

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

# PLANS FOR PROPOSED HIGHWAY BRIDGE PROGRAM

PROJECT BROS-173(170)  
T.R. 303 OVER COAL CREEK  
SECTION 09-11118-00-BR  
SHELBY COUNTY  
C-97-123-10

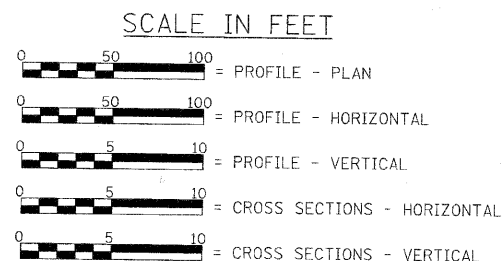
- INDEX OF SHEETS**
- 1 - TITLE SHEET
  - 2 - SUMMARY OF QUANTITIES, DETAILS, & TYPICAL SECTIONS
  - 3 & 4 - PLAN & PROFILE
  - 5 & 6 - GENERAL PLAN & ELEVATION
  - 7 - 10 - SUPERSTRUCTURE
  - 11 - RAILING
  - 12 - ABUTMENTS
  - 13 & 14 - PIERS
  - 15 - STEEL H PILE DETAILS
  - 16 - 22 - CROSS SECTIONS

- STANDARDS**
- STANDARD 000001-05
  - STANDARD 280001-05
  - STANDARD 515001-03
  - STANDARD 701901-01
  - STANDARD BLR 21-8
  - STANDARD 635006-03

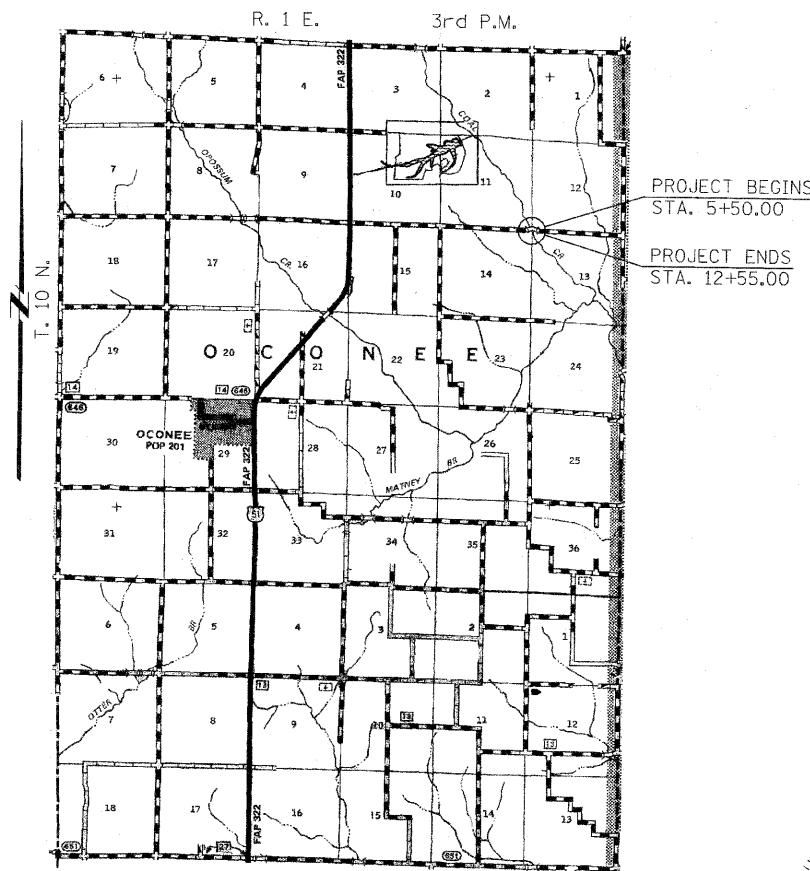
**UTILITIES**

SHELBY ELECTRIC COOPERATIVE  
P.O. BOX 560  
SHELBYVILLE, ILLINOIS 62562

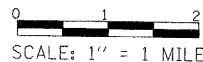
FRONTIER COMMUNICATIONS  
117 WEST JEFFERSON  
MT. PULASKI, IL 62548



FUNCTIONAL CLASSIFICATION: LOCAL ROAD (NON-URBAN)  
A.D.T. - 125 (2009)  
A.D.T. - 175 (2029)  
30 M.P.H. DESIGN SPEED



LOCATION PLAN  
LENGTH OF SECTION - 705.00 FEET = 0.134 MILES



EXISTING STRUCTURE: SINGLE SPAN TIMBER DECK ON STEEL STRINGERS SUPPORTED BY CLOSED TIMBER ABUTMENTS WITH TIMBER WINGWALLS, ±50'-0" BK.-BK. ABUTMENTS, ±20'-0" OUT.-OUT. DECK. STEEL RAILING. ±0° SKEW. EXISTING STRUCTURE NO. 087-3194.

PROPOSED STRUCTURE: THREE SPAN PRECAST CONCRETE DECK BEAM (17") BRIDGE ON OPEN CONCRETE ABUTMENTS AND SOLID CONCRETE PIERS. 24'-0" OUT. TO OUT. DECK, 120'-0" BK. TO BK. ABUTMENTS. STEEL RAILING TYPE S1. 15° SKEW. PROPOSED STRUCTURE NO. 087-3569.



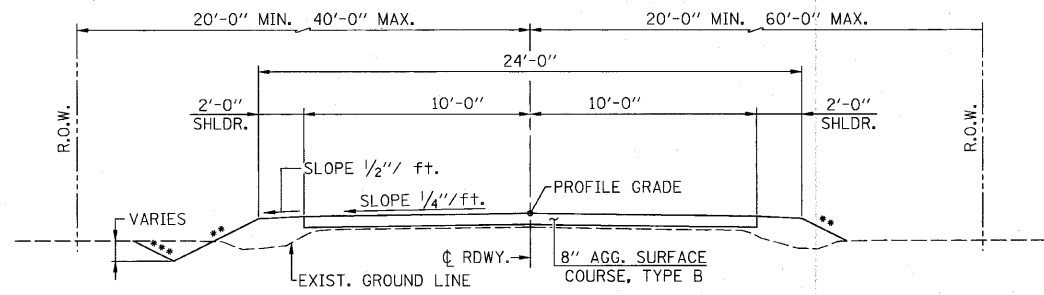
*Christopher P. Kohler 7/27/10*  
EXPIRATION: 11/30/2011

APPROVED <u>7-30</u> , 20 <u>10</u> <i>Malcolm Cannon</i> TOWNSHIP HIGHWAY COMMISSIONER	
APPROVED <u>9-7-20</u> , 20 <u>10</u> <i>L. White</i> COUNTY ENGINEER	
PASSED <u>8-5</u> , 20 <u>10</u> <i>Maureen Kost</i> DISTRICT SEVEN ENGINEER OF LOCAL ROADS & STREETS	
Releasing For Bid Based on Limited Review <u>8-5</u> , 20 <u>10</u> <i>Robert D. Dishell</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER	
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	

TOLL FREE  
"JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS"  
(J.U.L.I.E.) TELEPHONE NUMBER  
1-800-892-0123

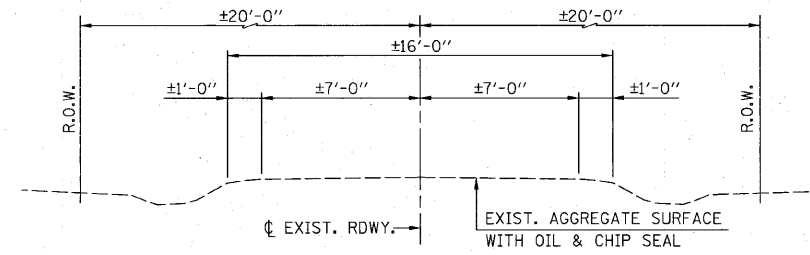
CONTRACT NO. 95629

FILE NAME #FILE#4	USER NAME #USER#	DESIGNED DRAWN	REVISED	DRAWN CHECKED	REVISED	DATE	REVISED	<p><b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	<p><b>TITLE SHEET</b></p> <p>SCALE: 1" = 1 MILE SHEET NO. 1 OF 1 SHEETS</p>	<p>T.R. RTE. 303</p> <p>SECTION 09-11118-00-BR</p> <p>COUNTY SHELBY</p> <p>TOTAL SHEETS 22</p> <p>SHEET NO. 1</p> <p>CONTRACT NO. 95629</p>	<p>FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT</p>
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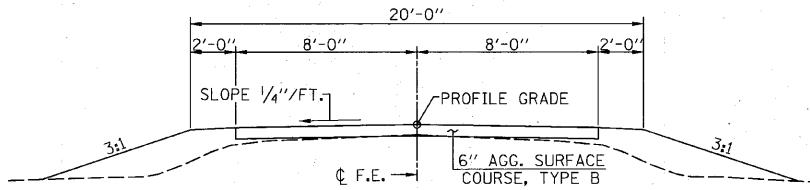


**PROPOSED CROSS SECTION**

- 3:1 < 6'
- 2:1 > 6'
- 3:1 < 10'
- 2:1 > 10'



**EXISTING CROSS SECTION**

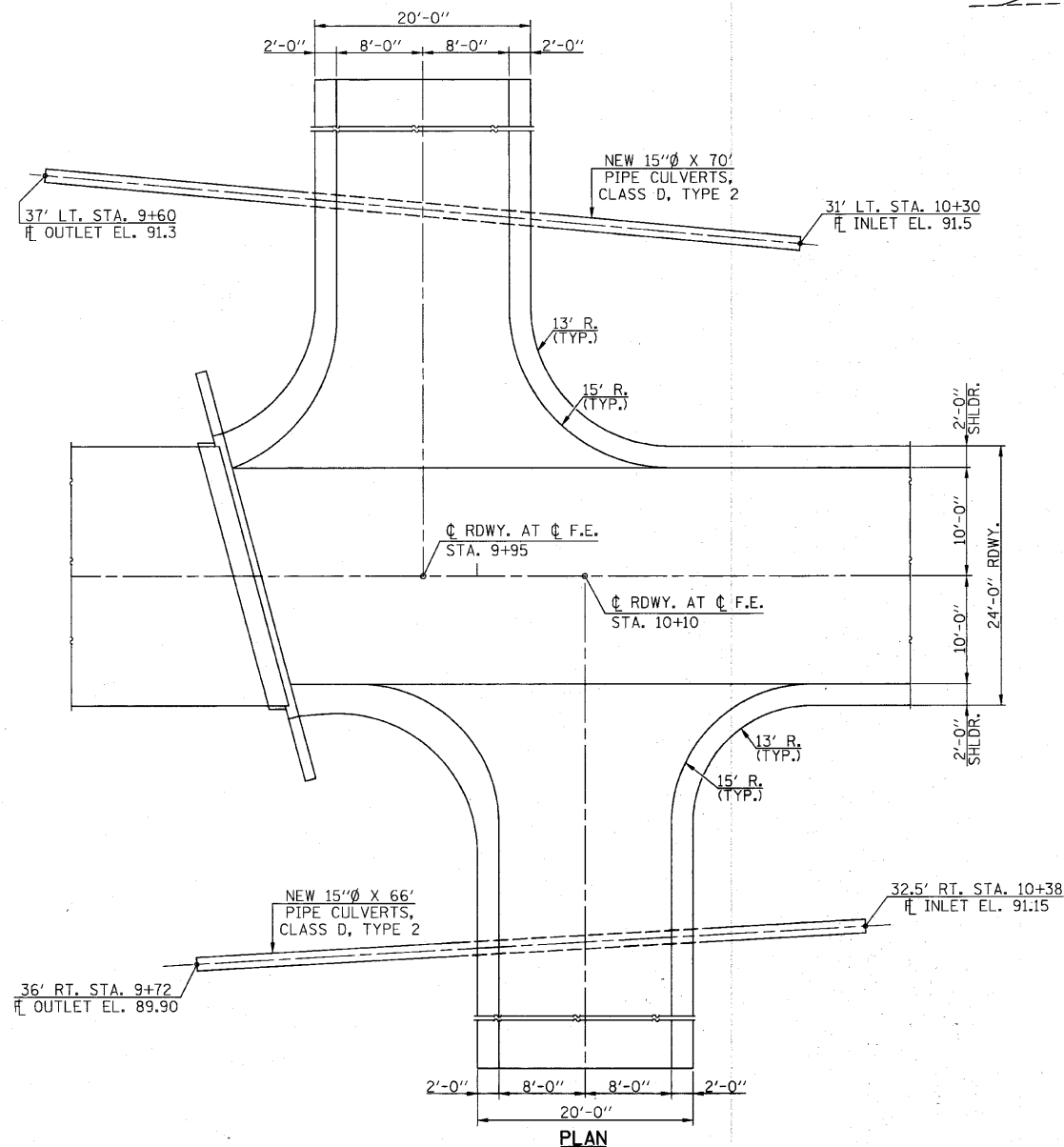


**TYPICAL FIELD ENTRANCE**

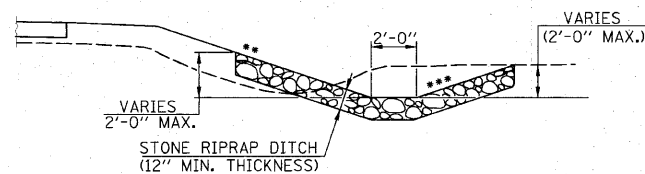
(F.E. STA. 9+95 LT.)  
(F.E. STA. 10+10 RT.)

**GENERAL NOTES**

SEEDING: FERTILIZER NUTRIENTS SHALL BE APPLIED AT A RATIO OF 1:1:1 AND AT A RATE OF 90 POUNDS PER ACRE FOR EACH NUTRIENT.  
MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE.  
AREAS TO BE SEEDD SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT OF WAY AND EASEMENT AS DIRECTED BY THE ENGINEER.  
BEFORE ORDERING PIPE CULVERTS CONTRACTOR SHALL CONSULT WITH ENGINEER TO VERIFY LENGTHS.



**PLAN**



**STONE DUMPED RIPRAP, CLASS A-4**

**SUMMARY OF QUANTITIES**

ITEM	UNIT	QUANTITY
20100500	TREE REMOVAL, ACRES	0.80
20200100	EARTH EXCAVATION	3890
20300100	CHANNEL EXCAVATION	1240
25000200	SEEDING, CLASS 2	1.2
25000400	NITROGEN FERTILIZER NUTRIENT	108
25000500	PHOSPHORUS FERTILIZER NUTRIENT	108
25000600	POTASSIUM FERTILIZER NUTRIENT	108
25100115	MULCH, METHOD 2	1.2
28000250	TEMPORARY EROSION CONTROL SEEDING	100
28000305	TEMPORARY DITCH CHECKS	36
28000400	PERIMETER EROSION BARRIER	1481
28100200	STONE RIPRAP CLASS A4	754
28100807	STONE DUMPED RIPRAP, CLASS A4	219
28200200	FILTER FABRIC	1012
40200800	AGGREGATE SURFACE COURSE, TYPE B	671
50100100	REMOVAL OF EXISTING STRUCTURES	1
50200100	STRUCTURE EXCAVATION	58
50300225	CONCRETE STRUCTURES	105.7
50300280	CONCRETE ENCASEMENT	2.8
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	2843
50800105	REINFORCEMENT BARS	10510
50900205	STEEL RAILING, TYPE S-1	240
51201400	FURNISHING STEEL PILES HP 10X42	939
51202305	DRIVING PILES	939
51203400	TEST PILE STEEL HP 10X42	4
51500100	NAME PLATES	1
542D1060	PIPE CULVERTS, CLASS D, TYPE 2 15"	136
67100100	MOBILIZATION	1
78201000	TERMINAL MARKER - DIRECT APPLIED	4
X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	1
X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	1

• SEE SPECIAL PROVISIONS  
Δ SPECIALTY ITEMS

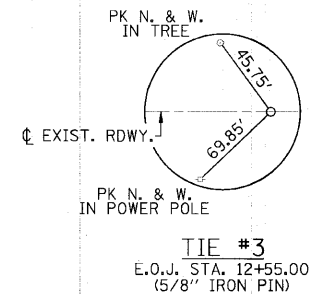
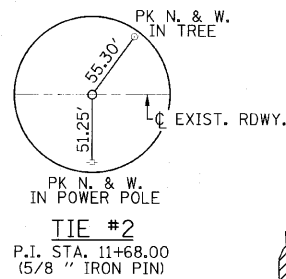
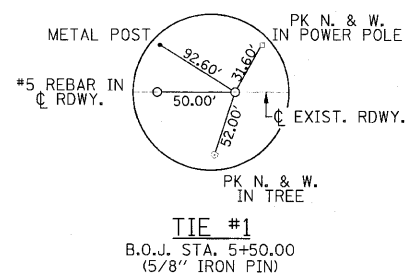
**EARTHWORK SCHEDULE**

LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE
	CU. YD.	CU. YD.		WASTE (+) OR SHORTAGE (-)
STA. 5+50 TO STA. 6+00	273	205	0	205
STA. 6+00 TO STA. 6+50	557	418	0	418
STA. 6+50 TO STA. 7+00	707	530	0	530
STA. 7+00 TO STA. 7+50	1070	803	0	803
STA. 7+50 TO STA. 8+00	879	659	2	657
STA. 8+00 TO STA. 8+50	242	182	139	43
STA. 8+50 TO STA. 8+60	4	3	55	-52
BRIDGE OMISSION - STA. 8+60 TO STA. 9+80	-	-	-	-
STA. 9+80 TO STA. 10+00	21	16	353	-337
STA. 10+00 TO STA. 10+50	64	48	760	-712
STA. 10+50 TO STA. 11+00	49	37	281	-244
STA. 11+00 TO STA. 11+50	12	9	146	-137
STA. 11+50 TO STA. 12+00	5	4	47	-43
STA. 12+00 TO STA. 12+50	7	5	9	-4
STA. 12+50 TO STA. 12+55	0	0	0	0
<b>TOTAL</b>	<b>3890</b>	<b>2919</b>	<b>1792</b>	<b>1127</b>

•••• NO FURNISHED EXCAVATION WILL BE REQUIRED. THE COST OF DISPOSING EXCESS EARTH, CHANNEL OR STRUCTURE EXCAVATION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR EARTH EXCAVATION.  
ENTRANCE EMBANKMENT INCLUDED IN STA. 9+80 TO STA. 10+50 EMBANKMENT CALCULATIONS.

SECTION 11, T. 10 N., R. 1 E., 3RD P.M.

SECTION 12, T. 10 N., R. 1 E., 3RD P.M.



STA. 9+20.00 - C RDWY. AT C STRUCTURE  
PROPOSED STRUCTURE: THREE SPAN PRECAST  
PRESTRESSED CONCRETE DECK BEAM BRIDGE (17" DEPTH)  
ON OPEN CONCRETE ABUTMENTS AND PILE BENT PIERS.  
24'-0" OUT-OUT DECK, 120'-0" BK.-BK. ABUTMENTS,  
36'-8 1/2" (SPANS 1 & 3), 42'-8 1/2" (SPAN 2),  
STEEL RAILING, TYPE S-1. 15° SKEW RT. FWD.

INSTALL NEW 15"Ø X 70' PIPE  
CULVERTS, CLASS D, TYPE 2  
INLET - EL. 91.5  
OUTLET - EL. 91.3

INSTALL NEW 15"Ø X 66' PIPE  
CULVERTS, CLASS D, TYPE 2  
INLET - EL. 91.15  
OUTLET - EL. 89.90

PROPOSED CURVE DATA

PI STA. = 11+68.00  
Δ = 10° 59' 32" (RT)  
D = 6° 53' 29"  
R = 831.42'  
T = 80.00'  
L = 159.51'  
E = 3.84'  
P.C. STA. = 10+88.00  
P.T. STA. = 12+47.51  
SE = N/A

SCHEDULE  
TREE REMOVAL, ACRES

LOCATION	QUANTITY (ACRE)
STA. 5+63 TO STA. 8+33 LT.	0.19
STA. 5+50 TO STA. 9+29 RT.	0.34
STA. 9+11 TO STA. 9+85 LT.	0.13
STA. 9+53 TO STA. 9+91 RT.	0.08
STA. 10+03 TO STA. 10+20 LT.	0.03
<b>TOTAL</b>	<b>0.77</b>

SAY 0.80 ACRE

SCHEDULE  
TEMPORARY DITCH CHECKS

LOCATION	QUANTITY (FOOT)
STA. 6+80 16' LT. & RT.	12
STA. 8+00 19' LT.	6
STA. 8+00 16' RT.	6
STA. 10+50 29' LT.	6
STA. 10+50 30' RT.	6
<b>TOTAL</b>	<b>36</b>

SCHEDULE  
PERIMETER EROSION BARRIER

LOCATION	QUANTITY (FOOT)
STA. 5+50 20' RT. TO STA. 9+20 90' RT.	412
STA. 9+75 90' RT. TO STA. 12+55 20' RT.	392
STA. 5+50 20' LT. TO STA. 8+75 38' LT.	332
STA. 9+50 75' LT. TO STA. 12+55 20' LT.	345
<b>TOTAL</b>	<b>1481</b>

MARC STAUDER

MATTHEW T. & DONNA McCAULEY

ROBERT & MARY COTHERN

LINCOLN TRAIL COUNCIL 121, INC.  
BOY SCOUTS OF AMERICA

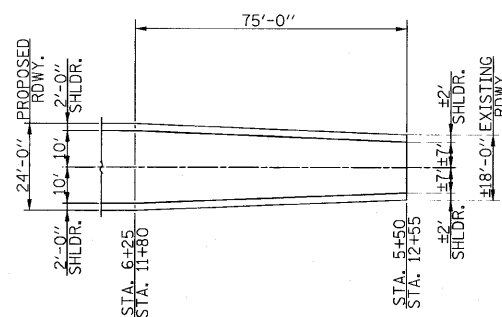
FERLIN L. & DEANNA L. RHODES

DUSTIN J. DUDUIT

BENCHMARKS: BM #1 - 60D NAIL & WASHER IN POWER POLE,  
STA. 15+23, 35.4' RT. EL. 100.00  
BM #2 - 60D NAIL & WASHER IN POWER POLE,  
STA. 8+44, 25.6' RT. EL. 104.29

SECTION 14, T. 10 N., R. 1 E., 3RD P.M.

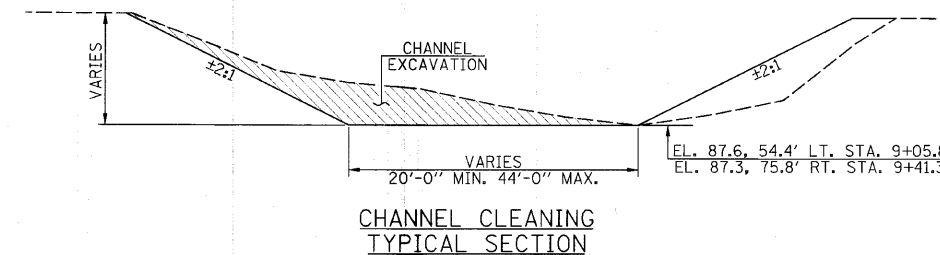
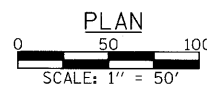
SECTION 13, T. 10 N., R. 1 E., 3RD P.M.



ROADWAY TRANSITION DETAIL

LEGEND

- PERIMETER EROSION BARRIER
- INDICATES AGGREGATE DITCH CHECK
- DENOTES IMPACTED WETLAND AREA



BENCHMARKS: BM #1 - 60D NAIL & WASHER IN POWER POLE,  
STA. 15+23, 35.4' RT. EL. 100.00  
BM #2 - 60D NAIL & WASHER IN POWER POLE,  
STA. 8+44, 25.6' RT. EL. 104.29

\* THE COST OF DISPOSAL OF EXCESS EARTH EXCAVATION  
OF 1234 CU. YDS. SHALL BE INCLUDED IN THE CONTRACT  
UNIT PRICE OF EARTH EXCAVATION.

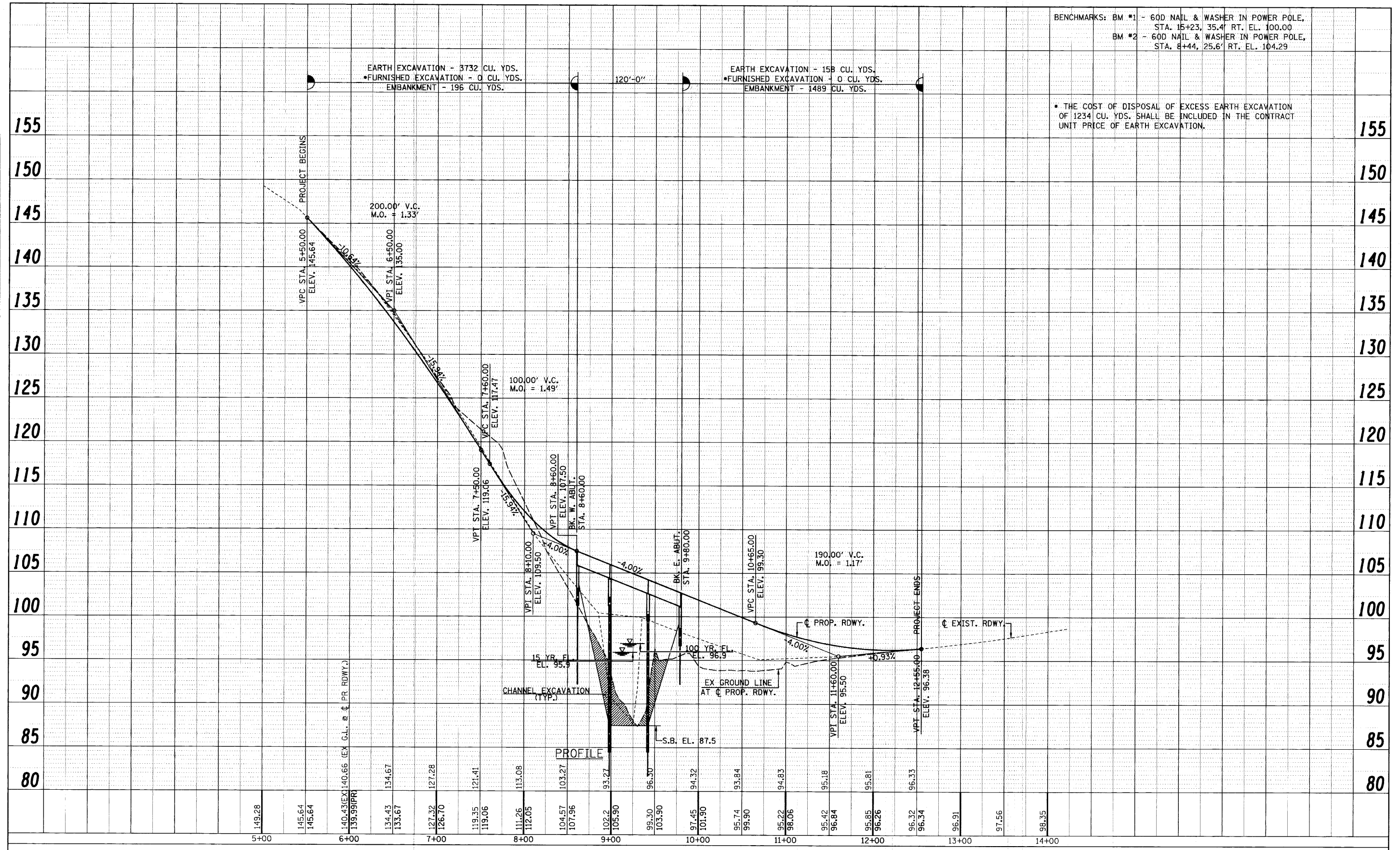
EARTH EXCAVATION - 3732 CU. YDS.  
\*FURNISHED EXCAVATION - 0 CU. YDS.  
EMBANKMENT - 196 CU. YDS.

120'-0"

EARTH EXCAVATION - 158 CU. YDS.  
\*FURNISHED EXCAVATION - 0 CU. YDS.  
EMBANKMENT - 1489 CU. YDS.

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
DRAWN: \_\_\_\_\_  
CHECKED: \_\_\_\_\_  
DATE: \_\_\_\_\_ BY: \_\_\_\_\_

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
DRAWN: \_\_\_\_\_  
CHECKED: \_\_\_\_\_  
DATE: \_\_\_\_\_ BY: \_\_\_\_\_

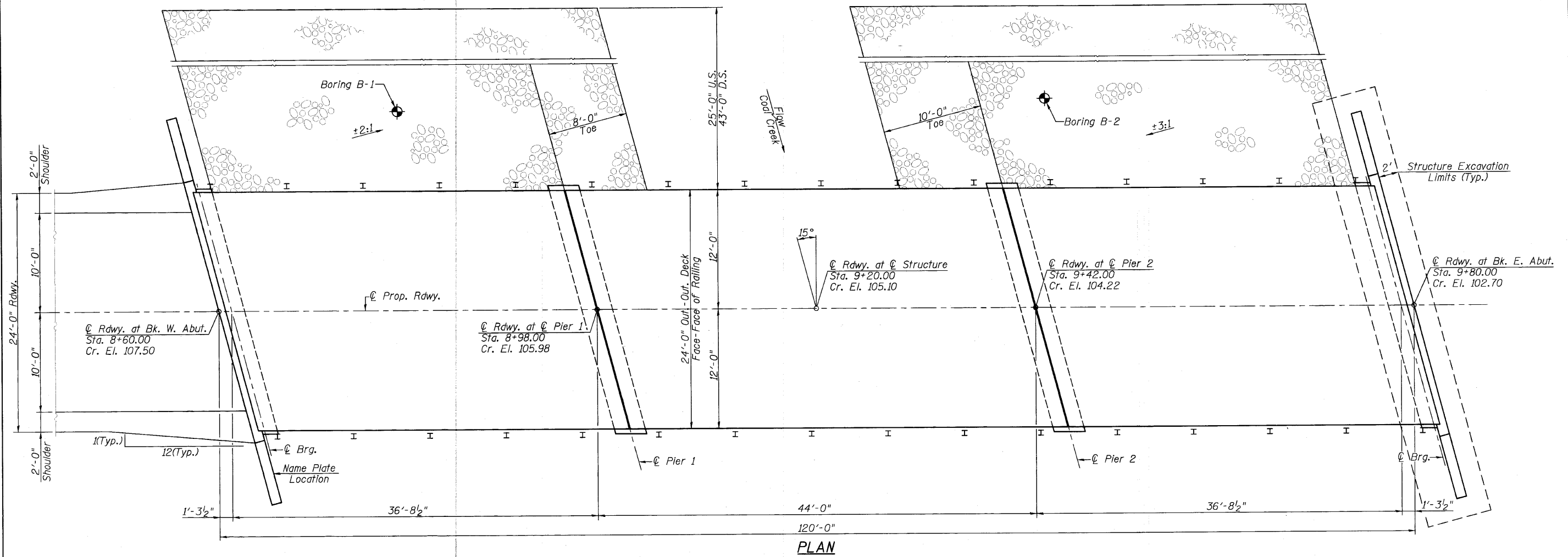
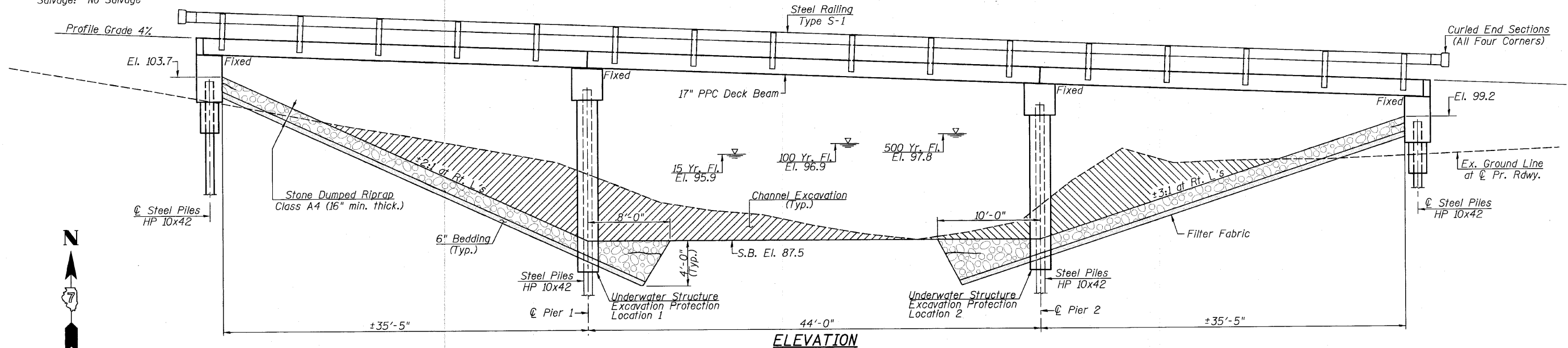


FILE NAME: #FILE#	USER NAME: #USER#	DESIGNED: _____	REVISIONS:	<p><b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	<p><b>ROADWAY PROFILE</b></p> <p>SCALE: 1" = 50' SHEET NO. 2 OF 2 SHEETS STA. 5+50.00 TO STA. 12+55.00</p>	T.R. NO. 303	SECTION 09-11118-00-BR	COUNTY SHELBY	TOTAL SHEETS 22	SHEET NO. 4
PILOT SCALE: #SCALE#	DRAWN: _____	CHECKED: _____	REVISED: _____			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	CONTRACT NO. 95629			
PILOT DATE: #DATE#	CHECKED: _____	REVISED: _____	REVISED: _____							

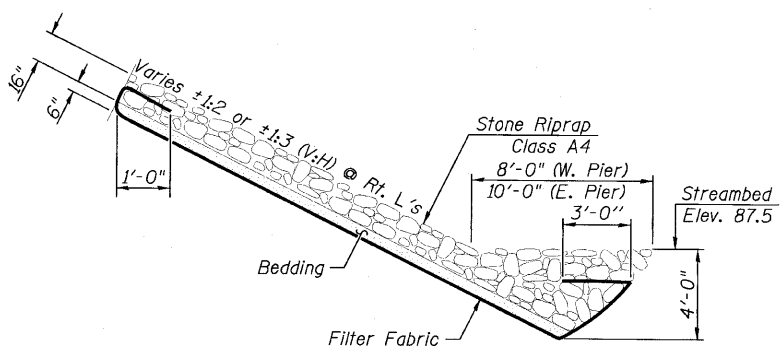
Existing Structure: Single span timber deck on steel stringers supported by closed timber abutments with timber wingwalls.  $\pm 50'-0"$  Bk.-Bk. Abutments,  $\pm 20'-0"$  Out.-Out. Deck. Steel Railing.  $\pm 0^\circ$  Skew. Existing Structure No. 087-3194

Benchmark: BM #1: 60D Nail & Washer in P.P. Sta. 15+23, 35.4' Rt. El. 100.00  
 BM #2: 60D Nail & Washer in P.P. Sta. 8+44, 25.6' Rt. El. 104.29

Salvage: No Salvage



FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	<b>GENERAL PLAN &amp; ELEVATION</b>		T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -		SCALE: 1" = 10'	SHEET NO. 1 OF 11 SHEETS	STA. 8+60.00 TO STA. 9+80.00	303	09-11118-00-BR	SHELBY	22	5
		CHECKED -	REVISED -					FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
		DATE	REVISED -					CONTRACT NO. 95629				



**TOE STONE RIPRAP TREATMENT**

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.		1240	1240
STONE Riprap, Class A4	Ton		754	754
Filter Fabric	Sq. Yd.		1012	1012
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		58	58
Concrete Structures	Cu. Yd.		105.7	105.7
Concrete Encasement	Cu. Yd.		2.8	2.8
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	2843		2843
Reinforcement Bars	Pound		10510	10510
Steel Railing, Type S-1	Foot	240		240
Furnishing Steel Pile HP 10x42	Foot		939	939
Driving Piles	Foot		939	939
Test Piles Steel HP 10x42	Each		4	4
Name Plates	Each		1	1
Underwater Structure Excavation Protection - Location 1	Each		1	1
Underwater Structure Excavation Protection - Location 2	Each		1	1

**LOADING HL-93**  
Allow 50#/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**  
2007 AASHTO LRFD Bridge Design Specifications, 4th Edition  
with 2008 Interims

**DESIGN STRESSES**  
**FIELD UNITS**

$f'_c = 3500$  psi  
 $f_y = 60000$  psi (Reinforcement)

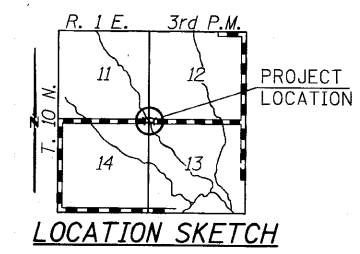
**PRECAST PRESTRESSED UNITS**

$f'_c = 6000$  psi  
 $f'_ci = 5000$  psi  
 $f_{pu} = 270000$  psi ( $\frac{1}{2}$ " $\phi$  low lax strands)  
 $f_{pbt} = 201960$  psi ( $\frac{1}{2}$ " $\phi$  low lax strands)

**GENERAL NOTES**

See Proposal for Boring Data.  
Reinforcement bars shall conform to the requirements of ASTM A706, Grade 60. See Special Provisions.  
The layout of the riprap slopewall may be varied to suit ground conditions in the field as determined by the Engineer.  
The contractor shall drive one test pile in a permanent location at both abutments and both piers as directed by the Engineer in the field prior to ordering the remainder of piles.

COAL CREEK  
STA. 9+20.00  
BUILT 20 BY  
SHELBY COUNTY  
SECTION 09-11118-00-BR  
STR. NO. 087-3569 LOADING HL-93  
**NAME PLATE**  
(Standard 515001)



**WATERWAY INFORMATION**

Drainage Area = 10.71 Sq. Mi. Pr. Low Grade Elev. 96.26 @ Sta. 12+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural H.W.E.	Head - ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	15	2772	301	534	95.9	1.3	0.2	97.2	96.1
Base	100	4779	366	618	96.9	1.7	1.0	98.6	97.9
Exist. Overtop.	7.6	2380							
Prop. Overtop. Greater Than 500 Years									
Max. Calc.	500	6536	445	703	97.8	1.4	1.4	99.2	99.2

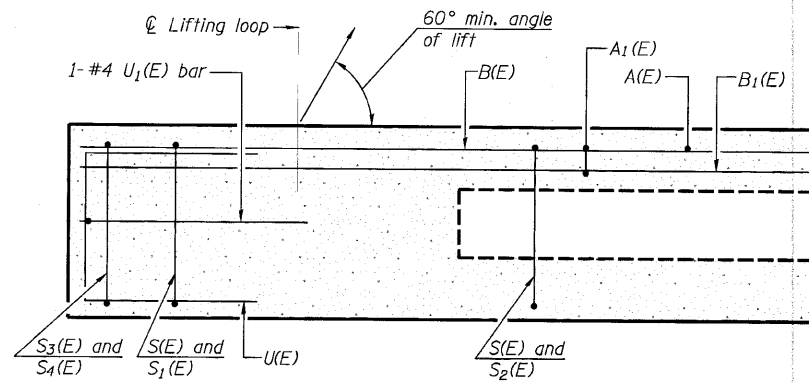
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "A.A.S.H.T.O. LRFD Bridge Design Specifications.



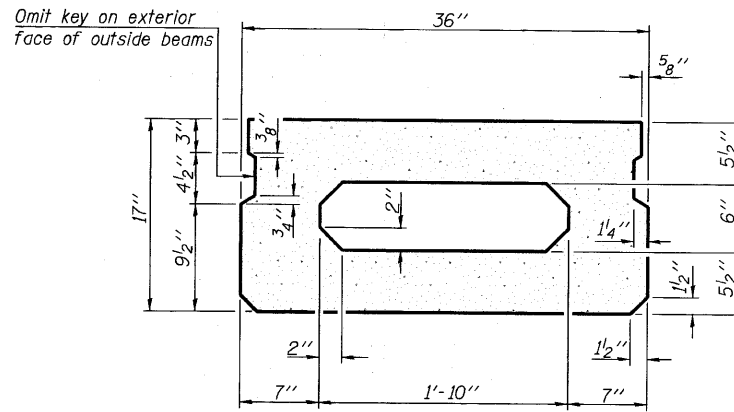
Mark A. Henderson 7/22/2010  
Expiration Date 11/30/2010

FILE NAME =	USER NAME = #USER#	DESIGNED	REVISED	<p><b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	<b>GENERAL PLAN &amp; ELEVATION</b>		T.R. RTE.	SECTION	COUNTY	TOTAL SHEET NO.	
PLOT SCALE = #SCALE#	CHECKED	REVIS	REVIS		SCALE: NONE	SHEET NO. 2 OF 11 SHEETS	STA. TO STA.	303	09-11118-00-BR	SHELBY	22 6
PLOT DATE = #DATE#	DATE	REVIS	REVIS								CONTRACT NO. 95629

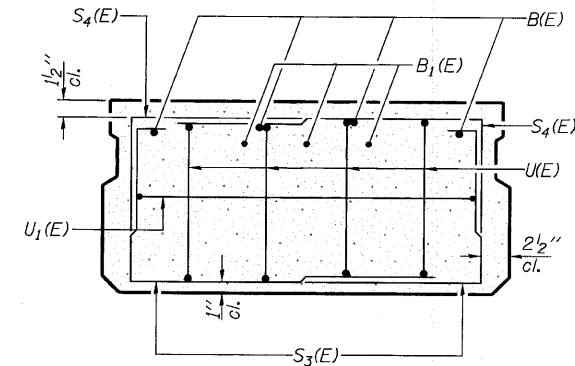
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



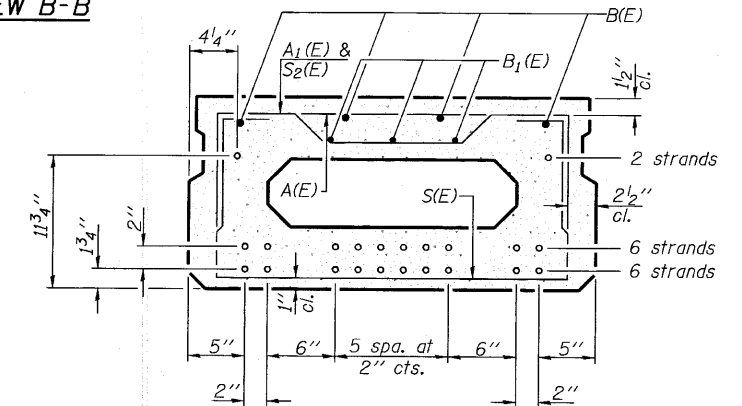
**SECTION C-C**



**SECTION A-A**  
(Showing dimensions)



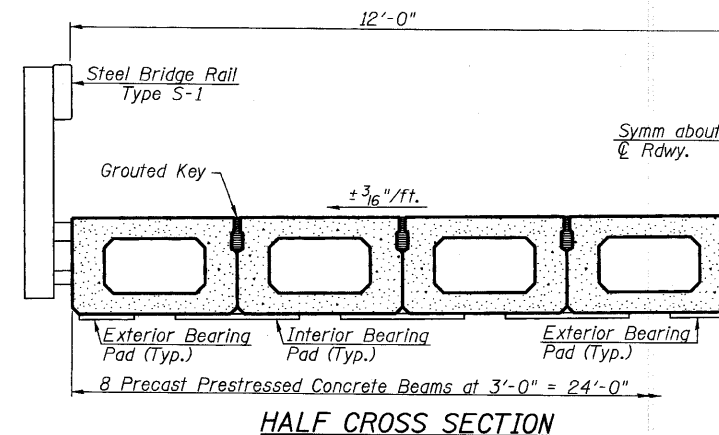
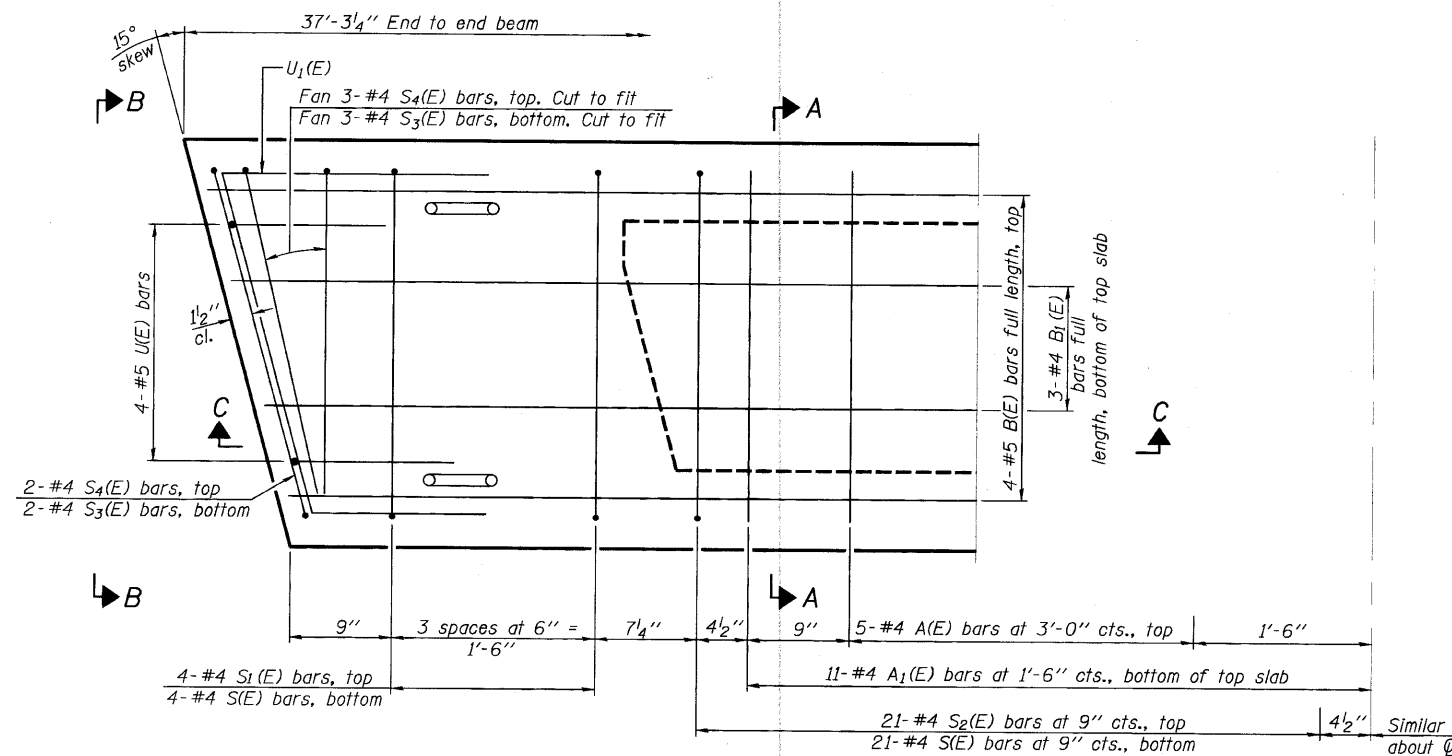
**VIEW B-B**



**SECTION A-A**

(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.



**HALF CROSS SECTION**

**MINIMUM BAR LAP**  
#4 bar = 2'-0"  
#5 bar = 2'-6"

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

**BAR LIST**  
**ONE BEAM ONLY**  
(For information only)

Bar	No.	Size	Length	Shape
A(E)	11	#4	2'-7"	—
A1(E)	21	#4	2'-10"	~
B(E)	4	#5	37'-0"	—
B1(E)	3	#4	37'-0"	—
S(E)	50	#4	5'-9"	⌋
S1(E)	8	#4	4'-3"	⌋
S2(E)	42	#4	4'-6"	⌋
S3(E)	10	#4	4'-2"	⌋
S4(E)	10	#4	3'-5"	⌋
U(E)	8	#5	3'-8"	⌋
U1(E)	2	#4	5'-9"	⌋

Note: See sheet 8 of 22 for additional details and Bill of Material.

**17" X 36" PPC DECK BEAM**  
**STRUCTURE NO. 087-3569**

PD-1736-R

11-1-09

FILE NAME *	USER NAME = #USERS	DESIGNED -	REVISED -
PLOT SCALE = #SCALE*	CHECKED -	REVISED -	
PLOT DATE = #DATE*	DATE	REVISED -	

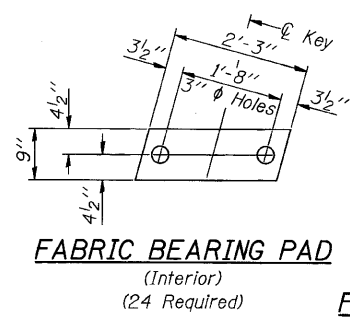


**Allen Henderson & Associates, Inc.**  
Civil and Structural Engineers Springfield, IL  
62703 Phone: (217)544-8033 IL Design Firm  
No. 184-001907

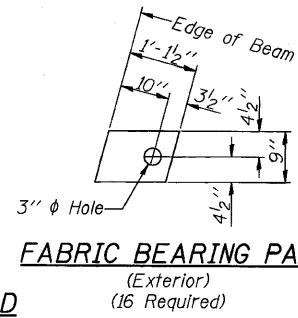
**17" x 36" P.P.C. DECK BEAM**  
**SPANS 1 AND 3**

SCALE: NONE SHEET NO. 5 OF 11 SHEETS STA. TO STA.

T.R. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	09-11118-00-BR	SHELBY	22	7
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 95629				

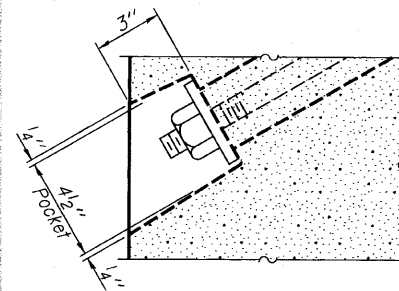


**FABRIC BEARING PAD**  
(Interior)  
(24 Required)

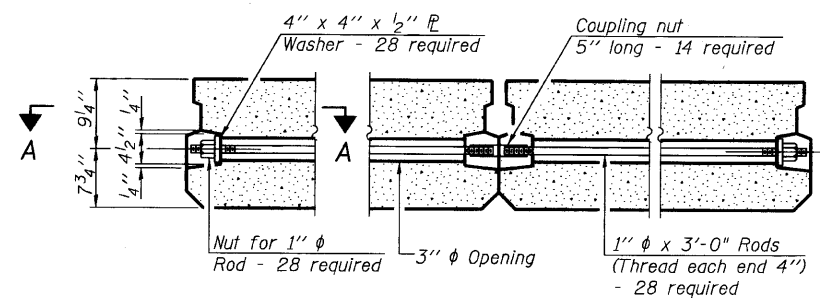


**FABRIC BEARING PAD**  
(Exterior)  
(16 Required)

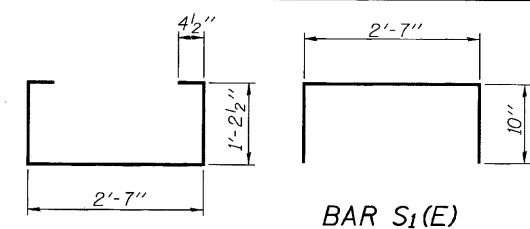
**FIXED**



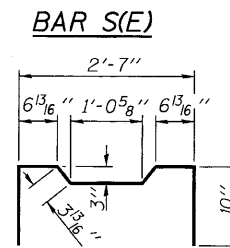
**SECTION A-A**



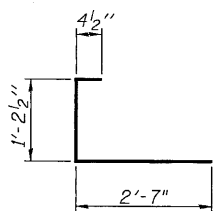
**TYPICAL TRANSVERSE TIE ASSEMBLY**



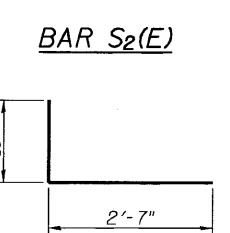
**BAR S1(E)**



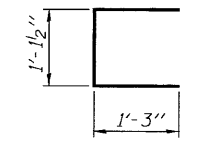
**BAR S(E)**



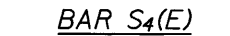
**BAR S3(E)**



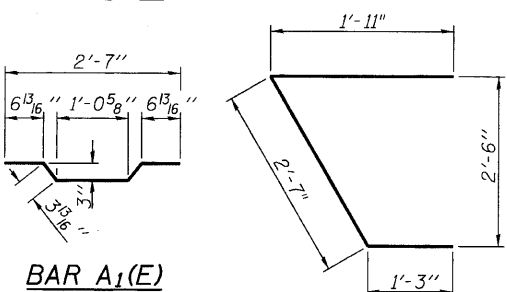
**BAR S2(E)**



**BAR U(E)**

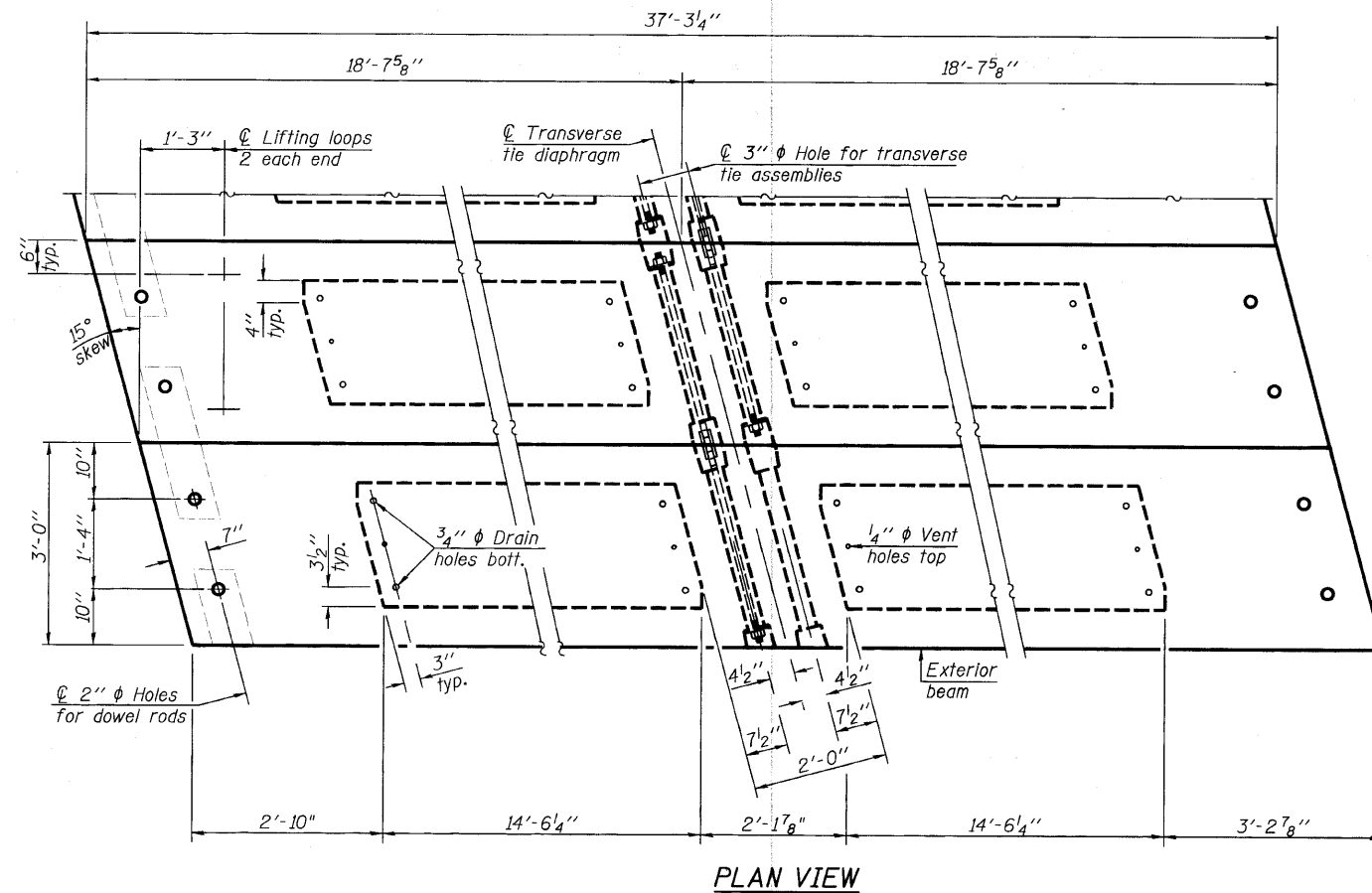


**BAR S4(E)**



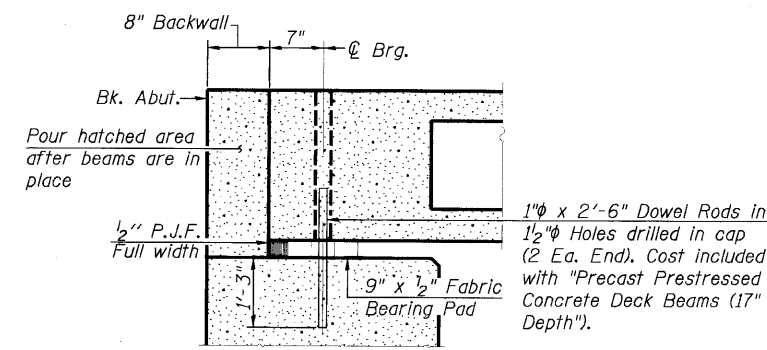
**BAR A1(E)**

**BAR U1(E)**

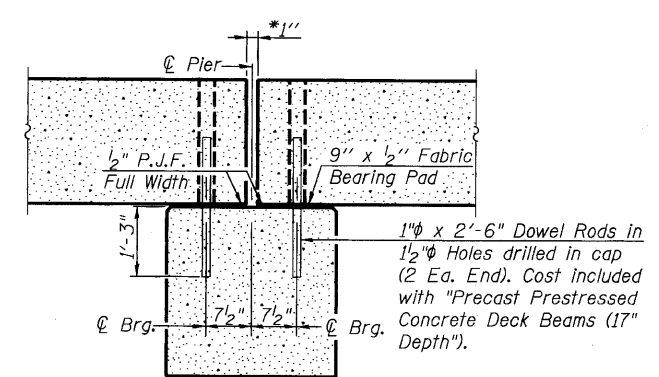


**PLAN VIEW**

Note: Connect beams in pairs with the transverse tie configuration shown.



**SECTION THRU ABUTMENT**  
(At Right Angles)



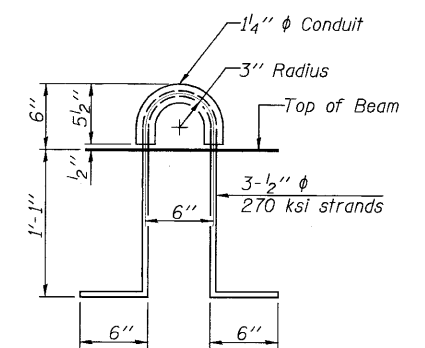
**SECTION THRU PIER**

Notes: After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.

- All horizontal dimensions are at right angles to beam ends.
- \* 1" joint shall be filled with non-shrink grout.
- \* 1" dimension may vary to accommodate tolerance in beam lengths.

**NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in.  
The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.  
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).  
Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.  
A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.  
Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.  
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.  
Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



**LIFTING LOOP DETAIL**

**BILL OF MATERIAL**

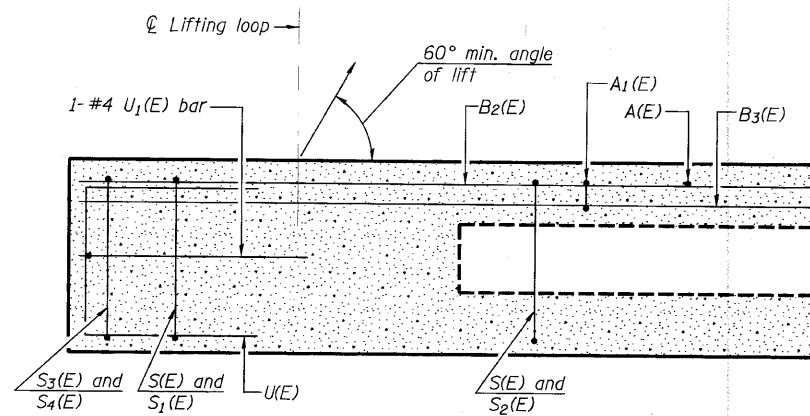
Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	1789
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PD-1736-RD

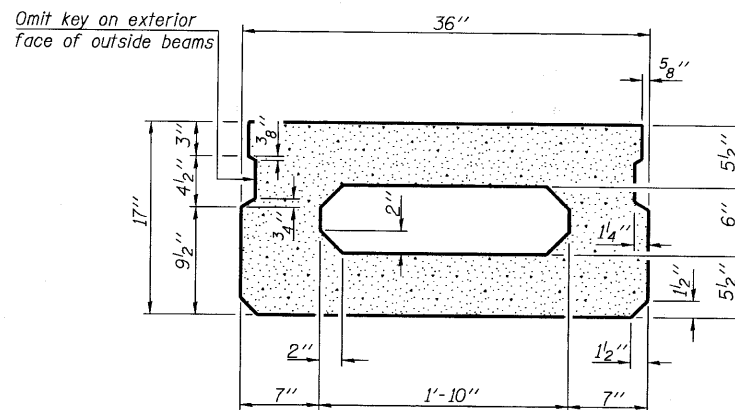
11-1-09

FILE NAME =	USER NAME = TUSER	DESIGNED =	REVISED =	<b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	<b>17" x 36" PPC DECK BEAM</b> <b>SPANS 1 &amp; 3</b>	T.R. RTE. 303	SECTION 09-11118-00-BR	COUNTY SHELBY	TOTAL SHEETS 22	SHEET NO. 8	
PLOT SCALE = #SCALE#	CHECKED =	REVISED =	SCALE: NONE			SHEET NO. 6 OF 11 SHEETS	STA. TO STA.	CONTRACT NO. 95629		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	
PLOT DATE = #DATE#	DATE =	REVISED =									

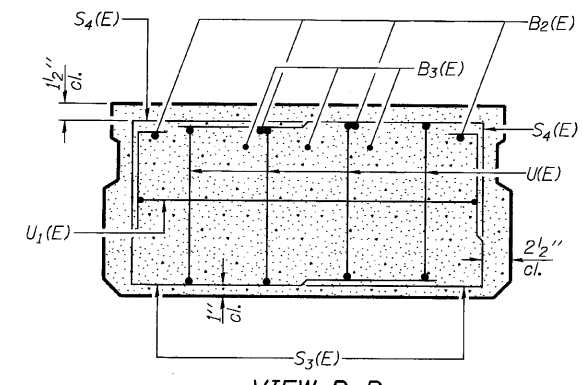




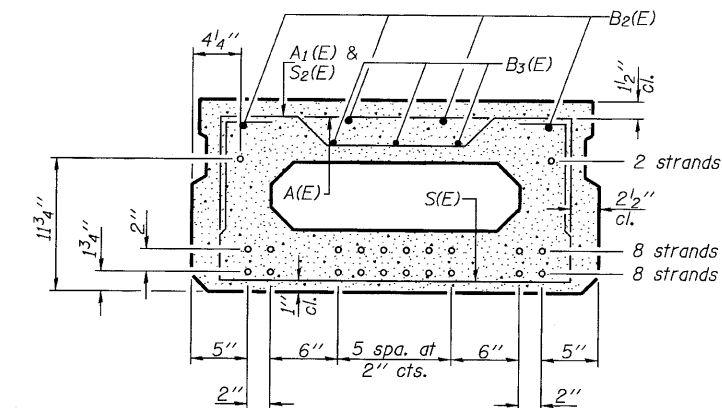
SECTION C-C



SECTION A-A  
(Showing dimensions)

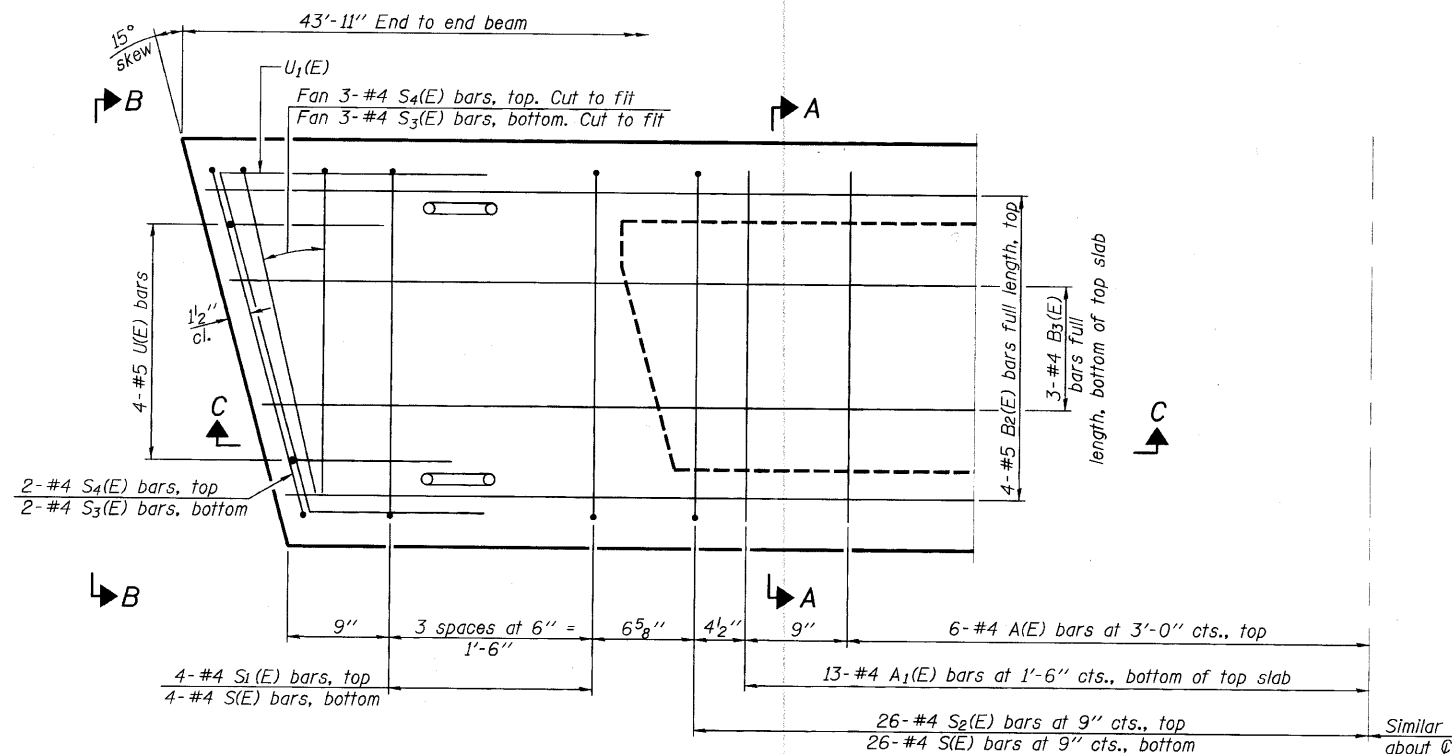


VIEW B-B



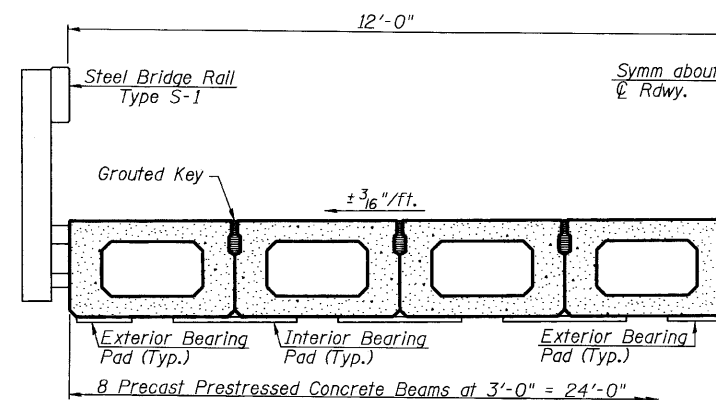
SECTION A-A  
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.



PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4 inches in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.



HALF CROSS SECTION

BAR LIST  
ONE BEAM ONLY  
(For information only)

Bar	No.	Size	Length	Shape
A(E)	13	#4	2'-7"	—
A1(E)	26	#4	2'-10"	—
B2(E)	4	#5	43'-8"	—
B3(E)	3	#4	43'-8"	—
S(E)	59	#4	5'-9"	U
S1(E)	8	#4	4'-3"	U
S2(E)	51	#4	4'-6"	U
S3(E)	10	#4	4'-2"	U
S4(E)	10	#4	3'-5"	U
U(E)	8	#5	3'-8"	U
U1(E)	2	#4	5'-9"	U

Note: See sheet 10 of 22 for additional details and Bill of Material.

17" X 36" PPC DECK BEAM  
STRUCTURE NO. 087-3569

PD-1736-R

11-1-09

FILE NAME	USFR NAME	DESIGNED	REVISOR
	#USER#		
PLOT SCALE	#SCALE#	CHECKED	REVISOR
PLOT DATE	#DATE#	DATE	REVISOR

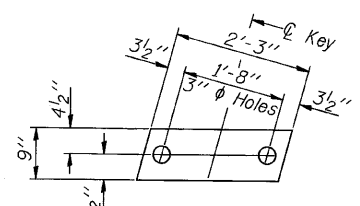


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Civil and Structural Engineers Springfield, IL.  
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No. 184-001907

17" x 36" P.P.C. DECK BEAM  
SPAN 2

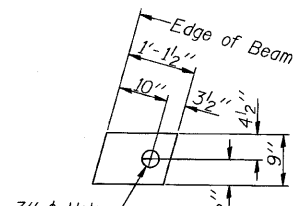
SCALE: NONE SHEET NO. 5 OF 11 SHEETS STA. TO STA.

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	09-11118-00-BR	SHELBY	22	9
				CONTRACT NO. 95629
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



**FABRIC BEARING PAD**

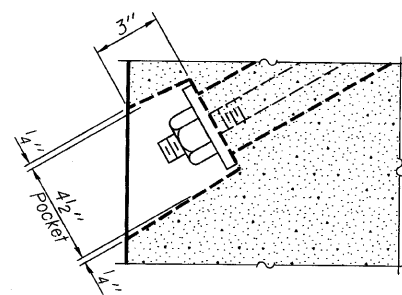
(Interior)  
(12 Required)



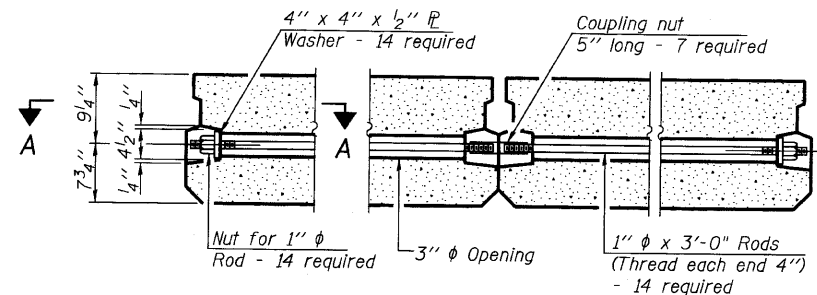
**FABRIC BEARING PAD**

**FIXED**

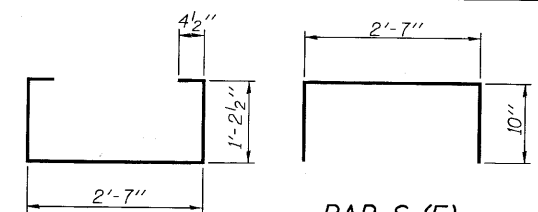
(Exterior)  
(8 Required)



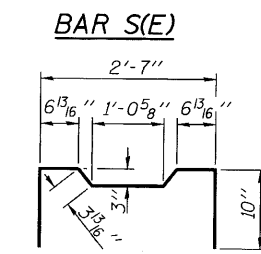
**SECTION A-A**



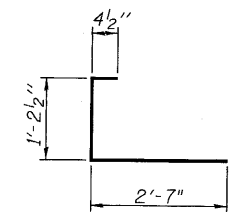
**TYPICAL TRANSVERSE TIE ASSEMBLY**



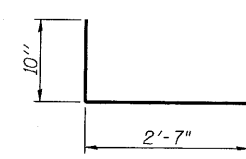
**BAR S1(E)**



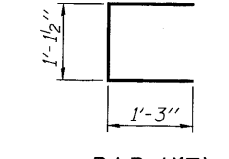
**BAR S2(E)**



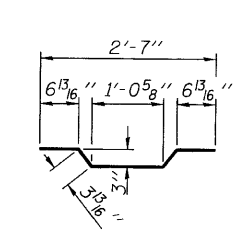
**BAR S3(E)**



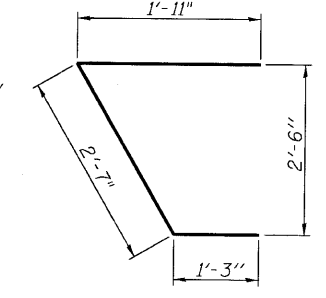
**BAR S4(E)**



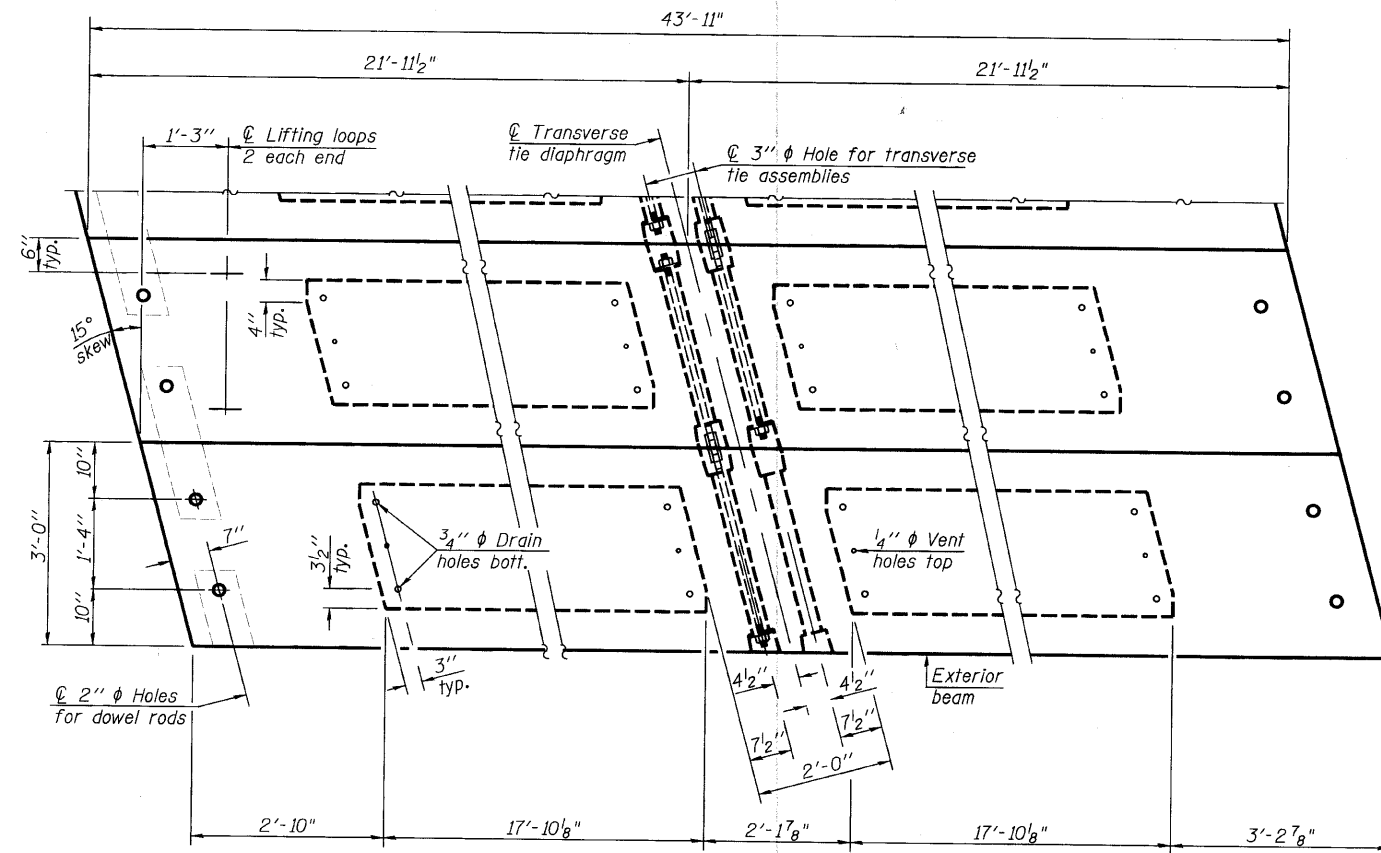
**BAR U(E)**



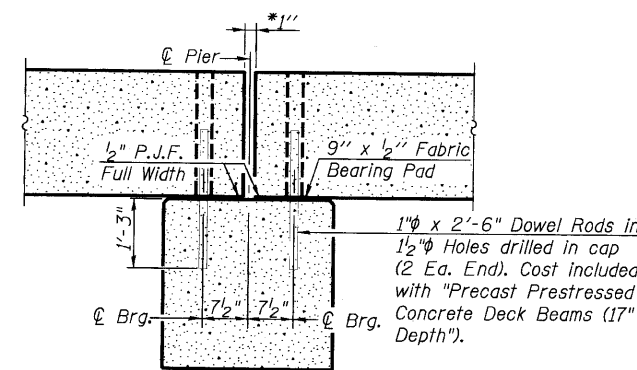
**BAR A1(E)**



**BAR U1(E)**



**PLAN VIEW**



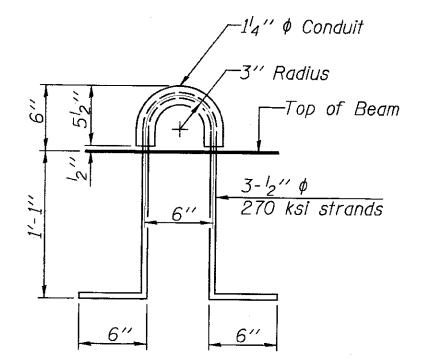
**SECTION THRU PIER**

Notes : After beams have been erected, holes shall be drilled into substructure and anchor dowels placed. Dowel holes shall be filled with non-shrink grout to top of beam and allowed to cure min. 24 hrs. prior to grouting the shear keys.  
 All horizontal dimensions are at right angles to beam ends.  
 \* 1" joint shall be filled with non-shrink grout.  
 \* 1" dimension may vary to accommodate tolerance in beam lengths.

Note: Connect beams in pairs with the transverse tie configuration shown.

**NOTES**

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.  
 Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions).  
 Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.  
 A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling.  
 Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.  
 Compressive strength of prestressed concrete, f'c, shall be 6000 psi.  
 Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



**LIFTING LOOP DETAIL**

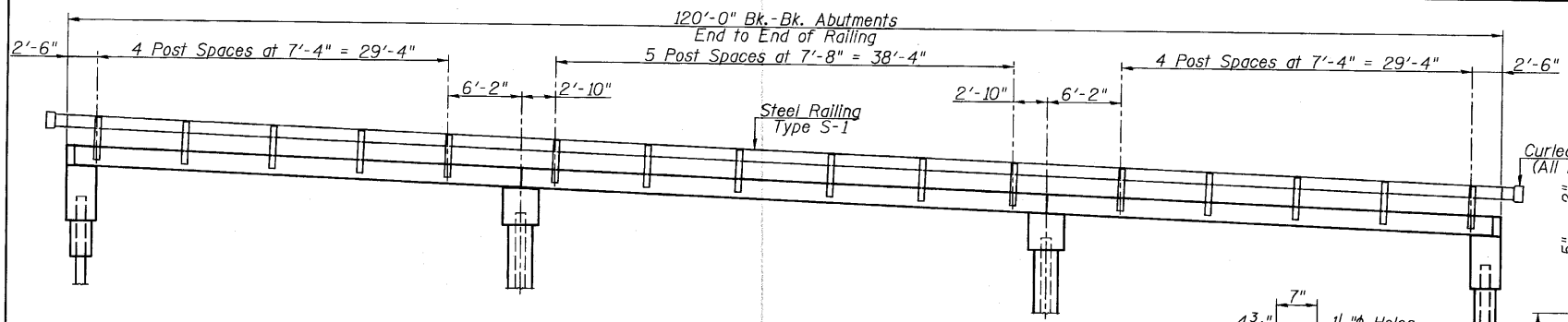
**BILL OF MATERIAL**

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	1054
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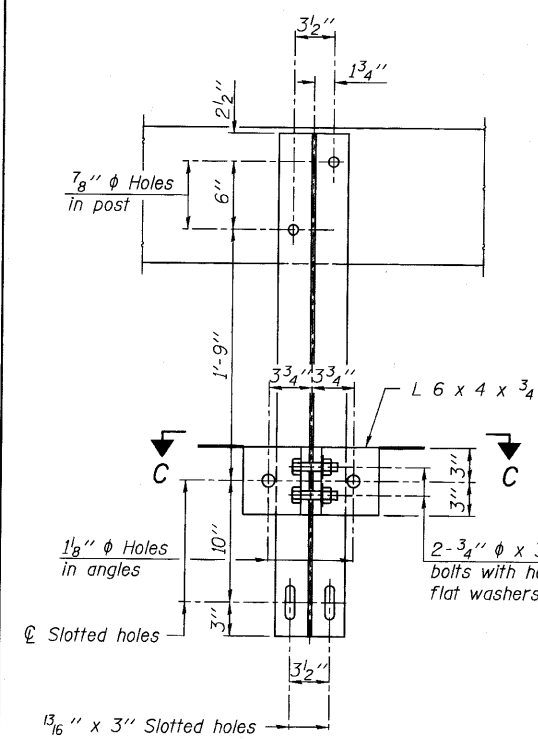
PD-1736-RD

11-1-09

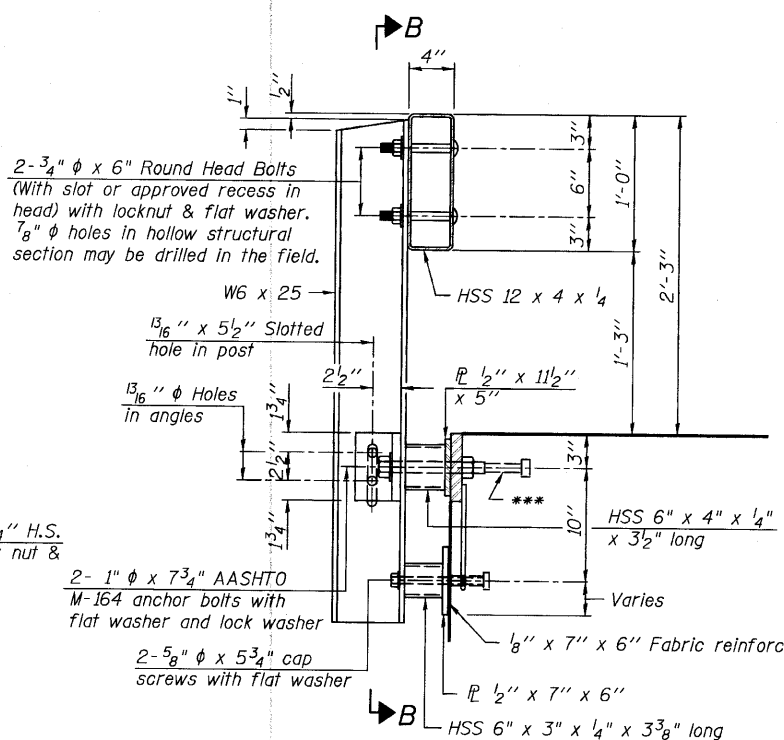
FILE NAME =	USER NAME = USER#	DESIGNED -	REVISED -	<p><b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL. Design Firm No. 184-001907</p>	<p align="center"><b>17" x 36" PPC DECK BEAM</b> <b>SPAN 2</b></p>		T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE =	SCALE#	DRAWN -	REVISED -				303	09-11118-00-BR	SHELBY	22	10
CHECKED -	SCALE#	REVISOR -	REVISED -				CONTRACT NO. 95629				
DATE	DATE#	REVISOR -	REVISED -				FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT



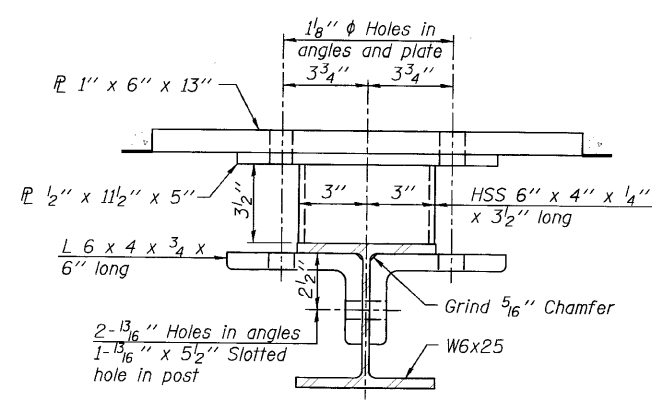
**ELEVATION**  
(Showing Outside Face of Railing)



**SECTION B-B**

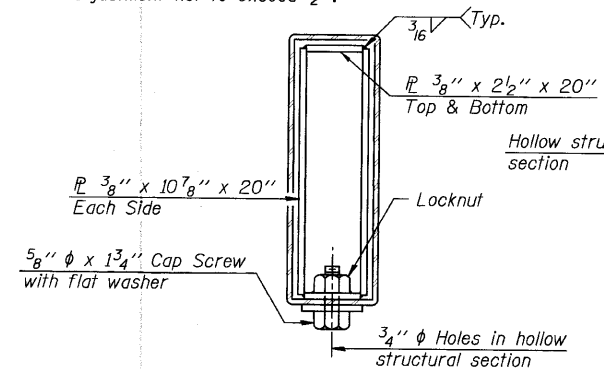


**SECTION AT RAILING POST**

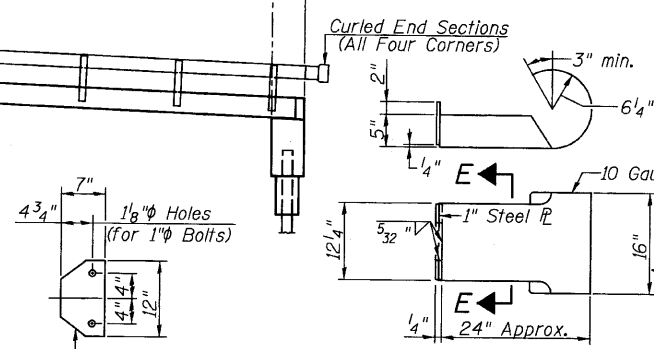


**SECTION C-C**

\*\* Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".

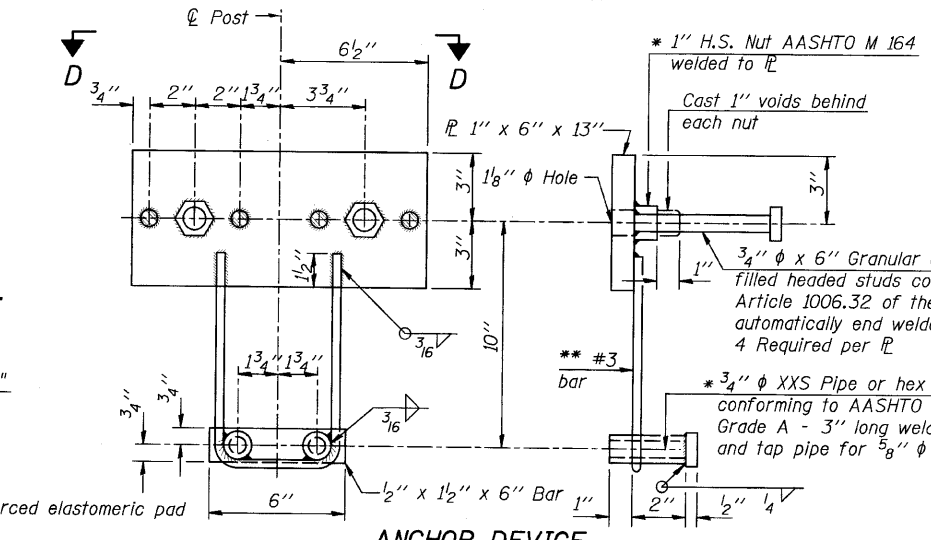


**SECTIONS AT RAIL SPLICE**



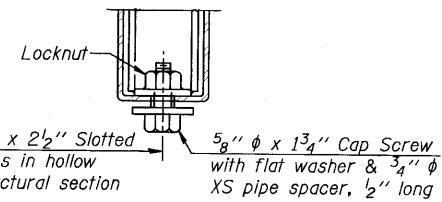
**VIEW A-A**  
**ROUND HEAD BOLT**

**CURLED END SECTION DETAILS (4 Required)**  
(Cost of Curled End Sections to be included in the cost of Steel Railing, Type S-1.)

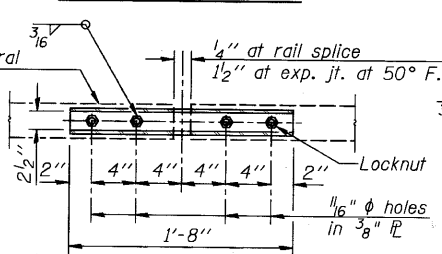


**ANCHOR DEVICE**

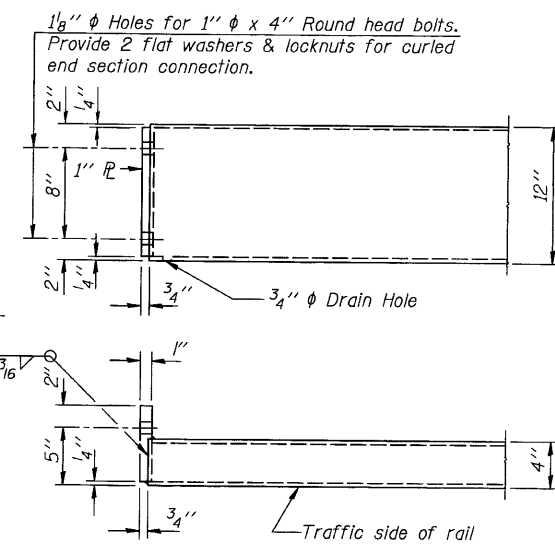
\* Threaded areas shall be plugged or blocked off during casting of beam.



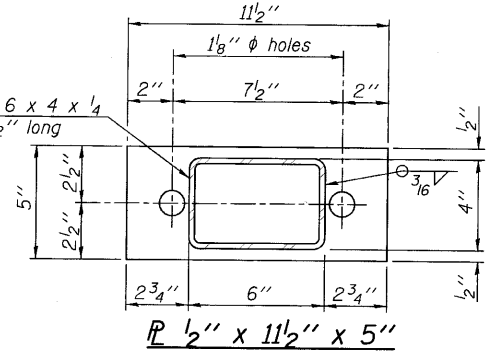
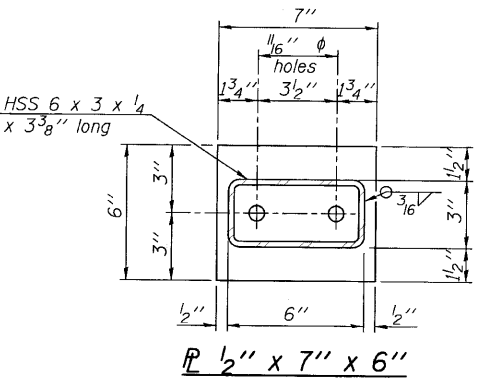
**RAIL SPLICE CONNECTION AT EXPANSION JT.**



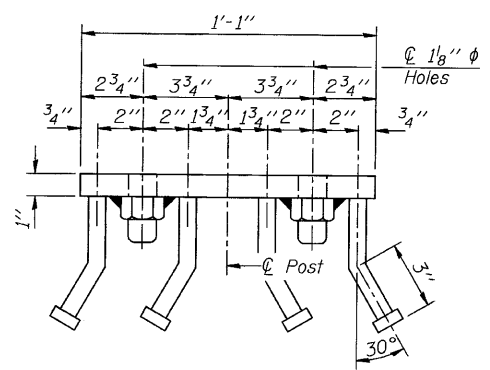
**PLAN-BOTT. SPLICE R TYPICAL**



**END OF RAIL DETAILS**



**Notes:**  
All field drilled holes shall be coated with an approved zinc rich paint before erection.  
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S-1.  
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.  
The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



**VIEW D-D**

**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	240

R-23A

11-1-09 (10'-9" Maximum Post Spacing)

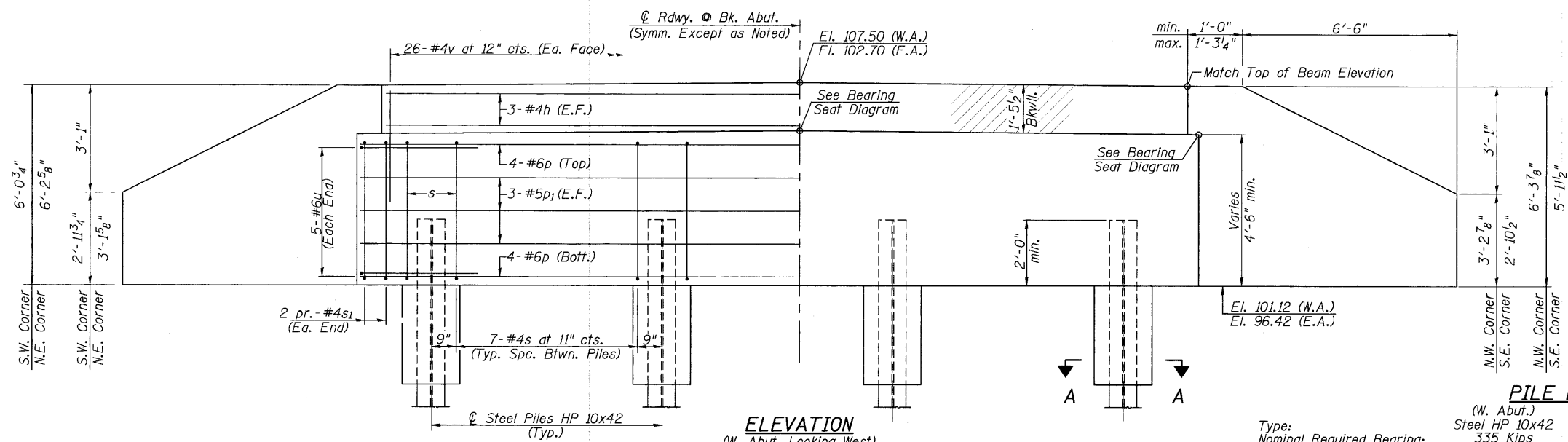
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PLOT DATE = #DATE#	DATE	-	-

**Allen Henderson & Associates, Inc.**  
Civil and Structural Engineers Springfield, IL  
62703 Phone: (217)544-8033 IL Design Firm  
No. 184-001907

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	09-11118-00-BR	SHELBY	22	11

SCALE: NONE SHEET NO. 7 OF 11 SHEETS STA. TO STA.

CONTRACT NO.
95629

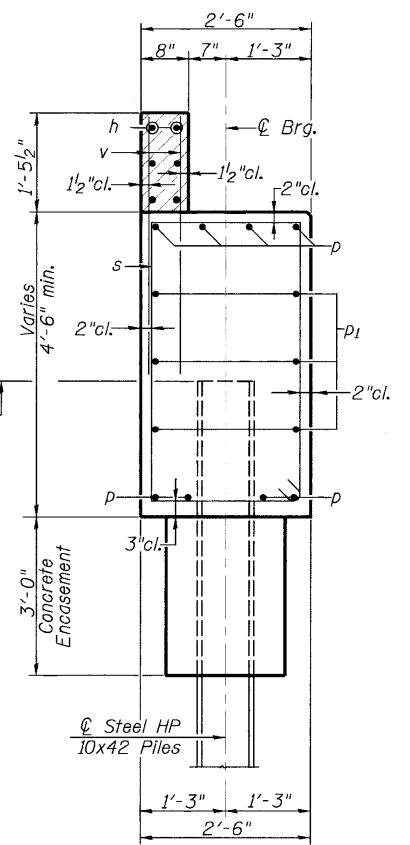


**ELEVATION**  
(W. Abut. Looking West)  
(E. Abut. Looking East)

Note: See Sheet 15 of 22 for Section A-A

**PILE DATA**

	(W. Abut.)	(E. Abut.)
Type:	Steel HP 10x42	Steel HP 10x42
Nominal Required Bearing:	335 Kips	335 Kips
Factored Resistance Available:	167 Kips	167 Kips
Estimated Pile Length:	58'	55'
Number of Production:	3	3
Number of Test Piles:	1	1



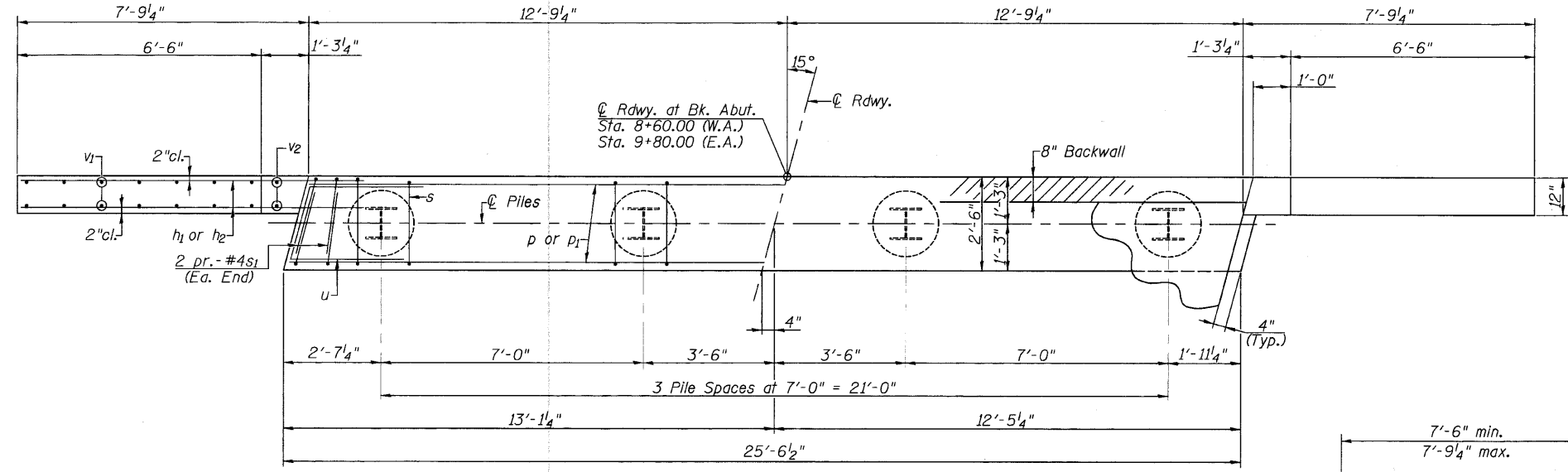
**SECTION THRU ABUTMENT**

**NOTES**

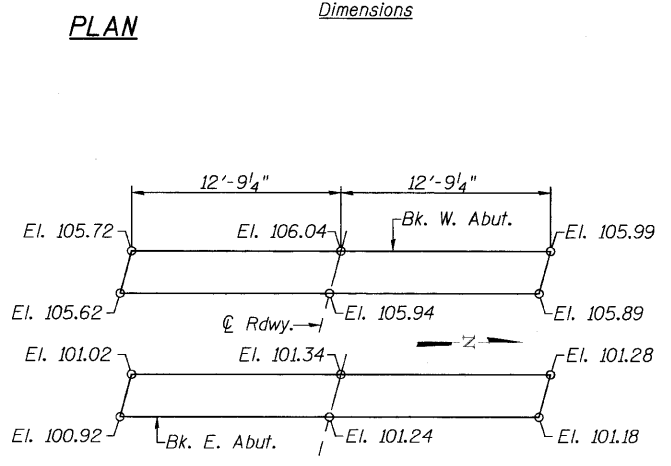
All exposed edges shall have standard 3/4" chamfer.  
Space reinforcement in cap to miss beam anchor dowels.  
Wingwalls and Backwalls may, at the contractor's option, be cast monolithically.  
Hatched area and wingwalls shall be poured after deck beams are anchored in place.  
The Steel H-Piles shall be according to AASHTO M270, Grade 50.  
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.

**BILL OF MATERIAL TWO ABUTMENTS**

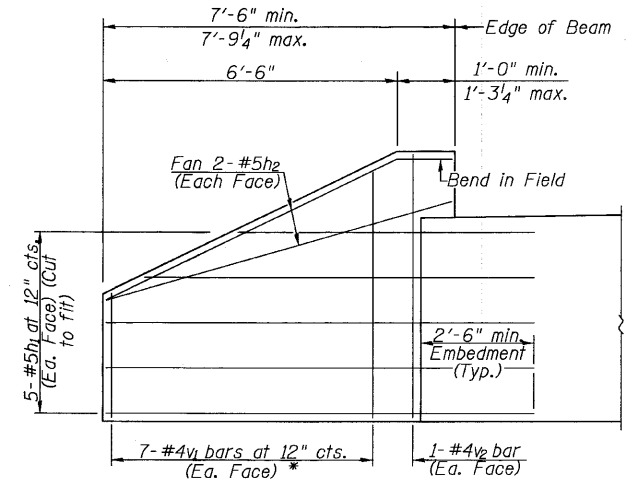
BAR	NO.	SIZE	LENGTH	SHAPE
h	12	#4	26'-7"	—
h1	40	#5	10'-1"	—
h2	16	#5	7'-3"	—
p	16	#6	25'-2"	—
p1	12	#5	25'-2"	—
s	46	#4	13'-3"	□
s1	16	#4	8'-5"	□
u	20	#6	10'-2"	□
v	104	#4	2'-8"	—
v1	28	#4	8'-1"	—
v2	8	#4	5'-8"	—
Concrete Structures			Cu. Yd.	29.8
Reinforcement Bars			Pound	2845
Furnishing Steel Piles HP 10x42			Foot	339
Concrete Encasement			Cu. Yd.	2.8
Structure Excavation			Cu. Yd.	12
Driving Piles			Foot	339
Test Pile Steel HP 10x42			Each	2



**PLAN**

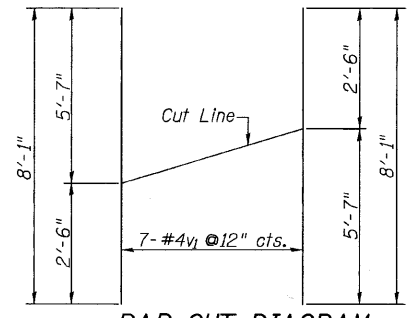


**BEARING SEAT DIAGRAM**



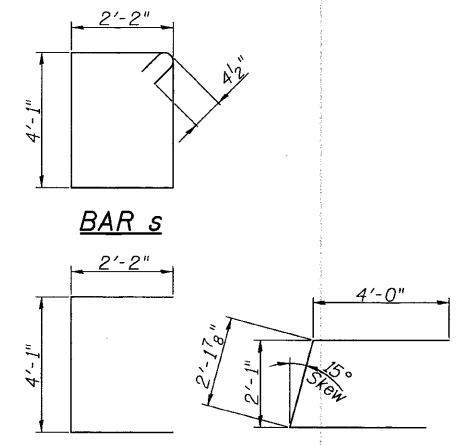
**WINGWALL ELEVATION**

(Showing Reinforcement)  
\* See v1-bar cut diagram



**v1 - BAR CUT DIAGRAM**

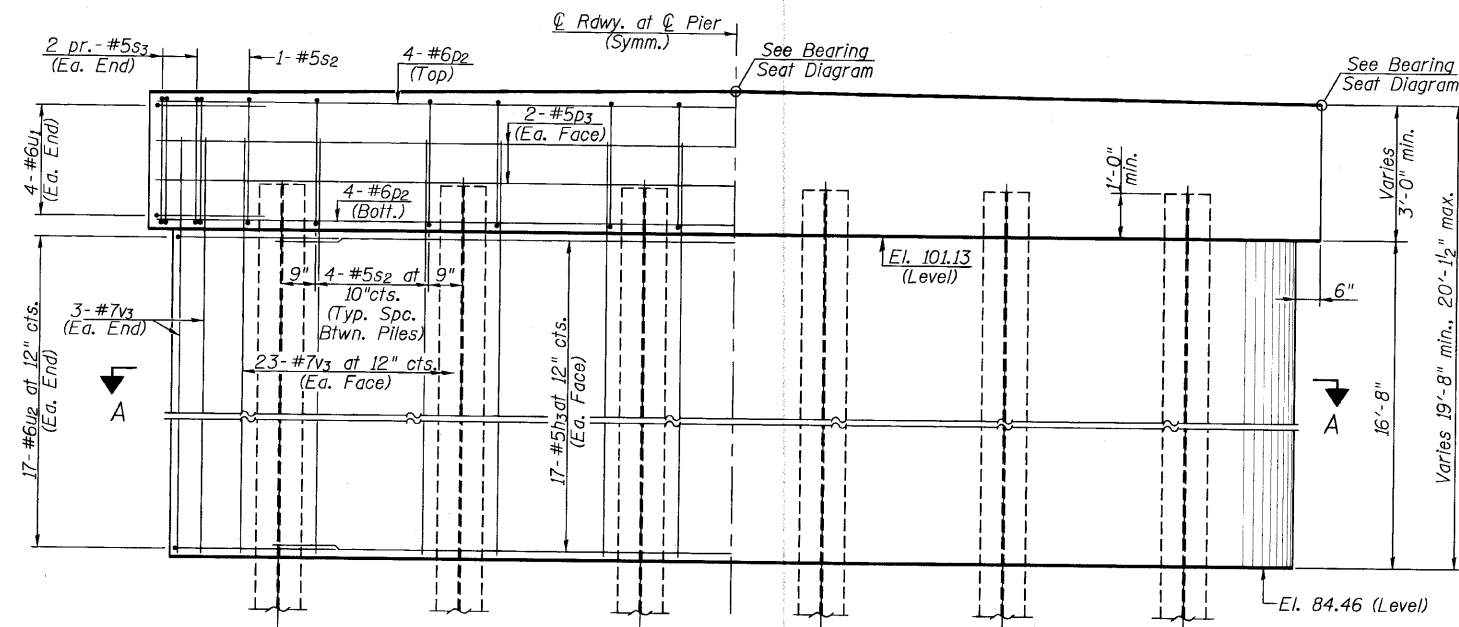
Order v1 bars full length; Layout in field according to diagram. Cut v1 bars along cut line. Use remainder of each bar in opposite face.



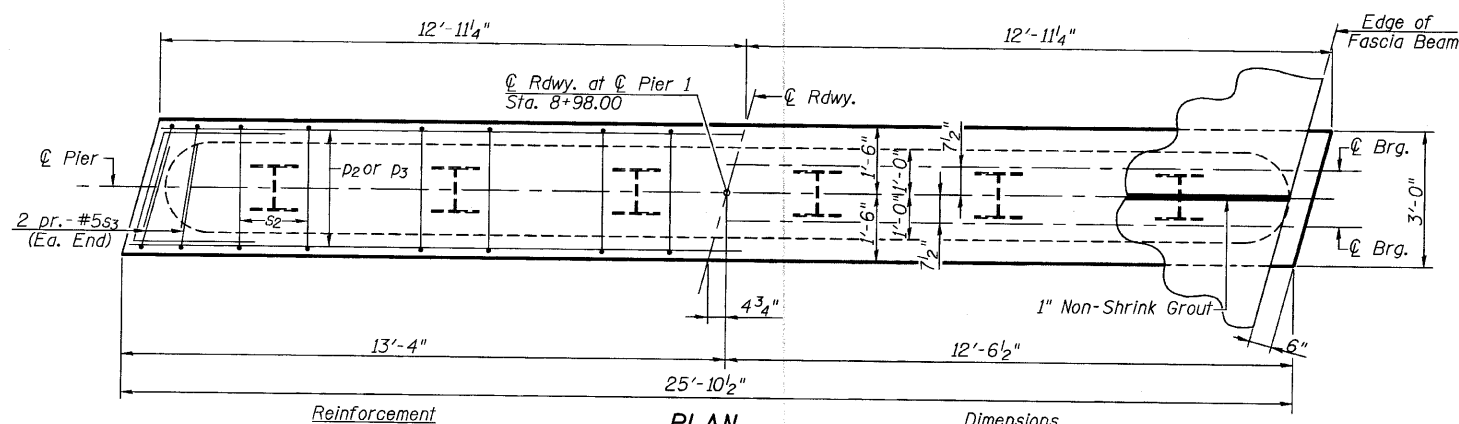
**BAR s**

**BAR s1**

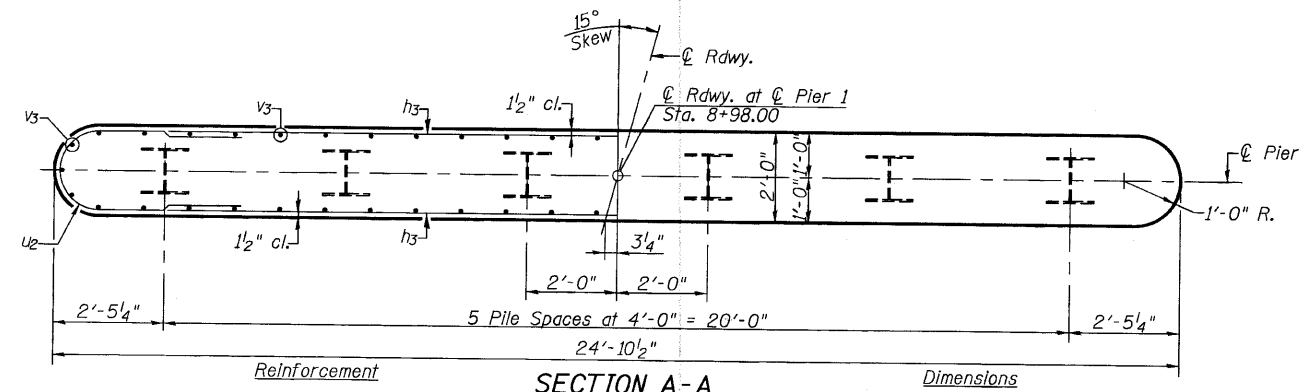
**BAR u**



Reinforcement ELEVATION Dimensions



Reinforcement PLAN Dimensions



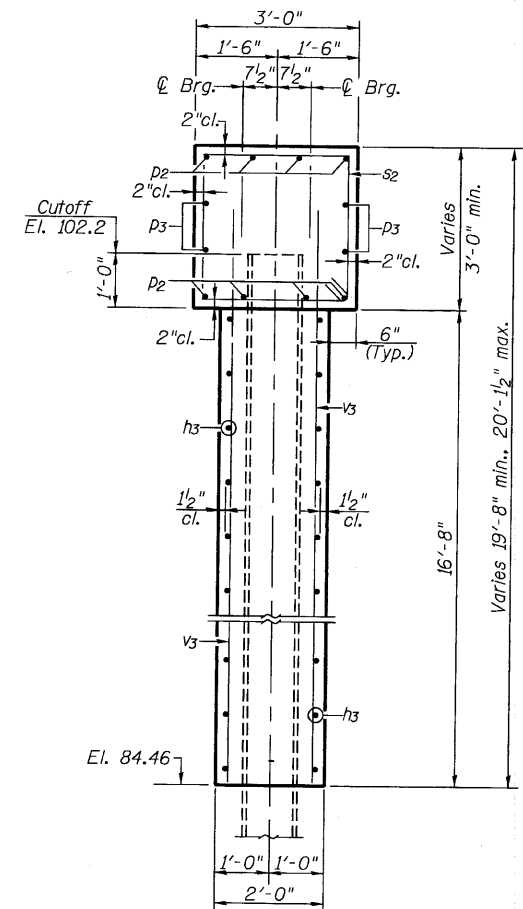
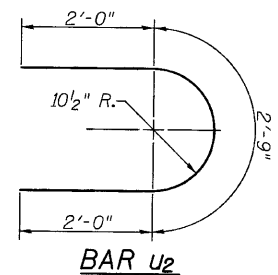
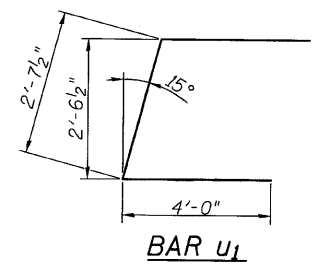
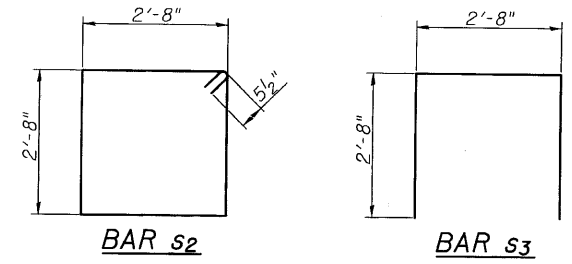
Reinforcement SECTION A-A Dimensions

**PILE DATA**

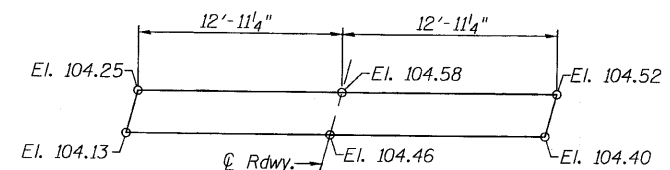
Type: Steel HP 10x42  
 Nominal Required Bearing: 335 Kips  
 Factored Resistance Available: 167 Kips  
 Estimated Pile Length: 61'  
 Number of Production: 5  
 Number of Test Piles: 1

**NOTES**

The Steel H-Piles shall be according to AASHTO M270, Grade 50.  
 All exposed edges shall have standard 3/4" chamfer except as noted.  
 Space reinforcement in pier caps to miss beam anchor dowels.  
 The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at Pier 1 or at a location specified by the Engineer before ordering the remainder of piles.  
 If a portion of the pier wall is under water, reinforcement may be placed underwater into 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.



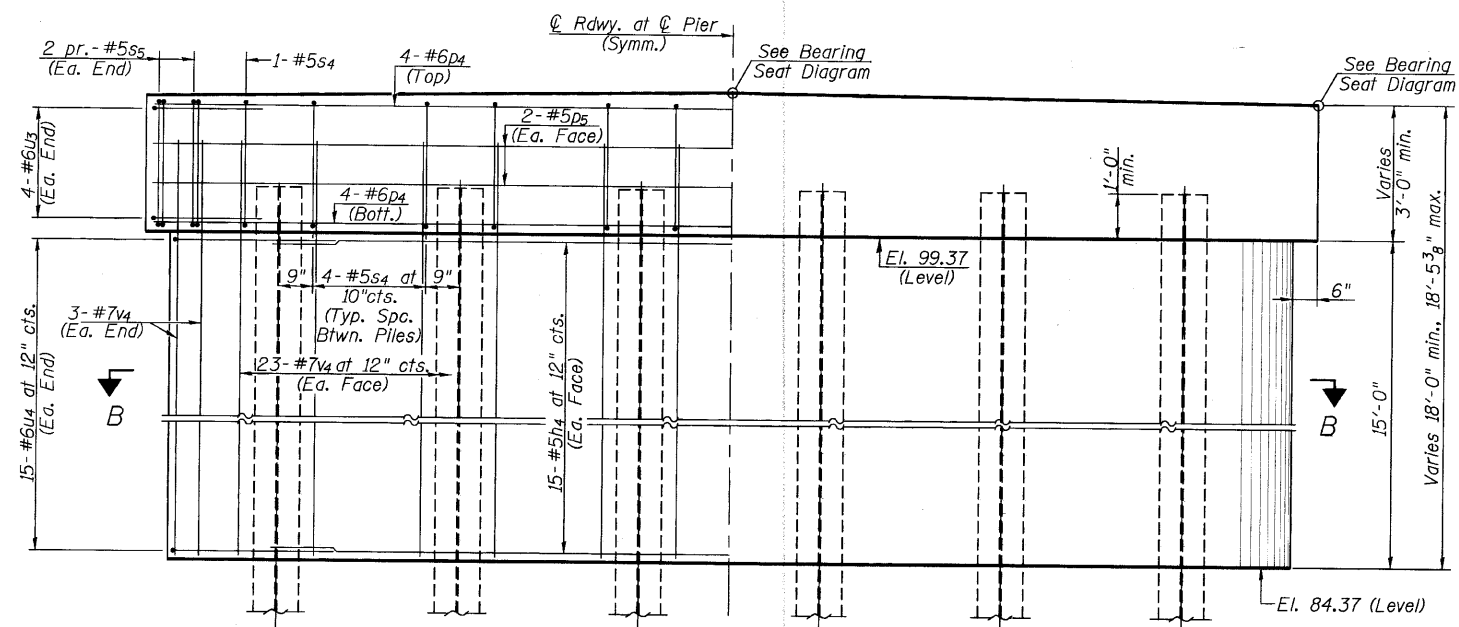
SECTION THRU PIER



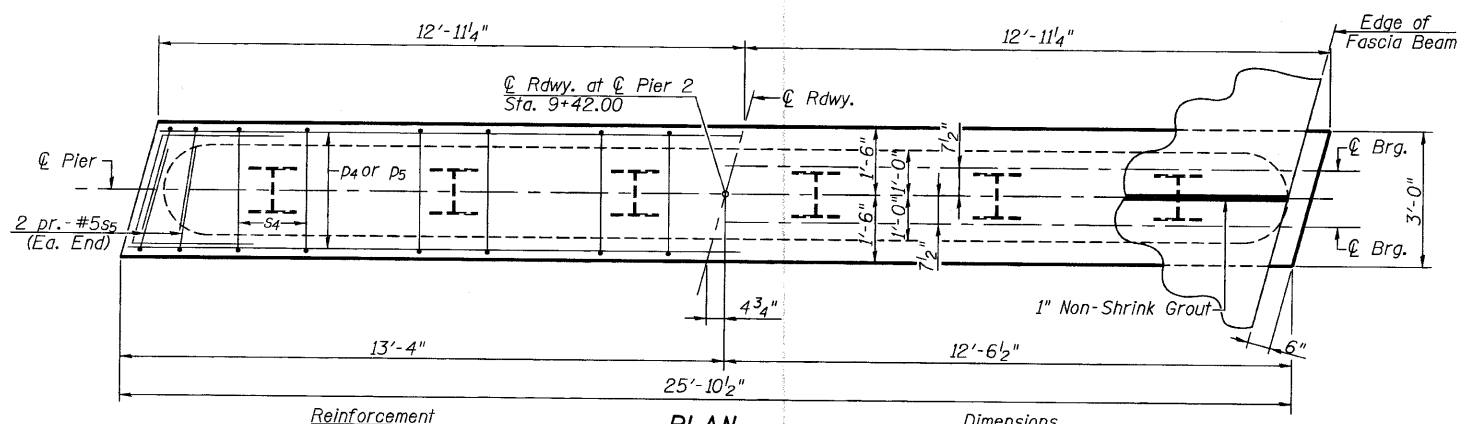
BEARING SEAT DIAGRAM

**BILL OF MATERIAL**  
**PIER 1**

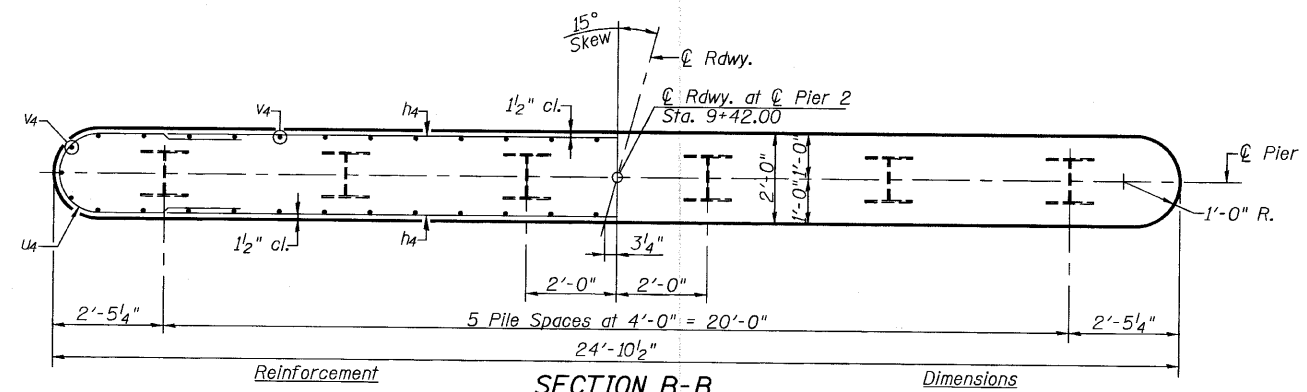
BAR	NO.	SIZE	LENGTH	SHAPE	
h3	34	#5	22'-10"	—	
p2	8	#6	25'-6"	—	
p3	4	#5	25'-6"	—	
s2	22	#5	11'-7"	□	
s3	8	#5	8'-0"	□	
u1	8	#6	10'-8"	U	
u2	34	#6	6'-9"	C	
v3	52	#7	18'-6"	—	
Concrete Structures				Cu. Yd.	39.4
Reinforcement Bars				Pound	3995
Furnishing Steel Piles, HP 10x42				Foot	305
Driving Piles				Foot	305
Test Pile Steel HP 10x42				Each	1
Underwater Structure Excavation				Each	1
Protection - Location 1				Each	1
Structure Excavation				Cu. Yd.	23



Reinforcement ELEVATION Dimensions



Reinforcement PLAN Dimensions



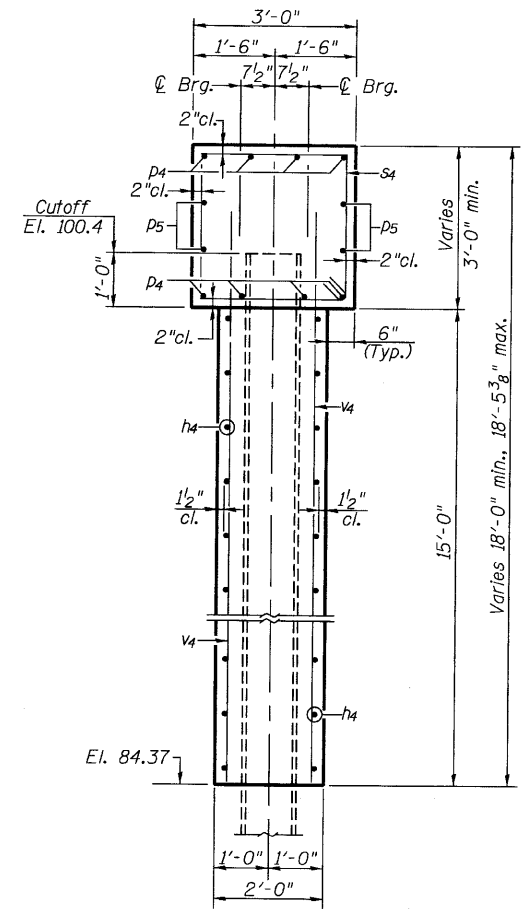
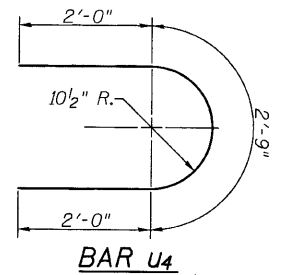
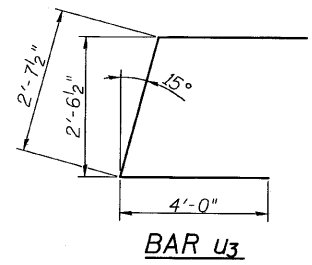
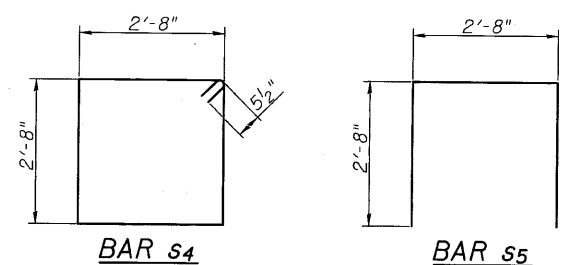
Reinforcement SECTION B-B Dimensions

**PILE DATA**

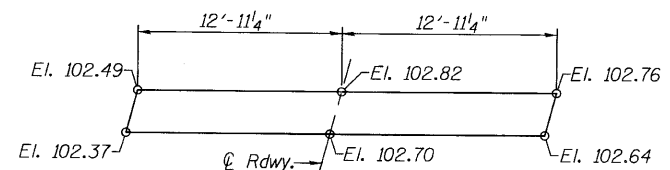
Pier 2  
 Type: Steel HP 10x42  
 Nominal Required Bearing: 335 Kips  
 Factored Resistance Available: 167 Kips  
 Estimated Pile Length: 59'  
 Number of Production: 5  
 Number of Test Piles: 1

**NOTES**

The Steel H-Piles shall be according to AASHTO M270, Grade 50.  
 All exposed edges shall have standard 3/4" chamfer except as noted.  
 Space reinforcement in pier caps to miss beam anchor dowels.  
 The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at Pier 2 or at a location approved by the Engineer before ordering the remainder of piles.  
 If a portion of the pier wall is under water, reinforcement may be placed underwater into 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.



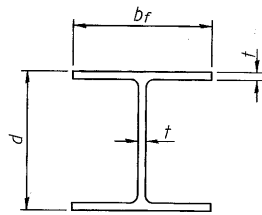
SECTION THRU PIER



BEARING SEAT DIAGRAM

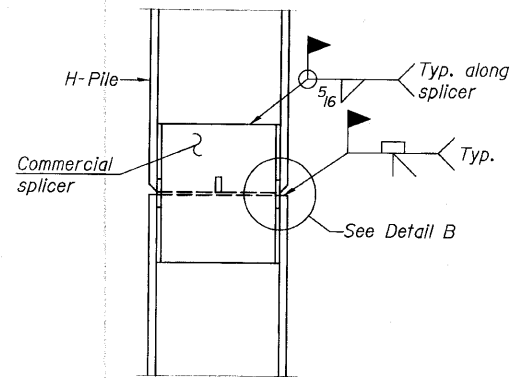
**BILL OF MATERIAL PIER 2**

BAR NO.	NO.	SIZE	LENGTH	SHAPE
h4	30	#5	22'-10"	—
p4	8	#6	25'-6"	—
p5	4	#5	25'-6"	—
s4	22	#5	11'-7"	□
s5	8	#5	8'-0"	□
u3	8	#6	10'-8"	▤
u4	30	#6	6'-9"	⌒
v4	52	#7	16'-9"	—
Concrete Structures			Cu. Yd.	36.5
Reinforcement Bars			Pound	3670
Furnishing Steel Piles, HP 10x42			Foot	295
Driving Piles			Foot	295
Test Pile Steel HP 10x42			Each	1
Underwater Structure Excavation			Each	1
Protection - Location 2				
Structure Excavation			Cu. Yd.	23

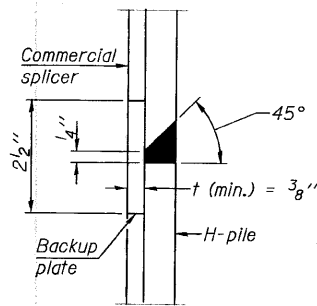


**STEEL PILE TABLE**

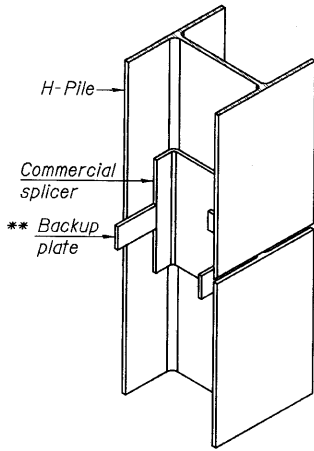
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53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

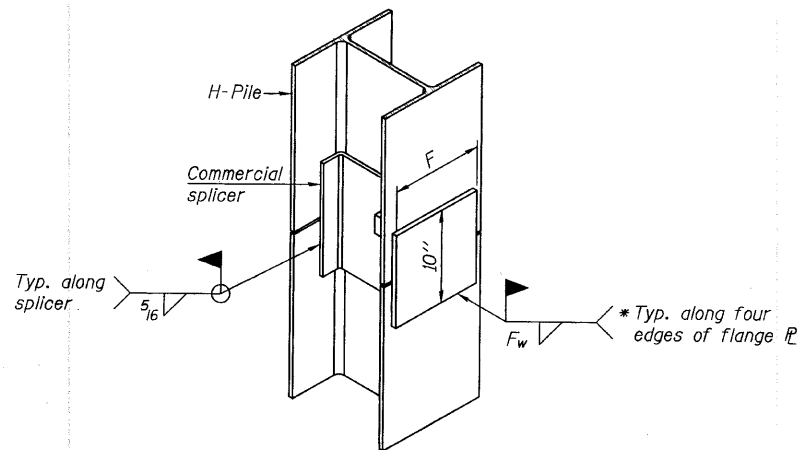


**DETAIL "B"**



**ISOMETRIC VIEW**

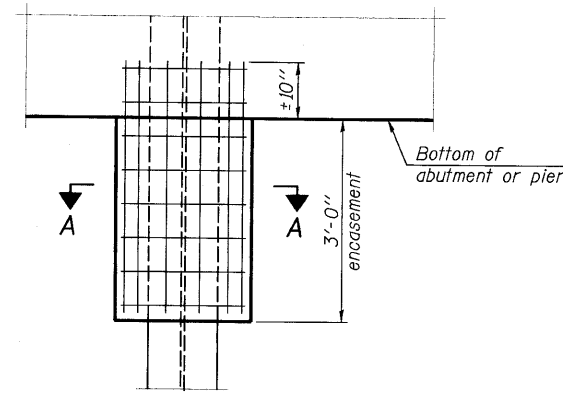
**WELDED COMMERCIAL SPLICE**



**ISOMETRIC VIEW**

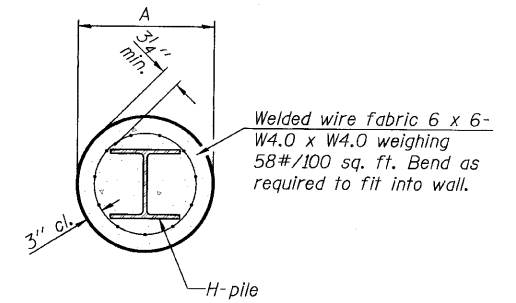
**WELDED COMMERCIAL SPLICE ALTERNATE**

- \* 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.).



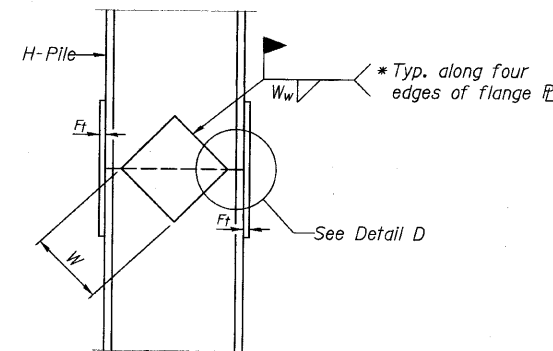
**ELEVATION**

**PILE ENCASEMENT**

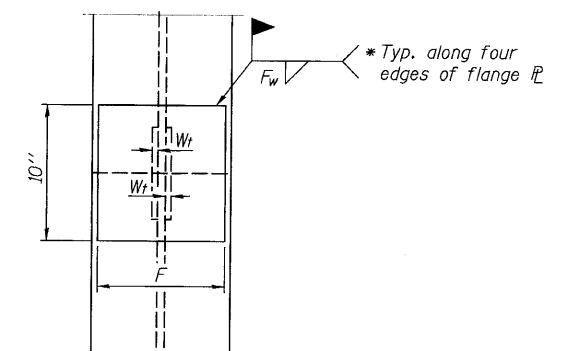


**SECTION A-A**

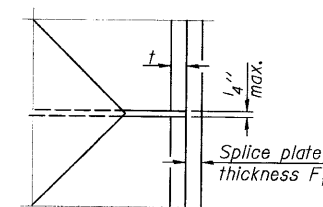
Note:  
Forms for encasement may be omitted when soil conditions permit.



**ELEVATION**



**END VIEW**

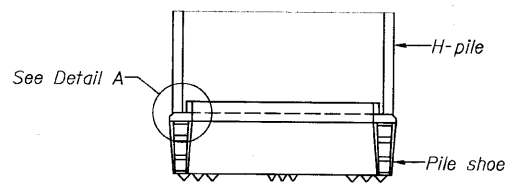


**DETAIL D**

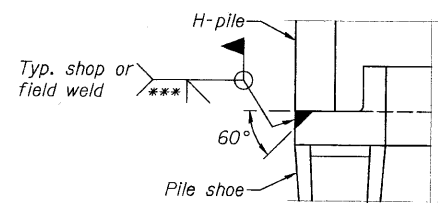
Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 8/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 8/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5 8/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 8/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5 8/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5 8/8"	1/2"
x63	10"	5/8"	1/2"	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"

**WELDED PLATE FIELD SPLICE**

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



**ELEVATION**



**DETAIL A**

**H-PILE SHOE ATTACHMENT**

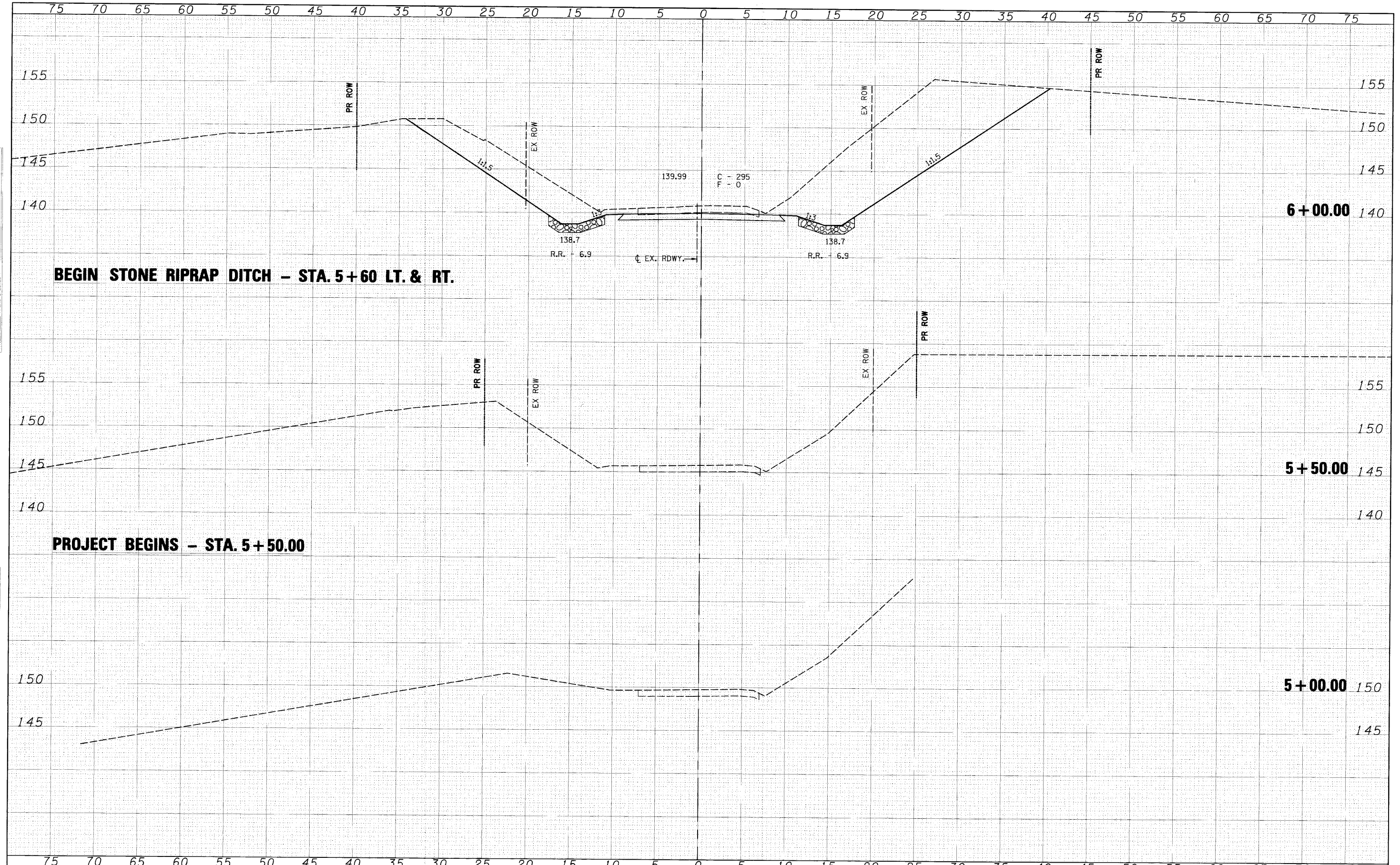
F-HP

11-1-09

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	<b>HP PILE DETAILS</b>		T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT DATE = #DATE#	DATE -	REVISED -			SCALE: NONE	SHEET NO. 11 OF 11 SHEETS	STA. TO STA.	CONTRACT NO. 95629				
							FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			


DATE	
BY	
FINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	



**BEGIN STONE RIPRAP DITCH - STA. 5+60 LT. & RT.**

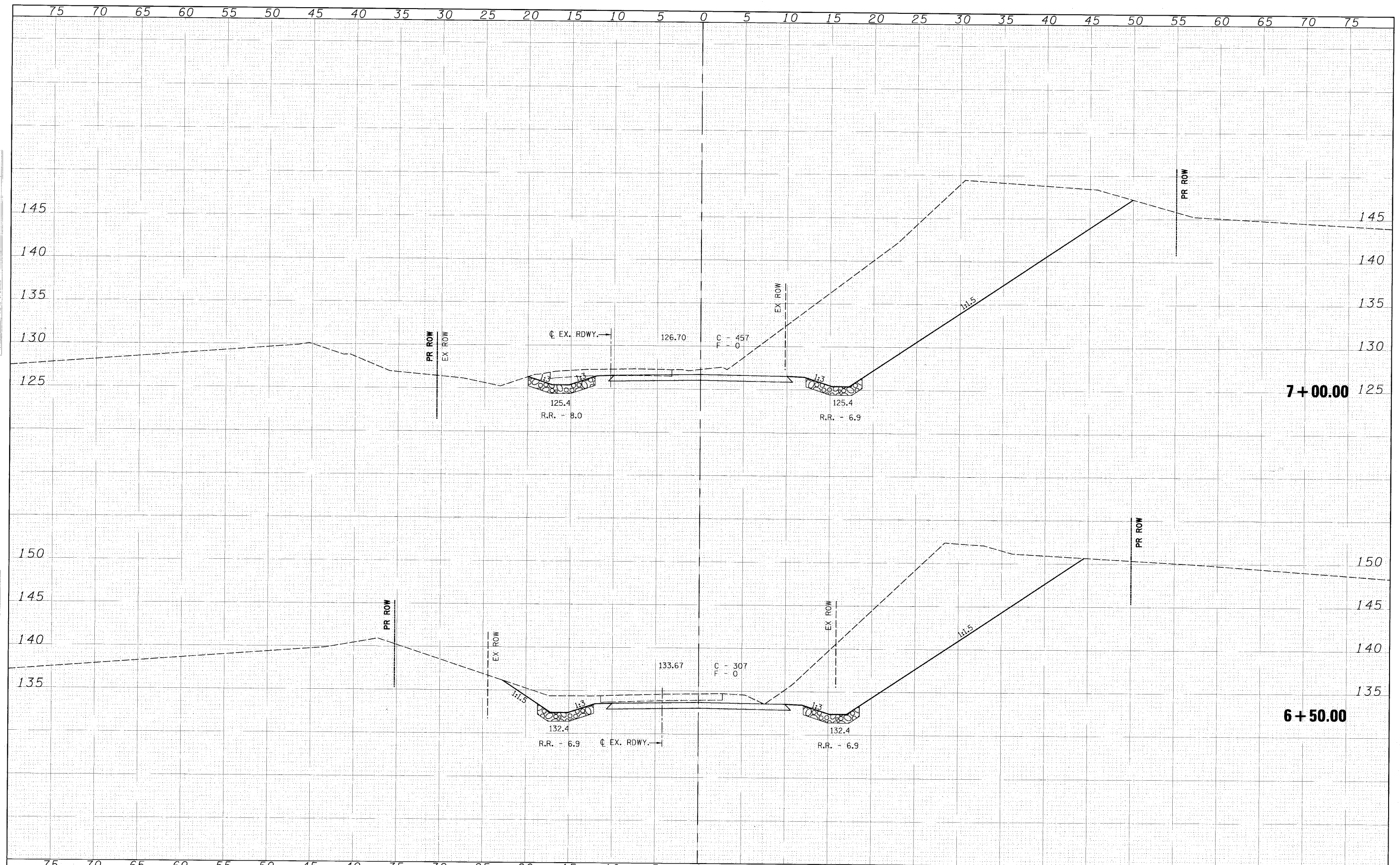
**PROJECT BEGINS - STA. 5+50.00**


FILE NAME	USER NAME = #USER#	DESIGNED	REVISED	 <b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	<b>CROSS SECTIONS</b>		TR. RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
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PLOT SCALE = #SCALE#		CHECKED	REVISED						CONTRACT NO. 95629				
PLOT DATE = #DATE#		DATE	REVISED						FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



FINAL SURVEY PLOTTED DATE  
 NOTE BOOK AREAS CHECKED

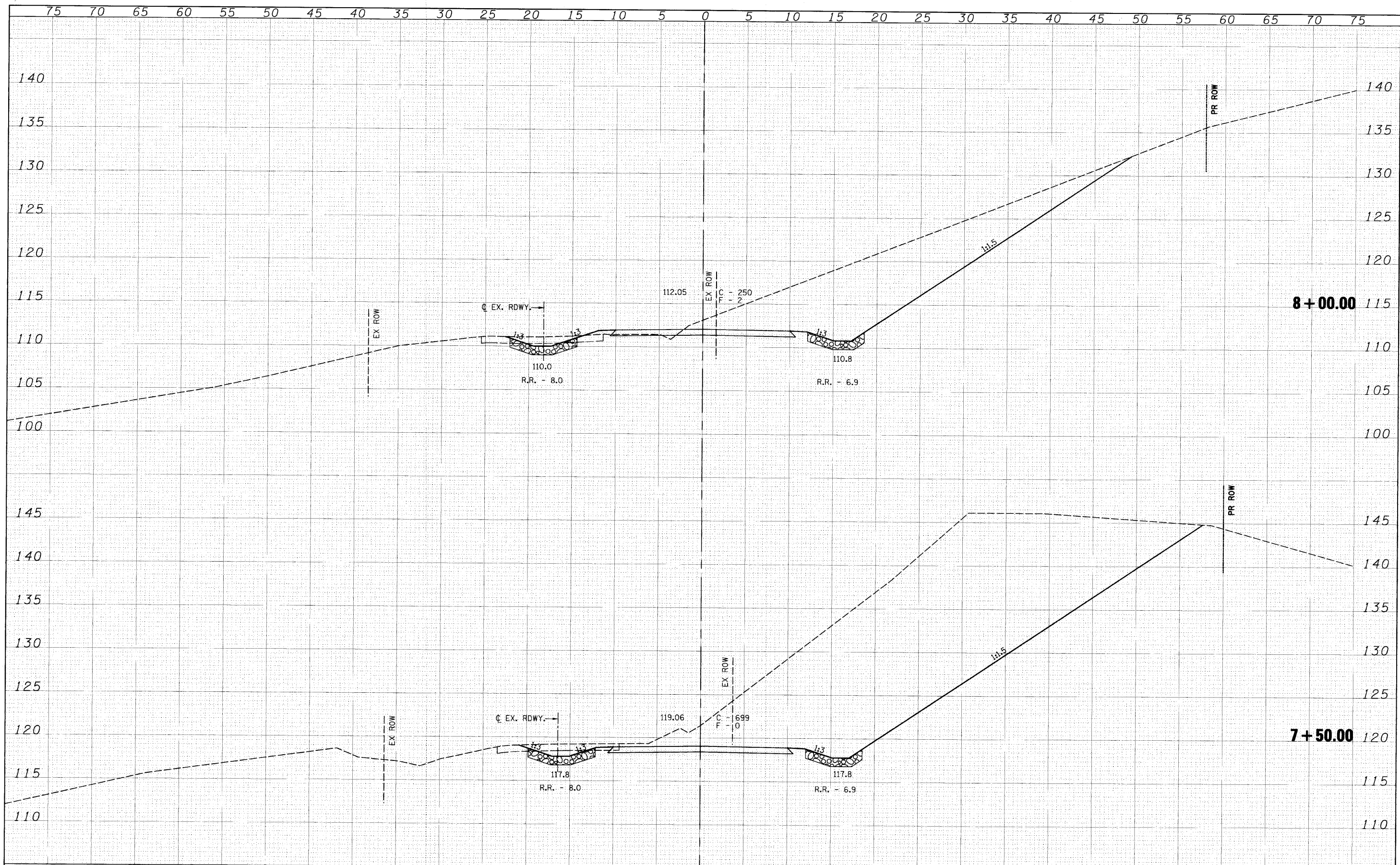
ORIGINAL SURVEY PLOTTED DATE  
 NOTE BOOK AREAS CHECKED



FILE NAME	USER NAME - SURFER	DESIGNED	REVISED	 <b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	<b>CROSS SECTIONS</b> SCALE: 1" = 5' SHEET NO. 2 OF 7 SHEETS STA. 6+50.00 TO STA. 7+00.00		T.R. -	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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		DATE	REVISED		ILLINOIS FED. AID PROJECT						

DATE	
BY	
SURVEY	
FLA	
NOTE BOOK	
TEMP	
AREAS CHECKED	
NO.	

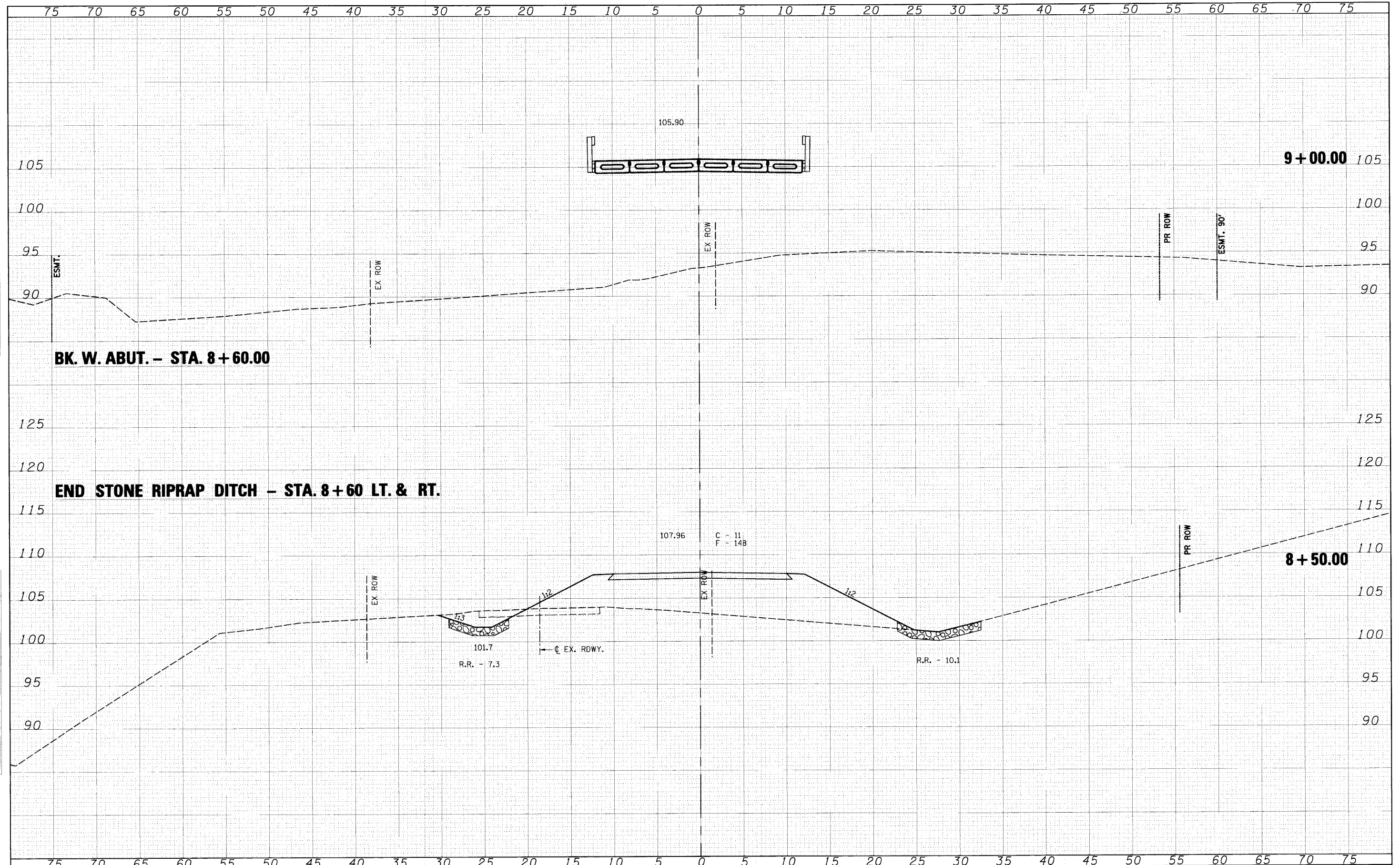
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BY	
SURVEY	
FLA	
NOTE BOOK	
TEMP	
AREAS CHECKED	
NO.	




FILE NAME =	USER NAME = #USER*	DESIGNED -	REVISED -	<p><b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	<b>CROSS SECTIONS</b>		T.R. -	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FL.#		DRAWN -	REVISED -		SCALE: 1" = 5'	SHEET NO. 3 OF 7 SHEETS	303	09-11118-00-BR	SHELBY	22	18
		CHECKED -	REVISED -		STA. 7+50.00	TO STA. 8+00.00	CONTRACT NO. 95629				
		DATE	REVISED		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT						

FINAL SURVEYED BY DATE  
 SURVEYED BY DATE  
 REVISIONS  
 NOTE BOOK NO. DATE  
 AREAS CHECKED

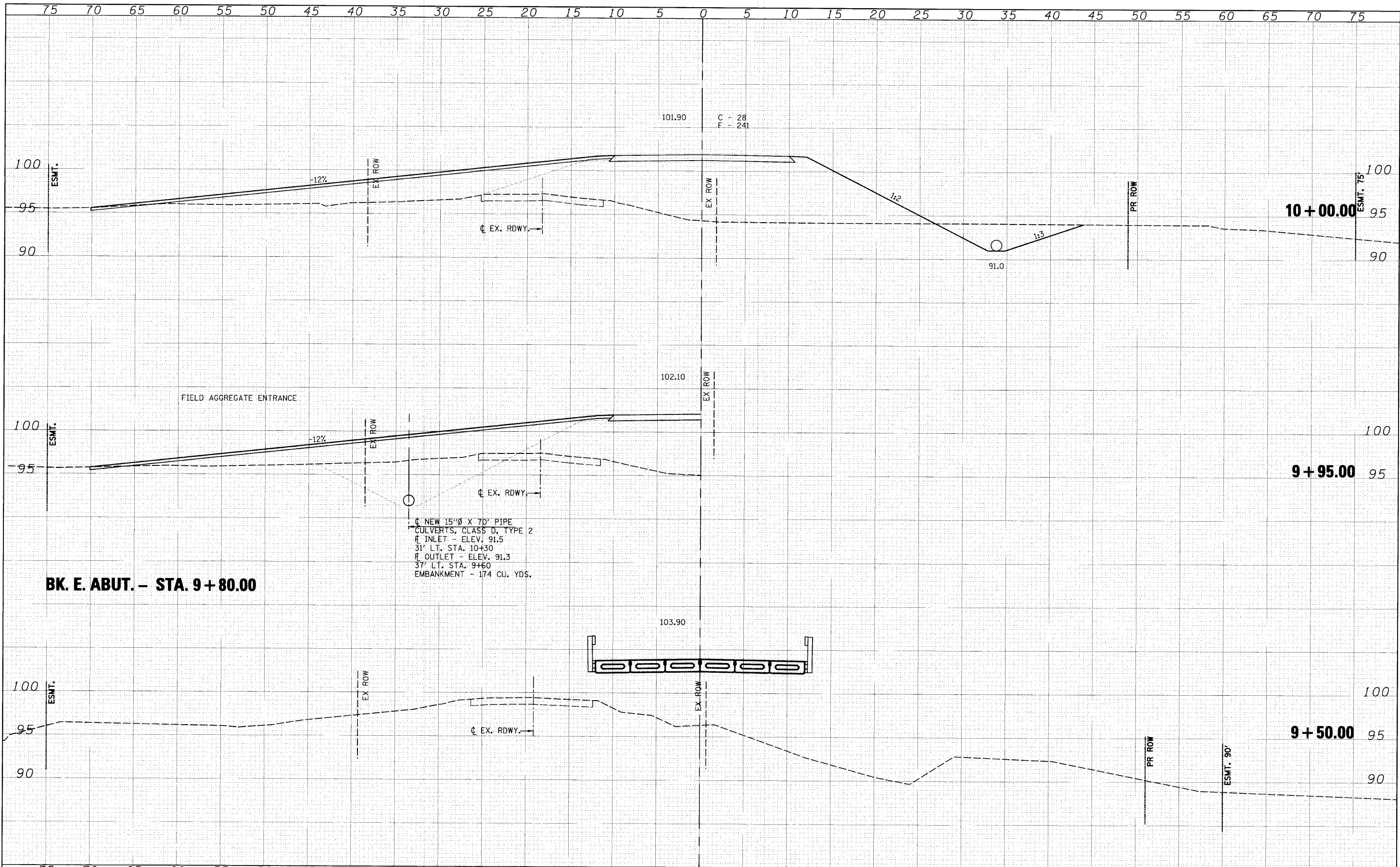
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 SURVEYED BY DATE  
 REVISIONS  
 NOTE BOOK NO. DATE  
 AREAS CHECKED



FILE NAME -	USER NAME - #USER#	DESIGNED -	REVISED -	 <b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	<b>CROSS SECTIONS</b>		T.P.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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PLOT DATE - #DATE#	DATE	CHECKED -	REVISED -		SCALE: 1" = 5'		SHEET NO. 4 OF 7 SHEETS		STA. 8+50.00	TO STA. 9+00.00	CONTRACT NO. 95629	
		REVISIED -	REVISIED -				FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

DATE	BY
DESIGNED	BY
DRAWN	BY
CHECKED	BY
DATE	BY

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DATE	BY



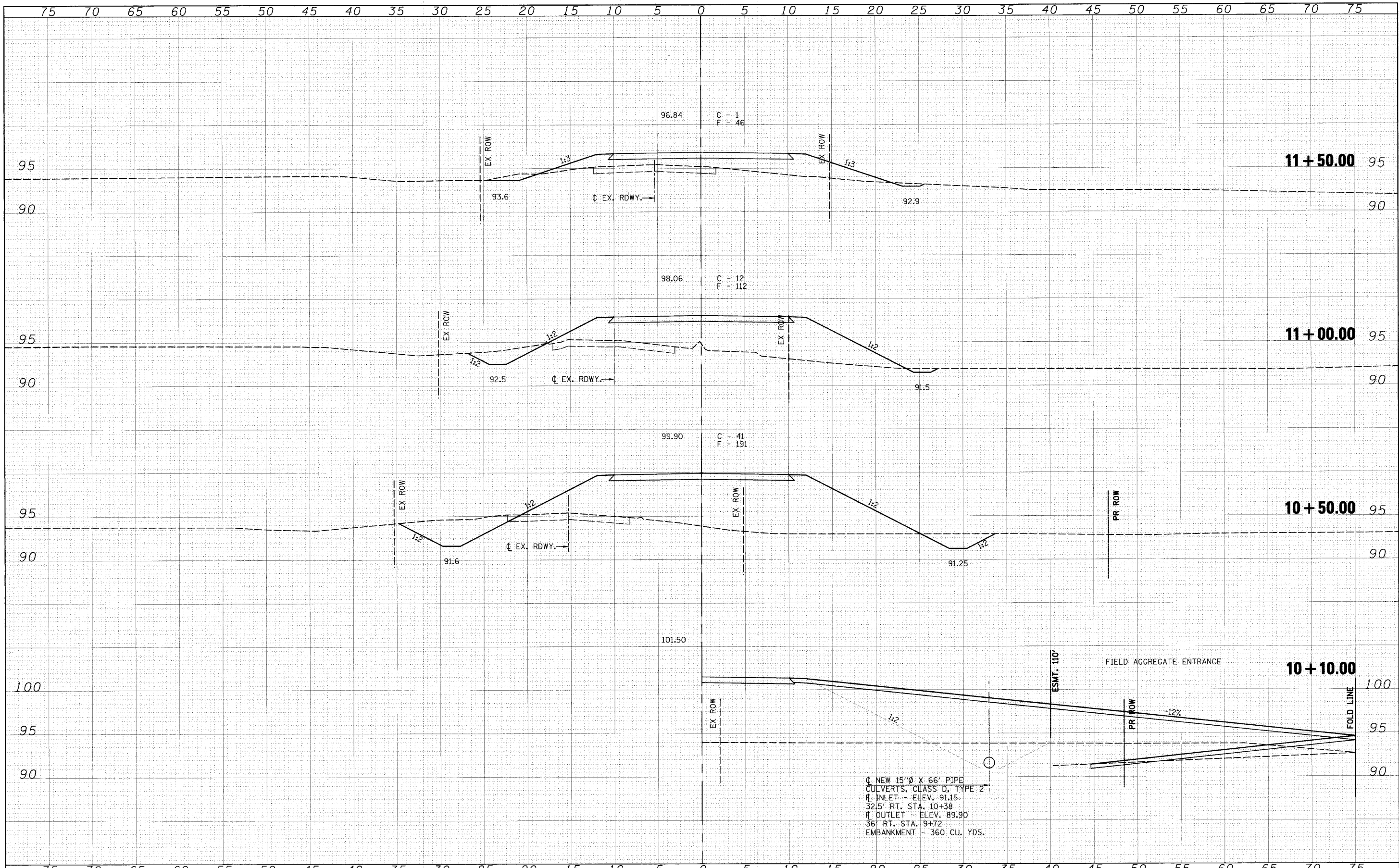
**BK. E. ABUT. - STA. 9+80.00**


NEW 15" X 70" PIPE  
 CULVERTS, CLASS D, TYPE 2  
 R INLET - ELEV. 91.5  
 31' LT. STA. 10+30  
 R OUTLET - ELEV. 91.3  
 37' LT. STA. 9+60  
 EMBANKMENT - 174 CU. YDS.

FILE NAME	USER NAME	DESIGNED	REVISOR	<b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	<b>CROSS SECTIONS</b> SCALE: 1" = 5' SHEET NO. 5 OF 7 SHEETS STA. 9+50.00 TO STA. 10+00.00		T.R. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
FILE NO.	PILOT SCALE	DRAWN	REVISOR				303	09-11118-00-BR	SHELBY	22
	PILOT DATE	CHECKED	REVISOR				CONTRACT NO. 95629			
		DATE	REVISOR				ILLINOIS FED. AID PROJECT			

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

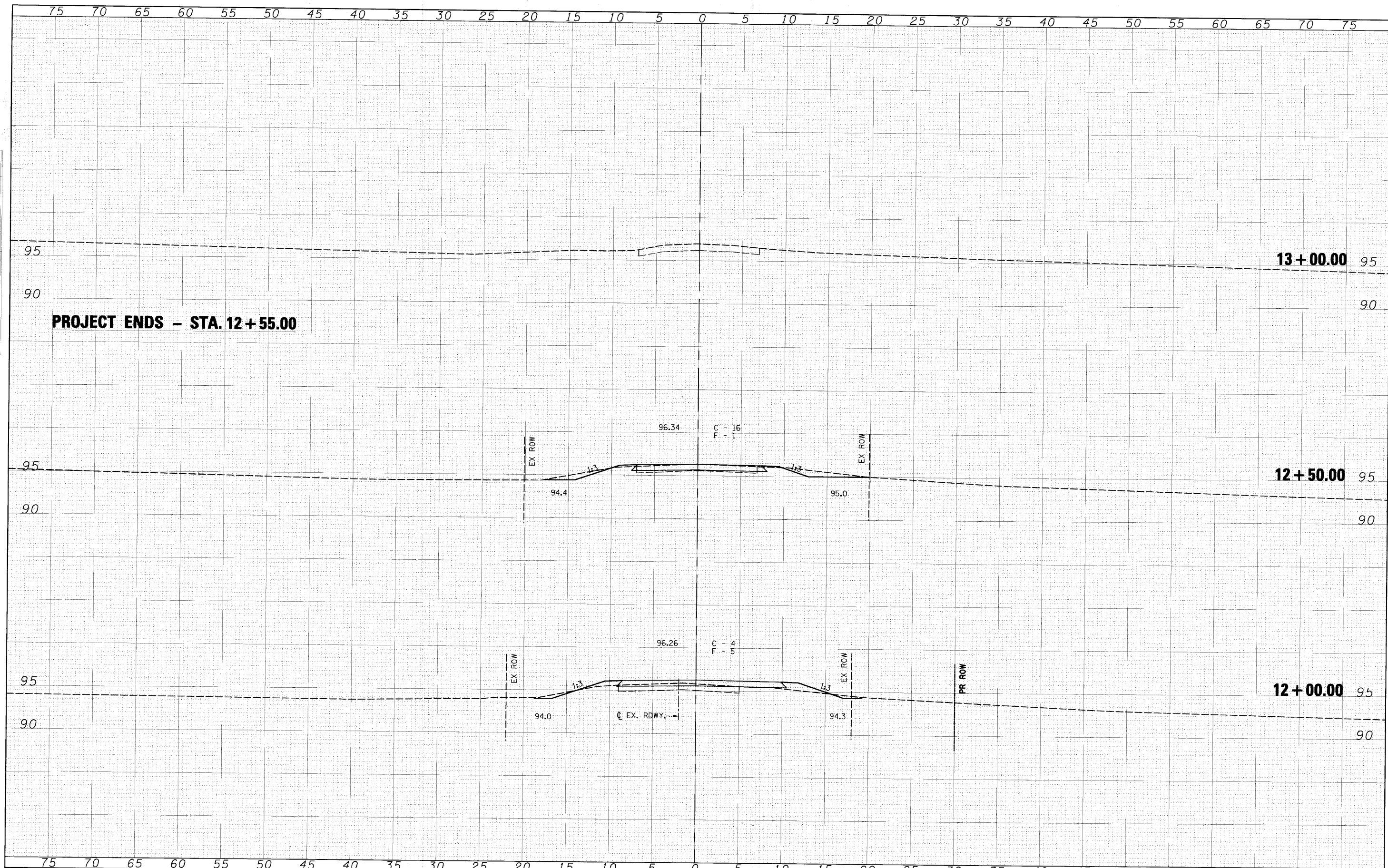
DATE \_\_\_\_\_ BY \_\_\_\_\_  
 ORIGINAL SURVEY \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 AREAS CHECKED \_\_\_\_\_  
 NO. \_\_\_\_\_




FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	 <b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	<b>CROSS SECTIONS</b>			T.R. & RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#	PLOT SCALE = #SCALE#	DRAWN -	REVISED -		SCALE: 1" = 5'	SHEET NO. 6 OF 7 SHEETS	STA. 10+10.00	TO STA. 11+50.00	303	09-11118-00-BR	SHELBY	22	21
	PLOT DATE = #DATE#	CHECKED -	REVISED -										
		DATE -	REVISED -										
								CONTRACT NO. 95629					
								FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

DATE	
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FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISD -	 <b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	<b>CROSS SECTIONS</b> SCALE: 1" = 5'    SHEET NO. 7 OF 7 SHEETS    STA. 12+00.00 TO STA. 13+00.00		T.R. -	SECTION	COUNTY	TOTAL	SHEET
#P-ILL-GL#		DRAWN -	REVISD -				303	09-11118-00-BR	SHELBY	22	22
PLOT SCA F = #SCALE#		CHECKED -	REVISD -				CONTRACT NO. 95629				
PLOT DATE = #DATE#		DATE -	REVISD -				ILLINOIS FED. AID PROJECT				