

069

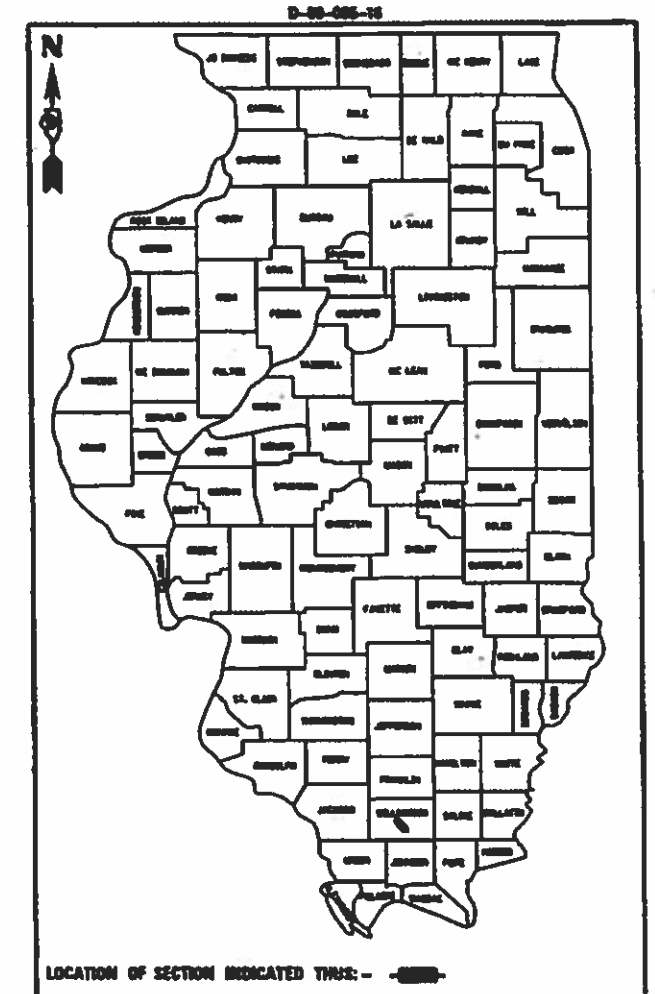
01-17-2020 LETTING ITEM 069

F.A.P. No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	1
CONTRACT NO. 78506				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

**PROPOSED
HIGHWAY PLANS**

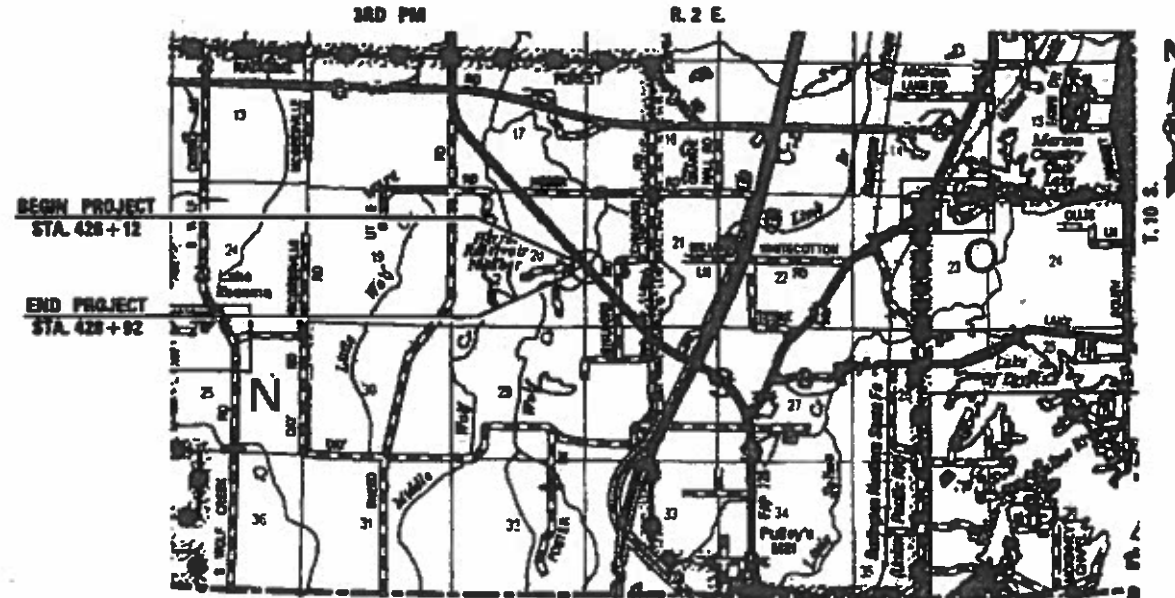
FAP 726 (IL ROUTE 148)
SECTION 41B-2
PROJECT STP-EPRZ(583)
BRIDGE REPLACEMENT OVER WOLF CREEK
WILLIAMSON COUNTY
C-99-005-16



FOR INDEX OF SHEETS SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES SEE SHEET NOS. 3-7
DESIGN DESIGNATION: N/A
COORDINATE SYSTEM: ILLINOIS COORDINATE SYSTEM,
EAST ZONE

POSTED SPEED: 55 MPH

TRAFFIC DATA
FAP 726 (IL 148)
EXISTING ADT = 5350 (2018)
%SU = 325 (6.07%)
%MU = 450 (8.41%)
SOUTHERN TOWNSHIP
FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL



EXISTING SN 100-0038
STA. 427+52.00

PROPOSED SN 100-0103
STA. 427+52.00

LOCATION MAP
(NOT TO SCALE)

GROSS LENGTH = 280.00 FT. = 0.053 MILE
NET LENGTH = 280.00 FT. = 0.053 MILE

JULIE
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-832-0123
OR 811

PROJECT ENGINEER: DAVID PICHE

CONTRACT NO. 78506

V&K
Veenstra & Kimm, Inc.
Springfield, IL Phone: (217)544-8033
IL Design Firm No. 184-001839

Christopher P. Kellum 10/7/19
EXPIRATION: 11/30/2019

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED 10-17-2019

[Signature]
DESIGN FIVE ENGINEER

[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT

[Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS**

GENERAL NOTES

- 1.) THE CENTERLINE PAVEMENT MARKING SHALL BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
- 2.) ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC. THE TEMPORARY TRAFFIC SIGNALS SHALL BE SET TO FLASH ALL RED.
- 3.) AT ALL LOCATIONS WHERE THE PROPOSED PORTLAND CEMENT CONCRETE SHOULDER JOINS AN EXISTING HOT MIX ASPHALT SHOULDER, A FULL DEPTH SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF THIS JOINT WILL BE INCLUDED IN THE COST OF THE TYPE OF SHOULDER BEING CONSTRUCTED.
- 4.) THERE ARE NO AVAILABLE WASTE SITES ON THE EXISTING RIGHT OF WAY WITHIN THE PROJECT LIMITS. DISPOSAL WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND WASTE MUST BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS.
- 5.) PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS THE RESIDENT ENGINEER SHALL CONTACT THE BUREAU OF OPERATIONS AND ARRANGE FOR INSPECTION AND APPROVAL OF THE PAVEMENT MARKING LAYOUT.

INDEX OF SHEETS

1	TITLE SHEET
2	GENERAL NOTES, COMMITMENTS & PROJECT SPECIFIC NOTES
3-8	SUMMARY OF QUANTITIES
9-10	TYPICAL ROADWAY SECTIONS
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13	ALIGNMENT TIES & BENCHMARKS
14	PLAN & PROFILE
15	WIDTH RESTRICTION SIGNING
16-17	STAGING PLAN
18	ROADWAY STAGING TYPICAL SECTIONS
19	EROSION CONTROL PLAN
20-21	DISTRICT 9 STANDARDS, SEEDING AND MULCH, STEP CONSTRUCTION ON EXISTING FILL
22-57	STRUCTURE PLANS
58-72	CROSS SECTIONS

COMMITMENTS

- 1.) NONE AS OF 10/18/19

STANDARDS

000001-07	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420401-13	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
420701-03	PAVEMENT WELDED WIRE FABRIC
515001-04	NAME PLATE FOR BRIDGES
630001-12	STEEL PLATE BEAM GUARDRAIL
630201-07	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-09	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINAL
631031-16	TRAFFIC BARRIER TERMINAL TYPE 6
631051-03	TRAFFIC BARRIER TERMINAL TYPE 11
643001-02	SAND MODULE IMPACT ATTENUATORS
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5m) AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24' (600mm) FROM PAVEMENT EDGE
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-05	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-18	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
725001-01	OBJECT AND TERMINAL MARKERS
780001-05	TYPICAL PAVEMENT MARKINGS
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:

AGGREGATE MATERIAL	205 TON/CU. YD.
RIPRAP	15 TON/CU. YD.
EARTH	110 LBS/CU. FT.

REV. - MS

PREPARED BY:	<i>Charles Stein</i> DISTRICT STUDIES AND PLANS ENGINEER
EXAMINED BY:	<i>Nancy Stee</i> DISTRICT LAND ACQUISITION ENGINEER
EXAMINED BY:	<i>Car Mln</i> DISTRICT PROGRAM DEVELOPMENT ENGINEER
EXAMINED BY:	<i>Val Mely</i> DISTRICT OPERATIONS ENGINEER
EXAMINED BY:	<i>KJ La</i> DISTRICT PROJECT IMPLEMENTATION ENGINEER
EXAMINED BY:	<i>Dog...</i> DISTRICT CONSTRUCTION ENGINEER
EXAMINED BY:	<i>...</i> DISTRICT MATERIALS ENGINEER



USER NAME *	DESIGNED -	REVISED -
PLOT SCALE *	CHECKED -	REVISED -
PLOT DATE *	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, COMMITMENTS & PROJECT SPECIFIC NOTES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	2
				CONTRACT NO. 78506
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES			COUNTY	WILLIAMSON
			ROUTE:	FAP 726 (IL 148)
			FUNDING:	80% FED / 20% STATE
			LOCATION:	RURAL
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 100-0103 0010
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	563	563
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	120	120
20200100	EARTH EXCAVATION	CU YD	2037	2037
20300100	CHANNEL EXCAVATION	CU YD	679	679
25000210	SEEDING, CLASS 2A	ACRE	0.75	0.75
25000350	SEEDING, CLASS 7	ACRE	0.75	0.75
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	54	54
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	54	54
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	54	54
25000700	AGRICULTURAL GROUND LIMESTONE	TON	1.2	1.2
25100115	MULCH, METHOD 2	ACRE	0.75	0.75
25100635	HEAVY DUTY EROSION CONTROL BLANKET	SQ YD	2094	2094
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	60	60
28000400	PERIMETER EROSION BARRIER	FOOT	824	824

MODEL: 4400BELNAMES
FILE NAME: 87EUS

USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: _____ SHEET 1 OF 6 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	3
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES			COUNTY	WILLIAMSON
			ROUTE:	FAP 726 (IL 148)
			FUNDING:	80% FED / 20% STATE
			LOCATION:	RURAL
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 100-0103 0010
28100209	STONE RIPRAP, CLASS A5	TON	2438	2438
28100211	STONE RIPRAP, CLASS A6	TON	371	371
28200200	FILTER FABRIC	SQ YD	3392	3392
42000800	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	154	154
44000100	PAVEMENT REMOVAL	SQ YD	262	262
48300300	PORTLAND CEMENT CONCRETE SHOULDERS 8"	SQ YD	156	156
48300500	PORTLAND CEMENT CONCRETE SHOULDERS 10"	SQ YD	134	134
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1
50200100	STRUCTURE EXCAVATION	CU YD	484	484
50300100	FLOOR DRAINS	EACH	20	20
50300225	CONCRETE STRUCTURES	CU YD	193.6	193.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	279.0	279.0
50300260	BRIDGE DECK GROOVING	SQ YD	1036	1036
50300300	PROTECTIVE COAT	SQ YD	1292	1292

MODEL: \$MODELNAME\$
FILE NAME: \$FILE\$

USER NAME = \$USERS\$	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: _____ SHEET 2 OF 6 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	4
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES			COUNTY	WILLIAMSON
			ROUTE:	FAP 726 (IL 148)
			FUNDING:	80% FED / 20% STATE
			LOCATION:	RURAL
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 100-0103 0010
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	117.0	117.0
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	LSUM	1	1
50500505	STUD SHEAR CONNECTORS	EACH	4860	4860
50800105	REINFORCEMENT BARS	POUND	33570	33570
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	158640	158640
50800515	BAR SPLICERS	EACH	1084	1084
50800530	MECHANICAL SPLICERS	EACH	162	162
50901125	STEEL RAILING (TEMPORARY)	FOOT	280	280
51201900	FURNISHING STEEL PILES HP14X89	FOOT	1624	1624
51202305	DRIVING PILES	FOOT	1624	1624
51203900	TEST PILE STEEL HP14X89	EACH	2	2
51500100	NAME PLATES	EACH	1	1
* 51603000	DRILLED SHAFTS IN SOIL	CU YD	117.7	117.7
* 51604000	DRILLED SHAFTS IN ROCK	CU YD	14.3	14.3

* SPECIALTY ITEM

MODEL: 4400BELNAMES
FILE NAME: STEEL5

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	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: _____ SHEET 3 OF 6 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	5
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES			COUNTY	WILLIAMSON
			ROUTE:	FAP 726 (IL 148)
			FUNDING:	80% FED / 20% STATE
			LOCATION:	RURAL
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 100-0103 0010
52100520	ANCHOR BOLTS, 1"	EACH	36	36
52200010	TEMPORARY SHEET PILING	SQ FT	1253	1253
58600101	GRANULAR BACKFILL FOR STRUCTURES	CU YD	245	245
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	122	122
* 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	262.5	262.5
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4
* 63100110	TRAFFIC BARRIER TERMINAL, TYPE 11	EACH	2	2
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	2	2
63200310	GUARDRAIL REMOVAL	FOOT	316	316
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	18	18
67100100	MOBILIZATION	LSUM	1	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L. SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10

* SPECIALTY ITEM

MODEL: \$MODELNAME\$
FILE NAME: \$FILES\$

USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$\$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATES	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: _____ SHEET 4 OF 6 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	6
CONTRACT NO. 78506			ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES			COUNTY	WILLIAMSON
			ROUTE:	FAP 726 (IL 148)
			FUNDING:	80% FED / 20% STATE
			LOCATION:	RURAL
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 100-0103 0010
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6
70107025	CHANGEABLE MESSAGE SIGN	CAL OA	540	540
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1267	1267
70400100	TEMPORARY CONCRETE BARRIER	FOOT	537.5	537.5
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	200	200
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	2	2
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	1267	1267
X0320051	CROSSHOLE SONIC LOGGING ACCESS DUCTS	FOOT	294	294
X0320052	CROSSHOLE SONIC LOGGING TESTING	EACH	4	4
X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SQ FT	203	203

* SPECIALTY ITEM

REV. - MS

MODEL: \$MODELNAME\$
FILE NAME: \$FILE\$

USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
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PLOT DATE = \$DATES	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: _____ SHEET 5 OF 6 SHEETS STA. _____ TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	7
			CONTRACT NO. 78506	
			ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES			COUNTY	WILLIAMSON
			ROUTE:	FAP 726 (IL 148)
			FUNDING:	80% FED / 20% STATE
			LOCATION:	RURAL
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	SN 100-0103 0010
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	1344	1344
X7040125	PINNING TEMPORARY CONCRETE BARRIER	EACH	12	12
∅ 20076600	TRAINEES	HOUR	500	500
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	178	178
∅ 20076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	500
Z0073400	TEMPORARY SUPPORT SYSTEM	EACH	2	2

∅ 0042

REV. - MS

MODEL: \$MODELNAME\$
FILE NAME: \$FILE\$

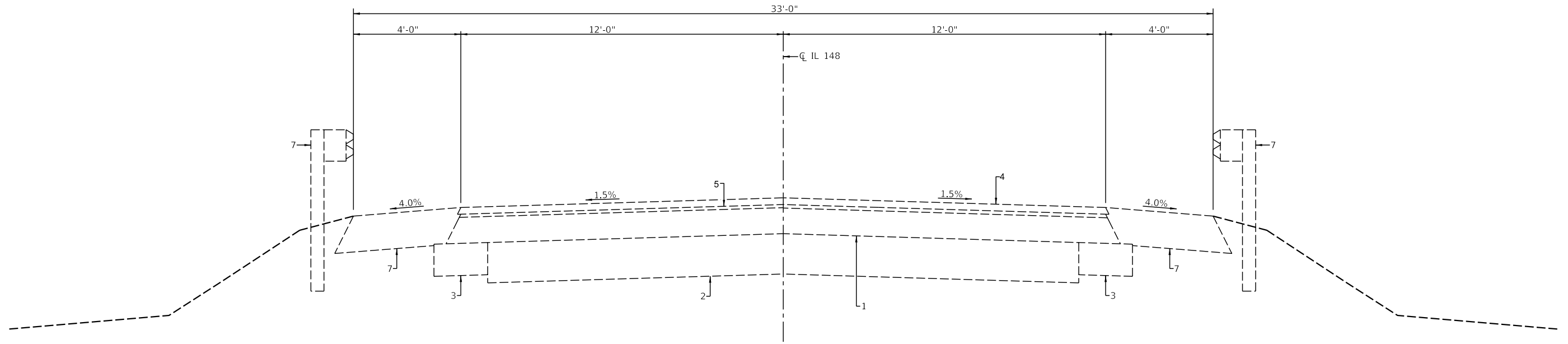
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

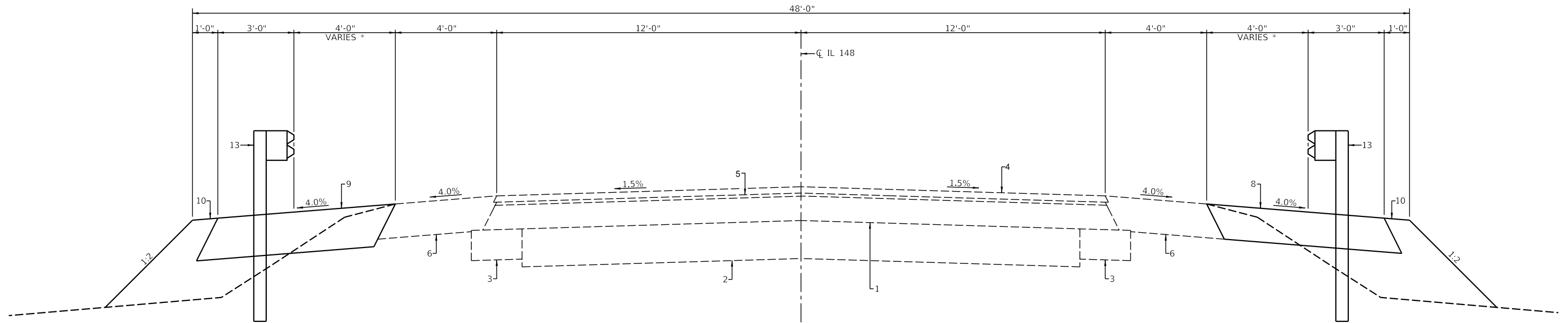
SUMMARY OF QUANTITIES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	8
CONTRACT NO. 78506			ILLINOIS FED. AID PROJECT	



EXISTING CROSS SECTION
 (STA. 424+80.6 TO STA. 429+95)
 (BRIDGE OMISSION - STA. 426+65.25 TO STA. 428+38.75)



PROPOSED CROSS SECTION
 (STA. 424+80.6 TO STA. 426+51.6 RT. & STA. 428+68 TO STA. 429+95 RT. &
 STA. 425+15.5 TO STA. 426+34 LT. & STA. 428+52.4 TO STA. 429+95 LT.)

* VARIES FROM 4'-0" TO 0'-0" - STA. 428+92 TO STA. 429+95

PROPOSED LEGEND

- 1 - EXISTING HMA PAVEMENT ±5"
- 2 - EXISTING PCC PAVEMENT 9"
- 3 - EXISTING WIDENING
- 4 - EXISTING HMA SURFACE COURSE 1½"
- 5 - EXISTING HMA LEVELING BINDER ¾"
- 6 - EXISTING HMA SHOULDERS, 8"
- 7 - EXISTING GUARDRAIL
- 8 - PROPOSED PCC SHOULDERS 8"
- 9 - PROPOSED PCC SHOULDERS 10"
- 10 - PROPOSED EARTH SHOULDERS
- 11 - PROPOSED BRIDGE APPROACH SLAB AND CONNECTOR
- 12 - PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B 4"
- 13 - PROPOSED GUARDRAIL



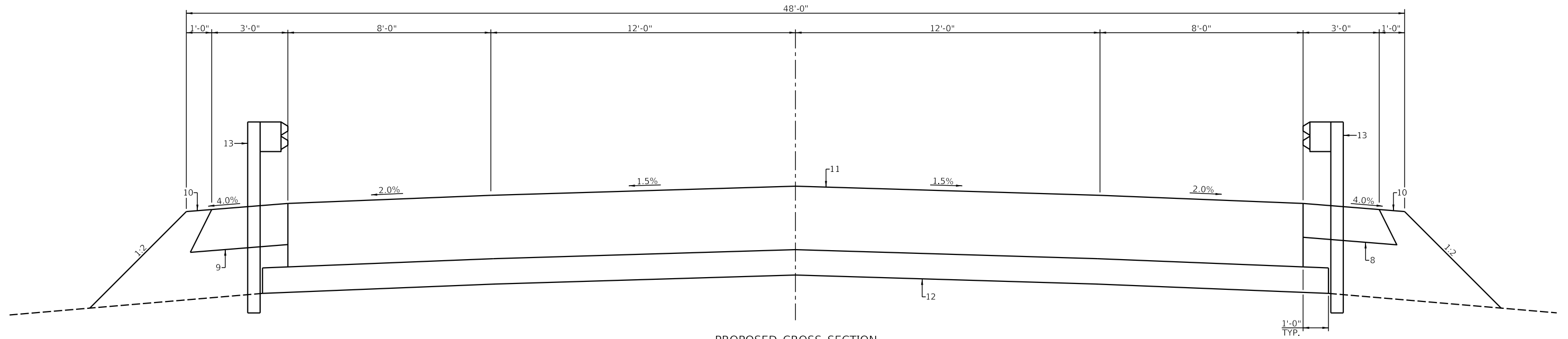
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PLOT SCALE = \$\$SCALE\$	DRAWN - _____	REVISED - _____
PLOT DATE = \$DATES	CHECKED - _____	REVISED - _____
	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL ROADWAY SECTIONS

SCALE: 1" = 50' SHEET ___ OF ___ SHEETS STA. ___ TO STA. ___

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	9
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



PROPOSED CROSS SECTION
 (STA. 426+12 TO STA. 426+58.25 &
 STA. 428+45.75 TO STA. 428+92)

PROPOSED LEGEND

- 1 - EXISTING HMA PAVEMENT ±5"
- 2 - EXISTING PCC PAVEMENT 9"
- 3 - EXISTING WIDENING
- 4 - EXISTING HMA SURFACE COURSE 1½"
- 5 - EXISTING HMA LEVELING BINDER ¾"
- 6 - EXISTING HMA SHOULDERS, 8"
- 7 - EXISTING GUARDRAIL
- 8 - PROPOSED PCC SHOULDERS 8"
- 9 - PROPOSED PCC SHOULDERS 10"
- 10 - PROPOSED EARTH SHOULDERS
- 11 - PROPOSED BRIDGE APPROACH SLAB AND CONNECTOR
- 12 - PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B 4"
- 13 - PROPOSED GUARDRAIL



USER NAME = \$USERS	DESIGNED - ____	REVISED - ____
	DRAWN - ____	REVISED - ____
PLOT SCALE = \$\$SCALE\$	CHECKED - ____	REVISED - ____
PLOT DATE = \$DATES	DATE - ____	REVISED - ____

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL ROADWAY SECTIONS

SCALE: 1" = 50' SHEET ____ OF ____ SHEETS STA. ____ TO STA. ____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	10
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

EARTHWORK				
LOCATION	20200100 EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU. YD.	CU. YD.	CU. YD.	CU. YD.
STA. 424+80.6 TO STA. 426+58.25	27	20	160	-140
STA. 426+68.5 TO STA. 427+18.0	961	721		+721
STA. 427+83.5 TO STA. 428+33.5	1019	764		+764
STA. 424+45.75 TO STA. 429+95	30	23	1153	-1130
TOTAL	2,037	1,528	1313	+215

TREE REMOVAL		
LOCATION	20100110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)	20100210 TREE REMOVAL (OVER 15 UNITS DIAMETER)
	UNIT	UNIT
NORTHWEST QUADRANT		
2 - 6" DIAMETER TREES	12	
SOUTHWEST QUADRANT		
1 - 6" DIAMETER TREE	6	
NORTHEAST QUADRANT		
13 - 6" DIAMETER TREES	78	
6 - 7" DIAMETER TREES	42	
5 - 8" DIAMETER TREES	40	
2 - 9" DIAMETER TREES	18	
2 - 10" DIAMETER TREES	20	
1 - 11" DIAMETER TREES	11	
2- 12" DIAMETER TREES	24	
2 - 13" DIAMETER TREES	26	
1 - 14" DIAMETER TREES	14	
3 - 16" DIAMETER TREES		48
1 - 22" DIAMETER TREES		22
SOUTHEAST QUADRANT		
11 - 6" DIAMETER TREES	66	
3 - 7" DIAMETER TREES	21	
6 - 8" DIAMETER TREES	48	
1 - 9" DIAMETER TREES	9	
3 - 10" DIAMETER TREES	30	
2 - 11" DIAMETER TREES	22	
4- 12" DIAMETER TREES	48	
1 - 13" DIAMETER TREES	13	
1 - 15" DIAMETER TREES	15	
2 - 16" DIAMETER TREES		32
1 - 18" DIAMETER TREES		18
TOTAL	563	120

PERMANENT SEEDING								
LOCATION	25000210 SEEDING CLASS 2A	25000400 NITROGEN FERT. NUT.	25000500 PHOSPHORUS FERT. NUT.	25000600 POTASSIUM FERT. NUT.	25000700 AGRICULTURAL GROUND LIMESTONE	25100115 MULCH METHOD 2	25000350 SEEDING CLASS 7	25100635 HEAVY DUTY EROSION CONTROL BLANKET
	ACRE	POUND	POUND	POUND	TON	ACRE	ACRE	SQUARE YARD
STA. 424+80.6 TO STA. 427+20 RT.	0.10	9	9	9	0.2	0.10	0.10	510
STA. 425+15.5 TO STA. 427+20 LT.	0.03	3	3	3	0.1	0.03	0.03	844
STA. 428+03 TO STA. 429+95 RT.	0.20	18	18	18	0.40	0.20	0.20	
STA. 427+79 TO STA. 429+95 LT.	0.20	18	18	18	0.40	0.20	0.20	
TOTAL	0.53	48	48	48	1.1	0.53	0.53	1354

USE 0.5 ACRE

USE 0.5 ACRE USE 0.5 ACRE

25100635 HEAVY DUTY EROSION CONTROL BLANKET	
LOCATION	28100635 HEAVY DUTY EROSION CONTROL BLANKET SQ. FT.
STA. 426+00 TO STA. 426+70 RT.	163
STA. 426+25 TO STA. 426+55 LT.	74
STA. 428+34 TO STA. 429+95 LT.	882
STA. 428+50 TO STA. 429+95 RT.	975
TOTAL	2094

44000100 PAVEMENT REMOVAL	
LOCATION	44000100 PAVEMENT REMOVAL SQ. YD.
STA. 426+12 TO STA. 426+65.25	131
STA. 428+38.75 TO STA. 428+92	131
TOTAL	262

28000250 TEMPORARY EROSION CONTROL SEEDING	
LOCATION	28000250 TEMPORARY EROSION CONTROL SEEDING POUND
STA. 424+80.6 TO STA. 427+20 RT.	10
STA. 425+15.5 TO STA. 427+20 LT.	3
STA. 428+03 TO STA. 429+95 RT.	20
STA. 427+79 TO STA. 429+95 LT.	20
TOTAL	53

USE 50 POUNDS

CONCRETE SHOULDERS		
LOCATION	48300300 PCC SHOULDERS 8"	48300500 PCC SHOULDERS 10"
	SQ. YD.	SQ. YD.
STA. 424+80.6 TO STA. 426+51.6 RT.	113	
STA. 428+68 TO STA. 429+95	43	
STA. 425+15.5 TO STA. 426+34 LT.		86
STA. 428+52.4 TO STA. 429+95 LT.		48
TOTAL	156	134

42000070 PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	
LOCATION	42000080 PAVEMENT CONNECTOR FOR BRIDGE APPROACH SLAB SQ. YD.
STA. 426+12 TO STA. 426+26.6	77
STA. 428+77.4 TO STA. 428+92	77
TOTAL	154

70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS	
LOCATION	70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS EACH
STA. 424+20.0 26' RT.	0.2
STA. 424+35.8 26' LT.	0.2
STA. 424+54.0 26' RT.	0.2
STA. 431+36.6 26' RT.	0.2
STA. 432+11.7 26' LT.	0.2
TOTAL	1

20300100 CHANNEL EXCAVATION	
LOCATION	20300100 CHANNEL EXCAVATION CU. YD.
STA. 427+18.0 TO STA. 427+83.5 (BETWEEN EXISTIN	679
TOTAL	679



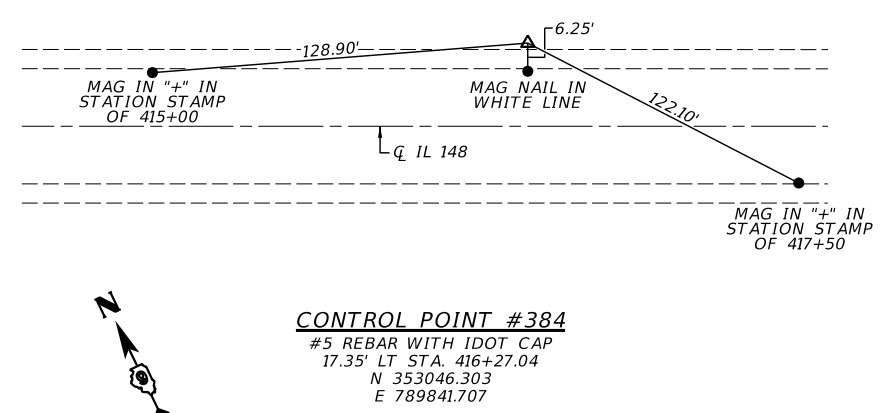
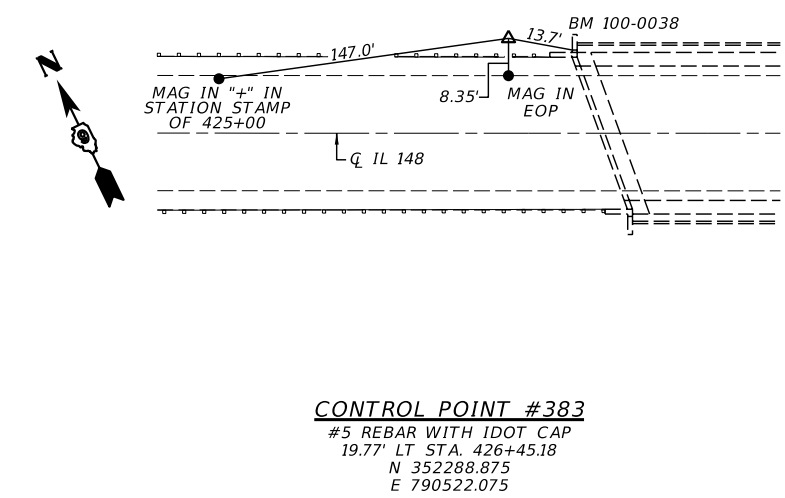
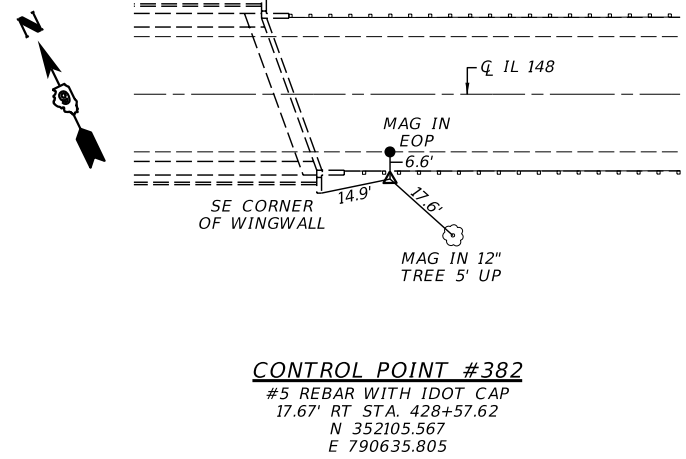
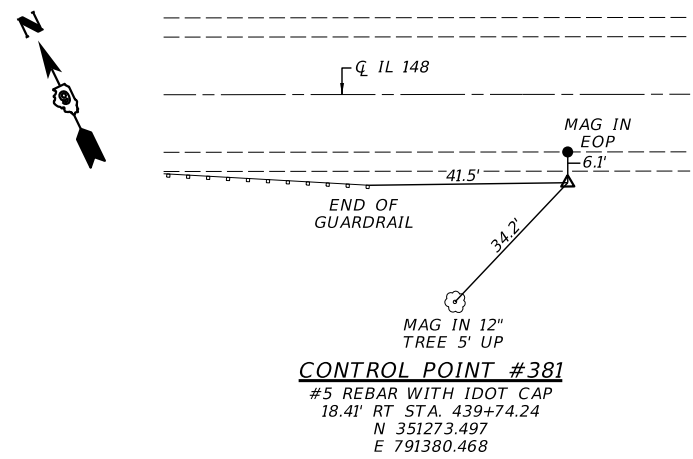
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CHECKED -	CHECKED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

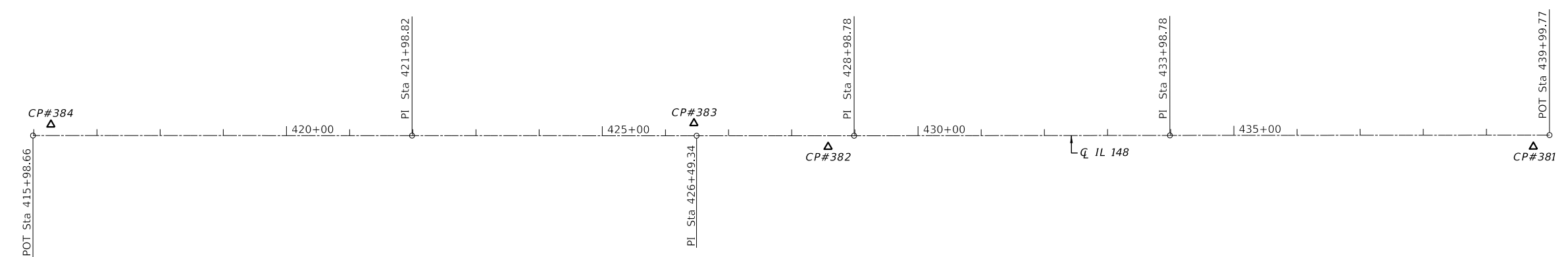
QUANTITY SCHEDULES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	11
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



BENCHMARKS
 BM 100-0038 - CHISELED "□" ON NORTH EASTERLY BRIDGE ABUT. FOR
 SN 100-0038 ALONG IL 148 OVER WOLF CREEK
 17.3' LT STA. 426+58.5



MODEL: 4400BENMARKS
 FILE NAME: STEELS

V&K
 Springfield, IL. Phone: (217)544-8033
 IL. Design Firm No. 184-001939

USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
DRAWN - _____	REVISED - _____	
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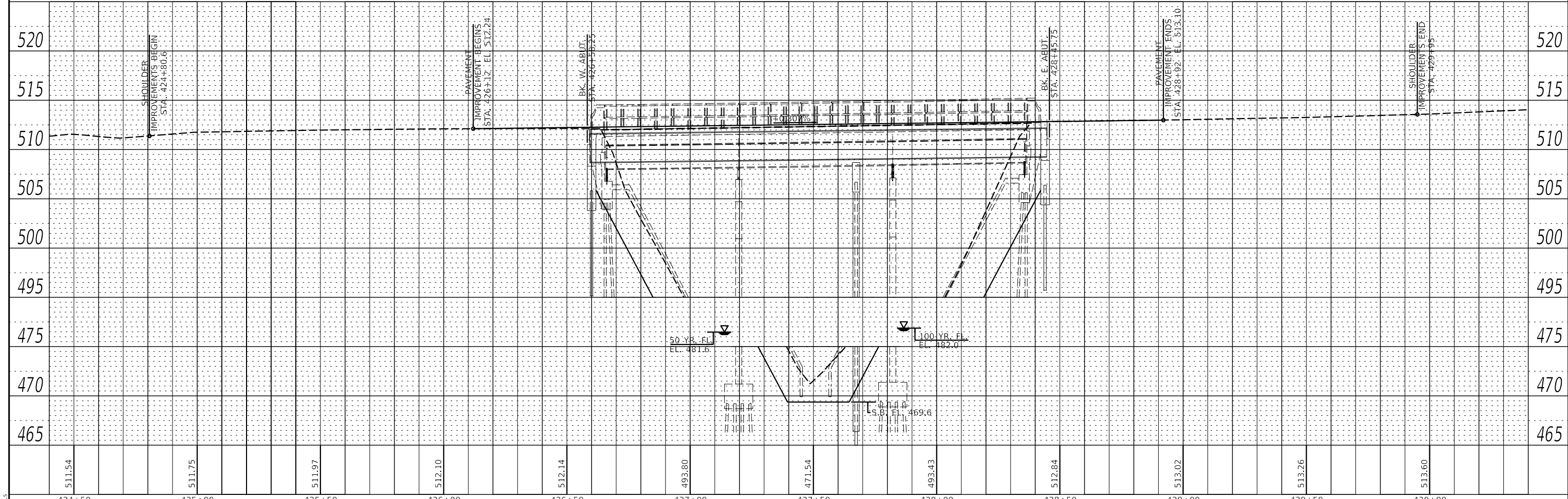
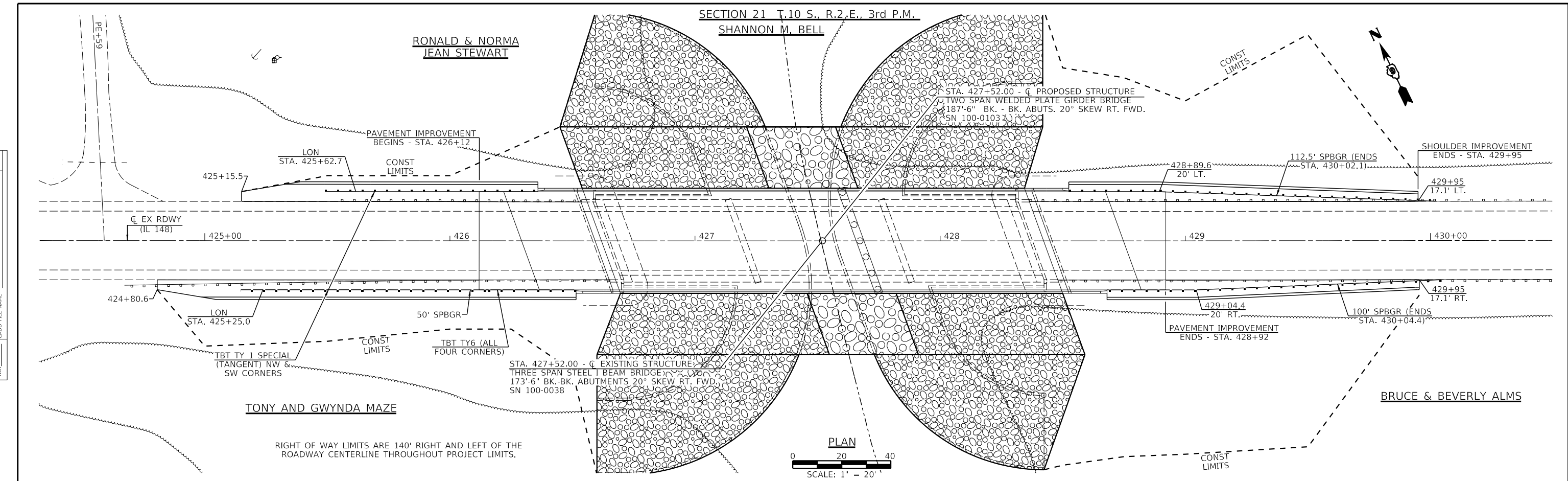
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT TIES & BENCHMARKS			
SCALE: NONE	SHEET ___ OF ___ SHEETS	STA. _____ TO STA. _____	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	13
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	
	CHECKED	
	FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES	
	CHECKED	
	STRUCTURE	
	NOTATION	
	NO.	



MODEL: SPODELNAME\$
FILE NAME: SFILES

424+50	425+00	425+50	426+00	426+50	427+00	427+50	428+00	428+50	429+00	429+50	430+00
511.54	511.75	511.97	512.10	512.14	493.80	471.54	493.43	512.84	513.02	513.26	513.60

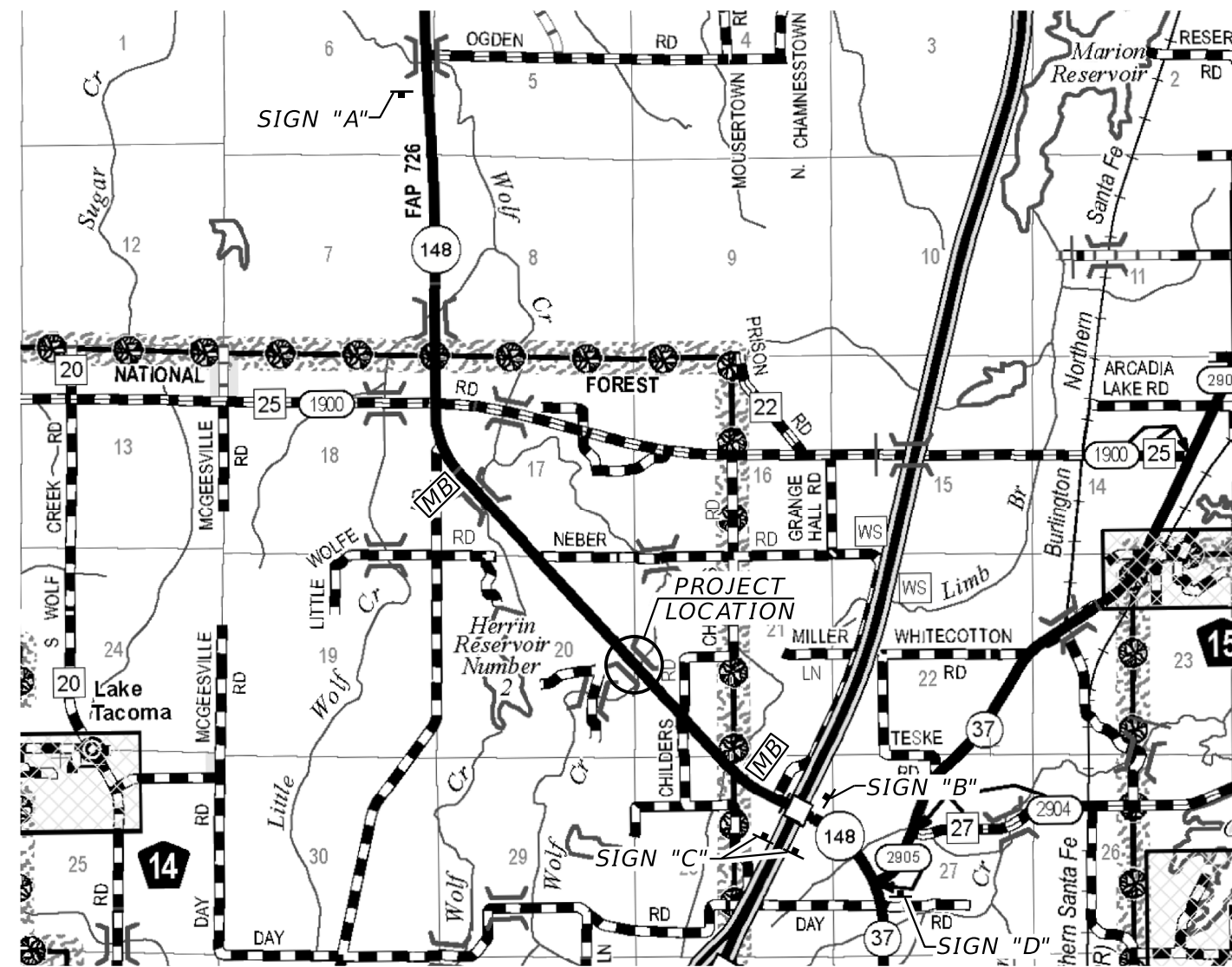
W&K
Springfield, IL Phone: (217)544-8033
IL Design Firm No. 184-001939

USER NAME = \$USERS	DESIGNED -	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN -	REVISED -
PLOT DATE = \$DATE\$	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SCALE: 1"=20		SHEET OF SHEETS		STA.	TO STA.
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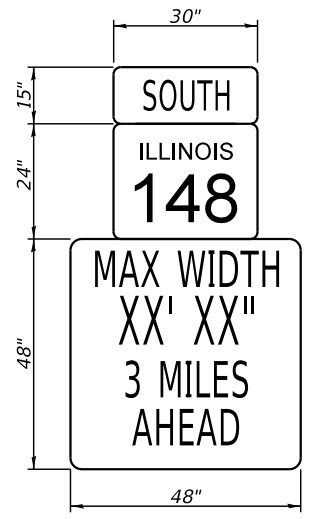
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726	41B-2	WILLIAMSON	72	14
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



SIGNING PLAN

STAGING GENERAL NOTES

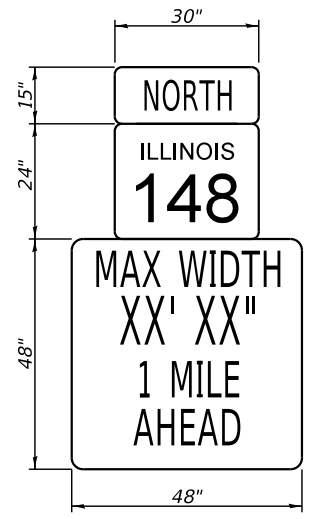
1. TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO TRAFFIC CONTROL AND PROTECTION, STANDARD 701321. SEE STANDARD 701321 FOR THE COMPLETION OF STAGE CONSTRUCTION TRAFFIC CONTROL THAT IS NOT SHOWN THAT INCLUDES, BUT IS NOT LIMITED TO, ADVANCE SIGNING, ADVANCE LOOP PLACEMENT, DRUMS WITH STEADY BURNING LIGHTS, DOUBLE VERTICAL PANELS AND BARRIER WALL/GUARDRAIL MARKERS.
2. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. TEMPORARY RUMBLE STRIPS SHOWN ON STANDARD 701321 WILL BE REQUIRED.
4. THE DIMENSION SHOWN ON THE WIDTH RESTRICTION SIGN (W12-10210)-48) SHOWN ON STANDARD 701321 AND ON THE ADVANCE WARNING SIGN (W12-1103) SHOWN ON THIS SHEET SHALL BE 12'-0" FOR STAGE I CONSTRUCTION AND 14'-0" FOR STAGE II CONSTRUCTION.
5. THE CENTERLINE PAVEMENT MARKING SHALL BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS, EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FT. LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
6. THE TEMPORARY SIGNALS SHALL REMAIN IN OPERATION AND THE TEMPORARY BARRIERS SHALL REMAIN IN PLACE UNTIL THE BRIDGE, PCC PAVEMENT CONNECTOR, APPROACH SLAB, HMA SHOULDERS, GUARDRAIL AND TRAFFIC BARRIER TERMINALS ARE COMPLETED FROM STA. 424+80.6 TO STA. 429+95. AFTER COMPLETION OF THE DESIGNATED WORK FROM STA. 424+80.6 TO STA. 429+95 THE TEMPORARY SIGNALS WILL BE EITHER REMOVED OR TURNED OFF AND COVERED AND THE TEMPORARY CONCRETE BARRIER REMOVED.
7. THE TEMPORARY CONCRETE BARRIER SHALL BE PINNED AS SPECIFIED IN SECTION 704 OF THE STANDARD SPECIFICATIONS. THE TEMPORARY CONCRETE BARRIER PLACED ON THE PROPOSED APPROACH SLAB, PCC PAVEMENT CONNECTOR AND BRIDGE DECK FROM STA. 426+12.0 TO STA. 428+90.0 SHALL BE RESTRAINED USING STEEL RETAINERS 1"X10"X10" SHOWN FOR DETAIL 1 ON SHEET NO. 25. THE STEEL RETAINERS SHALL BE PLACED ON 6'-0" CENTERS AND SECURED TO THE PAVEMENT BY PLACING TWO EACH 5/8" DIAMETER EXPANSION ANCHORS OR CAST IN PLACE INSERTS AT THE MID-DEPTH OF THE PAVEMENT. THE ANCHORS OR INSERTS SHALL HAVE A MINIMUM PROOF LOAD OF 5,000 POUNDS. THE COST OF PROVIDING THE RESTRAINING SYSTEM FOR THE TEMPORARY CONCRETE BARRIER ON TOP OF THE APPROACH SLAB, PCC PAVEMENT CONNECTOR AND BRIDGE DECK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE UNIT PRICE PER FOOT FOR TEMPORARY CONCRETE BARRIER.
8. THE COST OF PROVIDING SIGNS A,B,C & D AND THEIR POSTS AND ALL WORK NECESSARY TO INSTALL THEM IS INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION STANDARD 701321.



SIGN A

W12-1103 48" X 48" WITH XX' XX" LETTERS BLACK ON ORANGE MAX WIDTH & 2 MILES AHEAD BLACK ON WHITE WITH M3-3 30X15 AND M1-1100 30X24

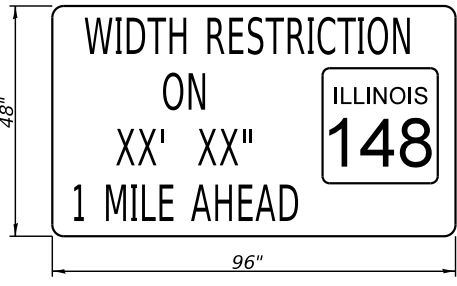
LOCATED SOUTH OF THE INTERSECTION OF IL 148 AND OGDEN ROAD (CH 25)



SIGN B

W12-1103 48" X 48" WITH XX' XX" LETTERS BLACK ON ORANGE MAX WIDTH & 2 MILES AHEAD BLACK ON WHITE WITH M3-1 30X15 AND M1-1100 30X24

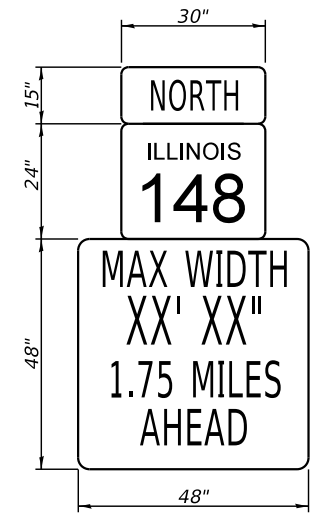
LOCATED EAST OF I-57 ON IL 148



SIGN C

CUSTOM WIDTH RESTRICTION SIGN BLACK ON ORANGE 96"X48" WITH IL 148 SIGN BLACK ON WHITE 24"X24"

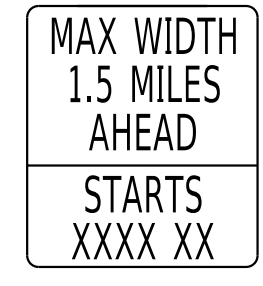
LOCATED ON BOTH SIDES OF I-57 APPROXIMATELY ONE MILE SOUTH OF THE I-57 OFF RAMP



SIGN D

W12-1103 48" X 48" WITH XX' XX" LETTERS BLACK ON ORANGE MAX WIDTH & 1.75 MILES AHEAD BLACK ON WHITE WITH M3-3 30X15 AND M1-1100 30X24

LOCATED NORTH OF THE INTERSECTION OF IL 148 AND DAY ROAD



MESSAGE BOARD

LOCATED WEST OF THE INTERSECTION OF IL 148 AND I-57 OFF RAMP



MESSAGE BOARD

LOCATED NORTH OF THE DRIVEWAY NORTH OF SNEED ROAD ON IL 148

MESSAGE BOARDS TO BE PLACED TWO WEEKS BEFORE CONSTRUCTION BEGINS

MODEL: 4400ELNAMES
FILE: 4400ELN.SHEETS



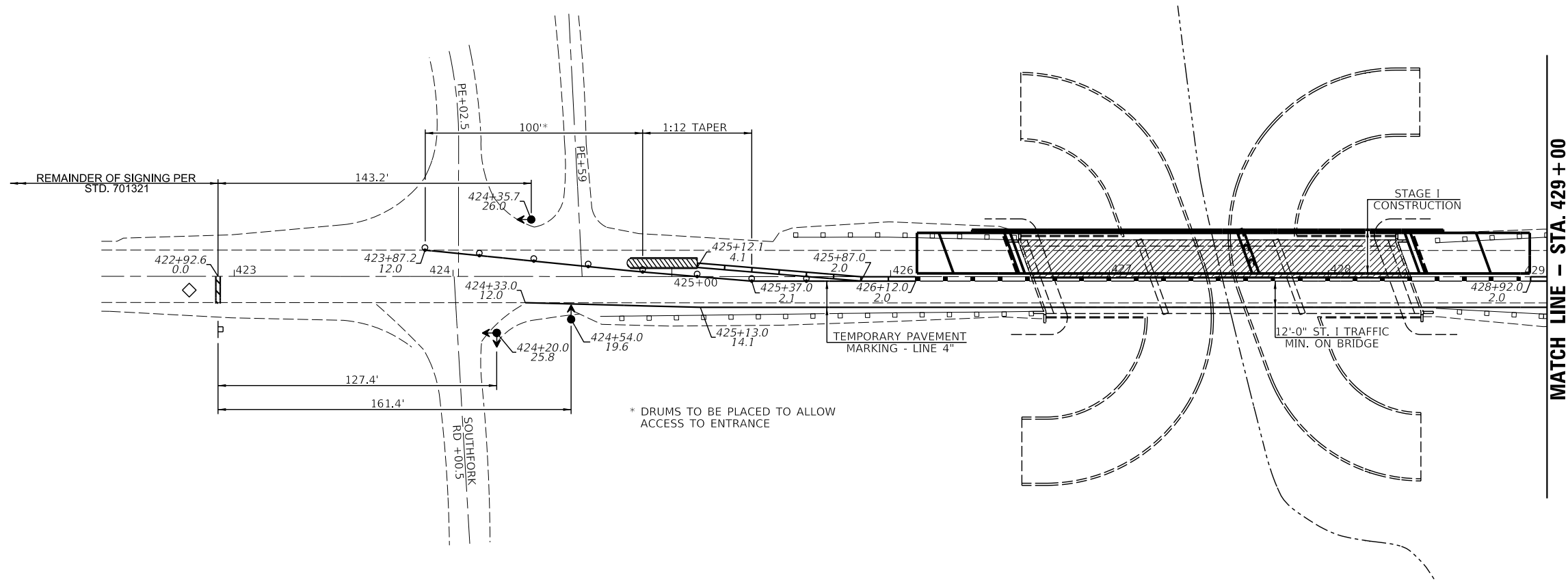
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PLOT DATE = \$DATES	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

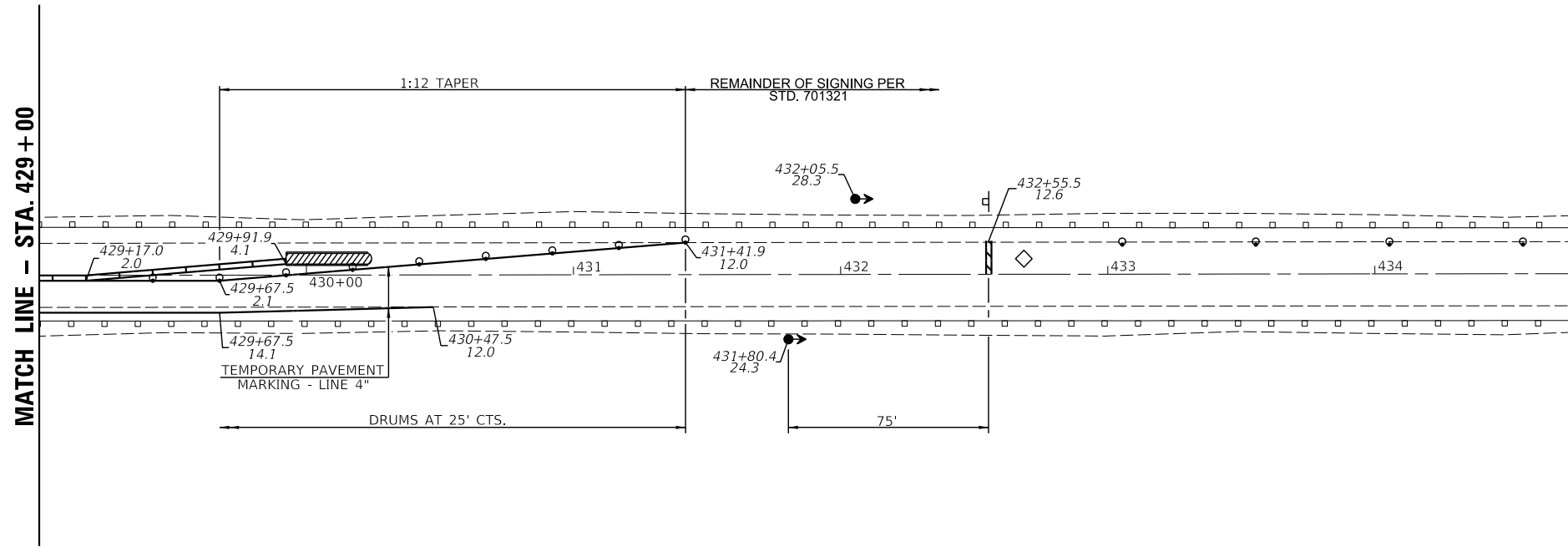
WIDTH RESTRICTION SIGNING

SCALE: NONE SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	15
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



MATCH LINE - STA. 429 + 00



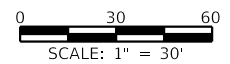
MATCH LINE - STA. 429 + 00



LEGEND

- REMOVAL ITEMS
- SIGN
- TYPE III BARRICADE
- DRUM WITH STEADY BURNING LIGHT
- BARRICADE WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- TYPE C BIDIRECTIONAL REFLECTOR
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS

PLAN



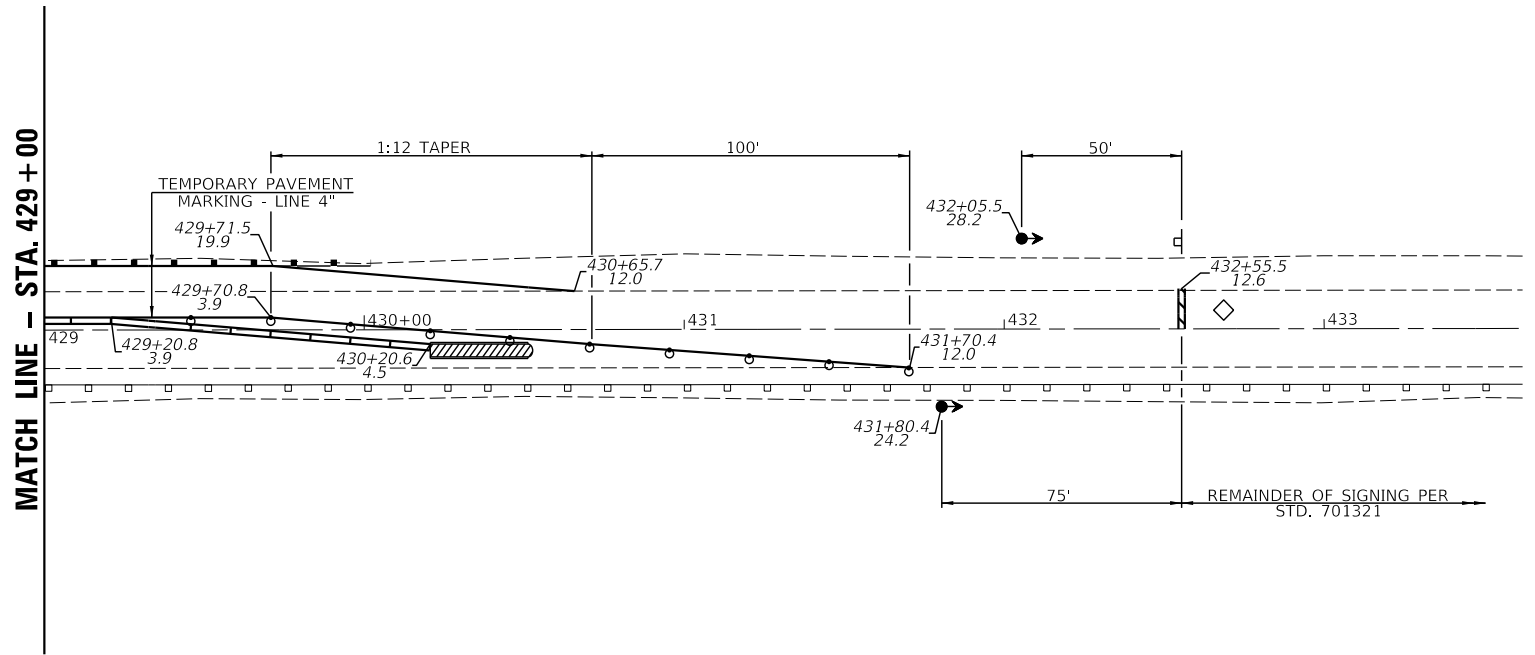
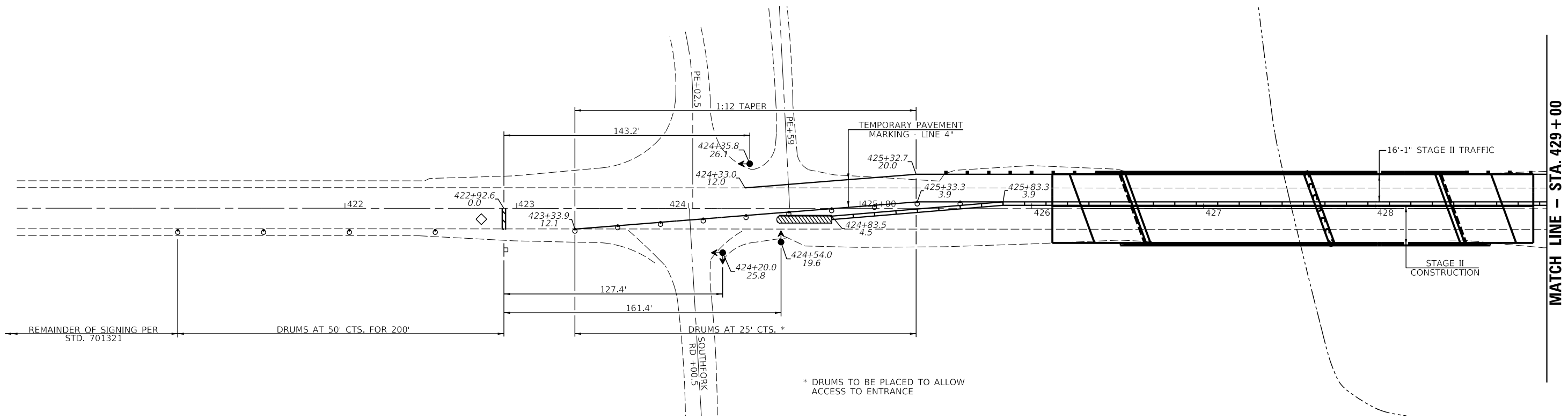
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DRAWN - _____	REVISIONS - _____		
CHECKED - _____	REVISIONS - _____		
DATE - _____	REVISIONS - _____		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

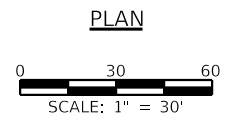
STAGE I PLAN

SCALE: 1" = 50' SHEET ___ OF ___ SHEETS STA. ___ TO STA. ___

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	16
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



- LEGEND**
- REMOVAL ITEMS
 - SIGN
 - TYPE III BARRICADE
 - DRUM WITH STEADY BURNING LIGHT
 - BARRICADE WITH STEADY BURNING LIGHT
 - TRAFFIC SIGNAL
 - INDUCTION LOOP DETECTOR
 - DOUBLE VERTICAL PANEL
 - TYPE C BIDIRECTIONAL REFLECTOR
 - TEMPORARY CONCRETE BARRIER
 - IMPACT ATTENUATOR
 - STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS



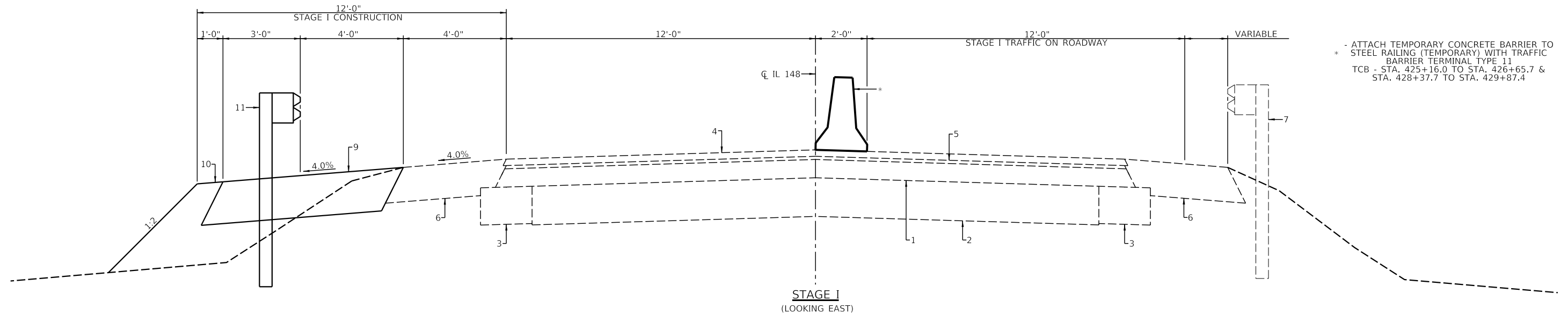
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DRAWN - _____	REVISED - _____	REVISED - _____
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PLOT DATE = \$DATES	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE II PLAN

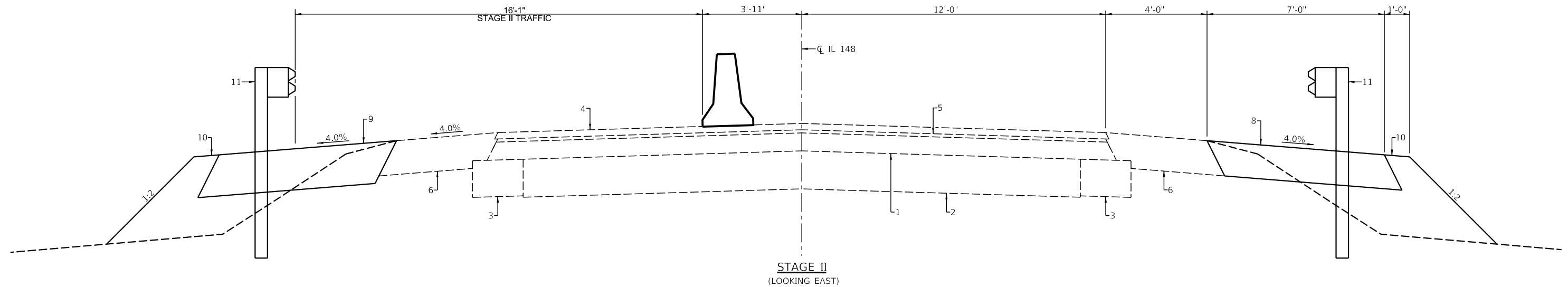
SCALE: 1" = 50' SHEET ___ OF ___ SHEETS STA. ___ TO STA. ___

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	17
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



- ATTACH TEMPORARY CONCRETE BARRIER TO STEEL RAILING (TEMPORARY) WITH TRAFFIC BARRIER TERMINAL TYPE 11
 * TCB - STA. 425+16.0 TO STA. 426+65.7 & STA. 428+37.7 TO STA. 429+87.4

STAGE I
(LOOKING EAST)



STAGE II
(LOOKING EAST)

PROPOSED LEGEND

- 1 - EXISTING HMA PAVEMENT ±5"
- 2 - EXISTING PCC PAVEMENT 9"
- 3 - EXISTING WIDENING
- 4 - EXISTING HMA SURFACE COURSE 1 1/2"
- 5 - EXISTING HMA LEVELING BINDER 3/4"
- 6 - EXISTING HMA SHOULDERS, 8"
- 7 - EXISTING GUARDRAIL
- 8 - PROPOSED PCC SHOULDERS 8"
- 9 - PROPOSED PCC SHOULDERS 10"
- 10 - PROPOSED EARTH SHOULDERS
- 11 - PROPOSED GUARDRAIL



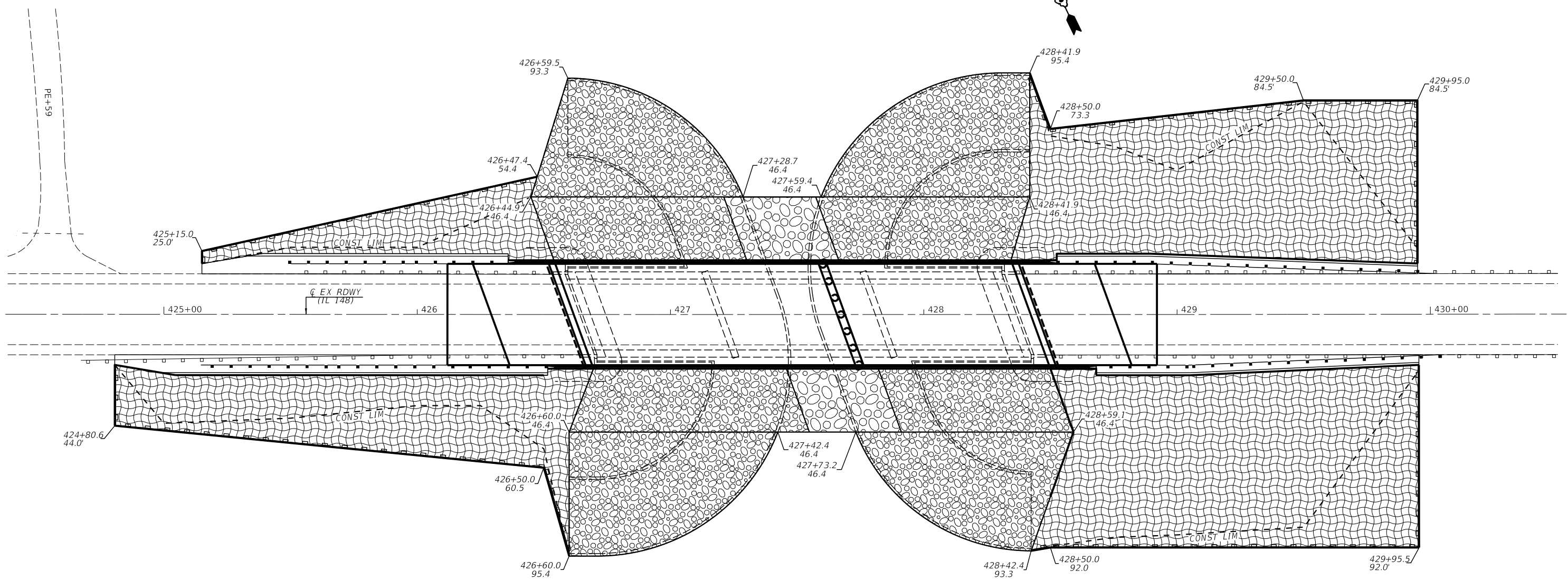
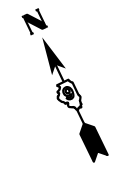
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PLOT DATE = \$DATES	CHECKED - _____	REVISED - _____
	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**





ROADWAY STAGING TYPICAL SECTIONS

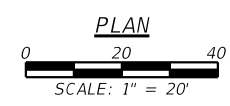
SCALE: 1" = 50' SHEET ___ OF ___ SHEETS STA. ___ TO STA. ___

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	18
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



LEGEND

-  - INDICATES PERIMETER EROSION BARRIER
-  - INDICATES STONE RIPRAP CLASS A5
-  - INDICATES STONE RIPRAP CLASS A6
-  - INDICATES SEEDING, CLASS 2A & HEAVY DUTY EROSION CONTROL BLANKET



MODEL: 4400BELNAMES
FILE NAME: STEEL5



USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
DRAWN - _____	DRAWN - _____	REVISED - _____
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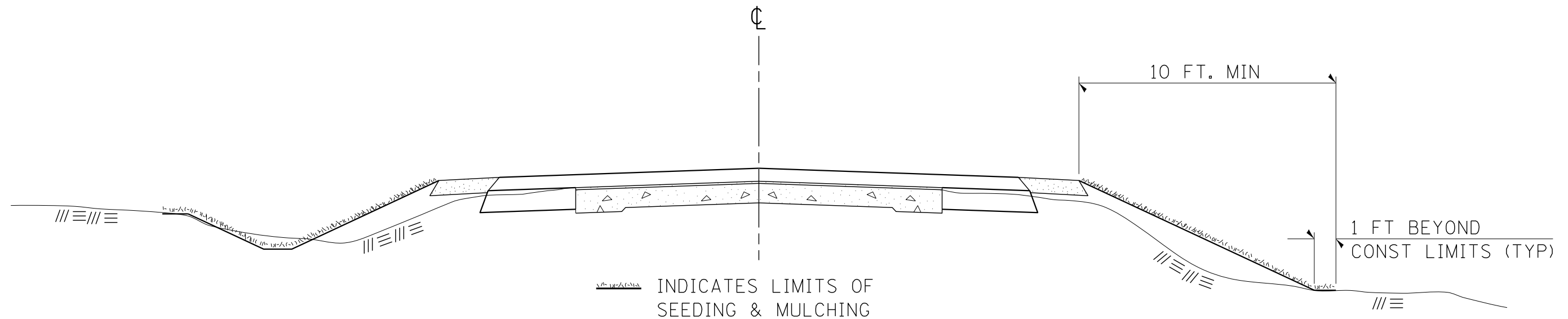
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

EROSION CONTROL PLAN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	19
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

SEEDING & MULCHING



GENERAL NOTES

IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEEDED AND MULCHED UPON COMPLETION OF ALL GRADING OPERATIONS.

ON DETOUR ROADS, SLOPES SHALL BE SEEDED IMMEDIATELY UPON COMPLETION OF ANY GIVEN STAGE GRADING. TEMPORARY SEEDING SHALL BE CLASS 7.

FERTILIZER NUTRIENTS SHALL BE APPLIED TO ALL SEEDED AREAS. LIMESTONE SHALL BE APPLIED TO ALL AREAS OF FINAL SEEDING.

THE RATES OF APPLICATION OF FERTILIZER, MULCH AND LIMESTONE SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS FOR ROAD AND BRIDGE CONSTRUCTION.

SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

REVISIONS

REDRAWN	2-15-89
REVISED	8-15-94
REVISED	6-3-99
REVISED	3-27-08
REVISED	5-16-13

STD. 9-12

MODEL: \$MODELNAME\$
FILE NAME: \$FILES\$



USER NAME = \$USERS\$	DESIGNED - _____	REVISED - _____
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PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

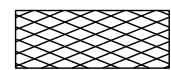
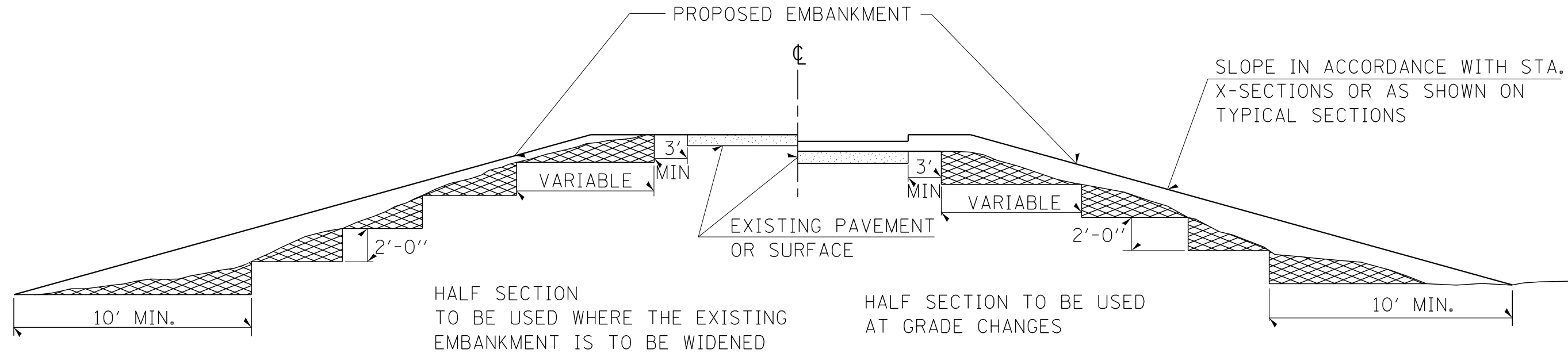
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DISTRICT STANDARDS

SCALE: _____ SHEET ___ OF ___ SHEETS STA. _____ TO STA. _____

F.A.P. RTE. 726	SECTION 41B-2	COUNTY WILLIAMSON	TOTAL SHEETS 72	SHEET NO. 20
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

TYPICAL CROSS SECTION SHOWING STEP CONSTRUCTION ON EXISTING FILL



MATERIAL TO BE REMOVED AND REPLACED IN THE EMBANKMENT IN ACCORDANCE WITH ART. 205.04 OF THE STANDARD SPECIFICATION. COST TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED BECAUSE OF THIS WORK.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
CHECKED	6-3-99
RESIZED	5-7-08
REVIEWED	5-17-13

STD. 9-16

MODEL: 4400BELNAMES
FILE NAME: STELS



USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	DRAWN - _____	REVISED - _____
PLOT DATE = \$DATES	CHECKED - _____	REVISED - _____
	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DISTRICT STANDARDS

SCALE: _____ SHEET ___ OF ___ SHEETS STA. _____ TO STA. _____

F.A.P. RTE. 726	SECTION 41B-2	COUNTY WILLIAMSON	TOTAL SHEETS 72	SHEET NO. 21
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

Bench Mark: Chiseled "□" at the N.E. corner of bridge abutment
S.N. 100-0038 - El. 512.70

Existing Structure: Structure number 100-0038, built in 1962 under F.A.S. Route 910, Section 41B at Station 427+52.

The existing structure is a three span bridge having a back to back abutment length of 173'-6" and a face to face of curb width of 28'-0" and an out to out deck width of 33'-8". The superstructure consists of a reinforced concrete deck supported by 6 - 30WF124 steel beams. The substructure consists of reinforced concrete pile bent abutments supported by concrete piles and hammerhead piers on timber pile supported spread footings. The bridge is skewed 20° right forward. The structure will be replaced utilizing stage construction.

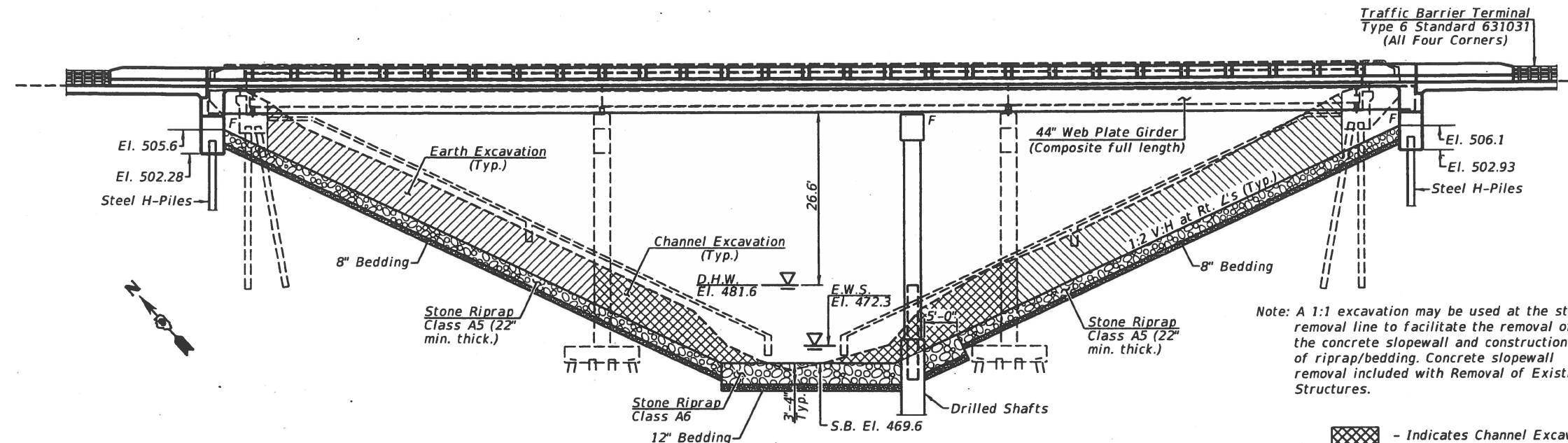
No salvage.

APPROVED
For Structural Adequacy Only

Dr. Cal Perry
Engineer of Bridges & Structures

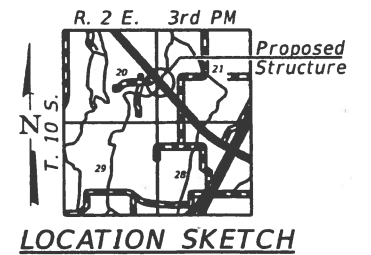
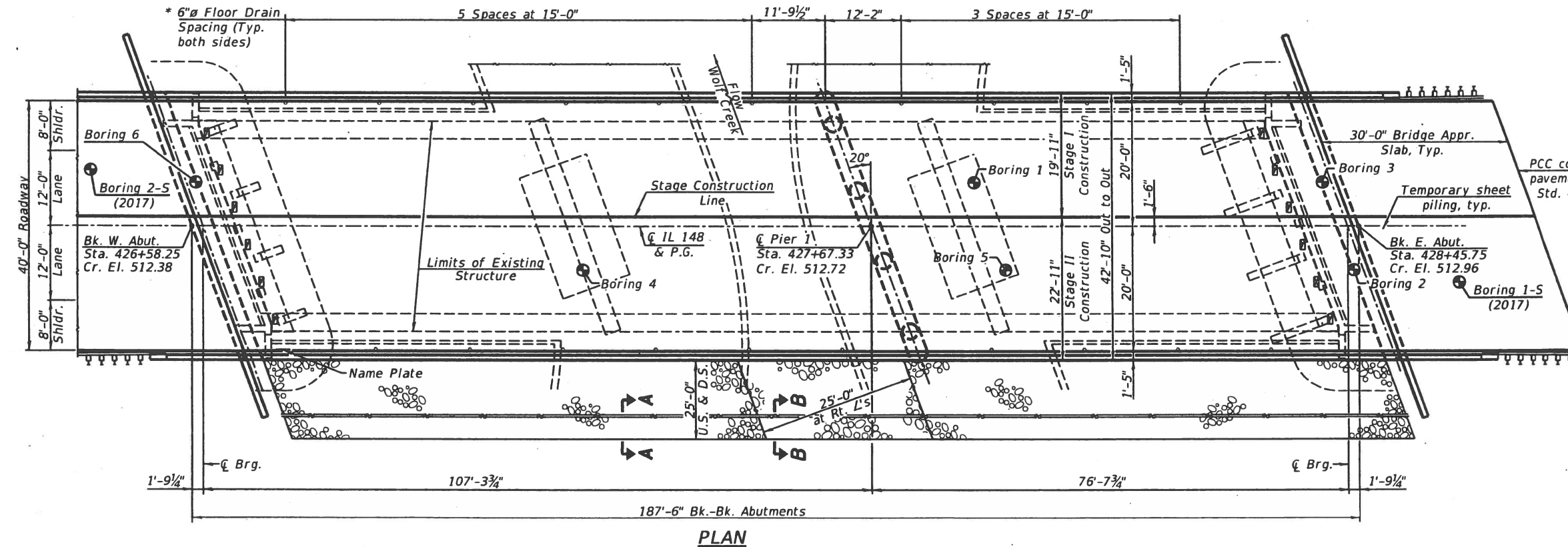
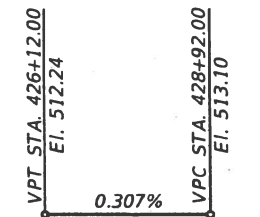
INDEX OF SHEETS

- 1 - General Plan and Elevation
- 2 - General Data
- 3 - Stage Construction Details
- 4 - Temporary Concrete Barrier for Stage Construction
- 5 - Steel Railing (Temporary)
- 6-8 - Top of Slab Elevations
- 9 - Top of West Approach Slab Elevations
- 10 - Top of East Approach Slab Elevations
- 11 - Superstructure
- 12 - Superstructure Details
- 13 - Integral Abutment Diaphragm Details
- 14-15 - Bridge Approach Slab Details - W. Abut.
- 16-17 - Bridge Approach Slab Details - E. Abut.
- 18 - Structural Steel
- 19-20 - Structural Steel Details
- 21 - West Abutment
- 22 - East Abutment
- 23 - Pier
- 24 - Pier Details
- 25 - Bar Splicer Details
- 26 - Pile Details
- 27-32 - Boring Logs
- 33-36 - Existing Structure Plans



* Drains shall be located clear of all cross frames and 10' clear of all substructure units.

- Indicates Channel Excavation (See Roadway Plans for quantity)
- Indicates Earth Excavation (See Roadway Plans for quantity)



Mark A. Henderson 10/9/2019
Expires: 11/30/2020

Note: See Sheet 2 of 36 for Section A-A and Section B-B.

GENERAL PLAN & ELEVATION
IL 148 OVER WOLF CREEK
F.A.P. ROUTE 726 - SECTION 41B-2
WILLIAMSON COUNTY
STATION 427+52.00
STRUCTURE NO. 100-0103



USER NAME *	DESIGNED -	REVISOR -
PLOT SCALE *	CHECKED -	REVISOR -
PLOT DATE *	DRAWN -	REVISOR -
	CHECKED -	REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
STRUCTURE NO. 100-0103
SHEET NO. 1 OF 36 SHEETS

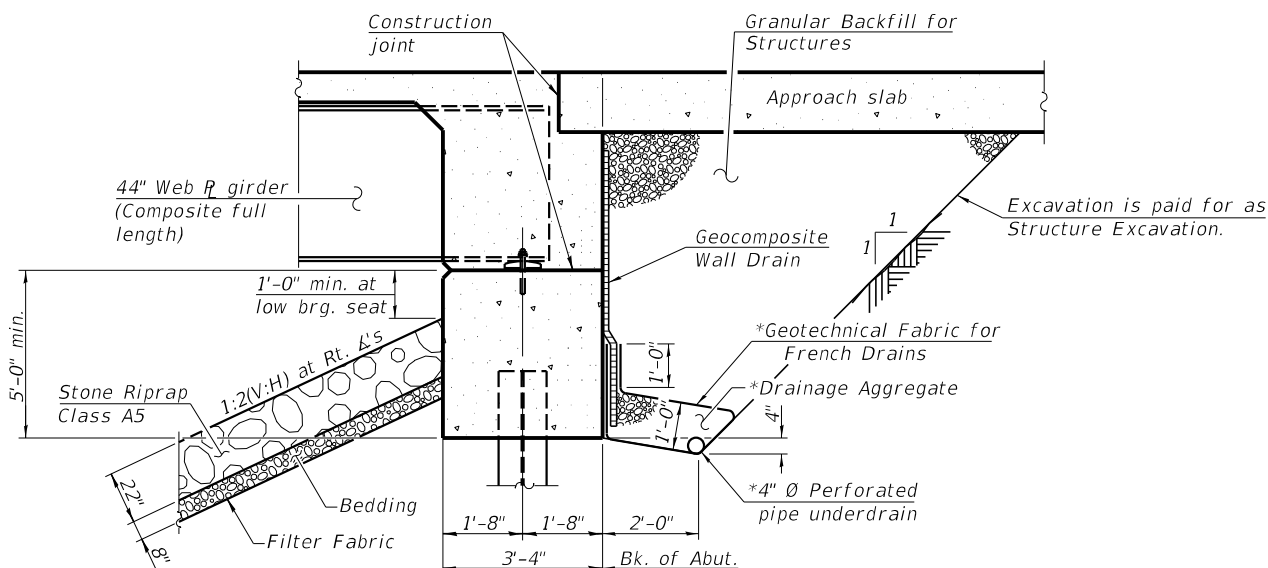
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	22
			CONTRACT NO. 78506	
ILLINOIS FED. AID PROJECT				

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	Ton		2438	2438
Stone Riprap, Class A6	Ton		371	371
Filter Fabric	Sq. Yd.		3392	3392
Removal of Existing Structures	Each	1		1
Structure Excavation	Cu. Yd.		484	484
Floor Drains	Each	20		20
Concrete Structures	Cu. yd.		193.6	193.6
Concrete Superstructure	Cu. Yd.	279.0		279.0
Bridge Deck Grooving	Sq. Yd.	1036		1036
Protective Coat	Sq. Yd.	1292		1292
Concrete Superstructure (Approach Slab)	Cu. Yd.	117.0		117.0
Furnishing & Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	4860		4860
Reinforcement Bars	Pound		33570	33570
Reinforcement Bars Epoxy Coated	Pound	123680	34960	158640
Bar Splicers	Each	942	142	1084
Mechanical Splicers	Each		162	162
Steel Railing (Temporary)	Foot	280		280
Furnishing Steel Piles HP14x89	Foot		1624	1624
Driving Piles	Foot		1624	1624
Test Pile Steel HP14x89	Each		2	2
Name Plates	Each	1		1
Drilled Shaft in Soil	Cu. Yd.		117.7	117.7
Drilled Shaft in Rock	Cu. Yd.		14.3	14.3
Anchor Bolts, 1"	Each	36		36
Temporary Sheet Piling	Sq. Ft.		1253	1253
Granular Backfill for Structures	Cu. Yd.		245	245
Geocomposite Wall Drain	Sq. Yd.		122	122
Crosshole Sonic Logging Access Ducts	Foot		294	294
Crosshole Sonic Logging Testing	Each		4	4
Pipe Underdrains for Structures 4"	Foot		178	178
Temporary Support System	Each		2	2

GENERAL NOTES

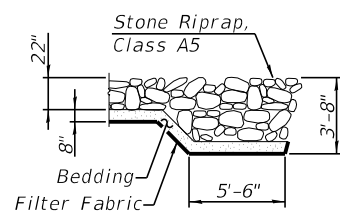
Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts in painted areas and ASTM A325 Type 3 in unpainted areas. Bolts 7/8-in. Ø, holes 1 1/8-in. Ø, unless otherwise noted.
 Calculated weight of Structural Steel = 252,430 pounds.
 All structural steel shall be AASHTO M 270 Grade 50W.
 No field welding is permitted except as specified in the contract documents.
 Reinforcement bars designated (E) shall be epoxy coated.
 Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
 Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 1'-6". Painted areas shall be primed in the shop with a Department approved zinc rich primer. Field painting will not be required.
 Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
 Slipforming of the parapets will not be allowed.



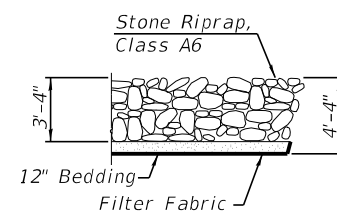
SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

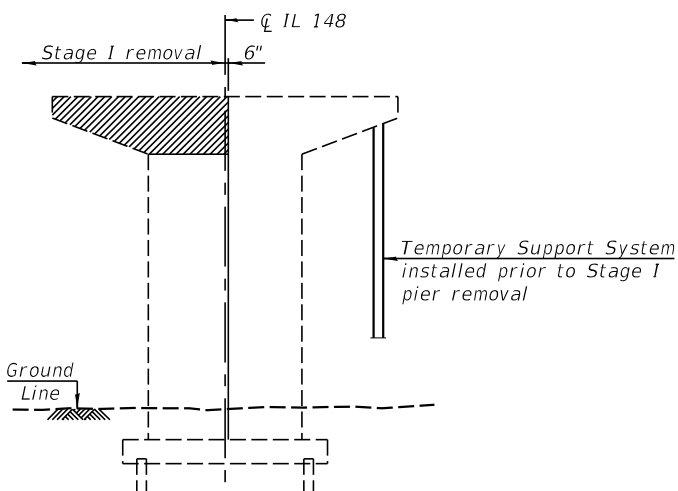
Note:
 All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



SECTION A-A



SECTION B-B



PIER 1 & PIER 2 REMOVAL SKETCH
(Looking East)

(Limits of Stage I Pier Removal will be required per beam replacement and based on Contractor's Means and Methods)

WATERWAY INFORMATION

Flood		Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.	
				Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design		10	1890	153	400	479.7	0.6	480.3	479.7
Base		50	3150	233	533	481.6	1.5	483.2	481.8
		100	3720	263	562	482.0	1.8	483.8	482.1
		200	4380	290	607	482.6	2.2	484.8	482.8
Overtop Proposed									
Max. Calc.		500	5240	322	659	483.3	2.8	486.1	483.6

10 year velocity through existing bridge = 12.4 fps
 10 year velocity through prop. bridge = 4.6 fps

DESIGN SCOUR ELEVATION TABLE

Soil Adjusted Pier Scour Elevations (ft)		
		Item 113
Q100/Design	464.4	8
Q200/Check	463.9	

STATION 427+52.00
 BUILT 2020 BY
 STATE OF ILLINOIS
 F.A.P. RTE. 726 - SECTION 41B-2
 LOADING HL-93
 STRUCTURE NO. 100-0103

NAME PLATE
 Std. 515001



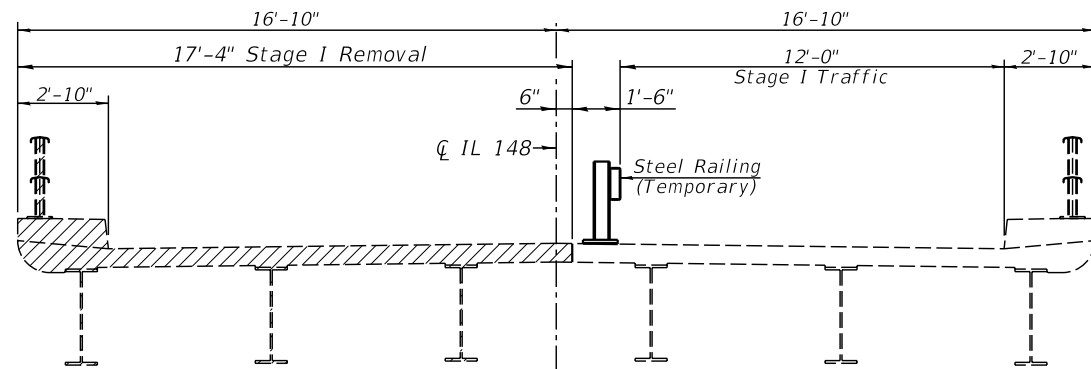
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CHECKED	REVISIONS	
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PLOT SCALE	DRAWN	REVISIONS
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PLOT DATE	CHECKED	REVISIONS
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

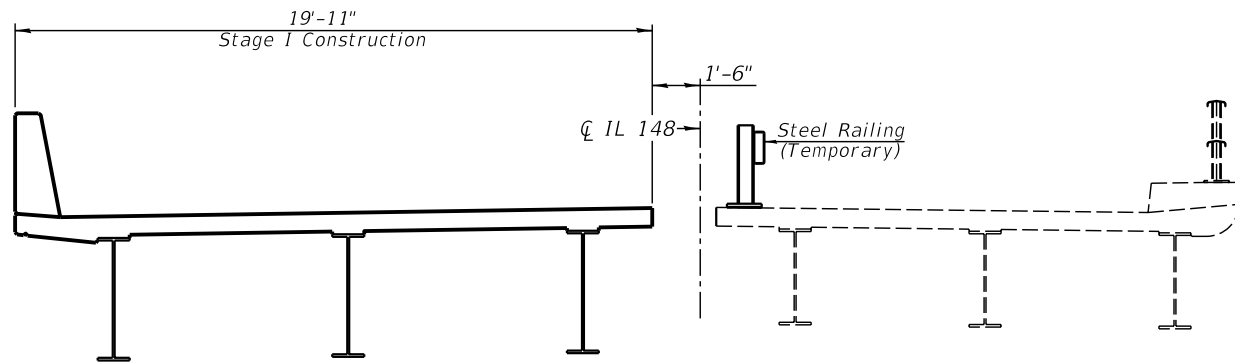
GENERAL DATA
STRUCTURE NO. 100-0103

SHEET NO. 2 OF 36 SHEETS

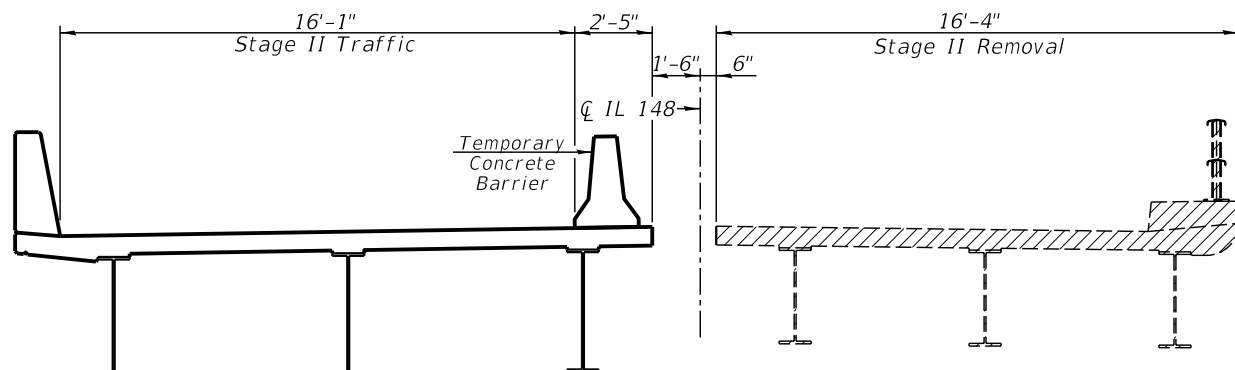
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	23
CONTRACT NO. 78506				
<small>ILLINOIS FED. AID PROJECT</small>				



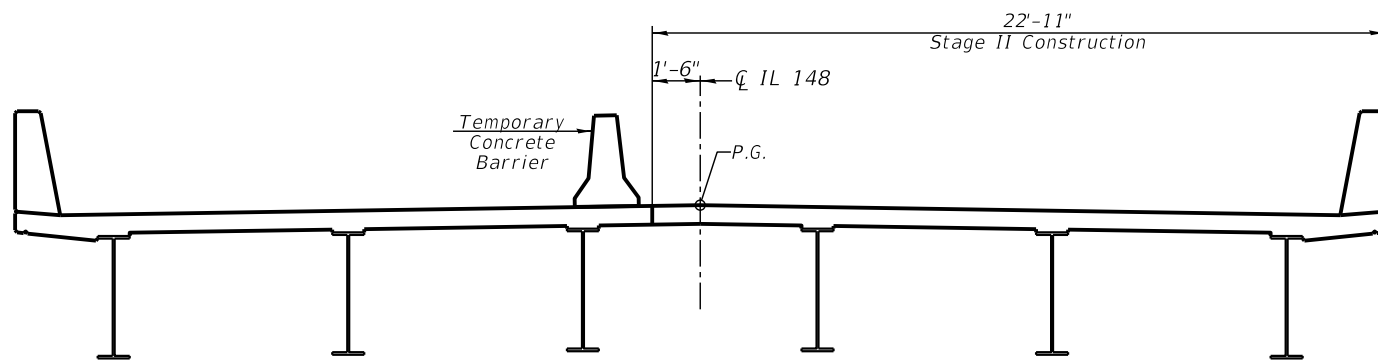
STAGE I REMOVAL
(Looking East)



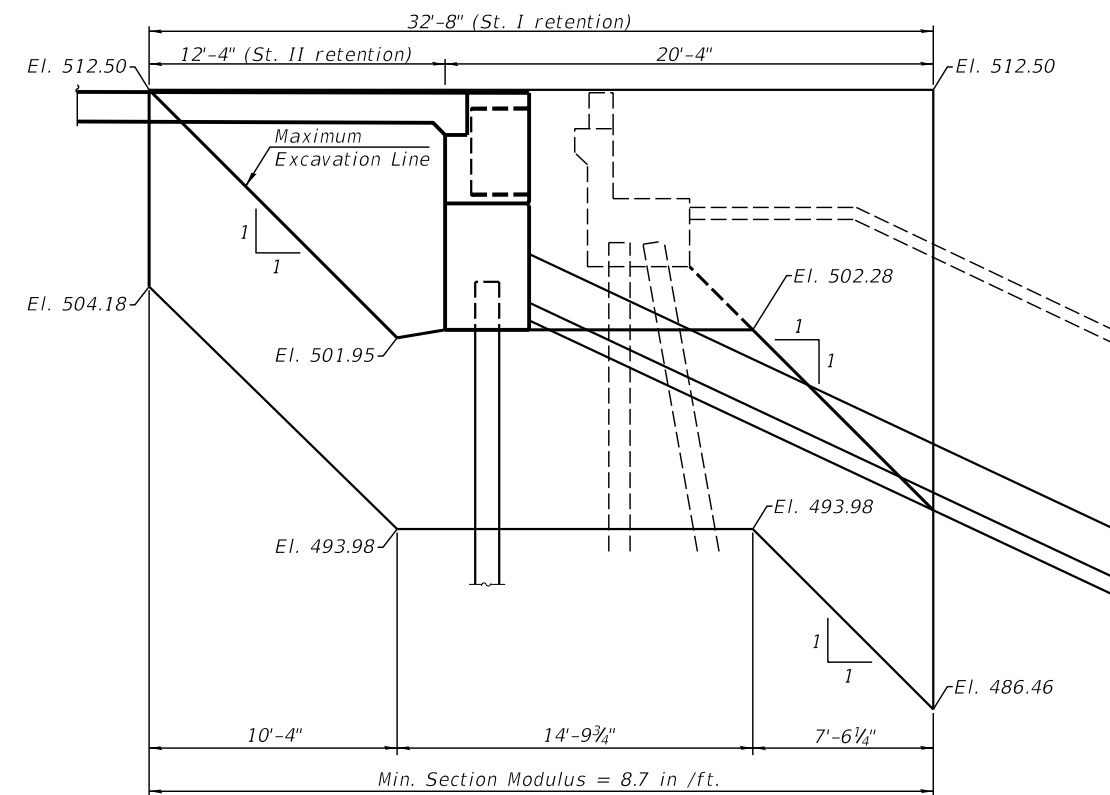
STAGE I CONSTRUCTION
(Looking East)



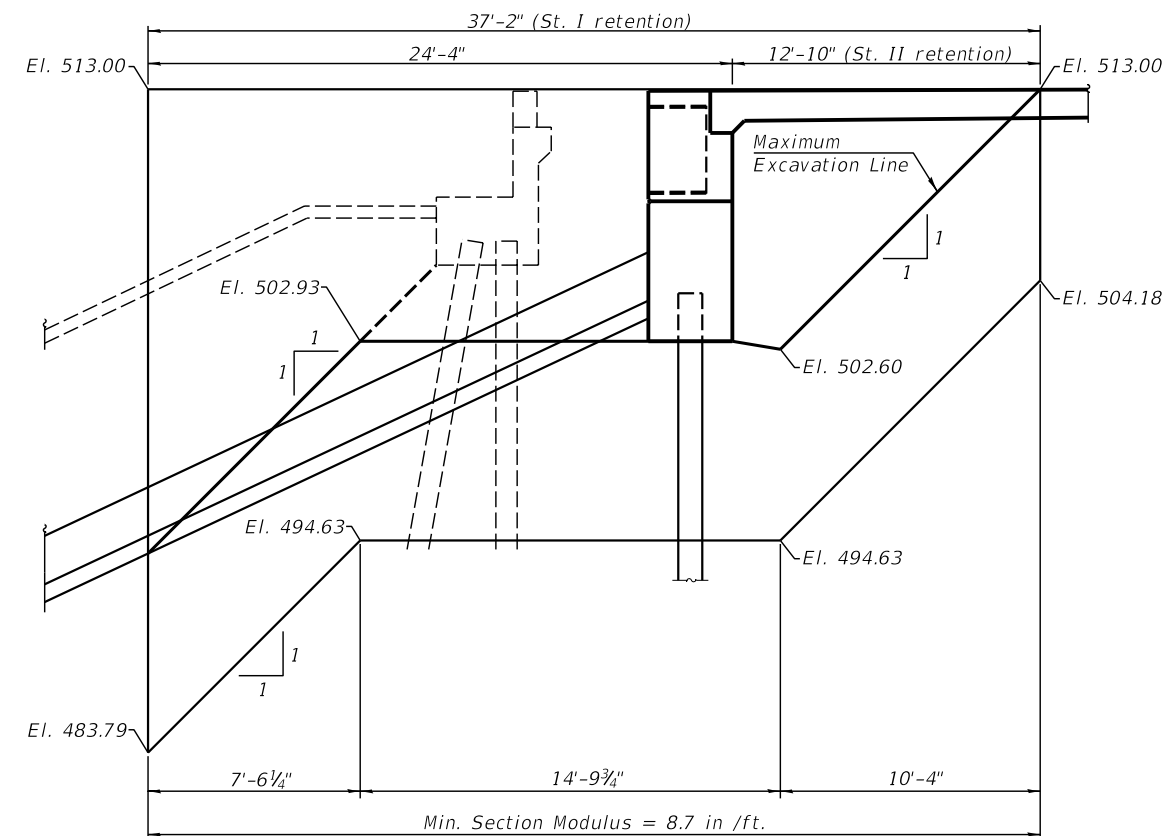
STAGE II REMOVAL
(Looking East)



STAGE II CONSTRUCTION
(Looking East)



WEST ABUTMENT TEMPORARY SHEET PILING



EAST ABUTMENT TEMPORARY SHEET PILING

Notes:
 For quantity of Temporary Concrete Barrier, see Roadway Plans.
 Hatched areas indicate Removal of Existing Structures.
 If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.



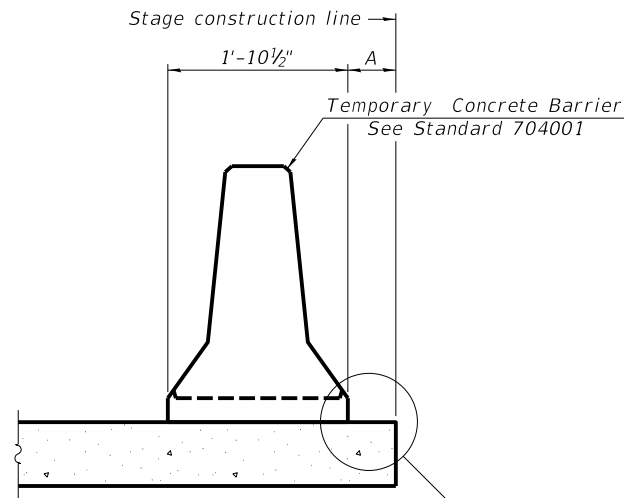
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	CHECKED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 100-0103

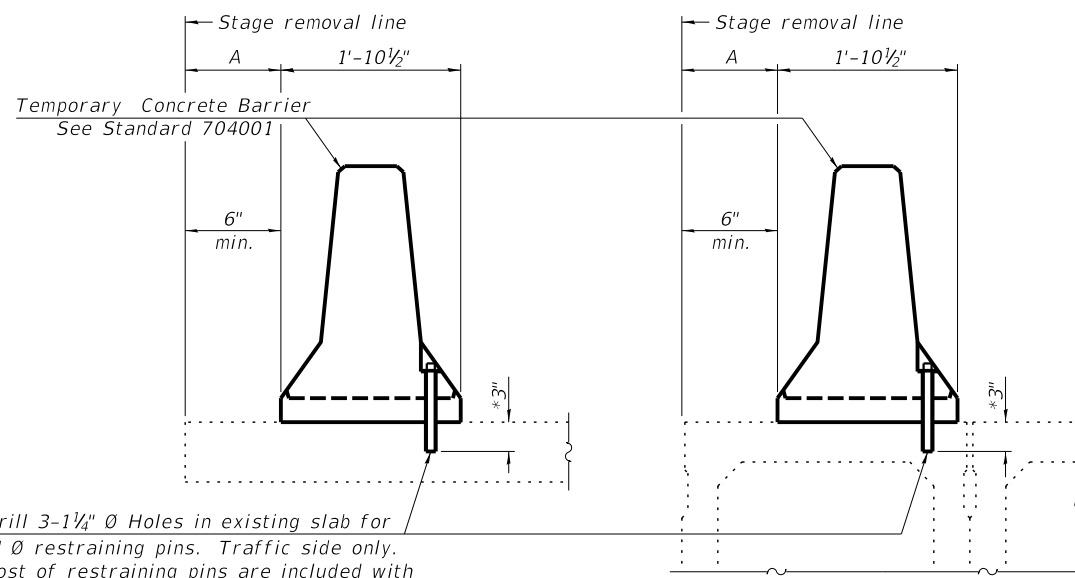
SHEET NO. 3 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	24
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM

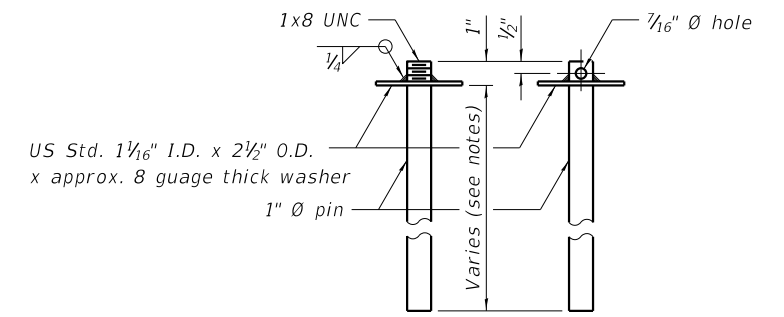


Drill 3-1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

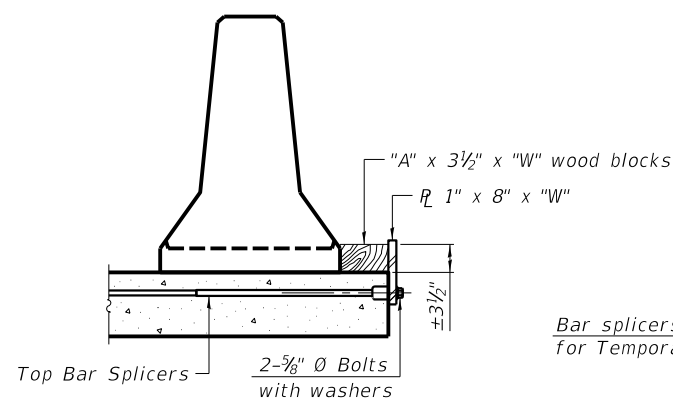
* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

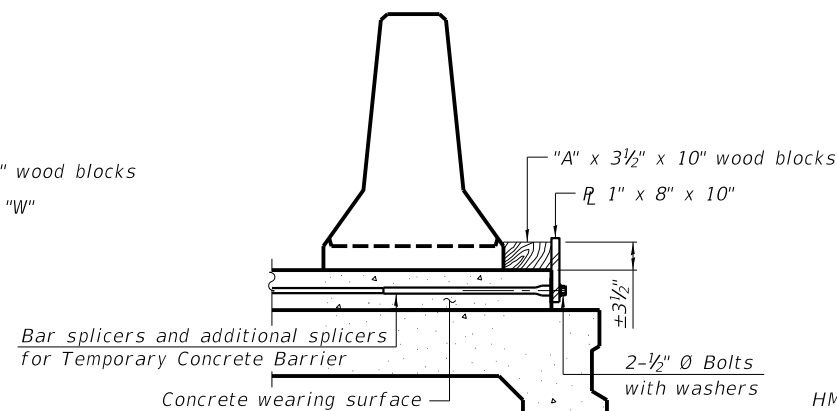


RESTRAINING PIN

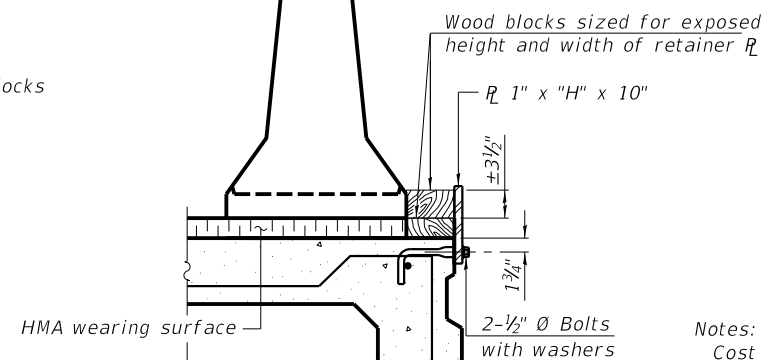
SECTIONS THRU SLAB OR DECK BEAM



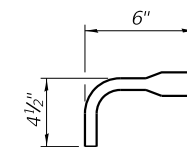
DETAIL I



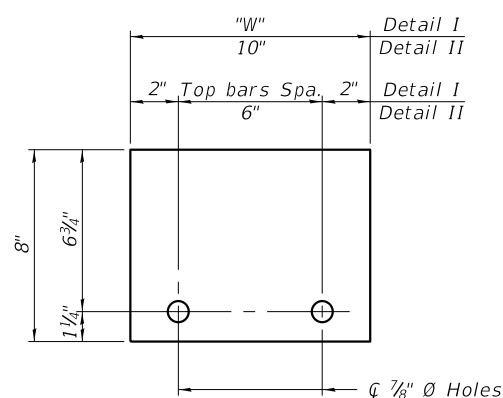
DETAIL II



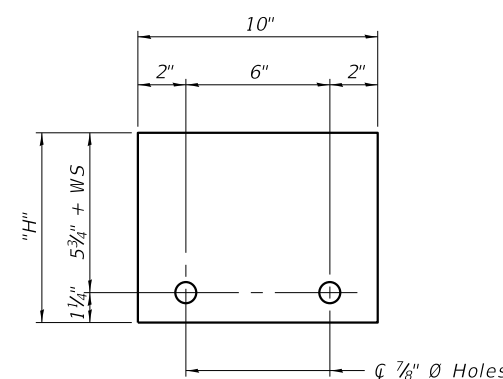
DETAIL III



BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER R 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER R 1" x "H" x 10"
(Detail III)

Notes:

- Cost of retainer assembly is included with Temporary Concrete Barrier.
- A retainer assembly shall be located at the approximate center of each temporary concrete barrier.
- The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
- When the 'A' dimension is less than 1 1/2', the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

- Detail I - Installation for a new bridge deck or bridge slab.
- Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
- Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27 2-17-2017



USER NAME =	DESIGNED -	REVISD -
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PLOT SCALE =	DRAWN -	REVISD -
PLOT DATE =	CHECKED -	REVISD -

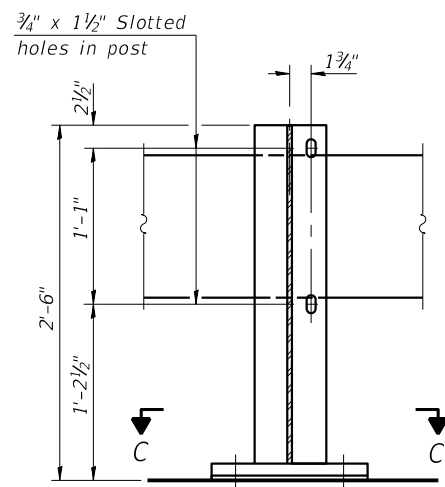
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 100-0103

SHEET NO. 4 OF 36 SHEETS

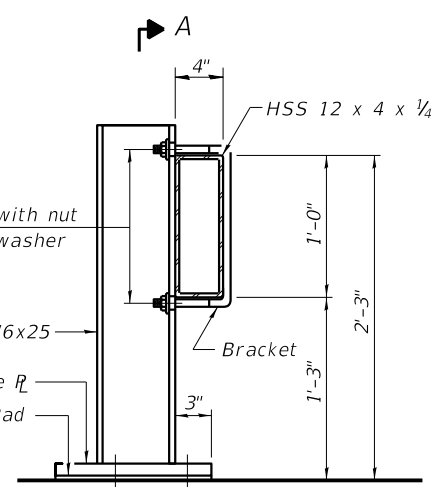
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	25
CONTRACT NO. 78506				

ILLINOIS FED. AID PROJECT

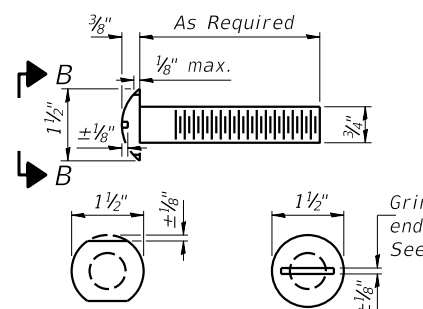


SECTION A-A

2-5/8" Ø H.S. Studs with nut and flat hardened washer

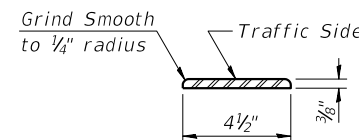


SECTION AT RAIL POST

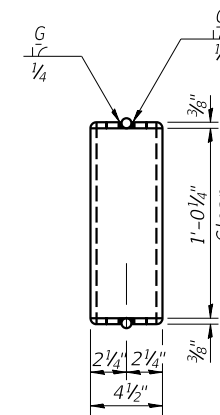


Without Slot or Recess With Slot (shown) or Approved Recess

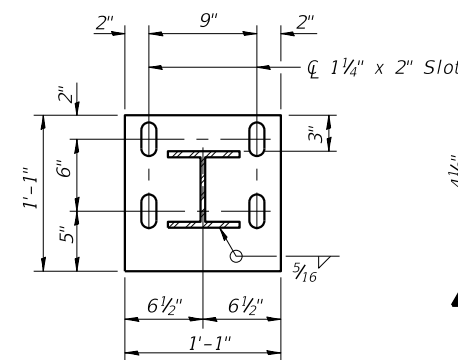
VIEW B-B ROUND HEAD BOLT



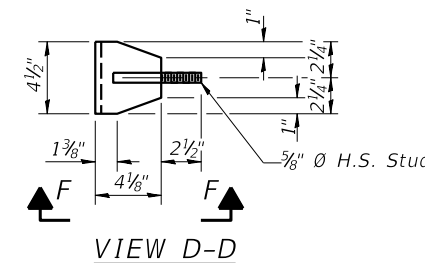
DETAIL A



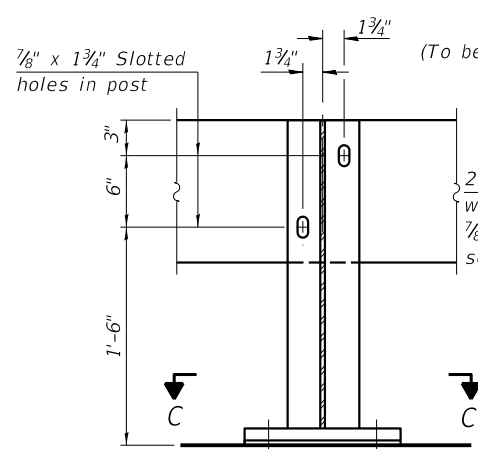
VIEW E-E



SECTION C-C

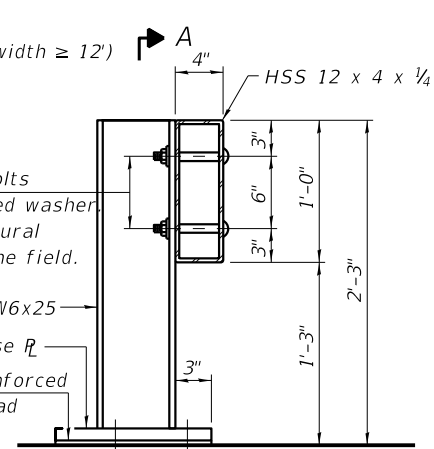


VIEW D-D



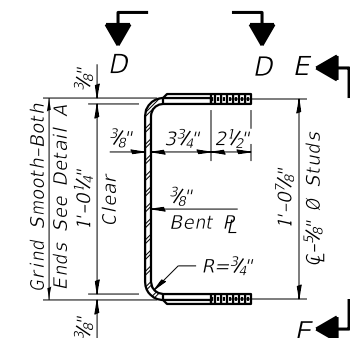
SECTION A-A

ALTERNATE I (To be used only for Roadway width ≥ 12')

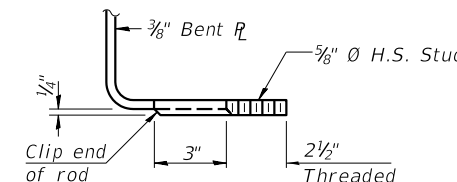


SECTION AT RAIL POST

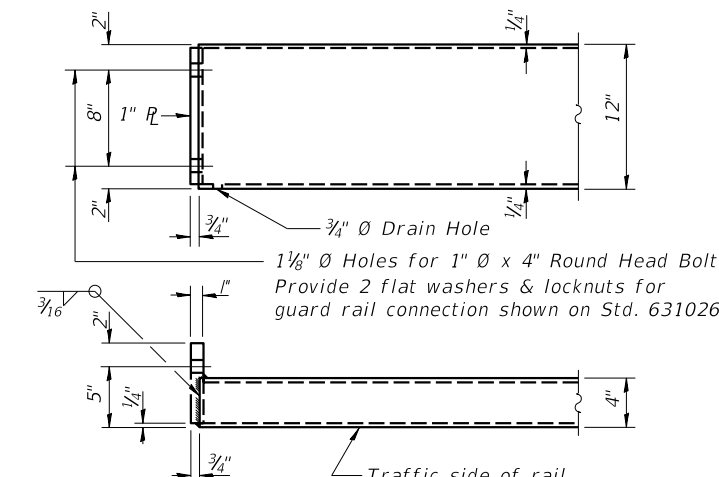
2-3/4" Ø x 6" Round Head Bolts with locknut & flat hardened washer 7/8" Ø holes in hollow structural section may be drilled in the field.



SECTION THRU BRACKET



VIEW F-F



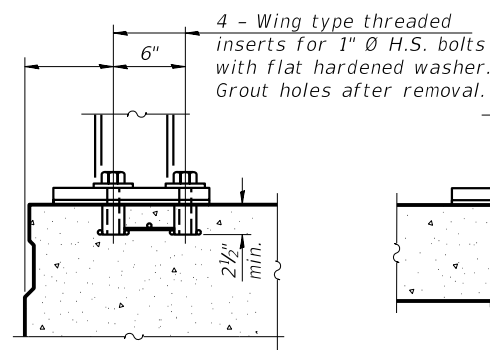
END OF RAIL DETAILS

SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	

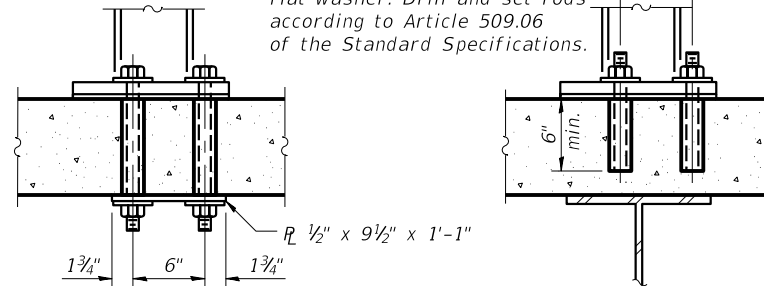
T = Total movement at expansion joint as shown on the design plans.

Notes:
The contact surfaces between post flange, rail and inside face of bracket for Alternate I shall be free of all lubricants.
The nut for 5/8" Ø high strength studs used in Alternate I to connect bracket to post shall be tightened to a snug fit and given an additional one half turn.



P.P.C. DECK BEAMS

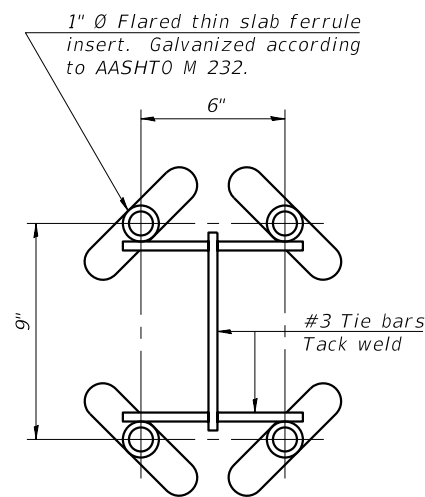
*Drill 4-1 1/4" Ø holes for 1" Ø threaded rods with hex nut and flat washer. Drill and set rods according to Article 509.06 of the Standard Specifications.



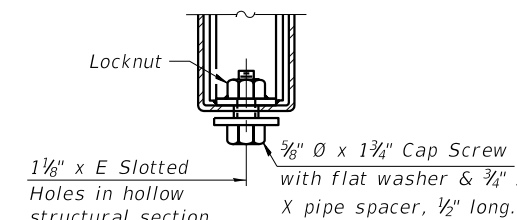
ANCHORAGE DETAILS

NEW & EXISTING DECKS

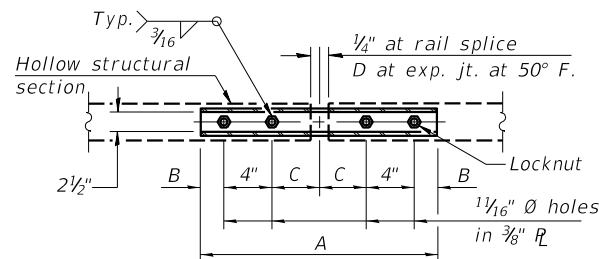
*Drilled holes for existing deck.



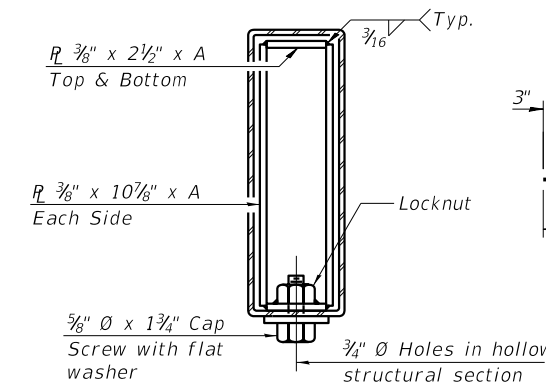
INSERT DETAIL



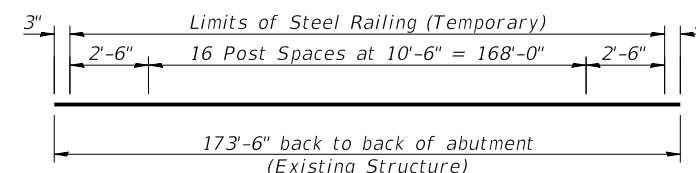
RAIL SPLICE CONNECTION AT EXPANSION JT.



PLAN-BOTT. SPLICE R TYPICAL



SECTION AT RAIL SPLICE



TEMPORARY BRIDGE RAIL POST SPACING

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing (Temporary)	Foot	173

R-25 2-17-2017 (10'-9" Maximum Post Spacing)



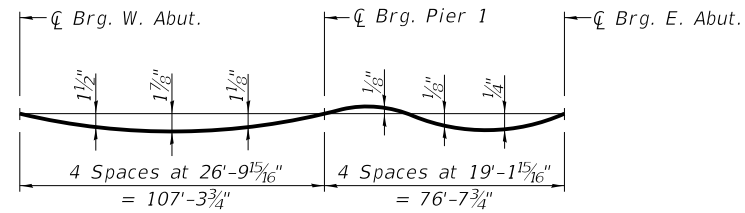
USER NAME	DESIGNED	REVISIONS

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

STEEL RAILING (TEMPORARY) STRUCTURE NO. 100-0103

SHEET NO. 5 OF 36 SHEETS

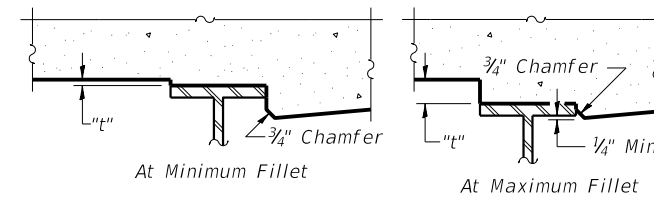
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	26
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



DEAD LOAD DEFLECTION DIAGRAM

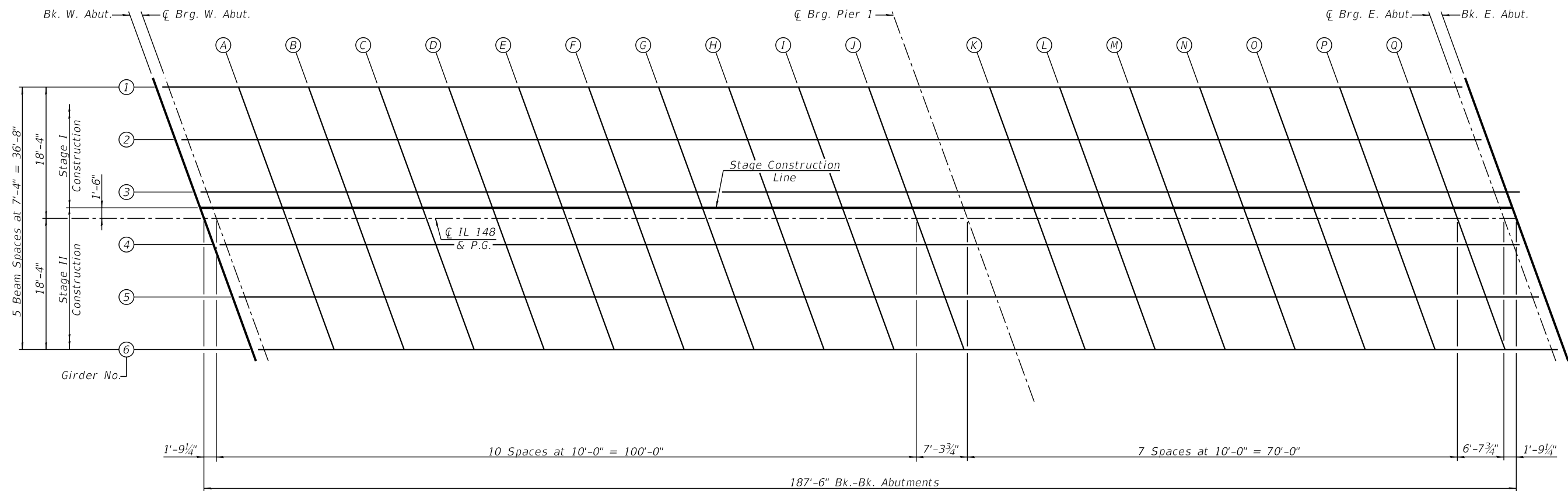
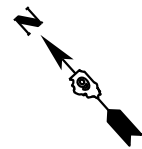
(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets 7 and 8 of 36.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets 7 and 8 of 36, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

E-S 2-17-2017



USER NAME =	DESIGNED -	REVISD -
CHECKED -	CHECKED -	REVISD -
PLOT SCALE =	DRAWN -	REVISD -
PLOT DATE =	CHECKED -	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 100-0103

SHEET NO. 6 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	27
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

BEAM 1

Location	Station	Offset	Theoretical Top of Slab Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. West Abut.	426+51.58	-18.33	512.05	512.05
CL Brg. W. Abut.	426+53.35	-18.33	512.06	512.06
A	426+63.35	-18.33	512.09	512.15
B	426+73.35	-18.33	512.12	512.23
C	426+83.35	-18.33	512.15	512.29
D	426+93.35	-18.33	512.18	512.34
E	427+03.35	-18.33	512.21	512.38
F	427+13.35	-18.33	512.24	512.40
G	427+23.35	-18.33	512.28	512.40
H	427+33.35	-18.33	512.31	512.40
I	427+43.35	-18.33	512.34	512.39
J	427+53.35	-18.33	512.37	512.39
☐ Brg. Pier 1	427+60.66	-18.33	512.39	512.39
K	427+70.66	-18.33	512.42	512.41
L	427+80.66	-18.33	512.45	512.44
M	427+90.66	-18.33	512.48	512.48
N	428+00.66	-18.33	512.51	512.52
O	428+10.66	-18.33	512.54	512.56
P	428+20.66	-18.33	512.57	512.59
Q	428+30.66	-18.33	512.60	512.61
CL Brg. E. Abut.	428+37.31	-18.33	512.63	512.63
Bk. East Abut.	428+39.08	-18.33	512.63	512.63

BEAM 2

Location	Station	Offset	Theoretical Top of Slab Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. West Abut.	426+54.25	-11.00	512.20	512.20
CL Brg. W. Abut.	426+56.02	-11.00	512.21	512.21
A	426+66.02	-11.00	512.24	512.30
B	426+76.02	-11.00	512.27	512.38
C	426+86.02	-11.00	512.30	512.44
D	426+96.02	-11.00	512.33	512.50
E	427+06.02	-11.00	512.36	512.53
F	427+16.02	-11.00	512.39	512.55
G	427+26.02	-11.00	512.43	512.55
H	427+36.02	-11.00	512.46	512.55
I	427+46.02	-11.00	512.49	512.54
J	427+56.02	-11.00	512.52	512.54
☐ Brg. Pier 1	427+63.33	-11.00	512.54	512.54
K	427+73.33	-11.00	512.57	512.56
L	427+83.33	-11.00	512.60	512.59
M	427+93.33	-11.00	512.63	512.63
N	428+03.33	-11.00	512.66	512.67
O	428+13.33	-11.00	512.69	512.71
P	428+23.33	-11.00	512.72	512.74
Q	428+33.33	-11.00	512.75	512.76
CL Brg. E. Abut.	428+39.98	-11.00	512.78	512.78
Bk. East Abut.	428+41.75	-11.00	512.78	512.78

BEAM 3

Location	Station	Offset	Theoretical Top of Slab Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. West Abut.	426+56.91	-3.67	512.32	512.32
CL Brg. W. Abut.	426+58.68	-3.67	512.33	512.33
A	426+68.68	-3.67	512.36	512.42
B	426+78.68	-3.67	512.39	512.49
C	426+88.68	-3.67	512.42	512.56
D	426+98.68	-3.67	512.45	512.61
E	427+08.68	-3.67	512.48	512.65
F	427+18.68	-3.67	512.51	512.67
G	427+28.68	-3.67	512.54	512.67
H	427+38.68	-3.67	512.57	512.66
I	427+48.68	-3.67	512.60	512.66
J	427+58.68	-3.67	512.64	512.65
☐ Brg. Pier 1	427+65.99	-3.67	512.66	512.66
K	427+75.99	-3.67	512.69	512.68
L	427+85.99	-3.67	512.72	512.71
M	427+95.99	-3.67	512.75	512.75
N	428+05.99	-3.67	512.78	512.79
O	428+15.99	-3.67	512.81	512.83
P	428+25.99	-3.67	512.84	512.86
Q	428+35.99	-3.67	512.87	512.88
CL Brg. E. Abut.	428+42.64	-3.67	512.89	512.89
Bk. East Abut.	428+44.41	-3.67	512.90	512.90

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Top of Slab Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. West Abut.	426+57.70	-1.50	512.36	512.36
CL Brg. W. Abut.	426+59.47	-1.50	512.36	512.36
A	426+69.47	-1.50	512.39	512.45
B	426+79.47	-1.50	512.42	512.53
C	426+89.47	-1.50	512.45	512.60
D	426+99.47	-1.50	512.49	512.65
E	427+09.47	-1.50	512.52	512.68
F	427+19.47	-1.50	512.55	512.70
G	427+29.47	-1.50	512.58	512.70
H	427+39.47	-1.50	512.61	512.70
I	427+49.47	-1.50	512.64	512.69
J	427+59.47	-1.50	512.67	512.69
☐ Brg. Pier 1	427+66.78	-1.50	512.69	512.69
K	427+76.78	-1.50	512.72	512.71
L	427+86.78	-1.50	512.75	512.75
M	427+96.78	-1.50	512.78	512.79
N	428+06.78	-1.50	512.82	512.83
O	428+16.78	-1.50	512.85	512.86
P	428+26.78	-1.50	512.88	512.89
Q	428+36.78	-1.50	512.91	512.91
CL Brg. E. Abut.	428+43.43	-1.50	512.93	512.93
Bk. East Abut.	428+45.20	-1.50	512.93	512.93

PROFILE GRADE

Location	Station	Offset	Theoretical Top of Slab Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. West Abut.	426+58.25	0.00	512.38	512.38
CL Brg. W. Abut.	426+60.02	0.00	512.39	512.39
A	426+70.02	0.00	512.42	512.47
B	426+80.02	0.00	512.45	512.55
C	426+90.02	0.00	512.48	512.62
D	427+00.02	0.00	512.51	512.67
E	427+10.02	0.00	512.54	512.71
F	427+20.02	0.00	512.57	512.72
G	427+30.02	0.00	512.60	512.73
H	427+40.02	0.00	512.63	512.72
I	427+50.02	0.00	512.66	512.72
J	427+60.02	0.00	512.70	512.71
☐ Brg. Pier 1	427+67.33	0.00	512.72	512.72
K	427+77.33	0.00	512.75	512.74
L	427+87.33	0.00	512.78	512.77
M	427+97.33	0.00	512.81	512.81
N	428+07.33	0.00	512.84	512.85
O	428+17.33	0.00	512.87	512.89
P	428+27.33	0.00	512.90	512.92
Q	428+37.33	0.00	512.93	512.94
CL Brg. E. Abut.	428+43.98	0.00	512.95	512.95
Bk. East Abut.	428+45.75	0.00	512.96	512.96

BEAM 4

Location	Station	Offset	Theoretical Top of Slab Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. West Abut.	426+59.58	3.67	512.33	512.33
CL Brg. W. Abut.	426+61.35	3.67	512.34	512.34
A	426+71.35	3.67	512.37	512.42
B	426+81.35	3.67	512.40	512.50
C	426+91.35	3.67	512.43	512.57
D	427+01.35	3.67	512.46	512.62
E	427+11.35	3.67	512.49	512.66
F	427+21.35	3.67	512.52	512.67
G	427+31.35	3.67	512.55	512.68
H	427+41.35	3.67	512.58	512.67
I	427+51.35	3.67	512.61	512.67
J	427+61.35	3.67	512.64	512.66
☐ Brg. Pier 1	427+68.66	3.67	512.67	512.67
K	427+78.66	3.67	512.70	512.69
L	427+88.66	3.67	512.73	512.72
M	427+98.66	3.67	512.76	512.76
N	428+08.66	3.67	512.79	512.80
O	428+18.66	3.67	512.82	512.84
P	428+28.66	3.67	512.85	512.87
Q	428+38.66	3.67	512.88	512.89
CL Brg. E. Abut.	428+45.31	3.67	512.90	512.90
Bk. East Abut.	428+47.08	3.67	512.91	512.91



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PLOT SCALE =	CHECKED -	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS
STRUCTURE NO. 100-0103**

SHEET NO. 7 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	28
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

BEAM 5

Location	Station	Offset	Theoretical Top of Slab Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. West Abut	426+62.25	11.00	512.23	512.23
CL Brg. W. Abut.	426+64.02	11.00	512.23	512.23
A	426+74.02	11.00	512.27	512.32
B	426+84.02	11.00	512.30	512.40
C	426+94.02	11.00	512.33	512.47
D	427+04.02	11.00	512.36	512.52
E	427+14.02	11.00	512.39	512.55
F	427+24.02	11.00	512.42	512.57
G	427+34.02	11.00	512.45	512.58
H	427+44.02	11.00	512.48	512.57
I	427+54.02	11.00	512.51	512.56
J	427+64.02	11.00	512.54	512.56
☉ Brg. Pier 1	427+71.33	11.00	512.56	512.56
K	427+81.33	11.00	512.60	512.59
L	427+91.33	11.00	512.63	512.62
M	428+01.33	11.00	512.66	512.66
N	428+11.33	11.00	512.69	512.70
O	428+21.33	11.00	512.72	512.73
P	428+31.33	11.00	512.75	512.76
Q	428+41.33	11.00	512.78	512.79
CL Brg. E. Abut.	428+47.98	11.00	512.80	512.80
Bk. East Abut.	428+49.75	11.00	512.81	512.81

BEAM 6

Location	Station	Offset	Theoretical Top of Slab Elevation	Theoretical Grade Elevation Adjusted for Dead Load Deflection
Bk. West Abut	426+64.92	18.33	512.10	512.10
CL Brg. W. Abut.	426+66.69	18.33	512.10	512.10
A	426+76.69	18.33	512.13	512.19
B	426+86.69	18.33	512.16	512.27
C	426+96.69	18.33	512.19	512.33
D	427+06.69	18.33	512.22	512.39
E	427+16.69	18.33	512.25	512.42
F	427+26.69	18.33	512.29	512.44
G	427+36.69	18.33	512.32	512.44
H	427+46.69	18.33	512.35	512.44
I	427+56.69	18.33	512.38	512.43
J	427+66.69	18.33	512.41	512.43
☉ Brg. Pier 1	427+74.00	18.33	512.43	512.43
K	427+84.00	18.33	512.46	512.45
L	427+94.00	18.33	512.49	512.49
M	428+04.00	18.33	512.52	512.52
N	428+14.00	18.33	512.55	512.56
O	428+24.00	18.33	512.58	512.60
P	428+34.00	18.33	512.61	512.63
Q	428+44.00	18.33	512.65	512.65
CL Brg. E. Abut.	428+50.65	18.33	512.67	512.67
Bk. East Abut.	428+52.42	18.33	512.67	512.67



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS
STRUCTURE NO. 100-0103**

SHEET NO. 8 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	29
			CONTRACT NO. 78506	
ILLINOIS FED. AID PROJECT				

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	426+22.03	-20.00	511.93
A1	426+32.03	-20.00	511.96
A2	426+42.03	-20.00	511.99
E. End of W. Appr.	426+52.03	-20.00	512.03

NORTH EDGE OF ROADWAY

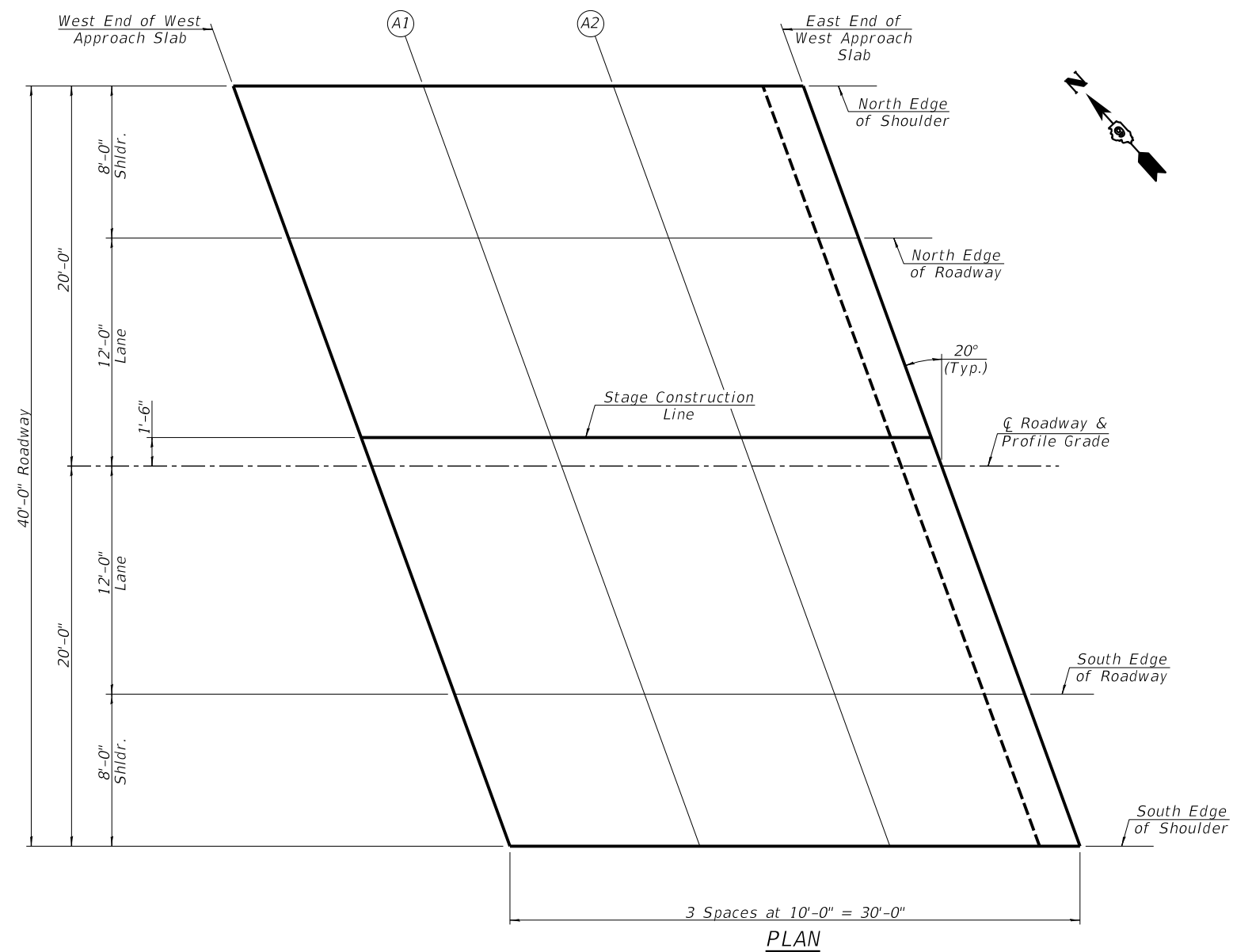
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	426+24.95	-12.00	512.10
A1	426+34.95	-12.00	512.13
A2	426+44.95	-12.00	512.16
E. End of W. Appr.	426+54.95	-12.00	512.19

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	426+28.77	-1.50	512.27
A1	426+38.77	-1.50	512.30
A2	426+48.77	-1.50	512.33
E. End of W. Appr.	426+58.77	-1.50	512.36

CL ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	426+29.31	0.00	512.29
A1	426+39.31	0.00	512.32
A2	426+49.31	0.00	512.35
E. End of W. Appr.	426+59.31	0.00	512.39



SOUTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	426+33.68	12.00	512.13
A1	426+43.68	12.00	512.16
A2	426+53.68	12.00	512.19
E. End of W. Appr.	426+63.68	12.00	512.22

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr.	426+36.95	20.00	511.98
A1	426+46.95	20.00	512.01
A2	426+56.95	20.00	512.04
E. End of W. Appr.	426+66.95	20.00	512.07



USER NAME =	DESIGNED -	REVISED -
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PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF WEST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 100-0103

SHEET NO. 9 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	30
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr.	428+37.41	-20.00	512.59
A3	428+47.41	-20.00	512.62
A4	428+57.41	-20.00	512.65
E. End of E. Appr.	428+67.41	-20.00	512.68

NORTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr.	428+40.32	-12.00	512.76
A3	428+50.32	-12.00	512.79
A4	428+60.32	-12.00	512.82
E. End of E. Appr.	428+70.32	-12.00	512.85

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr.	428+44.14	-1.50	512.93
A3	428.54.14	-1.50	512.96
A4	428+64.14	-1.50	512.99
E. End of E. Appr.	428+74.14	-1.50	513.02

CL ROADWAY & P.G.

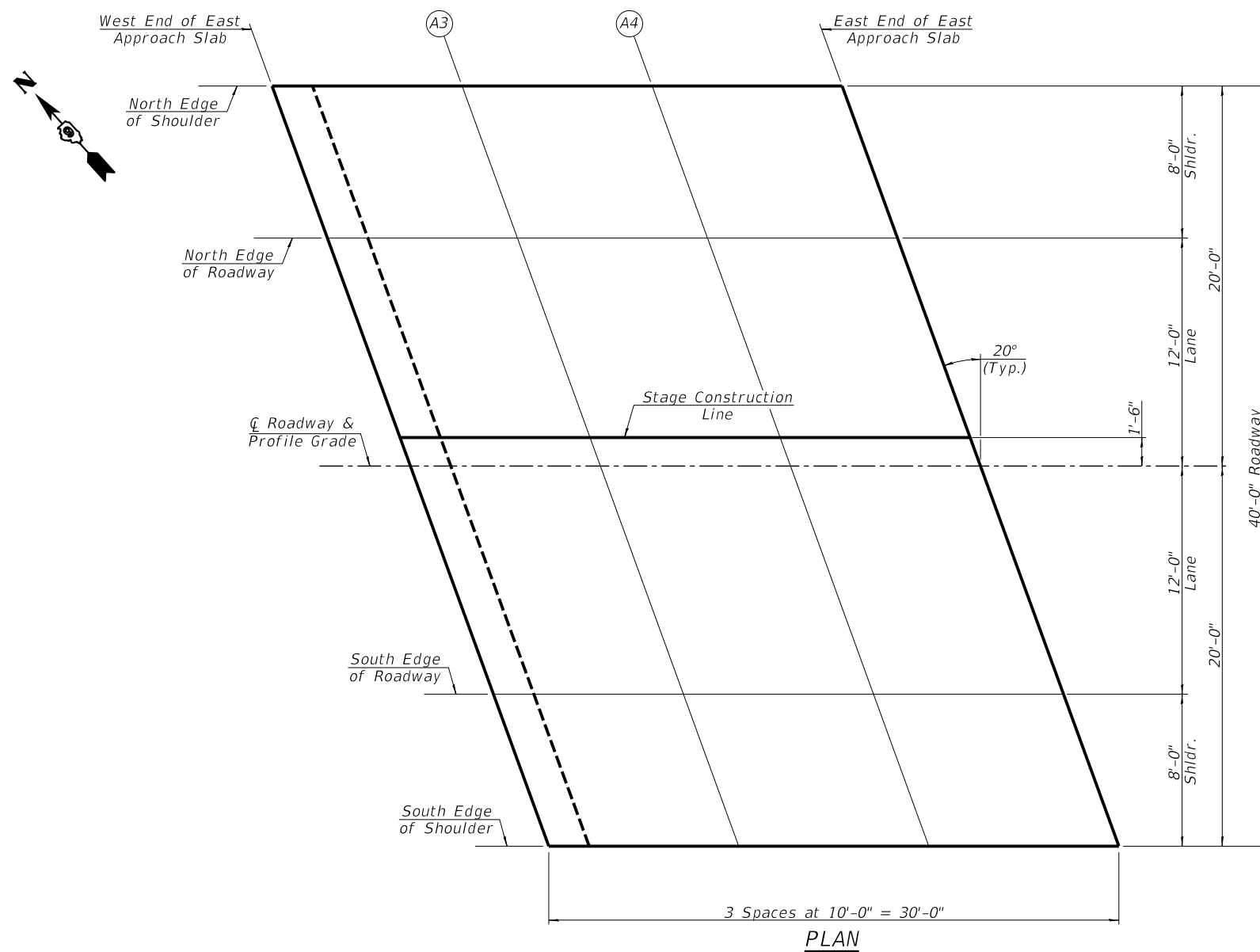
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr.	428+44.69	0.00	512.95
A3	428+54.69	0.00	512.99
A4	429+64.69	0.00	513.02
E. End of E. Appr.	429+74.69	0.00	513.05

SOUTH EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr.	428+49.05	12.00	512.79
A3	428+59.05	12.00	512.82
A4	428+69.05	12.00	512.85
E. End of E. Appr.	428+79.05	12.00	512.88

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr.	428+51.97	20.00	512.64
A3	428+61.97	20.00	512.67
A4	428+71.97	20.00	512.70
E. End of E. Appr.	428+81.97	20.00	512.73



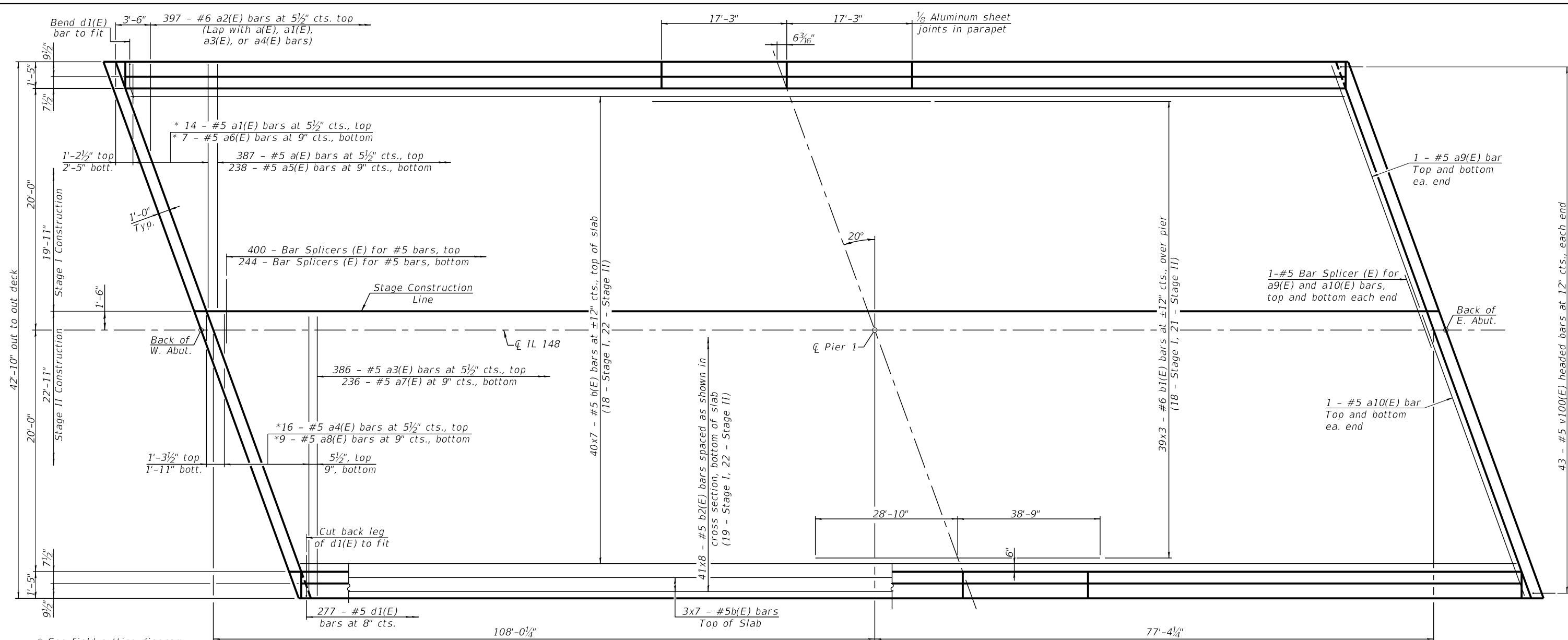
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CHECKED -	REVISD -	
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PLOT DATE =	CHECKED -	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

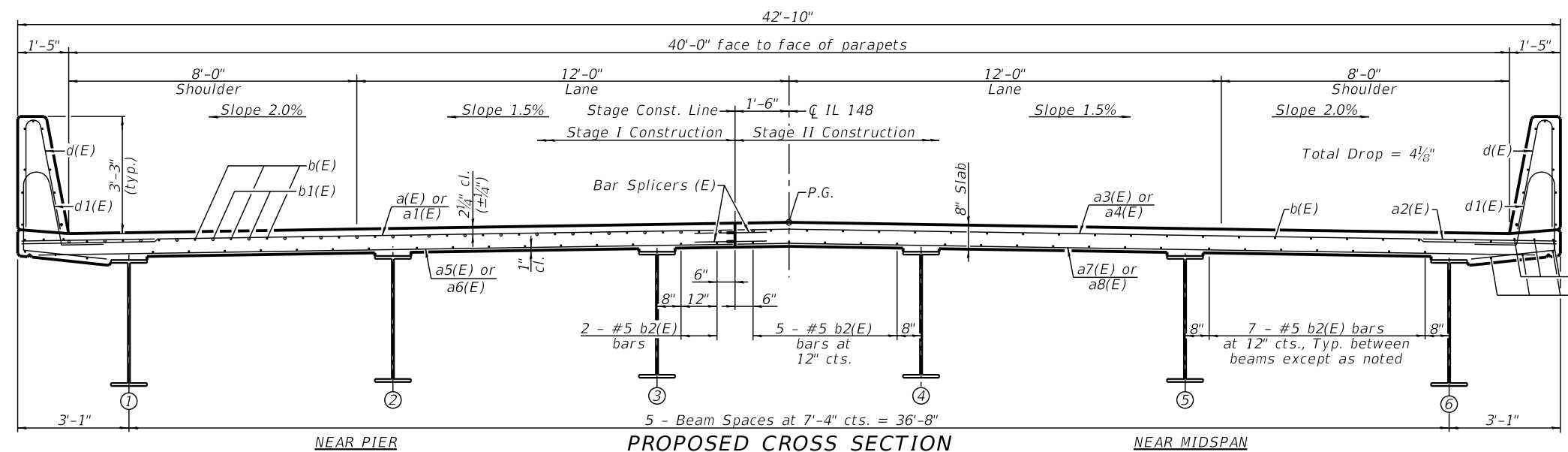
TOP OF EAST APPROACH SLAB ELEVATIONS
STRUCTURE NO. 100-0103

SHEET NO. 10 OF 36 SHEETS

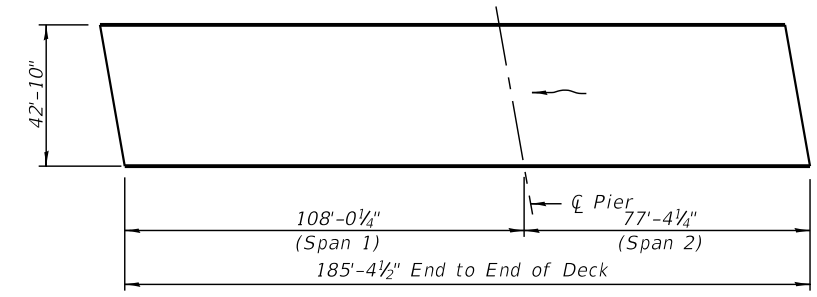
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	31
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



PLAN



PROPOSED CROSS SECTION
(Looking East)



DECK POURING SEQUENCE PLAN

Notes: The contractor shall pour the deck starting at the east abutment and proceed to the west abutment in one continuous pour.
If the contractor chooses to pour the deck starting at the west abutment, appropriate measures shall be taken to resist uplift of the beams at the east abutment.

MINIMUM BAR LAP

#5 bar = 3'-6"
#6 bar = 3'-7"

Notes:
See Sheet 12 of 36 for superstructure details, parapet details and Bill of Material.
Bars indicated thus 40x7-#5 etc. indicates 40 lines of bars with 7 lengths per line.
See Sheet 25 of 36 for Bar Splicer Details.
See Sheet 1 of 36 for floor drain locations.



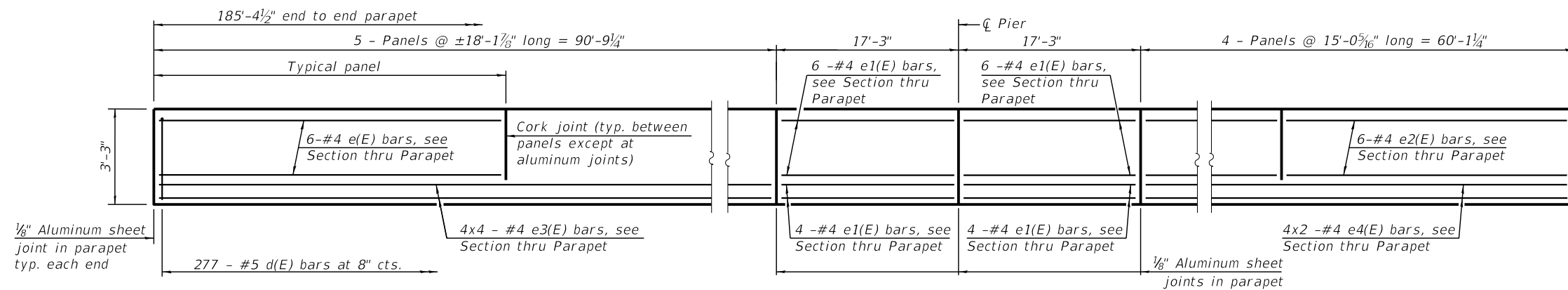
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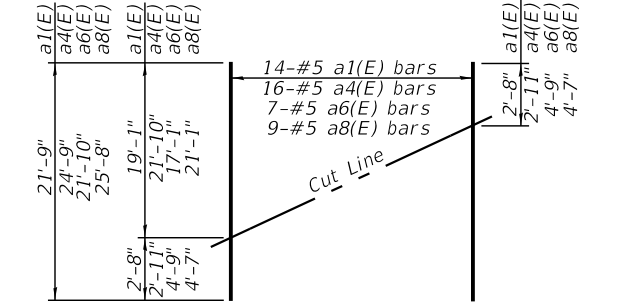
SUPERSTRUCTURE
STRUCTURE NO. 100-0103

SHEET NO. 11 OF 36 SHEETS

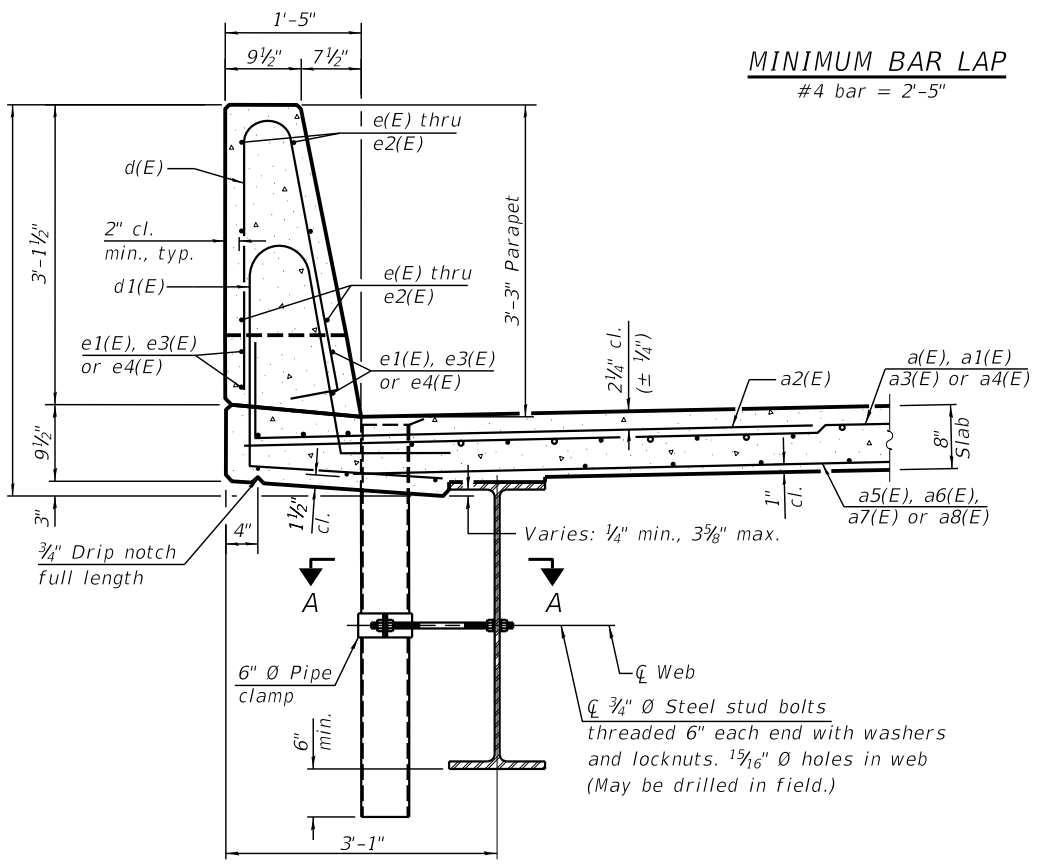
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	32
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



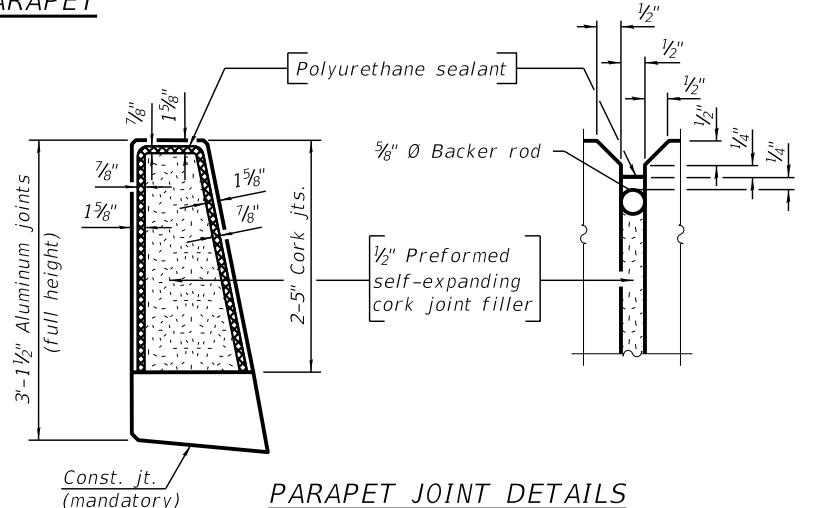
INSIDE ELEVATION OF PARAPET



FIELD CUTTING DIAGRAM
Order a1(E), a4(E), a6(E) and a8(E) bars full length. Cut as shown and use remainder of bars in opposite end of deck.

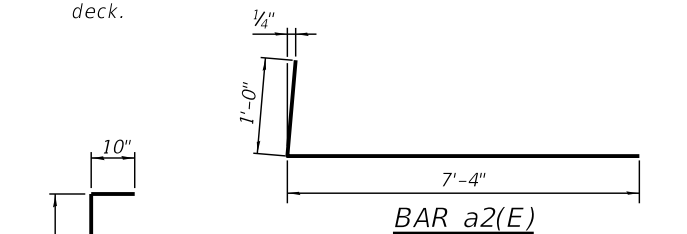


SECTION THRU PARAPET

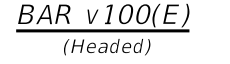


PARAPET JOINT DETAILS

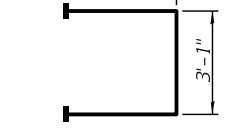
Notes:
Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
The exterior surfaces of the floor drains shall be painted according to Article 506 with the finish coat as specified. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coatings' Spec. SSPC-SP1 prior to painting.
The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete. The clamping device shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.
The 1/8" aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.
The polyurethane sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.



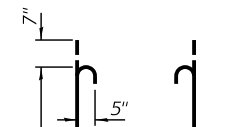
BAR a2(E)



BAR v100(E)
(Headed)



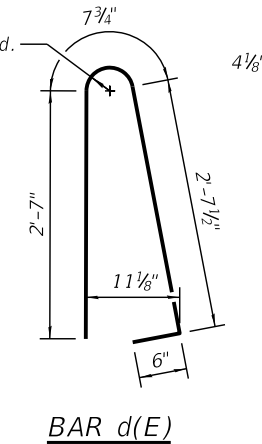
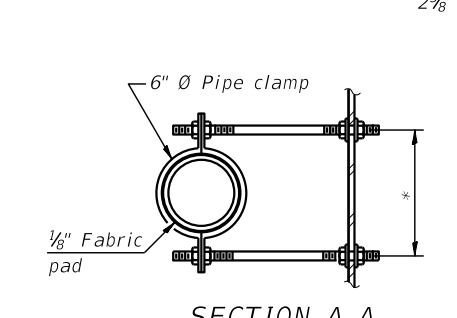
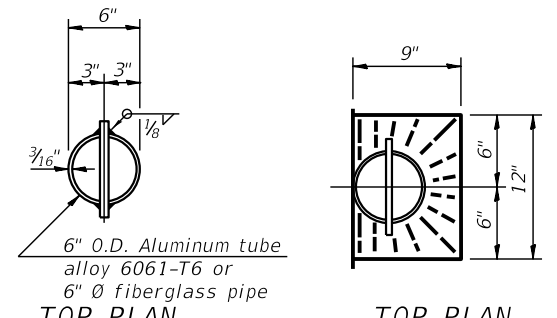
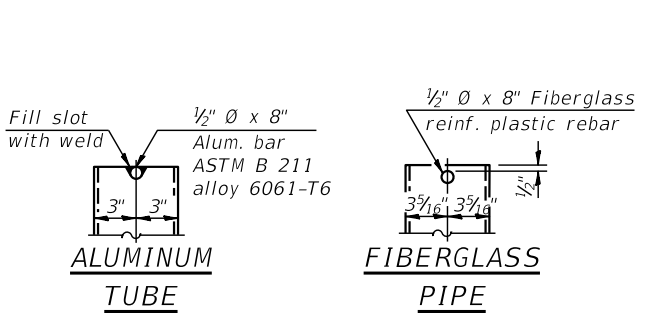
BAR s10(E)
(Headed)



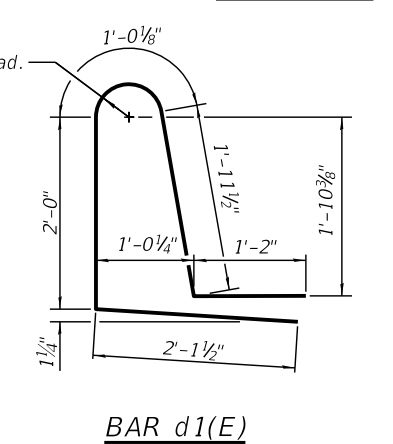
BAR s11(E)

Bar	No.	Size	Length	Shape
a(E)	387	#5	19'-8"	—
a1(E)	14	#5	21'-9"	—
a2(E)	794	#6	8'-4"	┌
a3(E)	386	#5	22'-8"	—
a4(E)	16	#5	24'-9"	—
a5(E)	238	#5	18'-5"	—
a6(E)	7	#5	21'-10"	—
a7(E)	236	#5	21'-4"	—
a8(E)	9	#5	25'-8"	—
a9(E)	4	#5	20'-11"	—
a10(E)	4	#5	24'-1"	—
b(E)	322	#5	29'-6"	—
b1(E)	117	#6	25'-0"	—
b2(E)	328	#5	26'-3"	—
d(E)	554	#5	6'-5"	┌
d1(E)	554	#5	8'-3"	┌
e(E)	60	#4	17'-10"	—
e1(E)	40	#4	16'-11"	—
e2(E)	48	#4	14'-9"	—
e3(E)	32	#4	24'-6"	—
e4(E)	16	#4	31'-2"	—
m10(E)	10	#6	24'-1"	—
m11(E)	10	#6	20'-11"	—
m12(E)	32	#6	7'-6"	—
m13(E)	16	#6	2'-11"	—
m14(E)	8	#6	2'-0"	—
m15(E)	8	#6	5'-3"	—
s10(E)	82	#5	7'-5"	┌
s11(E)	82	#5	11'-8"	┌
v100(E)	86	#5	3'-1"	┌
Reinforcement Bars, Epoxy Coated		Lbs.		75500
Concrete Superstructure		Cu. Yds.		271.2

Bars indicated thus 4 x 2-#4 etc. indicates 4 lines of bars with 2 lengths per line.



BAR d(E)



BAR d1(E)

SDI-SB-2 06-15-2019



USER NAME =	DESIGNED -	REVISD -
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PLOT DATE =	DRAWN -	REVISD -
	CHECKED -	REVISD -

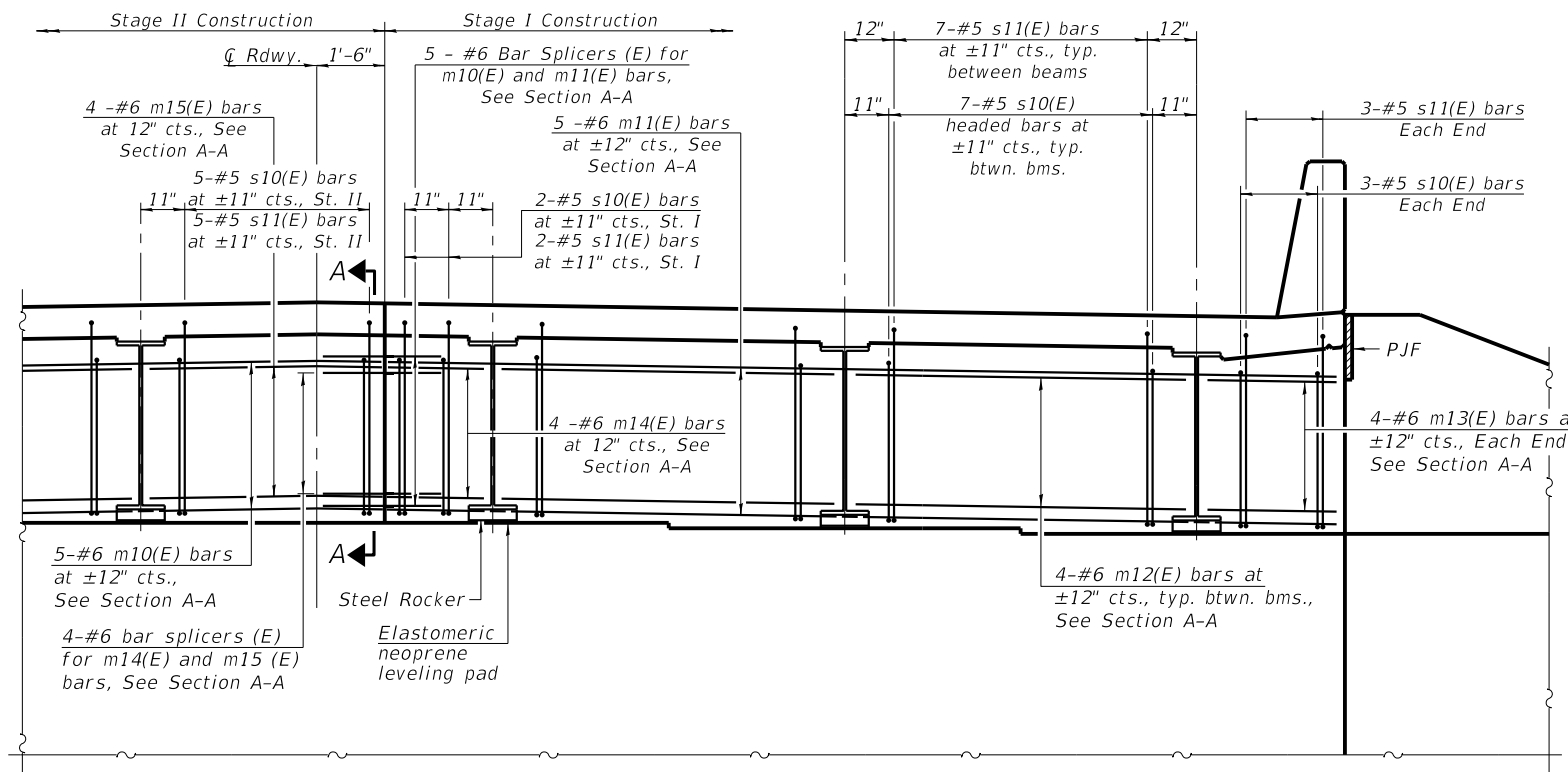
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS
STRUCTURE NO. 100-0103**

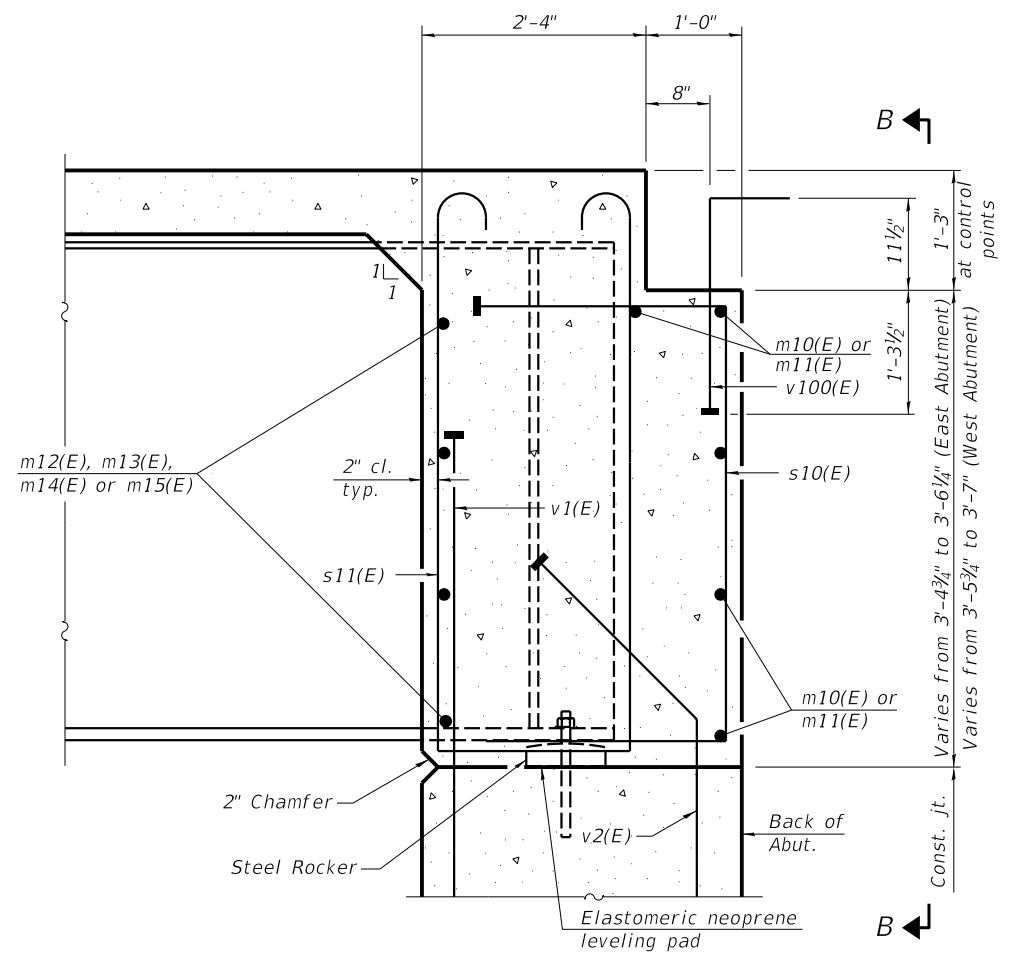
SHEET NO. 12 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	33
CONTRACT NO. 78506				

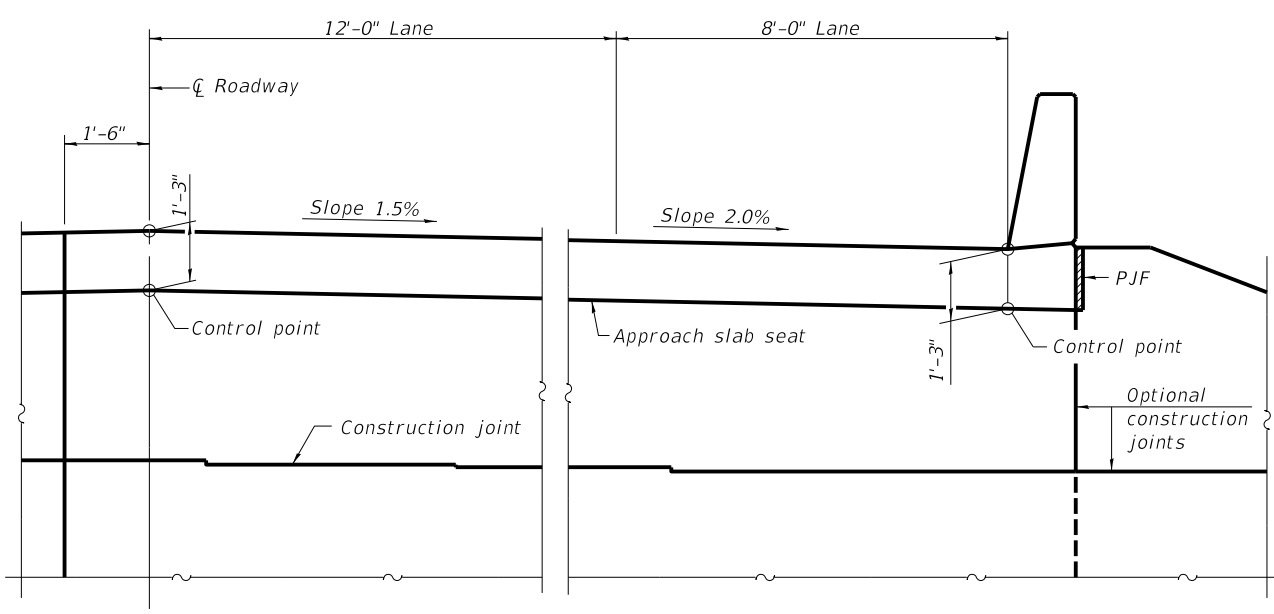
ILLINOIS FED. AID PROJECT



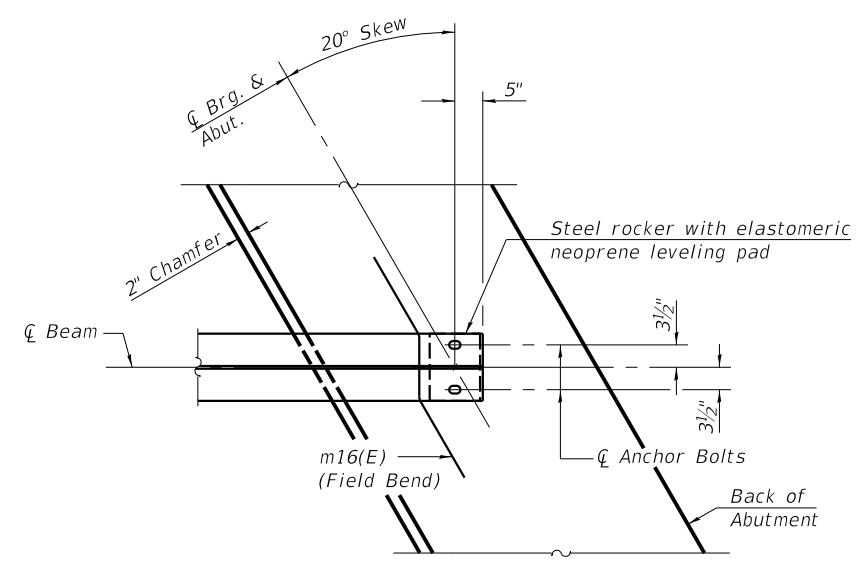
DIAPHRAGM ELEVATION AT WEST ABUTMENT
Looking West (West Abutment shown, East Abutment similar)



SECTION A-A
(at Rt. L's)



VIEW B-B



PLAN AT ABUTMENT
(Showing bottom flange of beam)

Notes:
See sheet 12 of 36 for superstructure details and Bill of Material.
The s10(E) and s11(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
The approach slab seat shall have a constant slope determined from the control points shown.

DIA-SB-R

06-15-2019



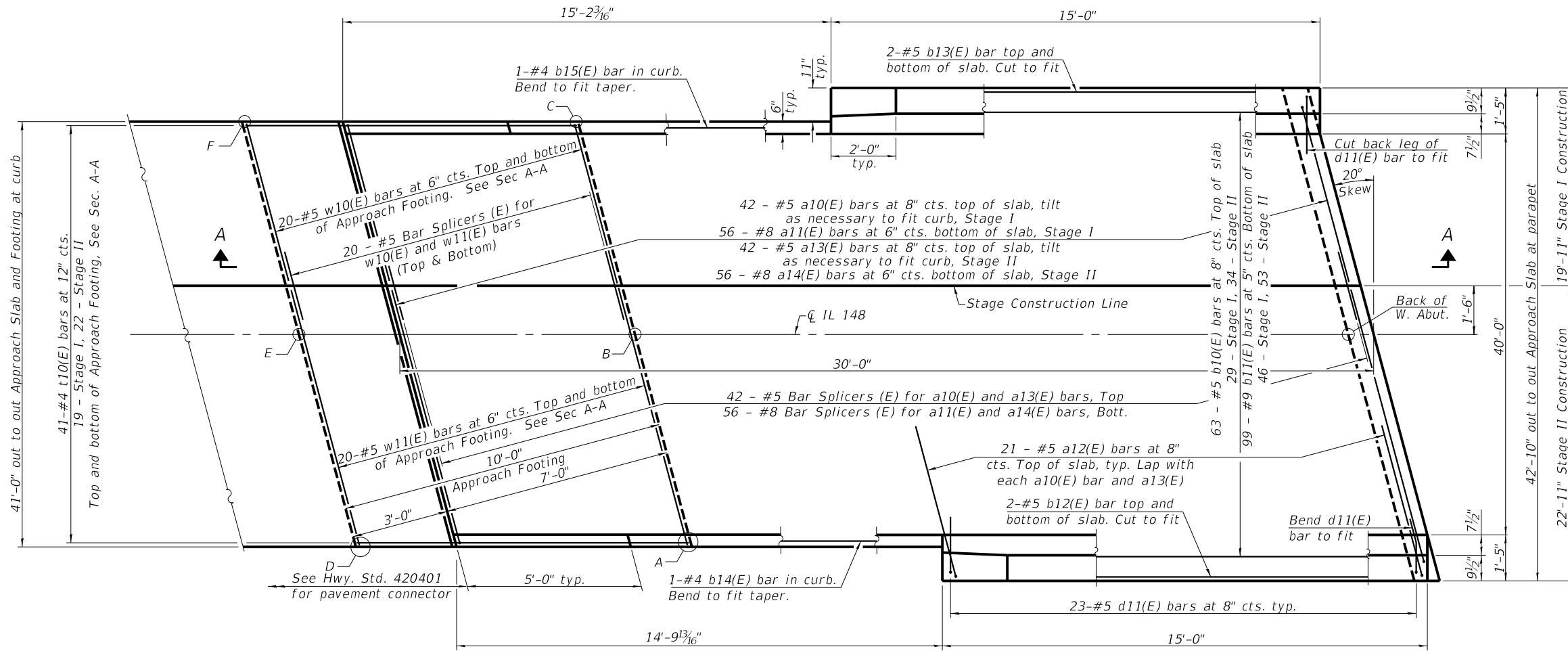
USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
STRUCTURE NO. 100-0103

SHEET NO. 13 OF 36 SHEETS

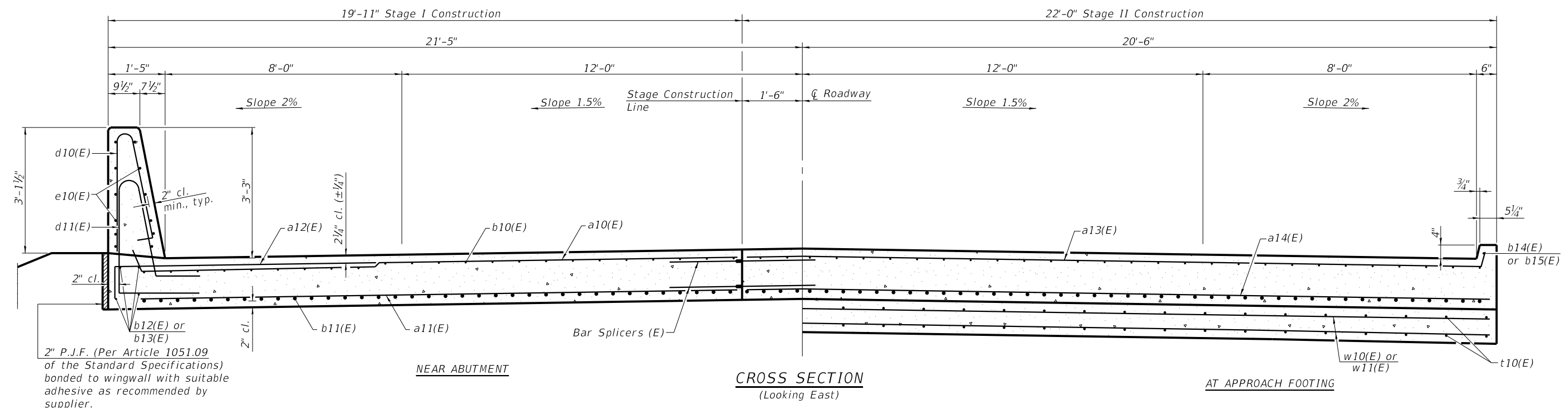
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	34
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



TOP AND BOTTOM ELEVATIONS
FOR APPROACH FOOTING

Point	West Approach	
	Top	Bottom
A	510.74	509.90
B	511.06	510.23
C	510.69	509.86
D	510.70	509.87
E	511.03	510.20
F	510.66	509.83

PLAN



CROSS SECTION
(Looking East)

(Sheet 1 of 2)



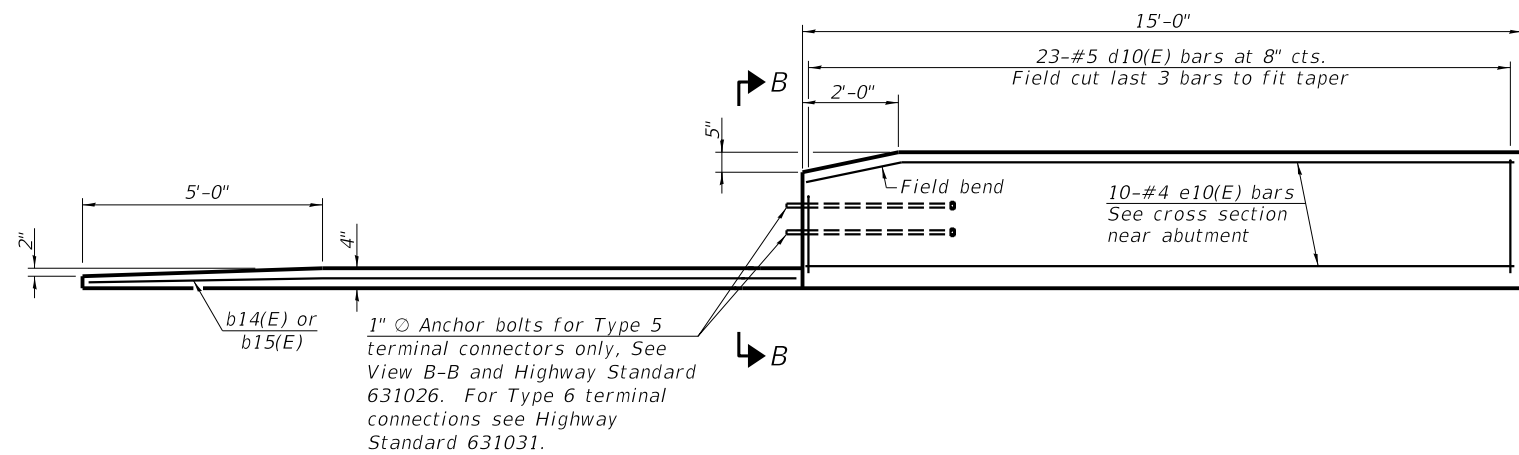
USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

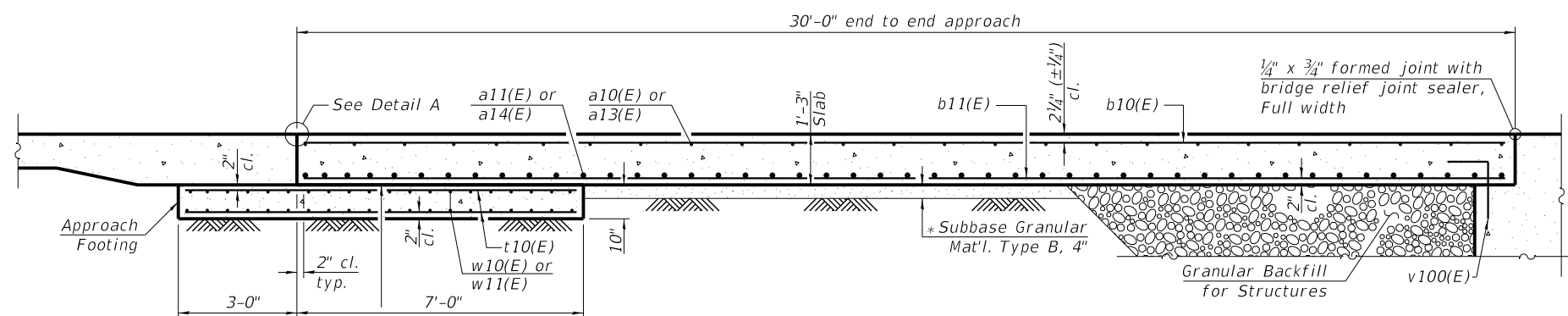
BRIDGE APPROACH SLAB DETAILS (W.A.)
STRUCTURE NO. 100-0103

SHEET NO. 14 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	35
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

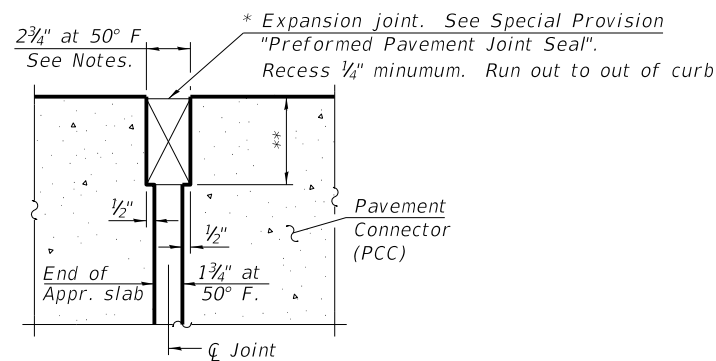


INSIDE ELEVATION OF PARAPET AND CURB



SECTION A-A

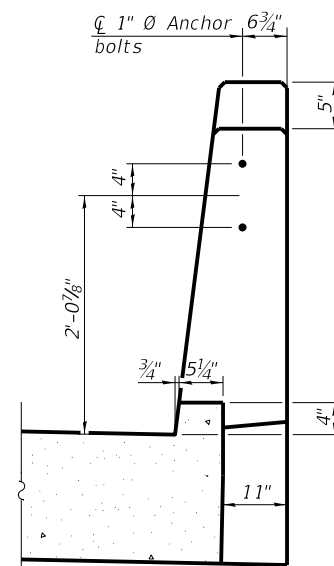
* 10 mil. Polyethylene bond breaker on steel trowel finish



DETAIL A
(@ Rt. L's)

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations.



VIEW B-B

Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach pavement slab.

Parapet concrete shall be paid for as Concrete Superstructure.

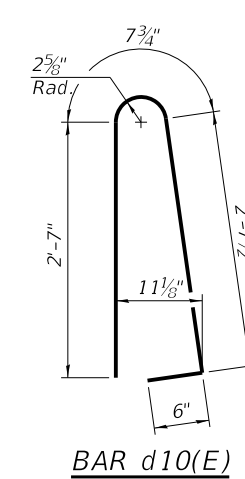
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).

Approach footing concrete shall be paid for as Concrete Structures.

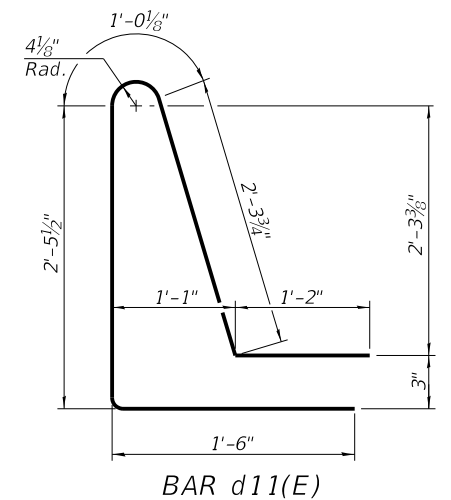
The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.

Cost of excavation for approach footing included with Concrete Structures.

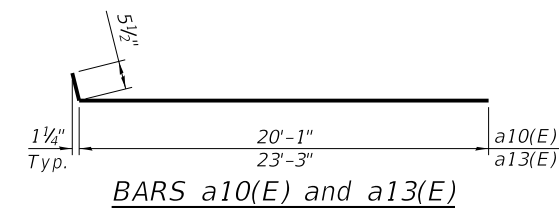
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 36.



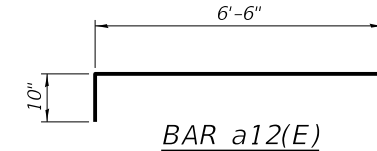
BAR d10(E)



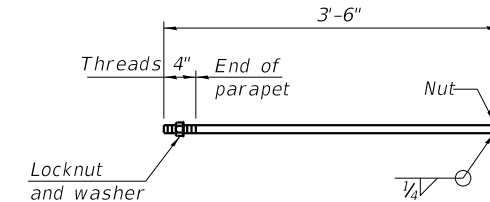
BAR d11(E)



BARS a10(E) and a13(E)



BAR a12(E)



*** 1" Ø ANCHOR BOLT**

(Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications)

**WEST APPROACH
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a10(E)	42	#5	20'-7"	
a11(E)	56	#8	20'-0"	
a12(E)	42	#5	7'-4"	
a13(E)	42	#5	23'-9"	
a14(E)	56	#8	23'-3"	
b10(E)	63	#5	29'-8"	
b11(E)	99	#9	29'-8"	
b12(E)	4	#5	15'-3"	
b13(E)	4	#5	14'-8"	
b14(E)	1	#4	14'-6"	
b15(E)	1	#4	14'-9"	
d10(E)	46	#5	6'-5"	
d11(E)	46	#5	8'-6"	
e10(E)	20	#4	14'-8"	
t10(E)	82	#4	10'-3"	
w10(E)	40	#5	20'-0"	
w11(E)	40	#5	23'-3"	
			Cu. Yd.	3.9
Concrete Superstructure			Cu. Yd.	58.5
Concrete Superstructure (Approach Slab)			Cu. Yd.	13.3
Concrete Structures			Pound	24090
Reinforcement Bars, Epoxy Coated				

(Sheet 2 of 2)



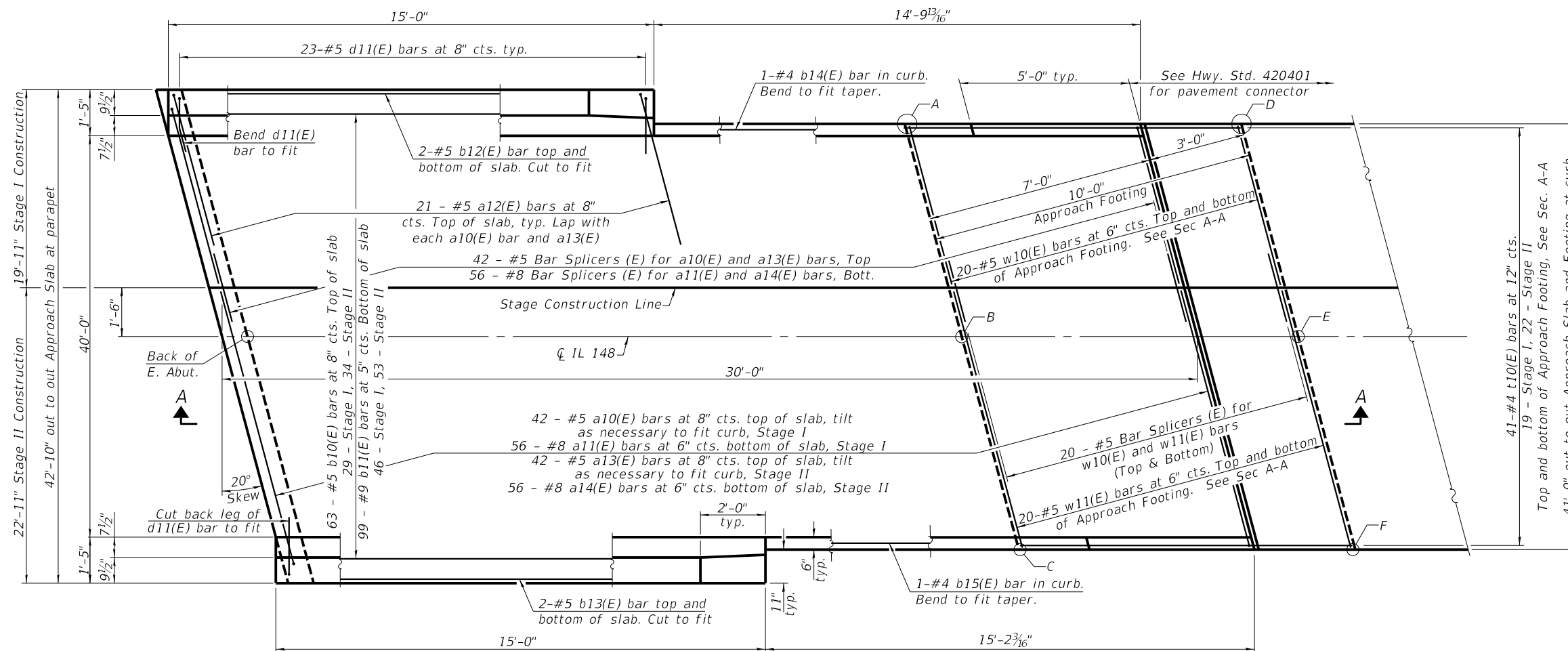
USER NAME =	DESIGNED -	REVISED -
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PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS (W.A.)
STRUCTURE NO. 100-0103**

SHEET NO. 15 OF 36 SHEETS

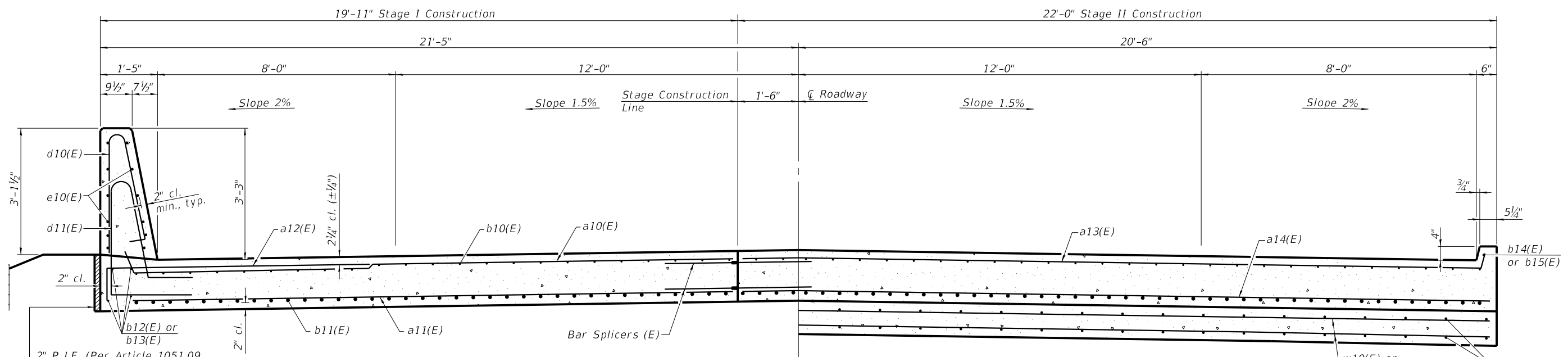
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	36
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



PLAN

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

Point	East Approach	
	Top	Bottom
A	511.40	510.57
B	511.78	510.94
C	511.45	510.61
D	511.43	510.60
E	511.81	510.98
F	511.48	510.65



CROSS SECTION
(Looking East)

AT APPROACH FOOTING

(Sheet 1 of 2)



USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

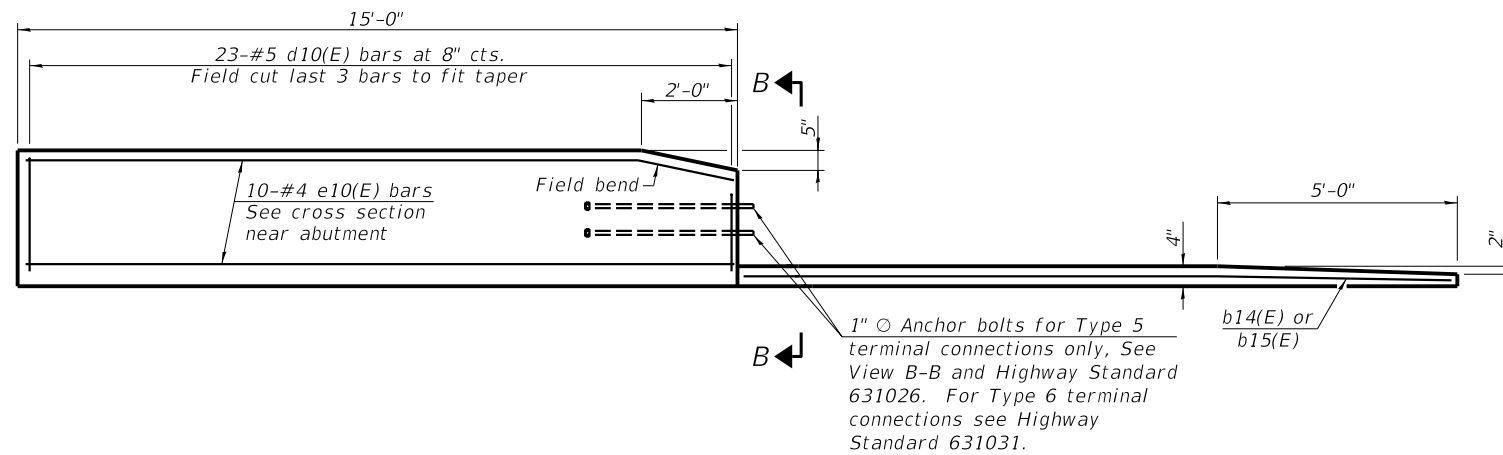
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS (E.A.)
STRUCTURE NO. 100-0103

SHEET NO. 16 OF 36 SHEETS

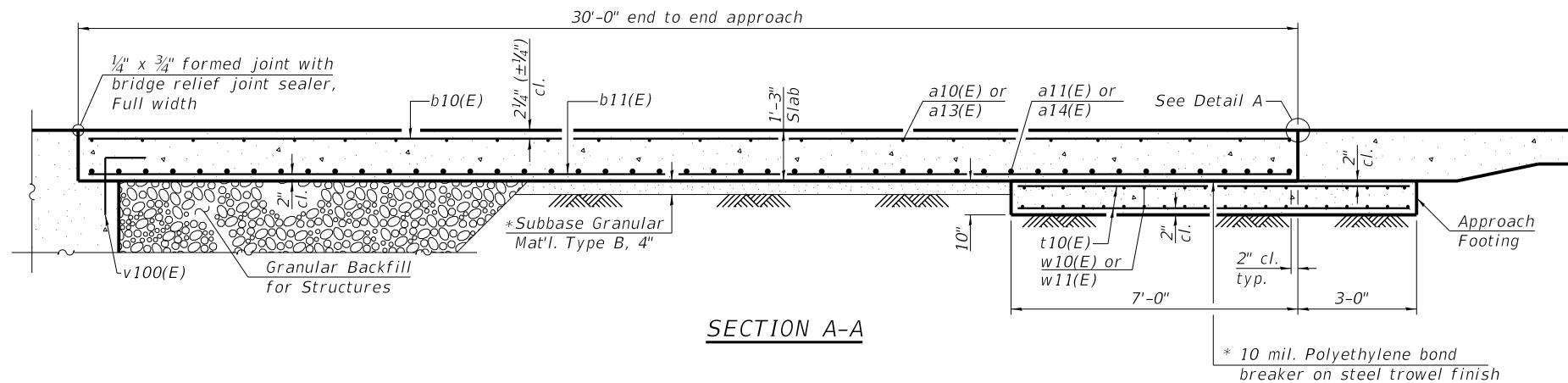
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	37
CONTRACT NO. 78506				

ILLINOIS FED. AID PROJECT

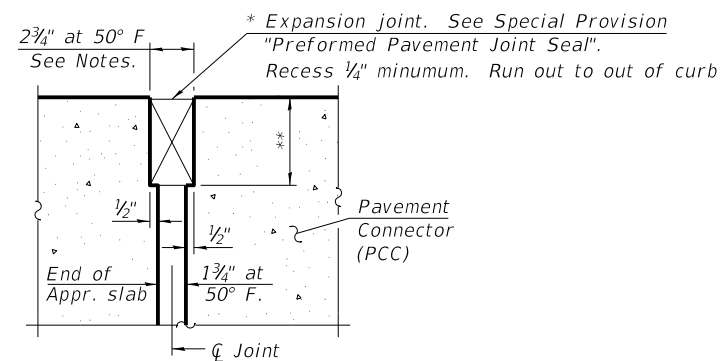
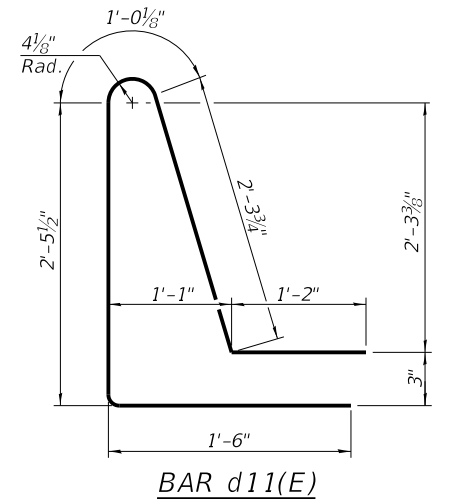
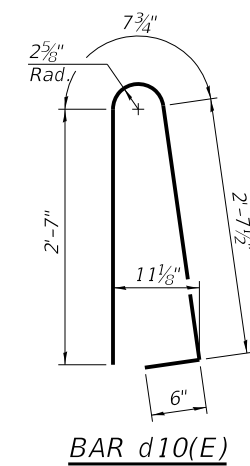


INSIDE ELEVATION OF PARAPET AND CURB

Notes:
 The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach pavement slab.
 Parapet concrete shall be paid for as Concrete Superstructure.
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
 Approach footing concrete shall be paid for as Concrete Structures.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 36.

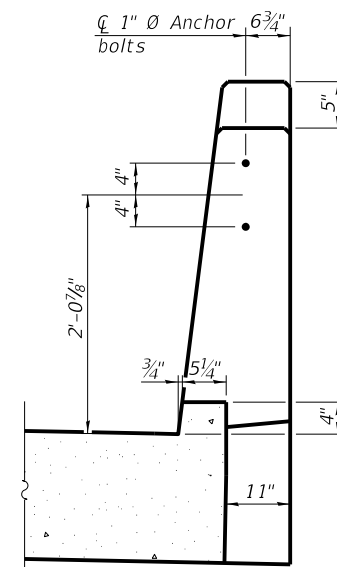


SECTION A-A

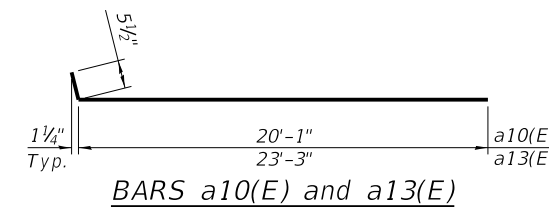


DETAIL A
 (@ Rt. L's)

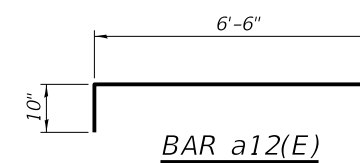
* Cost included with Concrete Superstructure (Approach Slab).
 ** Per manufacturer recommendations



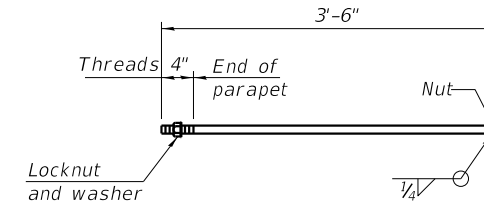
VIEW B-B



BARS a10(E) and a13(E)



BAR a12(E)



*** 1" Ø ANCHOR BOLT**
 (Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications)

EAST APPROACH
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	42	#5	20'-7"	
a11(E)	56	#8	20'-0"	
a12(E)	42	#5	7'-4"	
a13(E)	42	#5	23'-9"	
a14(E)	56	#8	23'-3"	
b10(E)	63	#5	29'-8"	
b11(E)	99	#9	29'-8"	
b12(E)	4	#5	15'-3"	
b13(E)	4	#5	14'-8"	
b14(E)	1	#4	14'-6"	
b15(E)	1	#4	14'-11"	
d10(E)	46	#5	6'-5"	
d11(E)	46	#5	8'-6"	
e10(E)	20	#4	14'-8"	
t10(E)	82	#4	10'-3"	
w10(E)	40	#5	20'-0"	
w11(E)	40	#5	20'-3"	
Concrete Superstructure			Cu. Yd.	3.9
Concrete Superstructure (Approach Slab)			Cu. Yd.	58.5
Concrete Structures			Cu. Yd.	13.3
Reinforcement Bars, Epoxy Coated			Pound	24090

(Sheet 2 of 2)



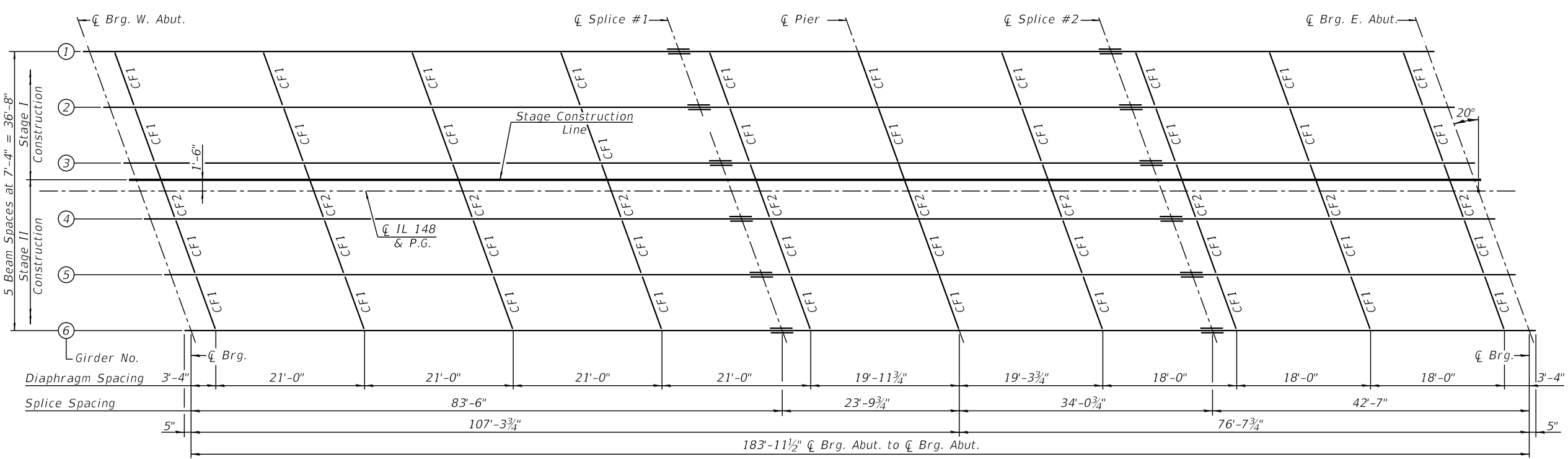
USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE =	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
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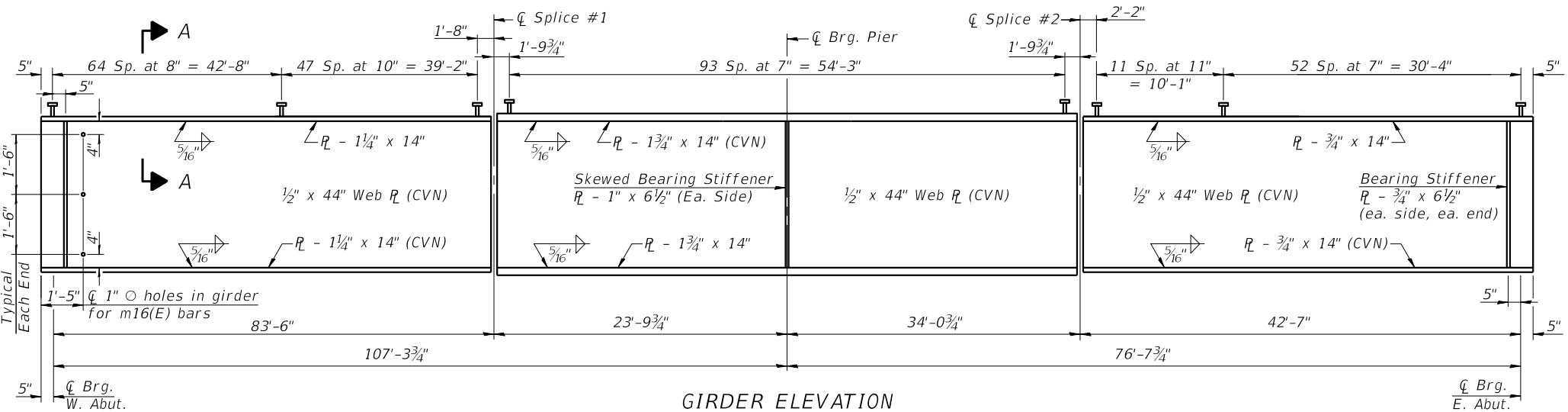
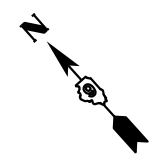
BRIDGE APPROACH SLAB DETAILS (E.A.)
STRUCTURE NO. 100-0103

SHEET NO. 17 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	38
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

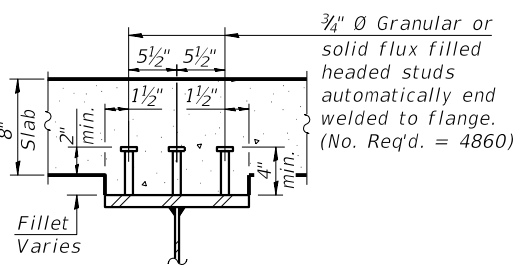


PLAN

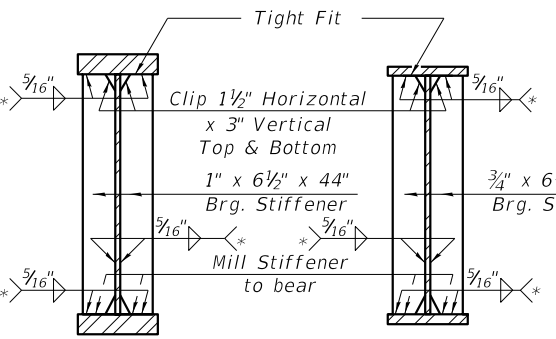


GIRDER ELEVATION

"CVN" denotes Charpy-V-Notch impact energy requirements, Zone 2.



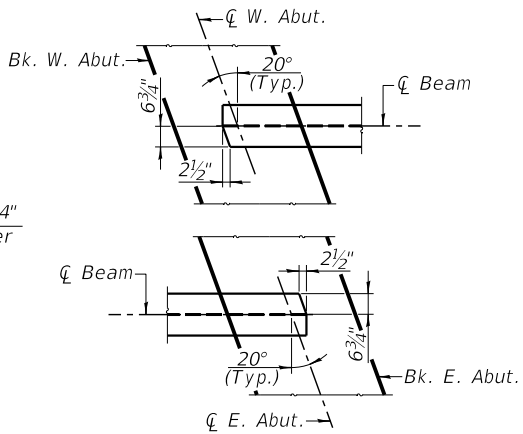
SECTION A-A



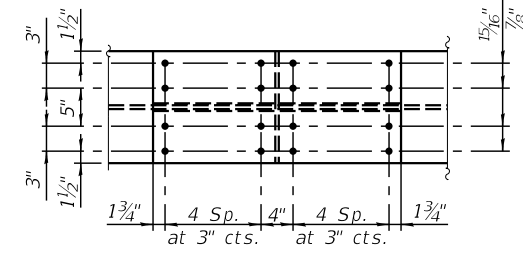
SECTION AT PIER

SECTION AT ABUTMENT

* Terminate 1/4" (± 1/8") from the end of plate intersects.

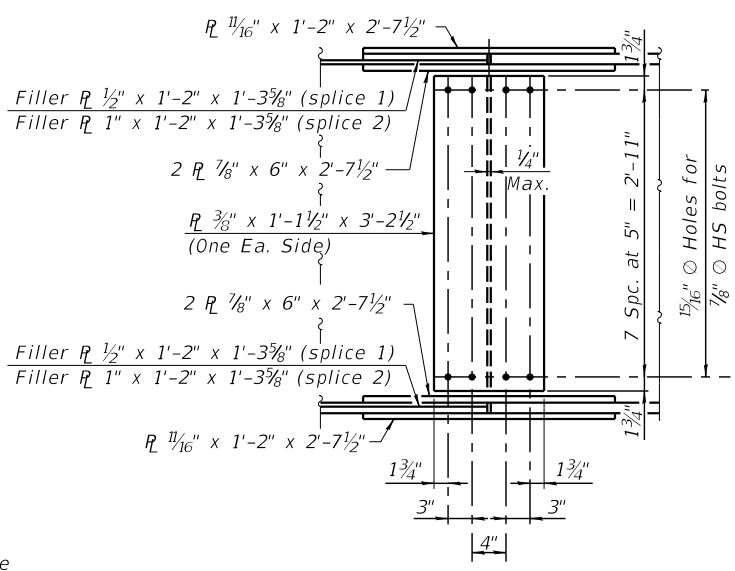


TOP FLANGE CLIP DETAIL



PLAN

(Top and bottom)



ELEVATION

SPLICES 1 & 2

(12 required)

Notes:
 All cross frames shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames at supports may be temporarily disconnected to install bearing anchor rods.
 All structural steel, including bearing stiffeners, shall be AASHTO M 270 Grade 50W.

G-1 2-17-2017



USER NAME =	DESIGNED -	REVISD -
PLOT SCALE =	CHECKED -	REVISD -
PLOT DATE =	DRAWN -	REVISD -
	CHECKED -	REVISD -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL
 STRUCTURE NO. 100-0103**

SHEET NO. 18 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	39
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1	Pier	0.6 Sp. 2
Is	(in ⁴)	21,470	29,201	14,064
Ic(n)	(in ⁴)	48,125	-	36,296
Ic(3n)	(in ⁴)	36,641	-	27,701
Ic(Cr)	(in ⁴)	-	33,818	-
Ss	(in ³)	923	1229	618
Sc(n)	(in ³)	1,196	-	875
Sc(3n)	(in ³)	1,111	-	806
Sc(Cr)	(in ³)	-	1,300	-
DC1	(k/')	.970	1.025	.916
MDC1	('k)	854	-1,259	176
DC2	(k/')	.175	.175	.175
MDC2	('k)	155	-218	36
DW	(k/')	.333	.333	.333
MDW	('k)	294	-415	69
LLDF		.585	.601	.621
M _L + IM	('k)	1373	-1,410	965
Mu (Strength I)	('k)	4,105	-4,963	2,057
Øf Mn	('k)	6,006	-	4,606
fs DC1	(ksi)	11.1	12.3	3.4
fs DC2	(ksi)	1.7	2.0	0.5
fs DW	(ksi)	3.2	3.8	1.0
fs (L+IM)	(ksi)	13.8	13.0	13.3
fs(Service II)	(ksi)	34.0	35.0	22.2
0.95Rh Fyf	(ksi)	47.5	47.5	47.5
fs (Total)(Strength I)	(ksi)	45.6	46.3	29.7
Øf Fn	(ksi)	-	50.0	-
Vf	(k)	29.6	32.0	30.6

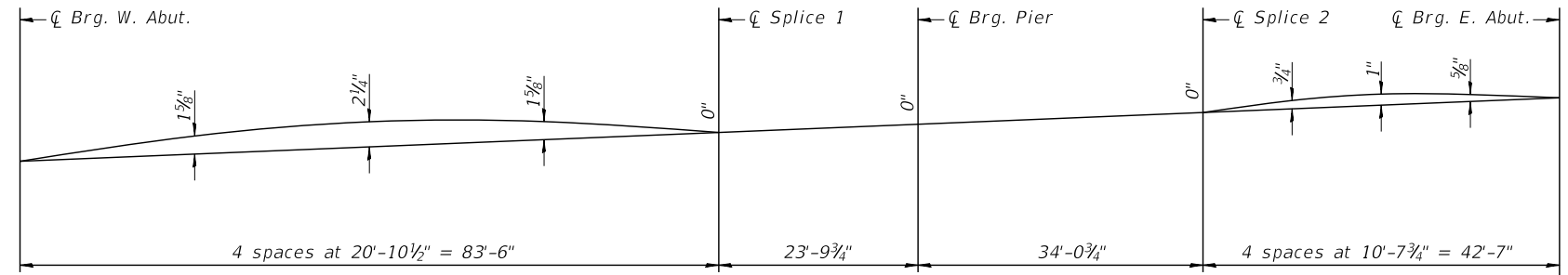
GIRDER REACTION TABLE						
	W. Abut.		Pier		E. Abut.	
	Interior	Exterior	Interior	Exterior	Interior	Exterior
LLDF	.767	.654	.767	.654	.767	.654
OCF	-	1.071	-	-	-	1.071
RDC1 (k)	40.5	41.8	119.2	122.7	19.6	20.3
RDC2 (k)	7.4	7.4	21.0	21.0	3.9	3.9
RDW (k)	14.0	14.0	39.9	39.9	7.4	7.4
R _L (k)	71.2	65.0	131.9	112.5	63.5	58.0
R _{IM} (k)	16.2	14.8	26.1	22.2	15.5	14.1
RTotal (k)	149.3	143	338.1	318.3	109.9	103.7

* TOP OF WEB ELEVATIONS

Location	Ø Brg. W. Abut.	Ø Splice 1	Ø Brg. Pier	Ø Splice 2	Ø Brg. E. Abut.
Girder 1	511.227	511.472	511.510	511.565	511.833
Girder 2	511.377	511.622	511.660	511.715	511.983
Girder 3	511.495	511.740	511.778	511.833	512.101
Girder 4	511.504	511.749	511.787	511.842	512.110
Girder 5	511.402	511.647	511.685	511.740	512.008
Girder 6	511.268	511.513	511.551	511.606	511.874

* For fabrication only

- Is, Ss: Non-composite moment of inertia and section modulus of the steel section used for computing fs(Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).
- Ic(n), Sc(n): Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing fs(Total-Strength I, and Service II) due to short-term composite live loads (in.⁴ and in.³).
- Ic(3n), Sc(3n): Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing fs(Total-Strength I, and Service II) in uncracked sections due to long-term composite (superimposed) dead loads (in.⁴ and in.³).
- Ic(cr), Sc(cr): Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing fs (Total-Strength I and Service II) in cracked section, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and in.³).
- DC1: Un-factored non-composite dead load (kips/ft.).
MDC1: Un-factored moment due to non-composite dead load (kip-ft.).
DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
MDC2: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- M_L + IM: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
Mu (Strength I): Factored design moment (kip-ft.).
1.25 (MDC1 + MDC2) + 1.5 MDW + 1.75 M_L + IM
ØfMn: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
- fs DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
MDC1 / Snc
fs DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
MDC2 / Sc(3n) or MDC2 / Sc(cr) as applicable.
fs DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
MDW / Sc(3n) or MDW / Sc(cr) as applicable.
fs (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
M(L + IM) / Sc(n) or M(L + IM) / Sc(cr) as applicable.
fs (Service II): Sum of stresses as computed below (ksi).
fsDC1 + fsDC2 + fsDW + 1.3 fs (L + IM)
0.95RhFyf: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
fs (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 (fsDC1 + fsDC2) + 1.5 fsDW + 1.75 fs (L + IM)
Øf Fn: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
Vf: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.
LLDF: Live load distribution factor for moment and shear
OCF: Obtuse correction factor



CAMBER DIAGRAM



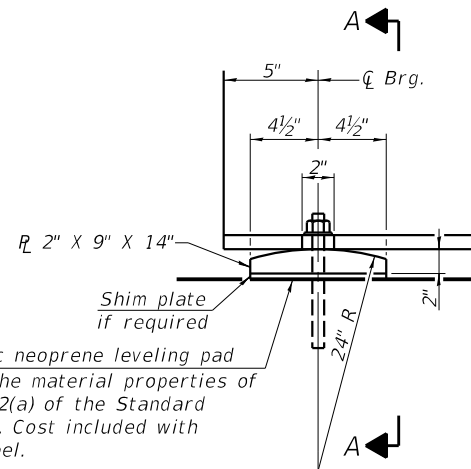
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PLOT DATE =	DRAWN -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 100-0103

SHEET NO. 19 OF 36 SHEETS

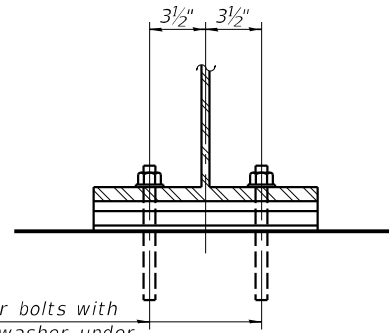
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	40
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.

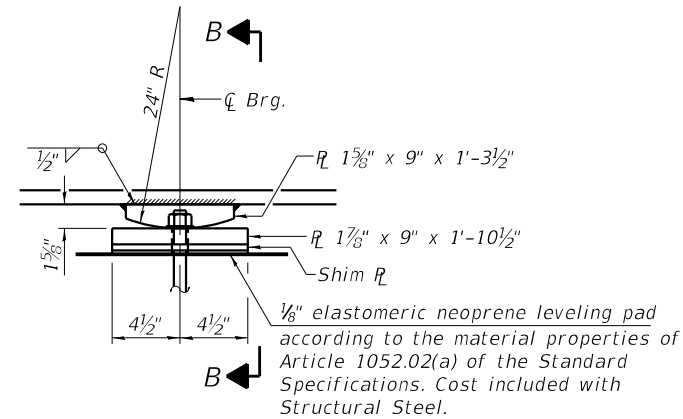
ELEVATION

FIXED BEARING AT ABUTMENT
(12 Required)



1" ϕ x 12" anchor bolts with 2 1/4" x 2 1/4" x 3/16" ϕ washer under nut. 1 3/8" x 2" slotted holes in flange. 1 1/2" ϕ holes in bearing plate.

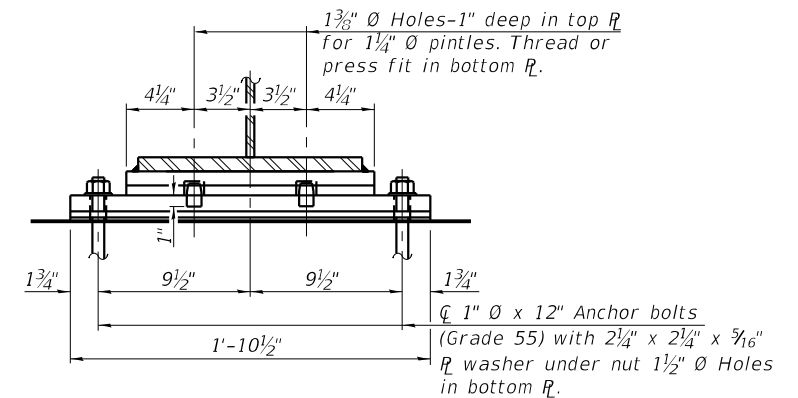
SECTION A-A



1/8" elastomeric neoprene leveling pad according to the material properties of Article 1052.02(a) of the Standard Specifications. Cost included with Structural Steel.

ELEVATION AT PIER

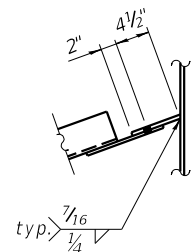
FIXED BEARING AT PIER
(6 Required)



1 3/8" ϕ Holes-1" deep in top ϕ for 1 1/4" ϕ pintles. Thread or press fit in bottom ϕ .

1 3/4" ϕ 1" ϕ x 12" Anchor bolts (Grade 55) with 2 1/4" x 2 1/4" x 3/16" ϕ washer under nut 1 1/2" ϕ Holes in bottom ϕ .

SECTION B-B



SECTION C-C

Notes:

Anchor bolts shall be according to Article 521.06 of the Standard Specifications.

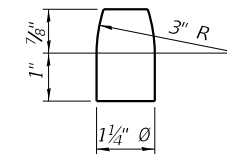
Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

Anchor bolts at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on the bearing details.

The anchor bolt size and grade shown at the pier constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade anchor bolts will not be allowed.

The structural steel plates of the Bearing Assembly shall conform to the requirements of ASSHTO M 270 Grade 50W.



PINTLE

Cross Frame CF2 Stage Construction Sequence

- Erect Cross Frame CF2 prior to pouring Stage 2 deck.
- Gusset ϕ C and D shall not have positive connection to Girder 3 Connection ϕ until after the Stage II deck pour.
- The following H.S. bolts shall be finger tightened until the completion of the Stage II deck pour.
 - On Stage II Constr. side: all 6 H.S. bolts connecting 3/8" Gusset ϕ A & B to Connection ϕ .
 - On Stage I Constr. side:
 - Top H.S. bolt connecting upper Angle A to Connection ϕ , but not connecting Gusset ϕ C to Connection ϕ .
 - Bottom H.S. bolt connecting lower Angle A to Connection ϕ , but not connecting Gusset ϕ D to Connection ϕ .
- After Stage II deck pour:
 - On Stage I Constr. side, remove the 2 H.S. bolts and install all 6 H.S. bolts, connecting through Gusset ϕ C and D, and Connection ϕ .
 - Fully tighten all 6 H.S. bolts on both the Stage I and Stage II Constr. sides.

Notes:

Detail 1 3/16" ϕ holes for all 3/4" bolts.

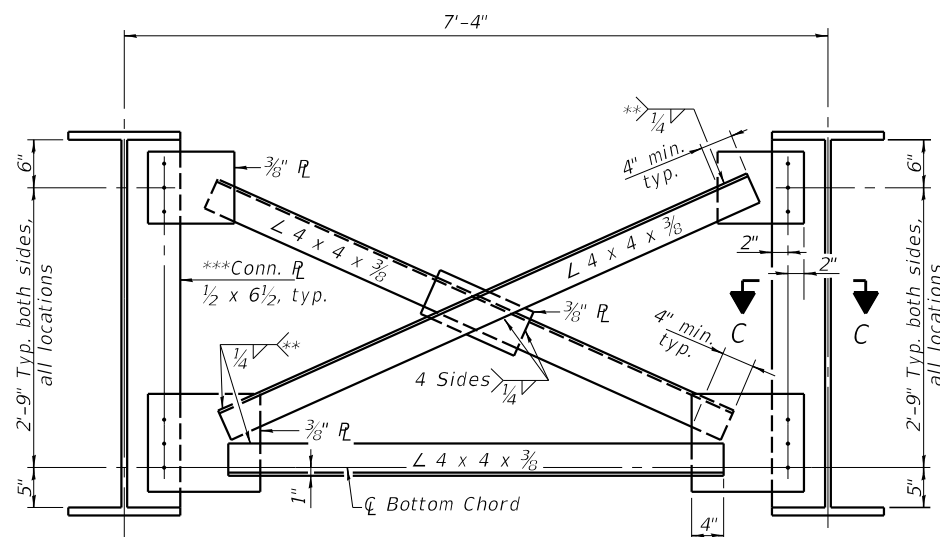
Two hardened washers required for each set of oversized holes.

All cross frames, bearing stiffeners, gusset plates, and connecting plates shall be AASHTO M270, Gr. 50W.

Horizontal and vertical clip dimensions for connection plate same as for bearing stiffener.

BILL OF MATERIAL

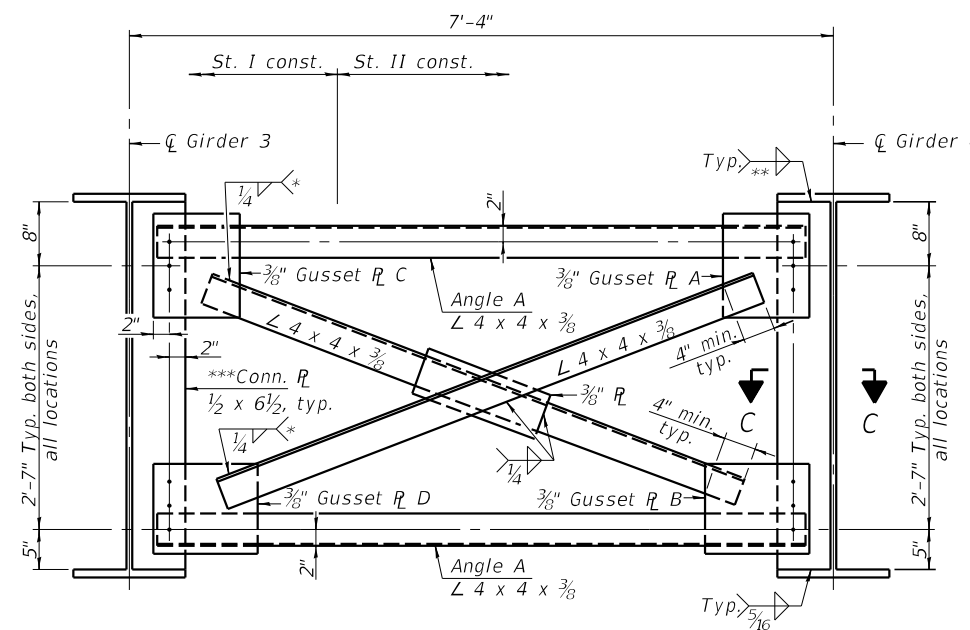
Item	Unit	Total
Anchor Bolts, 1"	Each	36



CROSS FRAME - CF1

** Fillet weld angles along 3 sides on one face of gusset plate.

*** 1" x 6 1/2" Brg. Stiffener at Pier only.



CROSS FRAME - CF2
(Looking east)

** Fillet weld angles along 3 sides on one face of gusset plate.

*** 1" x 6 1/2" Brg. Stiffener at Pier only.



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PLOT DATE =	DRAWN -	REVISED -
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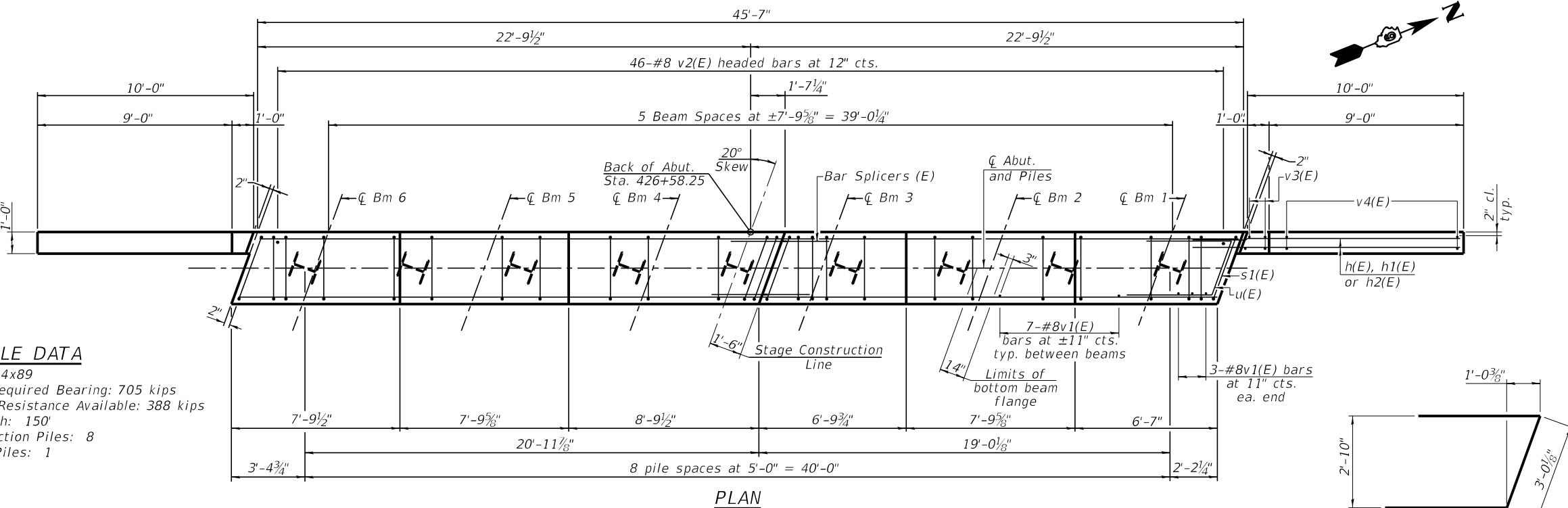
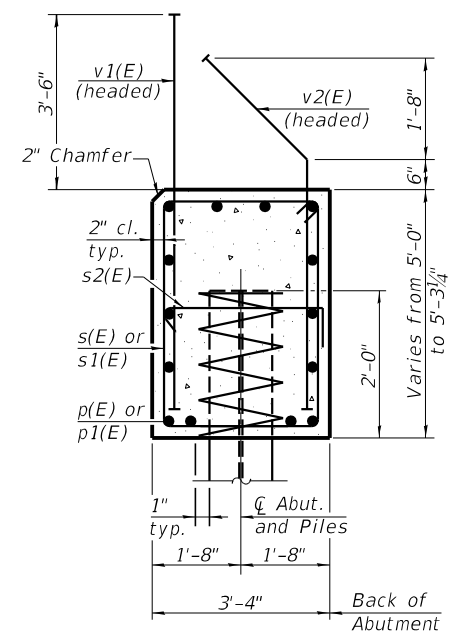
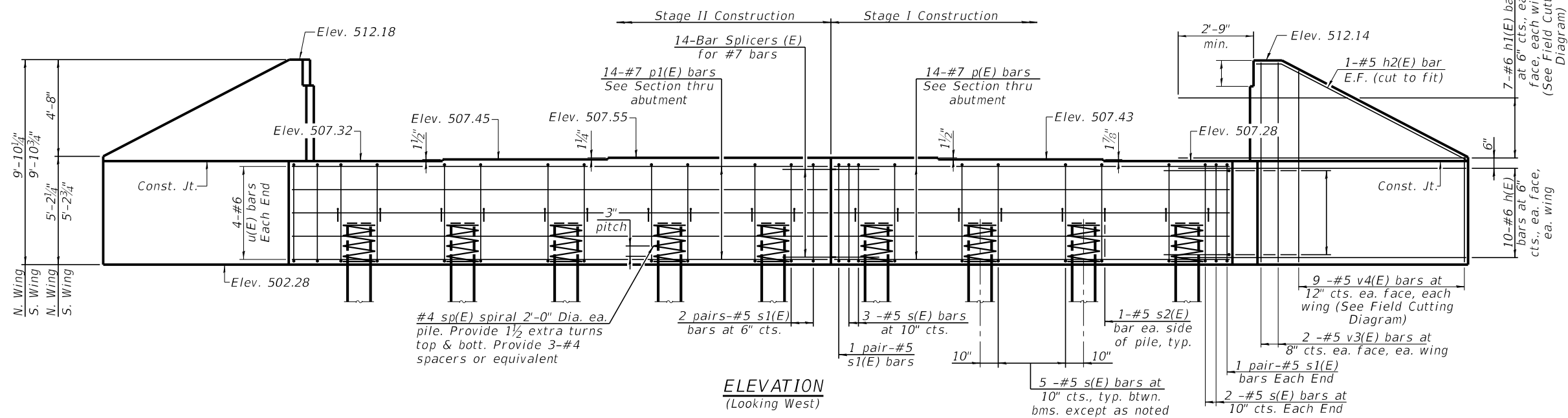
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS
STRUCTURE NO. 100-0103

SHEET NO. 20 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	41
CONTRACT NO. 78506				

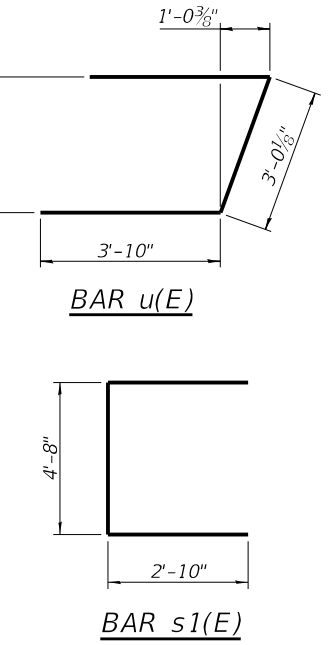
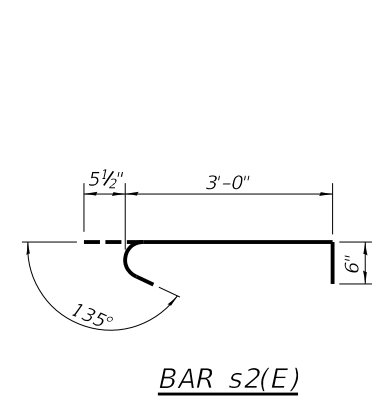
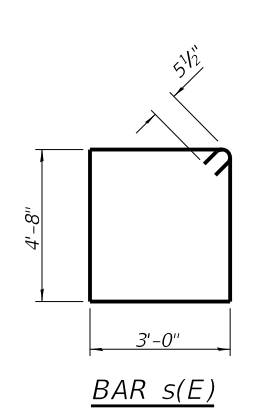
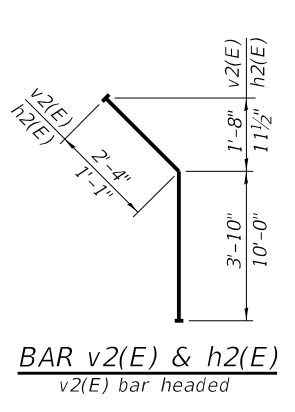
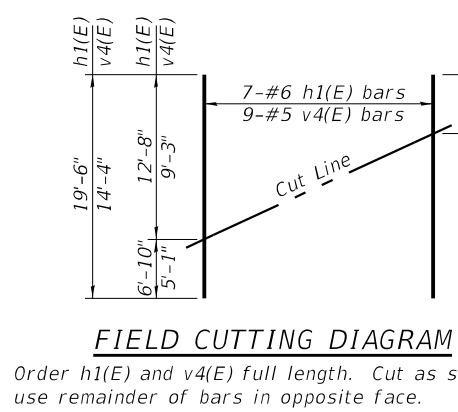
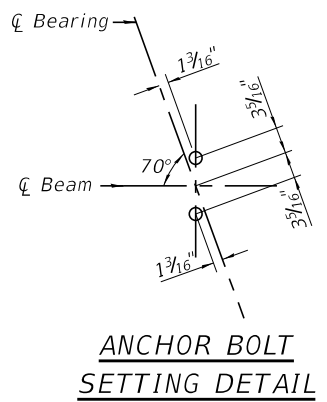
ILLINOIS FED. AID PROJECT



PILE DATA
 Type: HP14x89
 Nominal Required Bearing: 705 kips
 Factored Resistance Available: 388 kips
 Est. Length: 150'
 No. Production Piles: 8
 No. Test Piles: 1

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	40	#6	13'-0"	—
h1(E)	14	#6	19'-6"	—
h2(E)	4	#5	11'-1"	—
p(E)	14	#7	20'-11"	—
p1(E)	14	#7	24'-1"	—
s(E)	42	#5	16'-3"	□
s1(E)	10	#5	10'-4"	□
s2(E)	18	#5	4'-0"	□
sp(E)	9	#4	2'-0"	⊚
u(E)	8	#6	10'-8"	⊏
v1(E)	41	#8	8'-0"	—
v2(E)	46	#8	6'-2"	—
v3(E)	8	#5	9'-6"	—
v4(E)	18	#5	14'-4"	—
Structure Excavation		Cu. Yd.	242	
Concrete Structures		Cu. Yd.	34.9	
Reinforcement Bars, Epoxy Coated		Pound	5950	
Furnishing Steel Piles HP14x89		Foot	1200	
Driving Piles		Foot	1200	
Test Pile Steel HP14x89		Each	1	



Notes:
 For details of piles see Sheet 26 of 36.
 Pour steps monolithically with cap.
 Headed bars shall conform to ASTM A970 with threaded attachments and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.
 * Length is height of spiral.

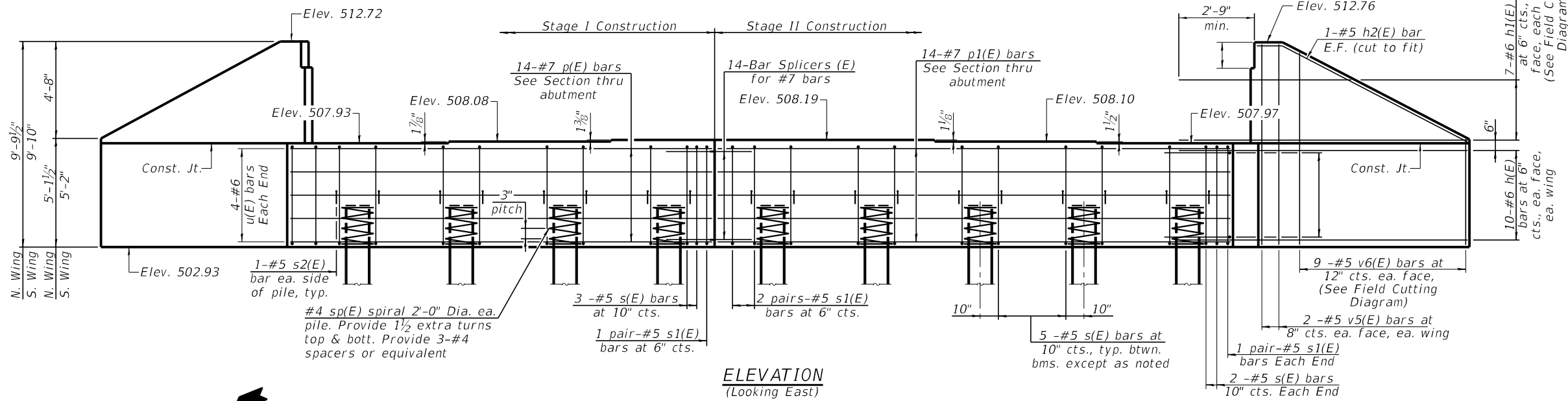


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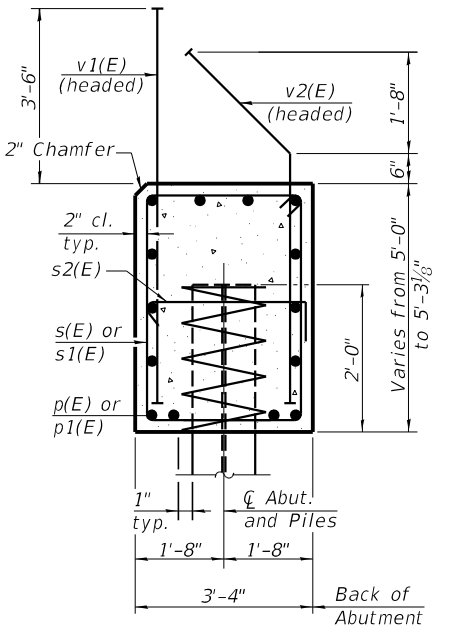
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT
 STRUCTURE NO. 100-0103
 SHEET NO. 21 OF 36 SHEETS

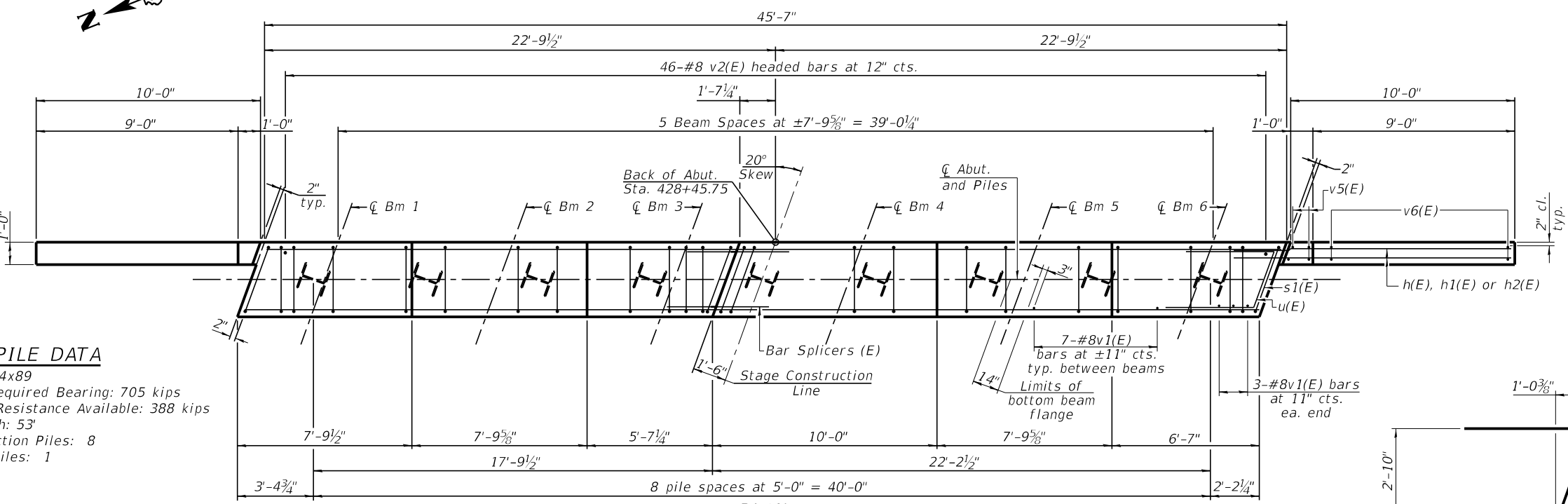
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	42
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



ELEVATION
(Looking East)

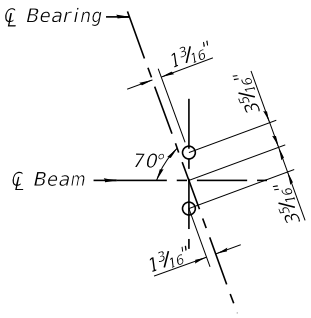


SEC. THRU ABUT.
Dimensions at right angles to abutment.

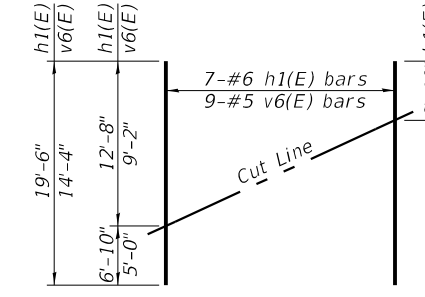


PLAN

PILE DATA
Type: HP14x89
Nominal Required Bearing: 705 kips
Factored Resistance Available: 388 kips
Est. Length: 53'
No. Production Piles: 8
No. Test Piles: 1

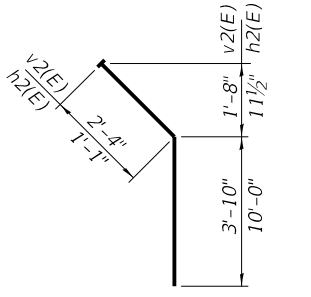


ANCHOR BOLT SETTING DETAIL

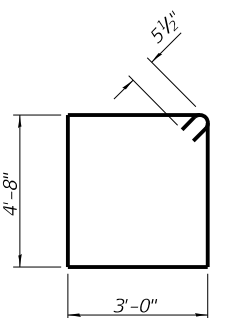


FIELD CUTTING DIAGRAM

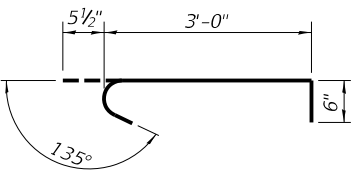
Order h1(E) and v6(E) full length. Cut as shown and use remainder of bars in opposite face.



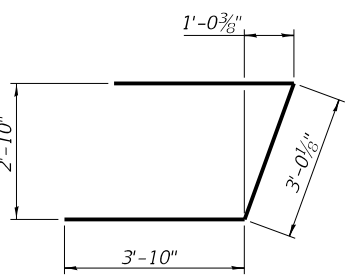
BAR v2(E) & h2(E)
v2(E) bar headed



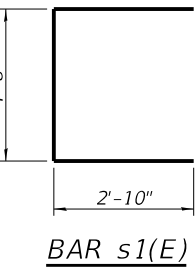
BAR s(E)



BAR s2(E)



BAR u(E)



BAR s1(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	40	#6	13'-0"	—
h1(E)	14	#6	19'-6"	—
h2(E)	4	#5	11'-1"	—
p(E)	14	#7	20'-11"	—
p1(E)	14	#7	24'-1"	—
s(E)	42	#5	16'-3"	□
s1(E)	10	#5	10'-4"	—
s2(E)	18	#5	4'-0"	U
sp(E)	9	#4	2'-0"	⌀
u(E)	8	#6	10'-8"	⌒
v1(E)	41	#8	8'-0"	—
v2(E)	46	#8	6'-2"	—
v5(E)	8	#5	9'-5"	—
v6(E)	18	#5	14'-4"	—
Structure Excavation		Cu. Yd.	242	
Concrete Structures		Cu. Yd.	34.9	
Reinforcement Bars, Epoxy Coated		Pound	5950	
Furnishing Steel Piles HP14x89		Foot	424	
Driving Piles		Foot	424	
Test Pile Steel HP14x89		Each	1	

Notes:
For details of piles see Sheet 26 of 36.
Pour steps monolithically with cap.
Headed bars shall conform to ASTM A970 with threaded attachments and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

* Length is height of spiral.



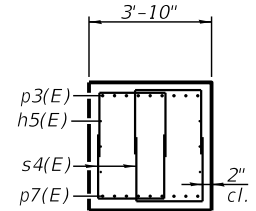
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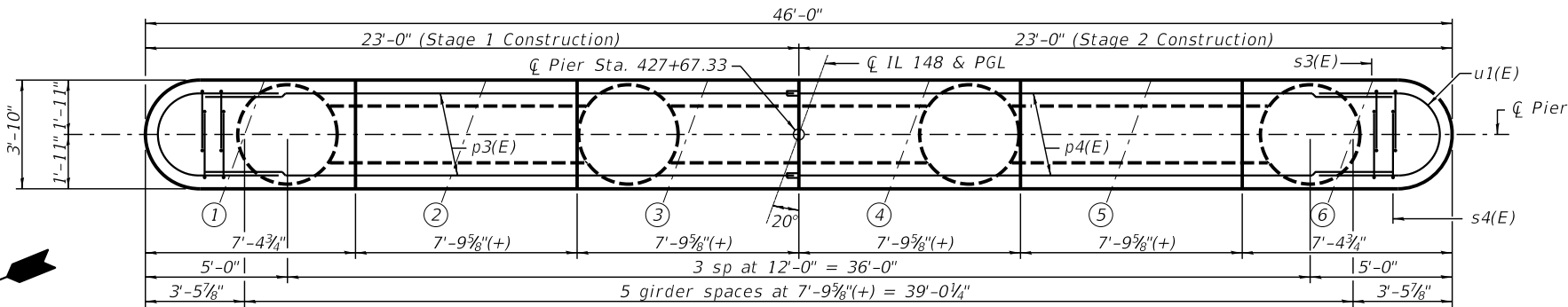
EAST ABUTMENT
STRUCTURE NO. 100-0103

SHEET NO. 22 OF 36 SHEETS

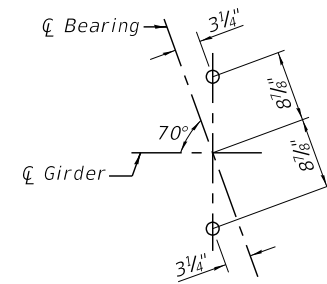
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	43
CONTRACT NO. 78506			ILLINOIS FED. AID PROJECT	



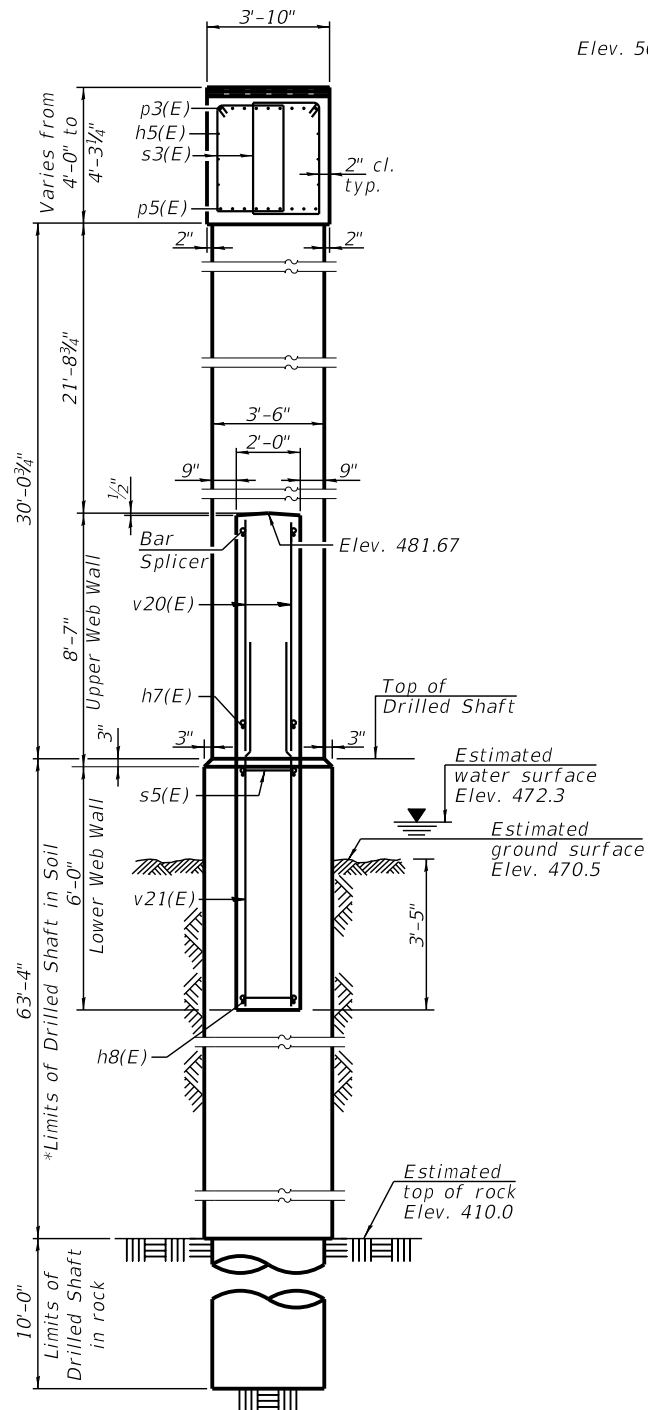
SECTION D-D



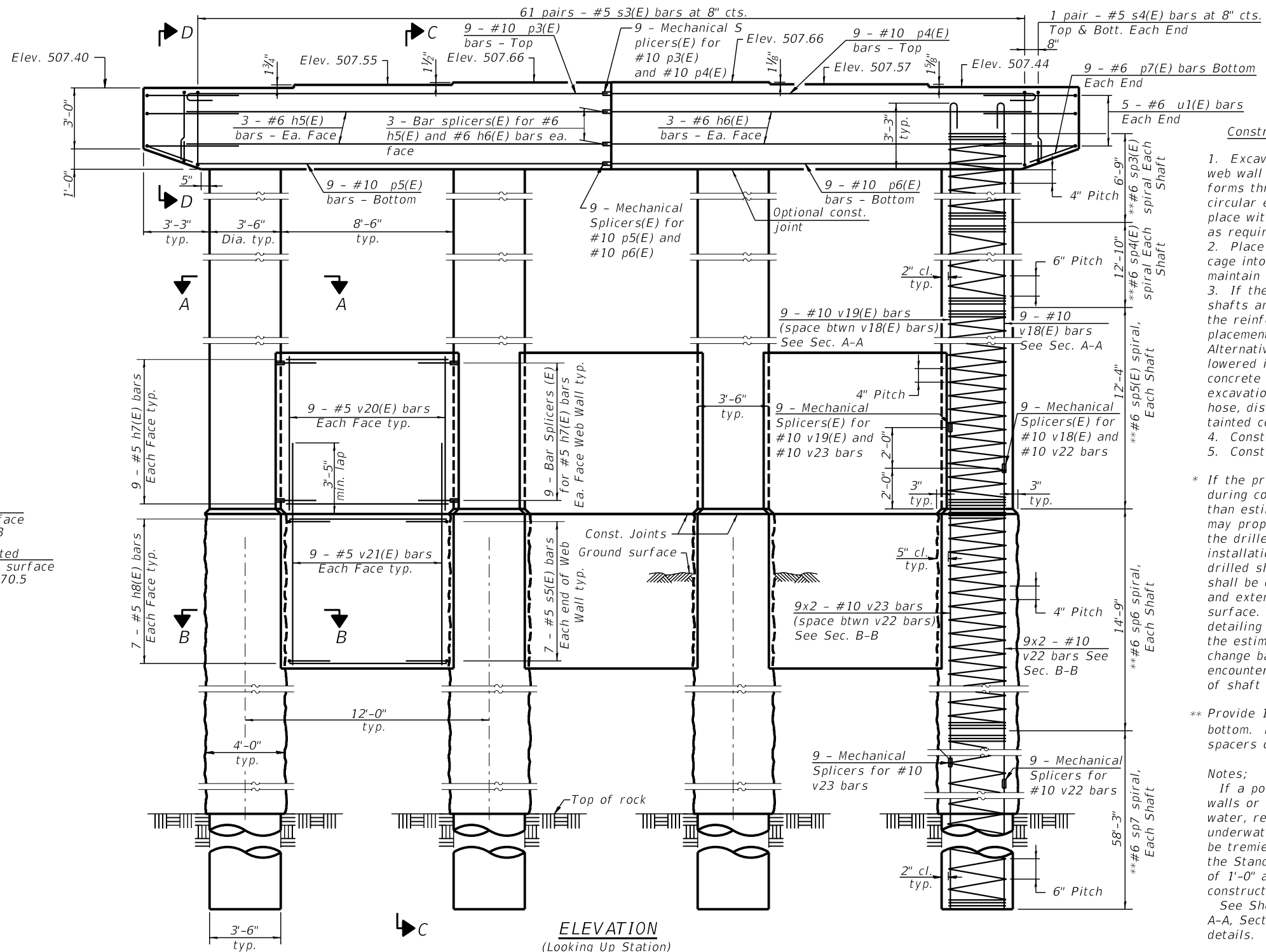
TOP PLAN



ANCHOR BOLT SETTING DETAIL



SECTION C-C



ELEVATION
(Looking Up Station)

Construction Sequence for Web Wall:

1. Excavate between shafts to elevation of web wall base and set lower web wall forms through water to bear on the circular edge of drilled shafts. Secure in place with fill, struts or tie forms together as required.
2. Place the lower web wall reinforcement cage into the forms using spacers to maintain proper clearances.
3. If the forms can be sealed against the shafts and streambed to allow dewatering, the reinforcement and the concrete placement may be completed in the dry. Alternatively, the rebar cage can be lowered into position through water and the concrete discharged at the base of the excavation through a tremie pipe or pump hose, displacing water, sediment, and tainted concrete out the top of the forms.
4. Construct Columns.
5. Construct upper web walls.

* If the prevailing water surface elevation during construction is consistently different than estimated on the plans, the contractor may propose an adjustment to the top of the drilled shaft elevation as part of their installation procedure. The top of all drilled shafts within a substructure unit shall be constructed to the same elevation and extend above the prevailing water surface. The quantities and reinforcement detailing are based on the top of shaft and the estimated elevations shown and may change based on the actual elevations encountered at each shaft and the final top of shaft elevation.

** Provide 1 1/2 extra turns top and bottom. Provide min. 4 - #4 spacers or equivalent.

Notes:

If a portion of the drilled shaft web walls or concrete encasement is under water, reinforcement may be placed underwater into the forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

See Sheet 24 of 32 for Section A-A, Section B-B, and additional pier details.



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PLOT DATE =	DRAWN -	REVISIONS -
	CHECKED -	REVISIONS -

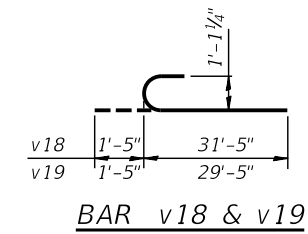
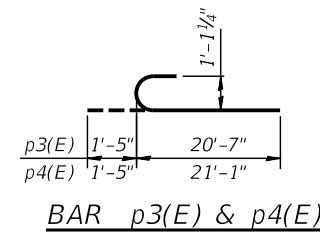
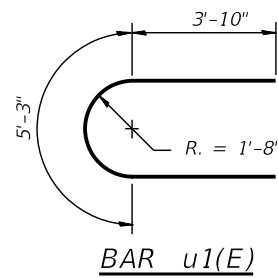
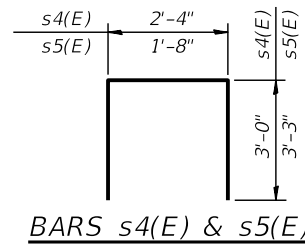
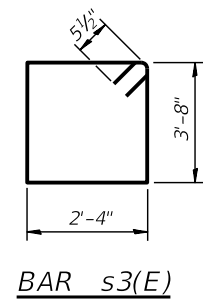
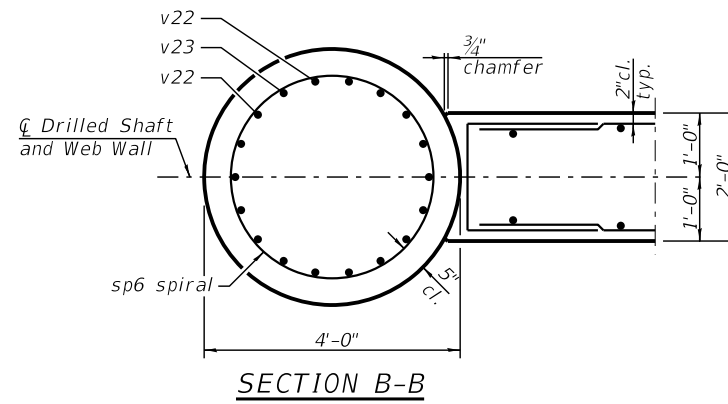
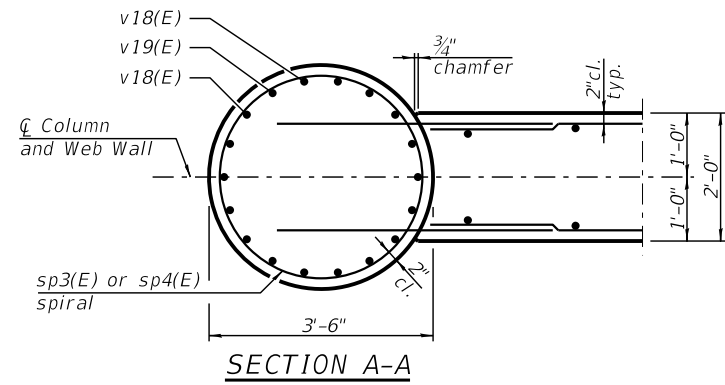
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER
STRUCTURE NO. 100-0103

SHEET NO. 23 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	44
CONTRACT NO. 78506				

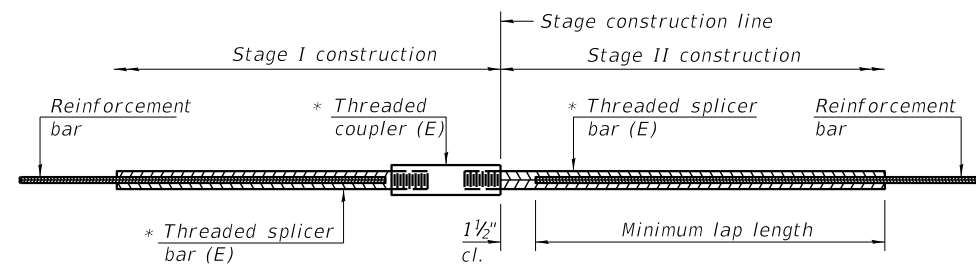
ILLINOIS FED. AID PROJECT



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h5(E)	6	#6	21'-0"	—
h6(E)	6	#6	21'-6"	—
h7(E)	54	#5	8'-2"	—
h8(E)	42	#5	7'-8"	—
p3(E)	9	#10	22'-0"	⌋
p4(E)	9	#10	22'-6"	⌋
p5(E)	9	#10	20'-1"	—
p6(E)	9	#10	20'-7"	—
p7(E)	18	#6	3'-0"	—
s3(E)	122	#5	12'-11"	□
s4(E)	8	#5	8'-4"	U
s5(E)	42	#5	8'-2"	U
*** sp3(E)	4	#6	6'-9"	⌋
*** sp4(E)	4	#6	12'-10"	⌋
*** sp5(E)	4	#6	12'-4"	⌋
*** sp6	4	#6	14'-9"	⌋
*** sp7	4	#6	58'-3"	⌋
u1(E)	10	#6	12'-11"	⌋
v18(E)	36	#10	32'-10"	⌋
v19(E)	36	#10	30'-10"	⌋
v20(E)	54	#5	7'-11"	—
v21(E)	54	#5	9'-5"	—
v22	72	#10	37'-8"	—
v23	72	#10	38'-8"	—
Concrete Structures	Cu. Yd.	97.2		
Reinforcement Bars	Pound	33570		
Reinforcement Bars, Epoxy Coated	Pound	23060		
Drilled Shaft in Soil	Cu. Yd.	117.7		
Drilled Shaft in Rock	Cu. Yd.	14.3		
Crosshole Sonic Logging Access Ducts	Foot	294		
Crosshole Sonic Logging Testing	Each	4		

Cast steps monolithically with cap.
 Minimum lap for spirals = 1 1/2 turns
 *** Length is height of spiral.

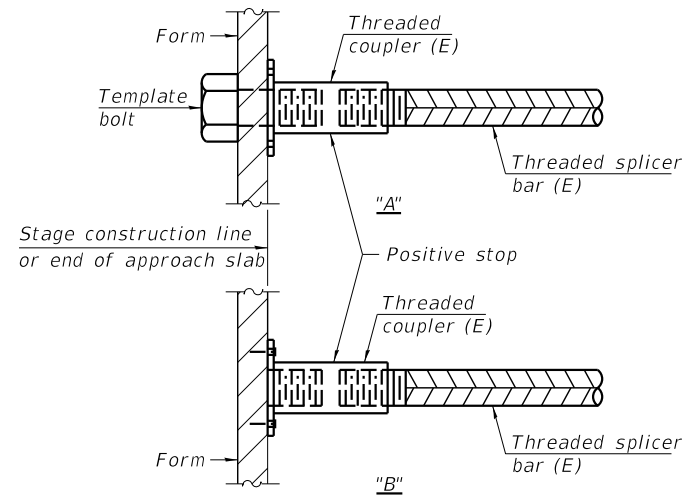


STANDARD BAR SPLICER ASSEMBLY

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

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

Location	Bar size	No. assemblies required	Minimum lap length
Approach Slab (Top)	#5	84	3'-0"
Deck	#5	648	3'-6"
Approach Slab (Bottom)	#8	112	4'-9"
Approach Slab (Footing)	#5	80	3'-2"
Abutment Diaphragm	#6	18	4'-0"
Abutments	#7	28	5'-0"
Pier Cap	#6	6	4'-4"
Pier Web Wall	#5	108	3'-7"

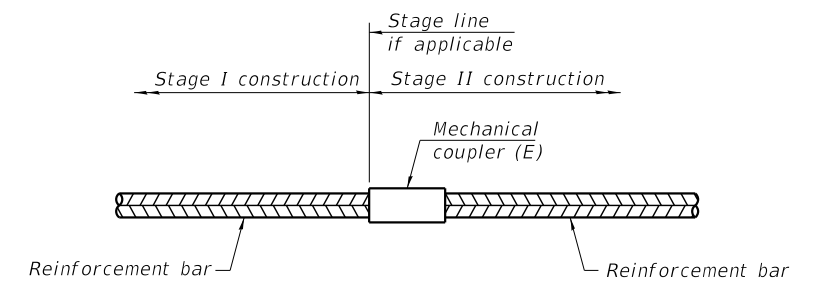


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

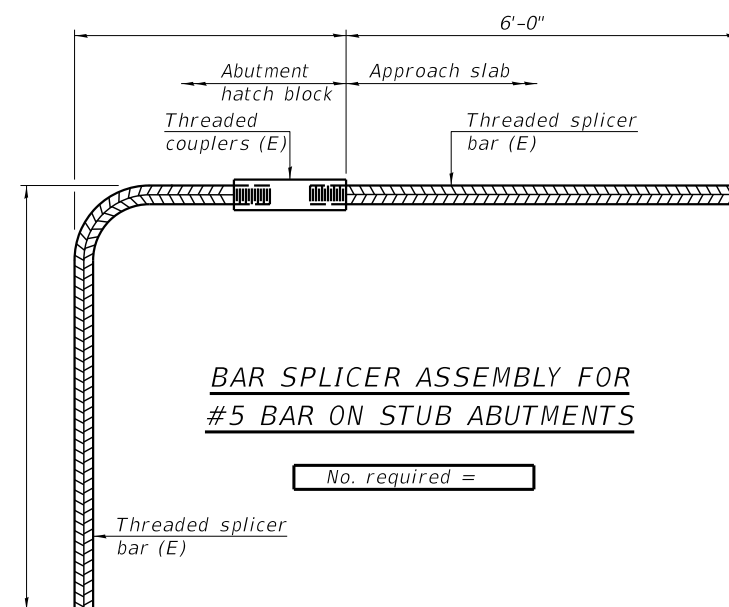
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Pier Cap	#10	18
Pier Columns	#10	144



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with Threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

2-17-2017



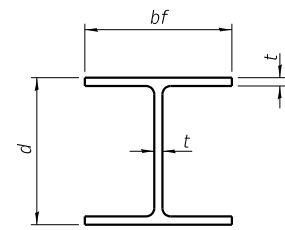
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	CHECKED -	REVISD -
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PLOT DATE =	CHECKED -	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 100-0103

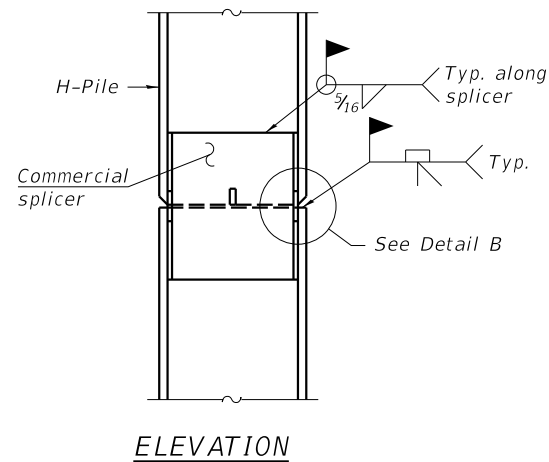
SHEET NO. 25 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	46
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

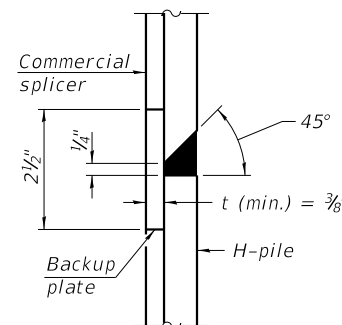


STEEL PILE TABLE

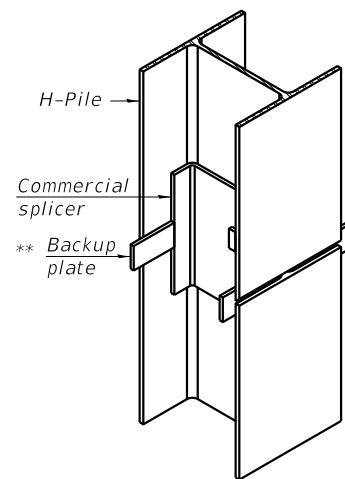
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 3/8"	14 3/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION

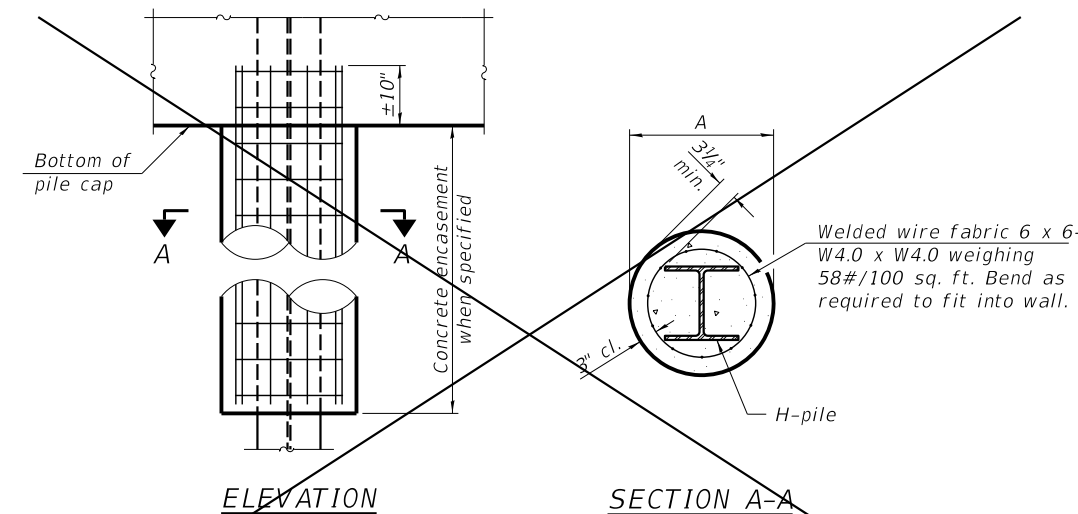


DETAIL "B"



ISOMETRIC VIEW

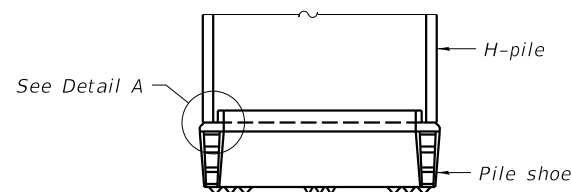
WELDED COMMERCIAL SPLICE



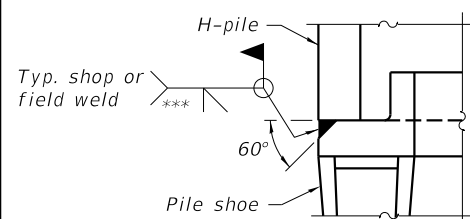
ELEVATION

SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASUREMENT
(Forms for encasement may be omitted when soil conditions permit).



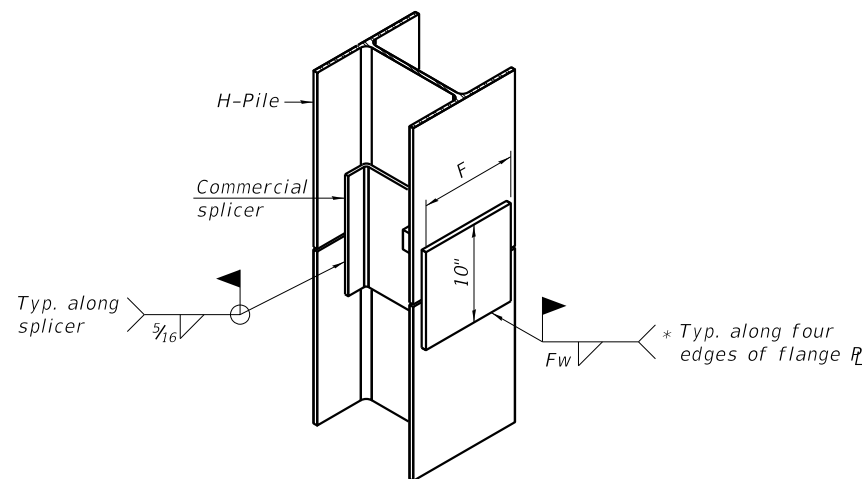
ELEVATION



DETAIL A

SHOE ATTACHMENT

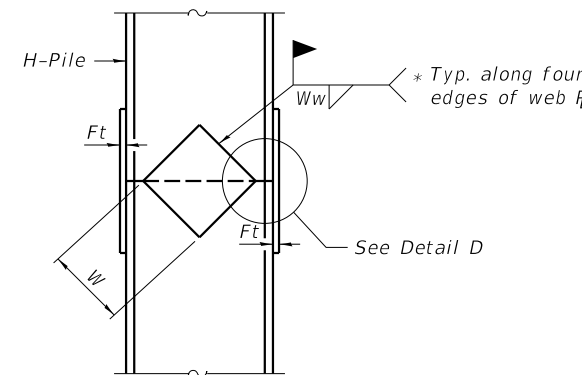
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.



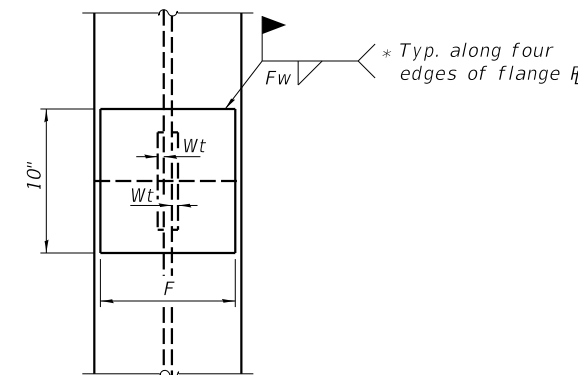
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

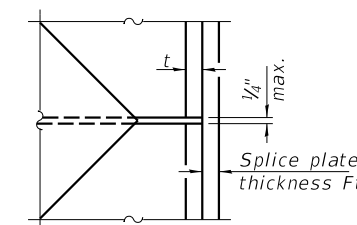
- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).



ELEVATION



END VIEW



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

F-HP 8-11-2017



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	CHECKED -	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 100-0103

SHEET NO. 26 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	47
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

100-0038 Sh. 1 of 10

BRIDGE FOUNDATION BORING LOG

PROJECT BRIDGE Carrying PAS 910 Date January 1961
 ROUTE PAS 910 over Wolf Creek Bor. Eng. W. E. Stallman
 SEC. 41 B STA. 427+52 Drilling Tech. J.H.M.
 COUNTY Williamson

Elevation	N	Qu t/sf	Type Failure	w (%)	Surface Water El.	
					Groundwater El. at Completion	After 24 Hours
479.8	0					
Ground Surface						
Medium and moist brown silty clay loam A-4(8)						
478.3			17			
Medium and very moist brown silt loam A-4(8)						
475.3			20			
Soft and wet brown clay loam A-6(5-6)						
473.8	3	0.4	B	20		
Medium and wet brown coarse sand						
450.8						
Stiff and moist grey silty clay loam A-6(8-9)						
448.8	10			19		
Medium and moist grey silty clay A-6(10-11)						
449.8	10					
Stiff and moist grey silty clay loam A-6(8-9)						
	9	1.6	B	18		
Medium and moist grey silty clay loam A-6(10)						
463.8	8	1.2	B	18		
Medium and moist grey silty clay loam A-6(10)						
	4	0.8	B	24		
Medium and moist grey silty clay loam A-6(10)						
	5	0.9	B	21		
457.8						
(see next column)						

Standard Penetration Test - Blows per foot to drive 2" 140# hammer.
 Qu - Unconfined Compressive Strength - t/sf
 Type failure: B - Bugle Failure, S - Shear Failure, E - Estimated Value

Sh. 2 of 10

BRIDGE FOUNDATION BORING LOG

PROJECT BRIDGE Carrying PAS 910 Date January 1961
 ROUTE PAS 910 over Wolf Creek Bor. Eng. W. E. Stallman
 SEC. 41 B STA. 427+52 Drilling Tech. J.H.M.
 COUNTY Williamson

Elevation	N	Qu t/sf	Type Failure	w (%)	Surface Water El.	
					Groundwater El. at Completion	After 24 Hours
440						
Ground Surface						
(See previous sheet)						
Very soft and moist yellow sandstone						
415.8						
Medium and wet grey coarse sand						
435.8						
Very soft and moist yellow sandstone						
412.8						
Medium to hard and moist yellow to red sandstone Cored - 50% Recovery						
409.8	2	0.2	B	30		
Medium to hard and wet red sandstone Cored - 85% Recovery						
431.3	5	0.4	P	24		
Medium and moist grey silt loam A-4(8)						
428.8	4	0.5	B	28		
Soft and moist grey silt loam A-4(8)						
424.8	4	0.5	B	28		
Bottom of Hole = 74.1 feet						
423.8	25	1.0	B	31		
Medium and moist black silt loam A-4(8)						
423.8	25	1.0	B	31		
Soft and wet grey silty clay loam A-6(9-10)						
420.8	7	0.4	B	26		
Medium and moist grey silty clay loam A-6(9-10)						
419.1	29	0.9	B	22		
Very soft and wet white sandstone						
417.8						
(See next column)						

Standard Penetration Test - Blows per foot to drive 2" 140# hammer.
 Qu - Unconfined Compressive Strength - t/sf
 Type failure: B - Bugle Failure, S - Shear Failure, E - Estimated Value

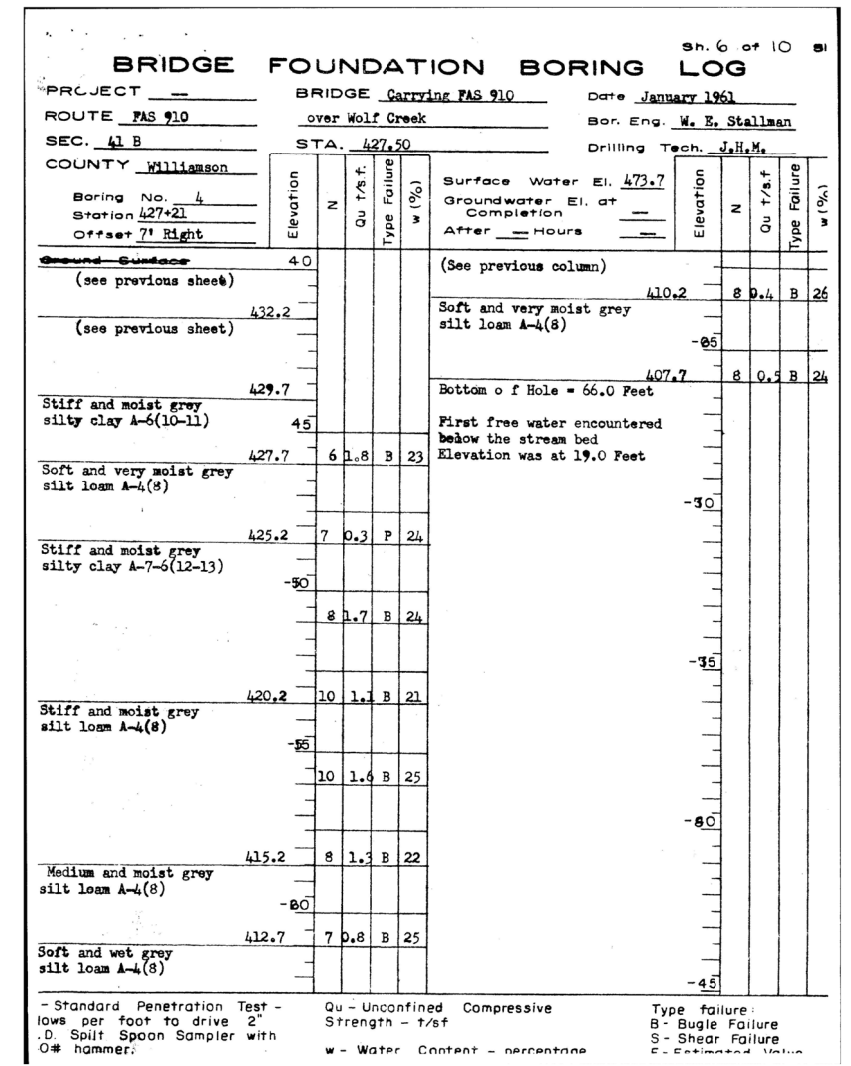
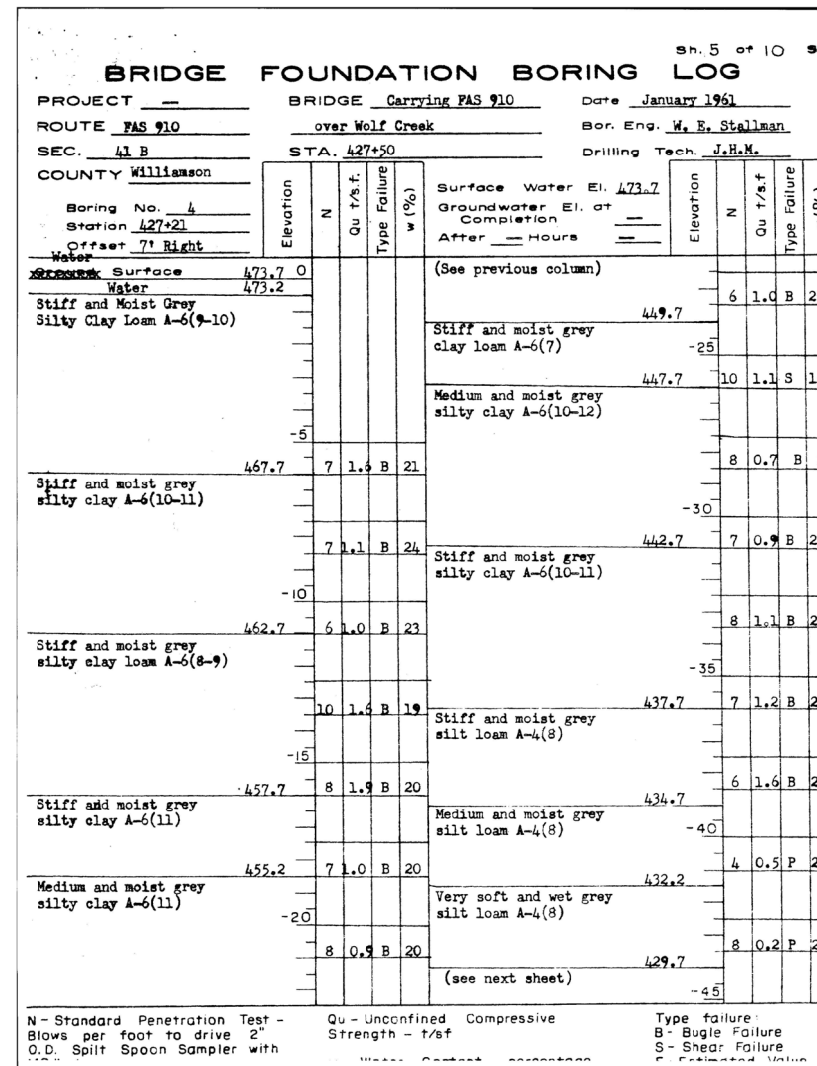
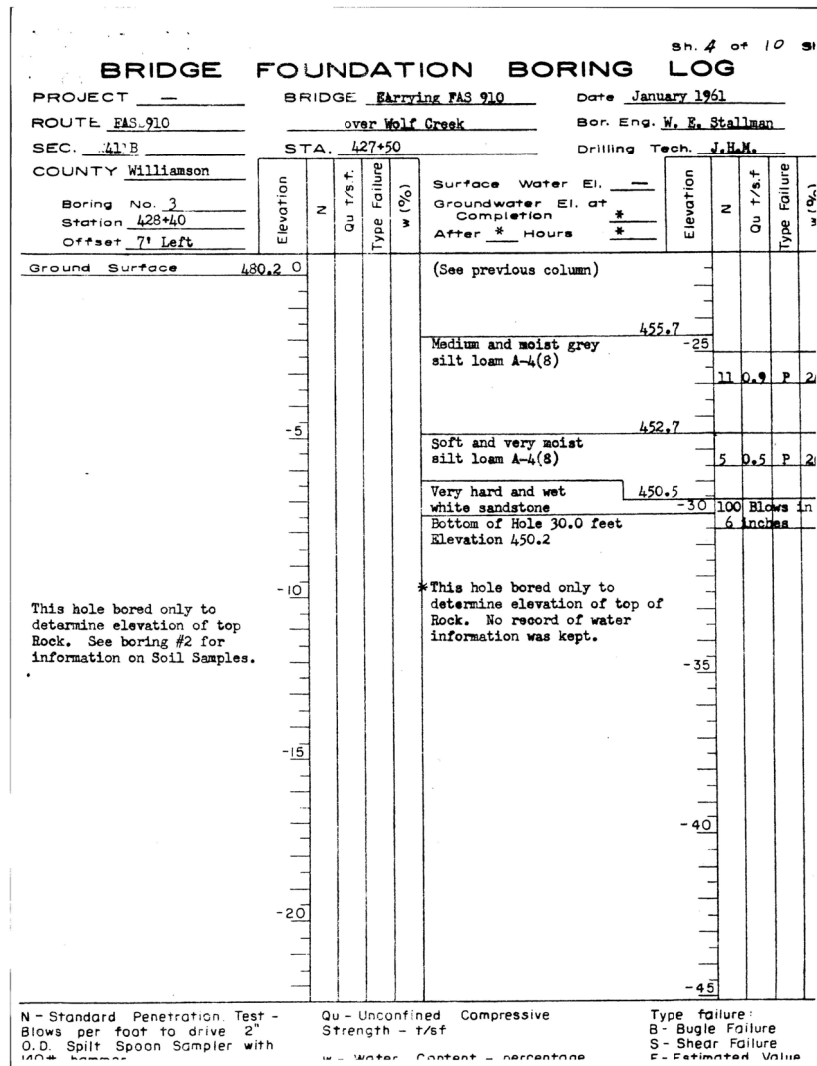
Sh. 3 of 10

BRIDGE FOUNDATION BORING LOG

PROJECT BRIDGE Carrying PAS 910 Date January 1961
 ROUTE PAS 910 over Wolf Creek Bor. Eng. W. E. Stallman
 SEC. 41 B STA. 427+52 Drilling Tech. J.H.M.
 COUNTY Williamson

Elevation	N	Qu t/sf	Type Failure	w (%)	Surface Water El.	
					Groundwater El. at Completion	After 72 Hours
479.7	0					
Ground Surface						
(See previous column)						
Medium and moist brown silty clay loam A-4(8)						
478.9						
Soft and very moist brown silty clay loam A-4(8)						
455.2						
Hard and moist white sandstone						
453.2						
Very soft and wet tan silty clay loam A-6(8-9)						
475.2						
472.7						
Very loose and wet brown fine sand						
471.2	3					
Stiff and moist brown silt loam A-4(8)						
469.7	10					
Stiff and moist blue-grey silt loam A-4(8)						
466.2	15	1.8	B	22		
Stiff and moist grey silt loam A-4(8)						
461.2	5	1.0	B	24		
Medium and moist grey silt loam A-4(8)						
457.8	8	0.7	B	27		
Medium and moist grey silt loam A-4(8)						
449.2						
Bottom of hole = 30.5 feet						
During drilling operations, it appeared that free water was encountered at 5.0 feet						
*Artesian flow from hole at approximately 5 gallons per hour.						

Standard Penetration Test - Blows per foot to drive 2" 140# hammer.
 Qu - Unconfined Compressive Strength - t/sf
 Type failure: B - Bugle Failure, S - Shear Failure, E - Estimated Value

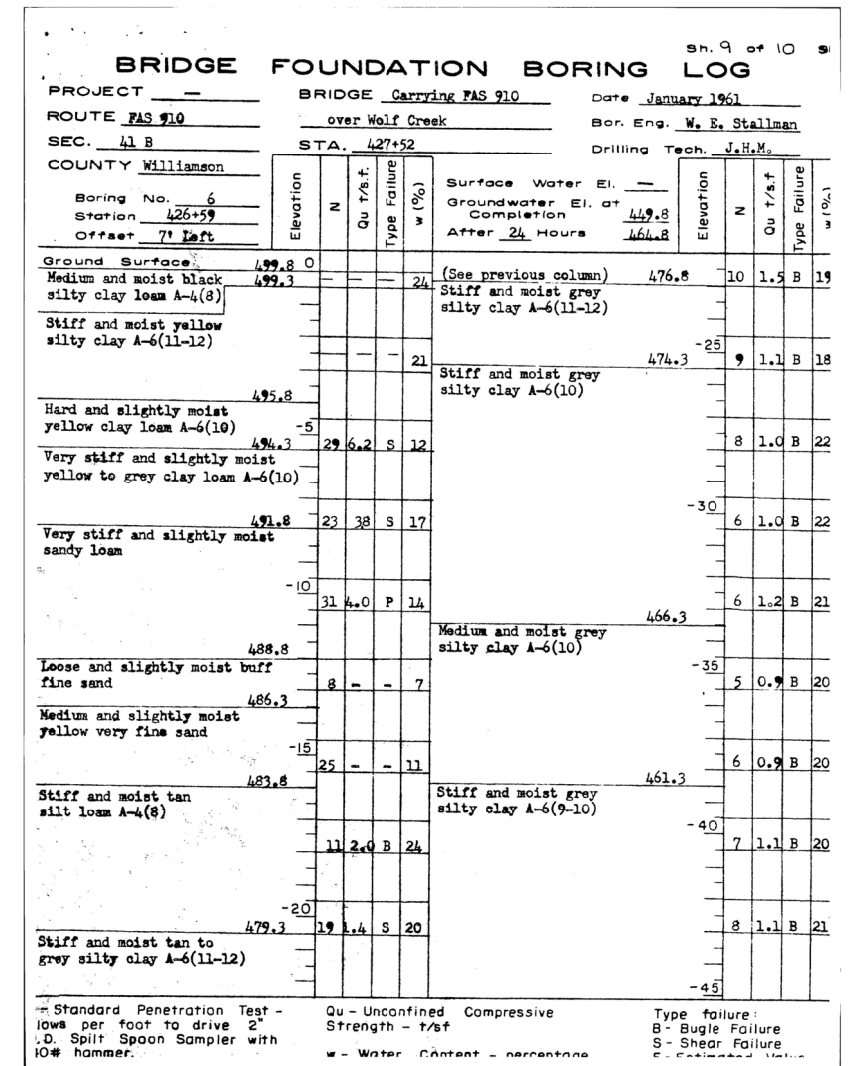
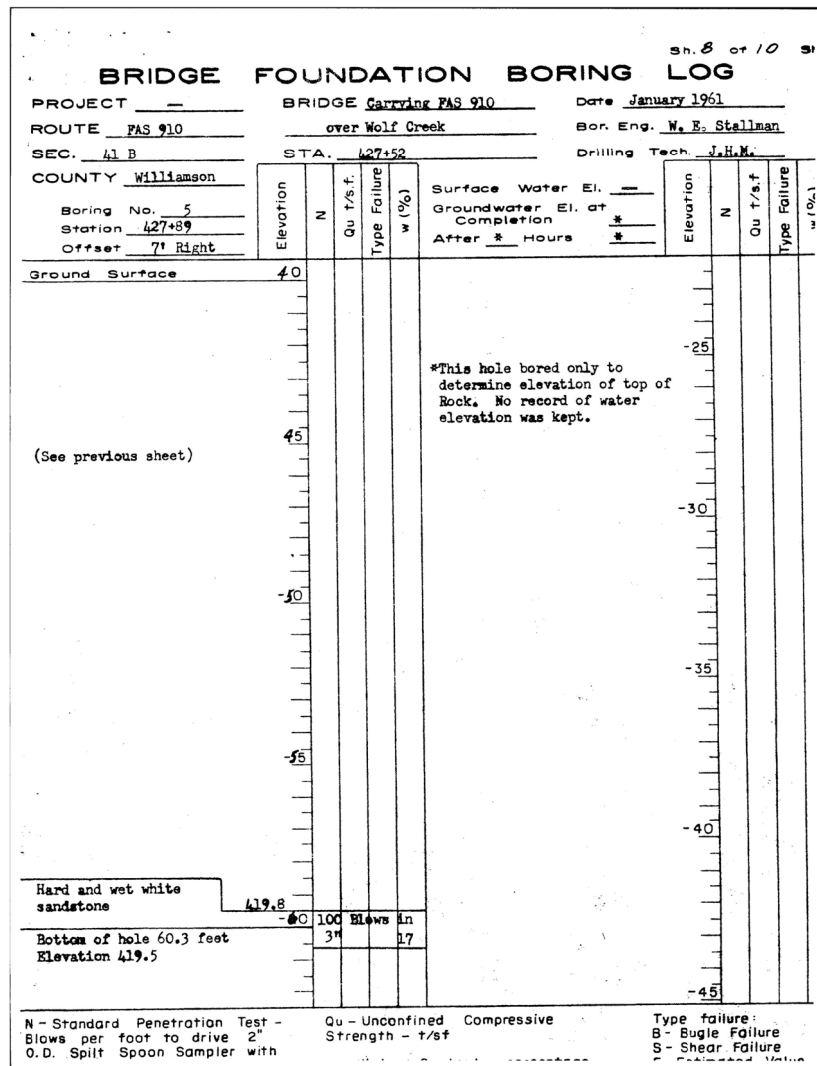
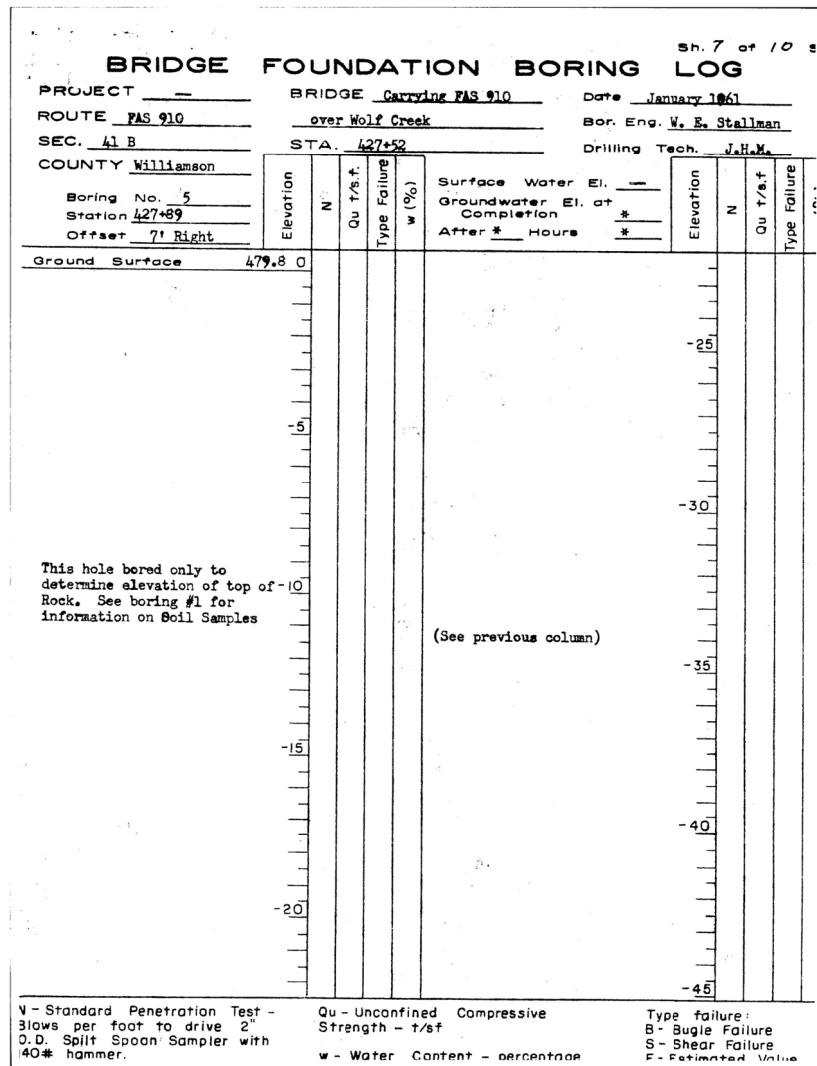


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PLOT DATE =	CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BORING LOGS
STRUCTURE NO. 100-0103**
SHEET NO. 28 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	49
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

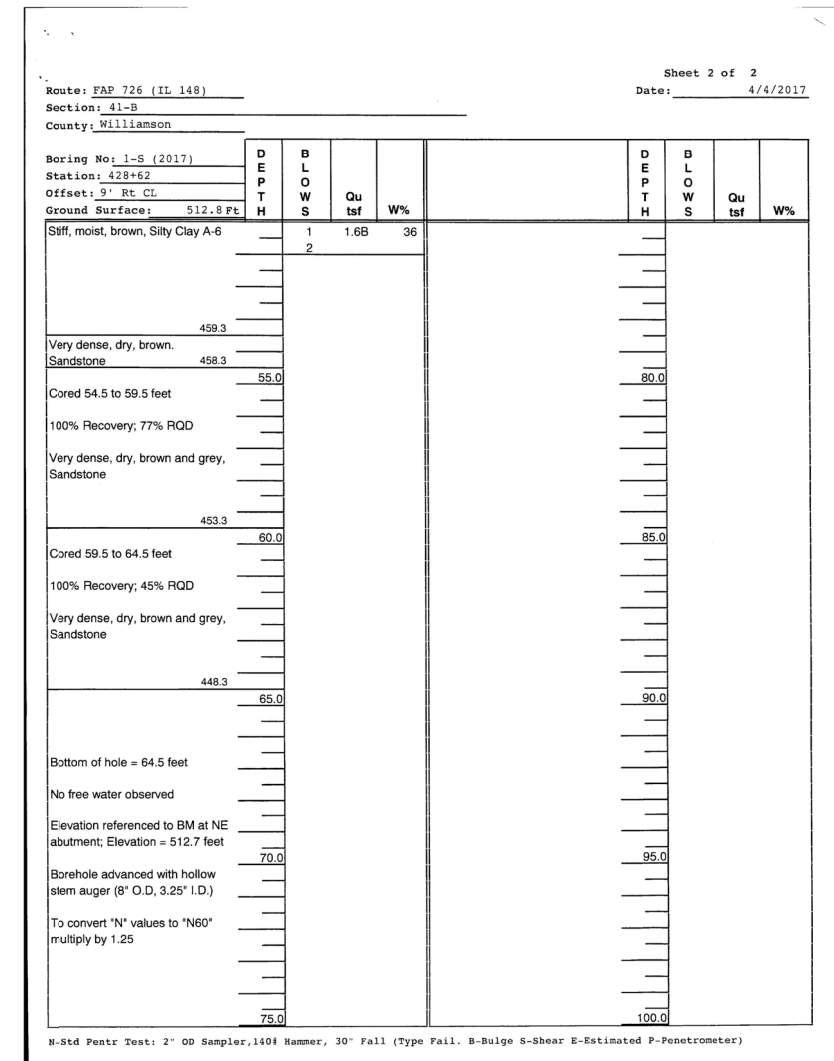
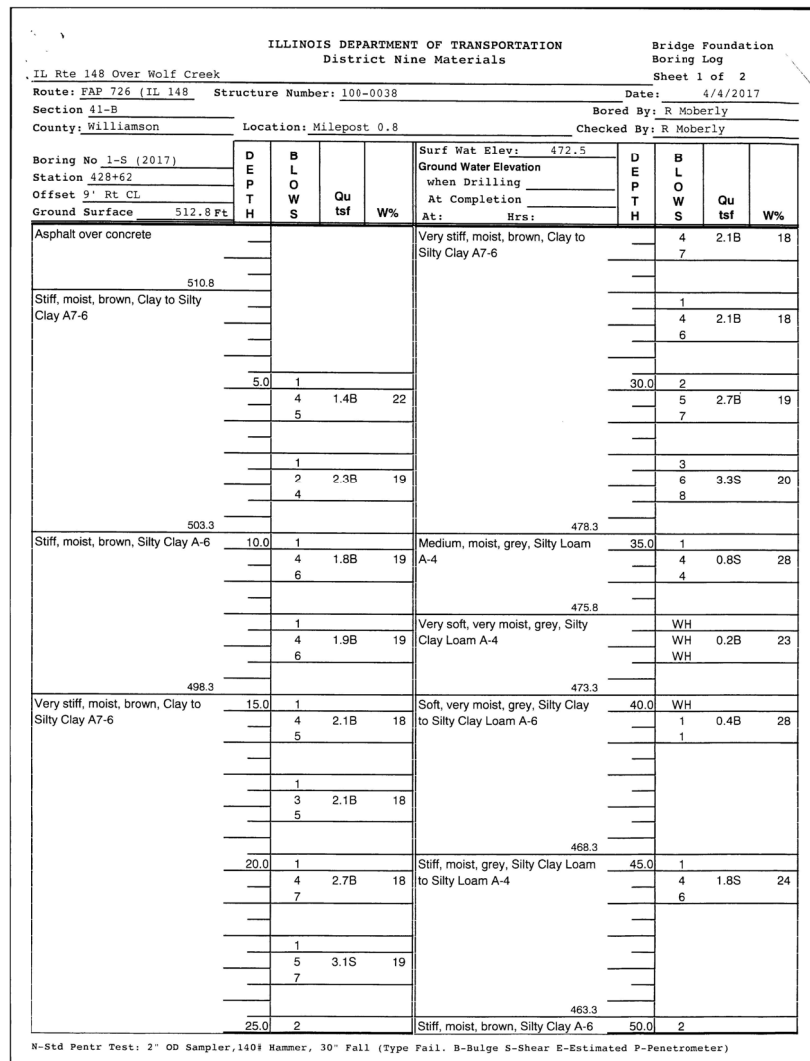
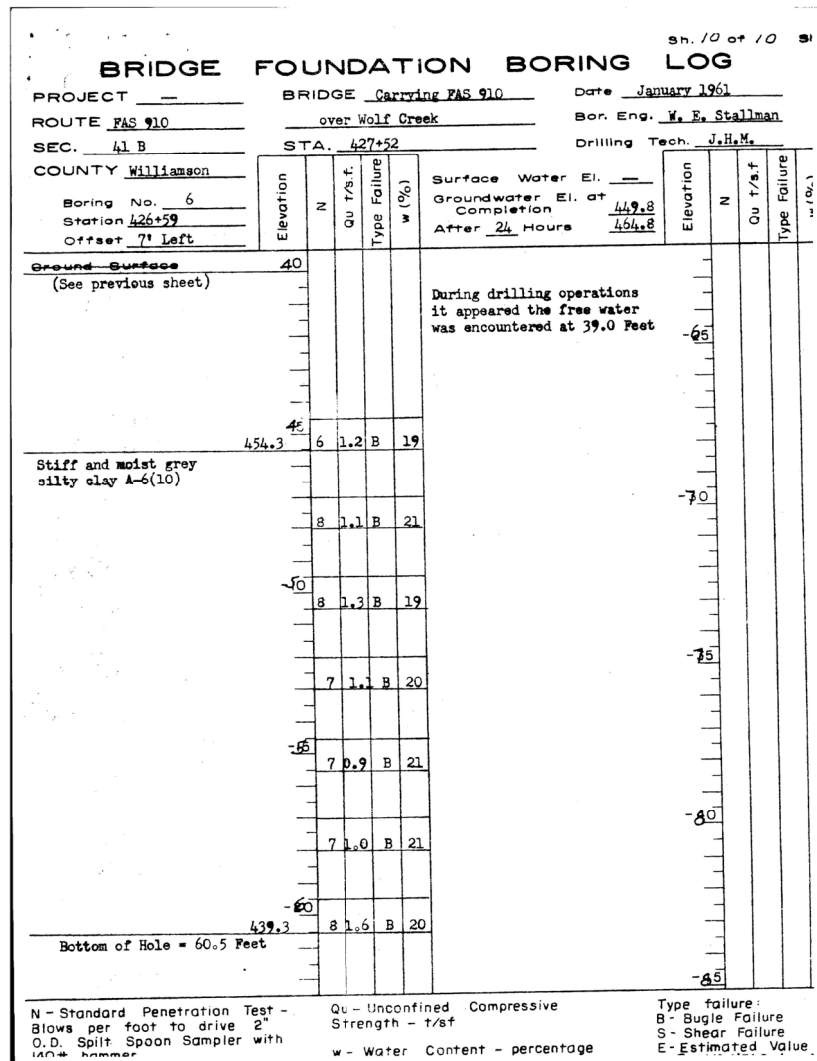


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PLOT DATE =	CHECKED -	REVISED -

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DEPARTMENT OF TRANSPORTATION**

**BORING LOGS
STRUCTURE NO. 100-0103**
SHEET NO. 29 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	50
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation
Boring Log

Sheet 1 of 4

Route: FAP 726 (IL 148) Structure Number: 100-0038 Date: 4/7/2017
Section: 41-B Bored By: R Moberly
County: Williamson Location: Milepost 0.8 Checked By: R Moberly

D E P T H		B L O W S		Q u	W %	Surf Mat Elev: 472.5	D E P T H	B L O W S	Q u	W %
Asphalt over concrete and crushed aggregate						472.5	4	1.5B	17	
Very stiff, moist, brown, Clay A7-6						485.1	6			
Stiff, moist, brown, Silty Clay to Clay A7-6						482.6	30.0	3		
Stiff, moist, brown, Silty Clay to Clay A7-6						480.1	4		#235	
Medium, moist to very moist, brown, Silty Clay A-6						477.6	35.0	5		
Stiff, moist, grey and brown, Clay A7-6						475.1	WH	0.9B	#257	
Soft, moist, brown and black, Clay Loam to Silty Clay Loam A-4						497.6	40.0	WH		
Very stiff, moist, brown, Clay to Silty Clay A7-6						494.6	4	2.5B	19	
Stiff, moist, brown and grey, Clay A7-6						492.6	20.0	1		
Very stiff, moist, brown, Clay to Silty Clay A7-6						490.1	1			
N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fall. B-Bulge S-Shear E-Estimated P-Penetrometer)						487.6	25.0	2		

Sheet 2 of 4

Route: FAP 726 (IL 148) Date: 4/7/2017
Section: 41-B Bored By: R Moberly
County: Williamson

D E P T H		B L O W S		Q u	W %	D E P T H	B L O W S	Q u	W %	
Medium, very moist, gray, Clay to Silty Clay A7-6						426+42	2	0.8B	22	
Medium, moist, gray, Clay to Silty Clay A 7-6						512.1 Ft	55.0	WH		
Stiff, moist, gray, Clay to Silty Clay A 7-6						442.6	70.0	WH	1.6B	#274
N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fall. B-Bulge S-Shear E-Estimated P-Penetrometer)						437.1	75.0	WH		

Sheet 3 of 4

Route: FAP 726 (IL 148) Date: 4/7/2017
Section: 41-B Bored By: R Moberly
County: Williamson

D E P T H		B L O W S		Q u	W %	D E P T H	B L O W S	Q u	W %	
Medium, moist, gray, Clay to Silty Clay A 7-6						512.1 Ft	80.0	WH		
Augered without sampling						105.0	85.0	WH	0.9B	20
Sampling discontinued. Advanced boring to locate bedrock						391.1	120.0	WR	0.7B	21
Encountered a layer of dense material later determined to be Sand and Gravel						363.1	125.0			
N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fall. B-Bulge S-Shear E-Estimated P-Penetrometer)						150.0				



USER NAME =	DESIGNED -	REVISOR -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS
STRUCTURE NO. 100-0103

SHEET NO. 31 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	52
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

Route: FAP 726 (IL 148)
Section: 41-B
County: Williamson

Boring No: 2-S (2017)	D E P T H	B L O W S	Qu tsf	W%	D E P T H	B L O W S	Qu tsf	W%
Station: 426+42								
Offset: 9' Lt CL								
Ground Surface: 512.1 Ft								
While drilling in the Sand and Gravel layer the rods were over-tightened and belled. For safety reasons the boring was ended. A final sample was taken here.								
357.6								
Stiff, moist, grey and black, Clay to weathered Clay Shale	155.0	2			180.0			
Clay Shale with Coal	356.1	8	50					
Bottom of hole = 156.0 feet								
Free water observed at 28.5 feet								
160.0					185.0			
Elevation referenced to BM at NE abutment; Elevation= 512.7 feet								
Borehole advanced with hollow stem auger (8" O.D., 3.25" I.D.)								
To convert "N" values to "N60" multiply by 1.25								
165.0					190.0			
170.0					195.0			
175.0					200.0			

N-Std Penetr Test: 2" OD Sampler, 140# Hammer, 30" Fall (Type Fall. B-Bulge S-Shear E-Estimated P-Penetrometer)



USER NAME =	DESIGNED -	REVISED -
	CHECKED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

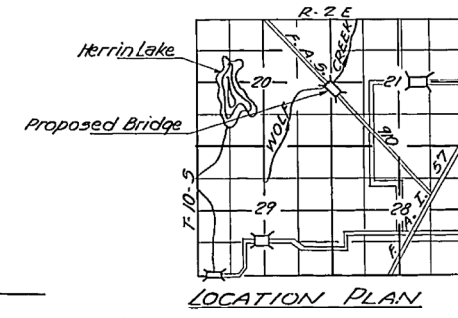
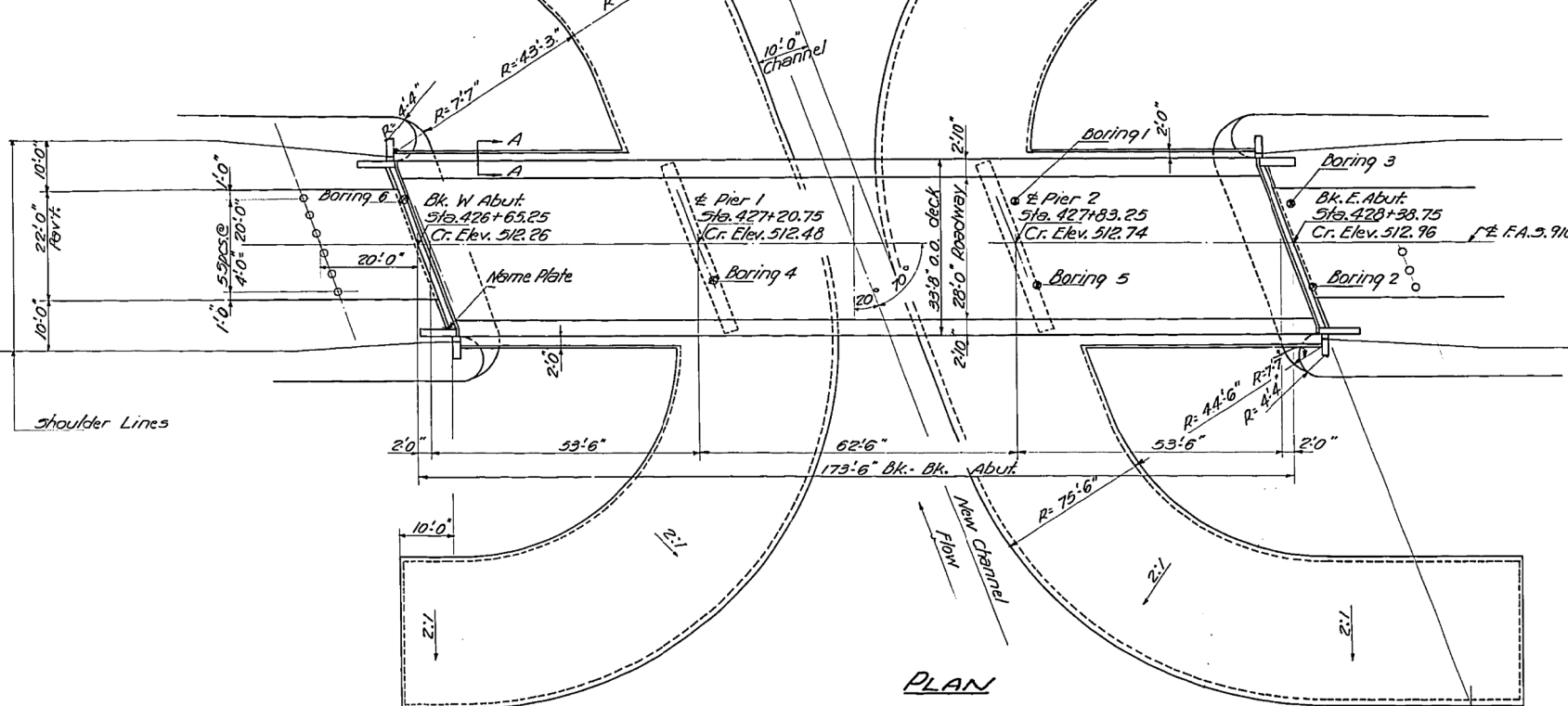
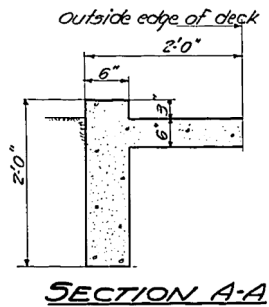
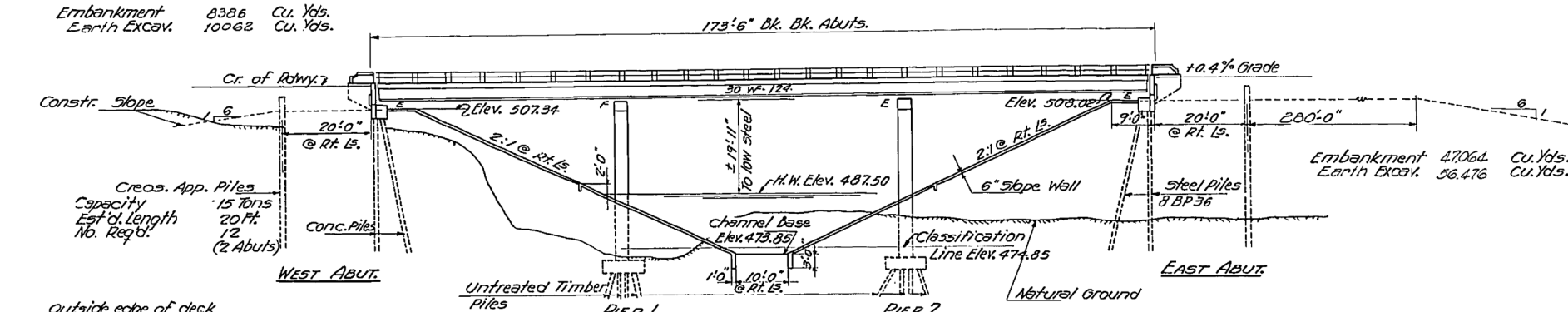
BORING LOGS
STRUCTURE NO. 100-0103
SHEET NO. 32 OF 36 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	53
CONTRACT NO. 78506			ILLINOIS FED. AID PROJECT	

B.M. Spike and Washer in Roof of 30" Oak
191' Lt. Sta. 423+85 Elev. 518.33

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO.
F.A.S. 910	41B	WILLIAMSON	37	16	9 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



GENERAL NOTES

Class-X Concrete shall be used throughout. The concrete floor slab shall be finished in accordance with Art. 51.19 of the Standard Specifications.

Coarse aggregate which is to be used in end posts must be free of chert, flint, limonite, lignite and soft sandstone.

Slope Wall shall be reinforced with welded fabric 6"x6" mesh, #4 wires weighing 58 Lbs. per 100 Sq. Ft.

Layout of slope walls may be varied to suit ground conditions in the field as directed by the Engineer.

Rivets 3/4" Open Holes 1/2", unless noted.

All rockers, bolsters, bearing plates, lead plates, pintles and anchor bolts shall be fabricated and set in accordance with Art. 51.15 of the Standard Specifications and are included in quantity of Structural Steel. Estimated Weight - 6170 Lbs.

Anchor Bolts shall be set before riveting diaphragms over supports.

Expansion guards shall be fabricated and erected in accordance with Art. 51.13(d) of the Standard Specifications.

Expansion guards are included in quantity of Structural Steel. Estimated Weight 1670 Lbs.

Except as otherwise provided, all Structural Steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Arts. 56.1 to 56.5 inclusive of the Standard Specifications.

The Contractor shall drive three test piles in permanent locations as directed by the Engineer before ordering remainder of piles: one Concrete test pile in the West Abutment, one timber test pile in Pier 1 and one Steel test pile in the East Abutment.

Structural Carbon Steel A.313, Designation A-36 shall be used in beams and splice plates.

Outside vertical faces of Expansion Guard Angles shall be given two shop coats of red lead paint.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER.	SUB.	TOTAL
Earth Excavation	Cu.Yds.			66538
Class-A Excavation for Struct.	Cu.Yds.			72
Class-B Excavation for Struct.	Cu.Yds.			253
Structural Steel	Lbs.	158060		158060
Class-X Concrete	Cu.Yds.	158.5	247	373.2
Metal Handrail	Lin.Ft.			343
Reinforcement Bars	Lbs.	29330	18330	47660
Untreated Piles	Lin.Ft.			2200
Cresoted Piles	Lin.Ft.			240
Test Piles, Timber	Each			1
Concrete Piles	Lin.Ft.			150
Test Piles, Concrete	Each			1
Steel Piles, 8 BP 36	Lin.Ft.			330
Test Piles, Steel	Each			1
Name Plates	Each			1
Slope Wall - 6'	Sq.Yds.			1600

WATERWAY INFORMATION

Drainage Area 3000 Acres
Character Hilly
Reg'd. Opening (25 Yr. Flood) 432 Sq. Ft.
Present Opening
Proposed Opening 500 Sq. Ft.

DESIGN STRESSES

fc - - - - 1400 #/sq. Super. & Sub.
vc - - - - 75 #/sq. Figs.
fs - - - - 20000 #/sq. Reinf.
fs - - - - 20000 #/sq. Struct. (A-36)
n - - - - 10

DESIGNED *Edmond*
CHECKED *Walter Perry*
DRAWN *M. Miller*
CHECKED *wfp*

APR 17 1961
EXAMINED *W.E. Bannerman*
PASSED *Edmond*
APPROVED *Edmond*
CHIEF HIGHWAY ENGINEER

STATION 427+52
WOLF CREEK
BUILT 196
F.A.S. RT. 910
F.A. PROJ. 5-78(3)
LOADING H20-316

LETTERING FOR NAME PLATE
See Standard 213

**GENERAL PLAN & ELEVATION
OVER WOLF CREEK
F.A.S. RT. 910-SEC. 41B
F.A. PROJ. 5-78(3)
WILLIAMSON COUNTY
STATION 427+52**

Revised 8, 20, 61 in ELEVATION changed quantities of Embankment from 1680 Cu.Yds. to 8386 Cu.Yds.
(W. Abut. 4710 Cu.Yds. to 4706 Cu.Yds. (East Abut.) Borrow Exc. changed to Earth Exc.
& quantities from 200 Cu.Yds. to 10062 Cu.Yds. (Mid-Abut.) & from 2710 Cu.Yds. to 8476 Cu.Yds. (East Abut.)

Final plan of East Abut. bearing structure was changed from 100' to 124' in 1961. In 1961, Bill of Materials, Item 15000 Excavation 6710 Cu.Yds. changed to 2479 Excavation 6710 Cu.Yds. Item 15000

MODEL: SMOELNAMES
FILE NAME: SFILES



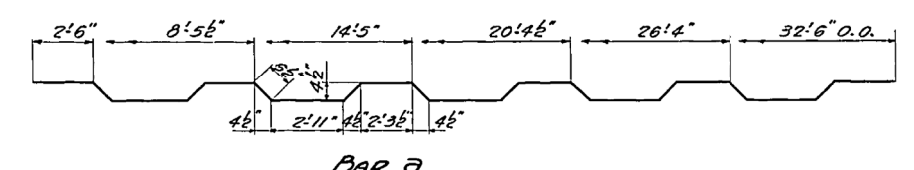
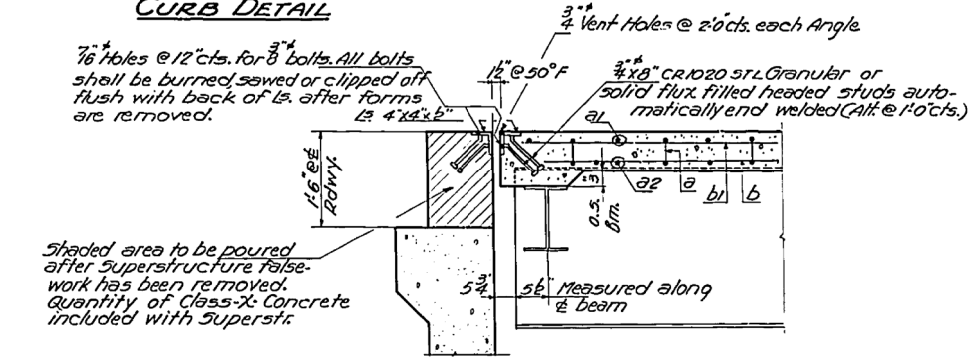
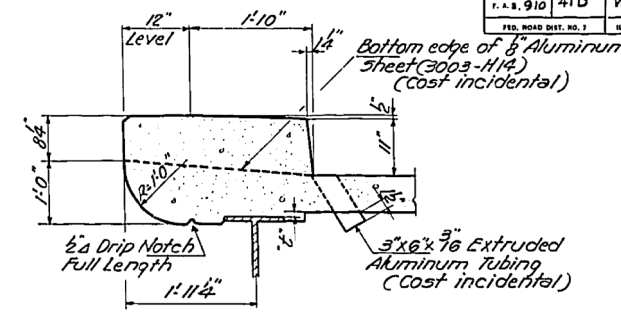
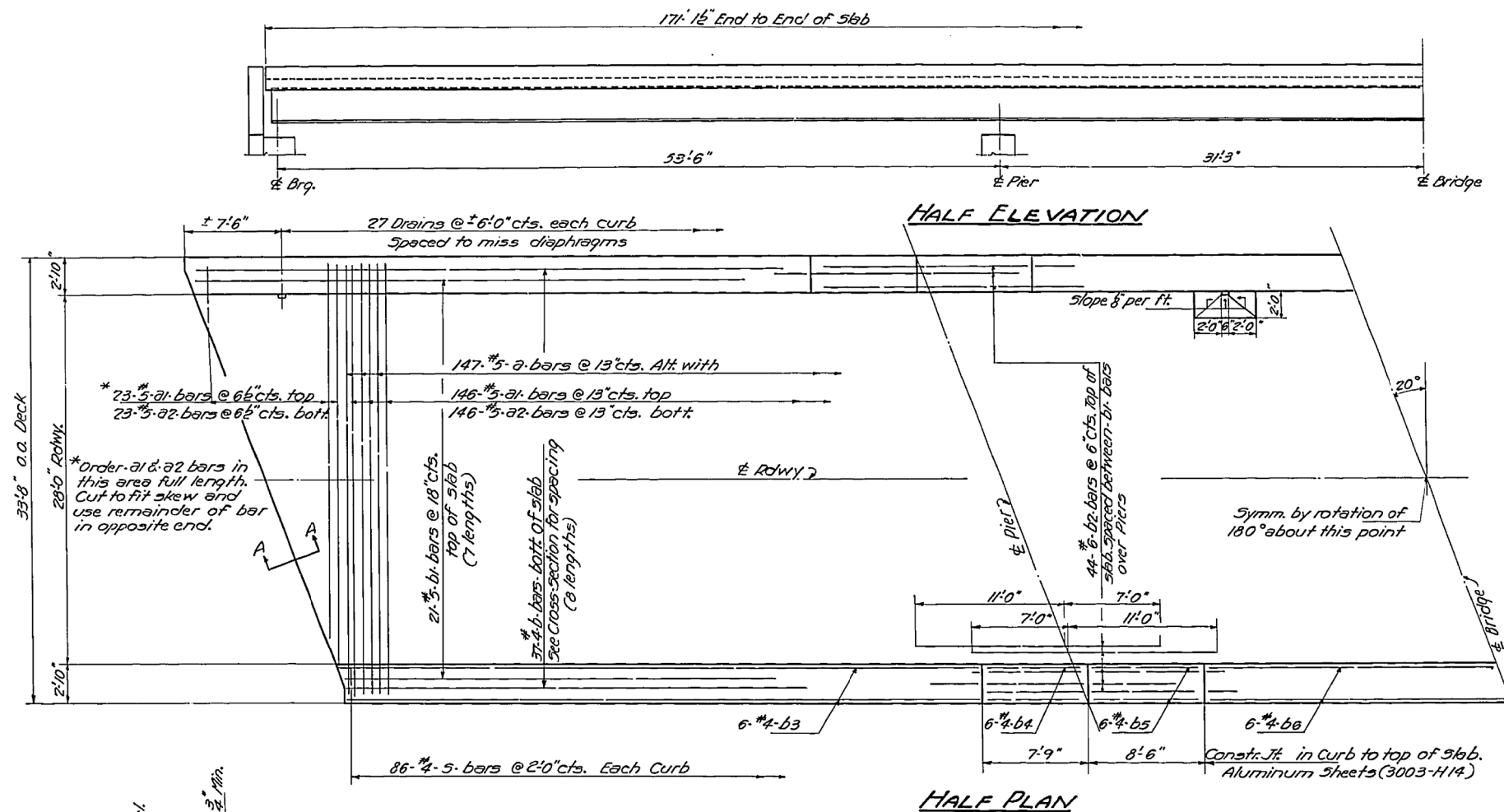
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PLOT SCALE =	CHECKED -	REVISOR -
PLOT DATE =	DRAWN -	REVISOR -
	CHECKED -	REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS

SHEET 33 OF 36 SHEETS

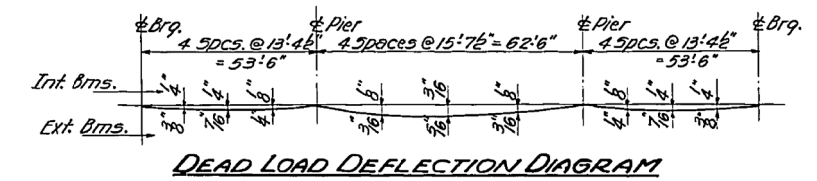
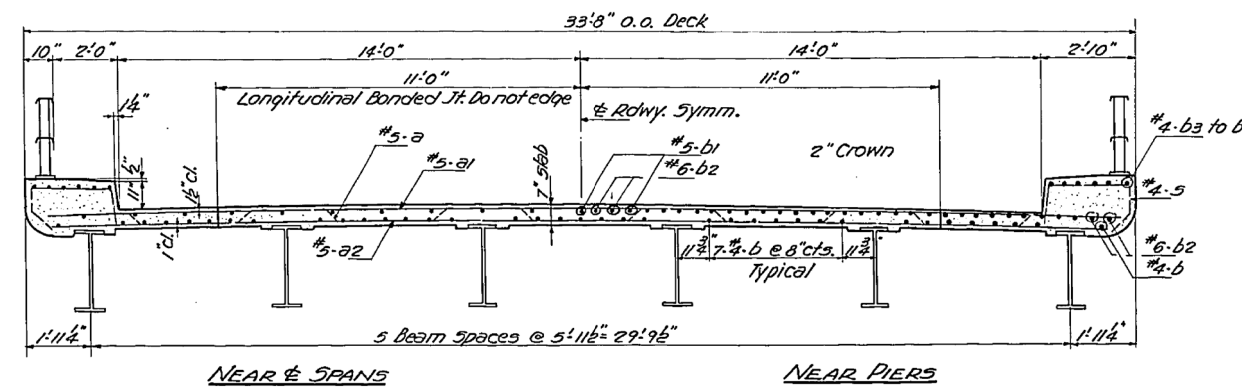
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	54
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				



BILL OF MATERIAL

BAR	No.	SIZE	LENGTH	SHAPE
a	147	#5	34' 2"	—
a1	169	#5	32' 6"	—
a2	169	#5	31' 9"	—
b	296	#4	22' 0"	—
b1	147	#5	25' 3"	—
b2	88	#6	18' 0"	—
b3	48	#4	23' 9"	—
b4	24	#4	7' 6"	—
b5	24	#4	8' 3"	—
b6	24	#4	23' 0"	—
5	172	#4	5' 3"	□
Class-X Concrete			Cu. Yds.	1570
Reinforcement Bars			Lbs.	29200
Structural Steel			Lbs.	158060

METHOD OF DETERMINING FILLET HEIGHT "c"
After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals not to exceed 10 ft. from these elevations subtract the increment of deflection for these points, determined from the D.L. deflection diagram. The elevations so obtained subtracted from the theoretical grade elevations, minus floor thickness, equals the fillet heights above top of beam.

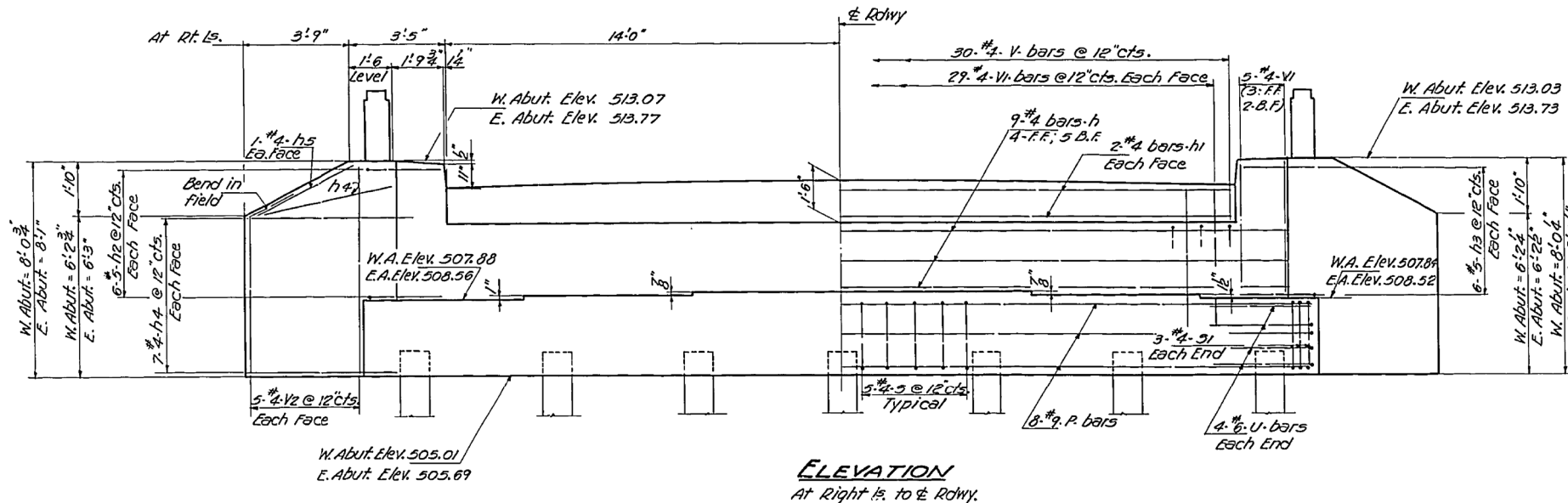


SUPERSTRUCTURE
F.A.S. RT. 910-SEC. 41B
WILLIAMSON COUNTY
STATION 427+52

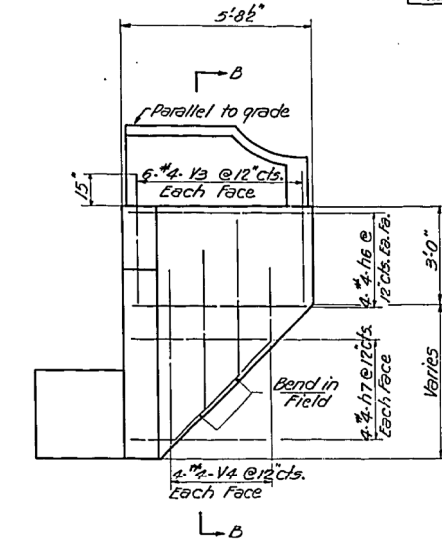
DESIGNED: *W. A. Atkinson*
CHECKED: *Walter Perry*
DRAWN: *M. Miller*
CHECKED: *W.P.*

EXAMINED: *M. E. Baumann*
PASSED: *[Signature]*
APPROVED: *[Signature]*

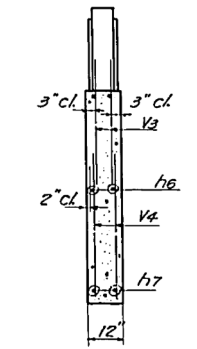
APR 17 1961



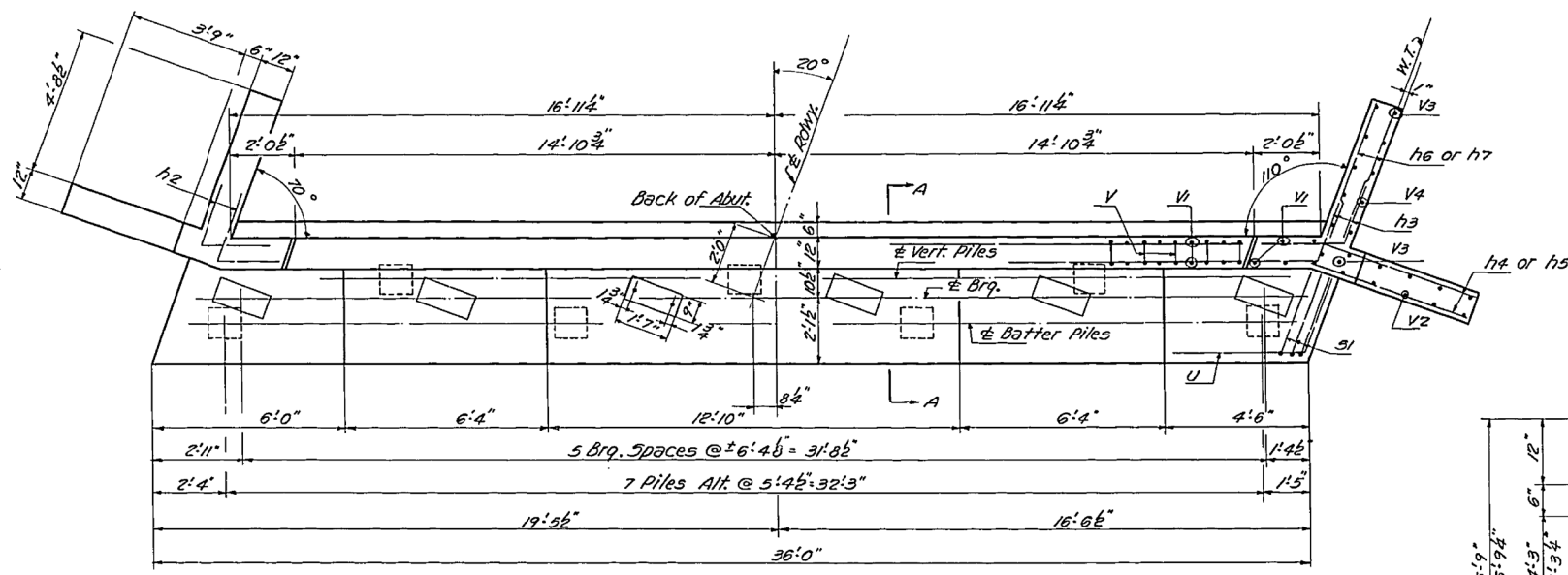
ELEVATION
At Right B. to & RWY.



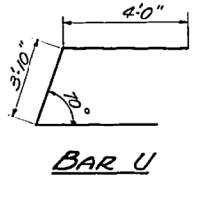
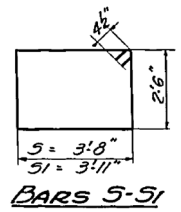
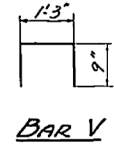
ELEVATION OF WING



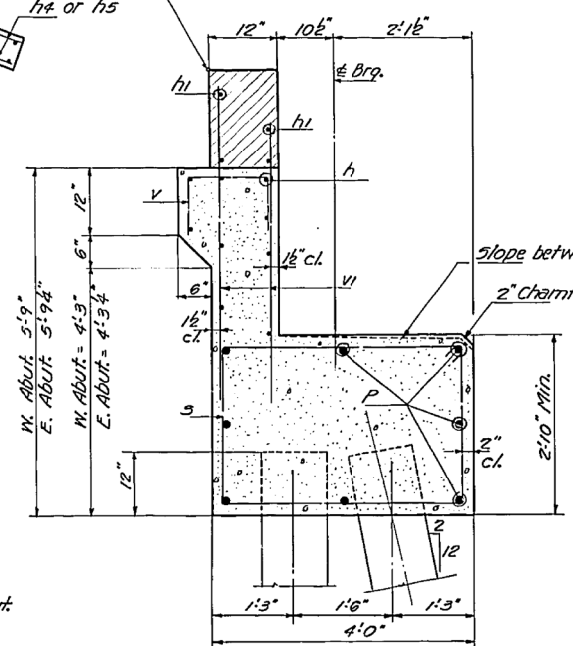
SECTION B-B



PLAN-W. ABUTMENT
East Abutment Opposite Hand



Back W. Abut. Cr. Elev. 512.26
Back E. Abut. Cr. Elev. 512.96



SECTION A-A

BILL OF MATERIAL- 2 ABUTS.

Bar	No.	SIZE	LENGTH	SHAPE
h	36	#4	18'-3"	—
h1	16	#4	13'-3"	—
h2	24	#5	4'-0"	L
h3	24	#5	4'-0"	J
h4	64	#4	5'-3"	—
h5	8	#4	4'-0"	—
h6	32	#4	5'-0"	—
h7	32	#4	4'-3"	—
P	16	#9	35'-6"	—
V	60	#4	2'-9"	U
V1	136	#4	5'-0"	—
V2	40	#4	7'-9"	—
V3	48	#4	4'-3"	—
V4	32	#4	6'-0"	—
S	60	#4	13'-1"	—
S1	12	#4	13'-7"	—
U	16	#6	11'-10"	L
Class-X Concrete			Cu. Yds.	49.3
Reinforcement Bars			Lbs.	5120
Concrete Piles			Lin. Ft.	150
Test Piles, Concrete			Each	1
Steel Piles, 8 B P 36			Lin. Ft.	330
Test Piles, Steel			Each	1

ABUTMENTS
F.A.S. RT. 910-SEC. 41B
WILLIAMSON COUNTY
STATION 427+52

DESIGNED: *W. J. Miller*
CHECKED: *Walter Perry*
DRAWN: *W. J. Miller*
CHECKED: *W.P.*

EXAMINED: *W.E. Bannerman*
PASSED: *W.E. Bannerman*
APPROVED: *R.H. Bannerman*

APR 17 1961

PILE DATA

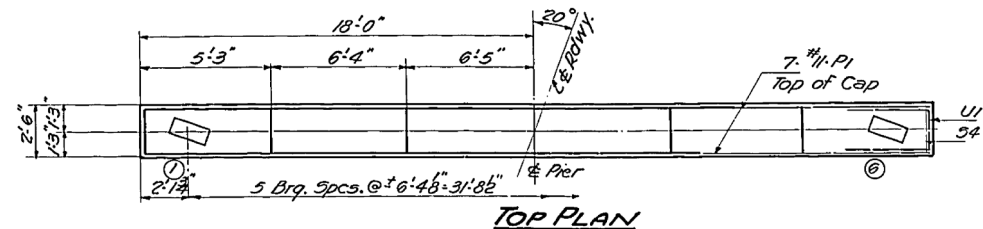
Type	W. Abut.	E. Abut.
Capacity	25 Tons	25 Tons
Estimated Length	25 Ft.	55 Ft.
No. Piles	7	7

Includes 1 Test Pile Each Abut.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

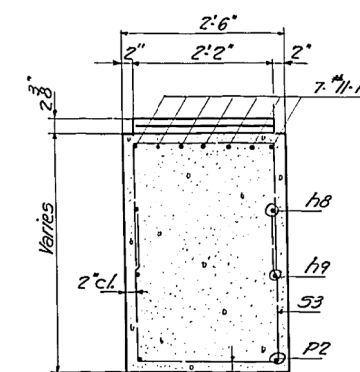
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
910	41B	WILLIAMSON	37	20
F.A.S. 910		SHEET NO. 9 SHEETS		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

± Pier 1 Station 427+20.75
Cr. Elevation 512.48
± Pier 2 Station 427+83.25
Cr. Elevation 512.74

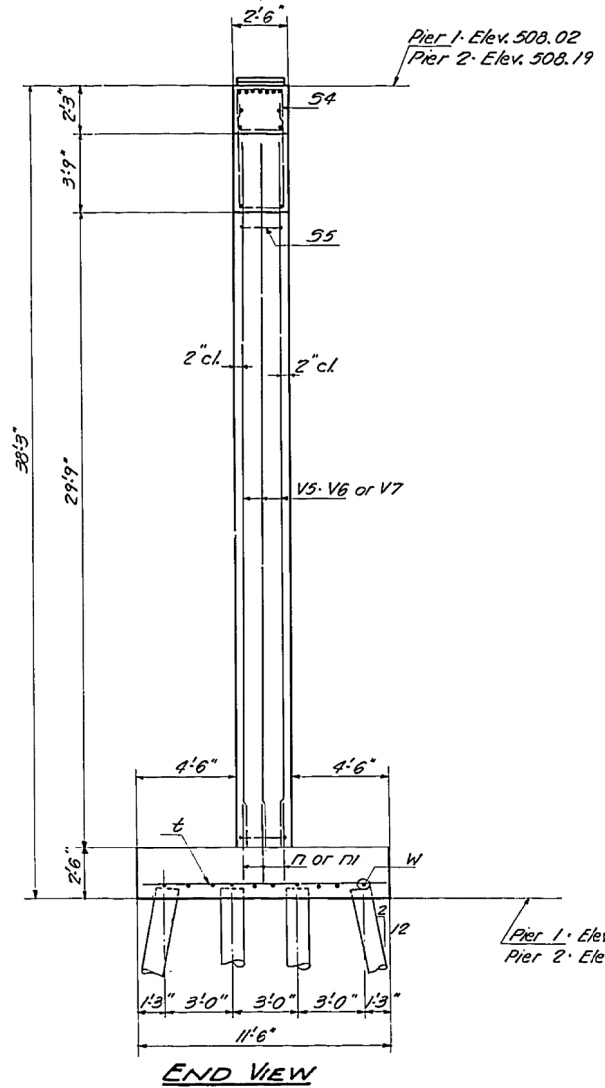


TOP PLAN

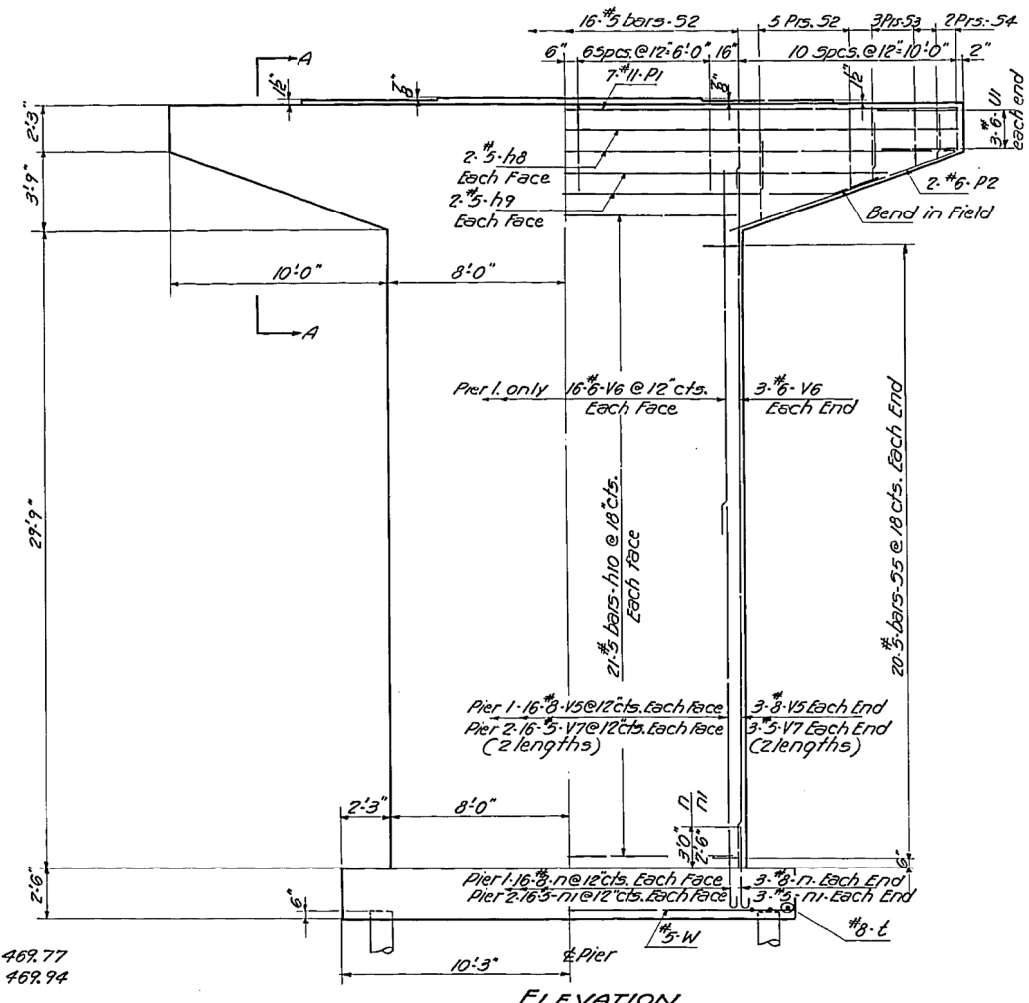
Note: All edges shall have standard 3/4" chamfers except footings



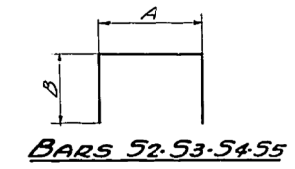
SECTION A-A



END VIEW

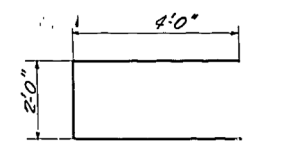


ELEVATION

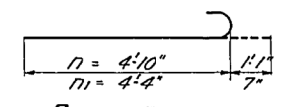


BARS 52-53-54-55

Bar	A	B
52	2'-2"	3'-9"
53	2'-2"	2'-9"
54	2'-2"	2'-1"
55	2'-2"	1'-6"



BAR UI



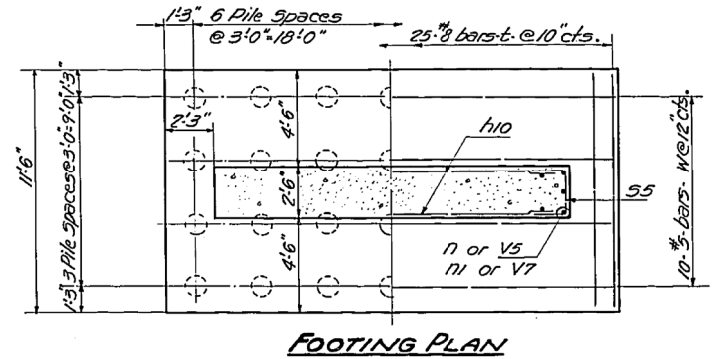
BARS 11-111

PILE DATA
Type Untreated
Capacity 20 Tons
Estimated Length 40 Ft.
No. Req'd. 56 (Two Piers)
Includes 1 test pile

BILL OF MATERIAL - 2 PIERS

BAR	NO.	SIZE	LENGTH	SHAPE
h8	16	#5	18'-6"	—
h9	16	#5	15'-0"	—
h10	84	#5	15'-6"	—
n	38	#8	5'-11"	U
n1	38	#5	4'-11"	U
P1	14	#11	35'-9"	—
P2	8	#6	11'-6"	—
52	72	#5	9'-8"	□
53	24	#5	7'-8"	□
54	16	#5	6'-5"	□
55	80	#5	5'-2"	□
t	50	#8	11'-3"	—
UI	12	#6	10'-0"	□
V5	38	#8	17'-6"	—
V6	38	#6	17'-6"	—
V7	76	#5	17'-3"	—
W	20	#5	20'-3"	—

Class-X Concrete	Cu. Yds.	165.4
Reinforcement Bars	Lbs.	13210
Untreated Piles	Lin. Ft.	2200
Test Piles - Timber	Each	1



FOOTING PLAN

DESIGNED: *D. Cabnell*
CHECKED: *Walter Perry*
DRAWN: *M. Miller*
CHECKED: *W.P.*

EXAMINED: *N.G. Blumstein*
PASSED: *E. Blumstein*
APPROVED: *R.R. Baetzmann*
CHIEF HIGHWAY ENGINEER

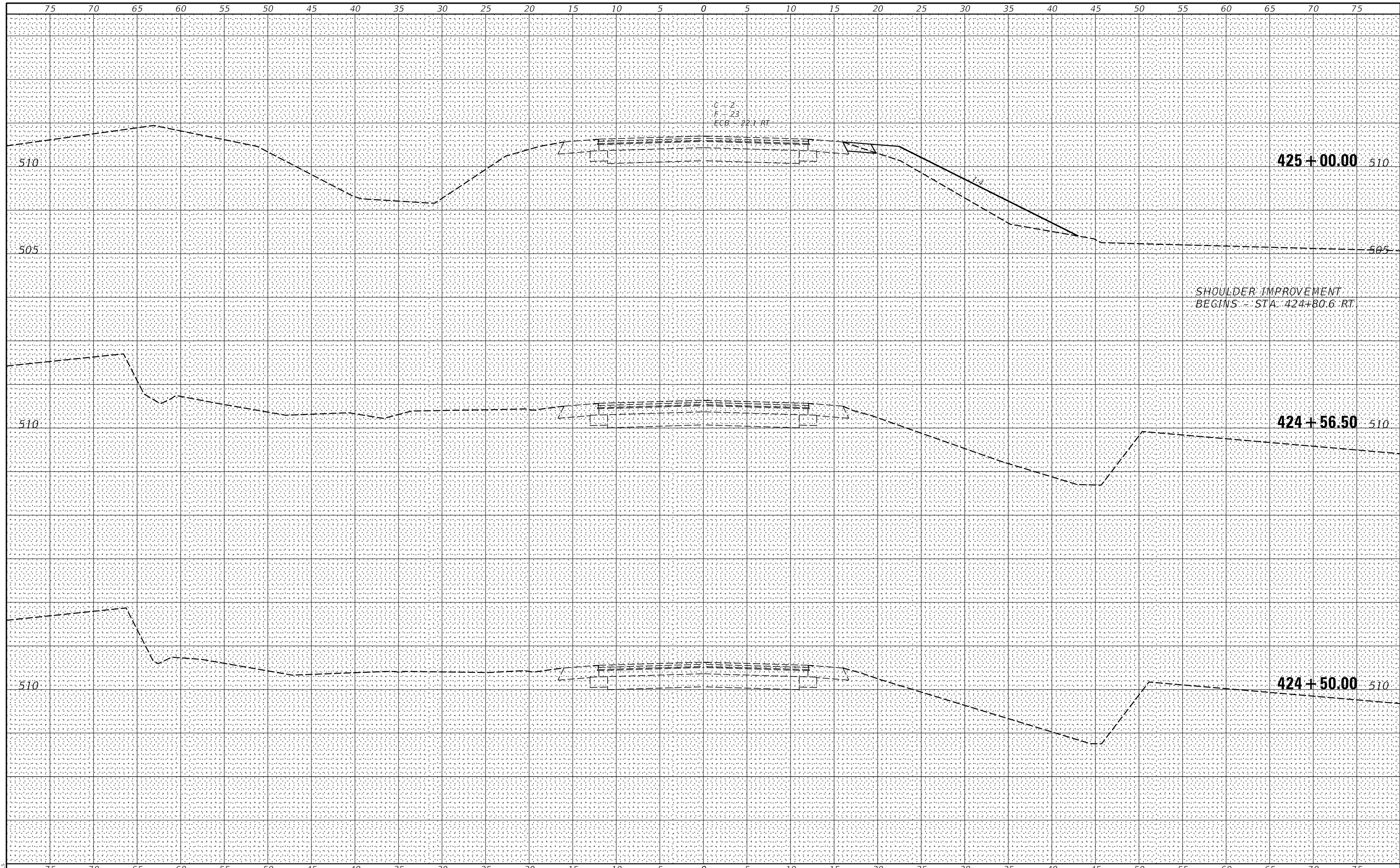
APR 17 1961

PIERS
F.A.S. R. 910-SEC. 41B
WILLIAMSON COUNTY
STATION 427+52

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

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

MODEL: \$MODELNAME\$
FILE NAME: \$FILES\$



SHOULDER IMPROVEMENT
BEGINS - STA. 424+80.6 RT.

C-2
F-23
ECB - 22.1 RT

USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTION

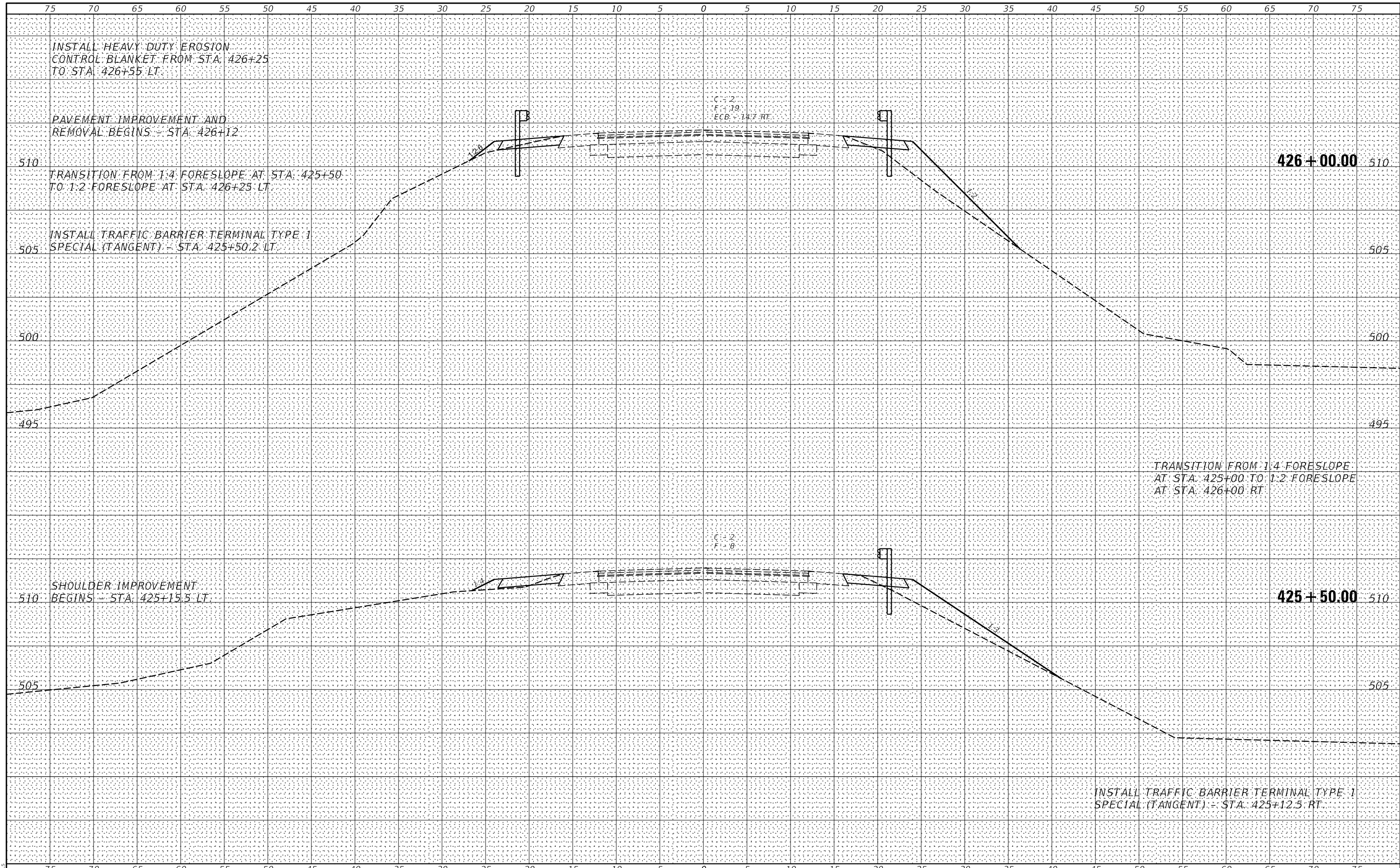
SCALE: _____ SHEET 1 OF 15 SHEETS STA. 424+50.00 TO STA. 425+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	58
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINISHED SURVEY	
NOTED SURVEY	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	

DATE	
BY	
FINISHED SURVEY	
NOTED SURVEY	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	
NO.	

MODEL: SPODELMAMES
FILE NAME: SP1EES



USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTION

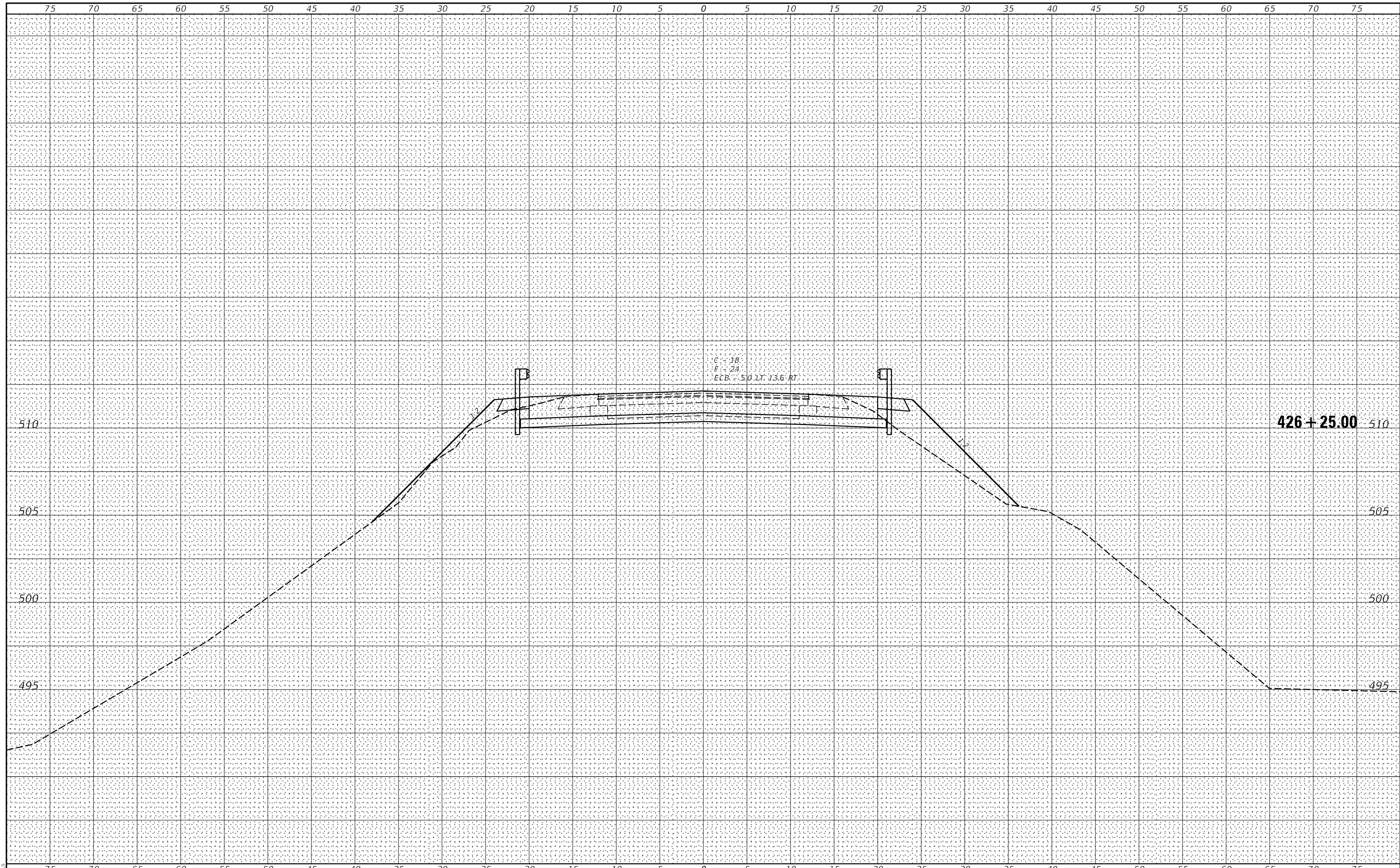
SCALE: _____ SHEET 2 OF 15 SHEETS STA. 425+50.00 TO STA. 426+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	59
			CONTRACT NO. 78506	
			ILLINOIS FED. AID PROJECT	

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

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

MODEL: \$MODELNAME\$
FILE NAME: \$FILES\$



USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$\$SCALE\$	CHECKED - _____	REVISED - _____
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTION

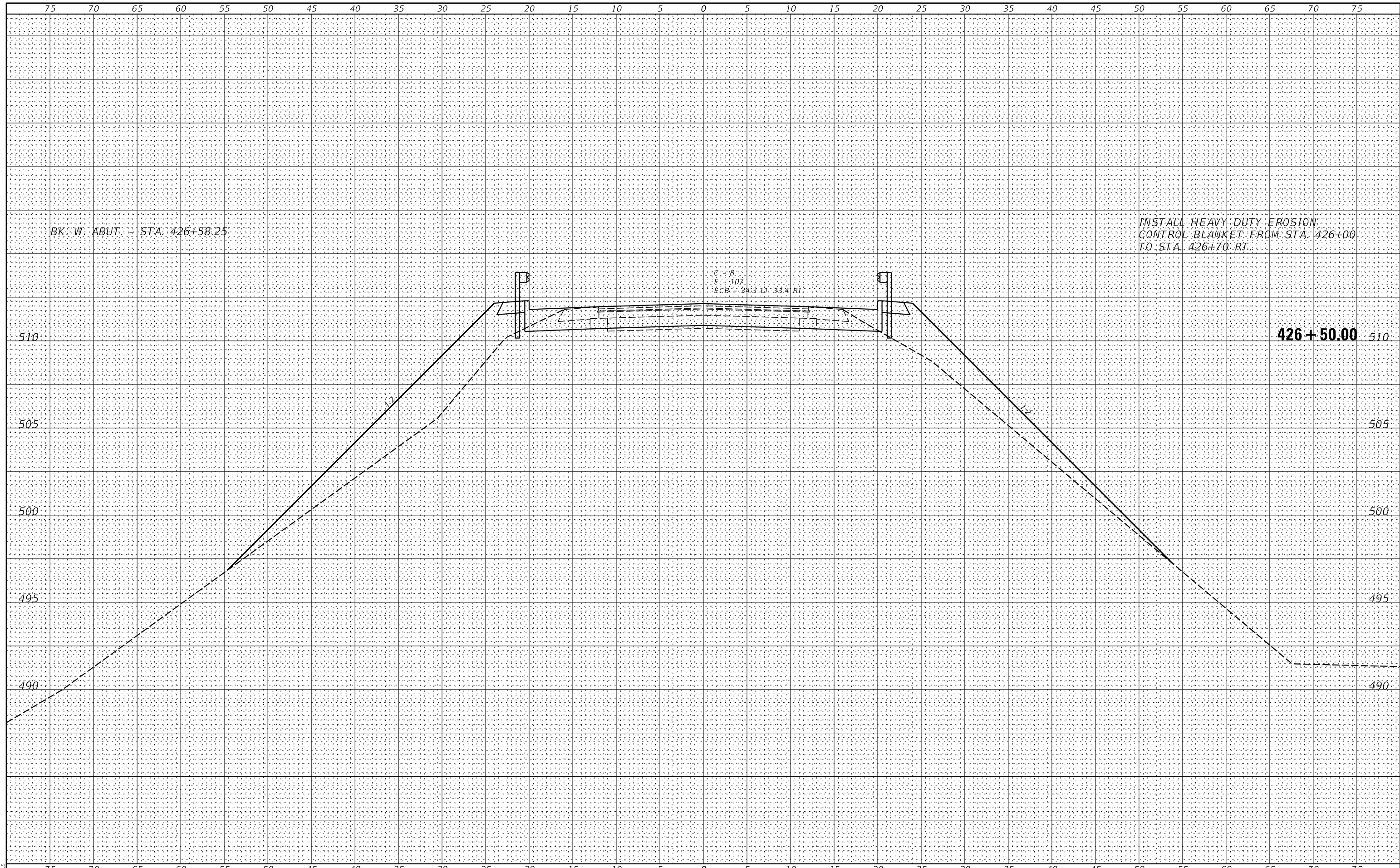
SCALE: _____ SHEET 3 OF 15 SHEETS STA. 426+25.00 TO STA. 426+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	60
CONTRACT NO. 78506				
ILLINOIS		FED. AID PROJECT		

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

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

MODEL: SPODELMAMES
FILE NAME: SP1EES



USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTION

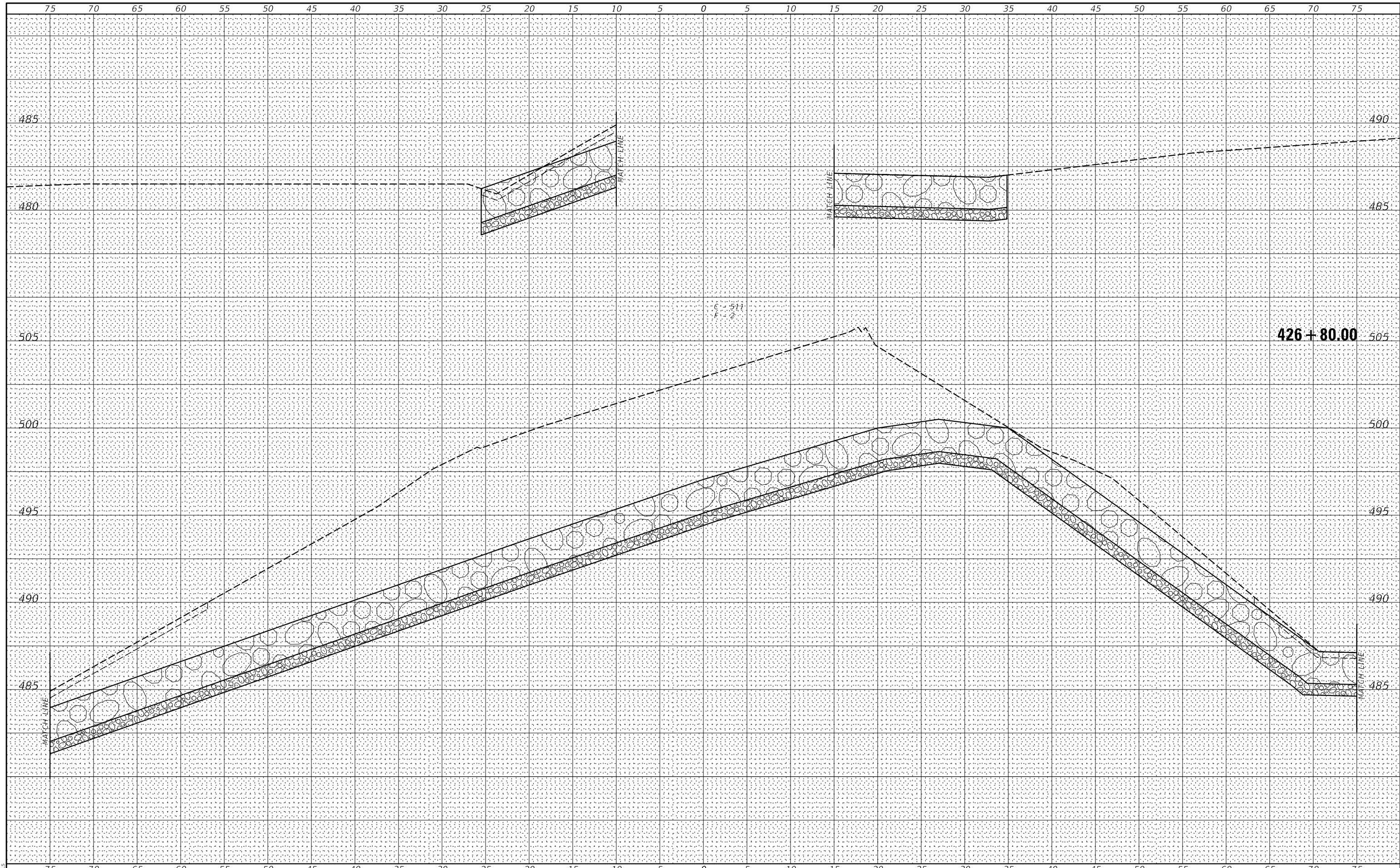
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	61
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

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

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

MODEL: S:\MODEL\MAMES
FILE NAME: SP185



USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTION

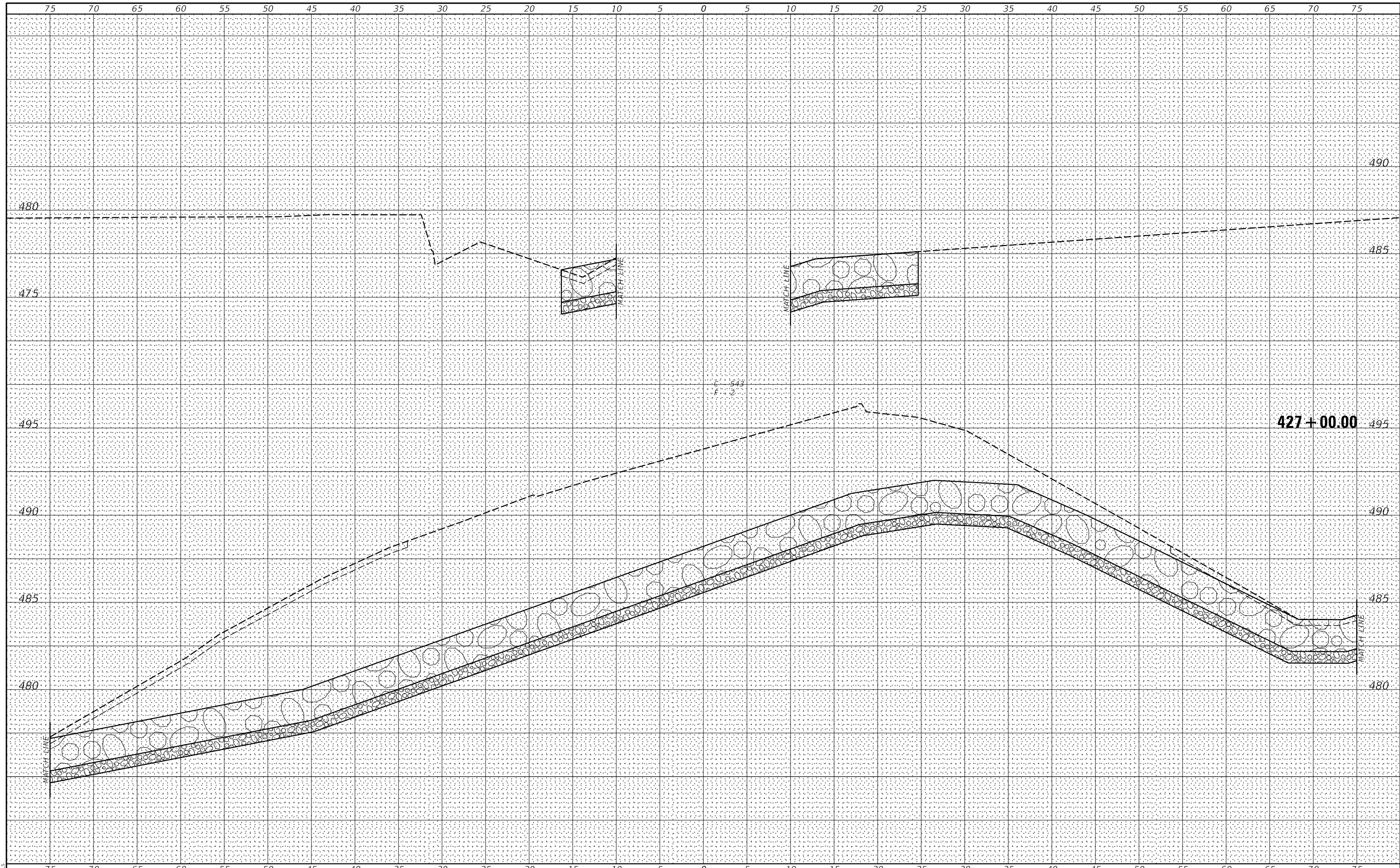
SCALE: _____ SHEET 5 OF 15 SHEETS STA. 426+80.00 TO STA. 426+80.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	62
CONTRACT NO. 78506				
ILLINOIS		FED. AID PROJECT		

BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE
BY	DATE

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

MODEL: \$MODELNAME\$
FILE NAME: \$FILES\$



USER NAME = \$USERS\$	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTION

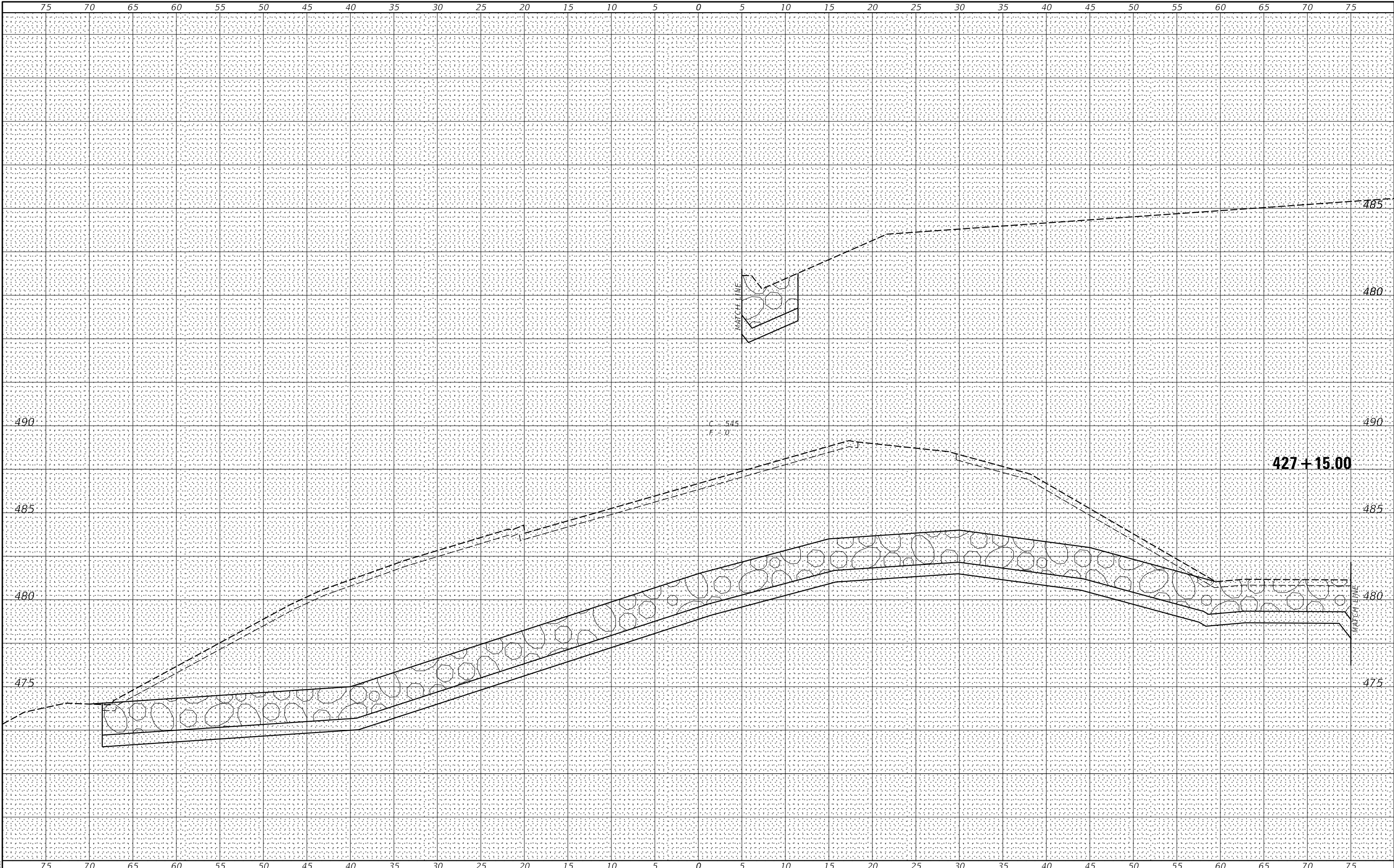
SCALE: _____ SHEET 6 OF 15 SHEETS STA. 427+00.00 TO STA. 427+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	63
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

BY	DATE
FINISH SURVEY	SURVEYED
NOTE BOOK	PLOTTED
	TEMPLATE
	AREAS
	CHECKED

BY	DATE
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
	TEMPLATE
	AREAS
	CHECKED



USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTION

SCALE: _____ SHEET 7 OF 15 SHEETS STA. 427+15.00 TO STA. 427+15.00

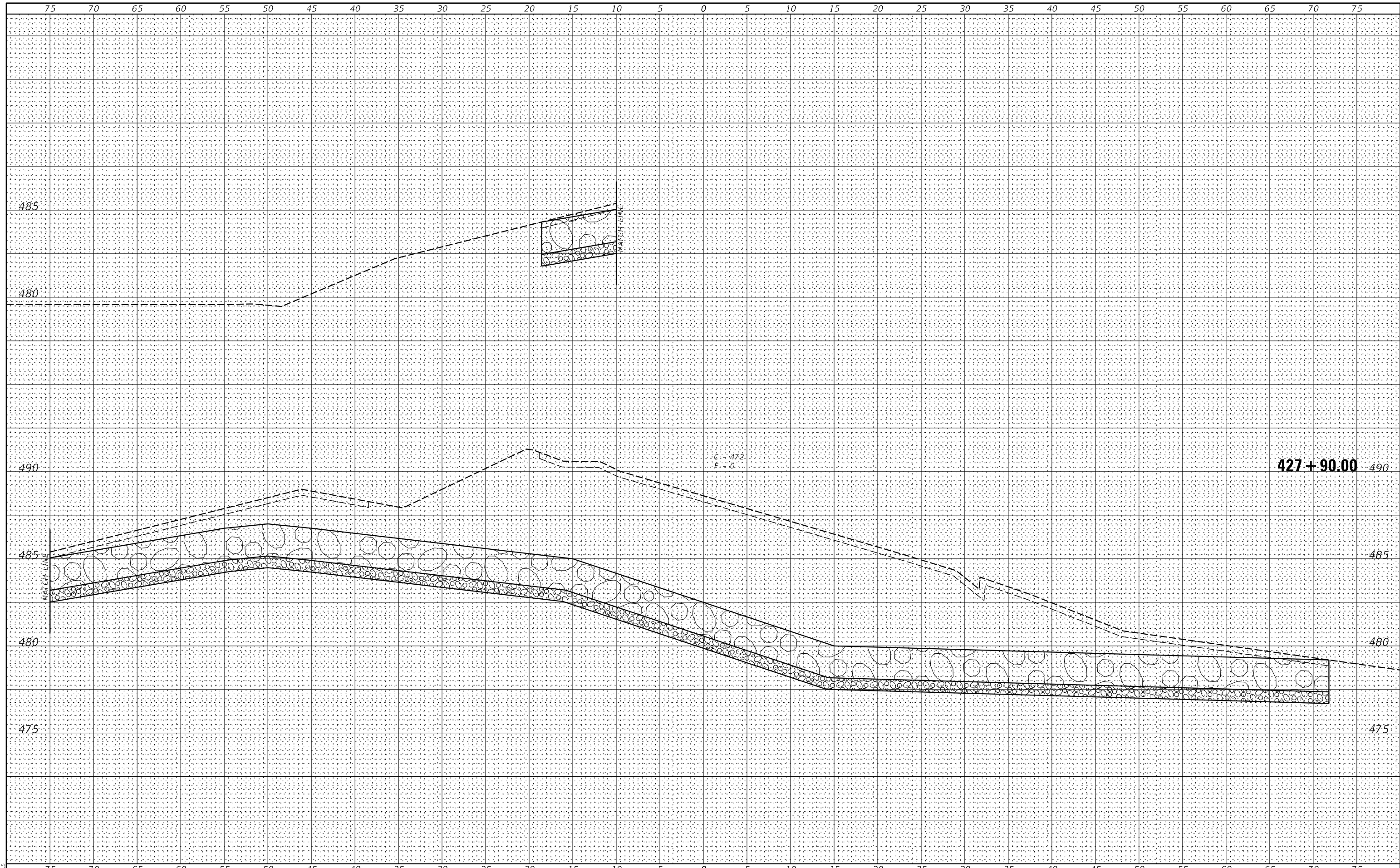
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	64
CONTRACT NO. 78506				
		ILLINOIS FED. AID PROJECT		

MODEL: \$MODELNAME\$ FILE NAME: \$FILES\$

BY	DATE

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	
	TEMPLATE	
	AREAS	
	CHECKED	

MODEL: S:\MODEL\MAMES
FILE NAME: SP1EES



USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

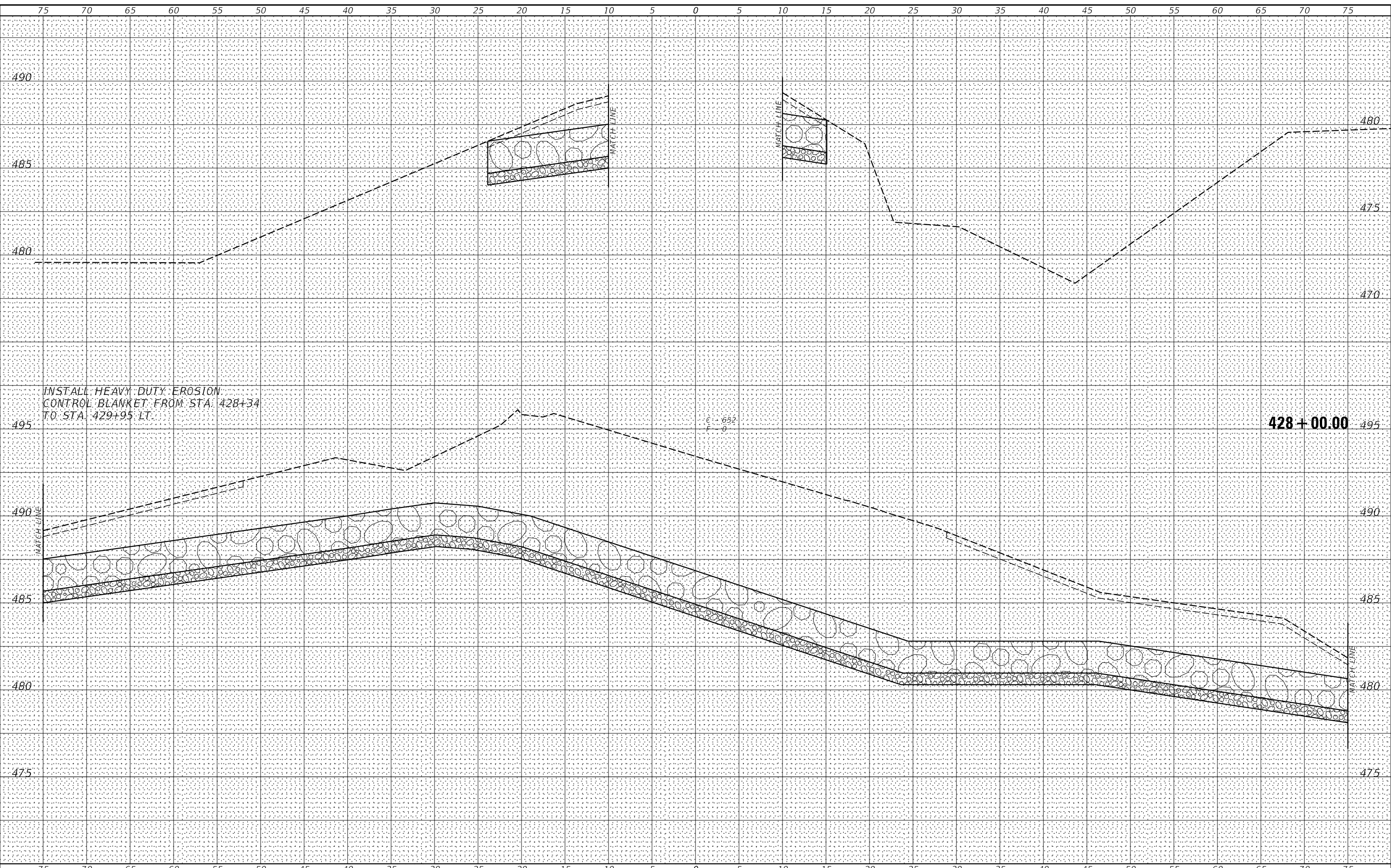
CROSS SECTION

SCALE: _____ SHEET 8 OF 15 SHEETS STA. 427+90.00 TO STA. 427+90.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	65
CONTRACT NO. 78506				
ILLINOIS	FED. AID PROJECT			

FINAL	SURVEYED	PLOTTED	DATE
NO.	AREAS CHECKED		

ORIGINAL	SURVEYED	PLOTTED	DATE
NO.	AREAS CHECKED		



75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	DRAWN - _____	REVISED - _____
PLOT DATE = \$DATE\$	CHECKED - _____	REVISED - _____
	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	66

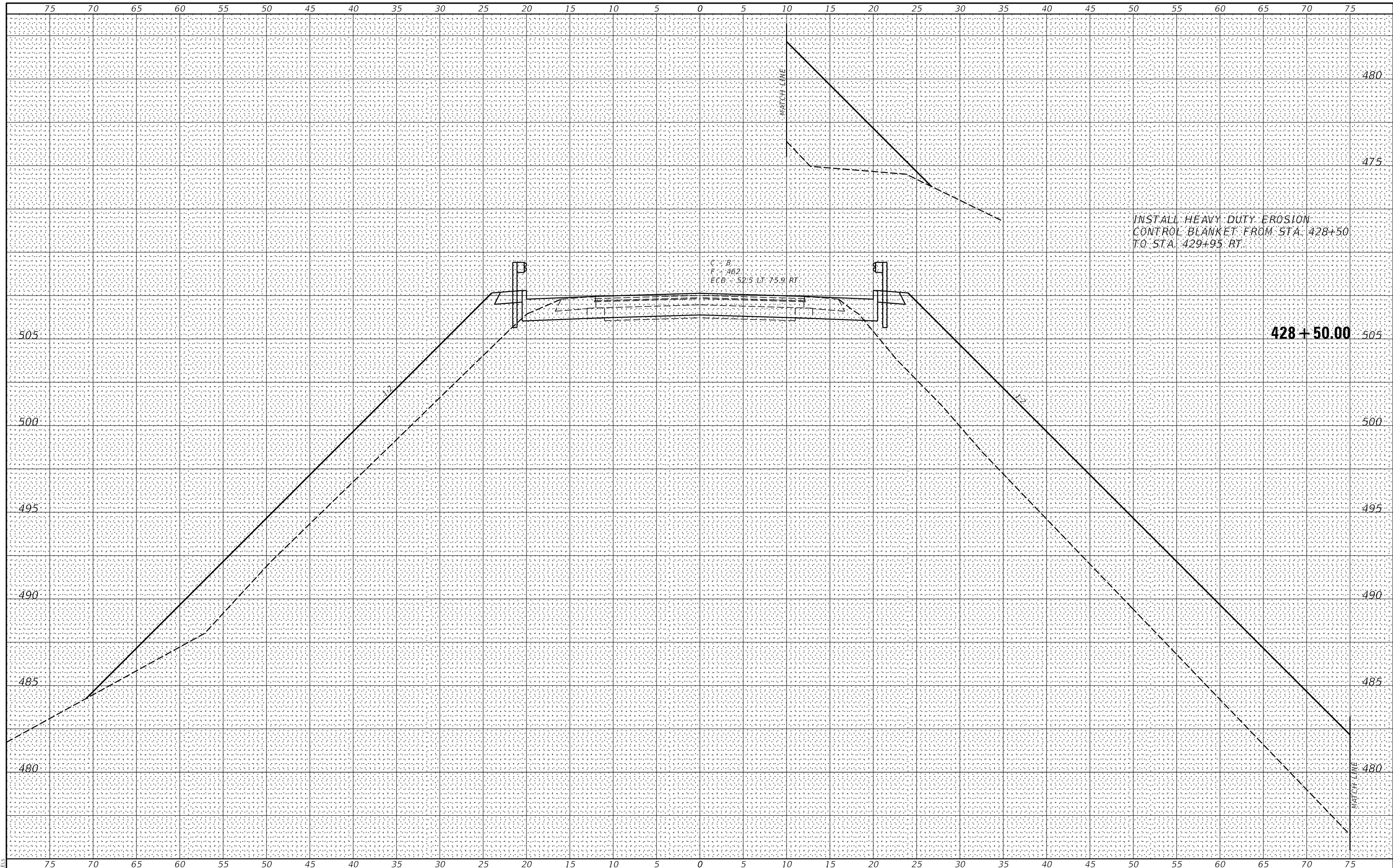
CONTRACT NO. 78506

MODEL: \$MODELNAME\$
FILE NAME: \$FILES\$

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

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

MODEL: SPODELIMAGES
FILE NAME: SFILES



USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

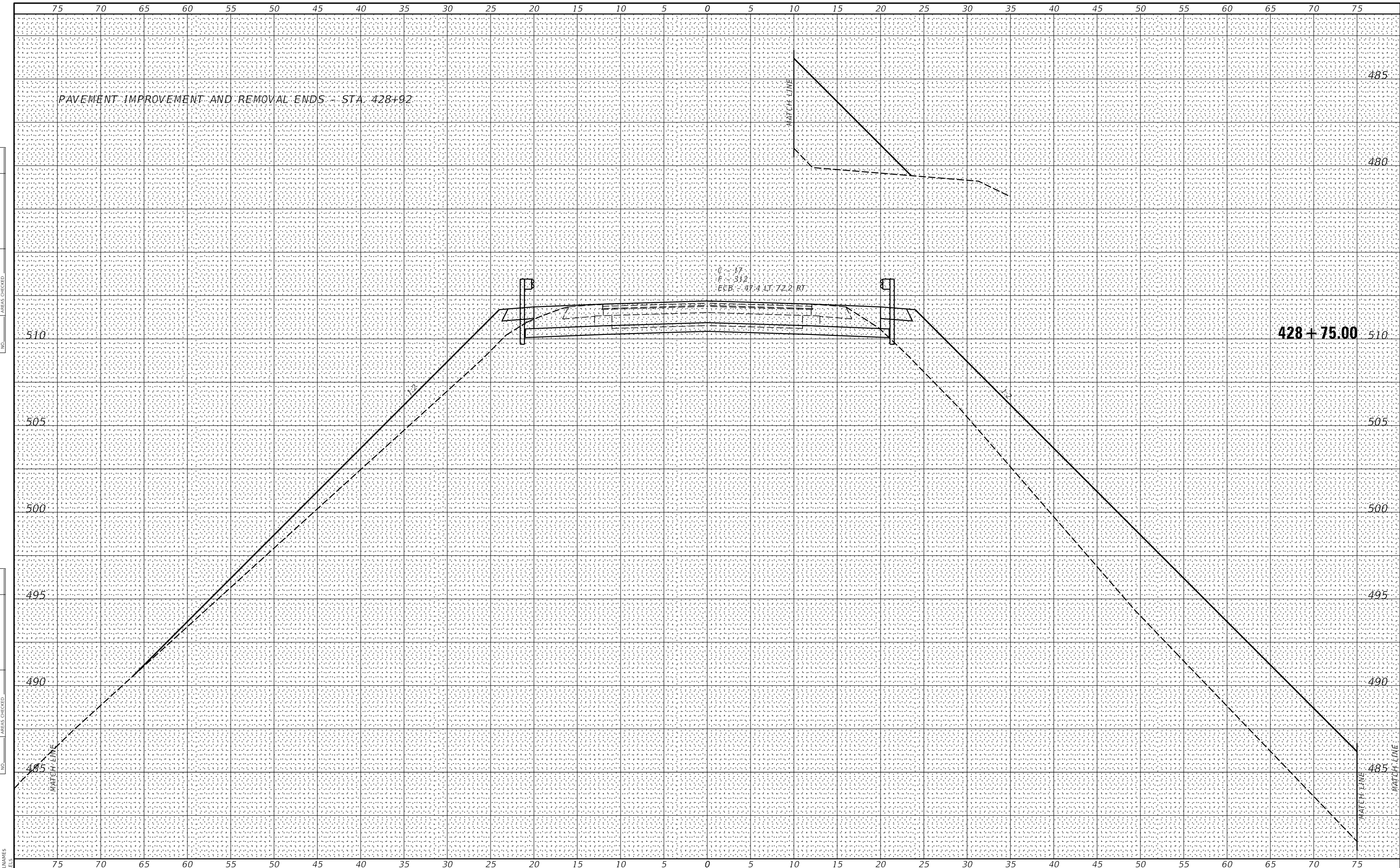
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTION	
SCALE: _____	SHEET 10 OF 15 SHEETS
STA. 428+50.00	TO STA. 428+50.00

F.A.P. RTE. 726	SECTION 41B-2	COUNTY WILLIAMSON	TOTAL SHEETS 72	SHEET NO. 67
CONTRACT NO. 78506				ILLINOIS FED. AID PROJECT

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



G = 17
 F = 312
 ECB = 47.4 LT. 72.2 RT.

MODEL	SP0DELMMMS
FILE NAME	SP0LES

USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

CROSS SECTION

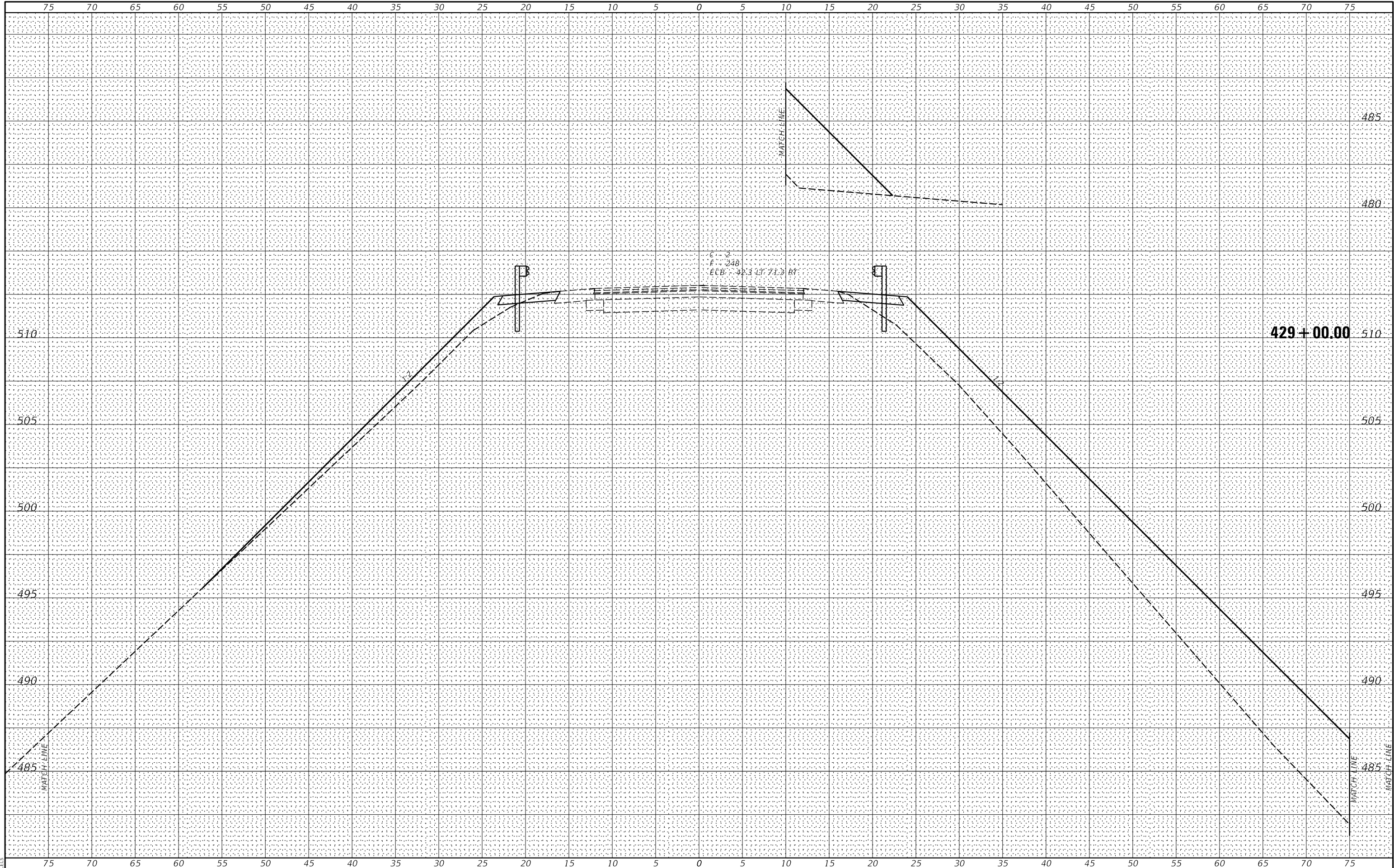
SCALE: _____ SHEET 11 OF 15 SHEETS STA. 428+50.00 TO STA. 428+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	68
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

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

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

MODEL: \$MODELNAME\$
FILE NAME: \$FILES\$



USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTION

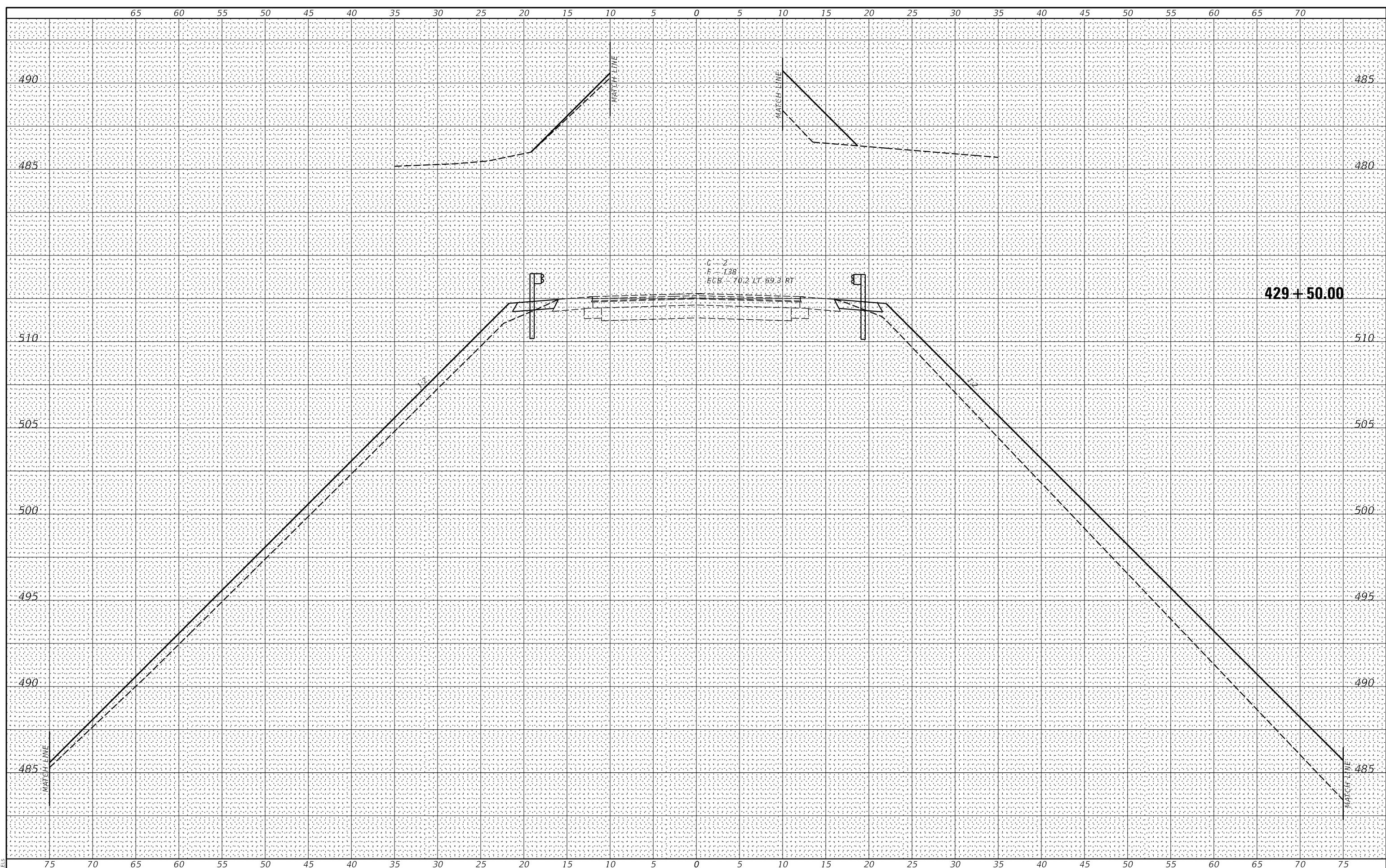
SCALE: _____ SHEET 12 OF 15 SHEETS STA. 428+50.00 TO STA. 428+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	69
CONTRACT NO. 78506				
ILLINOIS FED. AID PROJECT				

DATE	BY

DATE	BY

MODEL: SPODELMAMES
FILE NAME: SFILES



USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTION

SCALE: _____ SHEET 13 OF 15 SHEETS STA. 428+75.00 TO STA. 429+00.00

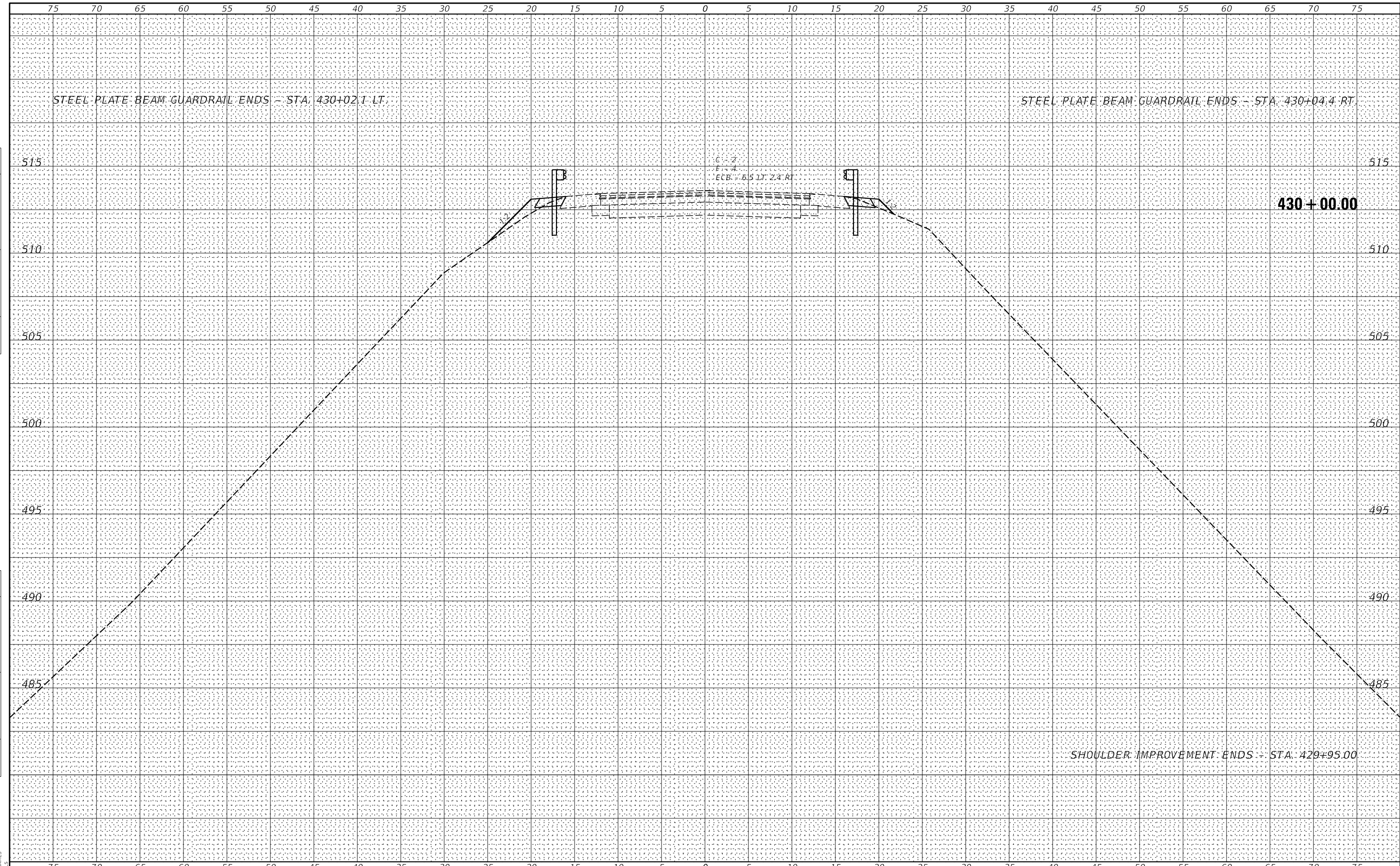
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	70
CONTRACT NO. 78506				

429+50.00

C = 2
E = 138
ECB = 70:2 LT 60:3 RT

DATE	BY

DATE	BY



MODEL: \$MODELNAME\$
 FILE NAME: \$FILES\$

USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTION

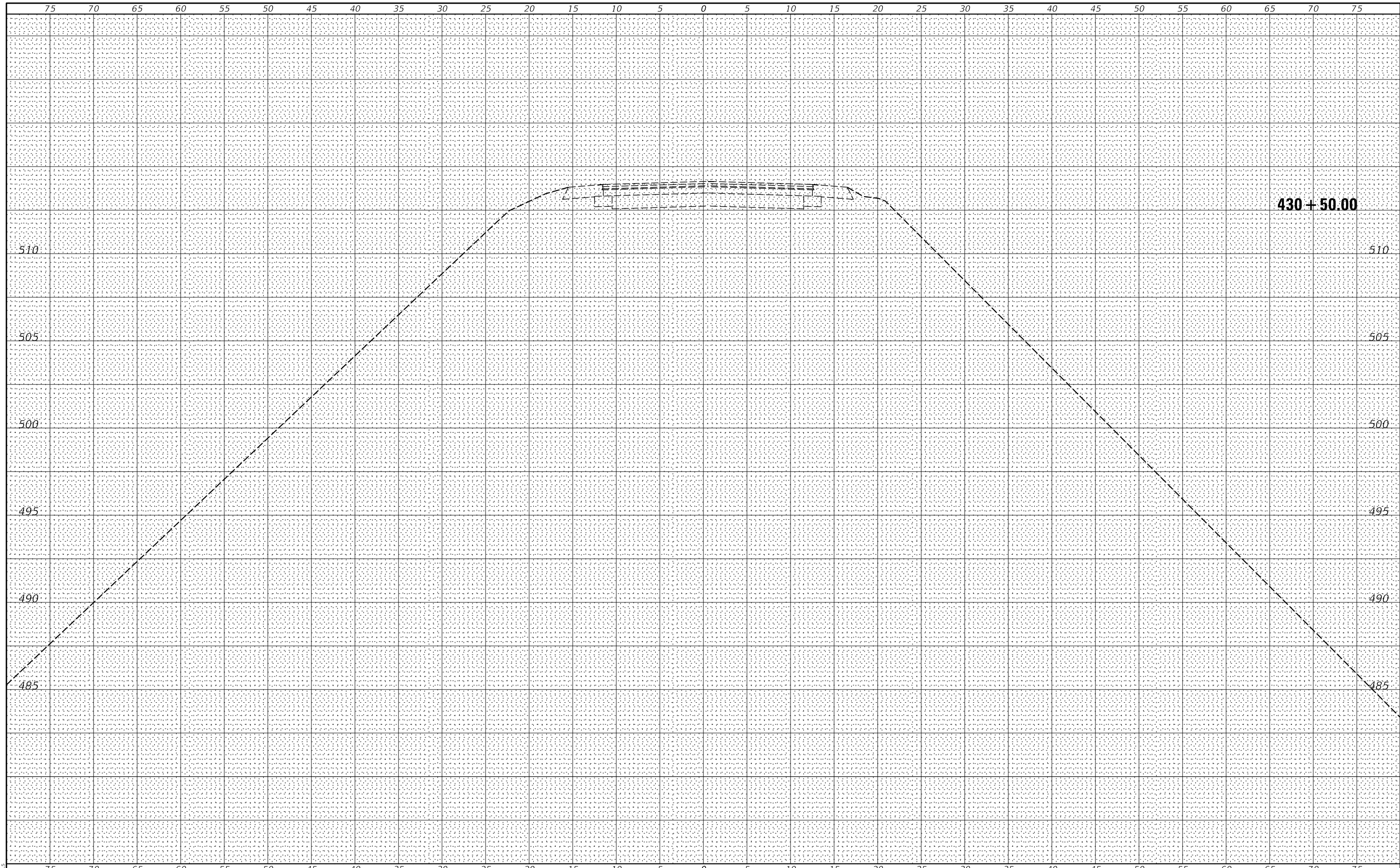
SCALE: _____ SHEET 14 OF 15 SHEETS STA. 429+50.00 TO STA. 430+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	71
CONTRACT NO. 78506				

ILLINOIS FED. AID PROJECT

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

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



MODEL: SPODELIMAMES
FILE NAME: SP1EELS

USER NAME = \$USERS	DESIGNED - _____	REVISED - _____
	DRAWN - _____	REVISED - _____
PLOT SCALE = \$SCALE\$	CHECKED - _____	REVISED - _____
PLOT DATE = \$DATE\$	DATE - _____	REVISED - _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTION

SCALE: _____ SHEET 15 OF 15 SHEETS STA. 430+50.00 TO STA. 430+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	41B-2	WILLIAMSON	72	72
CONTRACT NO. 78506				
ILLINOIS		FED. AID PROJECT		