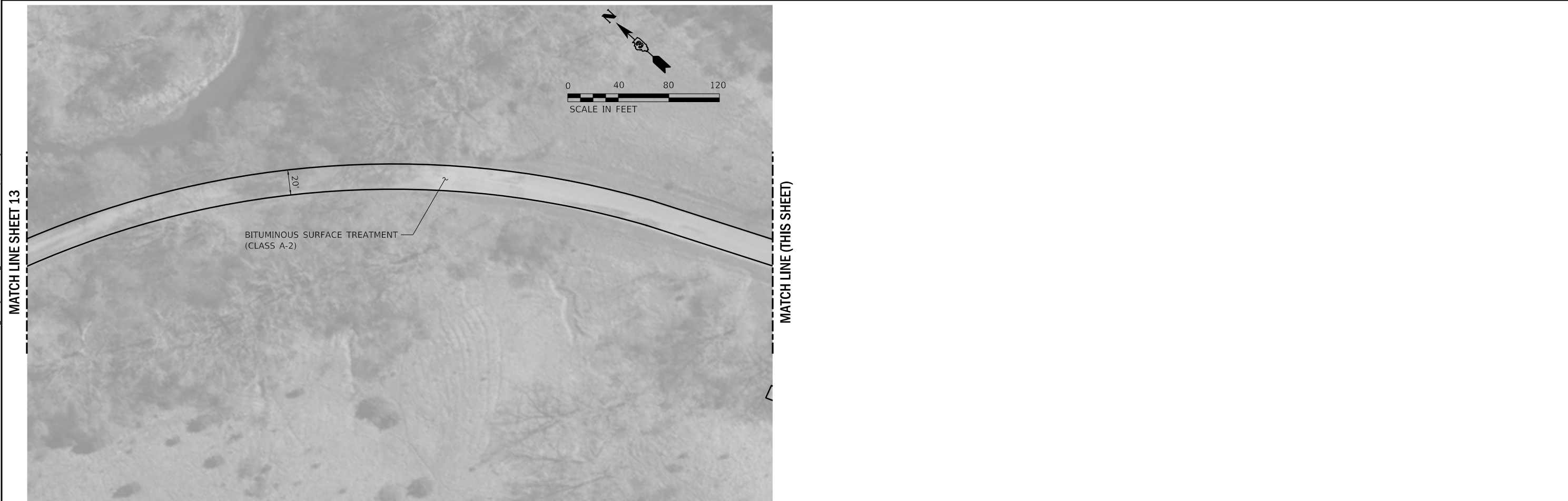
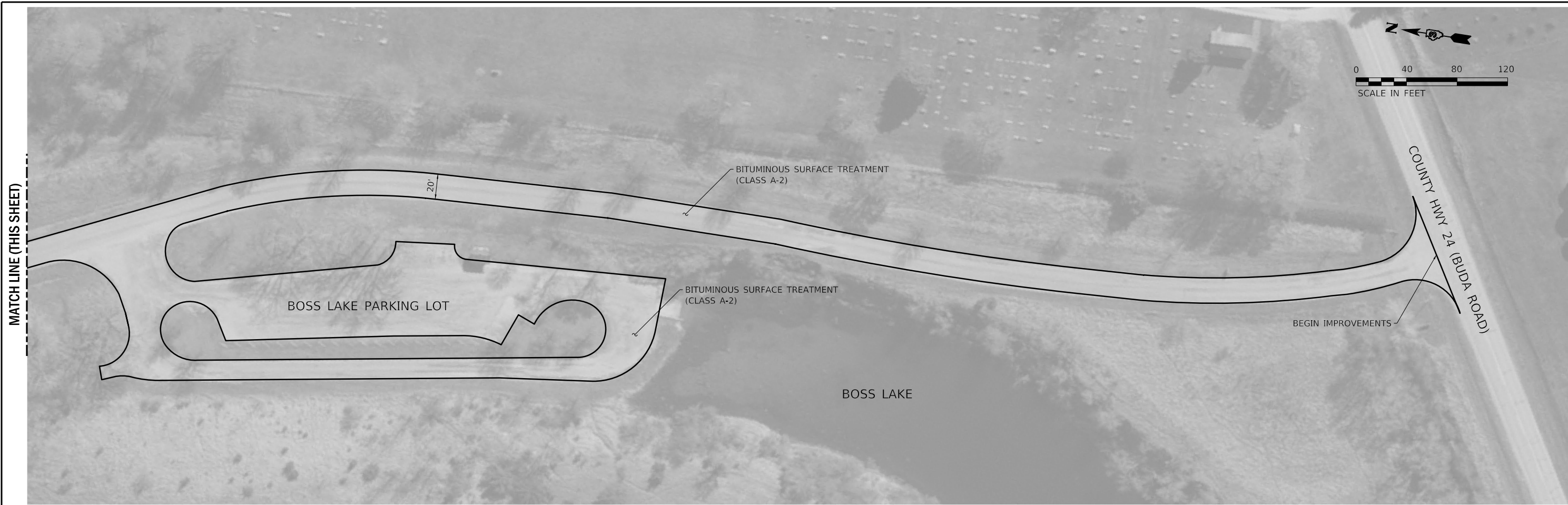
**Farnsworth GROUP**  
 2211 BRADLEY AVENUE  
 CHAMPAIGN, ILLINOIS 61821  
 (217) 352-7408 / info@f-w.com

USER NAME = jgrimm	DESIGNED - JGG	REVISED
PLOT SCALE = 24,000' / 1"	DRAWN - RJT	REVISED
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	DATE - 03/28/19	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES & BENCHMARKS	
MAUTINO SF&W AREA	
SCALE: AS SHOWN	SHEET 2 OF 2 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	11
			CONTRACT NO. 46917	
		ILLINOIS	FED. AID PROJECT	



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**Farnsworth GROUP**  
 2211 BRADLEY AVENUE  
 CHAMPAIGN, ILLINOIS 61821  
 (217) 352-7408 / info@f-w.com

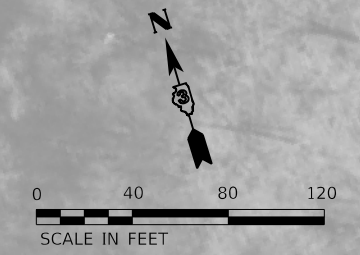
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>BITUMINOUS SURFACE TREATMENT - PLAN SHEET          MAUTINO SF&amp;W AREA</b>			
SCALE: AS SHOWN	SHEET 1 OF 6 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	12
CONTRACT NO. 46917				
ILLINOIS		FED. AID PROJECT		



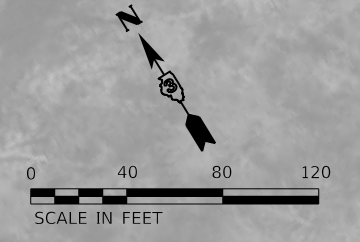


MATCH LINE (THIS SHEET)

MATCH LINE SHEET 12

BITUMINOUS SURFACE TREATMENT  
(CLASS A-2)

20'



MATCH LINE SHEET 14

MATCH LINE (THIS SHEET)

BITUMINOUS SURFACE TREATMENT  
(CLASS A-2)

20'

GOOSE POND  
PARKING LOT

GOOSE POND

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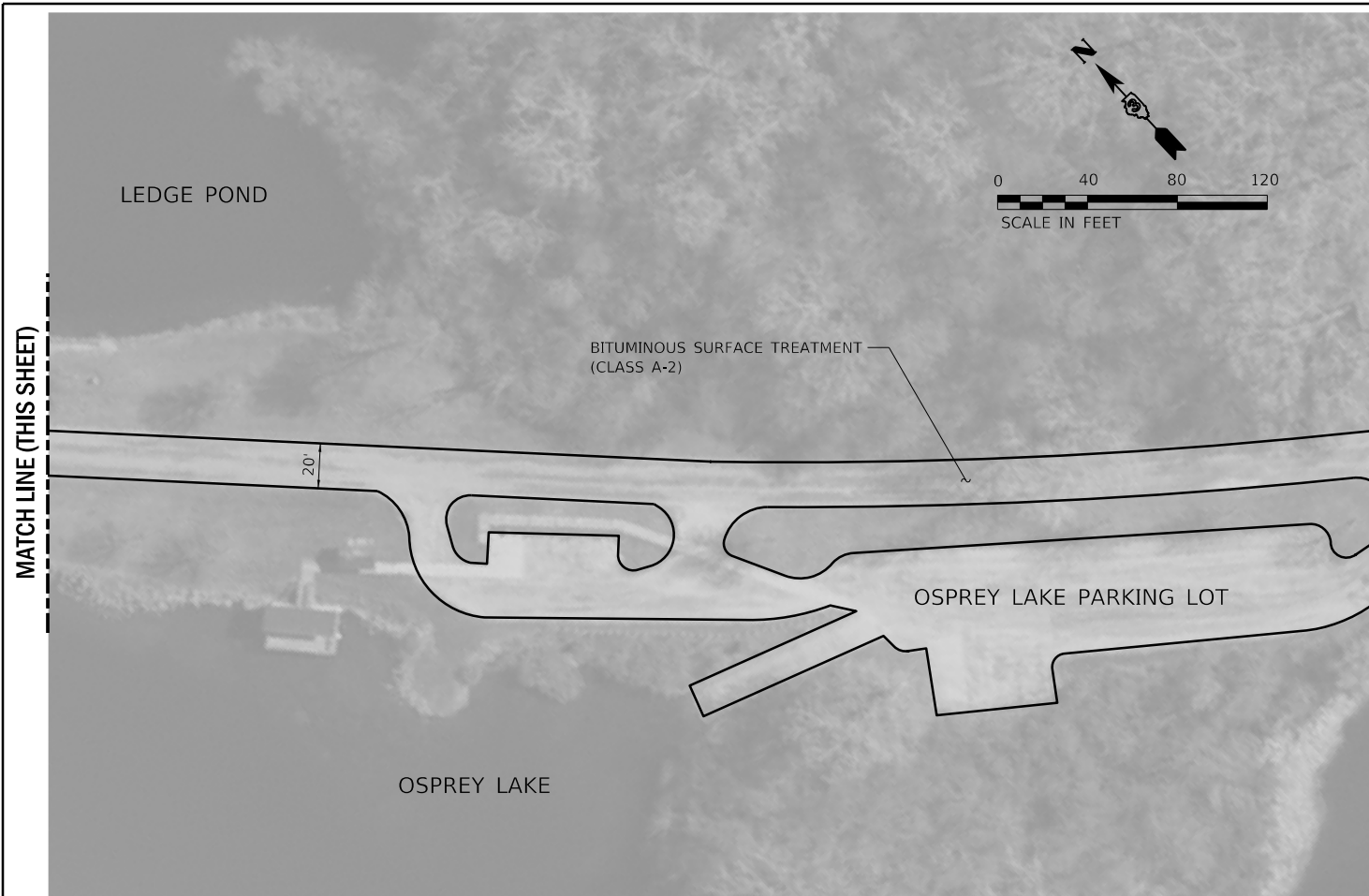


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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>BITUMINOUS SURFACE TREATMENT - PLAN SHEET</b>			
<b>MAUTINO SF&amp;W AREA</b>			
SCALE: AS SHOWN	SHEET 2 OF 6 SHEETS	STA.	TO STA.

F.A.P. RTE. ***	SECTION MAUTINO 2019	COUNTY BUREAU	TOTAL SHEETS 43	SHEET NO. 13
			CONTRACT NO. 46917	
		ILLINOIS	FED. AID PROJECT	



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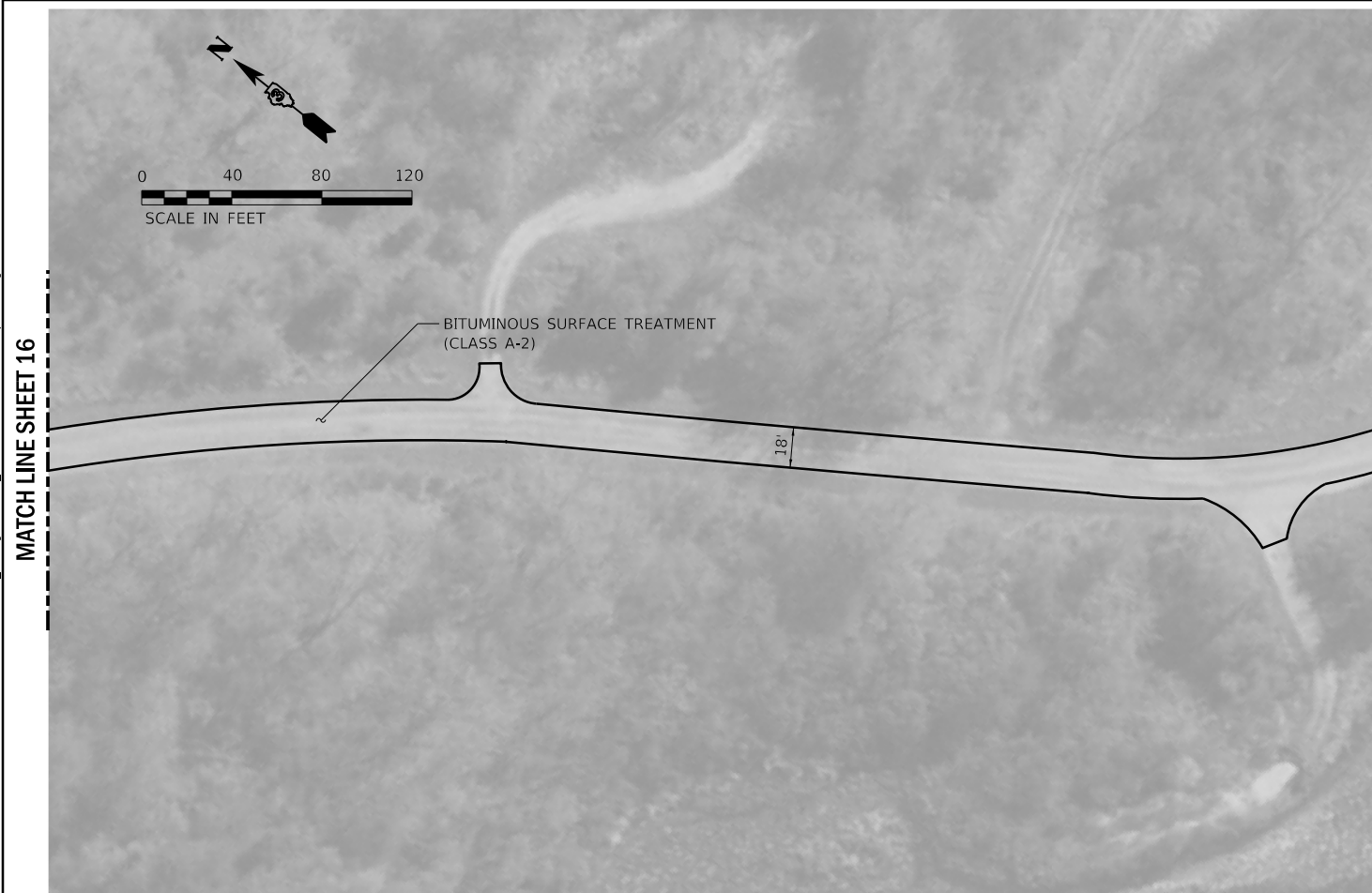
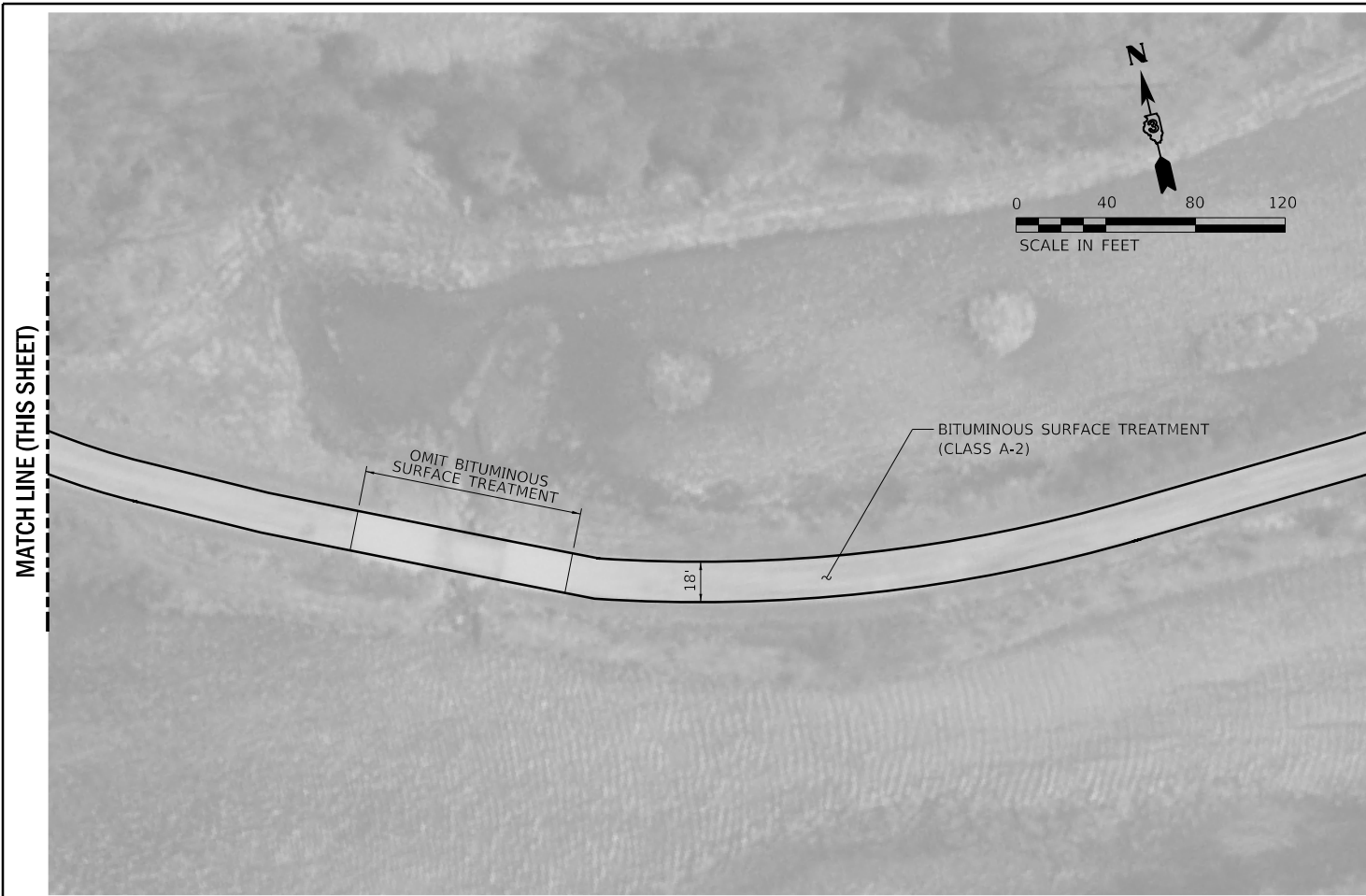
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BITUMINOUS SURFACE TREATMENT - PLAN SHEET  
MAUTINO SF&W AREA**

SCALE: AS SHOWN SHEET 3 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. ***	SECTION MAUTINO 2019	COUNTY BUREAU	TOTAL SHEETS 43	SHEET NO. 14
CONTRACT NO. 46917			ILLINOIS FED. AID PROJECT	





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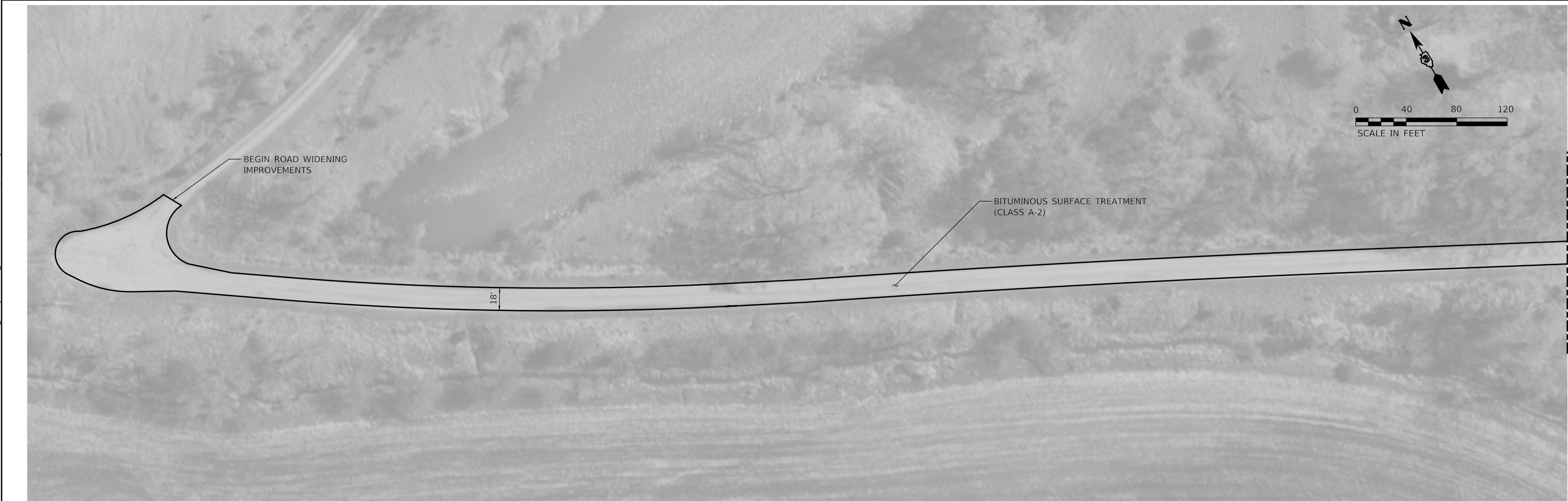
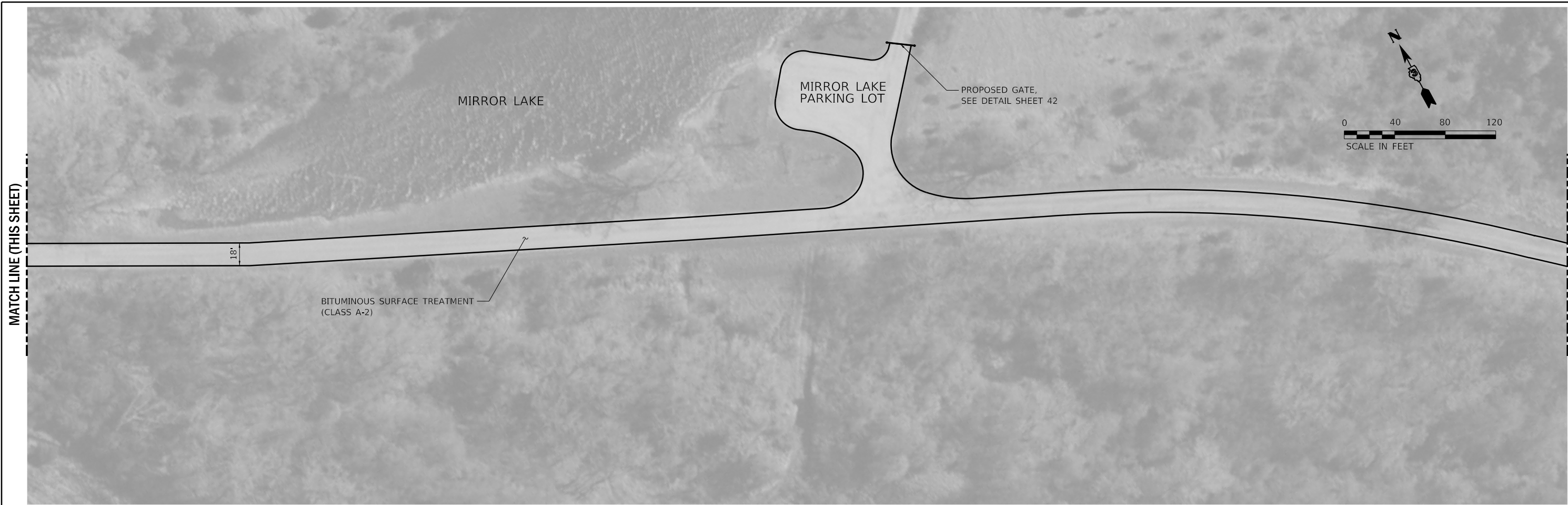
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DATE -	03/28/19	REVISED	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

BITUMINOUS SURFACE TREATMENT - PLAN SHEET			
MAUTINO SF&W AREA			
SCALE: AS SHOWN	SHEET 4 OF 6 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	15
			CONTRACT NO. 46917	
		ILLINOIS	FED. AID PROJECT	



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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>BITUMINOUS SURFACE TREATMENT - PLAN SHEET</b> <b>MAUTINO SF&amp;W AREA</b>			
SCALE: AS SHOWN	SHEET 5 OF 6 SHEETS	STA.	TO STA.

F.A.P. RTE. ***	SECTION MAUTINO 2019	COUNTY BUREAU	TOTAL SHEETS 43	SHEET NO. 16
			CONTRACT NO. 46917	
		ILLINOIS	FED. AID PROJECT	



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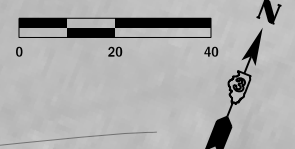
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

BITUMINOUS SURFACE TREATMENT - PLAN SHEET			
MAUTINO SF&W AREA			
SCALE: AS SHOWN	SHEET 6 OF 6 SHEETS	STA.	TO STA.

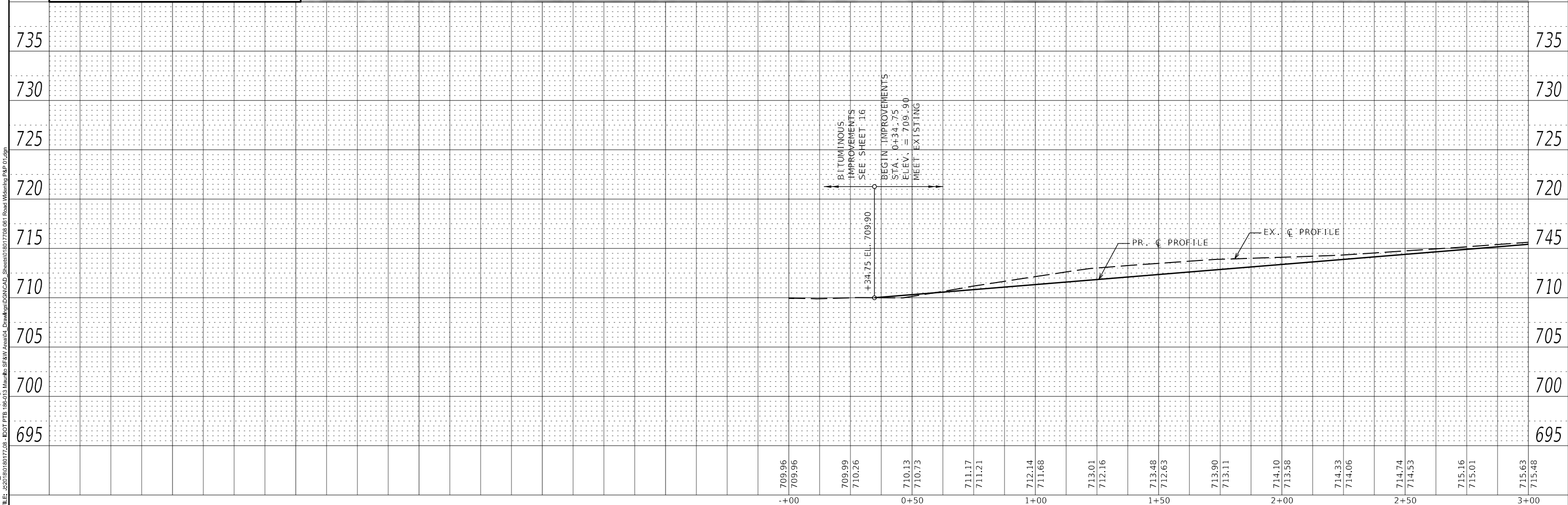
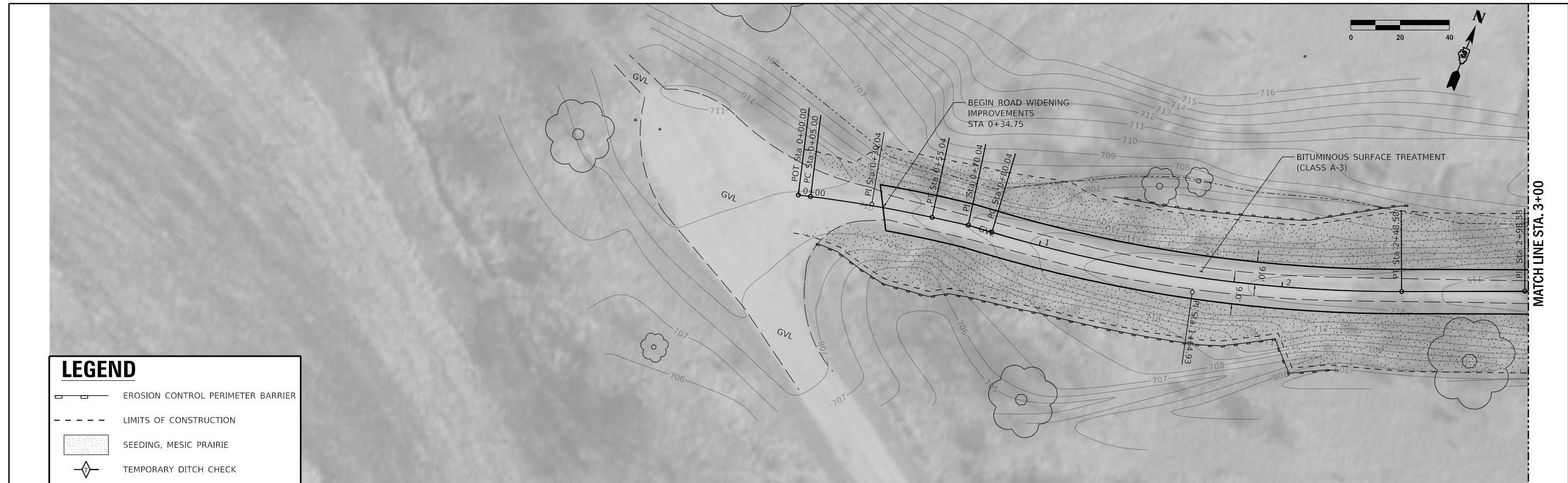
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***	MAUTINO 2019	BUREAU	43	17
			CONTRACT NO. 46917	
		ILLINOIS	FED. AID PROJECT	





**LEGEND**

- EROSION CONTROL PERIMETER BARRIER
- LIMITS OF CONSTRUCTION
- SEEDING, MESIC PRAIRIE
- TEMPORARY DITCH CHECK



018017708 Project Plan.dwg  
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



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

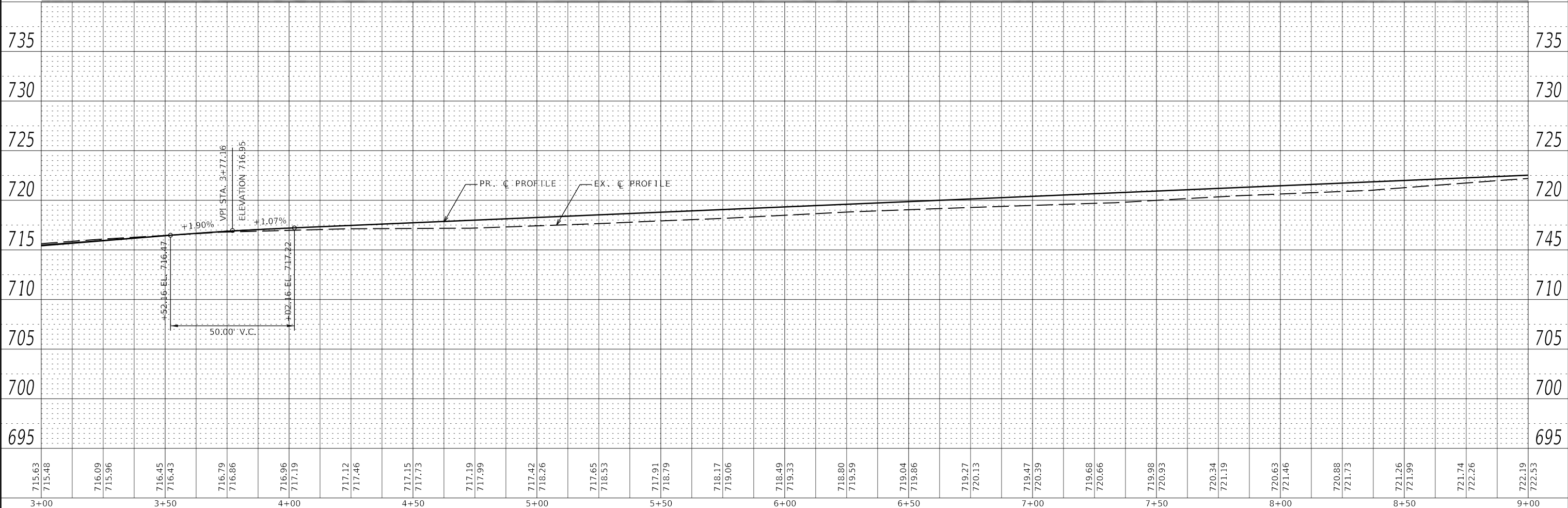
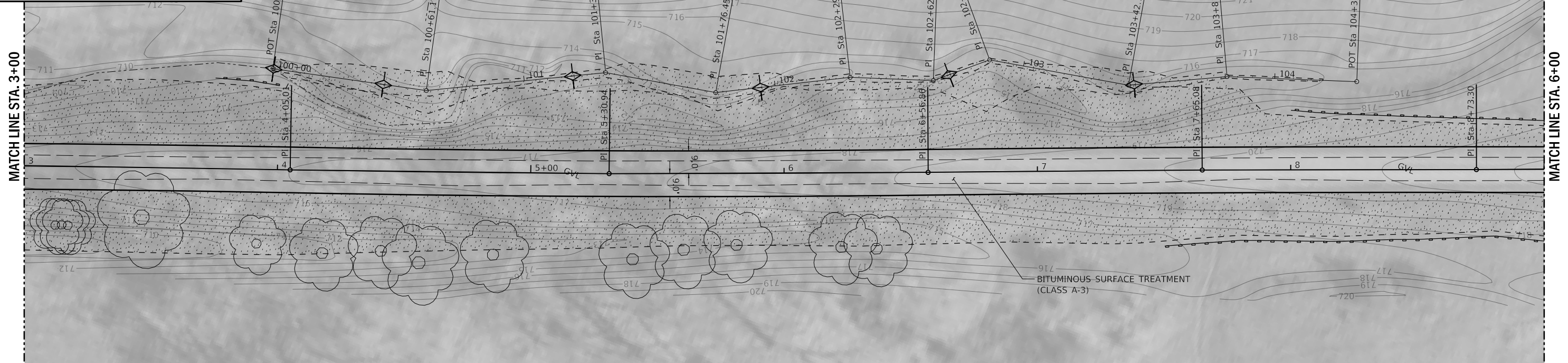
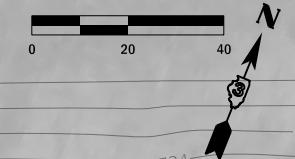
**NORTH ROAD WIDENING - PLAN & PROFILE**  
MAUTINO SF&W AREA

SCALE: AS SHOWN SHEET 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE. ***	SECTION MAUTINO 2019	COUNTY BUREAU 43	TOTAL SHEETS 18	SHEET NO. 18
		CONTRACT NO. 46916		
		ILLINOIS FED. AID PROJECT		

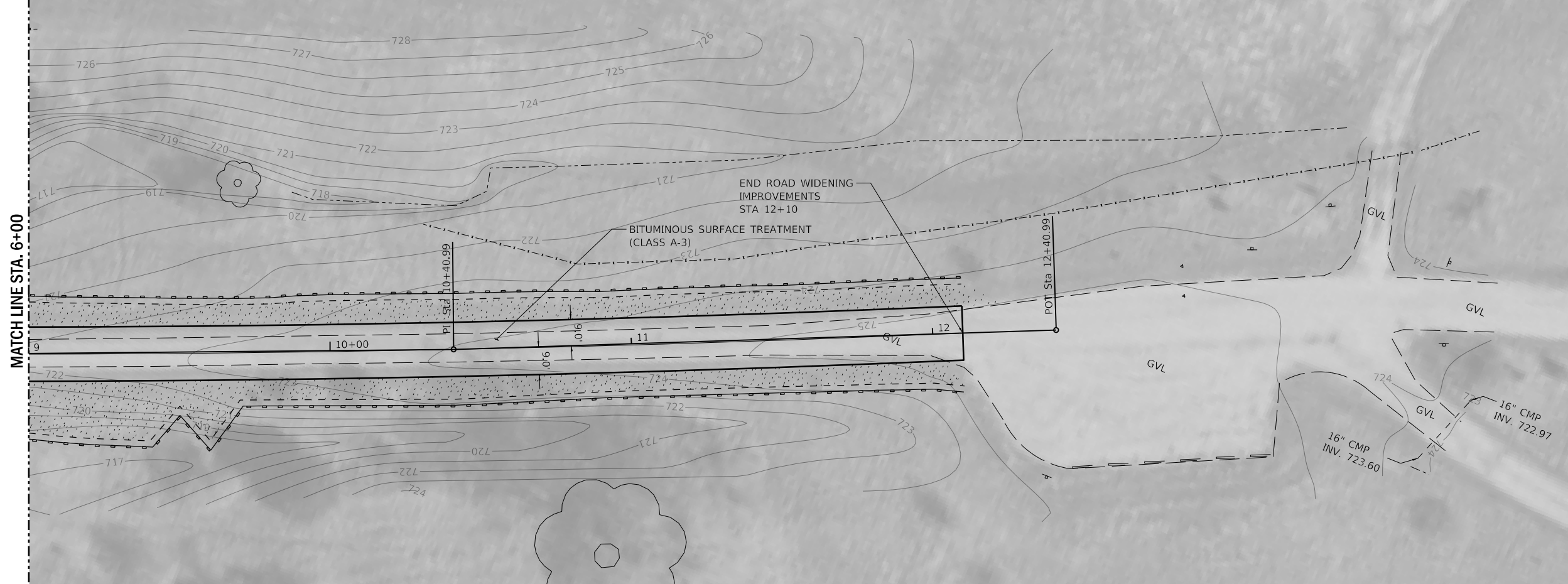
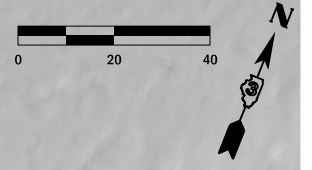
# LEGEND

-  EROSION CONTROL PERIMETER BARRIER
-  LIMITS OF CONSTRUCTION
-  SEEDING, MESIC PRAIRIE
-  TEMPORARY DITCH CHECK

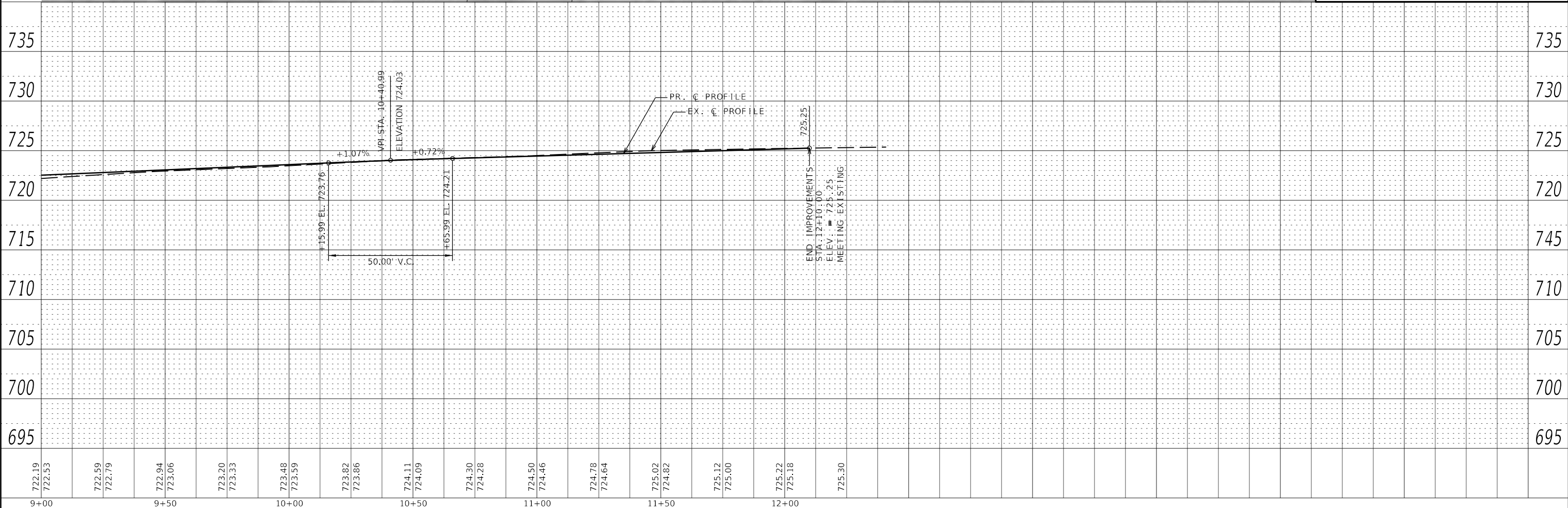


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LEGEND	
	EROSION CONTROL PERIMETER BARRIER
	LIMITS OF CONSTRUCTION
	SEEDING, MESIC PRAIRIE
	TEMPORARY DITCH CHECK



018017708 Project Plan.dwg  
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 FILE: 32018018017708 - IDOT P18 1885313 Main.dwg SF&W Area.dwg Drawn: jgrimm  
 SHEET

DESIGNED - JGG		REVISED	
DRAWN - RJT		REVISED	
CHECKED - RPU		REVISED	
DATE - 03/11/19		REVISED	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**NORTH ROAD WIDENING - PLAN & PROFILE**  
**MAUTINO SF&W AREA**

SCALE: AS SHOWN    SHEET 3 OF 3 SHEETS    STA.    TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	20
CONTRACT NO. 46916				

2211 BRADLEY AVENUE  
 CHAMPAIGN, ILLINOIS 61821  
 (217) 352-7408 / info@f-w.com

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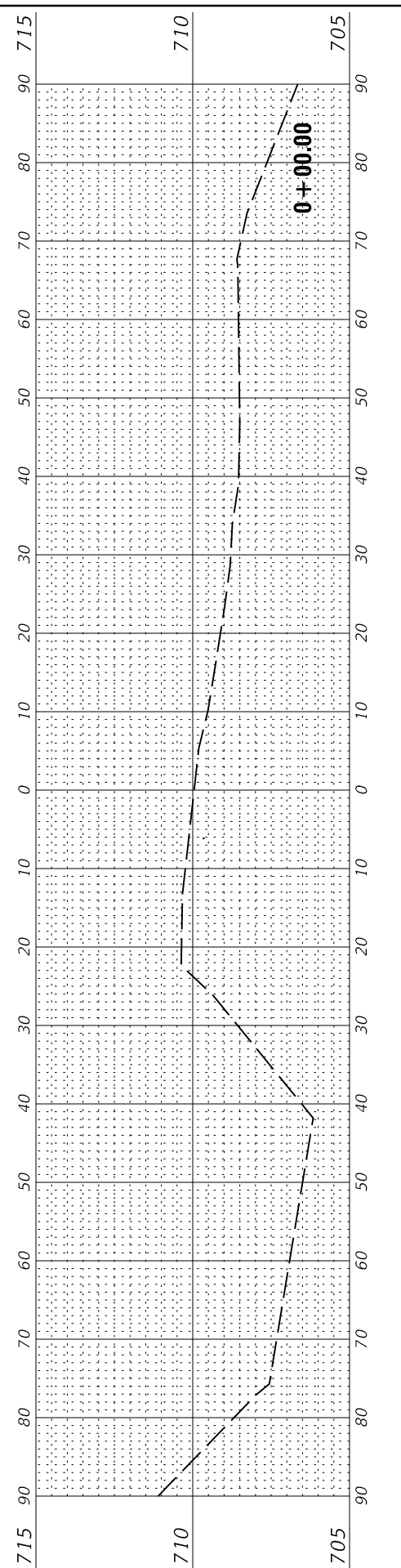
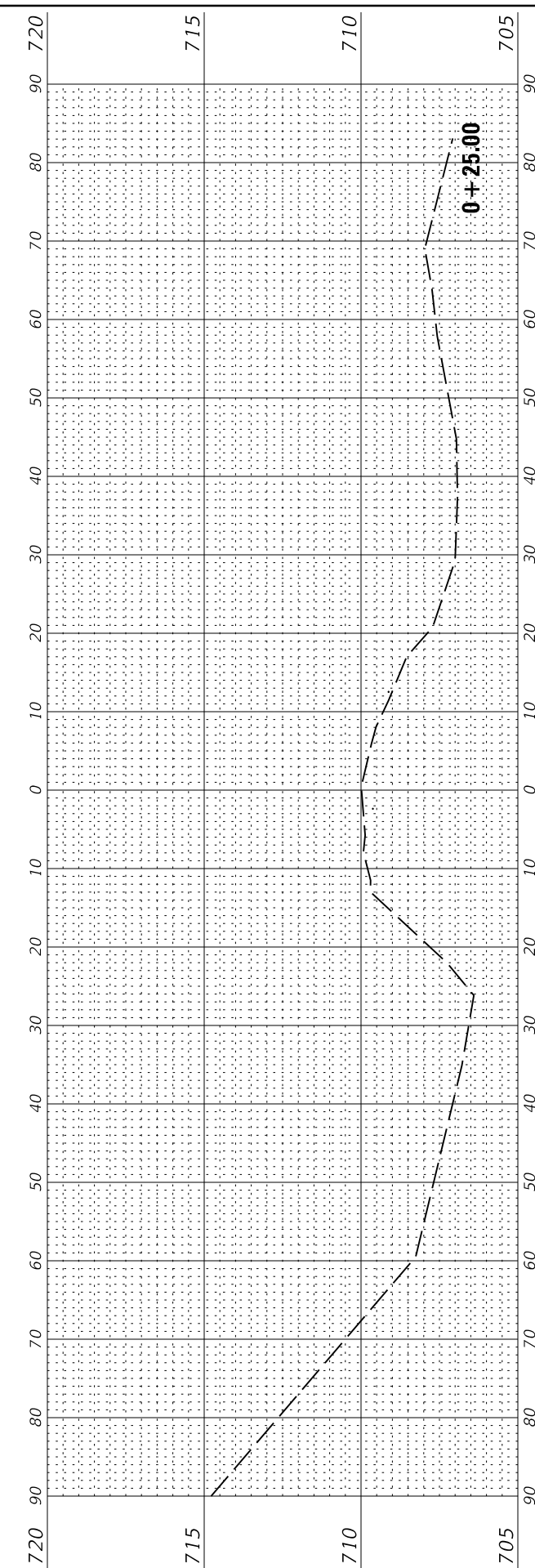
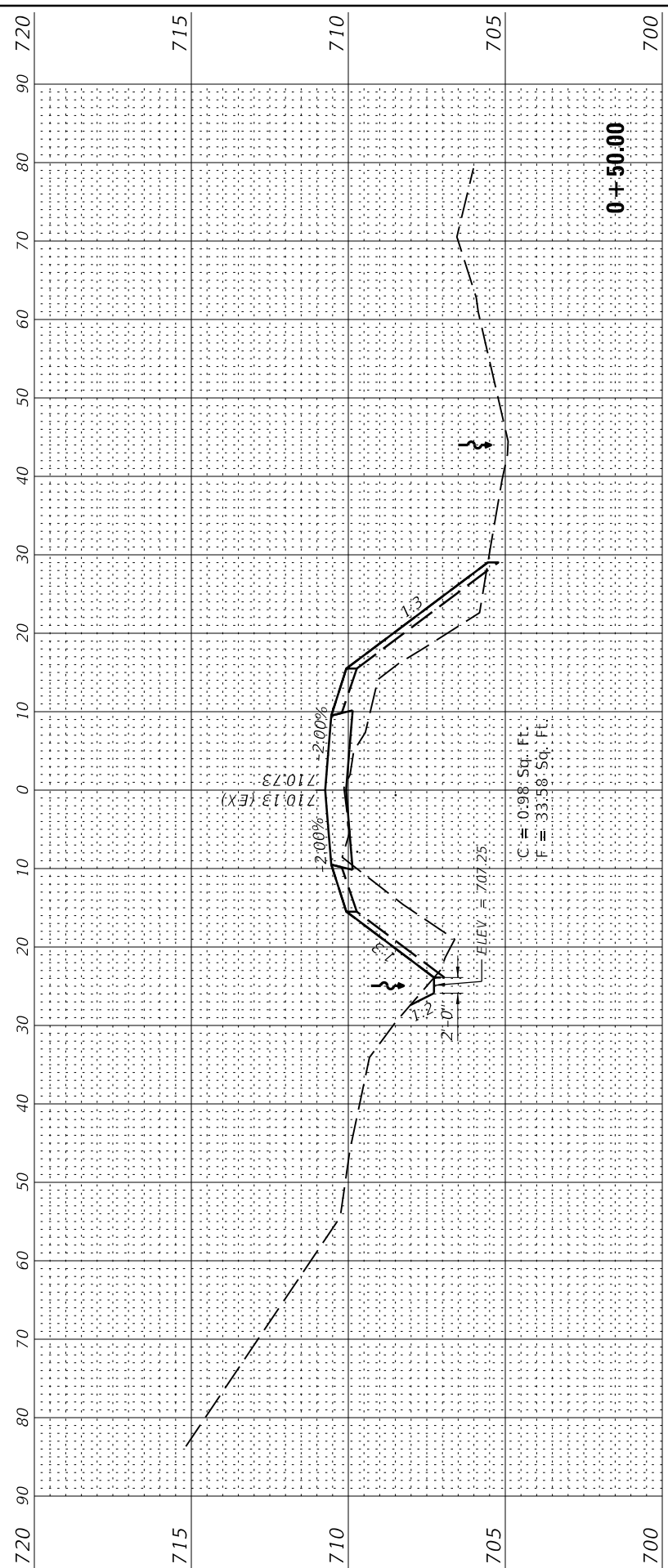
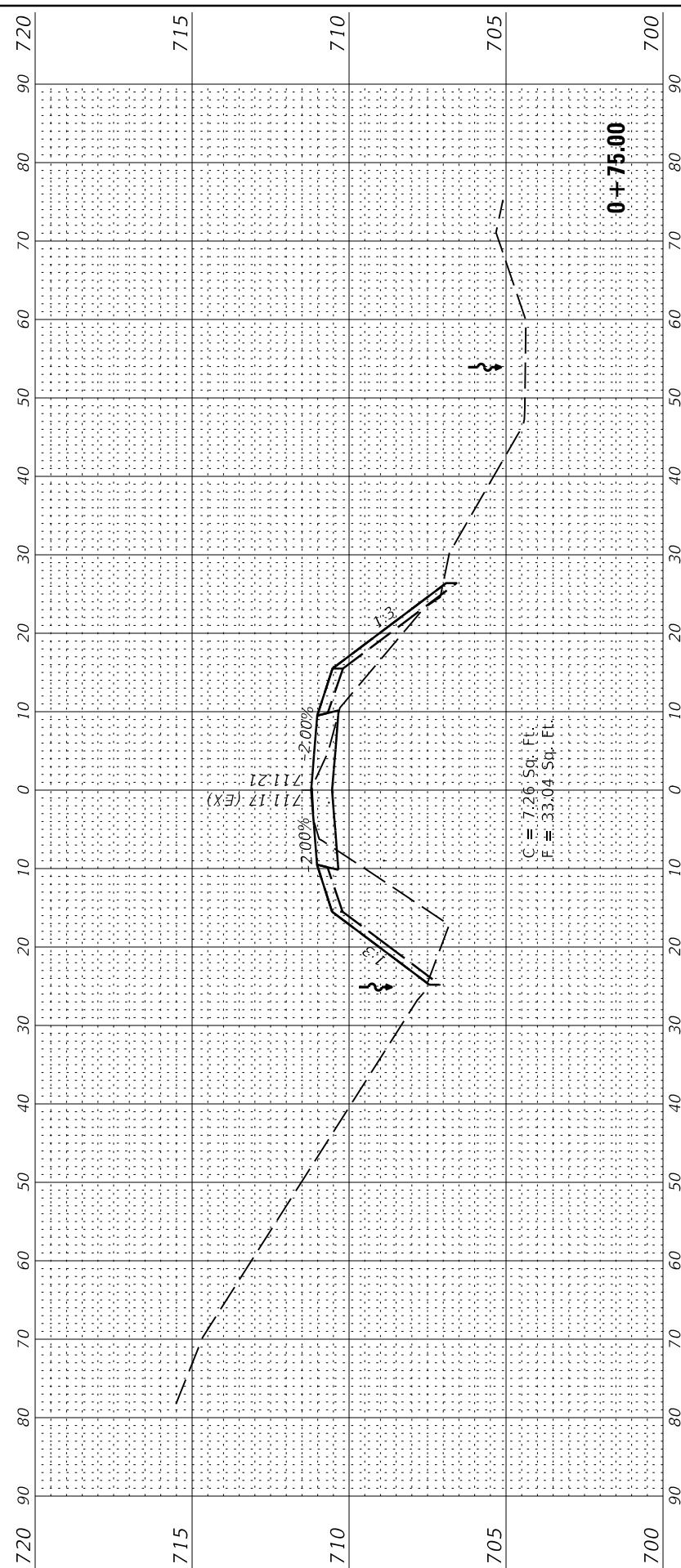
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DRAWN - RJT	REVISION	REVISED
PLOT SCALE = 24,000' / ft.	CHECKED - RPU	REVISED
PLOT DATE = 3/29/2019	DATE - 03/28/19	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH ROAD WIDENING - CROSS SECTIONS  
 MAUTINO SF&W AREA

SCALE: 1"=10'(H)/1"=2.5'(V) SHEET 1 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	21
CONTRACT NO. 46917			ILLINOIS FED. AID PROJECT	



018017708 Project Penumbra  
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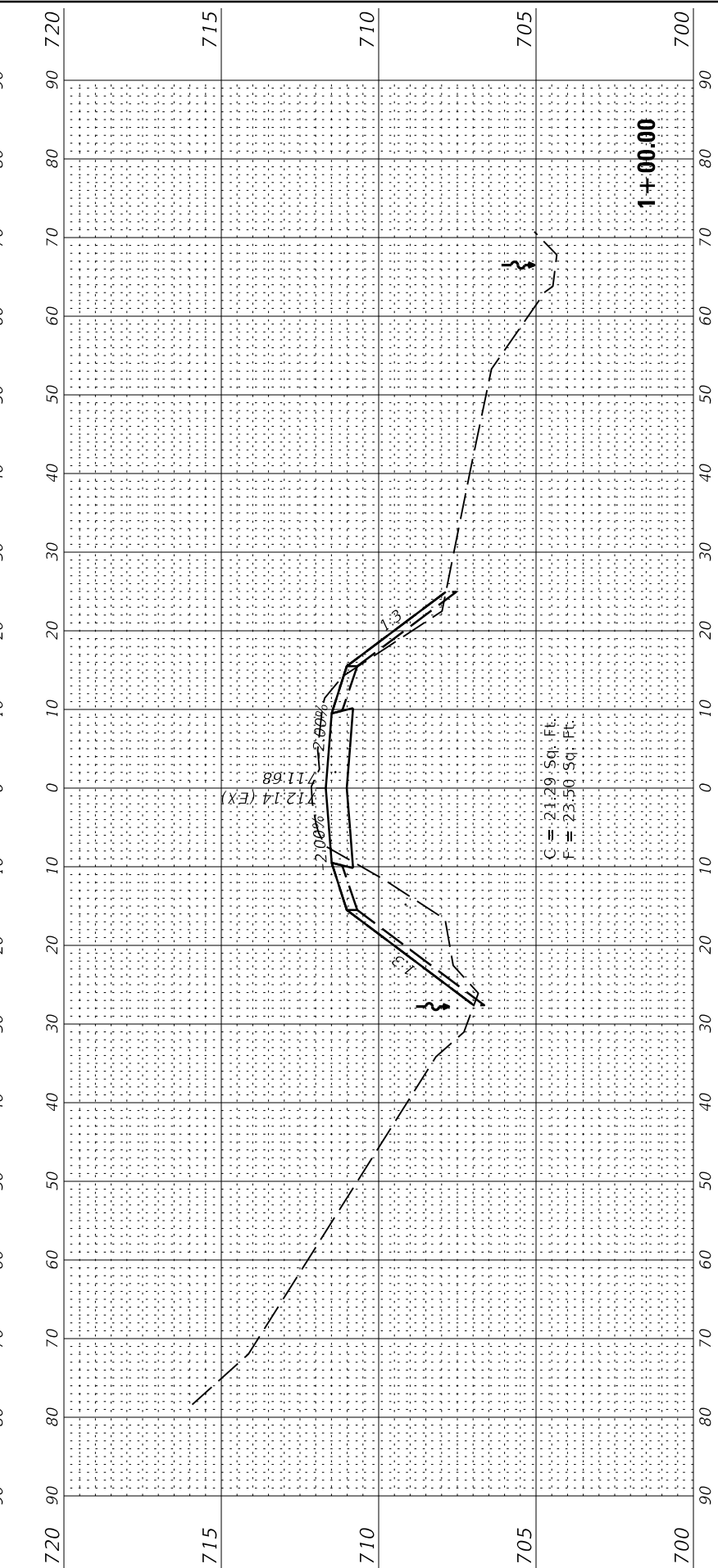
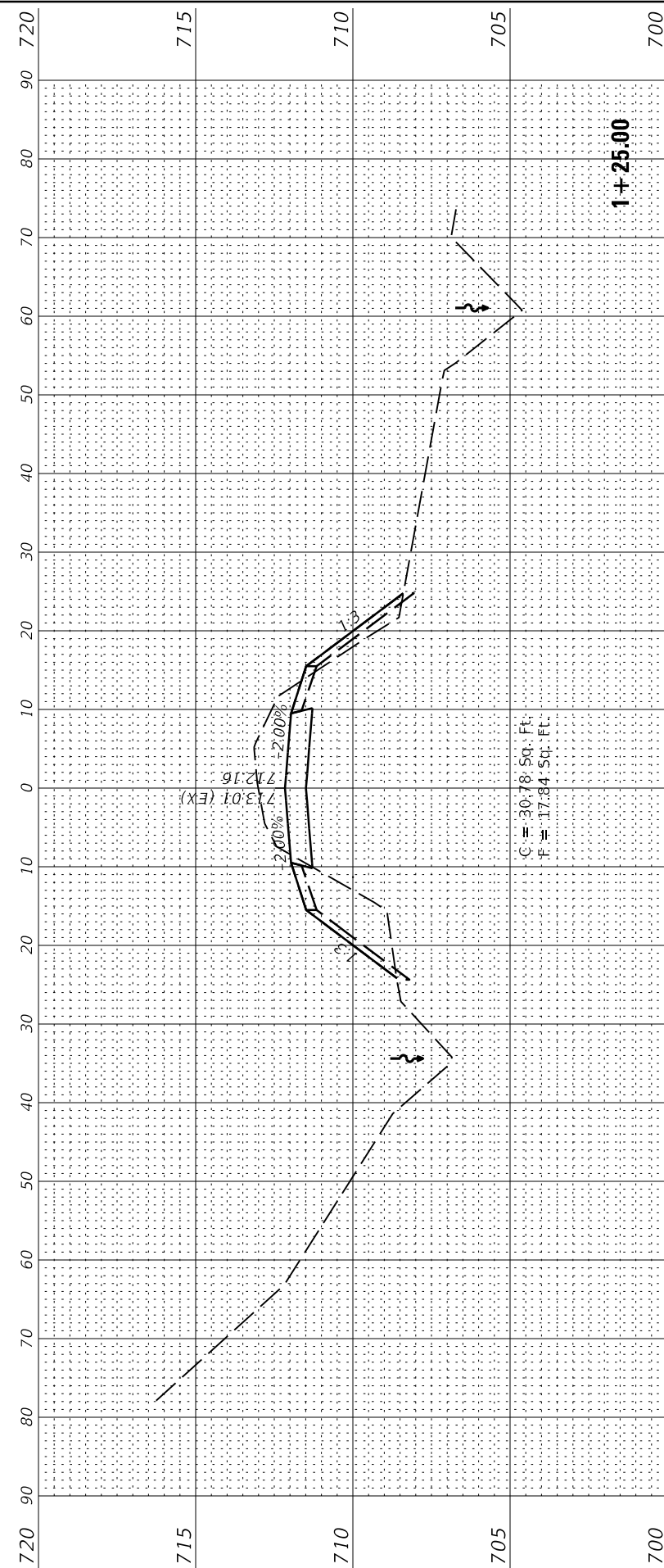
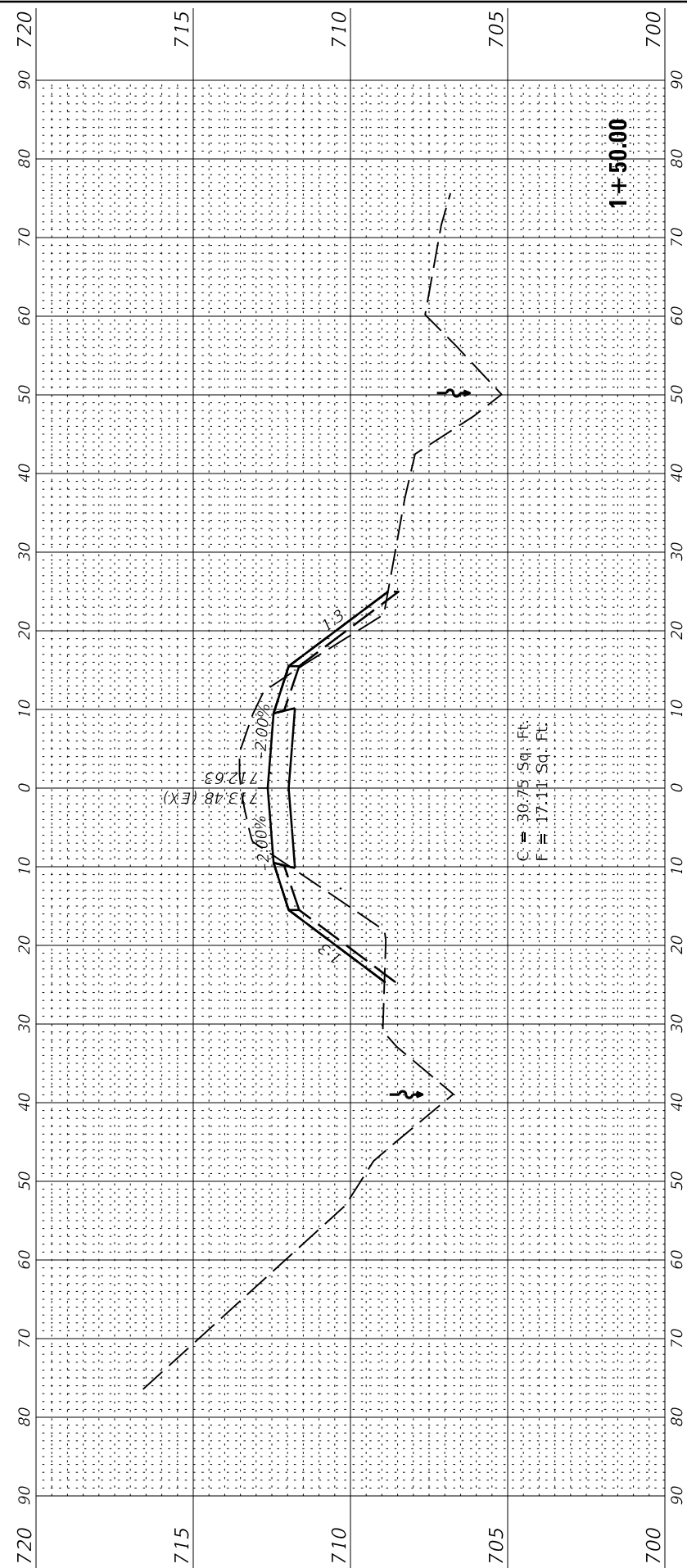
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PLOT DATE = 3/29/2019	CHECKED - RPU	REVISED
10:40:44 AM	DATE - 03/28/19	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH ROAD WIDENING - CROSS SECTIONS  
 MAUTINO SF&W AREA

SCALE: 1"=10'(H)/1"=2.5'(V) SHEET 2 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019		43	22
CONTRACT NO. 46917				
ILLINOIS		FED. AID PROJECT		



018017708 Project Penumbra  
 03/28/2019 10:40:34 AM  
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USER NAME = jgrimm  
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DESIGNED - JGG  
 DRAWN - RJT  
 CHECKED - RPU  
 DATE - 03/28/19

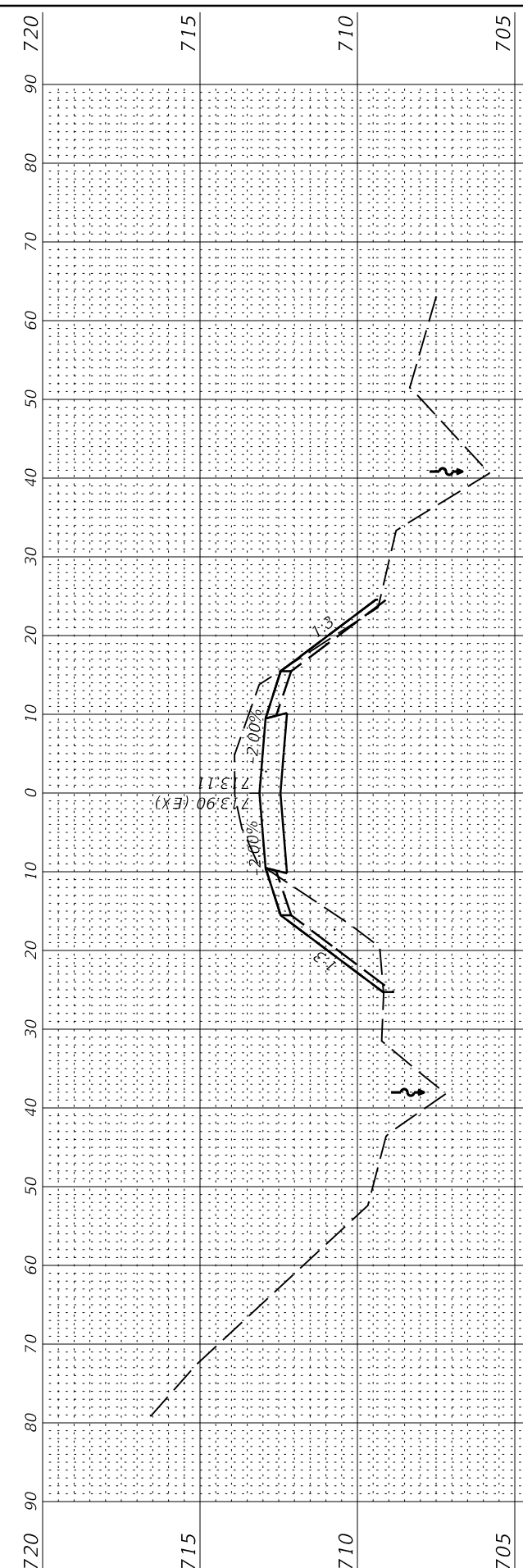
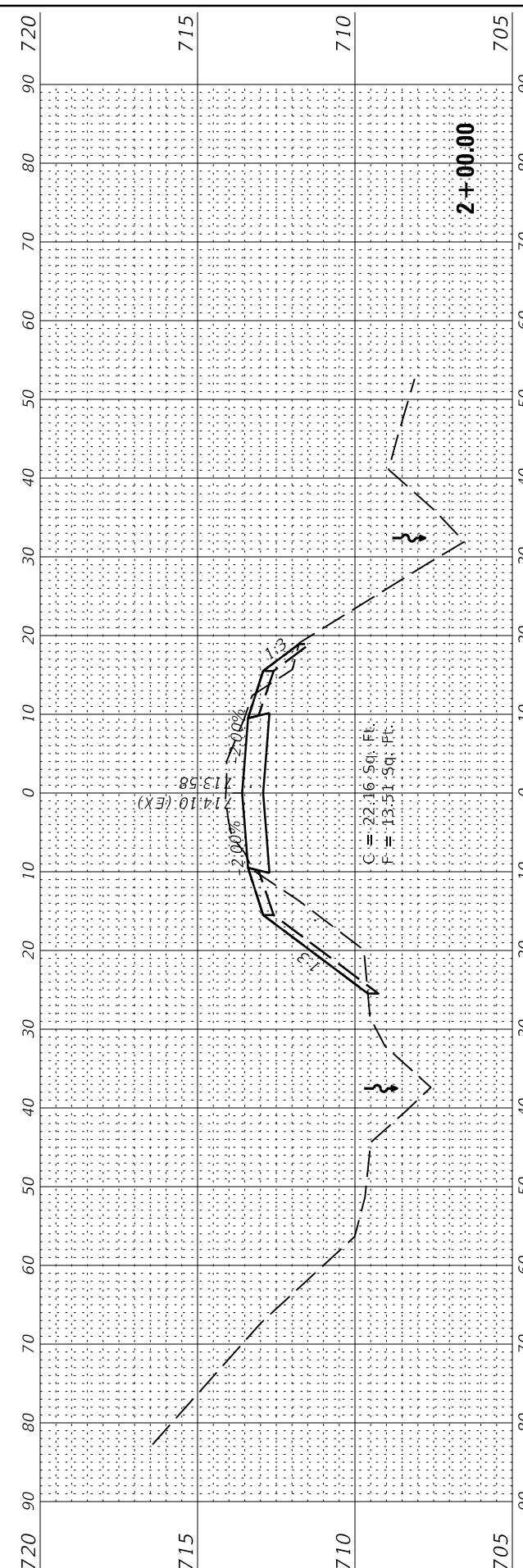
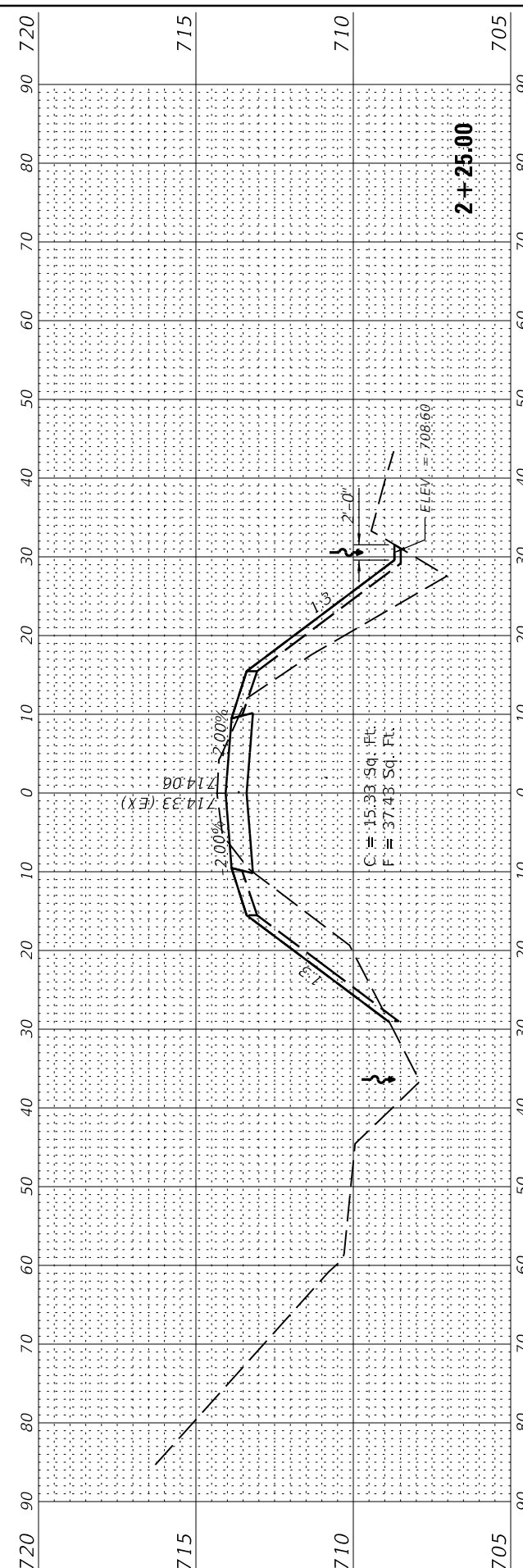
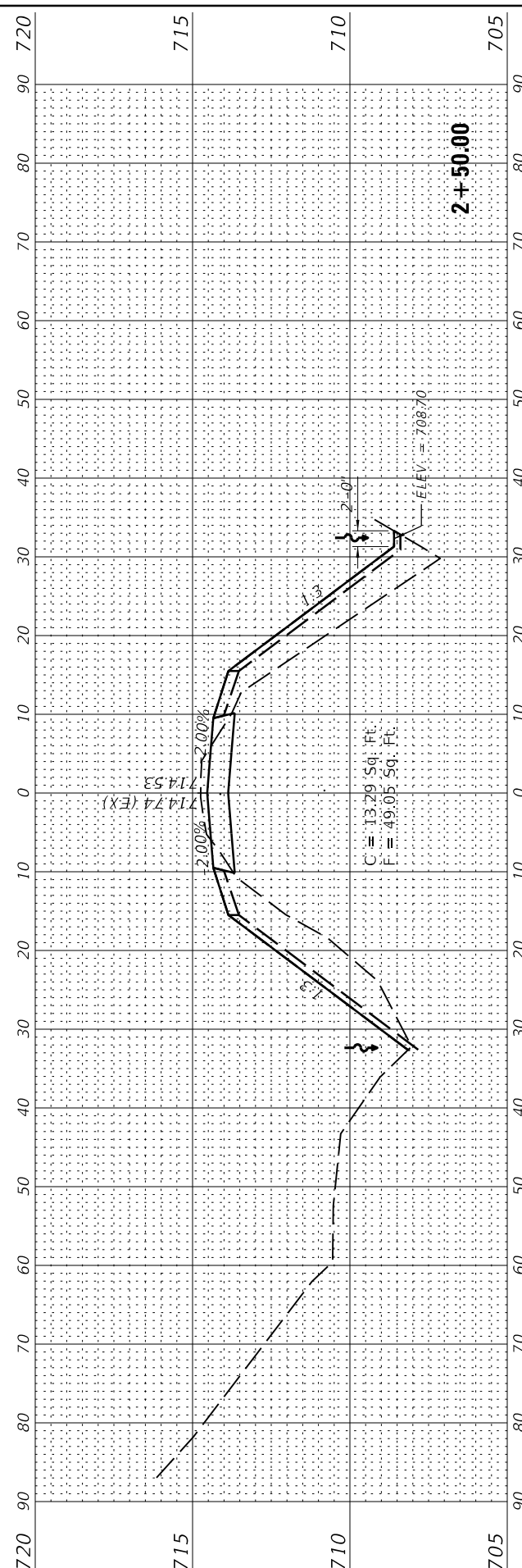
REVISED  
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 REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH ROAD WIDENING - CROSS SECTIONS  
 MAUTINO SF&W AREA

SCALE: 1" = 10'(H) / 1" = 2.5'(V) SHEET 3 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019		43	23
CONTRACT NO. 46917			ILLINOIS FED. AID PROJECT	



018017708 Project Penalt  
 03/28/2019  
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USER NAME = jgrimm  
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DESIGNED - JGG  
 DRAWN - RJT  
 CHECKED - RPU  
 DATE - 03/28/19

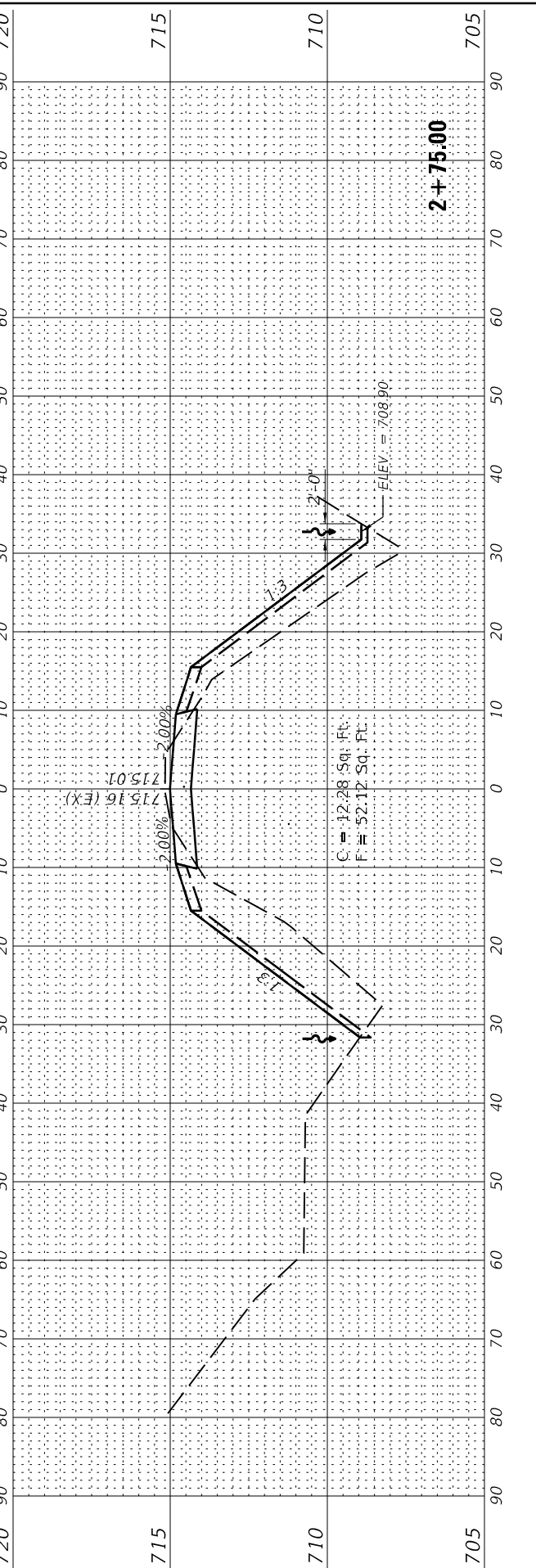
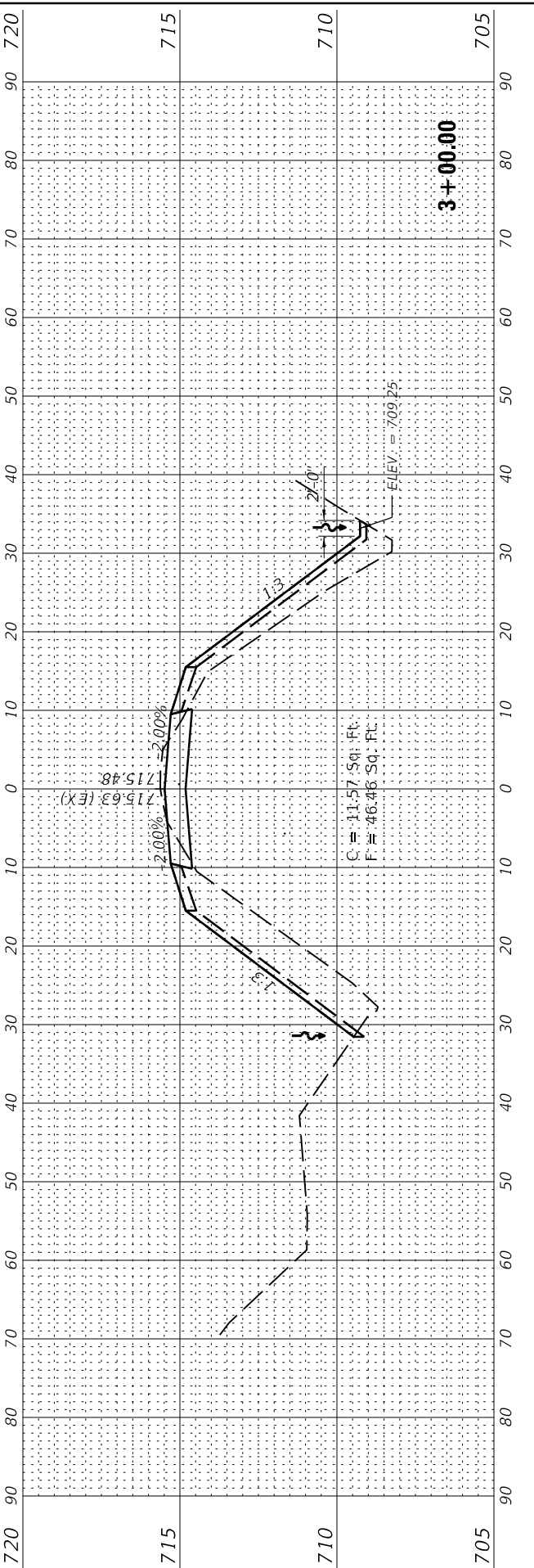
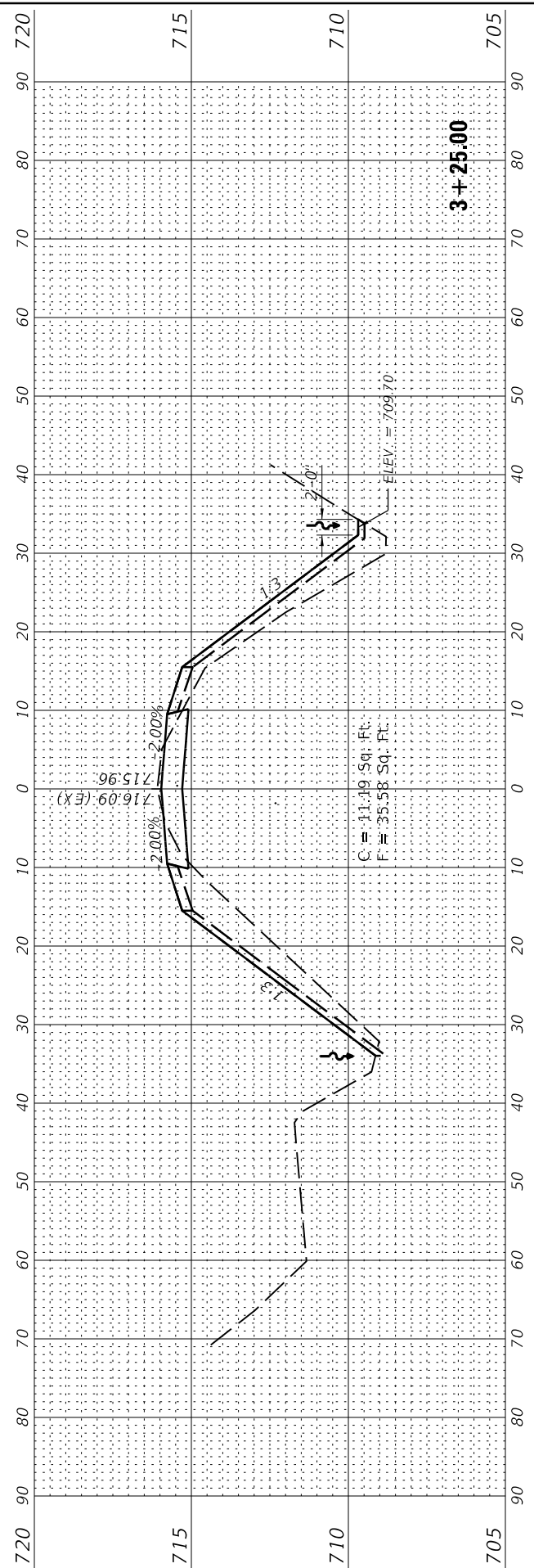
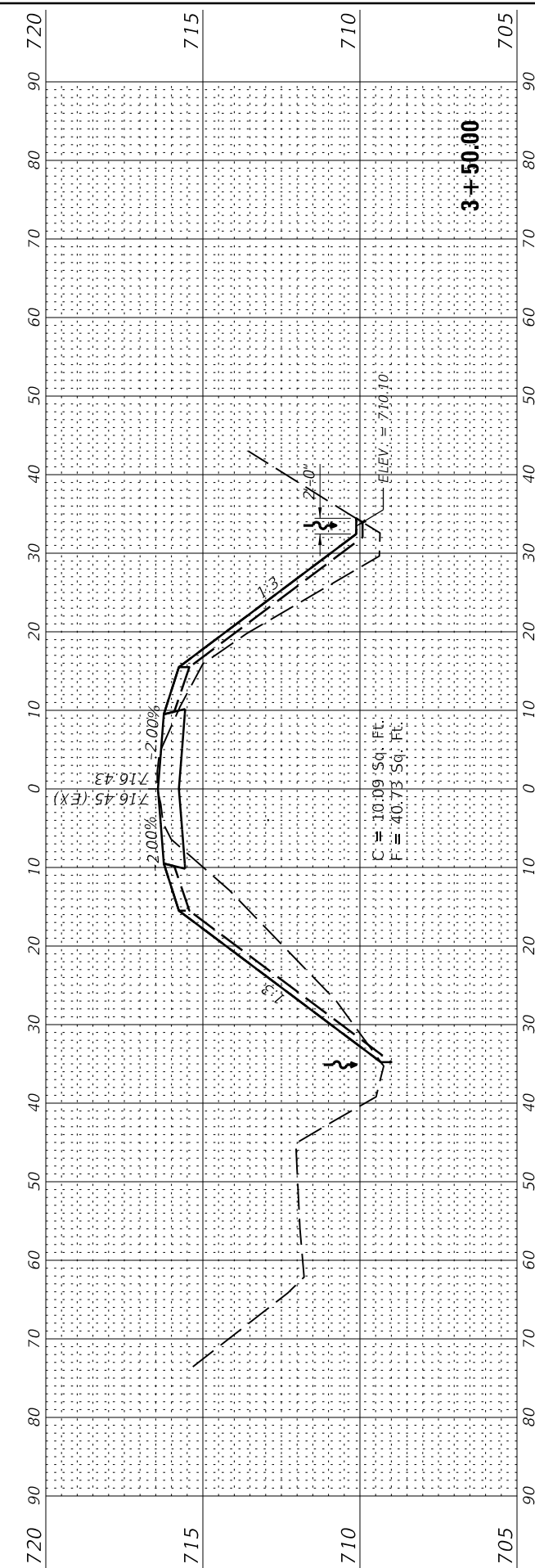
REVISED  
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 REVISED  
 REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH ROAD WIDENING - CROSS SECTIONS  
 MAUTINO SF&W AREA

SCALE: 1"=10'(H)/1"=2.5'(V) SHEET 4 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	24
CONTRACT NO. 46917			ILLINOIS FED. AID PROJECT	



018017708 Project Penalt  
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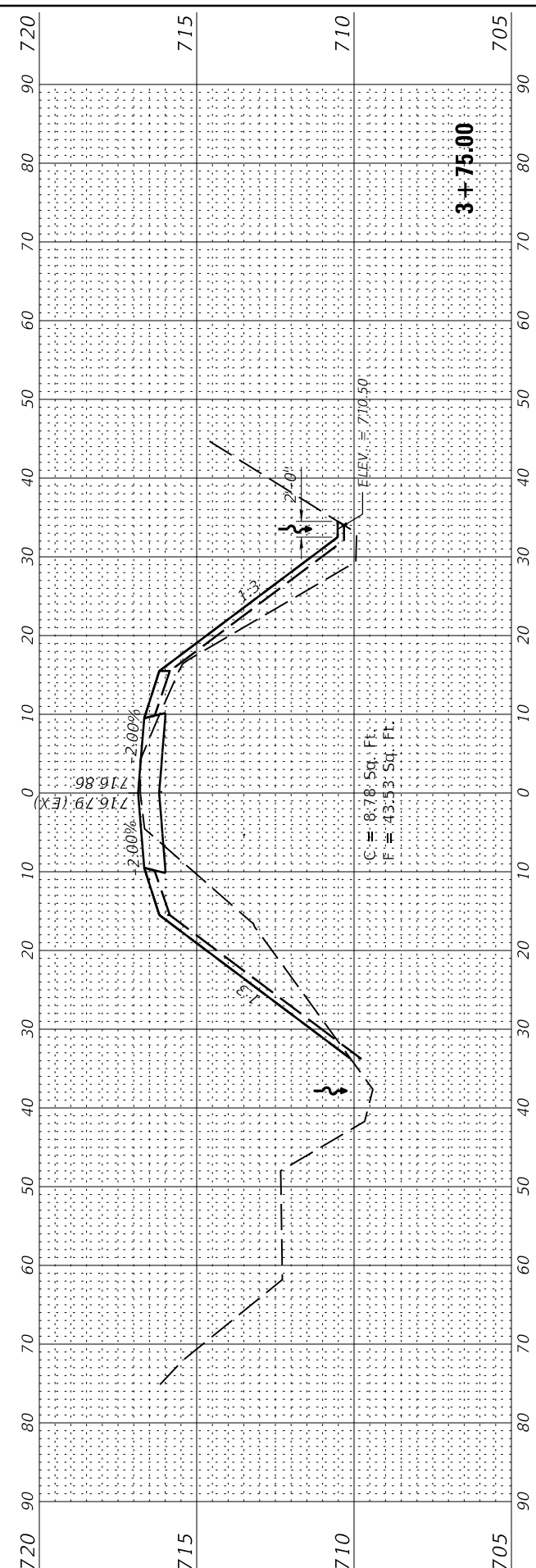
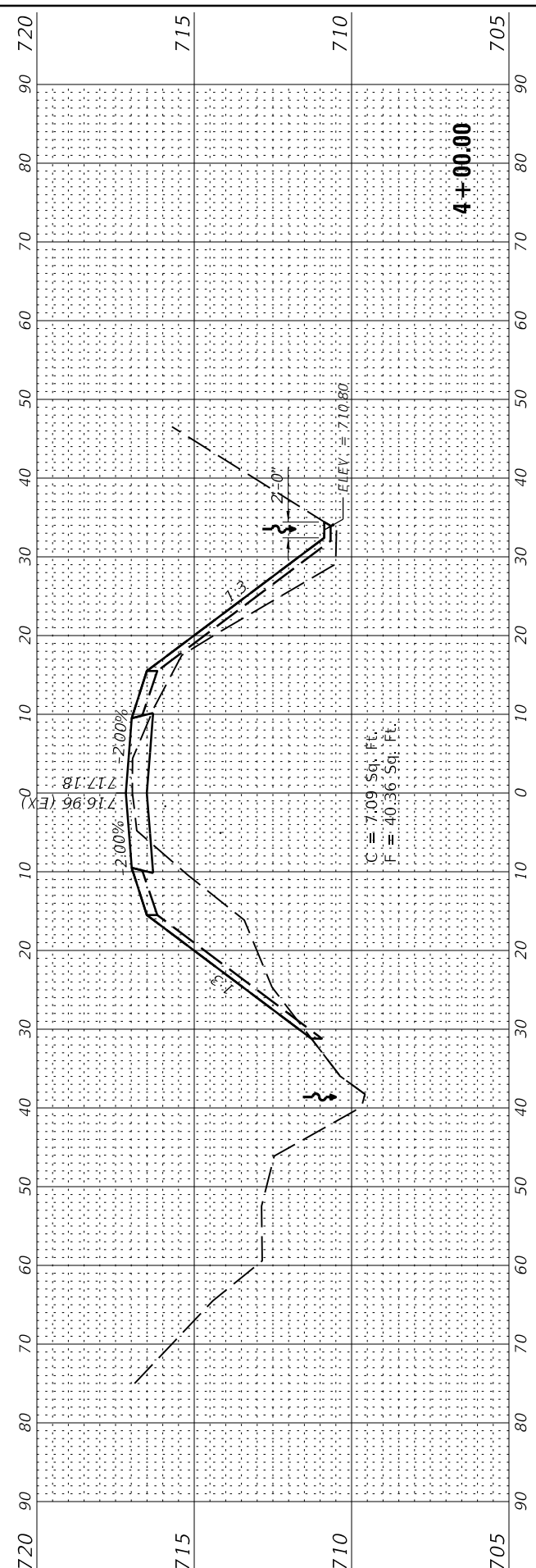
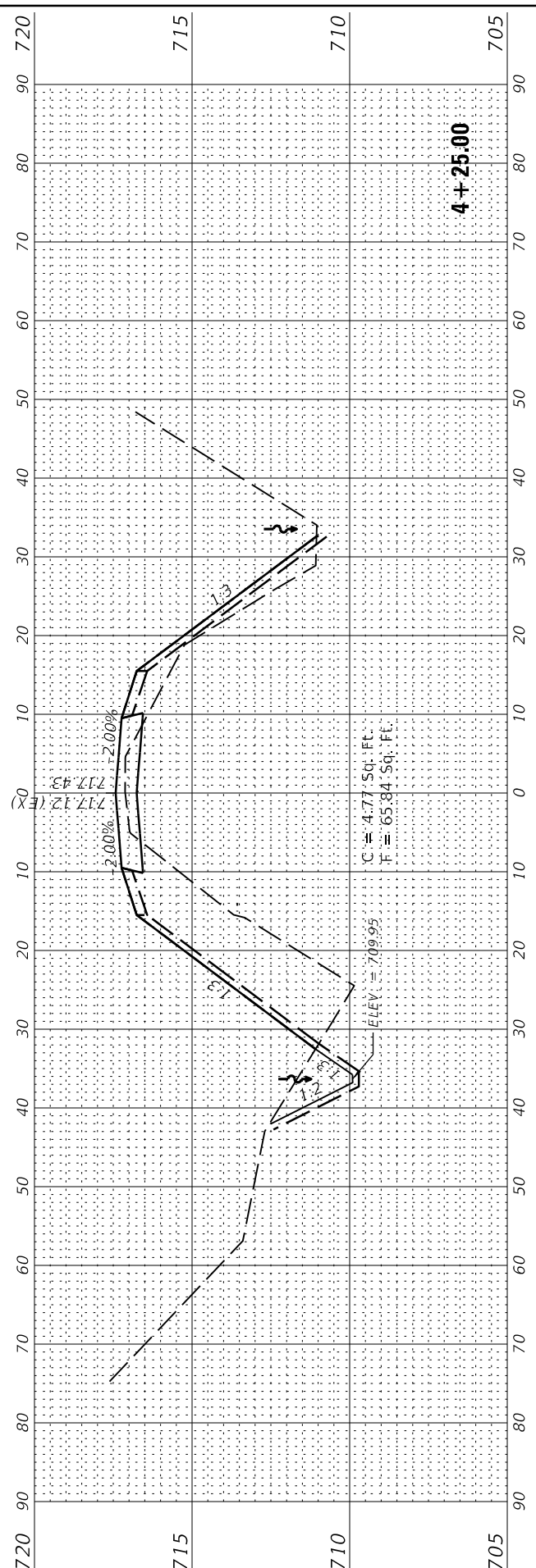
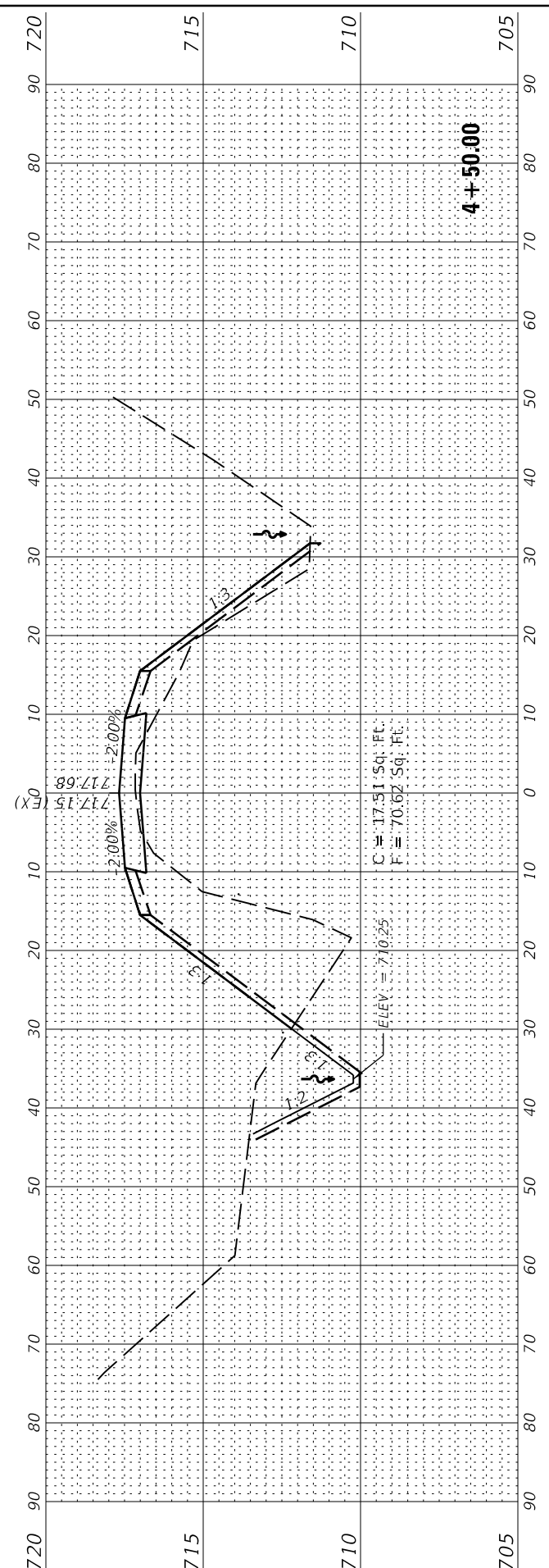


USER NAME = jgrimm	DESIGNED - JGG	REVISED
	DRAWN - RJT	REVISED
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PLOT DATE = 3/29/2019 10:40:45 AM	DATE - 03/28/19	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH ROAD WIDENING - CROSS SECTIONS	
MAUTINO SF&W AREA	
SCALE: 1"=10'(H)/1"=2.5'(V) SHEET 5 OF 13 SHEETS	STA. TO STA.

F.A.P. RTE. ***	SECTION MAUTINO 2019	COUNTY	TOTAL SHEETS 43	SHEET NO. 25
CONTRACT NO. 46917			ILLINOIS FED. AID PROJECT	



018017708 Project Penalt  
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 PEN TABLE: DRIVER  
 SHEET



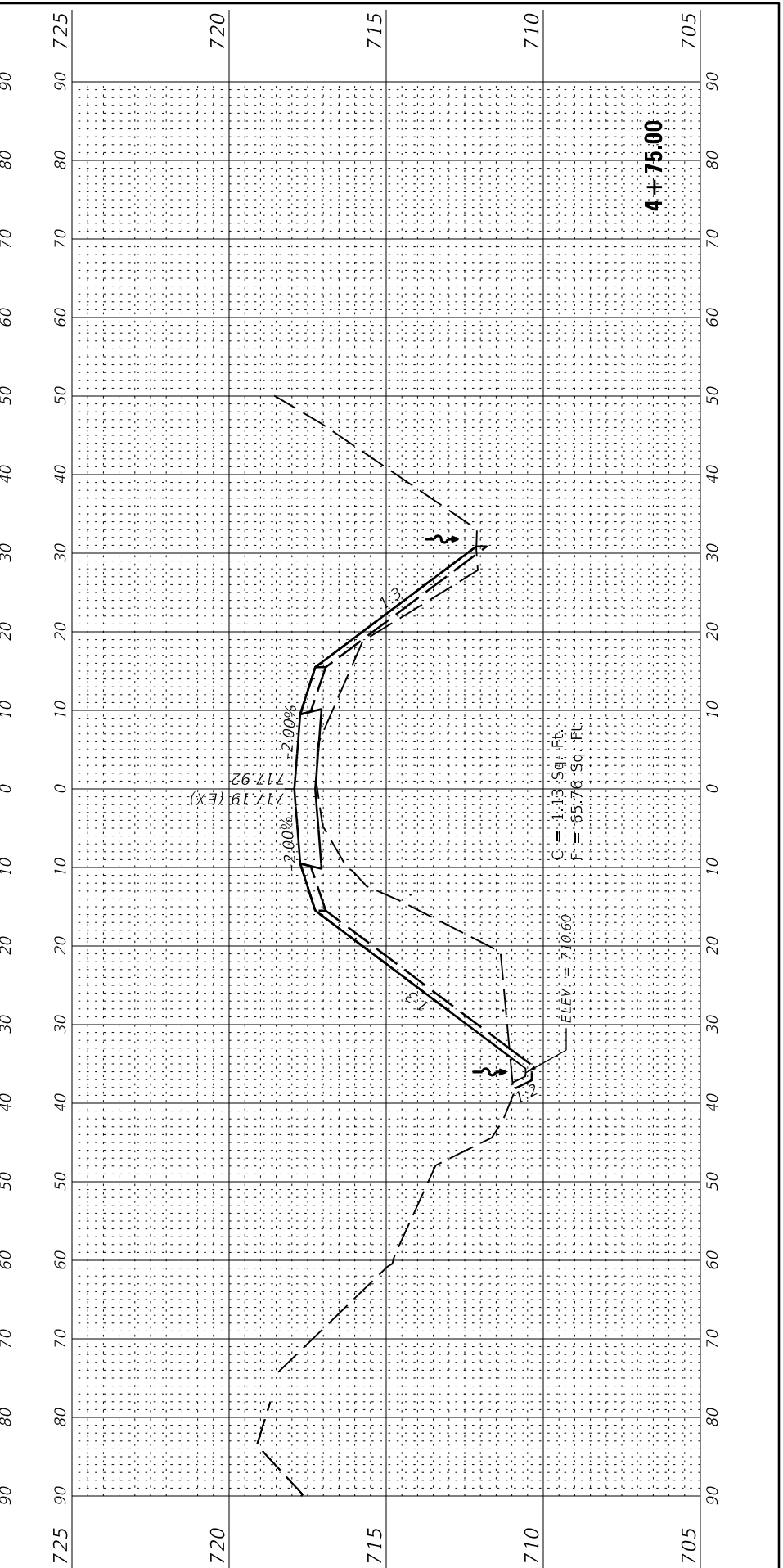
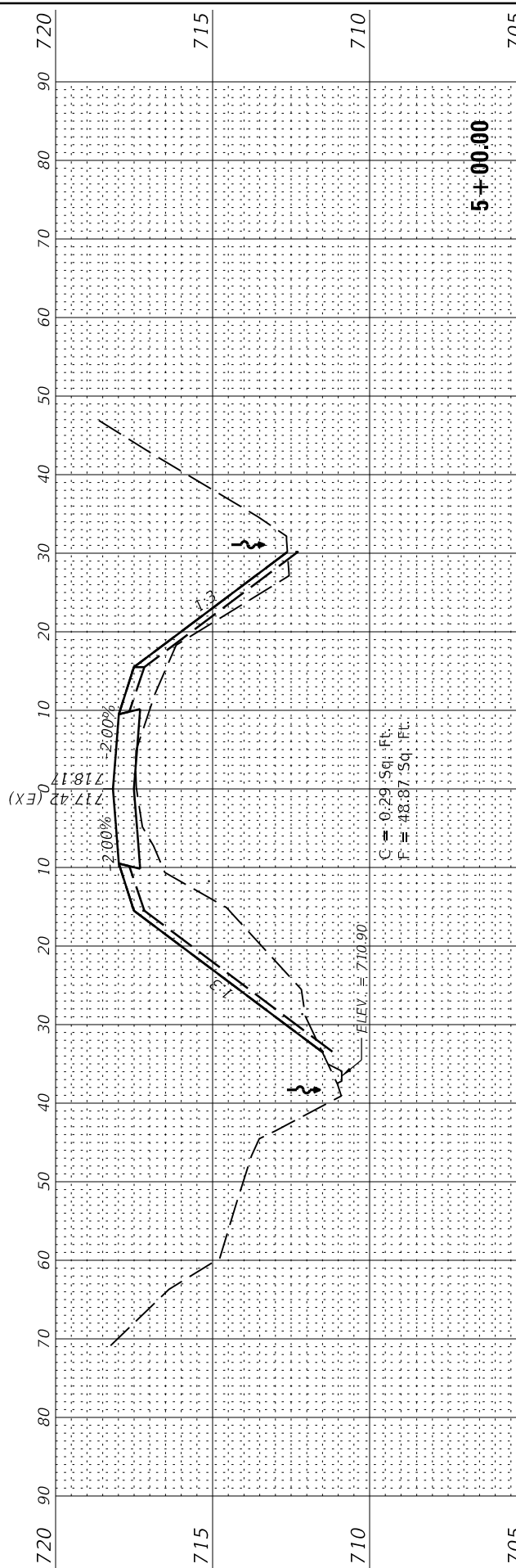
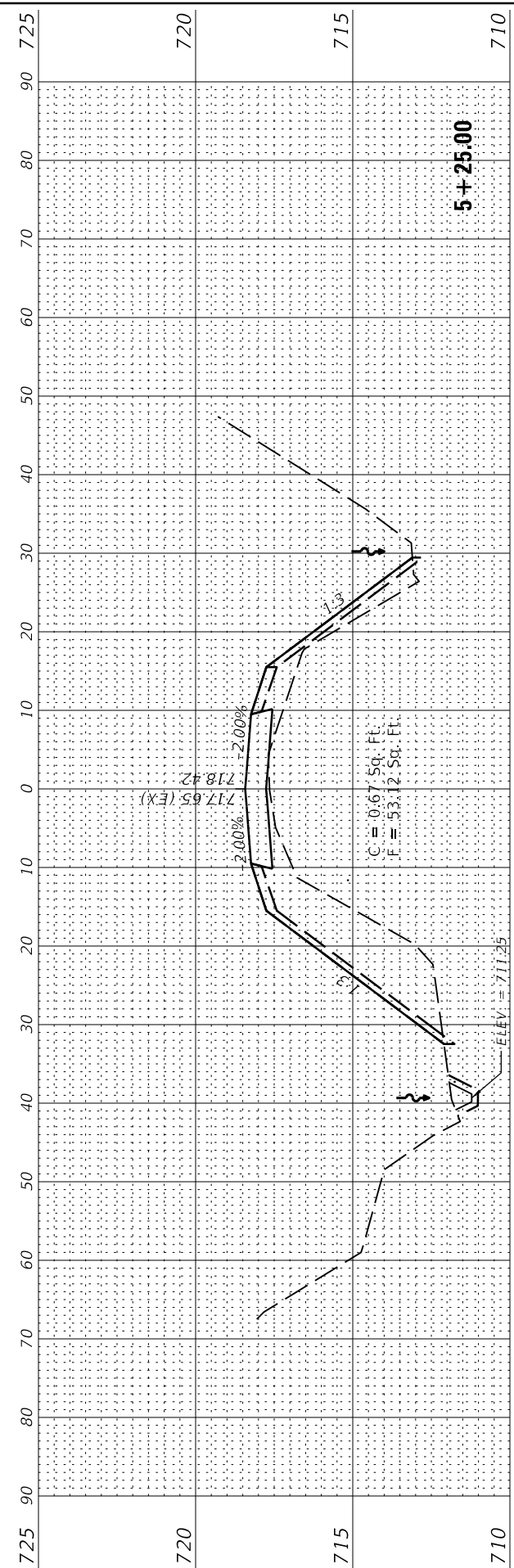
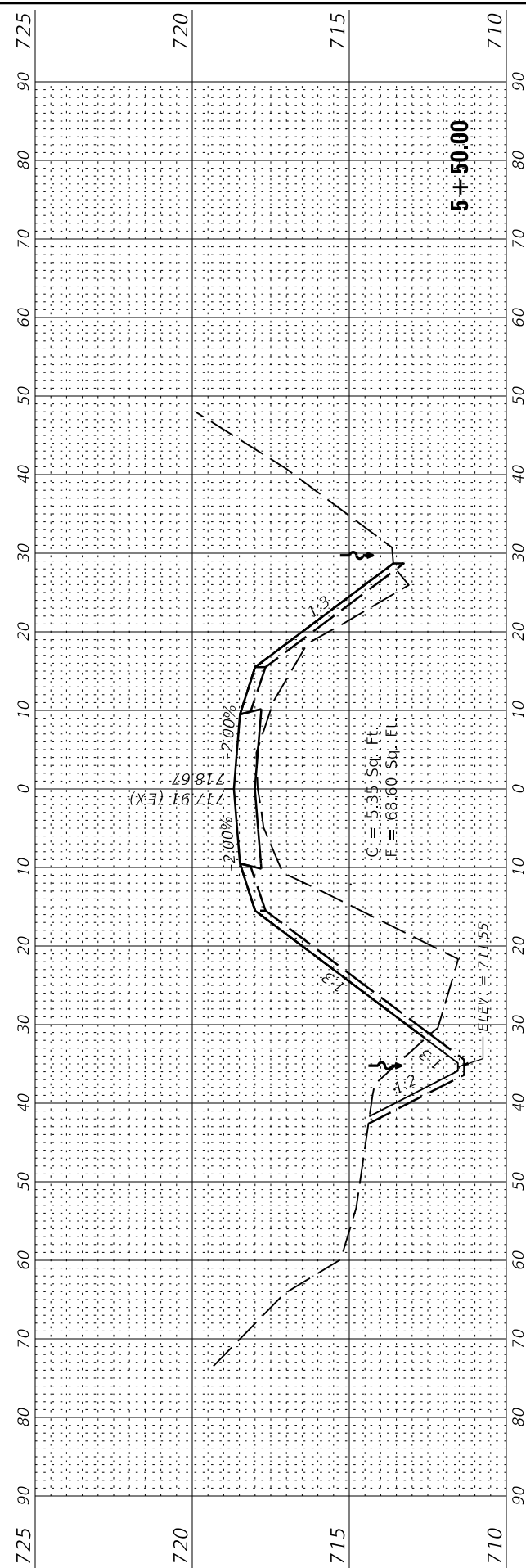
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10:40:46 AM	DATE - 03/28/19	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH ROAD WIDENING - CROSS SECTIONS  
 MAUTINO SF&W AREA

SCALE: 1"=10'(H)/1"=2.5'(V) SHEET 6 OF 13 SHEETS STA. TO STA.

F.A.P. RTE. ***	SECTION MAUTINO 2019	COUNTY	TOTAL SHEETS 43	SHEET NO. 26
		BUREAU	CONTRACT NO. 46917	
		ILLINOIS FED. AID PROJECT		



018017708 Project Penalt  
 03/28/19  
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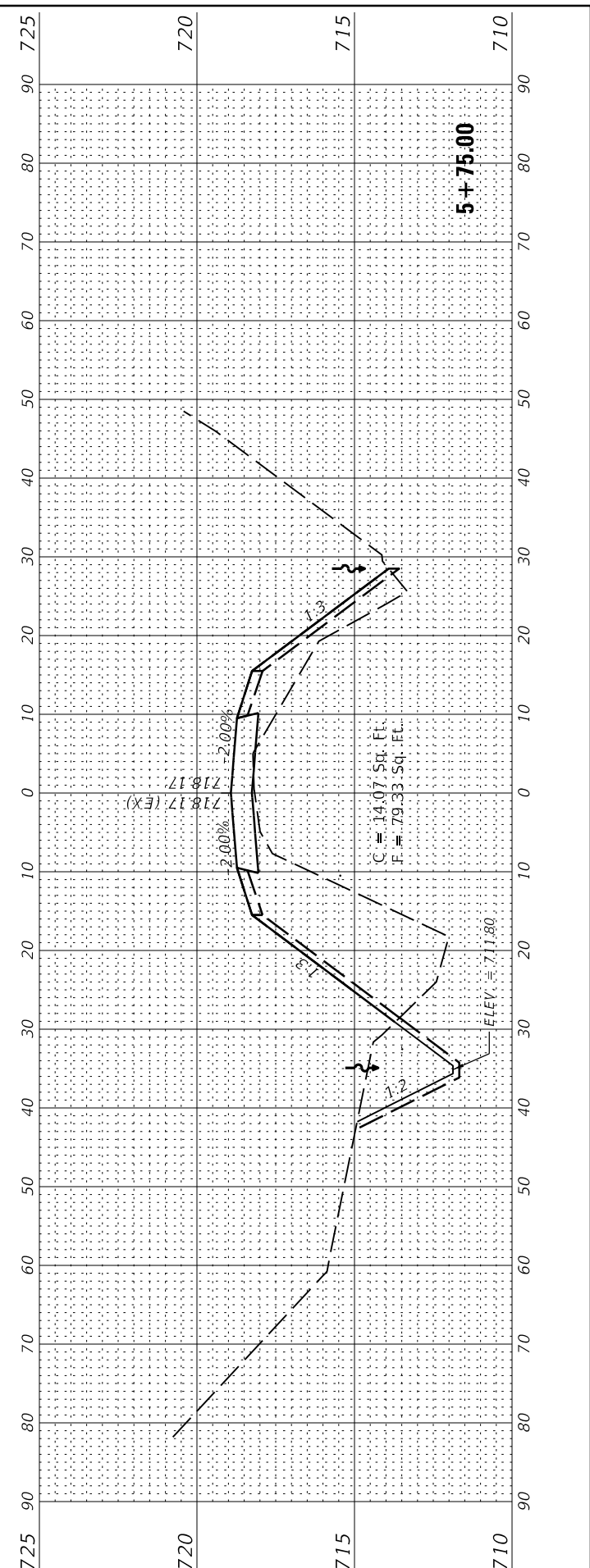
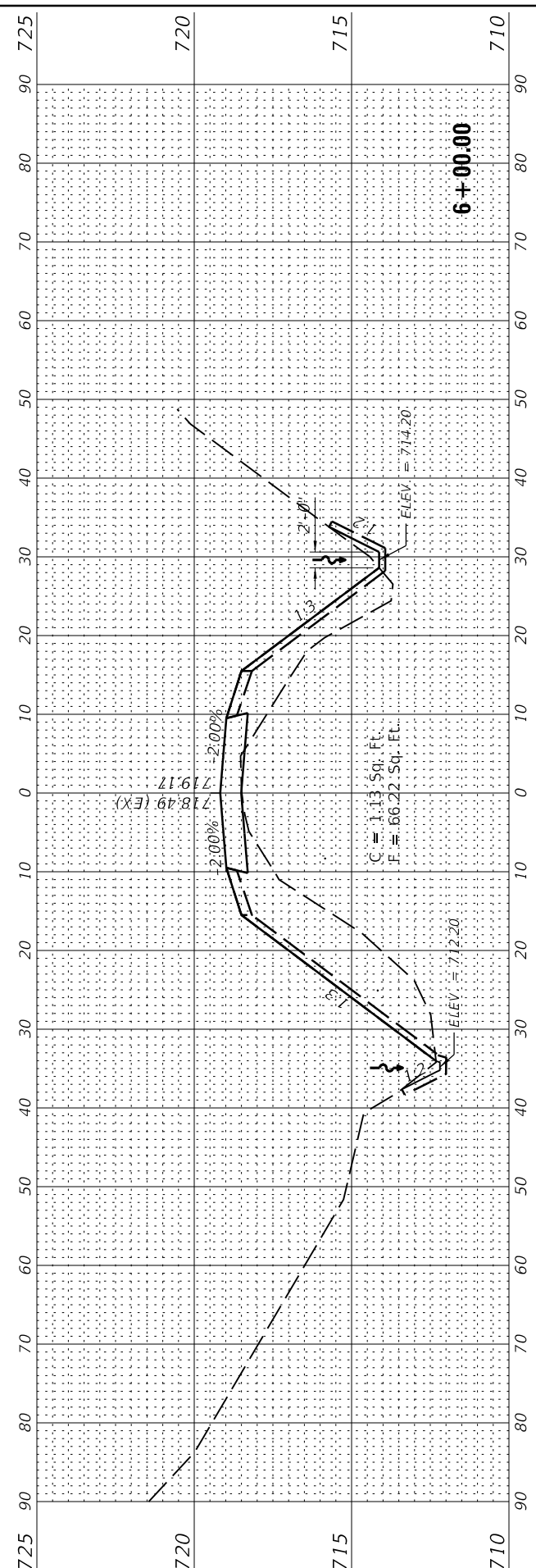
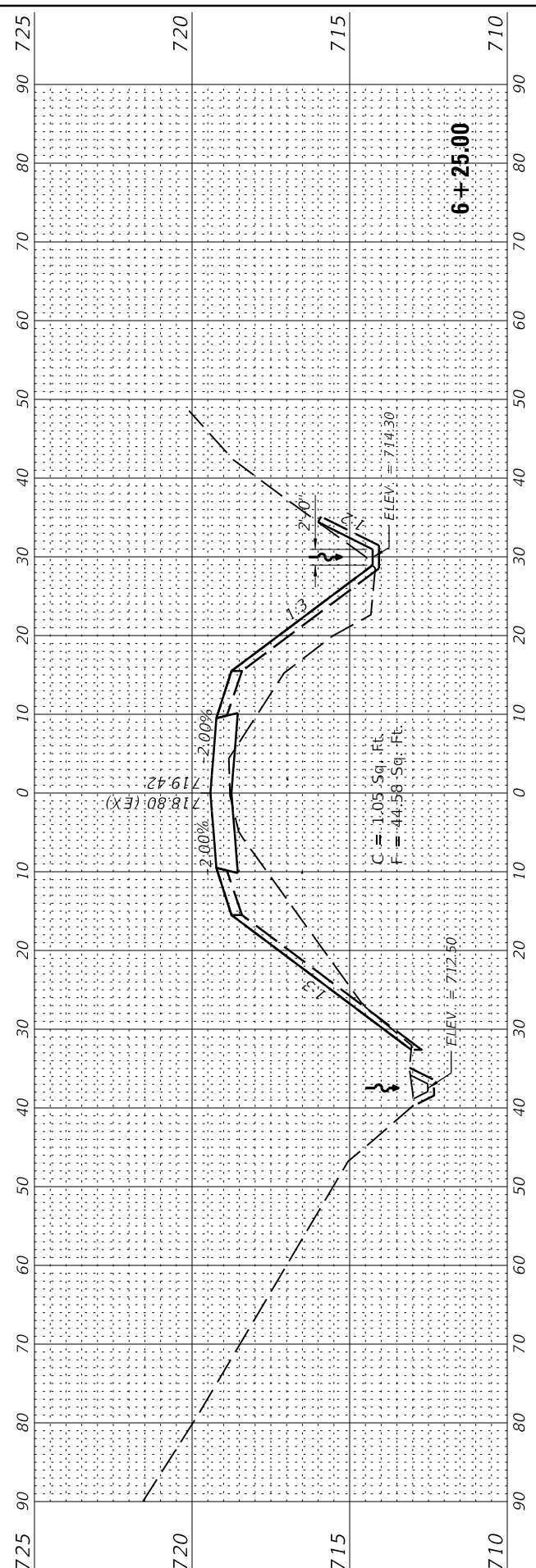
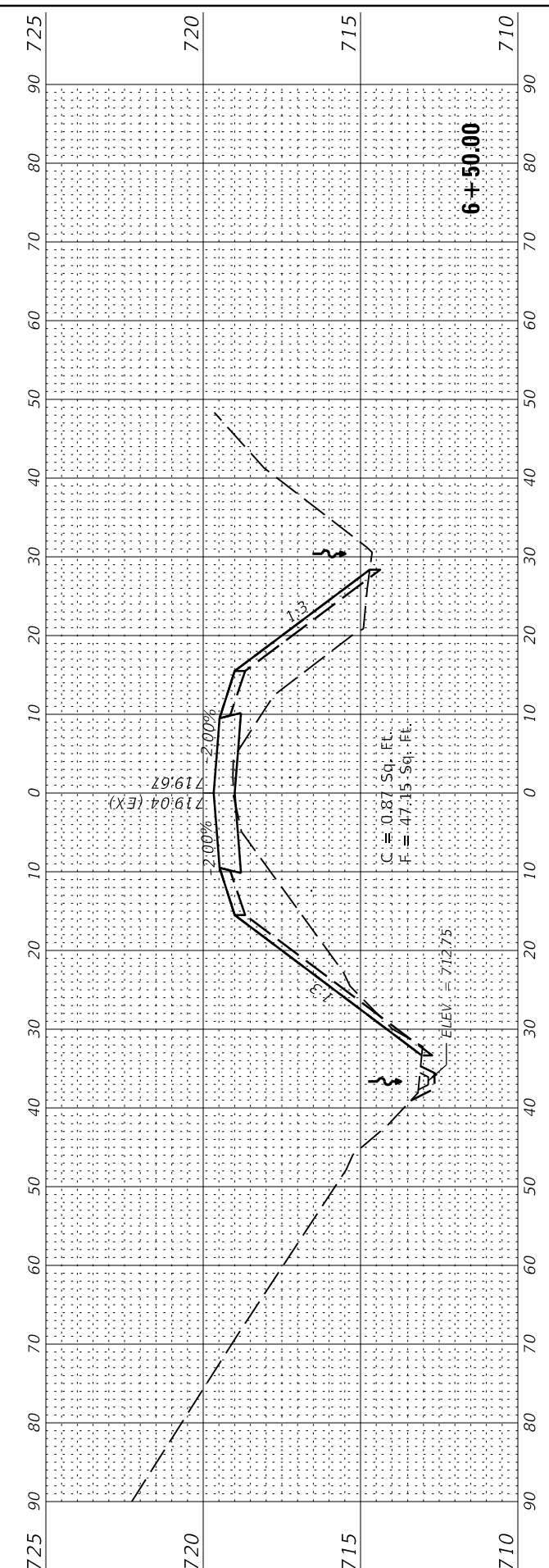


USER NAME = jgrimm	DESIGNED - JGG	REVISED
	DRAWN - RJT	REVISED
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PLOT DATE = 3/29/2019 10:40:46 AM	DATE - 03/28/19	REVISED

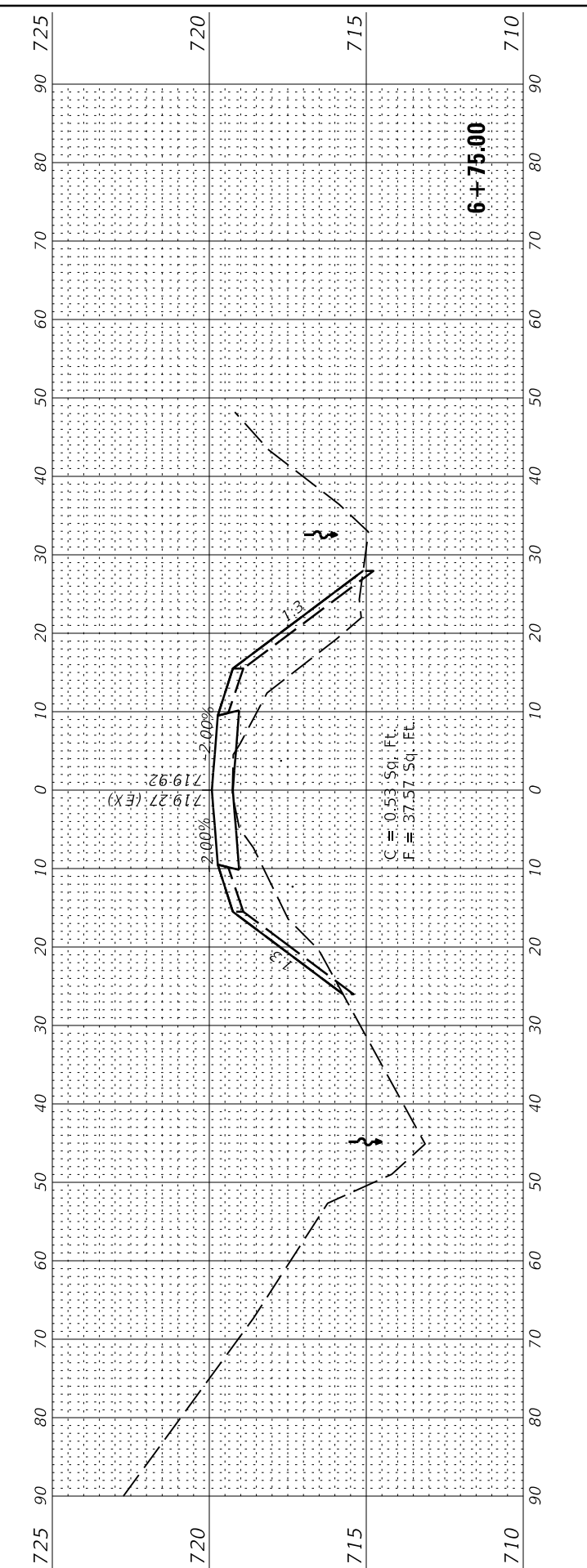
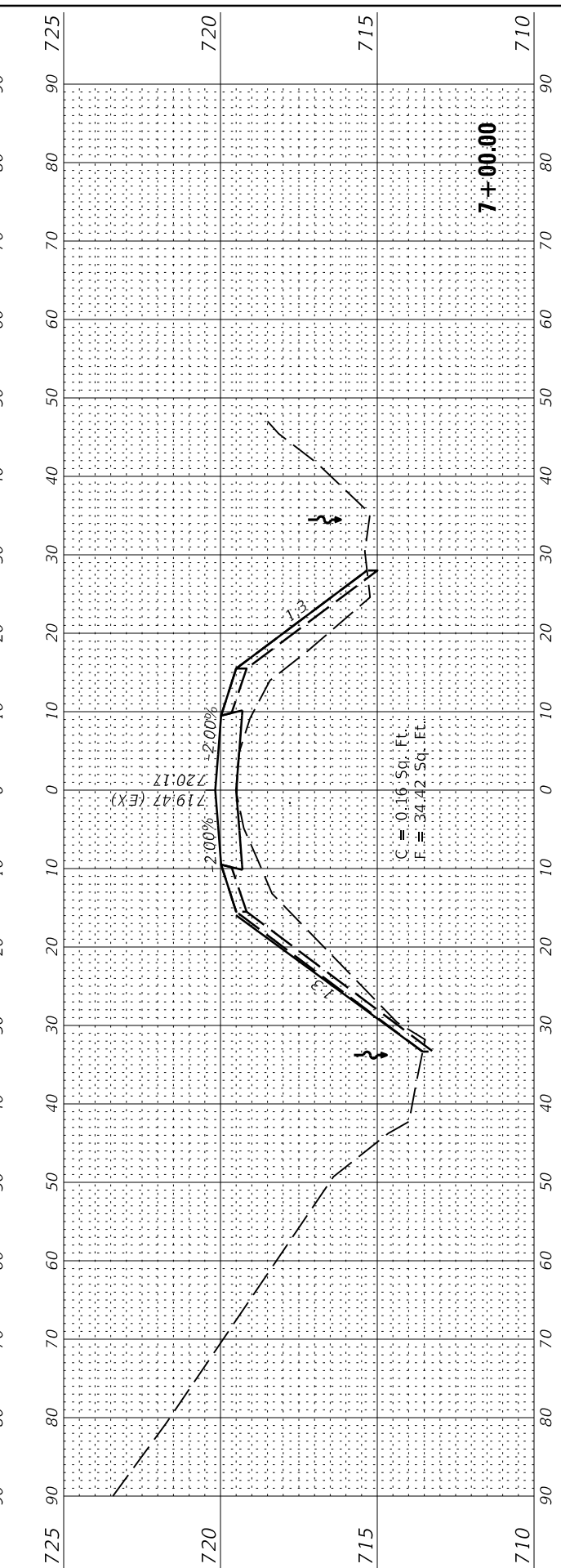
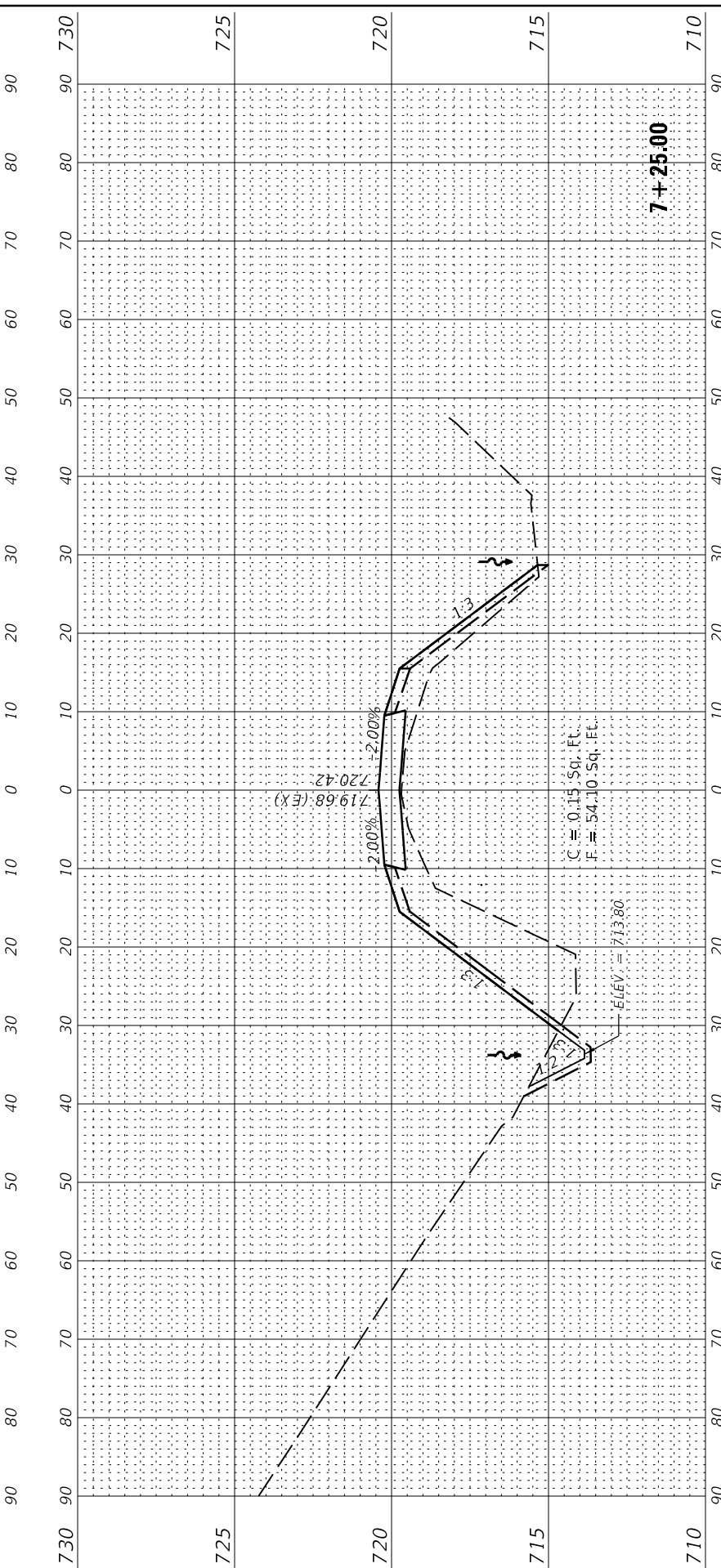
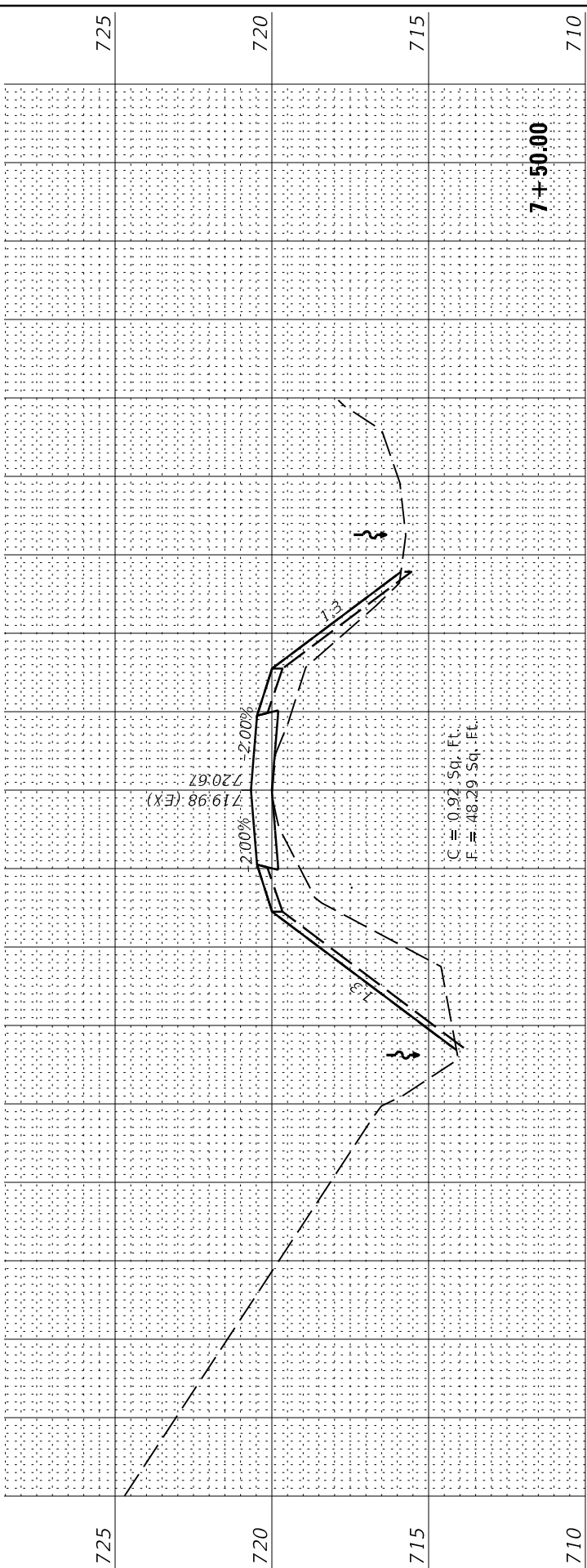
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH ROAD WIDENING - CROSS SECTIONS	
MAUTINO SF&W AREA	
SCALE: 1"=10'(H)/1"=2.5'(V)	SHEET 7 OF 13 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	27
CONTRACT NO. 46917			ILLINOIS FED. AID PROJECT	



018017708 Project Penumbra  
 03/28/2019 10:40:46 AM  
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**Farnsworth GROUP**  
 2211 BRADLEY AVENUE  
 CHAMPAIGN, ILLINOIS 61821  
 (217) 352-7408 / info@f-w.com

USER NAME = jgrimm  
 PLOT SCALE = 24,000' / ft.  
 PLOT DATE = 3/29/2019 10:40:46 AM

DESIGNED - JGG  
 DRAWN - RJT  
 CHECKED - RPU  
 DATE - 03/28/19

REVISED  
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 REVISED

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**NORTH ROAD WIDENING - CROSS SECTIONS  
 MAUTINO SF&W AREA**  
 SCALE: 1"=10'(H)/1"=2.5'(V) SHEET 8 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	28
CONTRACT NO. 46917			ILLINOIS FED. AID PROJECT	



018017708 Project Penalt  
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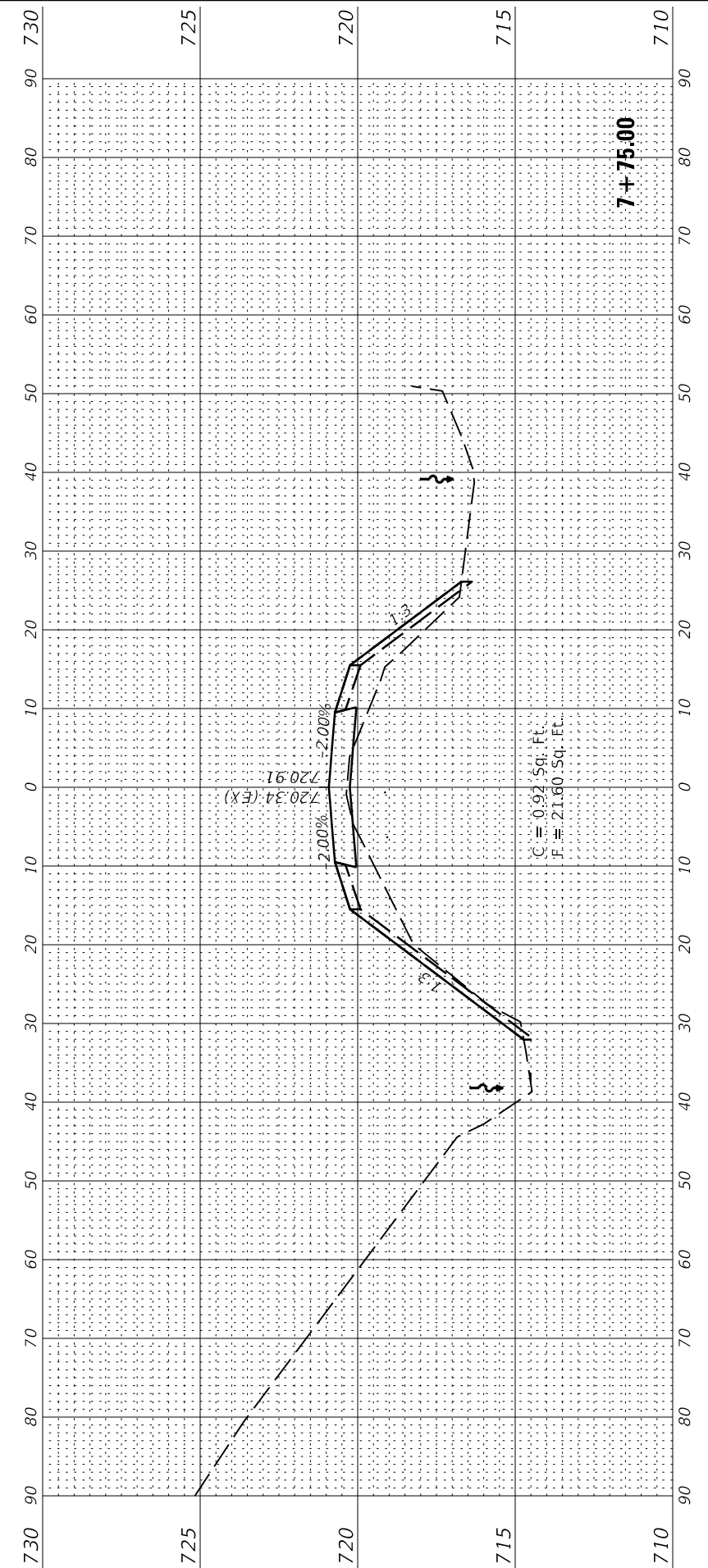
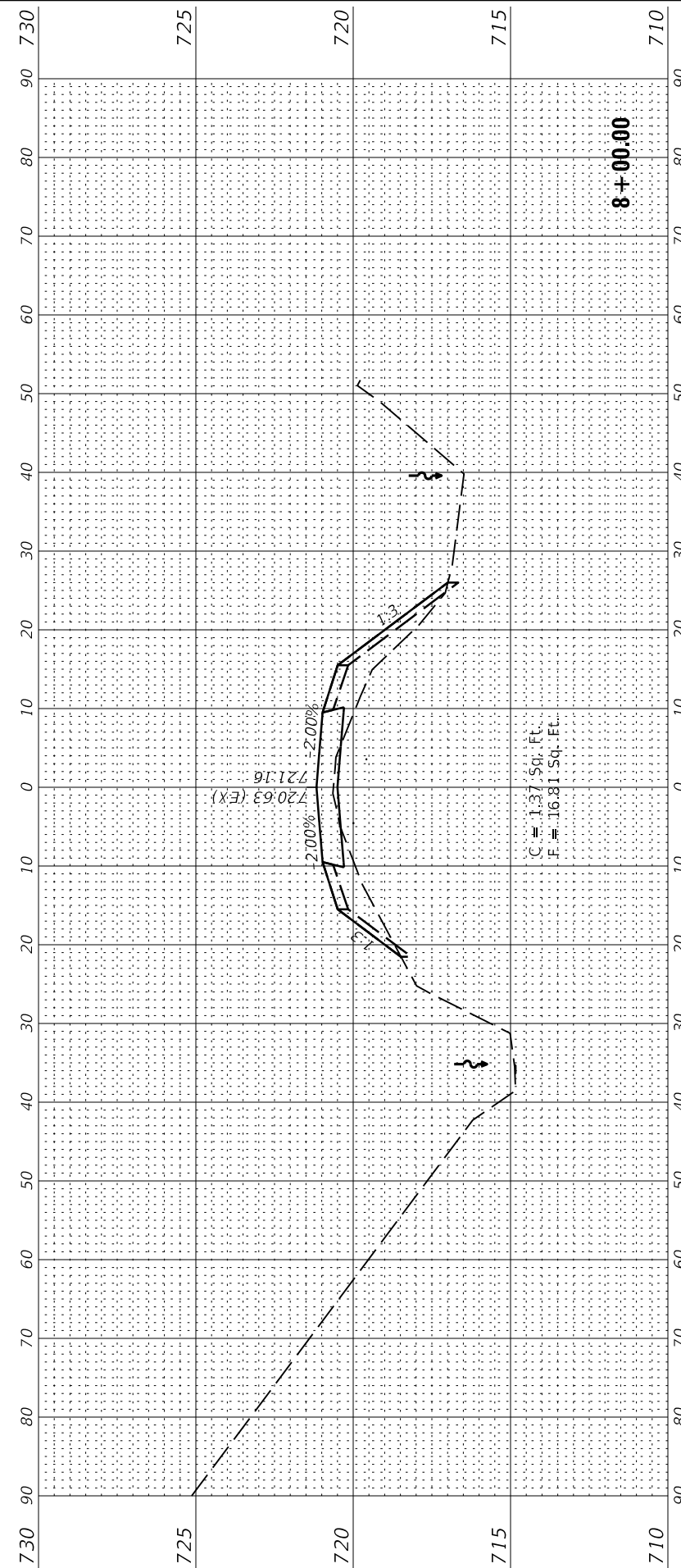
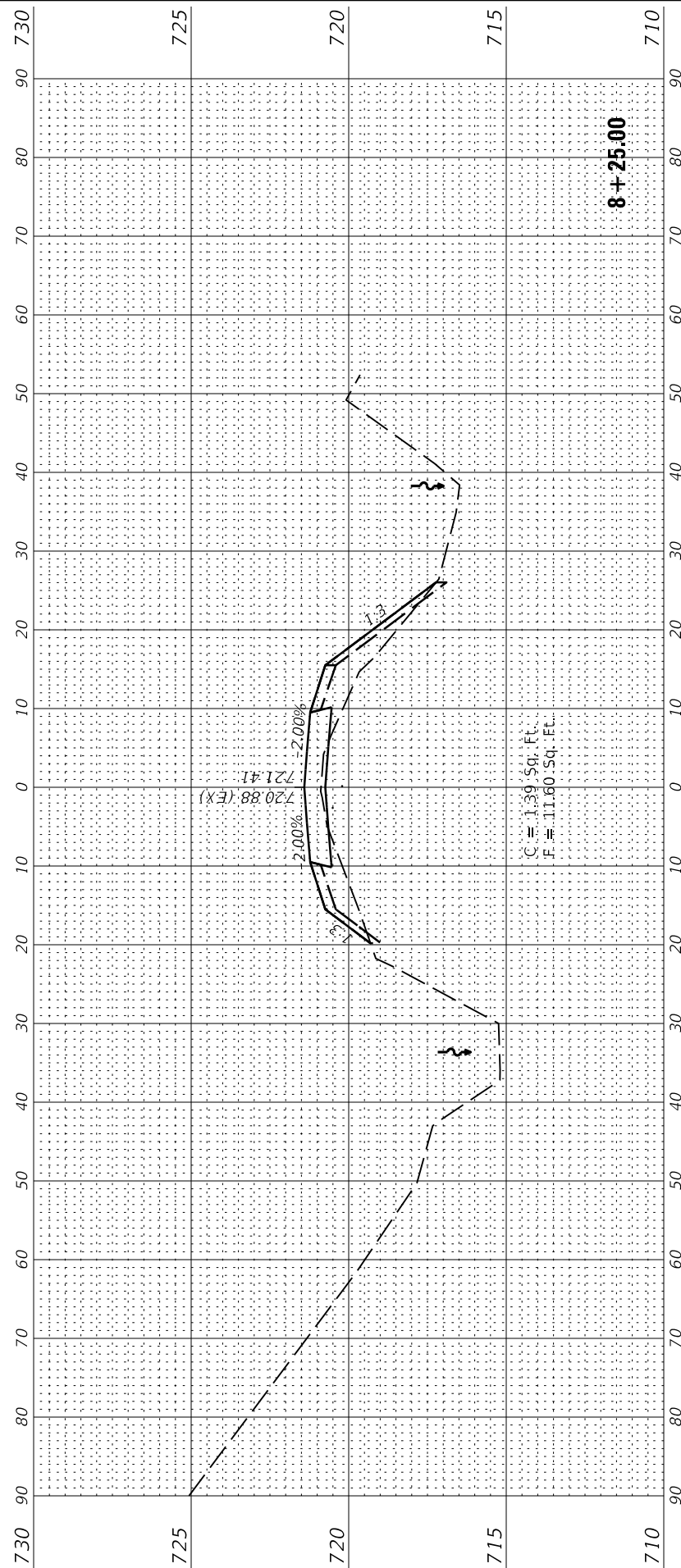
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10:40:47 AM	DATE - 03/28/19	REVISIONS

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH ROAD WIDENING - CROSS SECTIONS  
 MAUTINO SF&W AREA

SCALE: 1"=10'(H)/1"=2.5'(V) SHEET 9 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019		43	29
CONTRACT NO. 46917			ILLINOIS FED. AID PROJECT	



018017708 Project Penumbra  
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 PEN TABLE: DRIVER: SHEET



USER NAME = jgrimm  
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DESIGNED - JGG  
 DRAWN - RJT  
 CHECKED - RPU  
 DATE - 03/28/19

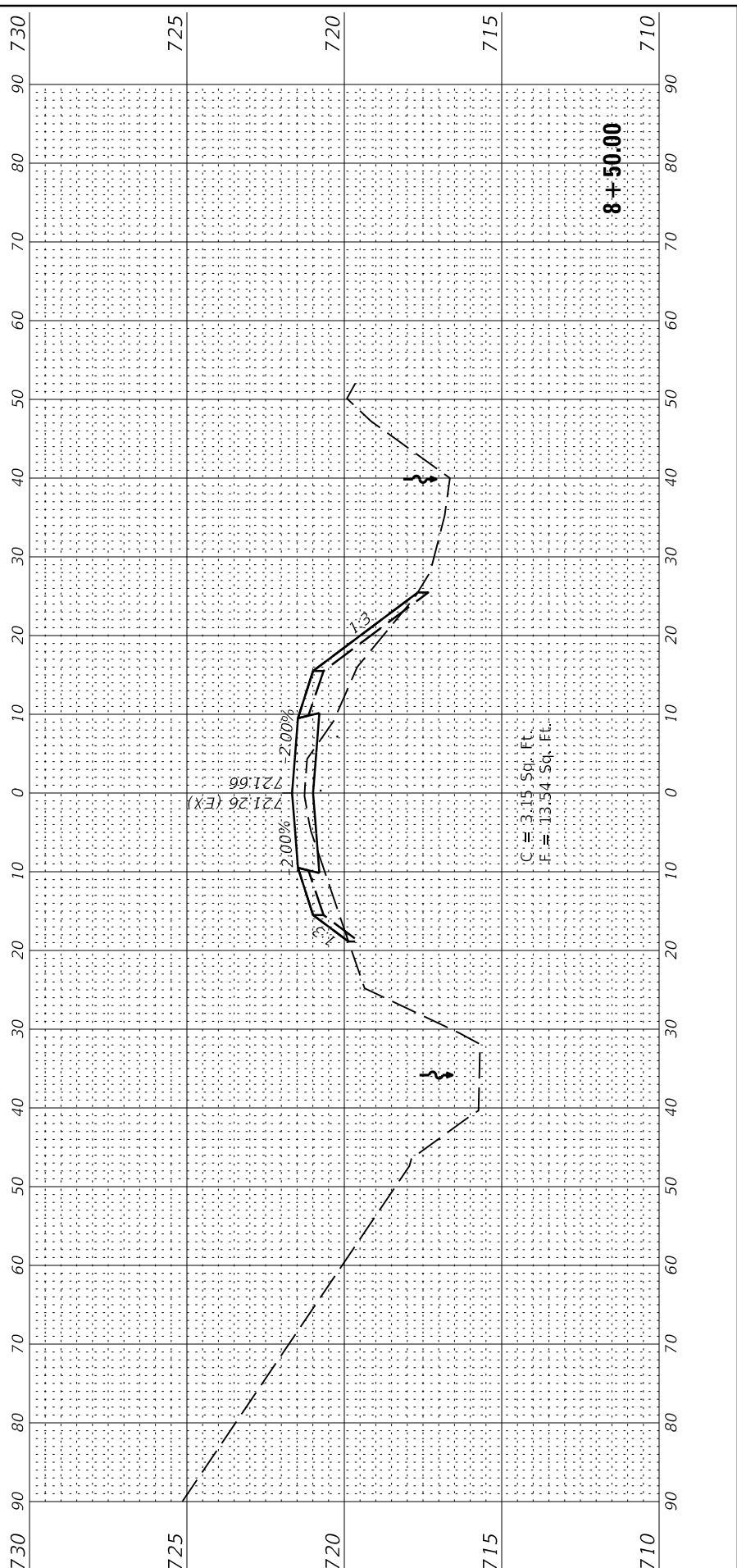
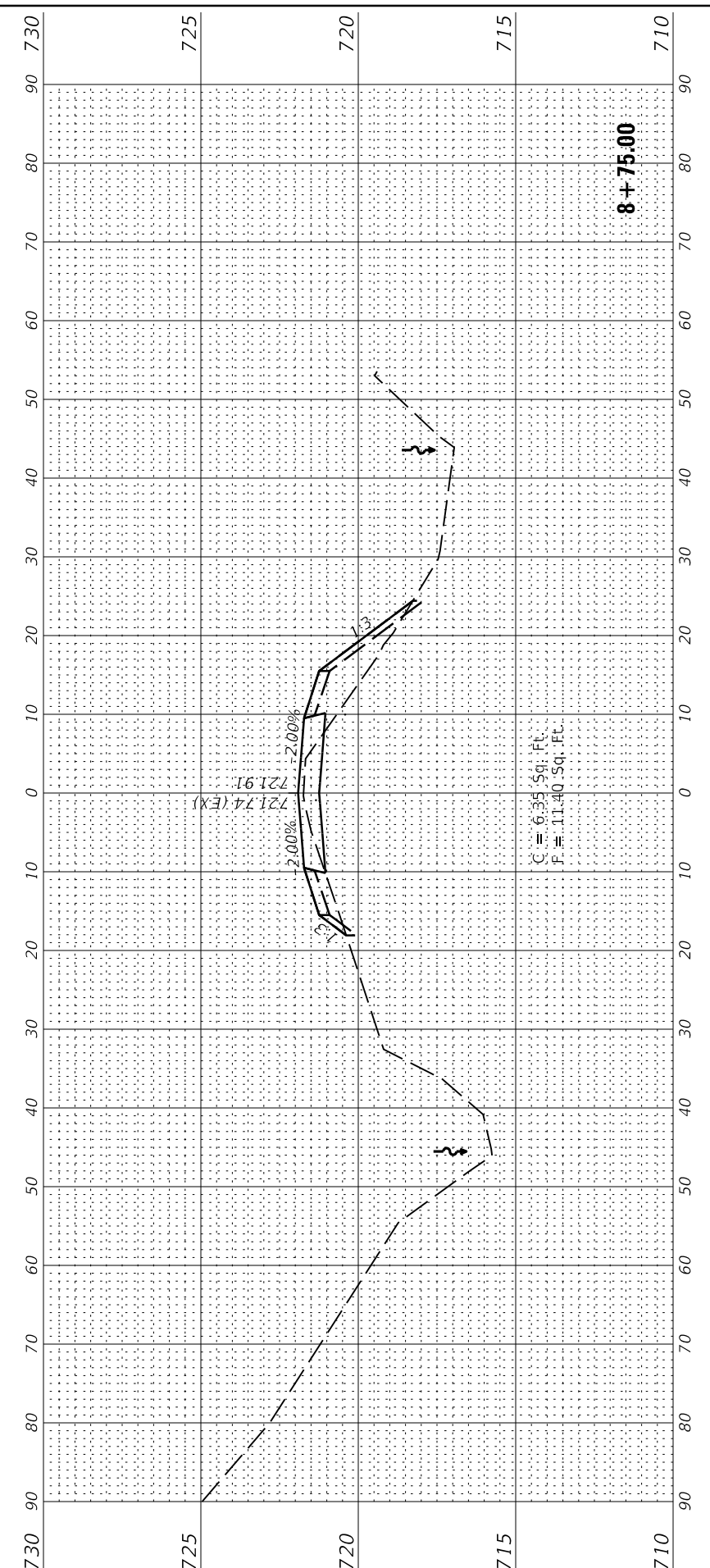
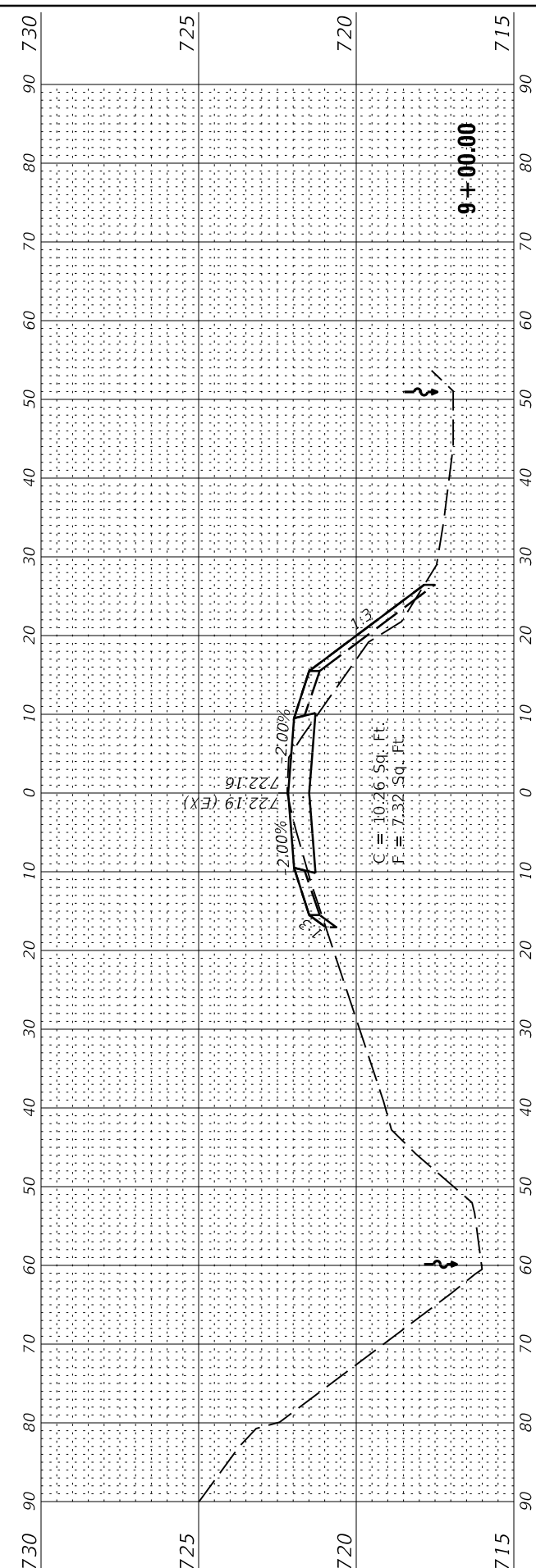
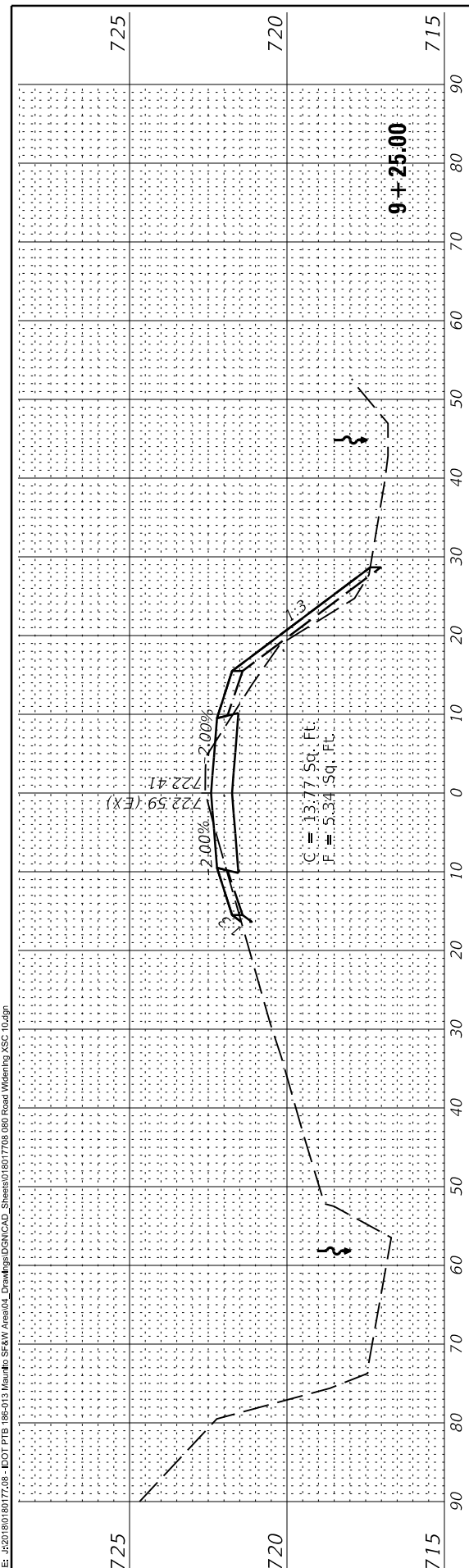
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 REVISED

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**NORTH ROAD WIDENING - CROSS SECTIONS  
 MAUTINO SF&W AREA**

SCALE: 1" = 10'(H) / 1" = 2.5'(V) SHEET 10 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	30
CONTRACT NO. 46917			ILLINOIS FED. AID PROJECT	



018017708 Project Penumbra  
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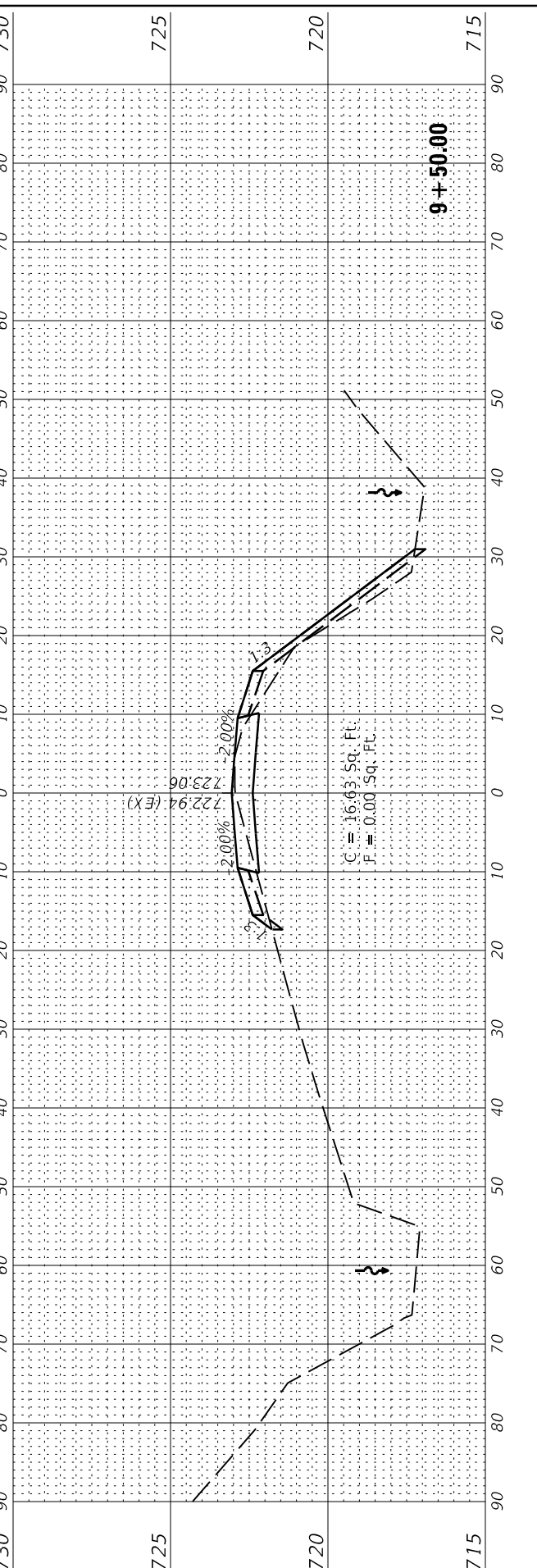
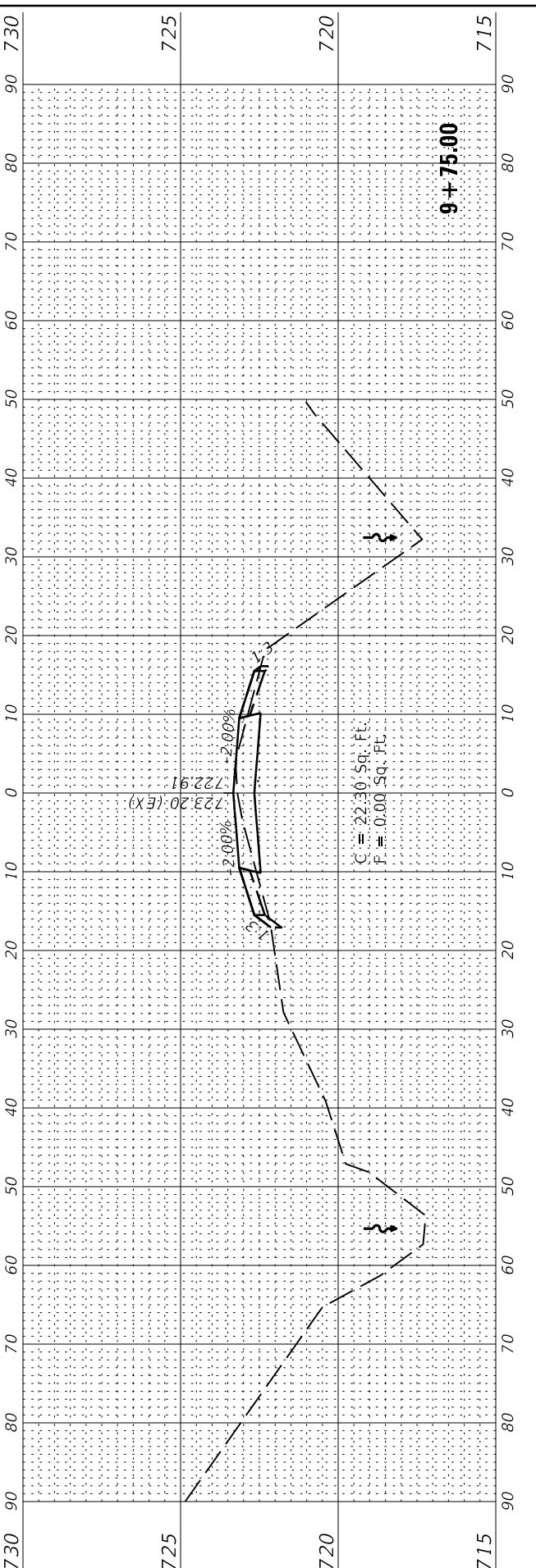
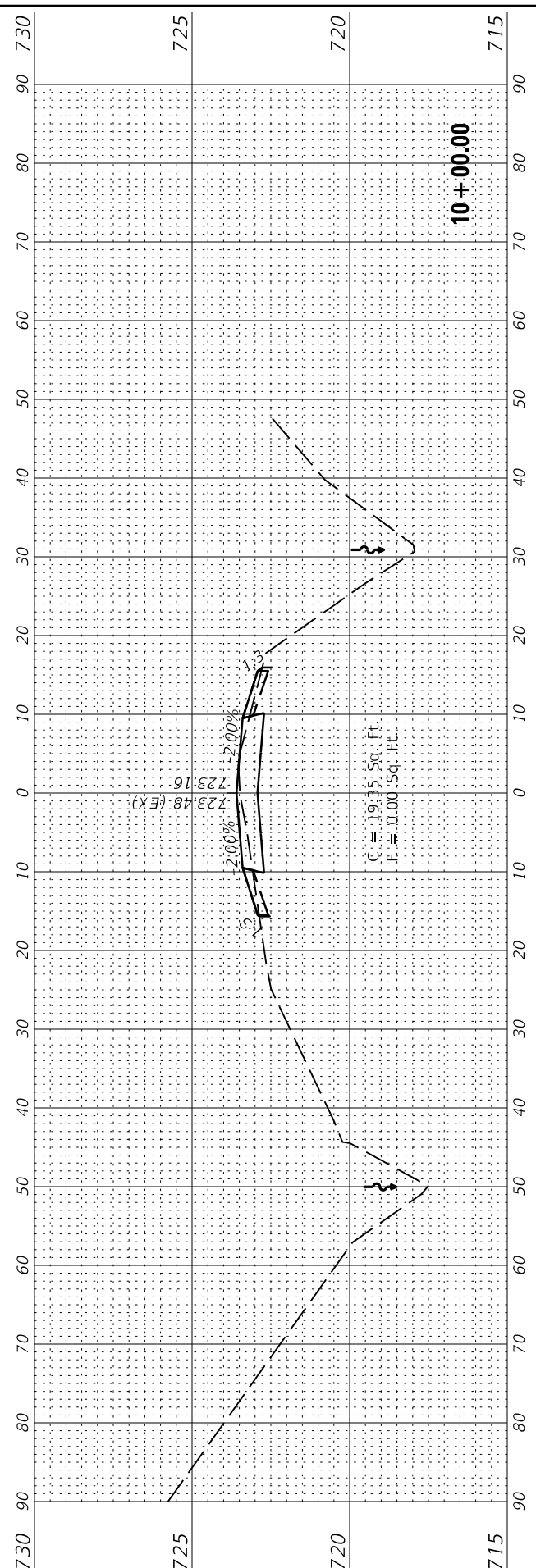
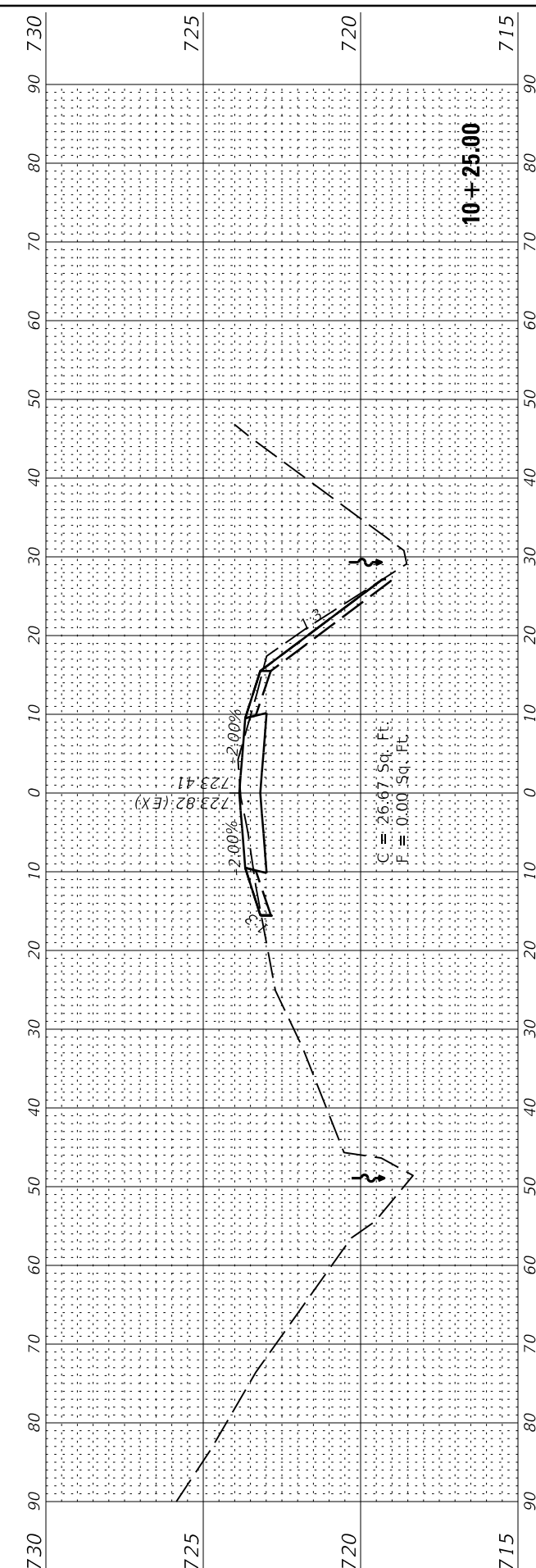


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PLOT DATE = 3/29/2019 10:40:48 AM	DATE - 03/28/19	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH ROAD WIDENING - CROSS SECTIONS	
MAUTINO SF&W AREA	
SCALE: 1"=10'(H)/1"=2.5'(V)	SHEET 11 OF 13 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	31
CONTRACT NO. 46917			ILLINOIS   FED. AID PROJECT	



018017708 Project Penumbra  
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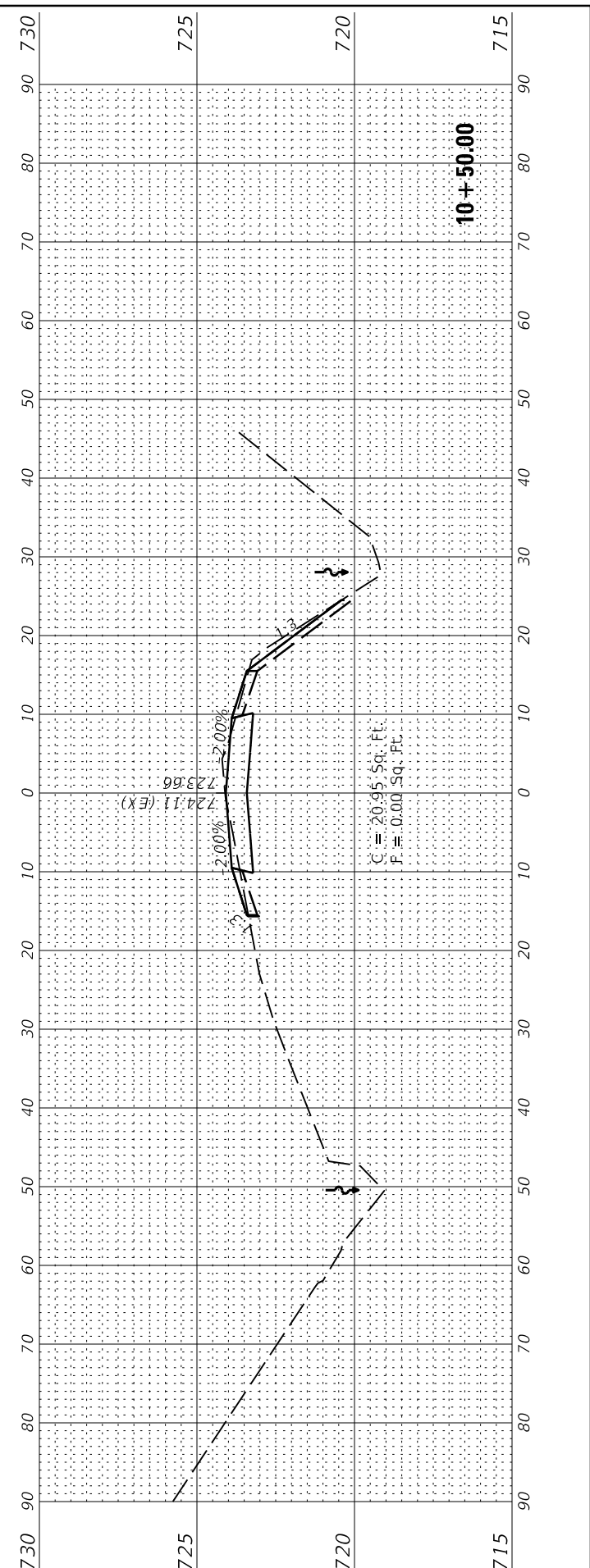
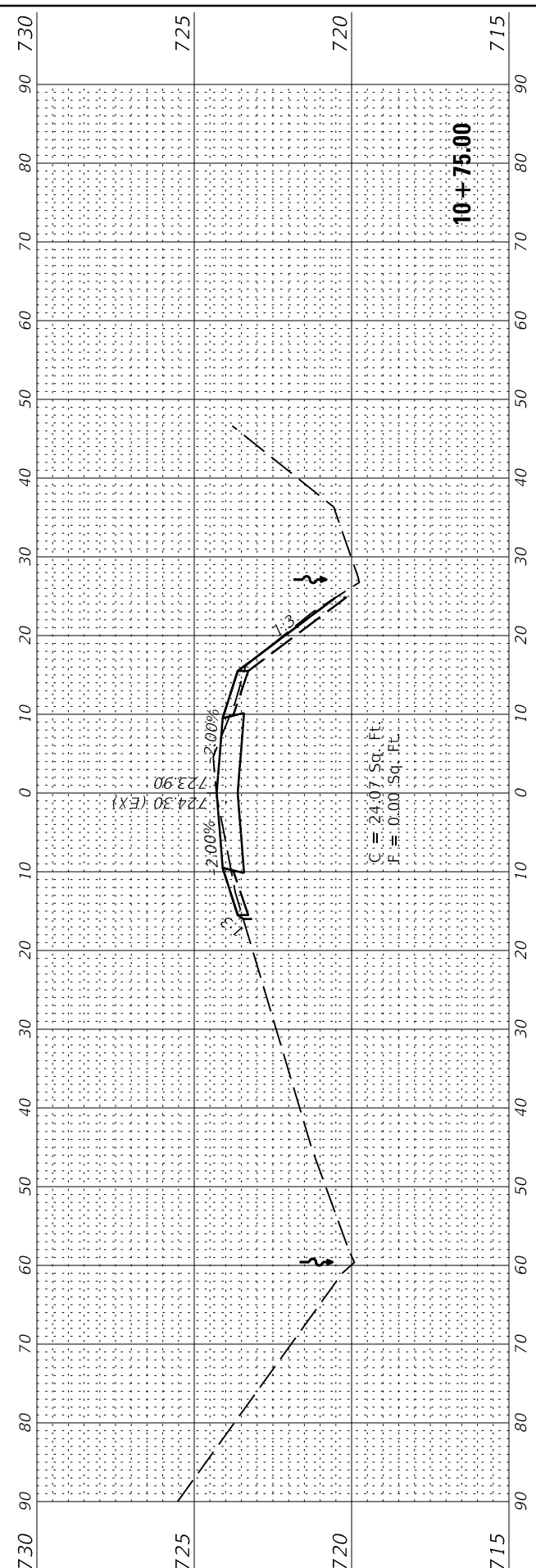
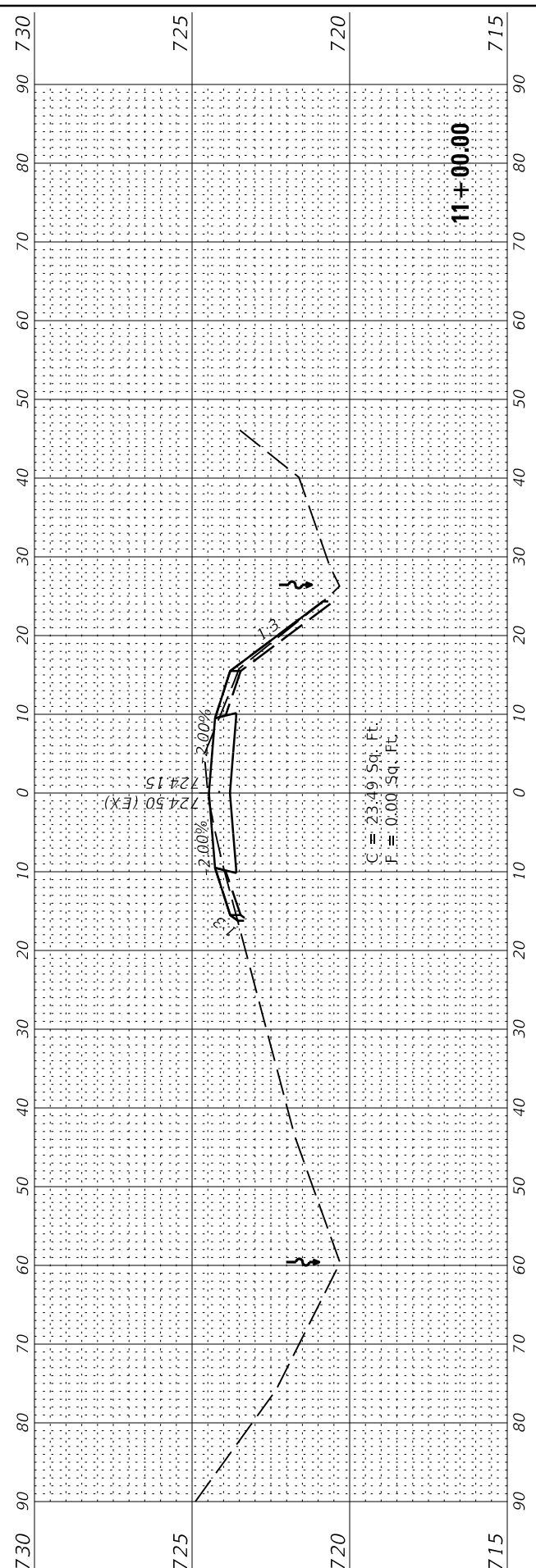
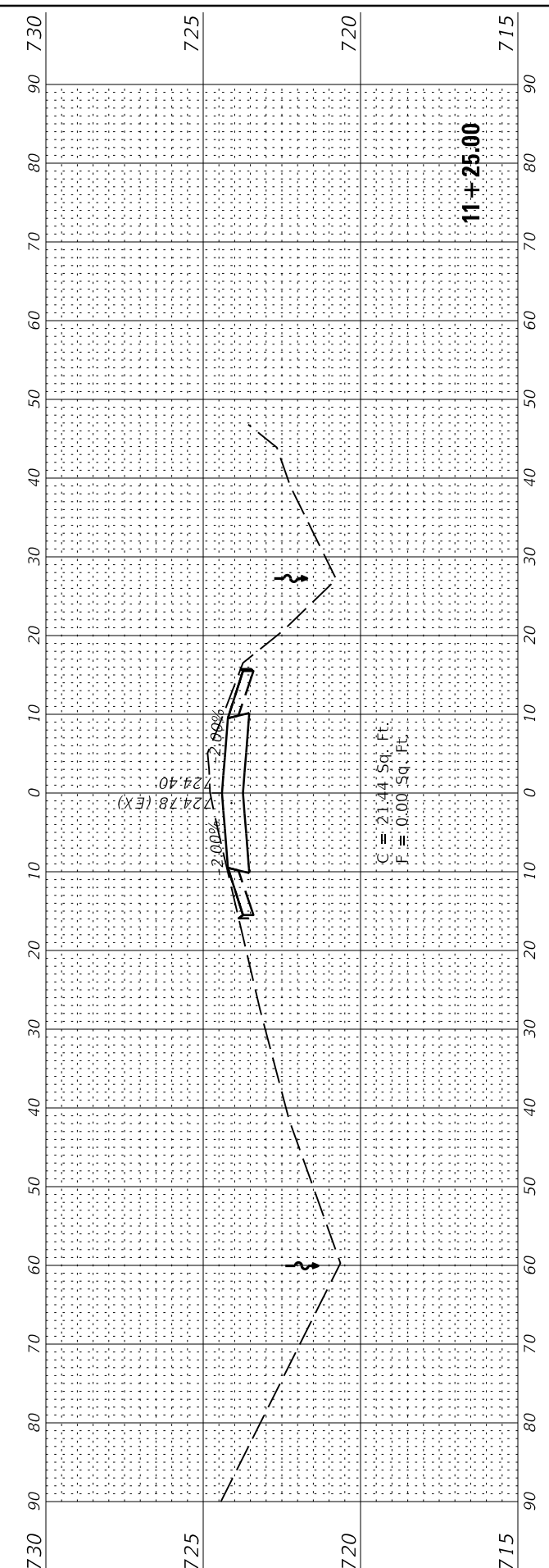


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	DRAWN - RJT	REVISED
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PLOT DATE = 3/29/2019 10:40:48 AM	DATE - 03/28/19	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

NORTH ROAD WIDENING - CROSS SECTIONS	
MAUTINO SF&W AREA	
SCALE: 1"=10'(H)/1"=2.5'(V)	SHEET 12 OF 13 SHEETS STA. TO STA.

F.A.P. RTE. ***	SECTION MAUTINO 2019	COUNTY	TOTAL SHEETS 43	SHEET NO. 32
CONTRACT NO. 46917			ILLINOIS FED. AID PROJECT	



018017708 Project Penumbra  
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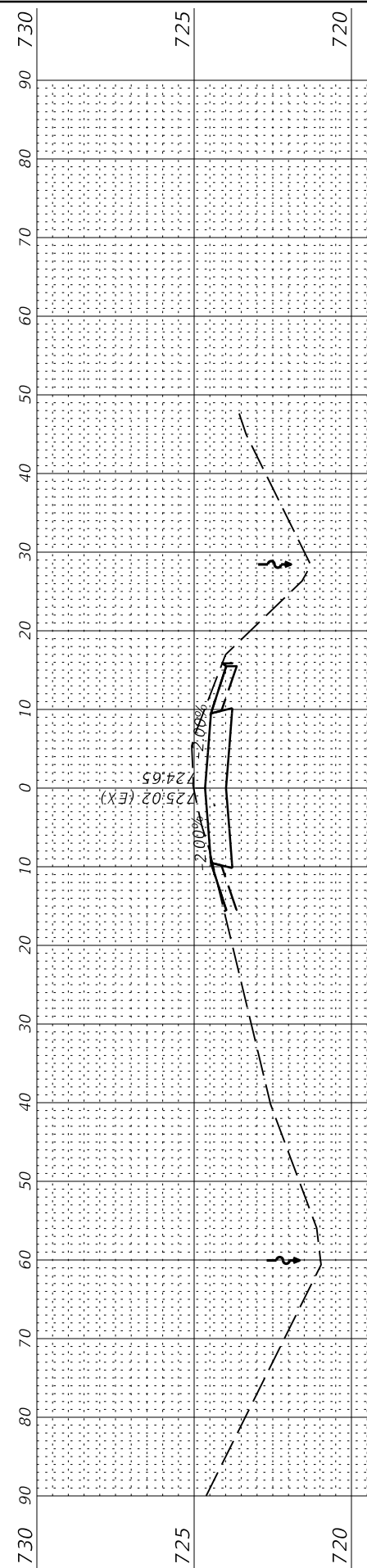
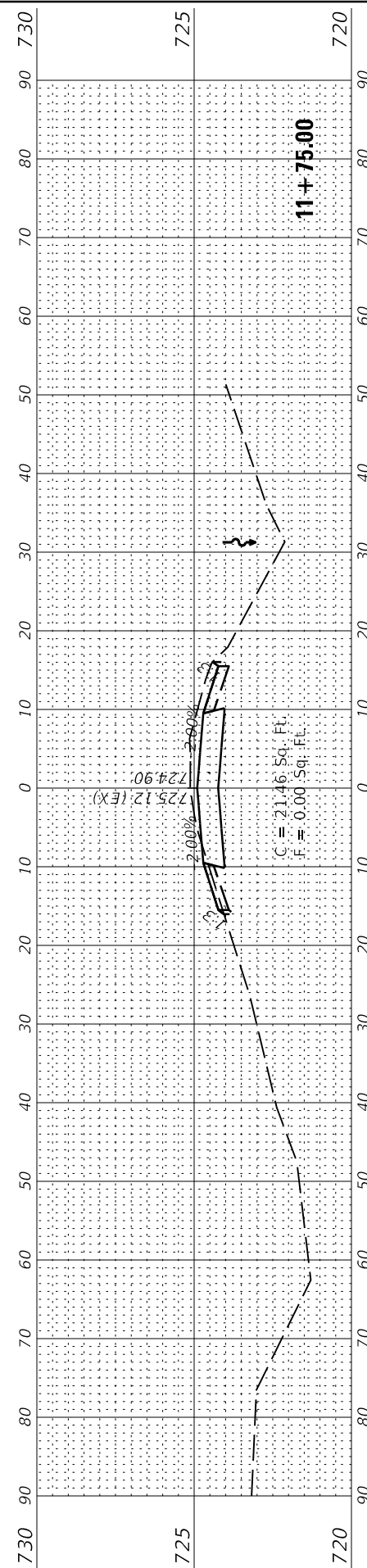
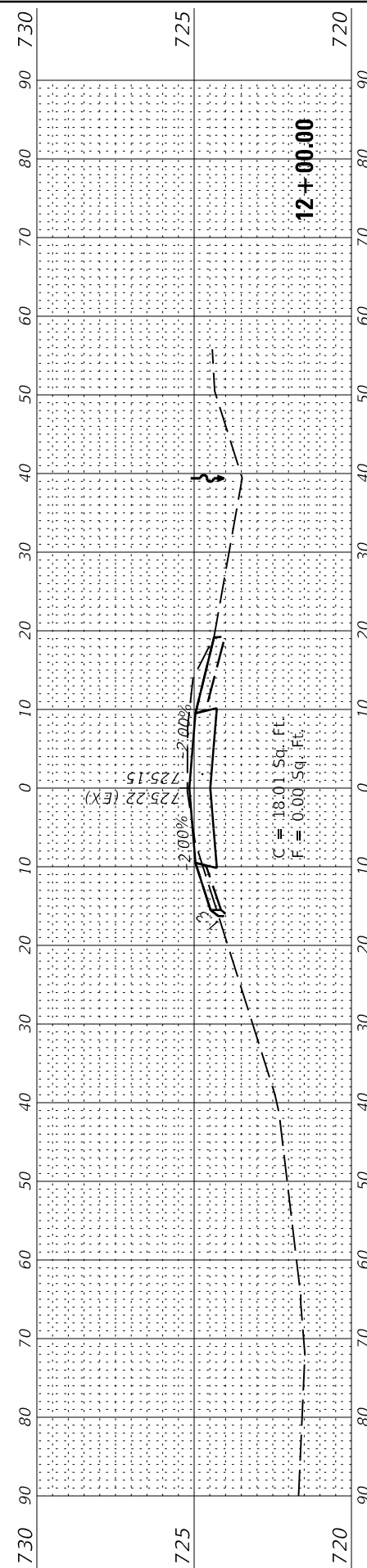
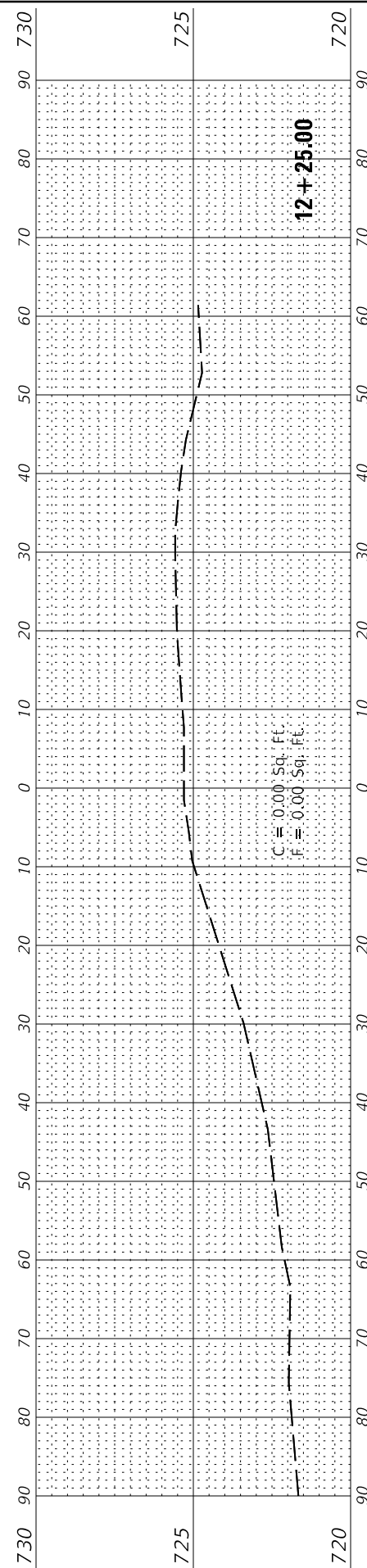
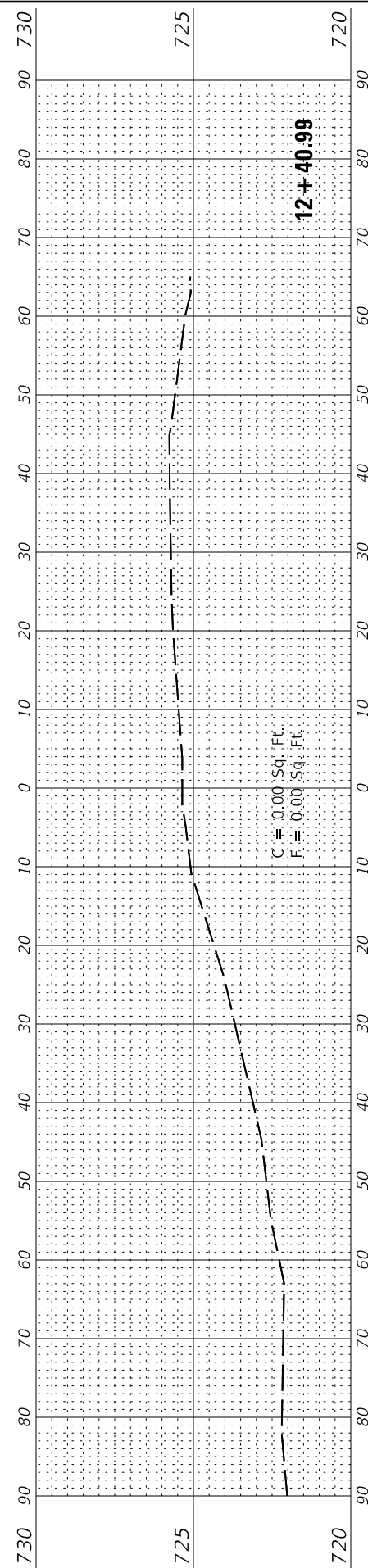
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 DATE - 03/28/19

REVISED  
 REVISED  
 REVISED  
 REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

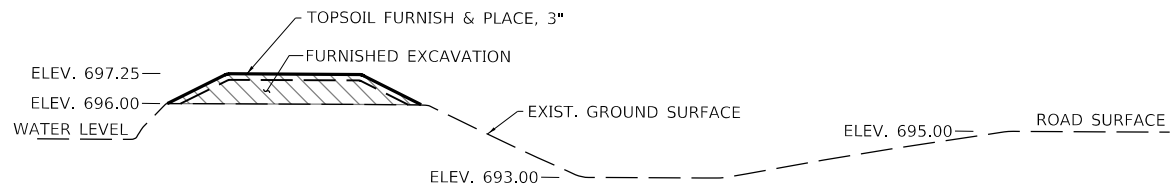
NORTH ROAD WIDENING - CROSS SECTIONS  
 MAUTINO SF&W AREA  
 SCALE: 1"=10'(H)/1"=2.5'(V) SHEET 13 OF 13 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019		43	33
CONTRACT NO. 46917				
ILLINOIS		FED. AID PROJECT		

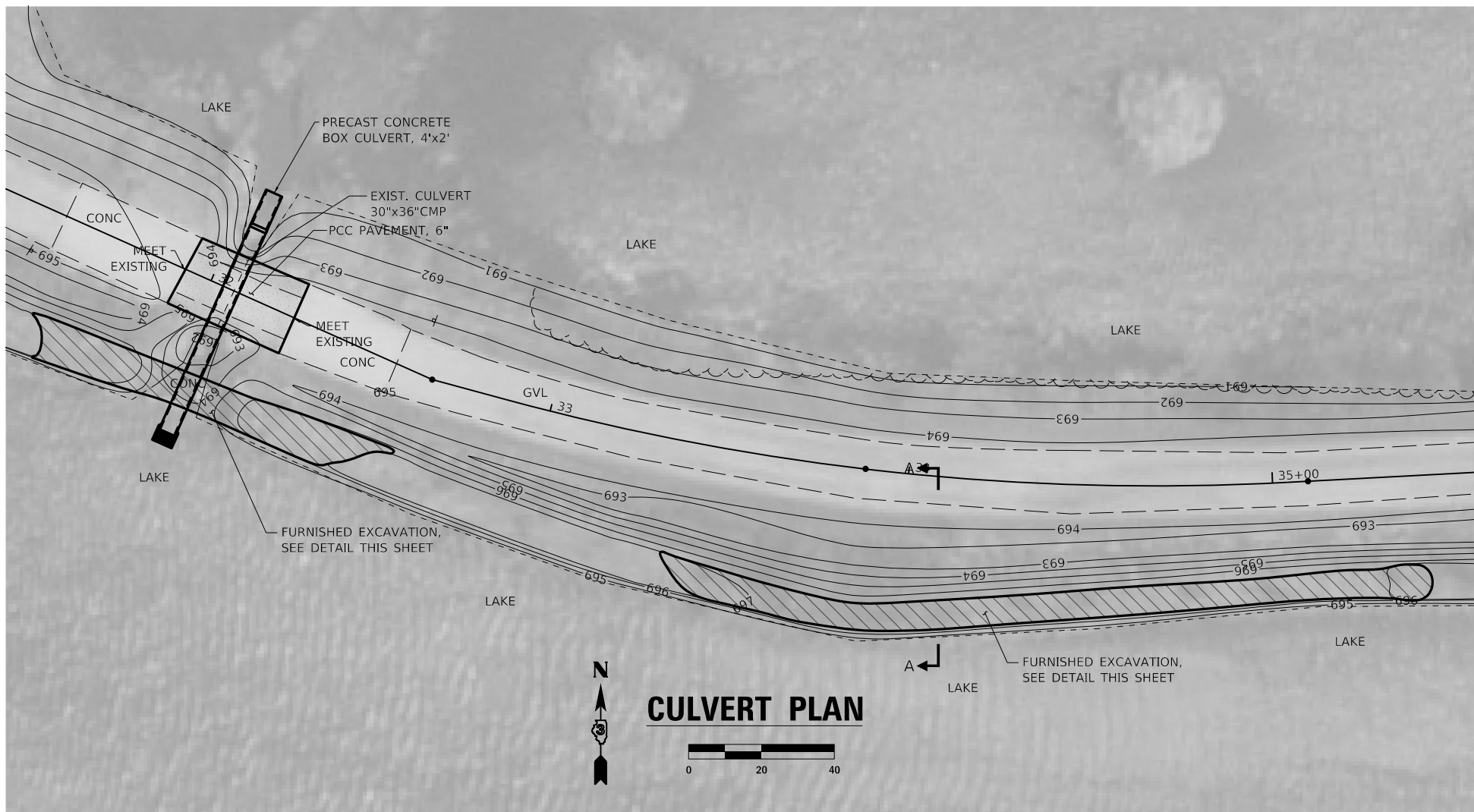




**WEIR PLAN**



**BERM SECTION "A"**  
(N.T.S.)



**CULVERT PLAN**

018017708 Project Plan.dwg  
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 FILE: I:\2019\03\28\18017708 - BDT\PTB\18017708 - MAUTINO SF&W Area\04\_Drawing\DCN\CAD\_Sheets\018017708\_081\_Weir - Culvert Plan.dwg

**Farnsworth GROUP**  
 2211 BRADLEY AVENUE  
 CHAMPAIGN, ILLINOIS 61821  
 (217) 352-7408 / info@f-w.com

USER NAME = jgrimm	DESIGNED - JGG	REVISED
	DRAWN - TCO / RJT	REVISED
PLOT SCALE = 24,000' / ft.	CHECKED - RPU	REVISED
PLOT DATE = 3/29/2019 10:40:50 AM	DATE - 03/28/19	REVISED

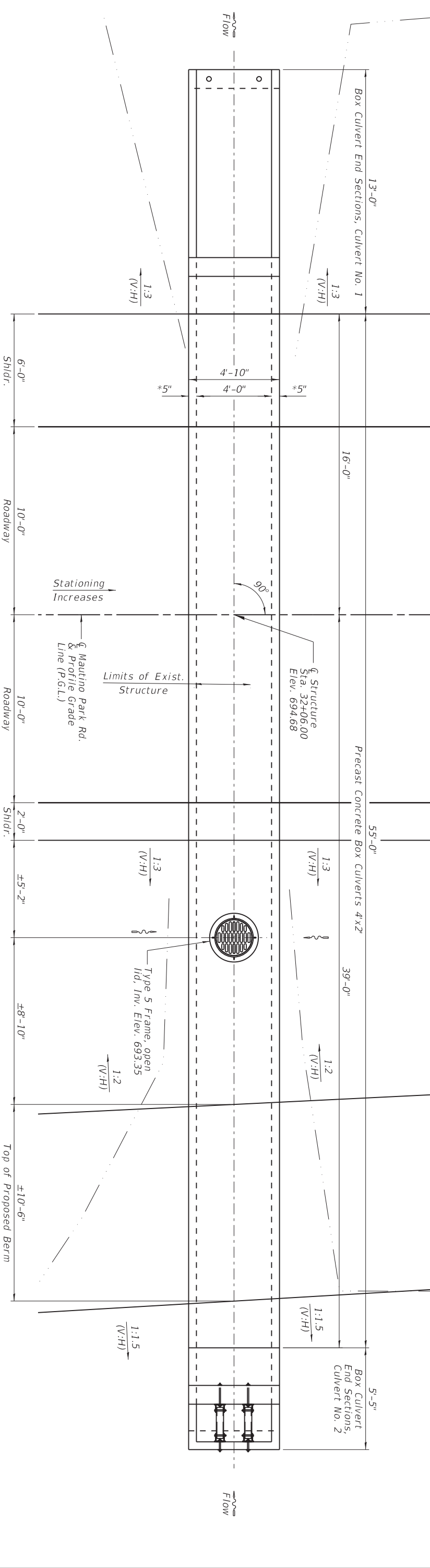
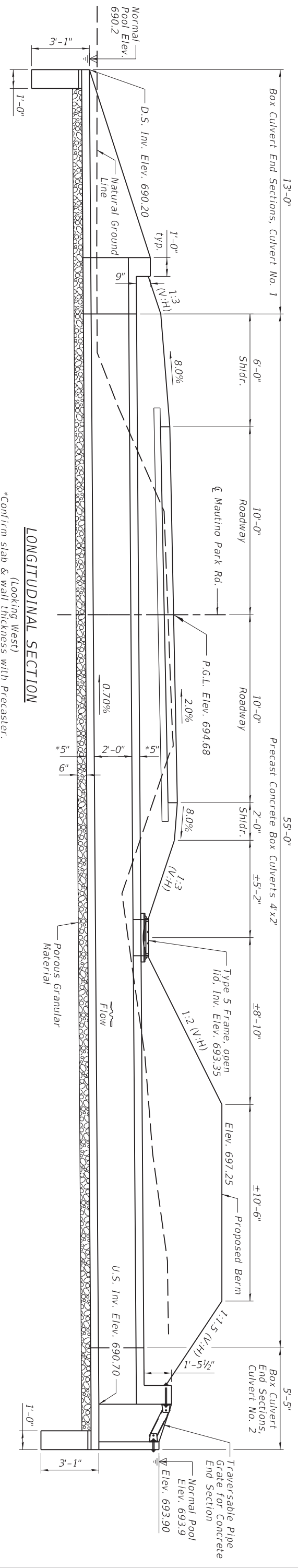
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**WEIR & CULVERT PLAN**  
**MAUTINO SF&W AREA**

SCALE: AS SHOWN SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. ***	SECTION MAUTINO 2019	COUNTY BUREAU	TOTAL SHEETS 43	SHEET NO. 34
			CONTRACT NO. 46917	
ILLINOIS FED. AID PROJECT				

Existing Structure: 30" x 36" x ±20' long CMP.  
No Salvage.



**DESIGN SPECIFICATIONS**

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

**LOADING HL-93**

Allow 50#/sq. ft. for future wearing surface.

**PLAN**

\*Confirm slab & wall thickness with Precaster.

**NOTES**

- The contractor shall be responsible for diverting the water flow from the construction site. Location - 1 covers the area of the culvert.

**DESIGN STRESSES**

**FIELD UNITS**

$f_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

**PRECAST UNITS**

$f_c = 5,000$  psi (Precast)  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 65,000$  psi (Welded Wire Fabric)

**INDEX OF SHEETS**

**TITLE**

- | SHEET NO. | TITLE   |
|-----------|---|
| 1         | GENERAL PLAN AND ELEVATION - STATION 32+06      |
| 2         | GENERAL DATA - STATION 32+06                    |
| 3-4       | BOX CULVERT END SECTIONS, CULVERT NO. 1         |
| 5-6       | BOX CULVERT END SECTIONS, CULVERT NO. 2         |
| 7         | TRAVERSABLE PIPE GRATE FOR CONCRETE END SECTION |

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USER NAME = jghnm	DESIGNED = JHP	REVISION
DRAWN = DJM	CHECKED = JCZ	REVISION
PILOT SCALE = 24,000'/1"	DATE = 03/28/19	REVISION
PILOT DATE = 9/20/18		REVISION

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION - STATION 32+06**  
MAUTINO SF&W AREA

SCALE: SHEET 1 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
MAUTINO 2019	BUREAU	43	36
ILLINOIS	FED. AID PROJECT	CONTRACT NO.	46917



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	DATE - 03/28/19	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

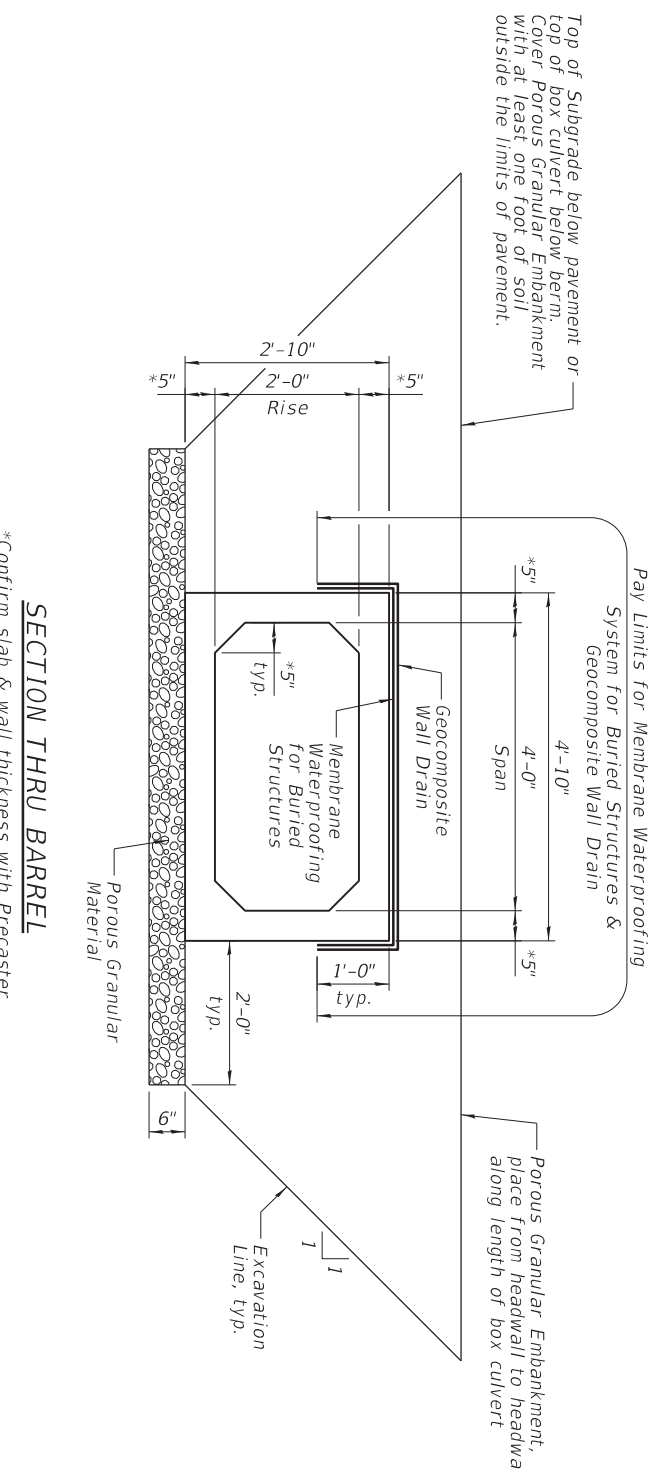
GENERAL DATA - STATION 32+06  
 MAUTINO SF&W AREA

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		CONTRACT NO.	46917	

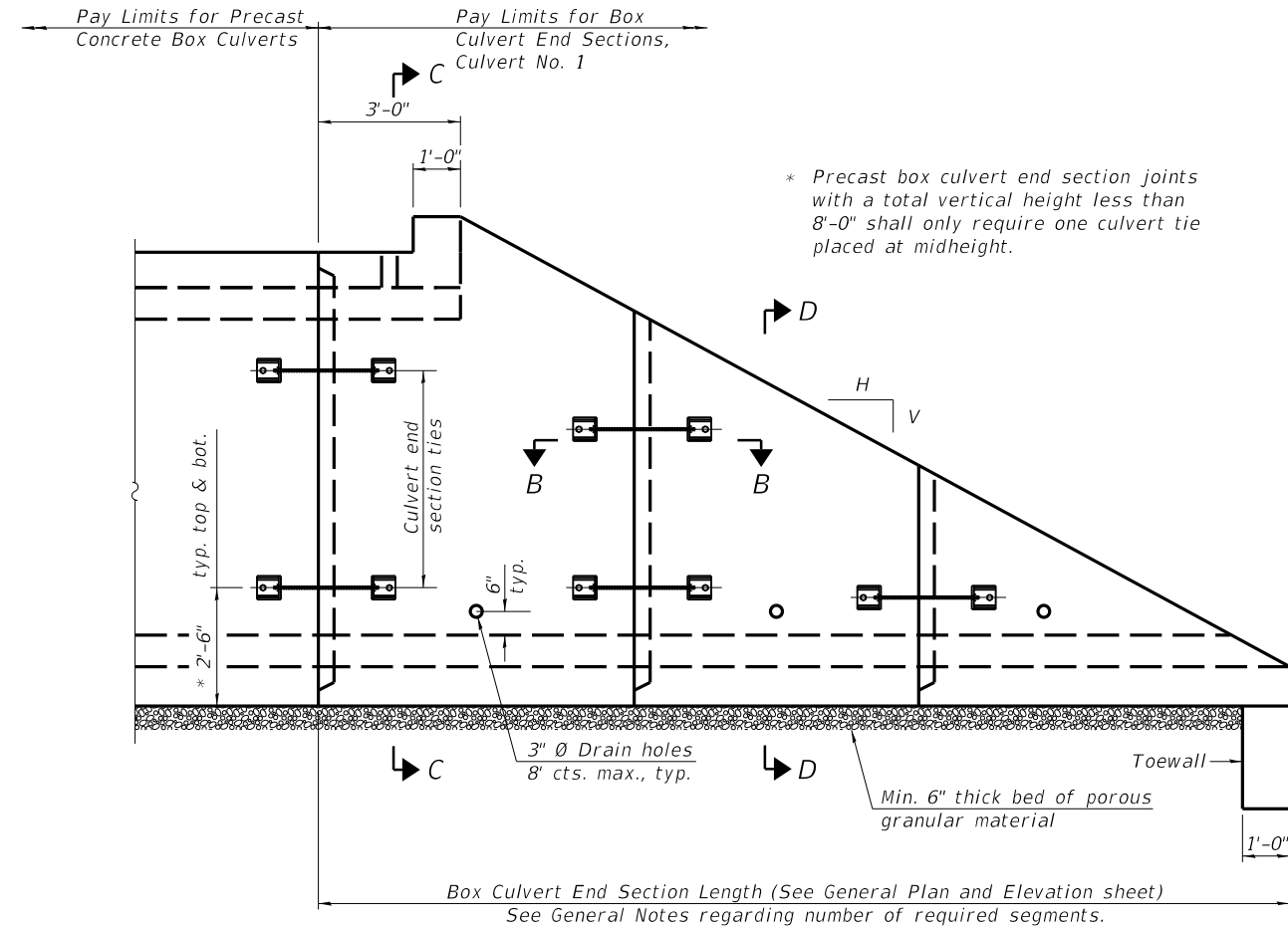
- GENERAL NOTES:**
- 1.) The design fill height for this box is ±1.8 ft. The precast box culvert sections shall conform to the requirements of ASTM C1577.
  - 2.) The Contractor shall be responsible for diverting the water from the construction area using a method meeting the approval of the Engineer.

**TOTAL BILL OF MATERIAL**

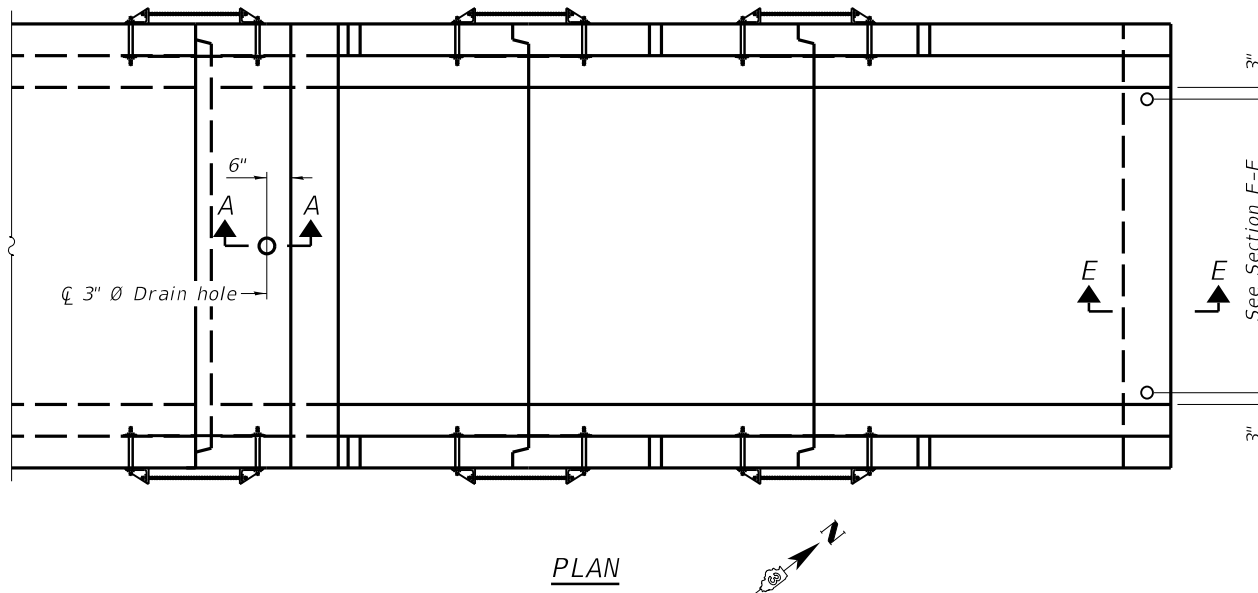
ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	58
Pipe Culvert Removal	Foot	20
Box Culvert End Sections, Culvert No. 1	Each	1
Box Culvert End Sections, Culvert No. 2	Each	1
Precast Concrete Box Culverts 4'x2'	Foot	55
Traversable Pipe Grate for Concrete End Section	Foot	4
Geocomposite Wall Drain	Sq. Yd.	46
Frames and Lids, Type 5, Open Lid	Each	1
Membrane Waterproofing System for Buried Structures	Sq. Yd.	46
Dewatering Structure	Each	1



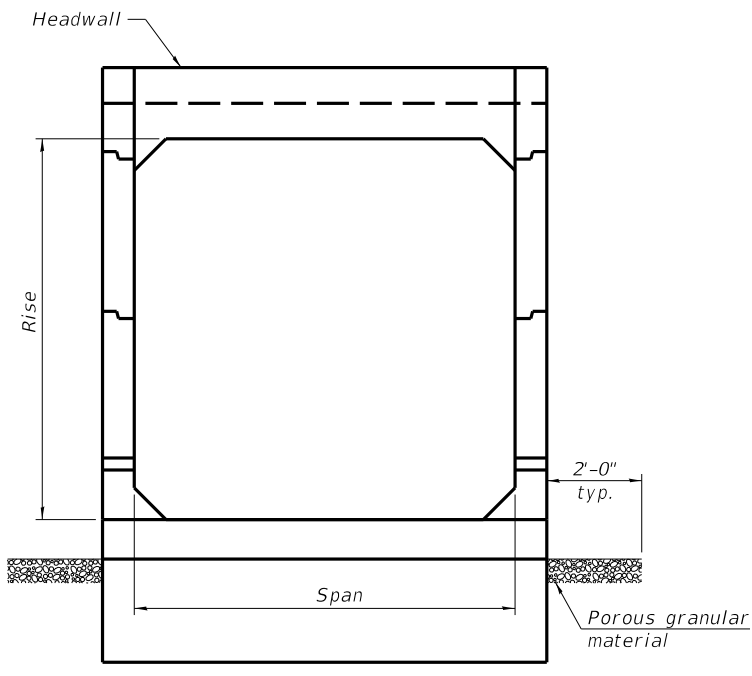




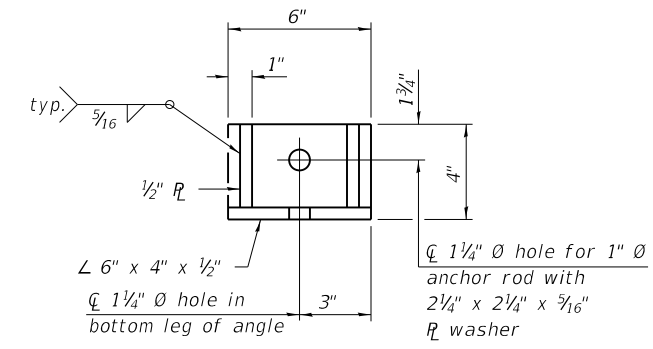
**ELEVATION**



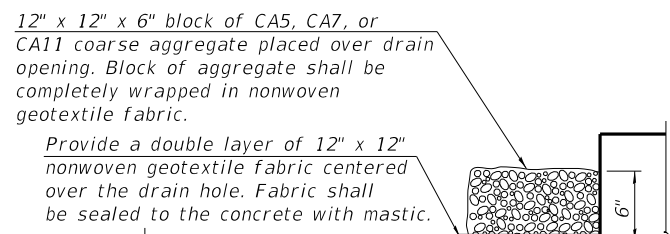
**PLAN**



**END VIEW**



**RESTRAINT ANGLE DETAIL**



**SECTION A-A**

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.) (Sheet 1 of 2)

**GENERAL NOTES**

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. This work will be measured for payment as each, with each end of each culvert being one each. End sections will be paid for at the contract unit price per each for Box Culvert End Sections of the culvert number specified.

Typical box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements of ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Number of segments shown in Elevation is for example only. Length and number of precast box sections required to construct Box Culvert End Sections shall be determined by the Contractor.

See roadway plans for embankment slope (V:H).

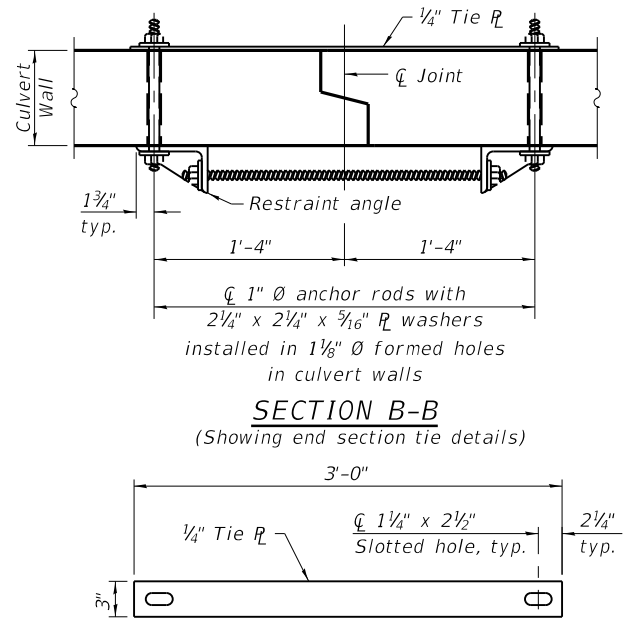
1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4" x 2 1/4" x 5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 1/2 turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

All costs associated with furnishing and installing or constructing the toewall and culvert ties will not be measured for payment but shall be included in the contract unit price for Box Culvert End Sections of the culvert number specified.

Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd..

For end sections with traversable pipe grate systems, see grate detail sheet for required modifications.



**TIE PLATE DETAIL**

018017708 Project Penalt...  
 03/28/19...  
 03/28/19...  
 03/28/19...

SCB-TES

2-17-2017

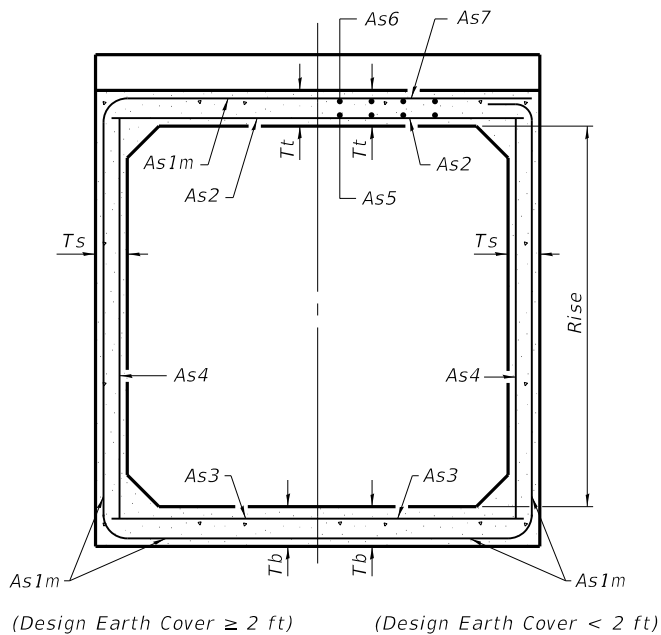
**Farnsworth GROUP**  
 2211 BRADLEY AVENUE  
 CHAMPAIGN, ILLINOIS 61821  
 (217) 352-7408 / info@f-w.com

USER NAME = jgrimm	DESIGNED - IIP	REVISED
PLOT SCALE = 24,000' / ft.	DRAWN - DJM	REVISED
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	DATE - 03/28/19	REVISED

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

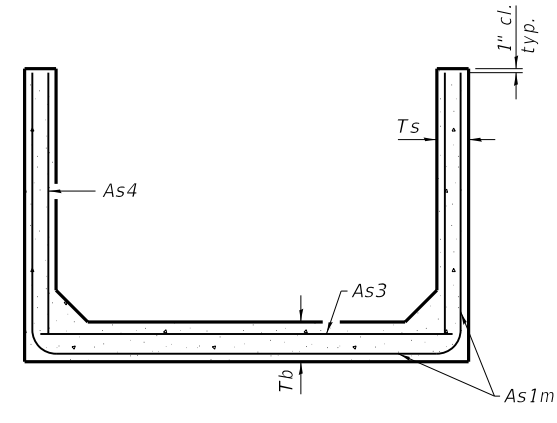
<b>BOX CULVERT END SECTIONS, CULVERT NO. 1</b>	
<b>MAUTINO SF&amp;W AREA</b>	
SCALE:	SHEET 3 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	37
			CONTRACT NO. 46917	
		ILLINOIS FED. AID PROJECT		

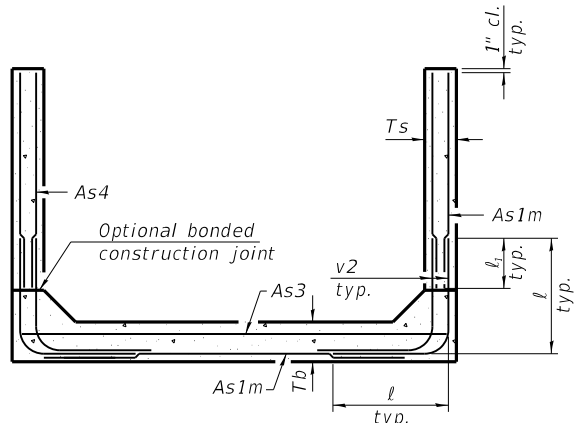


**SECTION C-C**

(Design Earth Cover  $\geq$  2 ft) (Design Earth Cover < 2 ft)



**SECTION D-D**



**ALTERNATE SECTION D-D**

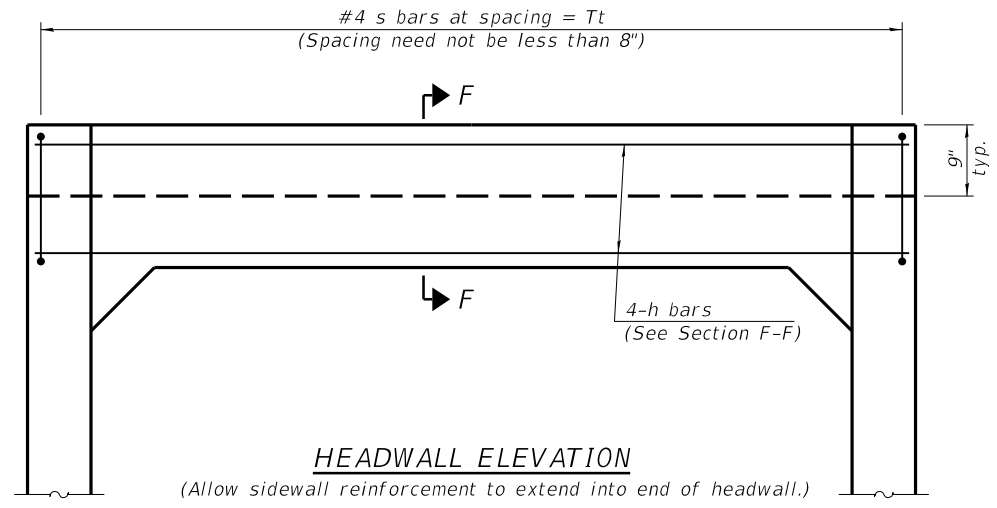
As1m REINFORCEMENT												
(in. <sup>2</sup> /ft)												
Rise (ft)	2	3	4	5	6	7	8	9	10	11	12	
Ts (in.)												
4	0.19	0.17										
5	0.26	0.21	0.18									
6	0.22	0.26	0.23	0.22								
7	0.25	0.33	0.59	0.27	0.28							
8	0.40	0.35	0.43	0.39	0.36	0.34	0.40					
9	0.44	0.39	0.35	0.43	0.40	0.37	0.36	0.48				
10	0.48	0.42	0.38	0.47	0.44	0.41	0.38	0.42	0.56			
11	0.52	0.45	0.54	0.50	0.46	0.44	0.41	0.46	0.50	0.65		
12	0.55	0.49	0.58	0.54	0.50	0.48	0.45	0.46	0.46	0.61	0.75	

(As1m reinforcement based upon welded wire reinforcement conforming to AASHTO M 55 or M 221).

**l<sub>1</sub> DIMENSION**

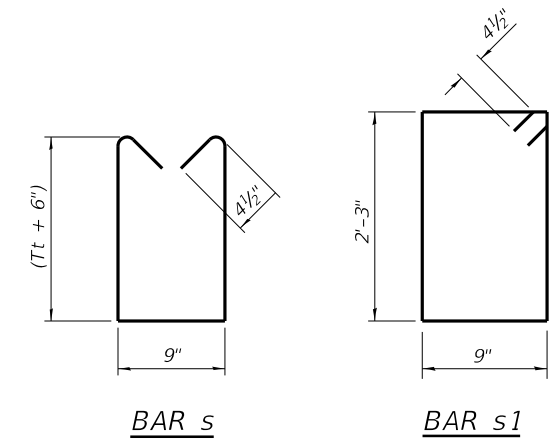
- #3 bar = 2'-0"
- #4 bar = 2'-8"
- #5 bar = 3'-4"
- #6 bar = 3'-11"

**Notes:**  
 Alternate Section D-D is provided to allow the Contractor the option of casting the bottom slab of the end section first followed by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval when using Alternate Section D-D.  
 The size and spacing of the v2 bars shall provide a minimum reinforcement area along each face of the walls (in.<sup>2</sup>/ft.) equal to 1.10\*(As1m). v2 bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.  
 Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.



**HEADWALL ELEVATION**

(Allow sidewall reinforcement to extend into end of headwall.)



**BAR s**

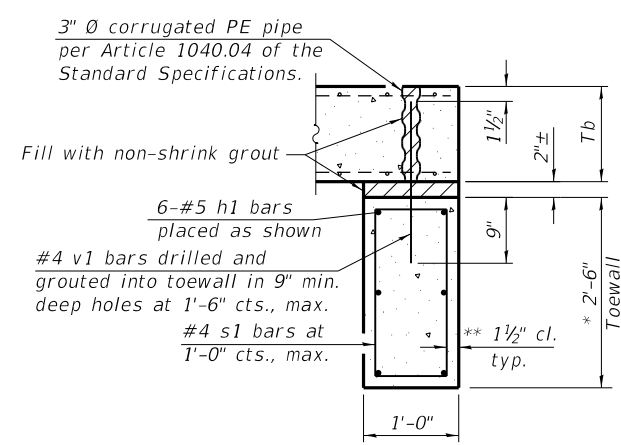
**BAR s1**

**TOEWALL CONSTRUCTION SEQUENCE**

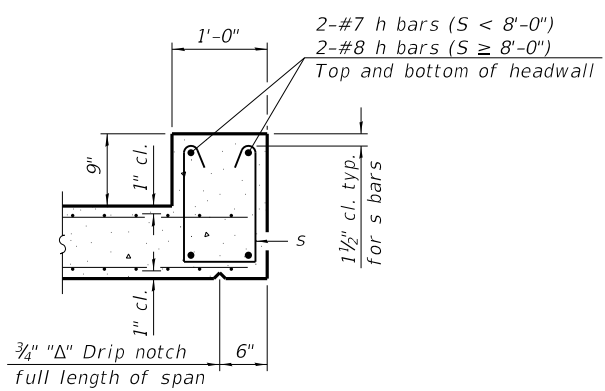
1. Perform excavation and construct toewall.
2. Backfill according to the applicable paragraphs of Article 502.10 of the Standard Specifications and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

\* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling the method.

\*\* If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.



**SECTION E-E**



**SECTION F-F**

SCB-TES

2-17-2017

(Sheet 2 of 2)

018017708 Project Penalt...  
 PEN TABLE: 018017708 Project Penalt...  
 DRIVER: 018017708 Project Penalt...  
 SHEET: 018017708 Project Penalt...

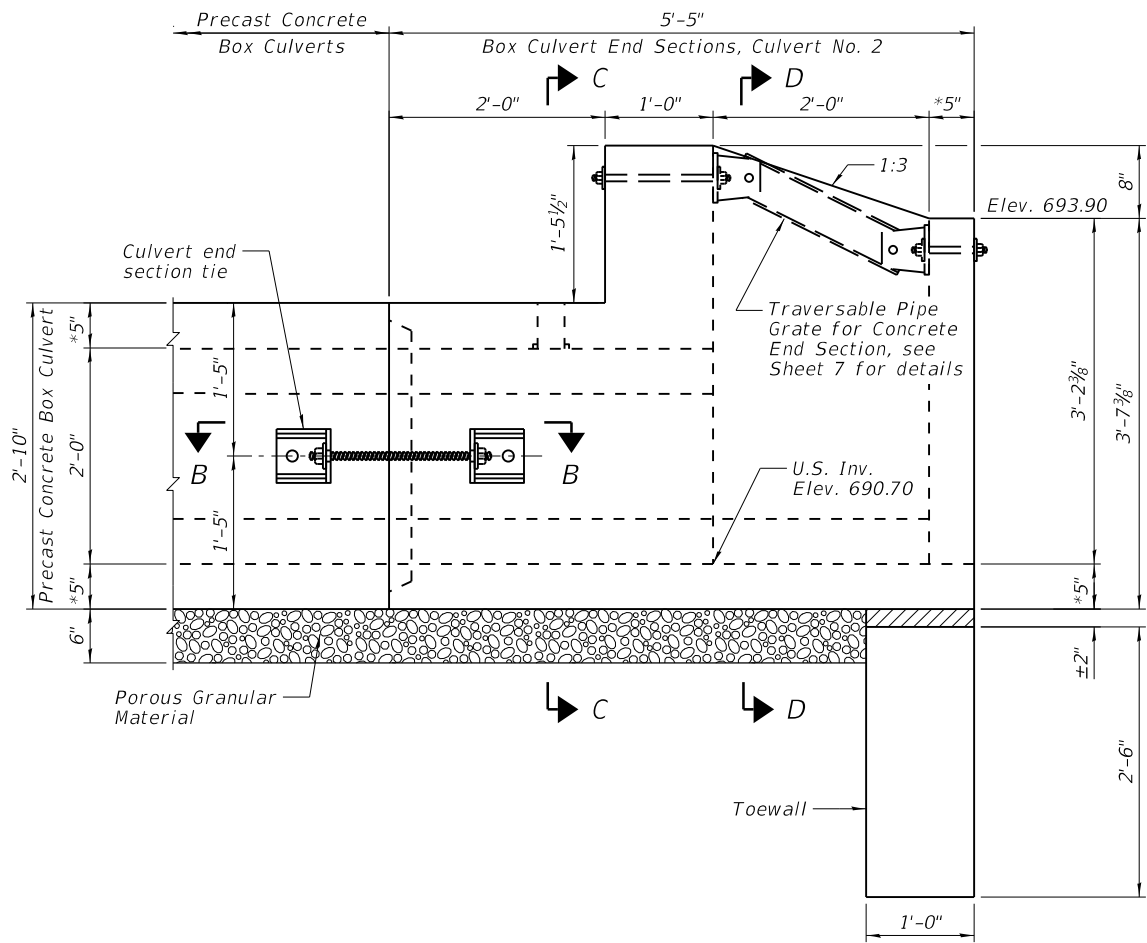
**Farnsworth GROUP**  
 2211 BRADLEY AVENUE  
 CHAMPAIGN, ILLINOIS 61821  
 (217) 352-7408 / info@f-w.com

USER NAME = jgrimm	DESIGNED - IIP	REVISED
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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

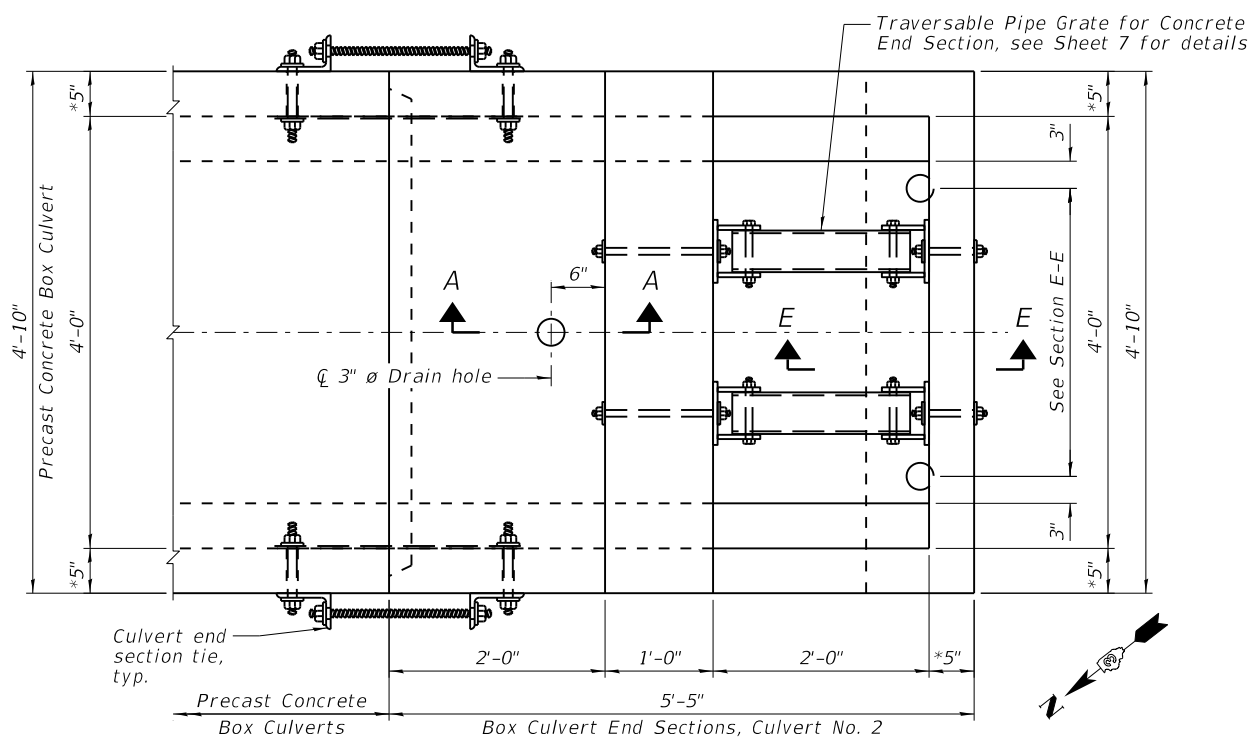
<b>BOX CULVERT END SECTIONS, CULVERT NO. 1</b>	
<b>MAUTINO SF&amp;W AREA</b>	
SCALE:	SHEET 4 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	38
CONTRACT NO. 46917			ILLINOIS FED. AID PROJECT	



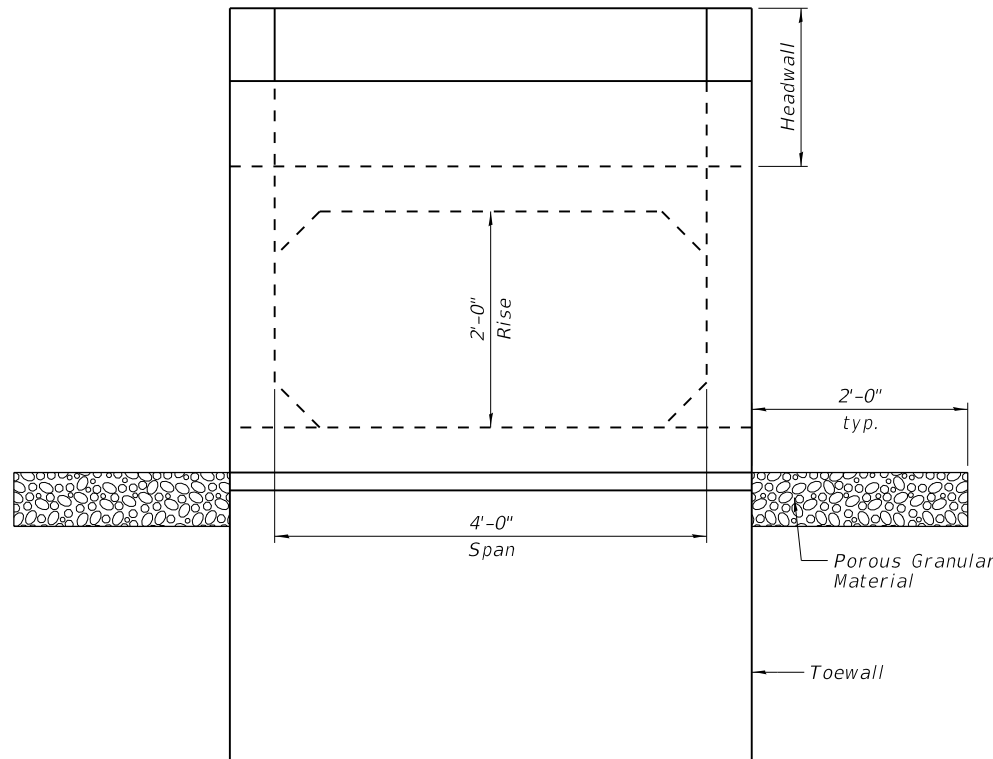
**ELEVATION**

\*Confirm slab & wall thickness with Precaster.

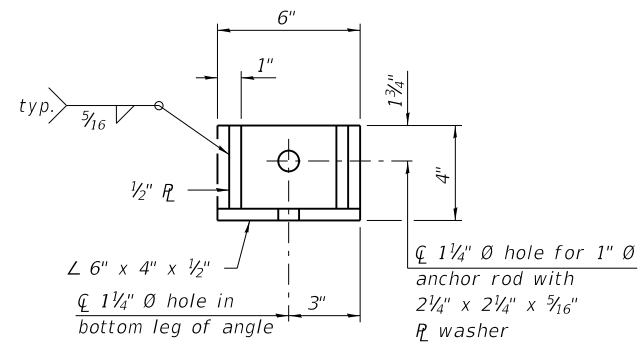


**PLAN**

\*Confirm slab & wall thickness with Precaster.



**END VIEW**



**RESTRAINT ANGLE DETAIL**

12" x 12" x 6" block of CA5, CA7, or CA11 coarse aggregate placed over drain opening. Block of aggregate shall be completely wrapped in nonwoven geotextile fabric.

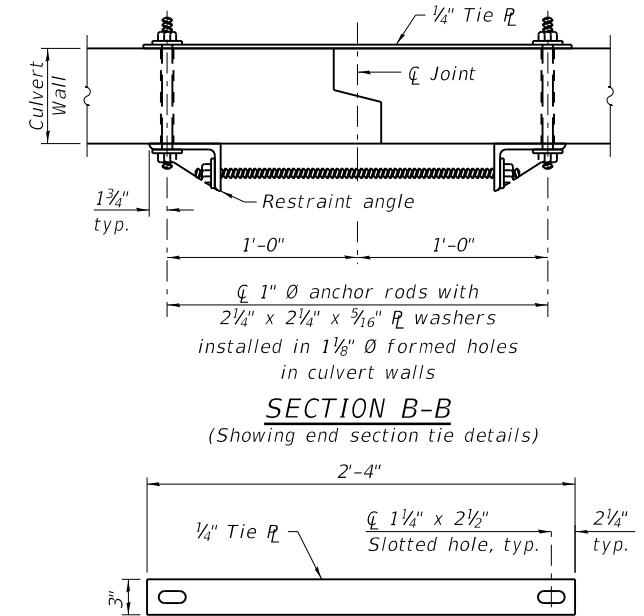
Provide a double layer of 12" x 12" nonwoven geotextile fabric centered over the drain hole. Fabric shall be sealed to the concrete with mastic.

3" Ø PVC drain cast with the concrete (Adjust location to clear reinforcement).

1/2" Square foam blockout around PVC drain (to be removed with formwork)

**SECTION A-A**

(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.)



**SECTION B-B**  
(Showing end section tie details)

**TIE PLATE DETAIL**

**GENERAL NOTES**

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. This work will be measured for payment as each, with each end of each culvert being one each. End sections will be paid for at the contract unit price per each for Box Culvert End Sections of the culvert number specified.

Typical box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements of ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Number of segments shown in Elevation is for example only. Length and number of precast box sections required to construct Box Culvert End Sections shall be determined by the Contractor.

See roadway plans for embankment slope (V:H).

1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/4" x 2 1/4" x 5/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 1/2 turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

All costs associated with furnishing and installing or constructing the toewall and culvert ties will not be measured for payment but shall be included in the contract unit price for Box Culvert End Sections of the culvert number specified.

Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd..

For end sections with traversable pipe grate systems, see grate detail sheet for required modifications.

018017708 Project Penumbra  
 PEN TABLE: 018017708  
 DRIVER: 018017708  
 SHEET: 018017708-BOX END SECTIONS-MAUTINO SF&W AREA  
 FILE: 18017708-BOX END SECTIONS-MAUTINO SF&W AREA.dwg

**Farnsworth GROUP**  
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 (217) 352-7408 | info@f-w.com

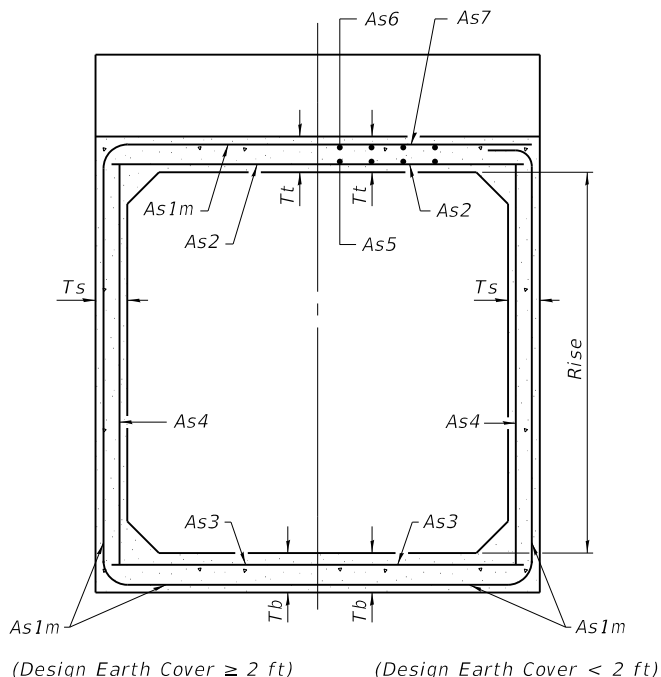
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	DATE - 03/28/19	REVISED

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

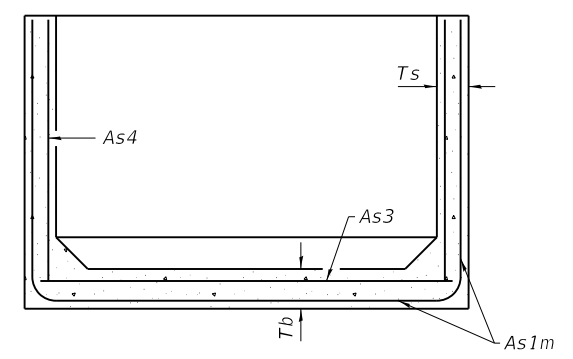
**BOX CULVERT END SECTIONS, CULVERT NO. 2  
 MAUTINO SF&W AREA**

SCALE: SHEET 5 OF 7 SHEETS STA. TO STA.

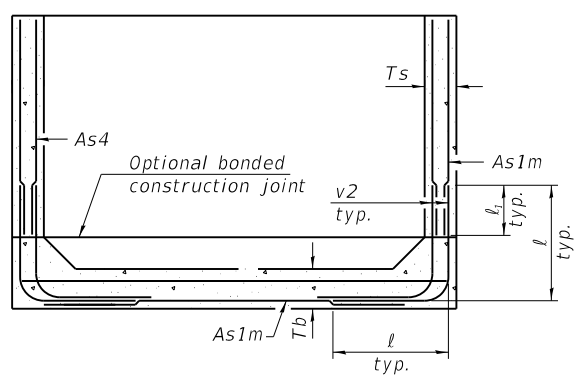
F.A.P. RTE. ***	SECTION MAUTINO 2019	COUNTY BUREAU	TOTAL SHEETS 43	SHEET NO. 39
			CONTRACT NO. 46917	
ILLINOIS FED. AID PROJECT				



**SECTION C-C**



**SECTION D-D**



**ALTERNATE SECTION D-D**

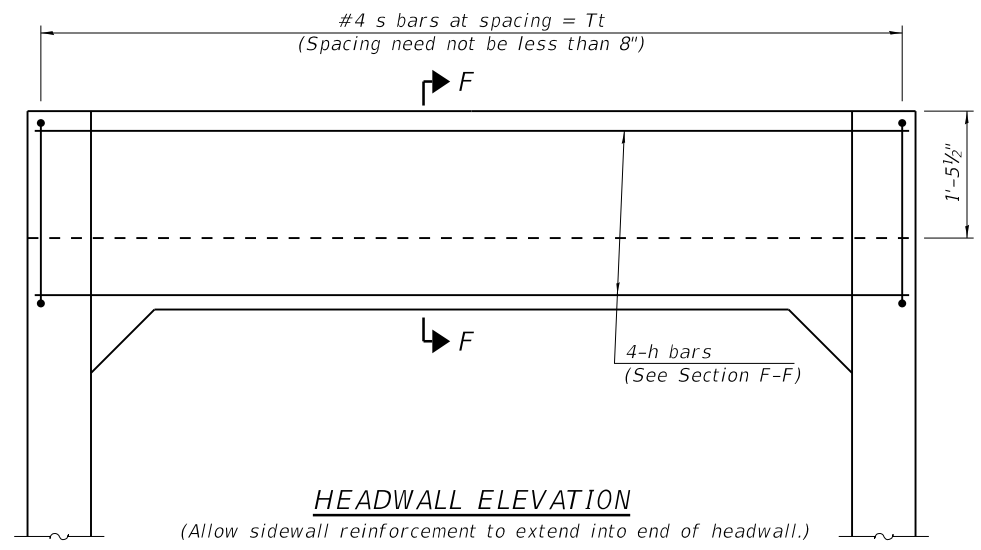
As1m REINFORCEMENT												
(in. <sup>2</sup> / ft)												
Rise (ft)	2	3	4	5	6	7	8	9	10	11	12	
4	0.19	0.17										
5	0.26	0.21	0.18									
6	0.22	0.26	0.23	0.22								
7	0.25	0.33	0.59	0.27	0.28							
8	0.40	0.35	0.43	0.39	0.36	0.34	0.40					
9	0.44	0.39	0.35	0.43	0.40	0.37	0.36	0.48				
10	0.48	0.42	0.38	0.47	0.44	0.41	0.38	0.42	0.56			
11	0.52	0.45	0.54	0.50	0.46	0.44	0.41	0.46	0.50	0.65		
12	0.55	0.49	0.58	0.54	0.50	0.48	0.45	0.46	0.46	0.61	0.75	

(As1m reinforcement based upon welded wire reinforcement conforming to AASHTO M 55 or M 221).

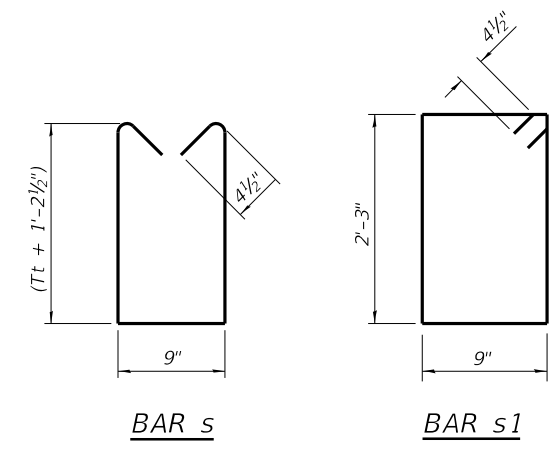
**Notes:**  
 Alternate Section D-D is provided to allow the Contractor the option of casting the bottom slab of the end section first followed by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval when using Alternate Section D-D.  
 The size and spacing of the v2 bars shall provide a minimum reinforcement area along each face of the walls (in.<sup>2</sup>/ft.) equal to 1.10\*(As1m). v2 bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.  
 Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.  
 Shop drawings shall detail corner reinforcement in the walls.

**l<sub>1</sub> DIMENSION**

- #3 bar = 2'-0"
- #4 bar = 2'-8"
- #5 bar = 3'-4"
- #6 bar = 3'-11"

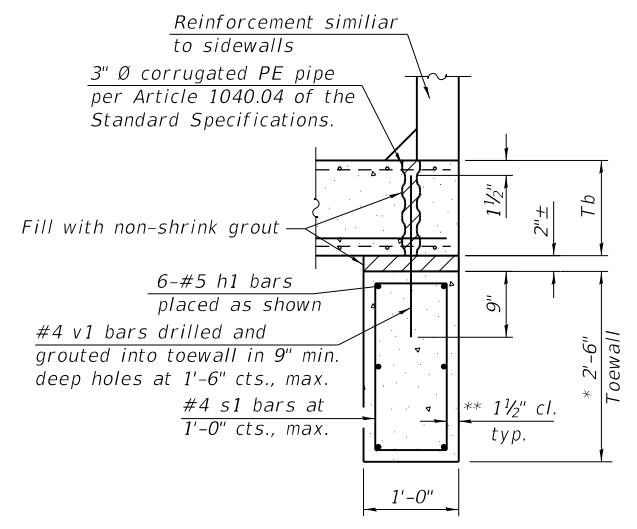


**HEADWALL ELEVATION**



**BAR s**

**BAR s1**



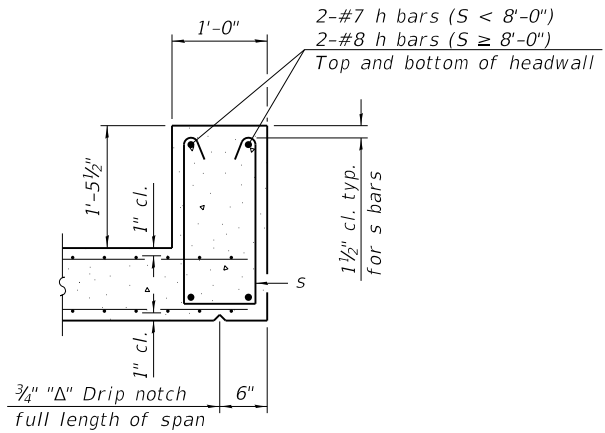
**SECTION E-E**

**TOEWALL CONSTRUCTION SEQUENCE**

1. Perform excavation and construct toewall.
2. Backfill according to the applicable paragraphs of Article 502.10 of the Standard Specifications and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

\* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling the method.

\*\* If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.



**SECTION F-F**

018017708 Project Penalt...  
 PEN TABLE: 018017708 Project Penalt...  
 DRIVER: 018017708 Project Penalt...  
 SHEET: 018017708 Project Penalt...



USER NAME = jgrimm  
 DESIGNED - IIP  
 DRAWN - DJM  
 CHECKED - JCZ  
 DATE - 03/28/19

DESIGNED - IIP  
 DRAWN - DJM  
 CHECKED - JCZ  
 DATE - 03/28/19

REVISIONS  
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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

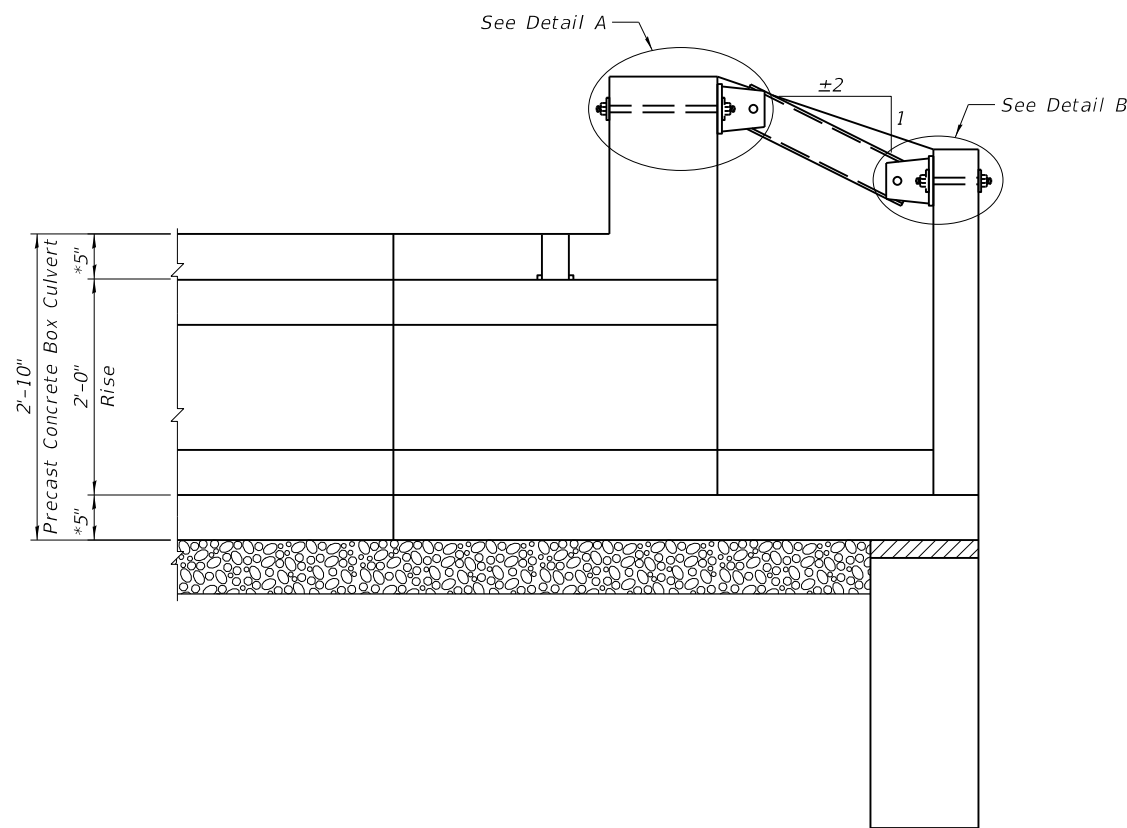
**BOX CULVERT END SECTIONS, CULVERT NO. 2  
 MAUTINO SF&W AREA**

SCALE: SHEET 6 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	40
CONTRACT NO. 46917			ILLINOIS FED. AID PROJECT	

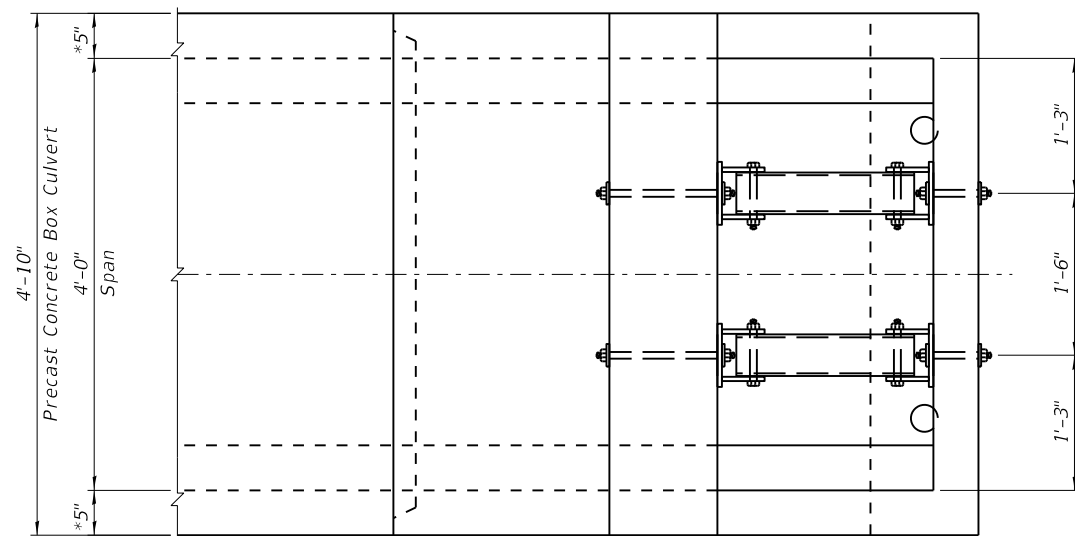
**GENERAL NOTES**

The minimum edge distance from the center of a hole to the free edge of a structural shape or plate shall be 1 1/2" unless noted otherwise.  
 This standard shall only be used on concrete end sections not skewed more than ±15 degrees with roadway.  
 The Contractor may install the thru bolts using drilling and grouting in lieu of providing a formed hole using steel pipe. Installation shall be in accordance with Article 509.06 using a method that results in the annulus surrounding the bolt being completed filled with adhesive. The method of drilling shall not result in spalled concrete at the exit face. Epoxy grouted thru bolts shall be snug tightened followed by an additional 1/2 turn on the interior nut at final installation. Cost included with Traversable Pipe Grate for Concrete End Section.



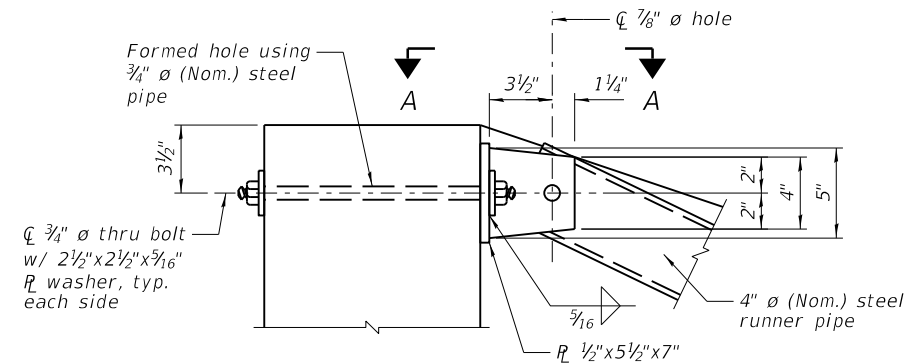
**LONGITUDINAL SECTION**

\*Confirm slab & wall thickness with Precaster.

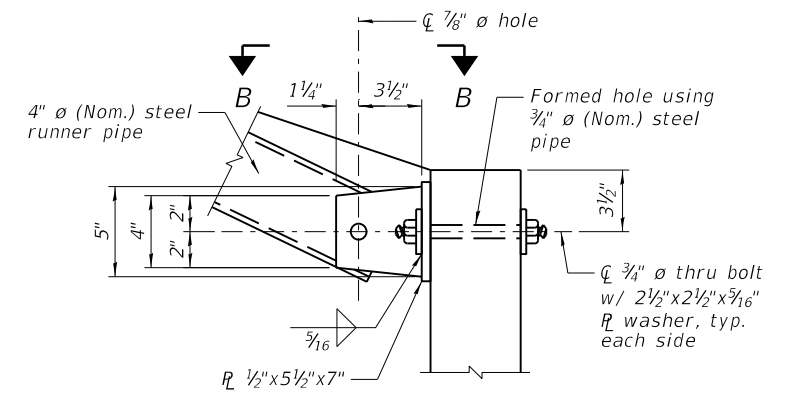


**PLAN VIEW**

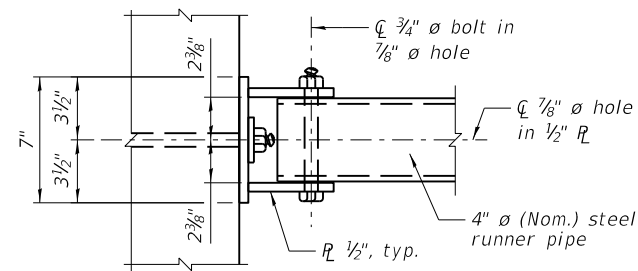
\*Confirm slab & wall thickness with Precaster.



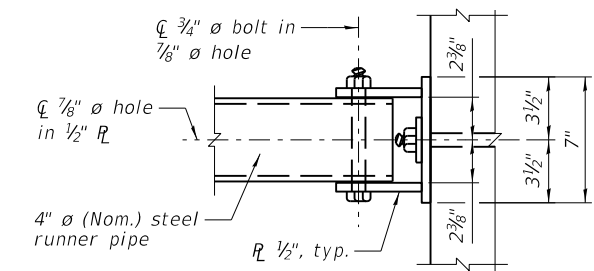
**DETAIL A**



**DETAIL B**



**VIEW A-A**



**VIEW B-B**

018017708 Project Penalt  
 1/19/2019 10:40:57 AM  
 FILE: I:\2018\018017708 - BDT\PTB 186-013\_Maurino SF&W Area\04\_Drawing\DCNCAD\_Sheet\018017708 107 Traverser Ppe Gate.dgn  
 PEN TABLE: DRIVER  
 SHEET

**Farnsworth GROUP**  
 2211 BRADLEY AVENUE  
 CHAMPAIGN, ILLINOIS 61821  
 (217) 352-7408 / info@f-w.com

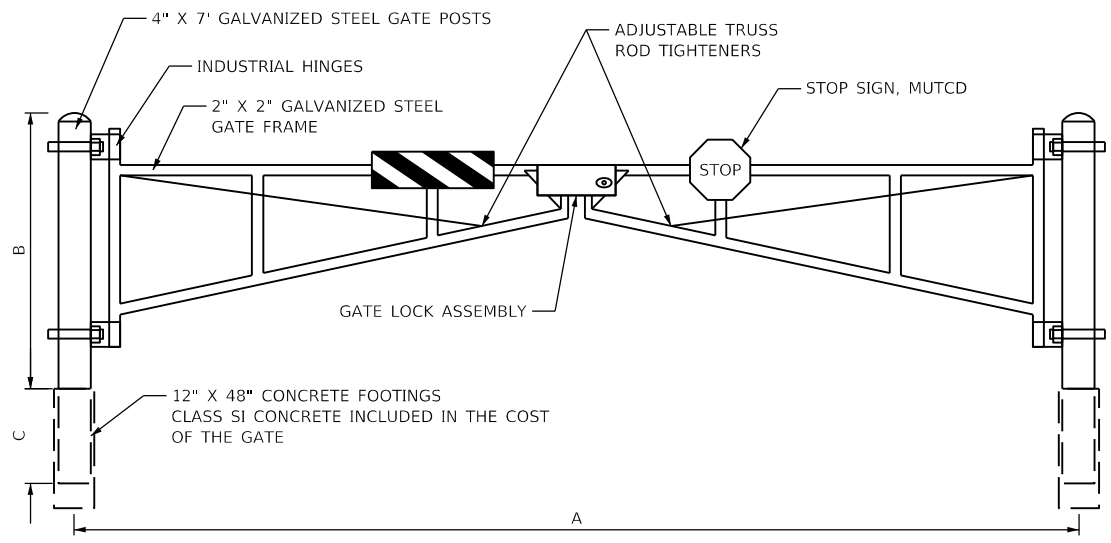
USER NAME = jgrimm	DESIGNED - IIP	REVISED
PLOT SCALE = 24,000' / ft.	DRAWN - DJM	REVISED
PLOT DATE = 3/29/2019 10:40:57 AM	CHECKED - JCZ	REVISED
	DATE - 03/28/19	REVISED

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**TRAVERSABLE PIPE GRATE FOR CONCRETE END SECTION  
 MAUTINO SF&W AREA**

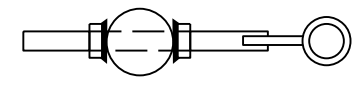
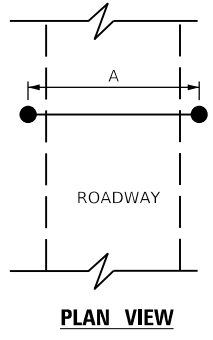
SCALE: SHEET 7 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	41
			CONTRACT NO. 46917	
		ILLINOIS	FED. AID PROJECT	

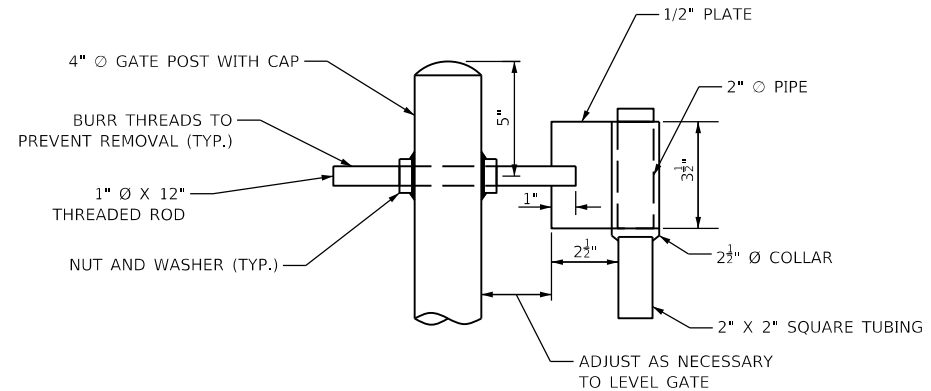


LOCATIONS	A	B	C
MIRROR LAKE PARKING LOT	30	4	3
HIGH WALL LAKE PARKING LOT	30	4	3

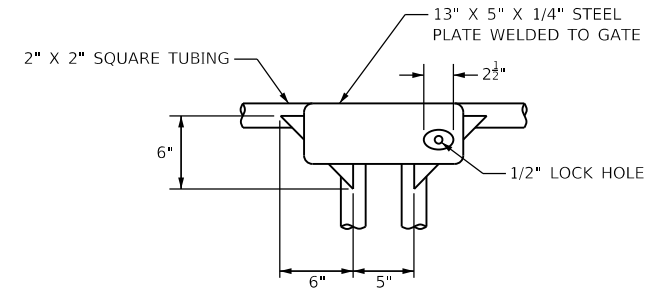
NOTES:  
CONTRACTOR SHALL VERIFY DIMENSION "A" WITH ENGINEER PRIOR TO MANUFACTURING GATE



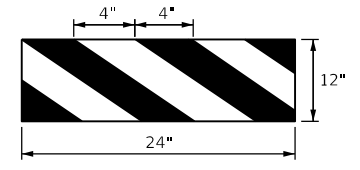
PLAN VIEW



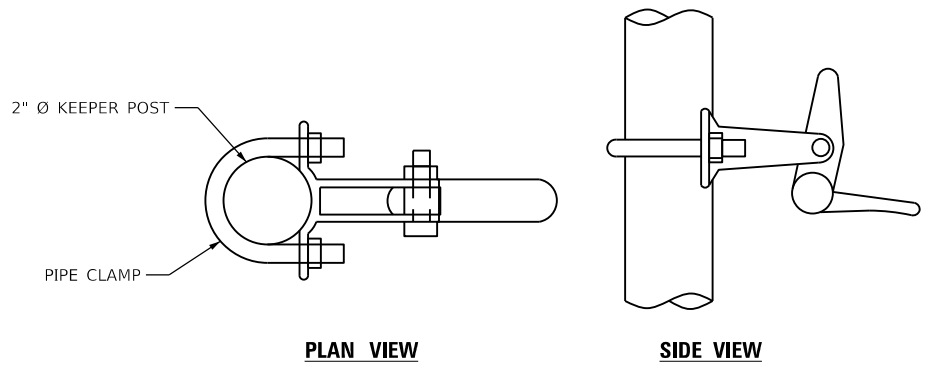
TOP GATE HINGE



GATE LOCK ASSEMBLY



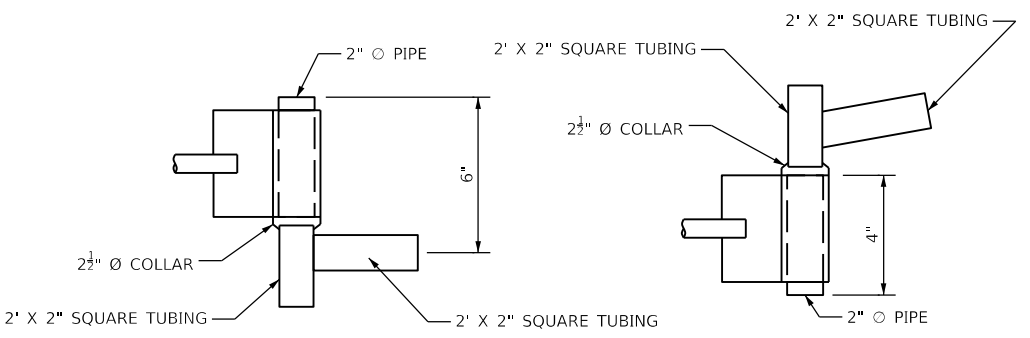
HORIZONTAL PANEL DETAIL



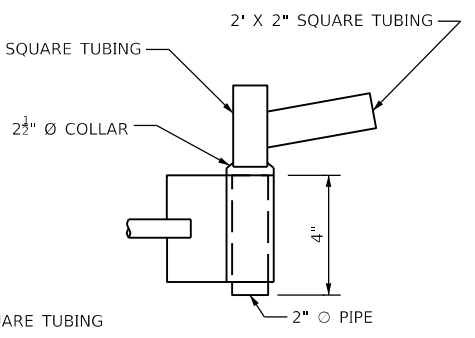
PLAN VIEW

SIDE VIEW

AUTOMATIC GATE KEEPER



DETAIL AT TOP HINGE



DETAIL AT BOTTOM HINGE

**GATE DETAILS**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAILS  
MAUTINO SF&W AREA

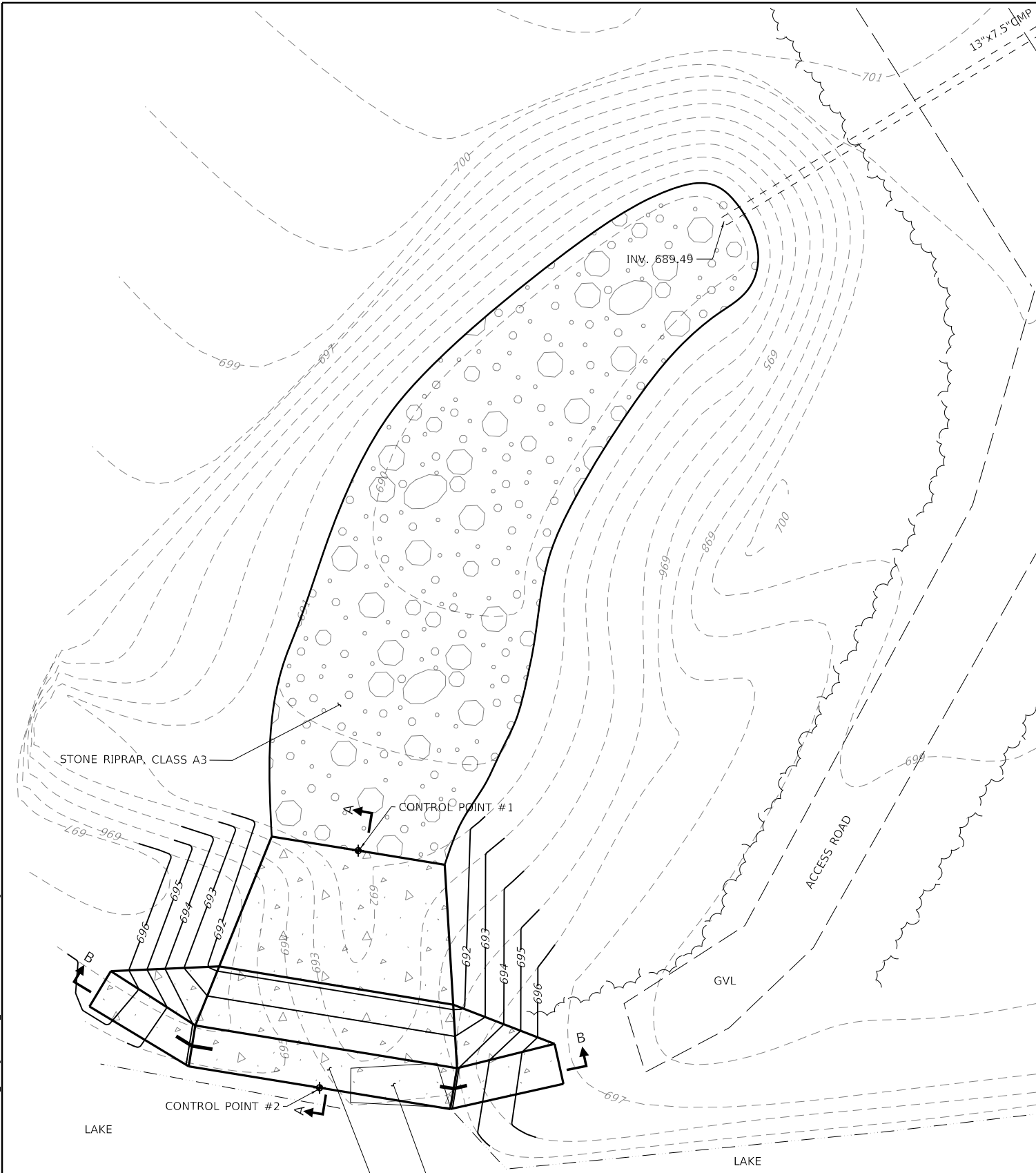
SCALE: N.T.S. SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	42
			CONTRACT NO. 46917	
		ILLINOIS	FED. AID PROJECT	

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 DRIVER: 03/28/19  
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 FILE: I:\2018\018017708 - BDT.PTB 08/01/2019 10:40:57 AM

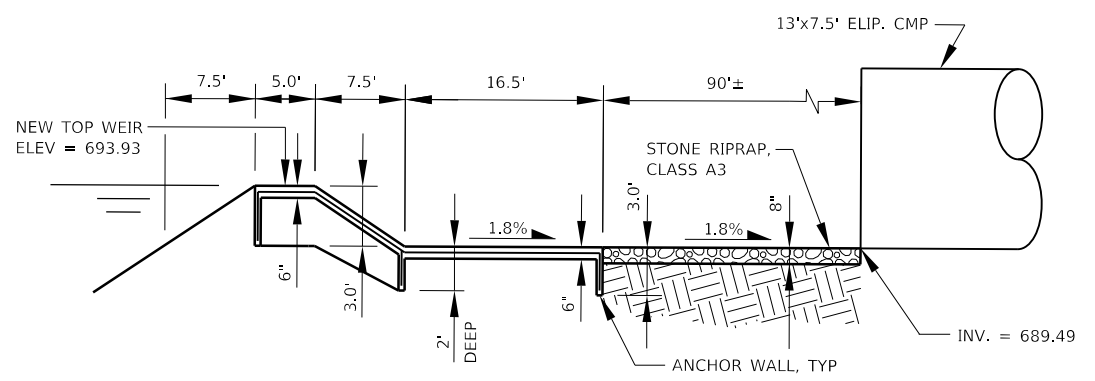
**Farnsworth GROUP**  
 2211 BRADLEY AVENUE  
 CHAMPAIGN, ILLINOIS 61821  
 (217) 352-7408 / info@f-w.com

USER NAME = jgrimm	DESIGNED - JGG	REVISED
PLOT SCALE = 24,000' / ft.	DRAWN - TCO	REVISED
PLOT DATE = 3/29/2019 10:40:57 AM	CHECKED - RPU	REVISED
	DATE - 03/28/19	REVISED

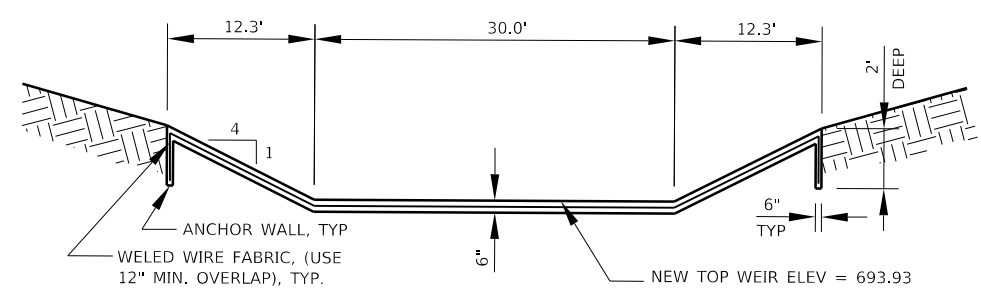


**WEIR PLAN**

WEIR CONTROL PTS		
Control Point #	Northing	Easting
CONTROL POINT #1	1699394.762	2414430.063
CONTROL POINT #2	1699366.183	2414425.027



**WEIR SECTION "A"**  
(N.T.S.)



**WEIR SECTION "B"**  
(N.T.S.)

NOTE: REINFORCE WITH 6"x6" - W4.0 WELDED WIRE FABRIC, WEIGHING 58lbs PER 100 Sq Ft.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAILS  
MAUTINO SF&W AREA  
SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
***	MAUTINO 2019	BUREAU	43	43
			CONTRACT NO. 46917	
		ILLINOIS	FED. AID PROJECT	

018017708 Project Penult  
 2019 03 28  
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 PEN TABLE: 018017708 Project Penult  
 DRIVER: New Orleans, La.  
 SHEET: 43 of 43

**Farnsworth GROUP**  
2211 BRADLEY AVENUE  
CHAMPAIGN, ILLINOIS 61821  
(217) 352-7408 / info@f-w.com

USER NAME = jgrimm  
DESIGNED - JGG  
DRAWN - RJT  
PLOT SCALE = 24,000' / 1"  
PLOT DATE = 3/29/2019 10:40:58 AM

CHECKED - RPU  
DATE - 03/28/19  
REVISED