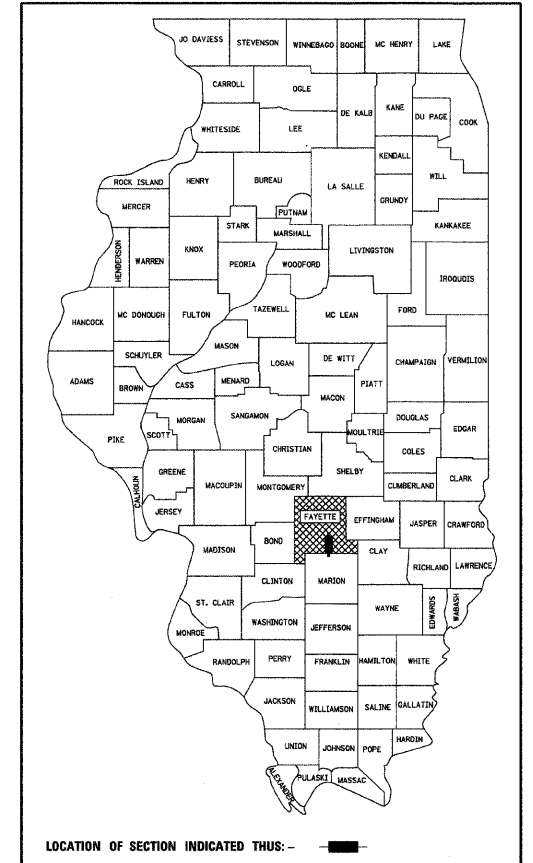


ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 292	03-20126-00-BR	FAYETTE	10	1
ILLINOIS				

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

# PLANS FOR PROPOSED HIGHWAY BRIDGE PROGRAM



**INDEX OF SHEETS**

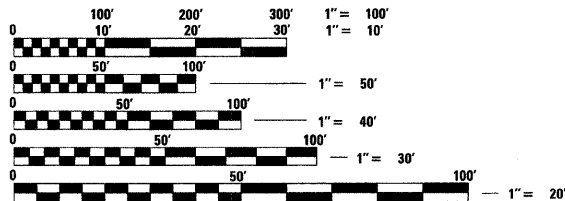
1. COVER SHEET
2. SUMMARY OF QUANTITIES AND TYPICAL SECTIONS
3. PLAN AND PROFILE OF ROADWAY
4. GENERAL PLAN AND ELEVATION
- 5.-6. PRECAST PRESTRESSED CONCRETE DECK BEAM DETAILS
7. STEEL RAILING, TYPE S1 DETAILS
8. ABUTMENT DETAILS
9. HP PILE DETAILS
10. CROSS SECTIONS OF ROADWAY

HIGHWAY STANDARDS (SEE SPECIFICATIONS)  
 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS  
 515001-03 NAME PLATE FOR BRIDGES  
 701901-01 TRAFFIC CONTROL DEVICES  
 BLR 21-8 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

SOIL BORINGS (SEE SPECIFICATIONS)

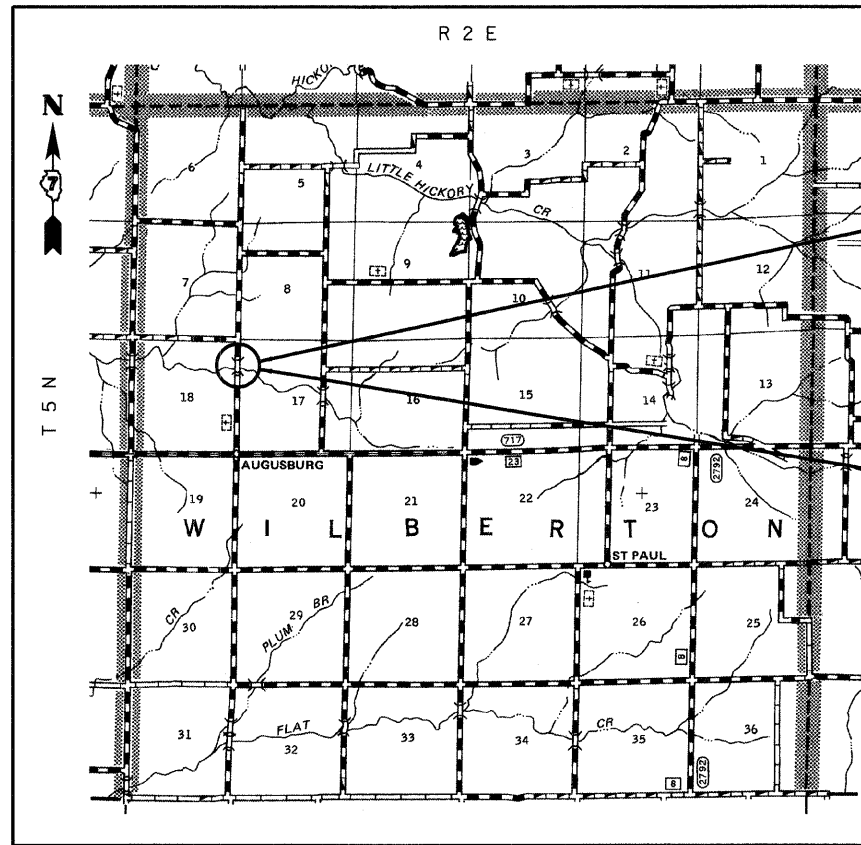
## TR 292 RICHLAND CREEK SECTION 03-20126-00-BR PROJECT NO. BROS-051(088) WILBERTON ROAD DISTRICT FAYETTE COUNTY JOB NO. C-97-048-10

DESIGN CLASSIFICATION: MAJOR COLLECTOR  
 ADT<sub>2007</sub> : 125  
 ADT<sub>2027</sub> : 150  
 DESIGN SPEED - 40 MPH



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

J.U.L.I.E.  
 JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS  
 1-800-892-0123 Website: <http://www.illinois1call.com>



SECTION BEGINS STA. 9+54.74  
 SECTION 03-20126-00-BR  
 INCLUDES THE CONSTRUCTION OF A SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE CARRYING TR 292 OVER RICHLAND CREEK, 66'-4" BK. TO BK. ABUTMENTS X 24' WIDE. NO SKEW.  
 EXISTING STRUCTURE NO. 026-3126  
 PROPOSED STRUCTURE NO. 026-3448  
 SECTION ENDS STA. 10+37.08

LOCATION: NEAR THE SW CORNER, NW 1/4, NW 1/4, SECTION 17, T5N, R2E, 3RD P.M.  
 NET LENGTH OF PROJECT: 82.34 FT = 0.016 MI

FAYETTE COUNTY  
HIGHWAY DEPARTMENT

APPROVED 12-29, 2009  
*Walter A. [Signature]*  
 FAYETTE COUNTY, COUNTY ENGINEER

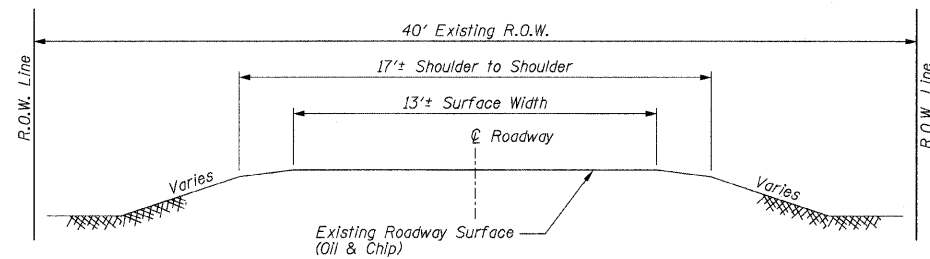
PASSED 2-19, 2010  
*Maurice [Signature]*  
 DISTRICT SEVEN ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID  
 BASED ON LIMITED  
 REVIEW 2-19, 2010  
*Roger [Signature]*  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER

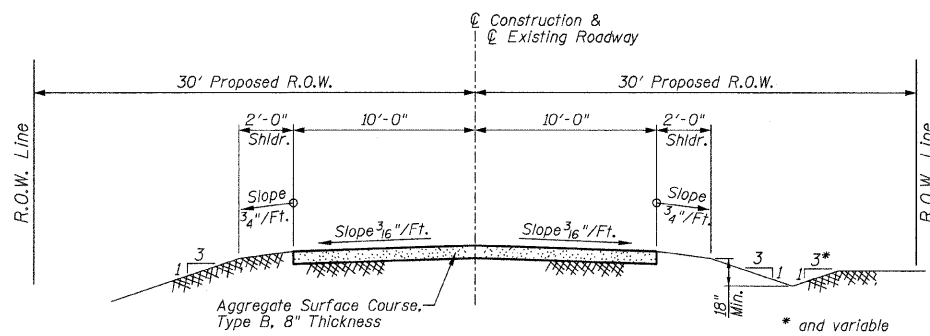


*Gary L. Hahn 12-28-2009*  
 GARY L. HAHN  
 CENTRALIA, ILLINOIS  
 ILLINOIS LICENSED PROFESSIONAL  
 ENGINEER NO. 62-42606  
 EXPIRES NOV. 30, 2011

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



TYPICAL SECTION  
EXISTING APPROACH ROADWAY



TYPICAL SECTION  
PROPOSED APPROACH ROADWAY

SUMMARY OF QUANTITIES

Code No.	Item	Unit	Quantity	Location	
				X081-2A	E000
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	17	-	17
20300100	CHANNEL EXCAVATION	CU YD	287	287	-
20700110	POROUS GRANULAR EMBANKMENT	TON	80	80	-
25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.1	-	0.1
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	100	100	-
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	105	-	105
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1	-
50300225	CONCRETE STRUCTURES	CU YD	20.4	20.4	-
50300280	CONCRETE ENCASEMENT	CU YD	2.8	2.8	-
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1560	1560	-
50800105	REINFORCEMENT BARS	POUND	3460	3460	-
* 50900205	STEEL RAILING, TYPE S1	FOOT	133	133	-
51201600	FURNISHING STEEL PILES HP12X53	FOOT	221	221	-
51202305	DRIVING PILES	FOOT	221	221	-
51203600	TEST PILE STEEL HP12X53	EACH	1	1	-
51500100	NAME PLATES	EACH	1	1	-
67100100	MOBILIZATION	L SUM	1	-	1

\* SPECIALTY ITEM

GENERAL NOTES

- This section shall be constructed according to the plans, the Special Provisions, and the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2007.
- Any reference to a Standard in these plans shall be interpreted to mean the edition as indicated by the sub-number listed in the Index of Sheets or the copy of the Standard included in these plans.
- Roadway Centerline profiles refer to the finished surface.
- Existing utilities shown are located from surface observations or information provided by the respective utilities and must be considered approximate. There may be others, the exact location of which are unknown and not shown. The Contractor will be responsible for notifying the respective utilities before work is begun. Field marking of underground utilities may be obtained by providing a minimum of 48 hours advance notice through the J.U.L.I.E. system by calling 1-800-892-0123, or by direct contact with non-members of J.U.L.I.E.
- The Aggregate Surface Course, Type B gradation shall be CA 6 or CA 10. Only crushed stone will be approved for use on this project.
- The nominal thickness for surface course is shown on the Typical Sections, Standards, Schedules, or Special Details. The constructed thickness of the above item shall not be less than 90 percent of the nominal thickness at any location.
- Factors used for quantity calculations are as follows:  
Porous Granular Embankment 2.1 tons/cu. yd.  
Stone Dumped Riprap 130 pounds/cu. ft.  
Aggregate Surface Course 2.1 tons/cu. yd.

UTILITIES

Telephone: Odin Telephone Exchange Inc  
PO Box 279  
Odin, IL 62870  
618-775-8222

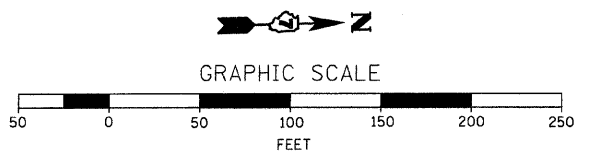
Water: Fayette County Water Company  
Mike Casey  
RR 1 Box 714  
Brownstown, IL 62418  
Phone: 618-347-2430

Electric: Southwestern Electric Cooperative, Inc.  
Greenville, IL 62246  
Phone: 618-664-1025

SUMMARY OF QUANTITIES  
AND TYPICAL SECTIONS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 292	03-20126-00-BR	FAYETTE	10	2
CONTRACT NO. 95619				
ILLINOIS FED. AID PROJECT				

12/28/2009 RAAI #50409

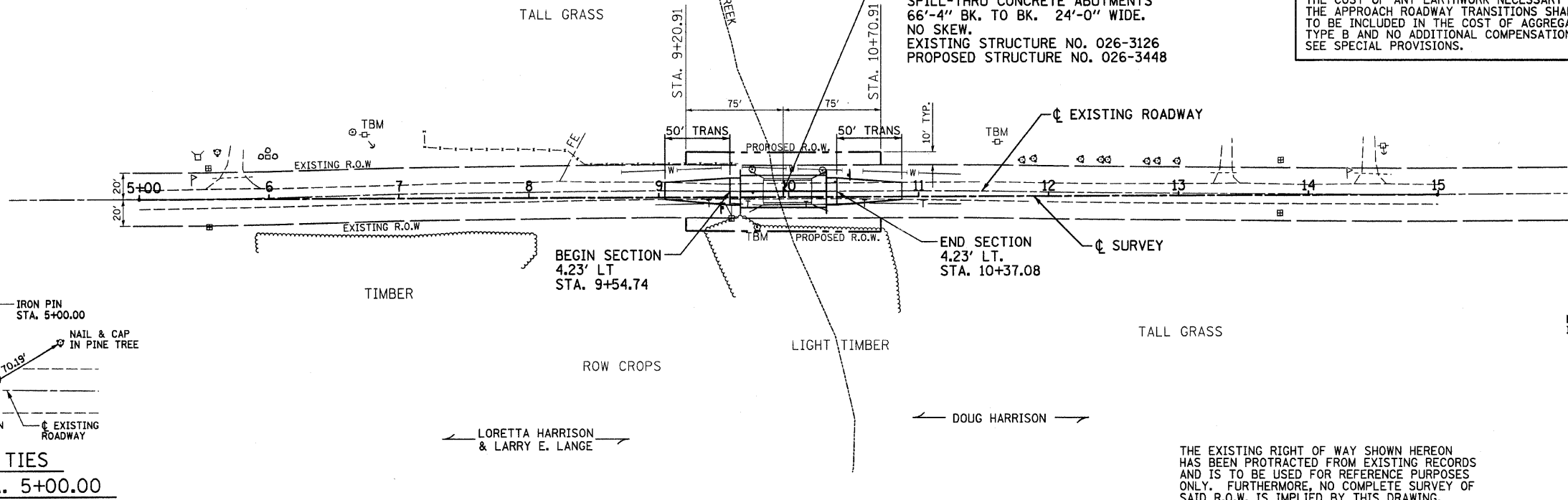


← JOANN GIVENS & JERRY M. SASSE →

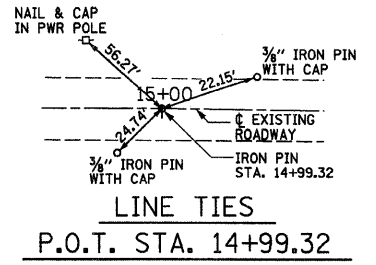
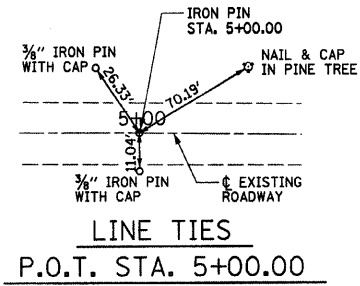
← ROBERT & JANET WILLIAMS →

EXISTING STRUCTURE: SINGLE SPAN BRIDGE WITH CAST-IN-PLACE CONCRETE DECK ON CLOSED CONCRETE ABUTMENTS. 39' BK. TO BK. ABUTMENTS, 19.3' OUT TO OUT OF STRUCTURE. EXISTING STRUCTURE NUMBER 026-3126. NO SALVAGE. SEE SPECIAL PROVISIONS.

**NOTE**  
THE COST OF ANY EARTHWORK NECESSARY TO CONSTRUCT THE APPROACH ROADWAY TRANSITIONS SHALL BE CONSIDERED TO BE INCLUDED IN THE COST OF AGGREGATE SURFACE COURSE, TYPE B AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. SEE SPECIAL PROVISIONS.



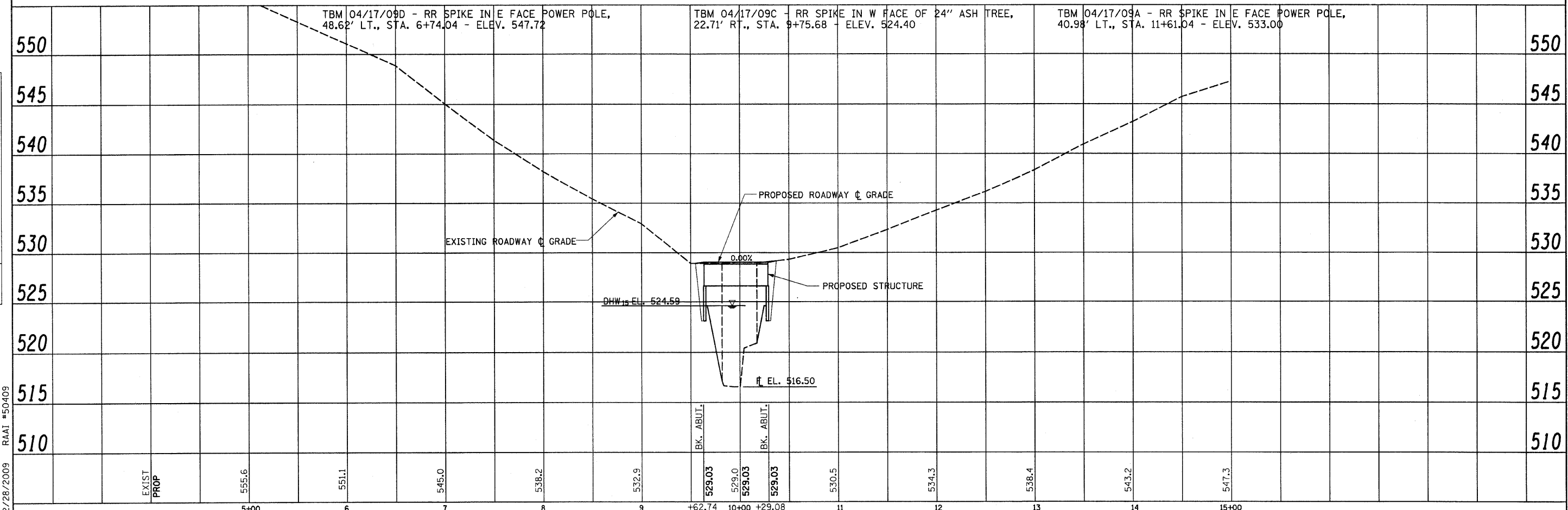
TREE REMOVAL (6 TO 15 UNITS DIAMETER)	
LOCATION	UNIT
21' LT., STA. 9+72	7
20' LT., STA. 10+26	10
<b>TOTAL</b>	<b>17</b>



THE EXISTING RIGHT OF WAY SHOWN HEREON HAS BEEN PROTRACTED FROM EXISTING RECORDS AND IS TO BE USED FOR REFERENCE PURPOSES ONLY. FURTHERMORE, NO COMPLETE SURVEY OF SAID R.O.W. IS IMPLIED BY THIS DRAWING.

DATE	
BY	
REVISIONS	
PLANNED	
ALIGNED	
CHECKED	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	
NO. 11	
NO. 12	
NO. 13	
NO. 14	
NO. 15	
NO. 16	
NO. 17	
NO. 18	
NO. 19	
NO. 20	

DATE	
BY	
REVISIONS	
PLANNED	
ALIGNED	
CHECKED	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	
NO. 11	
NO. 12	
NO. 13	
NO. 14	
NO. 15	
NO. 16	
NO. 17	
NO. 18	
NO. 19	
NO. 20	



12/28/2009 RAAI #50409

DESIGNED - GLH	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>PLAN AND PROFILE OF ROADWAY</b> <b>BRIDGE OVER RICHLAND CREEK</b>	ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DRAWN - JN	REVISED -			TR 292	03-20126-00-BR	FAYETTE	10	3
CHECKED - GLH	REVISED -			CONTRACT NO. 95619				
DATE - MAY 2009	REVISED -			ILLINOIS FED. AID PROJECT				

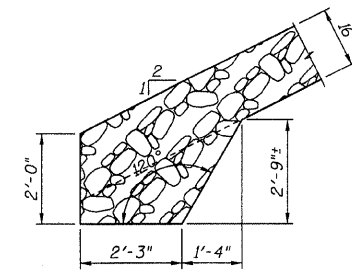
TBM 04/17/09D - RR spike in East face of power pole, 48.62' Lt. of Sta. 6+74.04 - Elev. 547.72  
 TBM 04/17/09C - RR spike in West face of 24" Ash tree, 22.71' Rt. of Sta. 9+75.68 - Elev. 524.40  
 TBM 04/17/09A - RR spike in East face of power pole, 40.98' Lt. of Sta. 11+61.04 - Elev. 533.00

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

Existing Structure: Single span bridge with cast-in-place concrete deck on closed concrete abutments, 39' Bk. to Bk. abutments, 19.3' Out to Out of deck. Existing S.N. 026-3126. No skew. No salvage. See Special Provisions.

BILL OF MATERIALS (BRIDGE ONLY)

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu Yd	-	287	287
Porous Granular Embankment	Ton	-	80	80
Stone Dumped Riprap, Class A4	Ton	-	100	100
Removal of Existing Structures	Each	-	-	1
Concrete Structures	Cu Yd	-	20.4	20.4
Concrete Encasement	Cu Yd	-	2.8	2.8
PPCDB (27" Depth)	Sq Ft	1560	-	1560
Reinforcement Bars	Pound	-	3460	3460
Steel Railing, Type S1	Foot	133	-	133
Furnishing Steel Piles HP12x53	Foot	-	221	221
Driving Piles	Foot	-	221	221
Test Pile Steel HP12x53	Each	-	1	1
Name Plates	Each	-	1	1



RIPRAP ANCHOR DETAIL

**RICHLAND CREEK  
 BUILT 20 BY  
 FAYETTE COUNTY  
 SEC. 03-20126-00-BR  
 LOADING HL-93  
 STRUCTURE NO. 026-3448**

NAME PLATE

(See State Standard 515001 for details)

LOADING HL-93

50#/sq. ft. included in dead load for future wearing surface.

DESIGN SPECIFICATIONS

2007 (4th Ed.) AASHTO LRFD Bridge Design Specifications, with 2008 Interims.

DESIGN STRESSES

FIELD UNITS

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

PRECAST PRESTRESSED UNITS

$f'_c = 6,000$  psi  
 $f'_{ci} = 5,000$  psi  
 $f_{pu} = 270,000$  psi ( $\frac{1}{2}$ "  $\phi$  low lax. strands)  
 $f_{pbi} = 201,960$  psi ( $\frac{1}{2}$ "  $\phi$  low lax. strands)  
 $f_y = 60,000$  psi (reinforcement)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2  
 Soil Site Classification = C  
 $S_{D1} = 0.170$   $S_{D5} = 0.431$

See Section 502 of the Standard Specifications for Structural Excavation.

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

Channel excavation shall be excavated as shown within the limits of the proposed bridge, then tapered to the existing channel at the ROW line. If the Engineer deems the material satisfactory, it may be used to construct the roadway embankment.

See Specifications for Soil Borings.

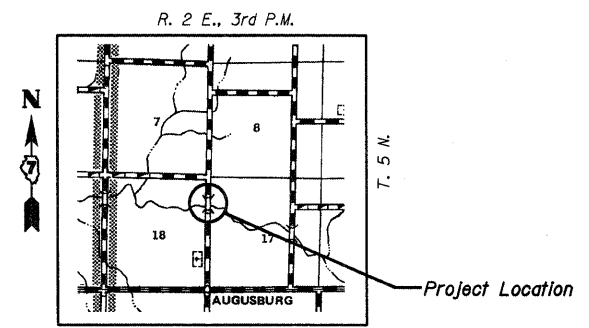
Do not scale these drawings.

The Steel H-piles shall be according to AASHTO M270 Grade 50.

The Contractor shall drive one (1) Steel HP12x53 Test Pile in a permanent location at the South abutment as directed by the Engineer before ordering the remainder of the piles.

The Test Pile shall be driven to 110 percent of the Nominal Required Bearing Indicated in the pile data information.

The abutment bearing seat surfaces for the precast prestressed concrete deck beams shall be adjusted by shimming to assure firm and even bearing. As required,  $\frac{1}{8}$ " fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.



LOCATION SKETCH

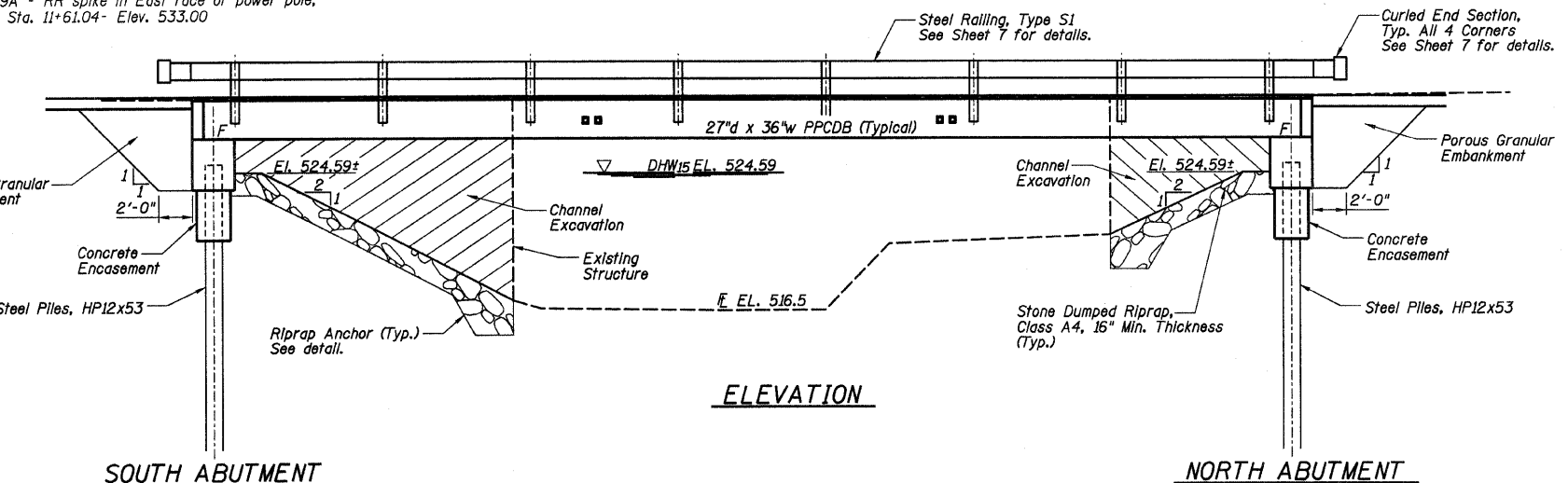
GENERAL PLAN AND ELEVATION  
 TR 292 OVER RICHLAND CREEK  
 SECTION 03-20126-00-BR  
 FAYETTE COUNTY  
 STATION 9+95.91  
 STRUCTURE NO. 026-3448

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 292	03-20126-00-BR	FAYETTE	10	4
CONTRACT NO. 95619			ILLINOIS FED. AID PROJECT	

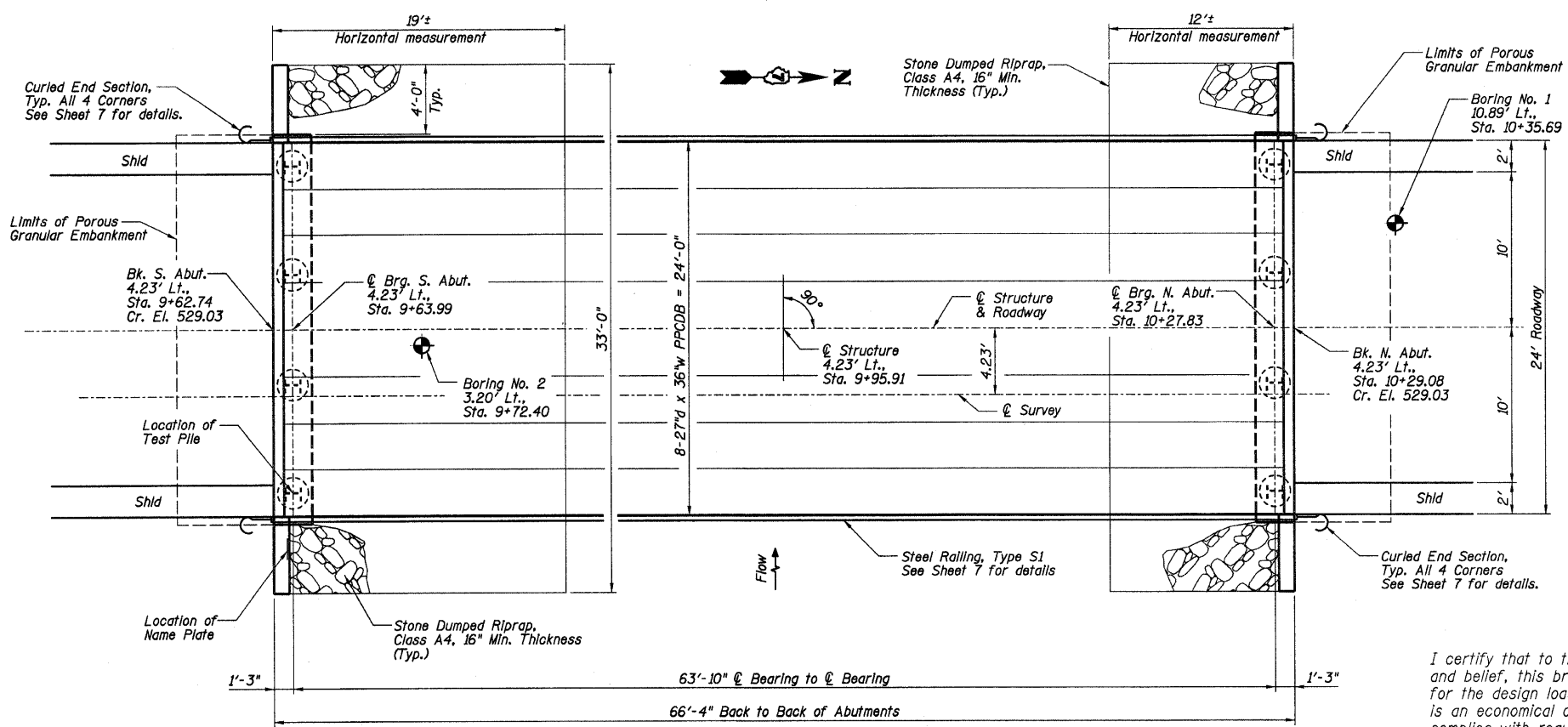


Gary L. Hahn  
 12-24-2009  
 Date of Signing  
 11-30-2010  
 Date of License Expiration

RHUTASEL and ASSOCIATES, INC.  
 CONSULTING ENGINEERS • LAND SURVEYORS  
 CENTRALIA, ILLINOIS FREEBURG, ILLINOIS  
 ILLINOIS DESIGN FIRM LICENSE NO. 184-000287



ELEVATION



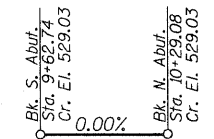
PLAN

WATERWAY DATA

Drainage Area = 3.630 Sq. Mi. Low Grade Elev. 528.9 @ Sta. 9+50

Flood	Freq. Yr.	Q	Opening Sq. Ft.	Natural H.W.E.	Head - Ft.	Headwater El.
			Exist. Prop.	Exist. Prop.	Exist. Prop.	Exist. Prop.
Design	15	1029	223 293	524.59	0.04 Negl.	524.63 524.59
Base	100	1770	275 384	526.08	0.16 Negl.	526.24 526.08
Max. Calc.	500	2400	300 415	526.92	0.33 0.15	527.25 527.07

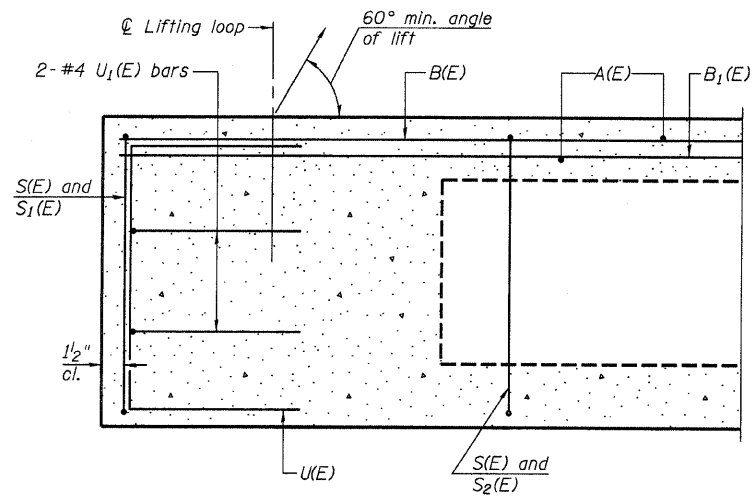
PROFILE GRADE  
 ACROSS STRUCTURE  
 Along  $\phi$  Roadway



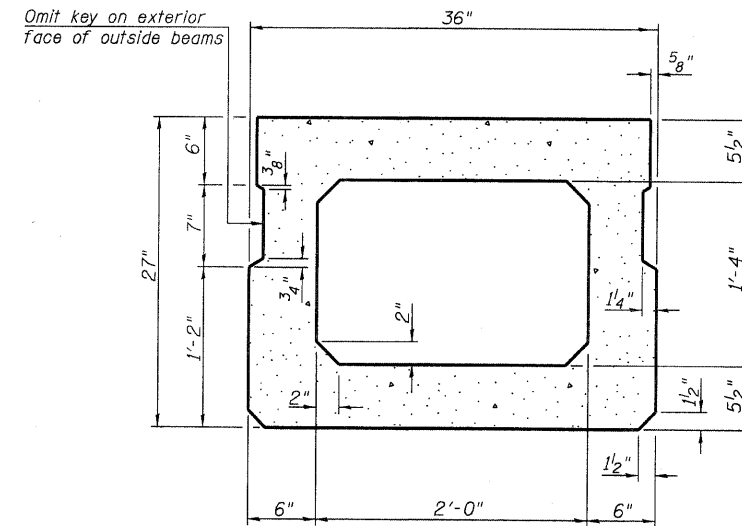
I certify that to the best of knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current AASHTO Standard Specifications for Highway Bridges.

12/24/2009 RAAI #50409

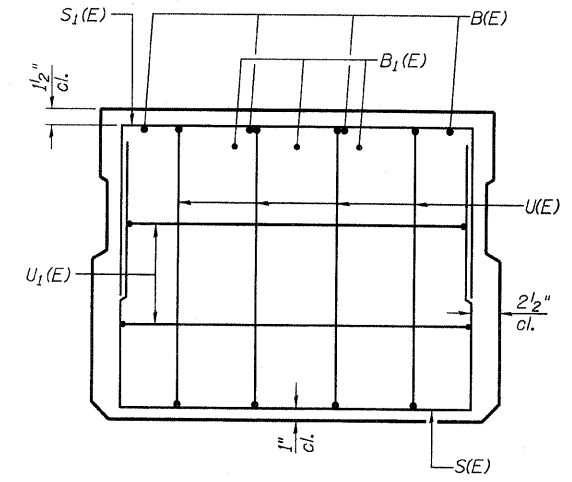
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



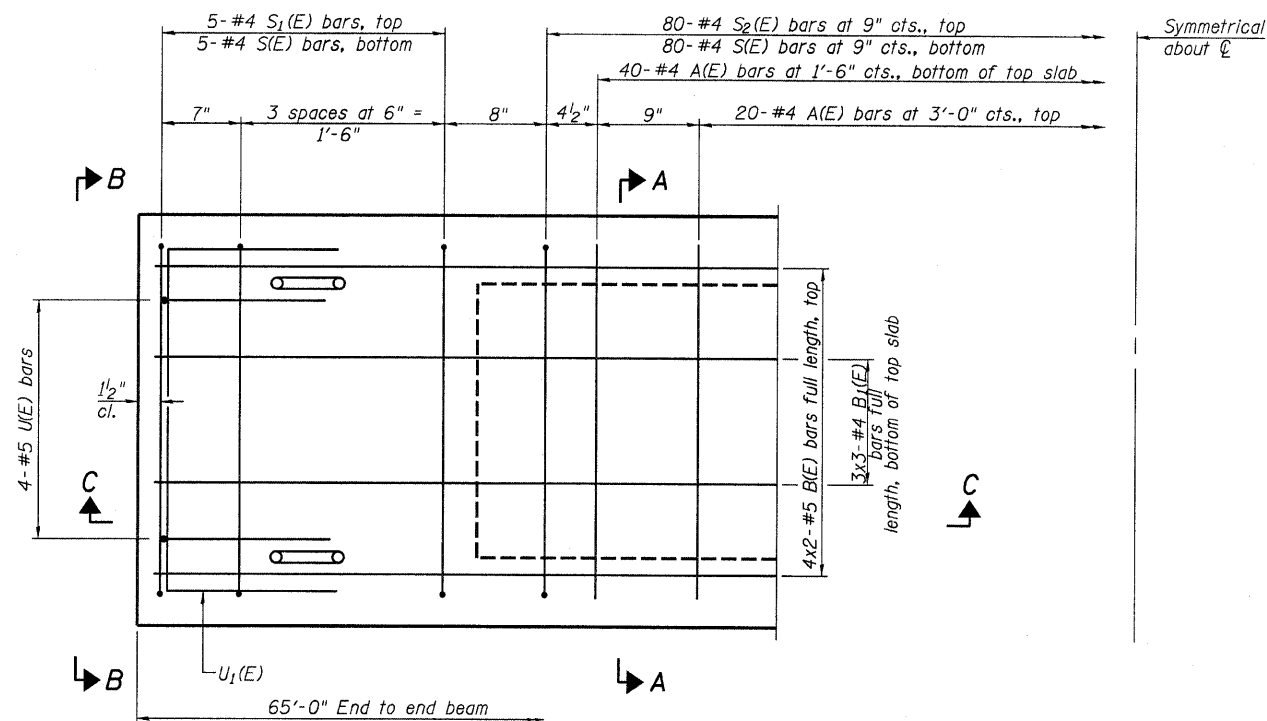
SECTION C-C



SECTION A-A  
(Showing dimensions)

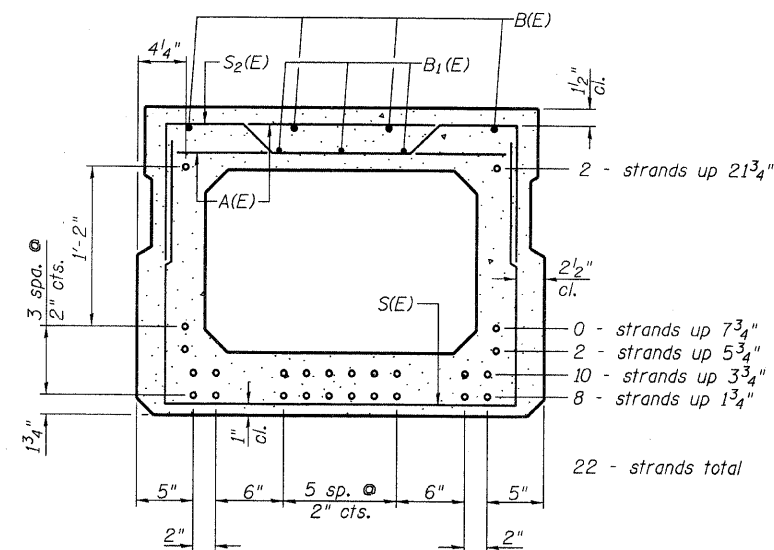


VIEW B-B



PLAN VIEW

Note: Spacing of S(E) and S<sub>2</sub>(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.  
Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.



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.

BAR LIST  
ONE BEAM ONLY  
(For information only)

Bar	No.	Size	Length	Shape
A(E)	60	#4	2'-7"	—
B(E)	8	#5	33'-9"	—
B <sub>1</sub> (E)	9	#4	23'-3"	—
S(E)	90	#4	6'-5"	U
S <sub>1</sub> (E)	10	#4	6'-3"	U
S <sub>2</sub> (E)	80	#4	6'-6"	U
U(E)	8	#5	4'-6"	U
U <sub>1</sub> (E)	4	#4	5'-0"	U

Note: See sheet 6 of 10 for additional details and Bill of Material.

27" X 36" PPC DECK BEAMS

27" X 36" PPC DECK BEAM DETAILS  
STRUCTURE NO. 026-3448

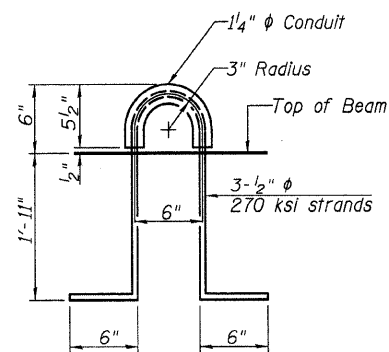
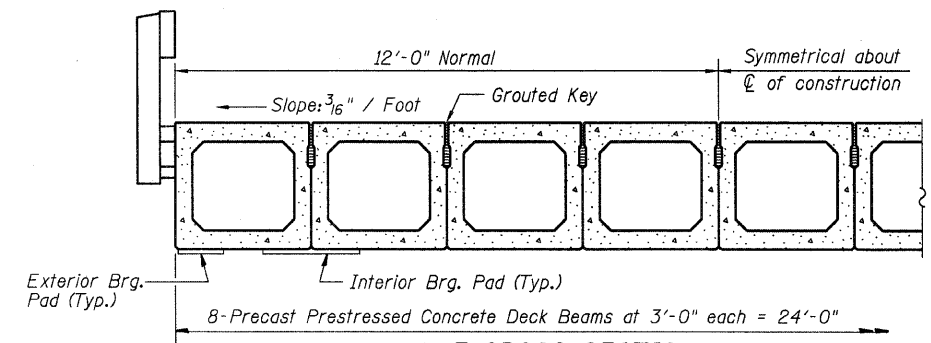
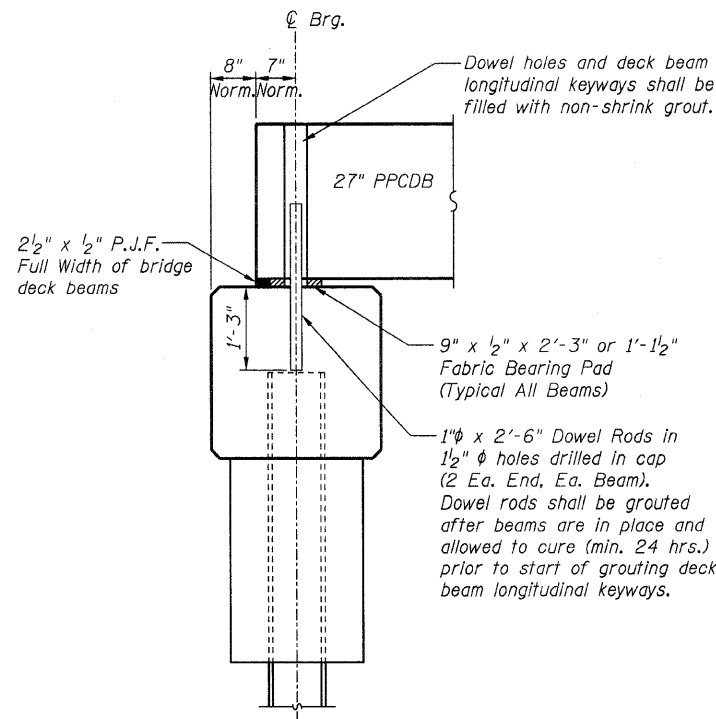
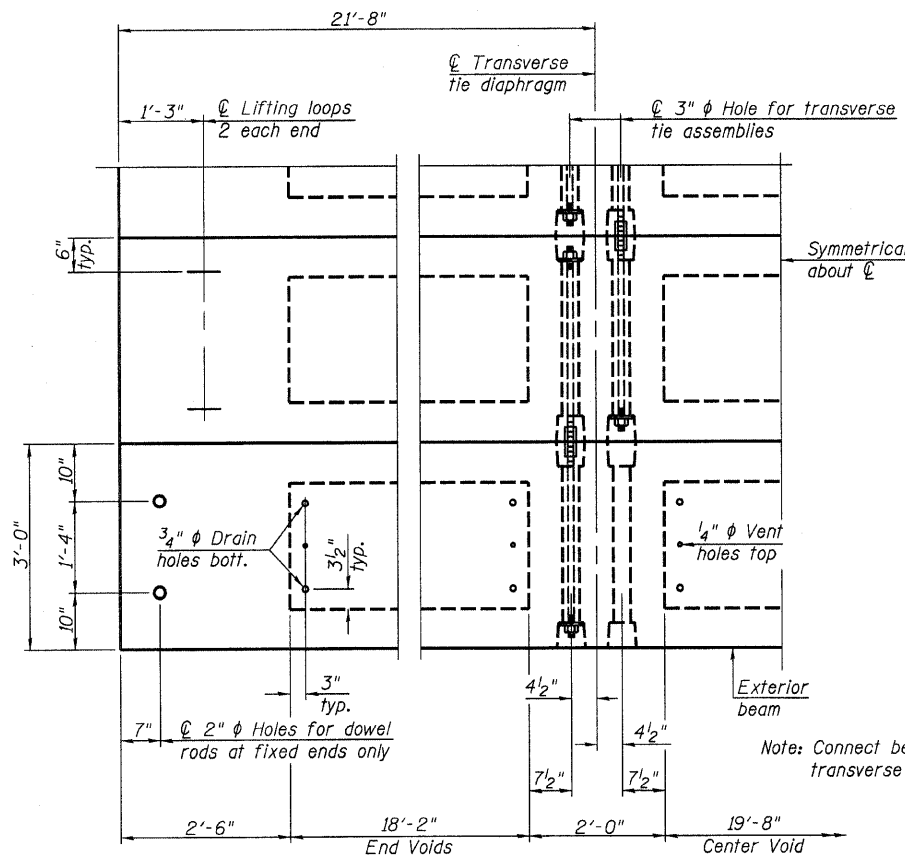
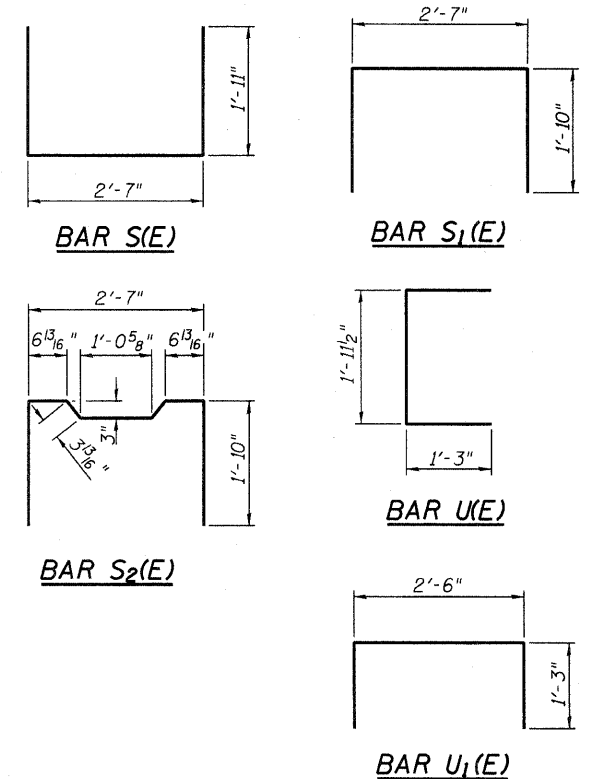
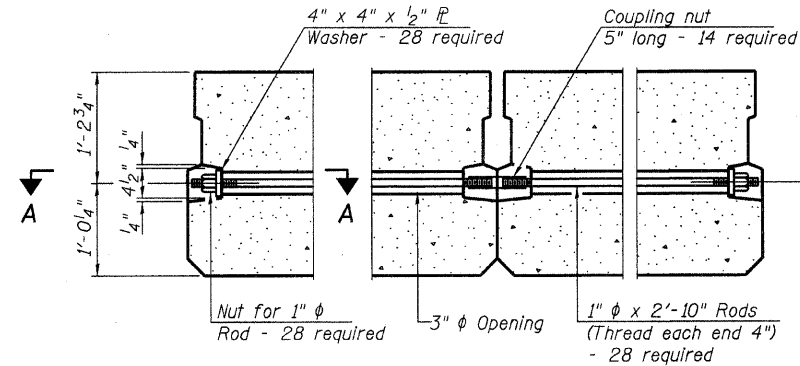
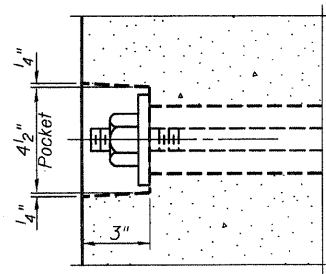
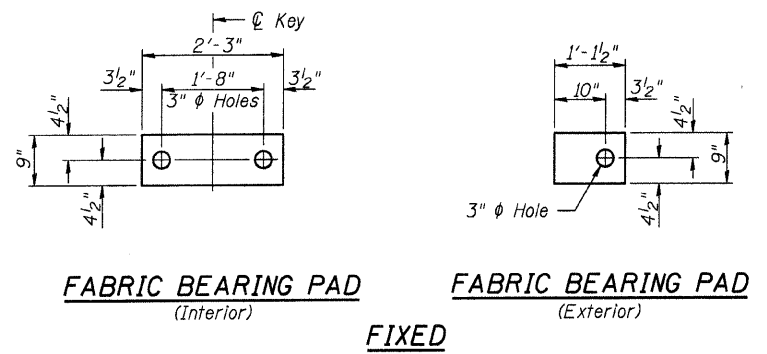
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 292	03-20126-00-BR	FAYETTE	10	5
CONTRACT NO. 95619				
ILLINOIS FED. AID PROJECT				

12/28/2009 RAAJ #50409

PD-2736-0

8-29-07

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**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 (IL MOD), 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.

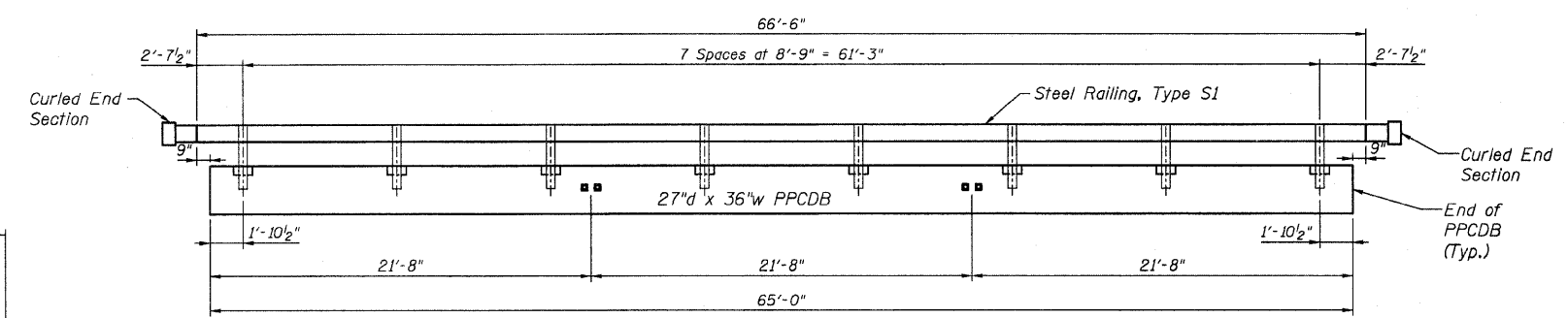
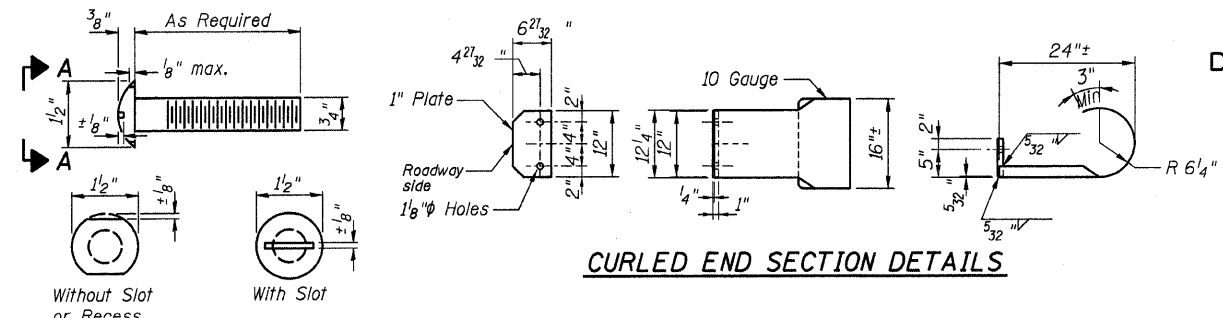
**BILL OF MATERIAL**

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	1560
-------------------------------------------------	---------	------

**27" X 36" PPC DECK BEAM DETAILS**  
**STRUCTURE NO. 026-3448**

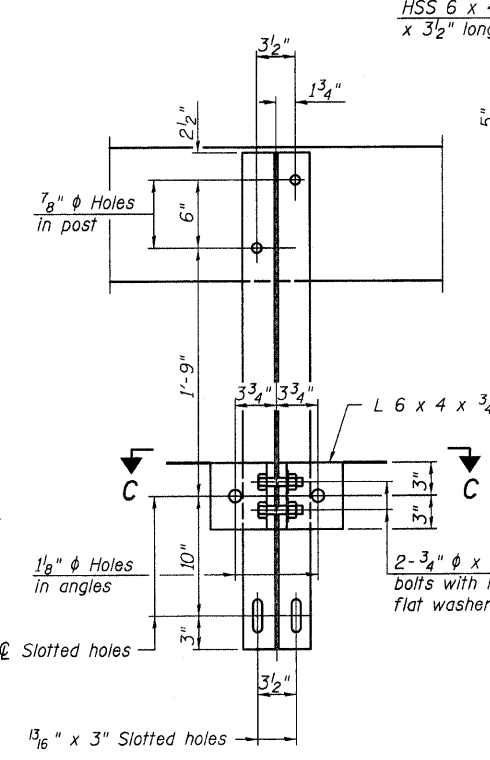
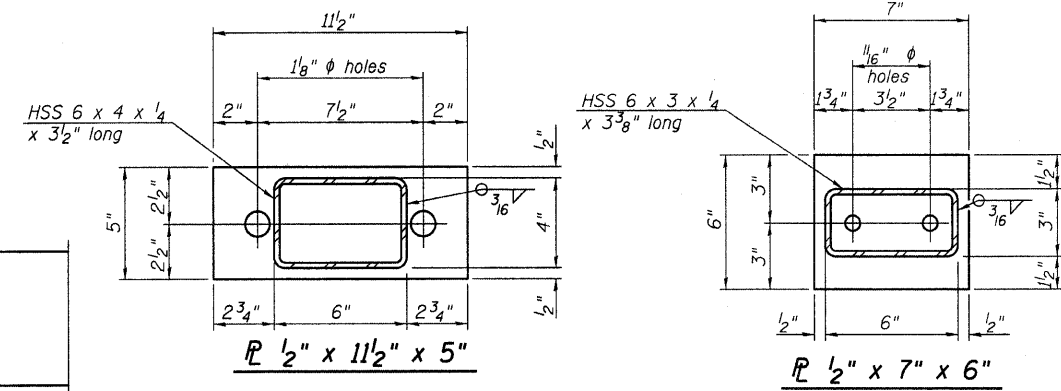
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 292	03-20126-00-BR	FAYETTE	10	6
CONTRACT NO. 95619				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

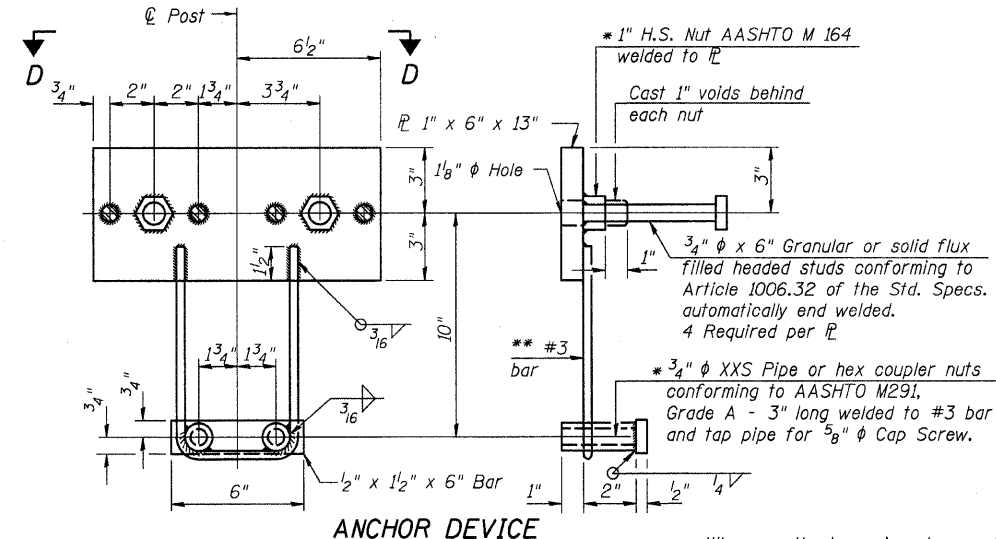


Note: The cost of the Curled End Sections shall be included in the contract unit price per foot for "STEEL RAILING, TYPE S1", and no additional compensation will be allowed.

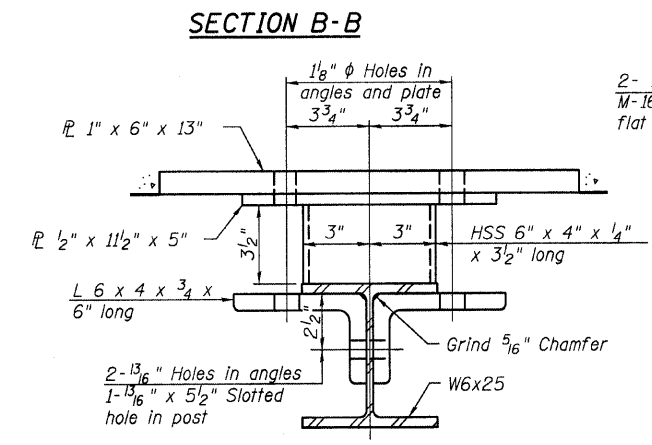
**VIEW A-A  
ROUND HEAD BOLT**



2-3/4" φ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" φ holes in hollow structural section may be drilled in the field.

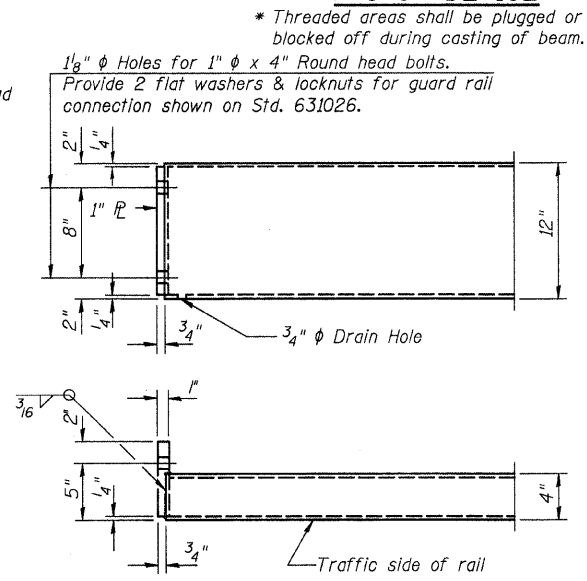


Notes:  
All field drilled holes shall be coated with an approved zinc rich paint before erection. For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S1.  
All steel rail elements shall 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.

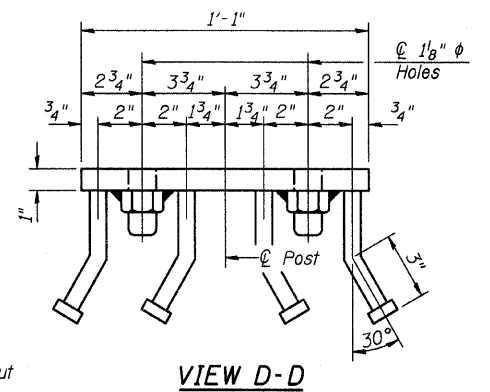
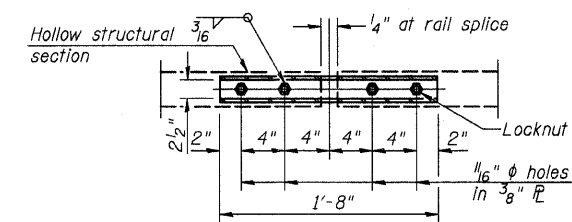


2-1" φ x 7 3/4" AASHTO M-164 anchor bolts with flat washer and lockwasher  
2-5/8" φ x 5 3/4" cap screws with flat washer  
1/8" x 7" x 6" Fabric bearing pad  
HSS 6" x 3" x 1/4" x 3 3/8" long

**SECTION AT RAILING POST**



\*\* 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".



**BILL OF MATERIAL**

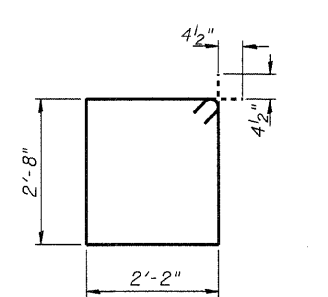
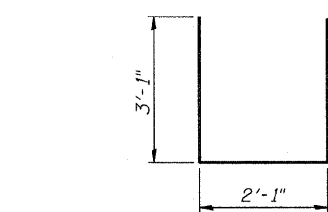
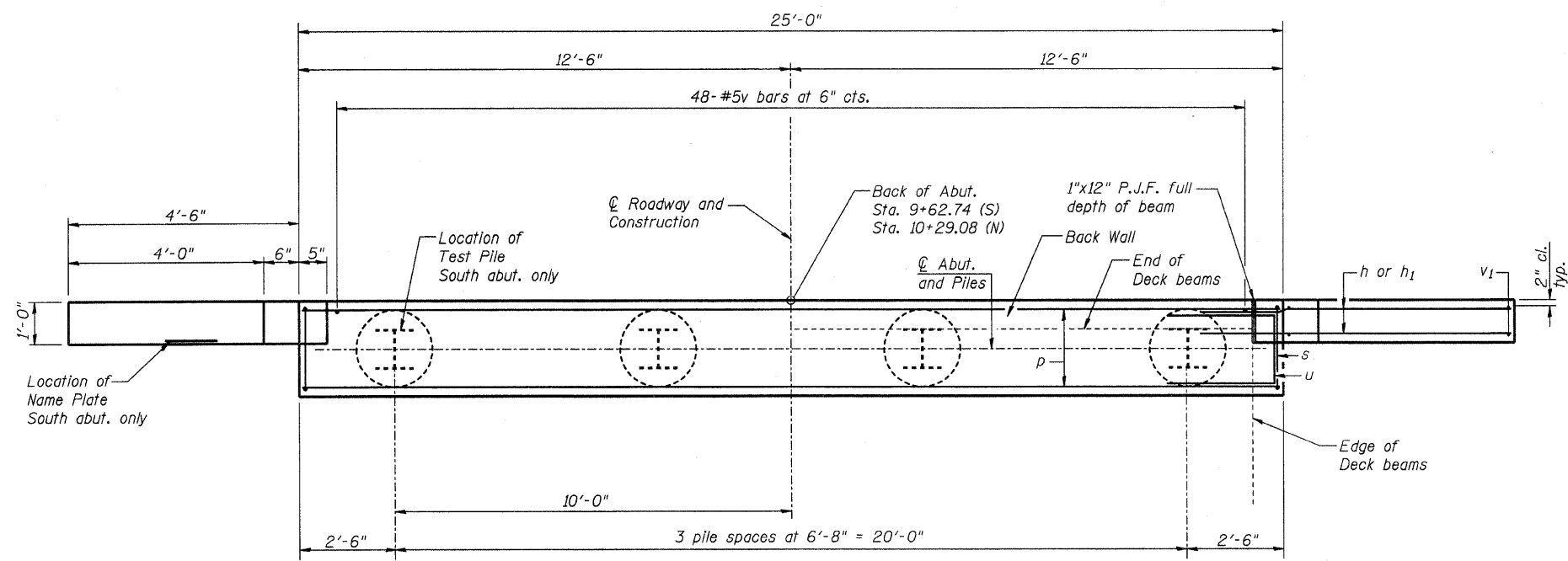
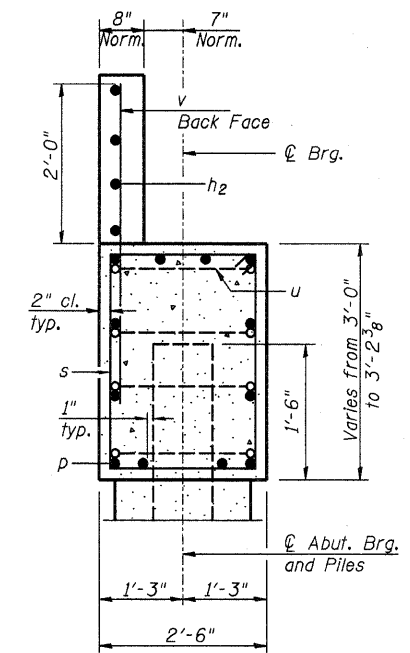
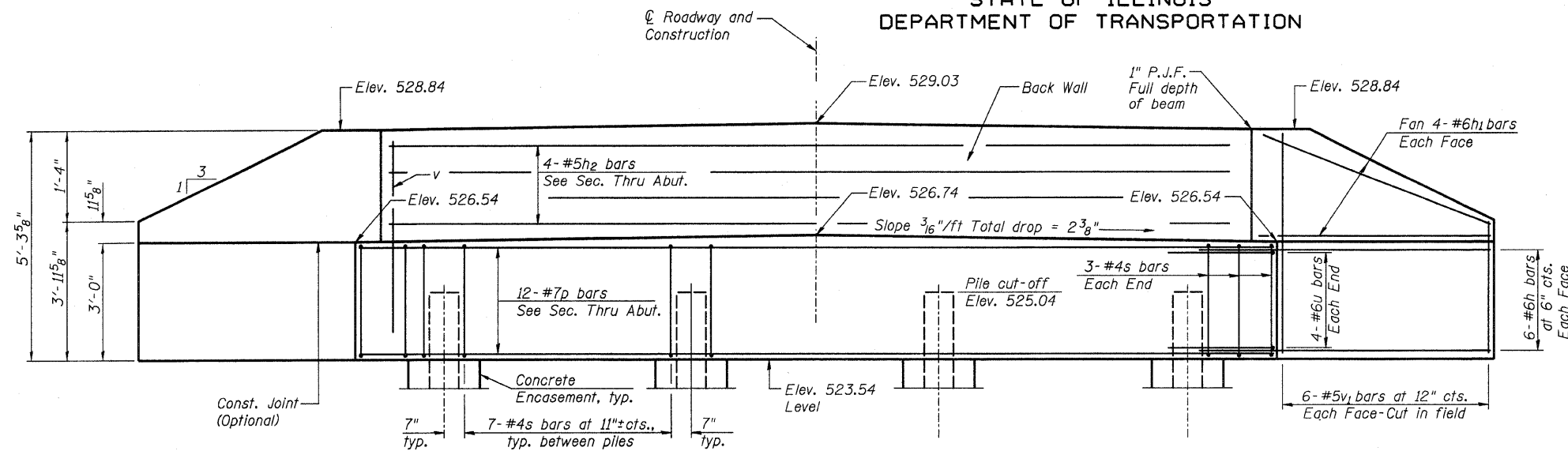
Item	Unit	Quantity
Steel Railing, Type S1	Foot	133

**STEEL RAILING, TYPE S1 DETAILS  
STRUCTURE NO. 026-3448**

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 292	03-20126-00-BR	FAYETTE	10	7
CONTRACT NO. 95619				
ILLINOIS FED. AID PROJECT				

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**BILL OF MATERIAL FOR ONE ABUTMENT**

Bar	No.	Size	Length	Shape
h	24	#6	8'-0"	—
h <sub>1</sub>	16	#6	4'-9"	—
h <sub>2</sub>	4	#5	23'-8"	—
p	12	#7	24'-8"	—
s	27	#4	10'-5"	□
u	8	#6	8'-3"	—
v	48	#5	4'-3"	—
v <sub>1</sub>	24	#5	5'-0"	CUT IN FIELD
Concrete Structures		Cu. Yd.	10.2	
Reinforcement Bars		Pound	1730	
Furnishing Steel		Foot	S. Abut. 93	
Piles, HP12x53		N. Abut.	128	
Driving Piles		Foot	S. Abut. 93	
		N. Abut.	128	
Test Pile, Steel HP12x53		Each	S. Abut. 1	
		N. Abut.	0	
Concrete Encasement		Cu Yd	1.4	

For details of piles and Concrete Encasement, see Sheet 9 of 10.

**PILE DATA SOUTH ABUTMENT**

Type:	Steel HP12x53
Nominal Required Bearing:	419 kips
Allowable Resistance Available:	139 kips
Estimated Length:	31'/pile
No. Production Piles:	3
No. Test Piles:	1

**PILE DATA NORTH ABUTMENT**

Type:	Steel HP12x53
Nominal Required Bearing:	419 kips
Allowable Resistance Available:	139 kips
Estimated Length:	32'/pile
No. Production Piles:	4
No. Test Piles:	0

**GENERAL NOTES**

- All exposed edges shall have standard 3/4" chamfer, unless otherwise noted.
- All clearances between rebar and form surface shall be 2", unless otherwise noted.
- Space reinforcement in cap to miss PPCDB dowel rods.
- The Steel H-piles shall be according to AASHTO M270 Grade 50.
- The Contractor shall drive one (1) Steel HP12x53 Test Pile in a production location at the South abutment as directed by the Engineer before ordering the remainder of the piles.
- The Test Pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

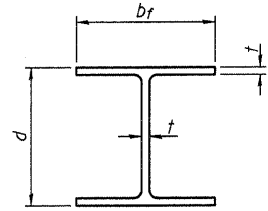
**ABUTMENT DETAILS STRUCTURE NO. 026-3448**

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 292	03-20126-00-BR	FAYETTE	10	8
CONTRACT NO. 95619				
ILLINOIS FED. AID PROJECT				

12/24/2009 RAAI #50409

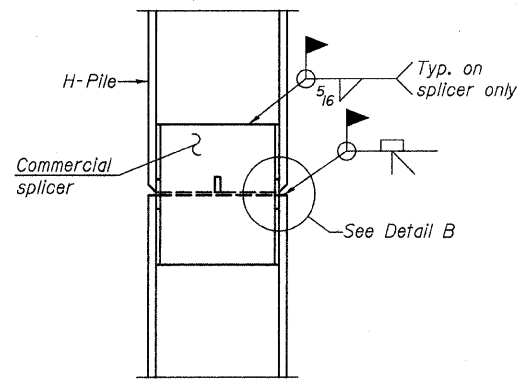


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

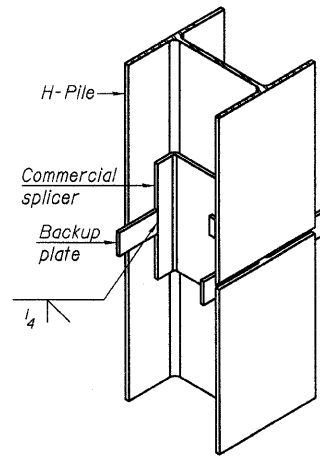


STEEL PILE TABLE

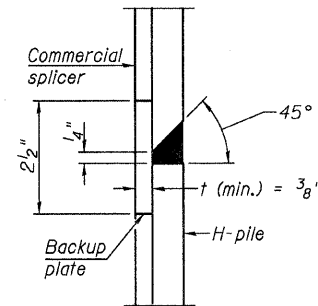
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11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

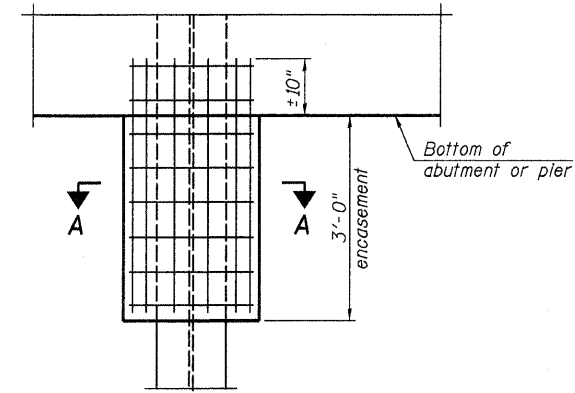


ISOMETRIC VIEW



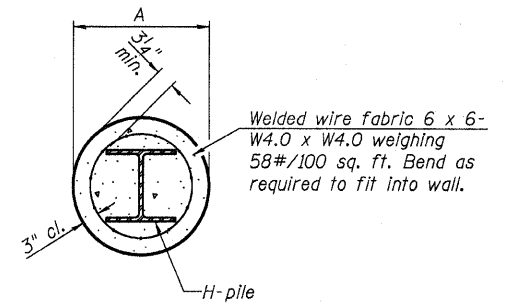
DETAIL "B"

WELDED COMMERCIAL SPLICE



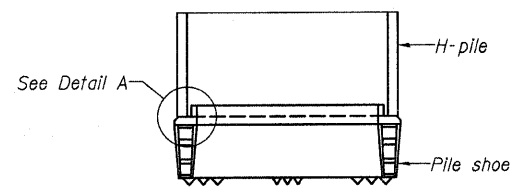
ELEVATION

PILE ENCASEMENT

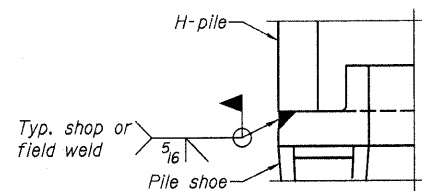


SECTION A-A

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

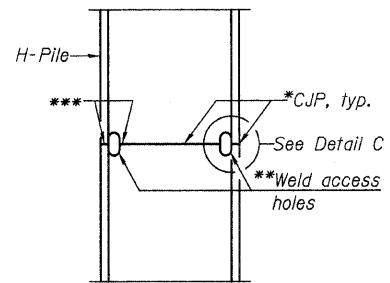


ELEVATION



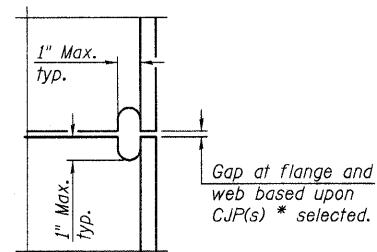
DETAIL A

H-PILE SHOE ATTACHMENT

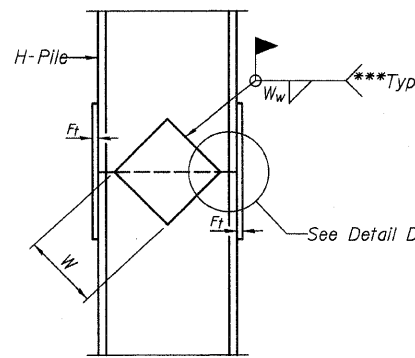


ELEVATION

COMPLETE PENETRATION WELD SPLICE

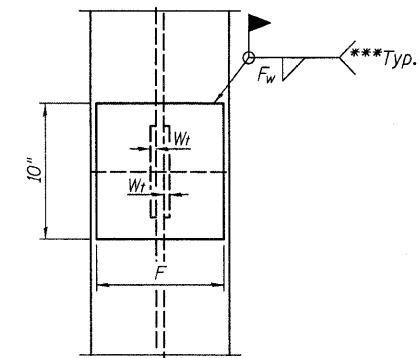


DETAIL C



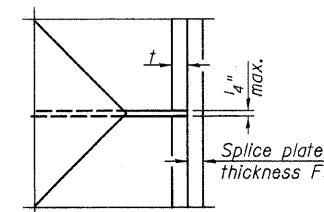
ELEVATION

WELDED PLATE FIELD SPLICE



END VIEW

Designation	F	F <sub>t</sub>	F <sub>w</sub>	W	W <sub>t</sub>	W <sub>w</sub>
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"	1/16"	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"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	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"



DETAIL D

- \* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- \*\* Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- \*\*\* Interrupt welds 1/4" from end of each pile.

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

HP PILE DETAILS  
STRUCTURE NO. 026-3448

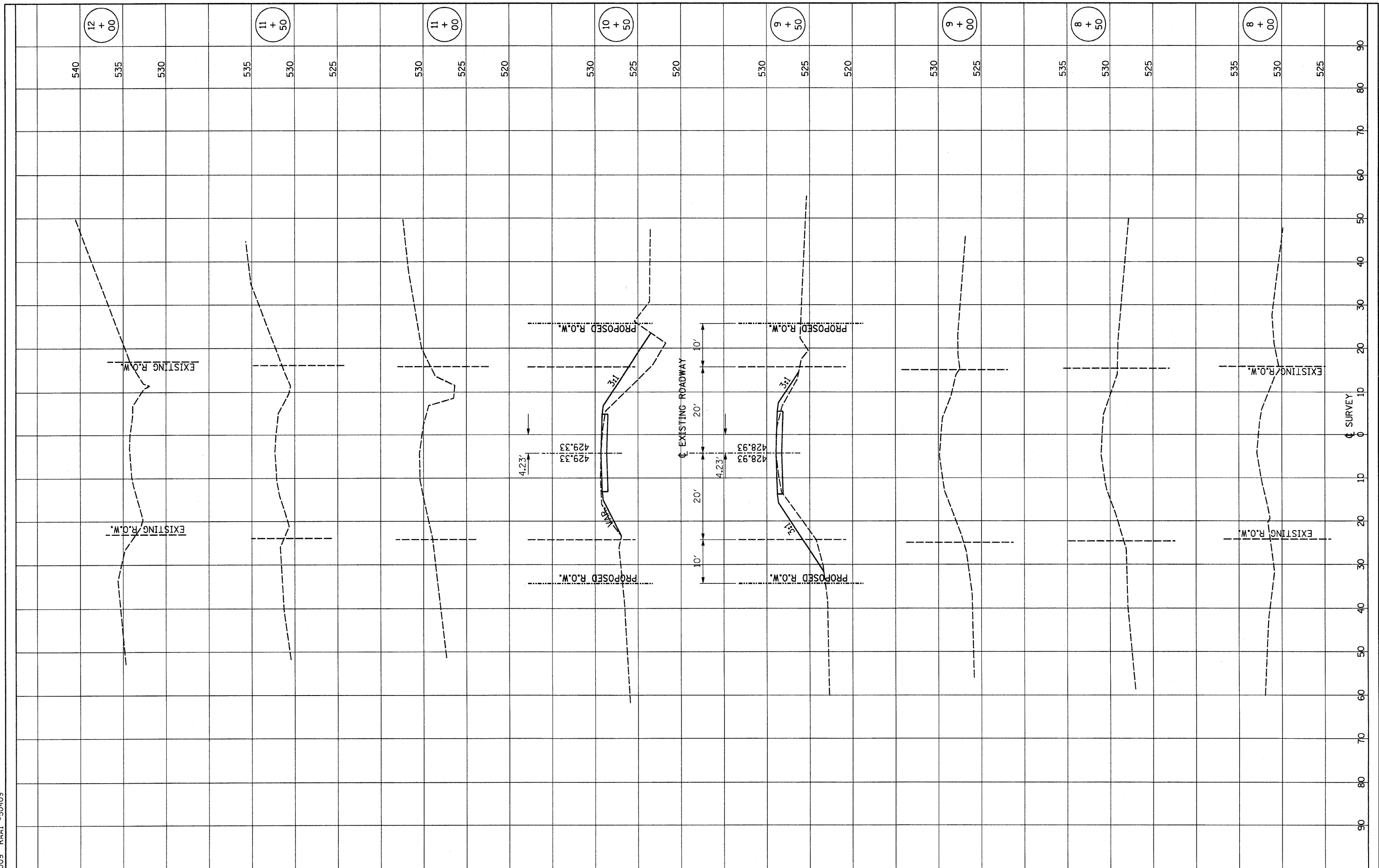
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 292	03-20126-00-BR	FAYETTE	10	9
CONTRACT NO. 95619				
ILLINOIS FED. AID PROJECT				

12/24/2009 RAAI #50409

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

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

12/28/2009 RAAI #50409



DESIGNED -	GLH	REVISED -	
DRAWN -	JN	REVISED -	
CHECKED -	GLH	REVISED -	
DATE -		REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS OF ROADWAY  
BRIDGE OVER RICHLAND CREEK

SCALE: AS NOTED

STA. 8+00 TO STA. 12+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 292	03-20126-00-BR	FAYETTE	10	10
CONTRACT NO. 95619			ILLINOIS FED. AID PROJECT	