

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 140	07-11120-00-BR	FAYETTE	10	1
ILLINOIS				

INDEX OF SHEETS

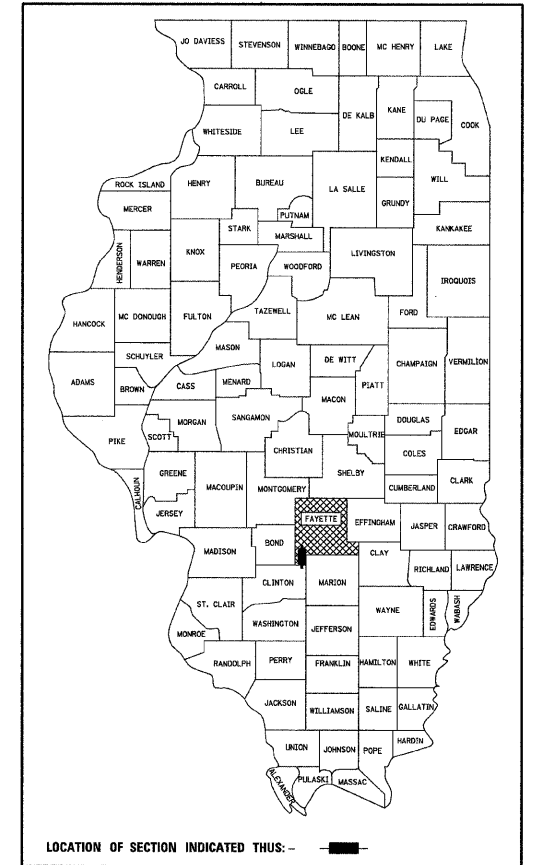
1. COVER SHEET
2. SUMMARY OF QUANTITIES AND TYPICAL SECTIONS
3. PLAN AND PROFILE OF ROADWAY
4. GENERAL PLAN AND ELEVATION
- 5.-6. PRECAST PRESTRESSED CONCRETE DECK BEAM DETAILS
7. STEEL RAILING, TYPE S1 DETAILS
8. ABUTMENT DETAILS
- 9.-10. CROSS SECTIONS OF ROADWAY

HIGHWAY STANDARDS (SEE SPECIFICATIONS)

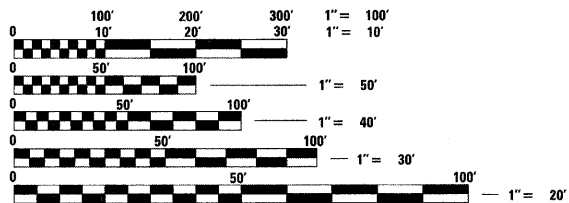
- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 280001-04 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-03 NAME PLATE FOR BRIDGES
- 701901-01 TRAFFIC CONTROL DEVICES
- BLR 21-8 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

SOIL BORINGS (SEE SPECIFICATIONS)

TR 140
BEAR CREEK
SECTION 07-11120-00-BR
PROJECT NO. BROS-051(086)
POPE ROAD DISTRICT
FAYETTE COUNTY
JOB NO. C-97-069-09

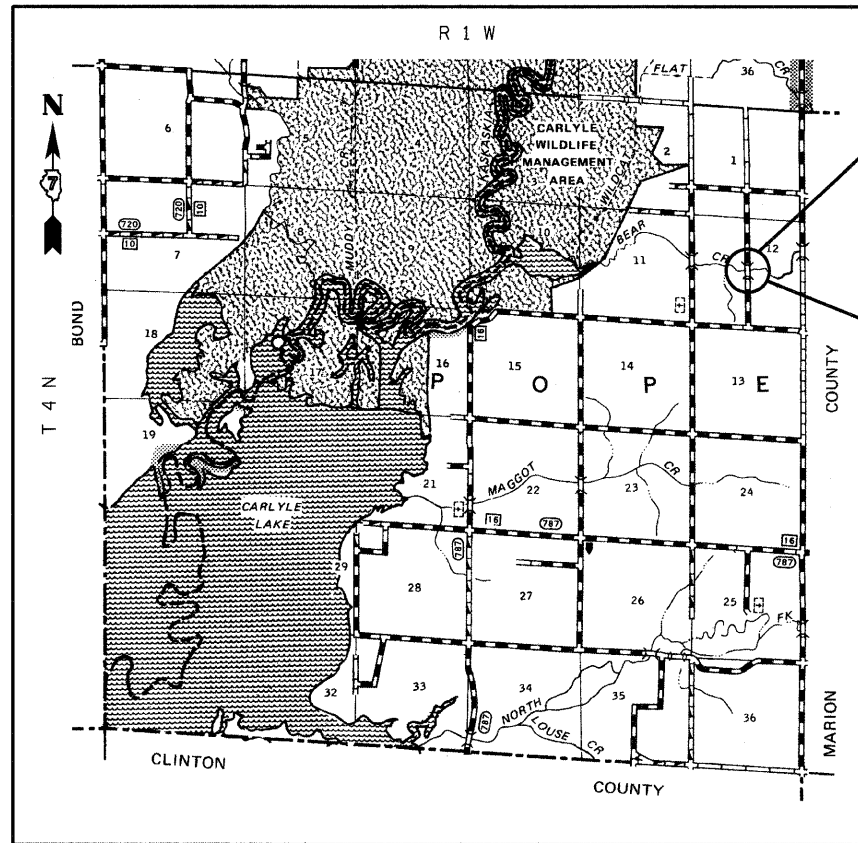


DESIGN CLASSIFICATION: RURAL LOCAL ROAD
ADT₂₀₀₈ : 75
ADT₂₀₂₈ : 100
DESIGN SPEED - 30 MPH



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. 8+50.00

SECTION 07-11120-00-BR

INCLUDES THE CONSTRUCTION OF A SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE CARRYING TR 140 OVER BEAR CREEK, 64'-4" BK. TO BK. ABUTMENTS X 24' WIDE. NO SKEW. EXISTING STRUCTURE NO. 026-3271 PROPOSED STRUCTURE NO. 026-3444

SECTION ENDS
STA. 12+70.53

LOCATION: NEAR THE SE CORNER, NW 1/4, SECTION 12, T4N, R1W, 3RD P.M.
NET LENGTH OF PROJECT: 420.53 FT = 0.080 MI

FAYETTE COUNTY
HIGHWAY DEPARTMENT

APPROVED 8-12, 2009
[Signature]
FAYETTE COUNTY, COUNTY ENGINEER

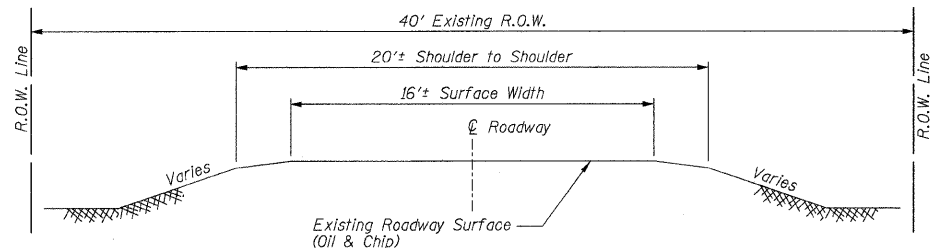
PASSED 8-20, 2009
[Signature]
DISTRICT SEVEN ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID
BASED ON LIMITED
REVIEW 8-20, 2009
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION FOUR ENGINEER

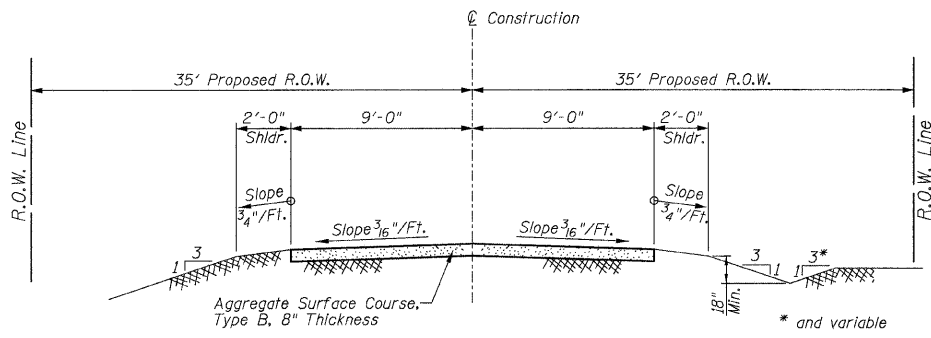


[Signature] 08/12/09
GARY L. HAHN
CENTRALIA, ILLINOIS
ILLINOIS LICENSED PROFESSIONAL
ENGINEER NO. 62-42606
EXPIRES NOV. 30, 2009

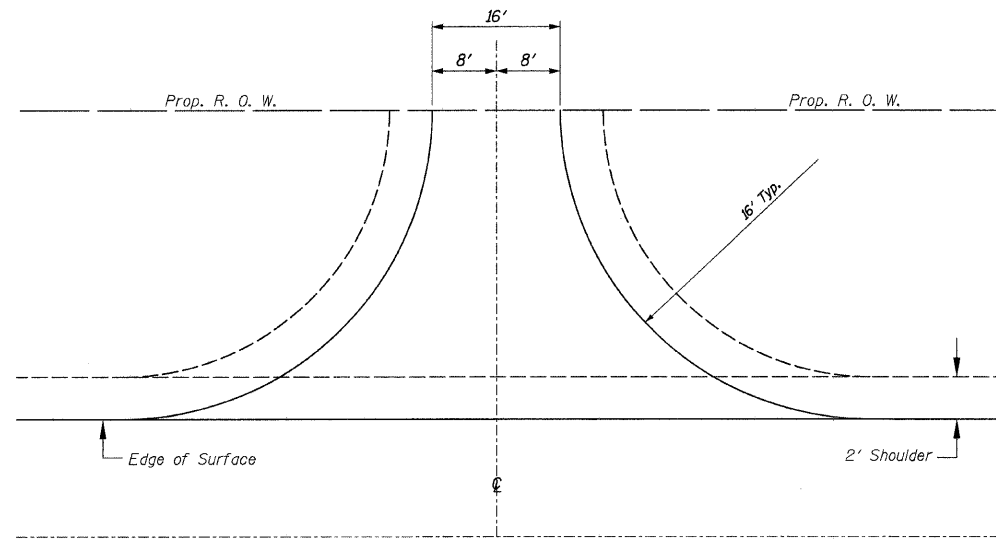
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 140	07-11120-00-BR	FAYETTE	10	2
ILLINOIS				



**TYPICAL SECTION
EXISTING APPROACH ROADWAY**



**TYPICAL SECTION
PROPOSED APPROACH ROADWAY**



Aggregate Surface Course, Type B 6" Depth
Rt., Sta. 8+75.00 - 18 Ton
(Included in Summary of Quantities)

TYPICAL FIELD ENTRANCE

SUMMARY OF QUANTITIES

Code No.	Item	Unit	Quantity	Location	
				X081-2A	E000
20100500	TREE REMOVAL, ACRES	ACRE	0.3	-	0.3
20200100	EARTH EXCAVATION	CU YD	109	-	109
20300100	CHANNEL EXCAVATION	CU YD	168	168	-
20400800	FURNISHED EXCAVATION	CU YD	558	-	558
20700110	POROUS GRANULAR EMBANKMENT	TON	68	68	-
25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.6	-	0.6
28000300	TEMPORARY DITCH CHECKS	EACH	4	-	4
28100807	STONE DUMPED RIPRAP, CLASS A4	TON	92	92	-
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	493	-	493
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1	-
50300225	CONCRETE STRUCTURES	CU YD	17.6	17.6	-
50300280	CONCRETE ENCASEMENT	CU YD	2.8	2.8	-
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1512	1512	-
50800105	REINFORCEMENT BARS	POUND	3040	3040	-
* 50900205	STEEL RAILING, TYPE S1	FOOT	128	128	-
51201600	FURNISHING STEEL PILES HP12X53	FOOT	434	434	-
51202305	DRIVING PILES	FOOT	434	434	-
51203600	TEST PILE STEEL HP12X53	EACH	1	1	-
51500100	NAME PLATES	EACH	1	1	-
542C1060	PIPE CULVERTS, CLASS C, TYPE 2 15"	FOOT	36	-	36
67100100	MOBILIZATION	L SUM	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 Class C quality 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

Electric: Clinton County Electric Co-op
475 N. Main Street
PO Box 40
Breese, IL 62230
618-526-7282

Telephone: Frontier Communications
801 Jackson Avenue
Altamont, IL 62411
618-483-6391

Water: FMC Water Company
1305 Ferrydale Road
Odin, IL 62870
618-775-6339

**SUMMARY OF QUANTITIES AND
TYPICAL SECTIONS
PROPOSED BRIDGE OVER
BEAR CREEK
TR 140
SECTION 07-11120-00-BR
FAYETTE COUNTY, ILLINOIS**

06/12/2009

EARTHWORK SCHEDULE				
LOCATION	EARTH EXCAVATION CU. YD.	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE* CU. YD.	EMBANKMENT CU. YD.	EARTHWORK BALANCE** WASTE (+) OR SHORTAGE (-) CU. YD.
STA. 8+00.00 TO STA. 9+66.19	71	53	107	-54
STA. 10+30.53 TO STA. 13+20.53	38	28	532	-504
TOTAL	109	81	639	-558

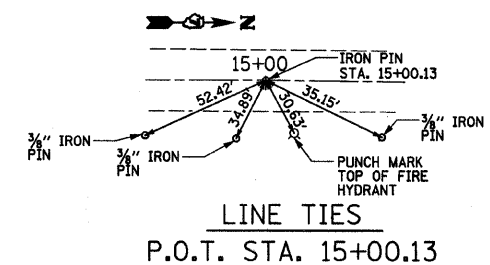
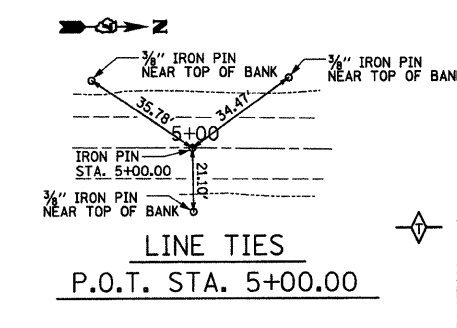
*25% SHRINKAGE **FURNISHED EXCAVATION

TREE REMOVAL SCHEDULE	
LOCATION	ACRES
LT., STA. 8+00.00 TO STA. 10+60.00	0.2
RT., STA. 8+00.00 TO STA. 9+25.00	0.1
TOTAL	0.3

DATE	BY

DATE	BY

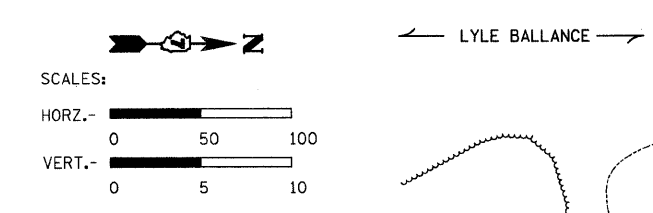
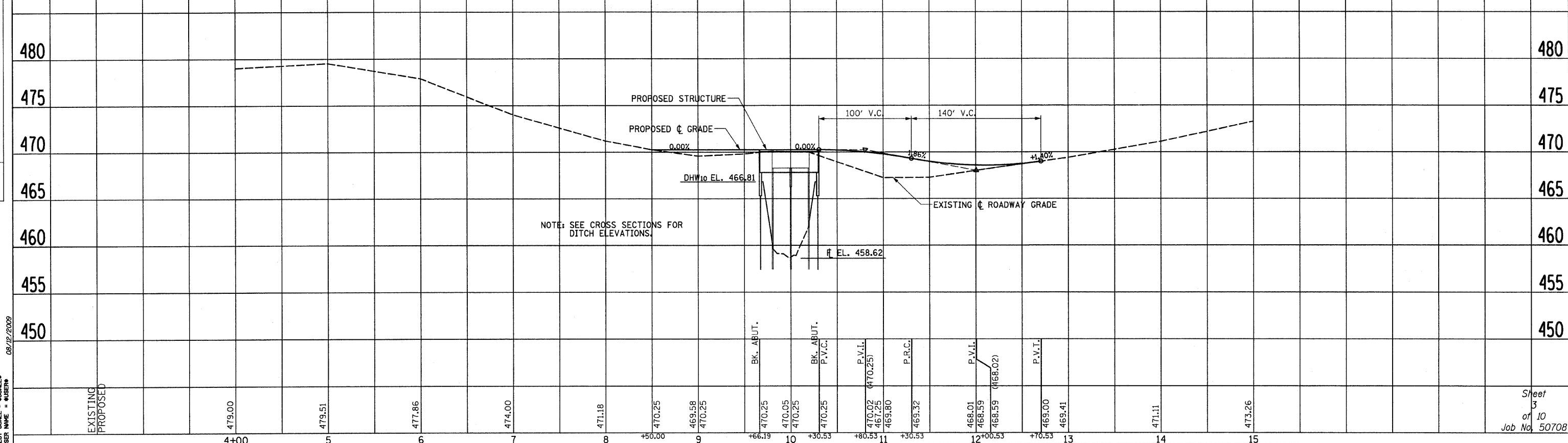
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 USER NAME = #USER#



ALL ITEMS SHALL BE CONSTRUCTED AS SHOWN ON STANDARD 280001 AND AS DIRECTED BY THE ENGINEER. MAINTENANCE AND CLEANING OF THE EROSION CONTROL ITEMS SHALL BE INCLUDED IN THE RESPECTIVE EROSION CONTROL PAY ITEM.

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.

TBM 04/28/08B - RR SPIKE IN W FACE OF TWIN 12" OAK TREE, 18.4' RT., STA. 6+46.8 - ELEV. 477.84
 TBM 04/28/08C - RR SPIKE IN W FACE OF 36" TREE, 19.7' RT., STA. 9+17.0 - ELEV. 469.80
 TBM 04/28/08D - RR SPIKE IN W FACE OF 30" LOCUST TREE, 35.8' RT., STA. 10+83.1 - ELEV. 467.19



EXISTING STRUCTURE: TWO-SPAN BRIDGE WITH PRECAST CONCRETE DECK SLABS ON CLOSED TIMBER ABUTMENTS AND TIMBER PILE BENT PIER WITH CONCRETE CAPS, 40' BK. TO BK. ABUTMENTS, 20' OUT TO OUT OF DECK, EXISTING STRUCTURE NUMBER 026-3271.
 ROW CROPS
 KENNETH HARTLIEB, JR.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 140	07-11120-00-BR	FAYETTE	10	3
STA. 4+00.00 TO STA. 15+00.00		ILLINOIS		

PROPOSED STRUCTURE
 STA. 9+98.36
 SINGLE SPAN PPCDB BRIDGE
 ON STEEL H-PILE SUPPORTED
 SPILL-THRU CONCRETE ABUTMENTS
 64'-4" BK. TO BK. 24'-0" WIDE.
 NO SKEW.
 EXISTING STRUCTURE NO. 026-3271
 PROPOSED STRUCTURE NO. 026-3444

CONSTRUCT FIELD ENTRANCE
 STA. 8+75, RT.
 INSTALL PIPE CULVERTS, CLASS C,
 ALUMINIZED STEEL TYPE 2 CORRUGATED PIPE
 15" X 36 FOOT
 U.S. F.L. ELEV. 467.89
 D.S. F.L. ELEV. 466.45

JAY D. GARRETT & STEPHANIE K. BURGHER

TBM 04/28/08B - RR spike in West face of twin 12" Oak tree, 18.4' Rt. of Sta. 6+46.8 - Elev. 477.84

TBM 04/28/08C - RR spike in West face of 36" tree, 19.7' Rt. of Sta. 9+17.0 - Elev. 469.80

TBM 04/28/08D - RR spike in West face of 30" Locust tree, 35.8' Rt. of Sta. 10+83.1 - Elev. 467.19

Existing Structure: Two-span bridge with precast concrete deck slabs on closed timber abutments and timber pile bent pier with concrete caps, 40' Bk. to Bk. abutments, 20' Out to Out of deck. Existing S.N. 026-3271. To be removed. See Special Provisions.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 140	07-11120-00-BR	FAYETTE	10	4
ILLINOIS				

BILL OF MATERIALS (BRIDGE ONLY)

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu Yd	-	168	168
Porous Granular Embankment	Ton	-	68	68
Stone Dumped Riprap, Class A4	Ton	-	92	92
Removal of Existing Structures	Each	-	-	1
Concrete Structures	Cu Yd	-	17.6	17.6
Concrete Encasement	Cu Yd	-	2.8	2.8
PPCDB (27" Depth)	Sq Ft	1512	-	1512
Reinforcement Bars	Pound	-	3040	3040
Steel Railing, Type S1	Foot	128	-	128
Furnishing Steel Piles HP12x53	Foot	-	434	434
Driving Piles	Foot	-	434	434
Test Pile Steel HP12x53	Each	-	1	1
Name Plates	Each	-	1	1

GENERAL NOTES

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.

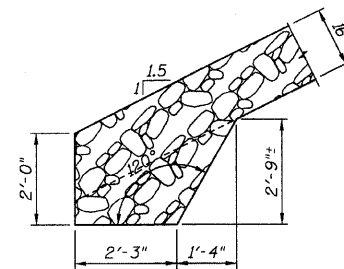
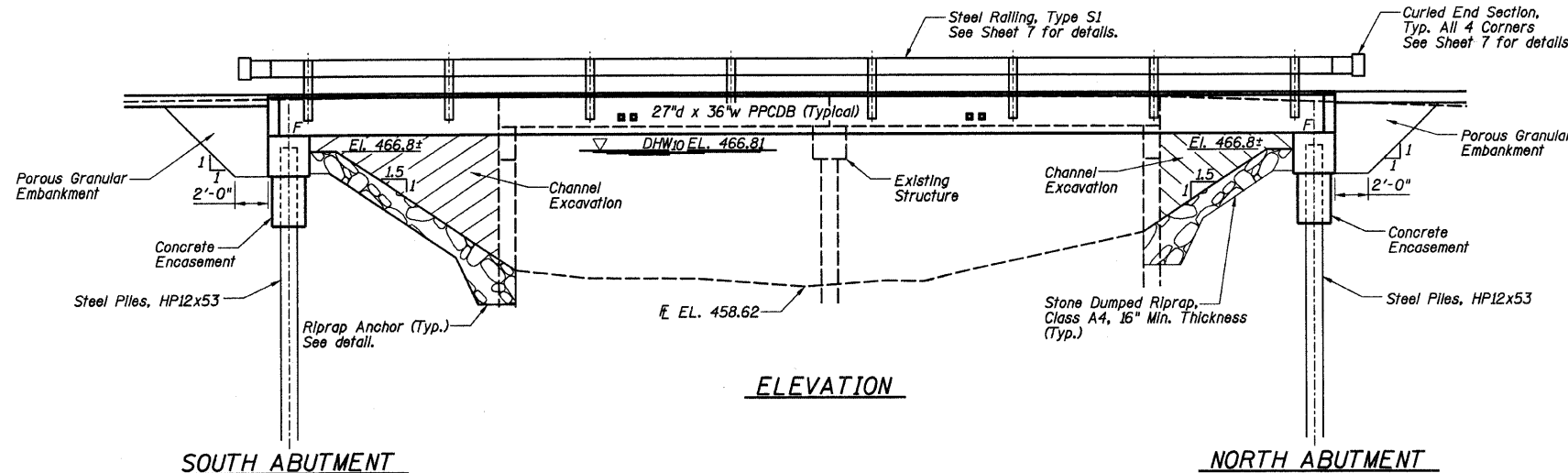
Do not scale these drawings.

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

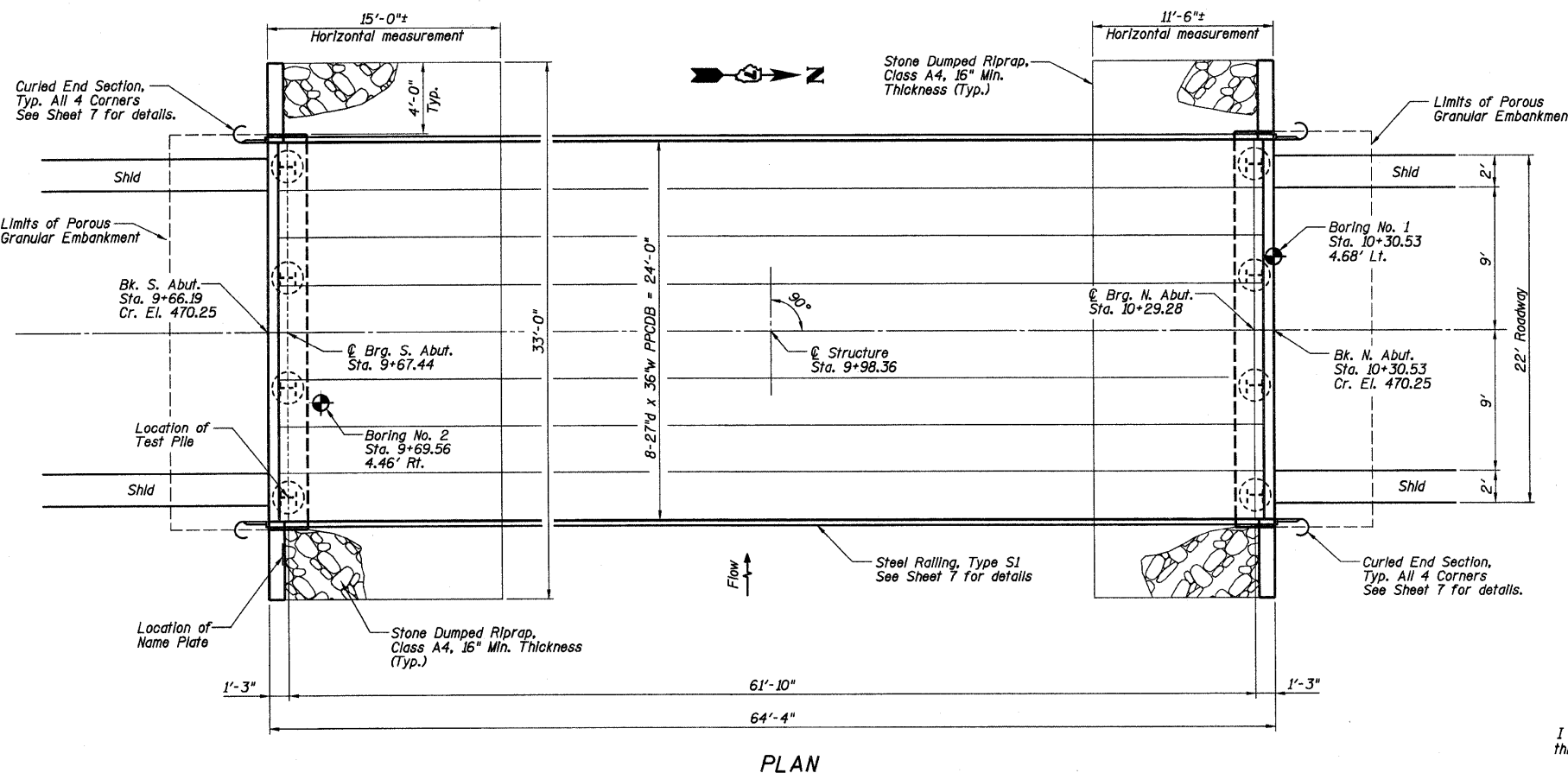
The Contractor shall drive one (1) Steel HP12x53 Test Pile in a permanent location at the South abutment as directed by the Engineer before ordering the remainder of the piles.

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, 1/2" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing.



RIPRAP ANCHOR DETAIL



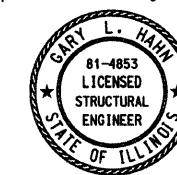
PLAN

**BEAR CREEK
BUILT 20 BY
FAYETTE COUNTY
SEC. 07-11120-00-BR
LOADING HL-93
STRUCTURE NO. 026-3444**

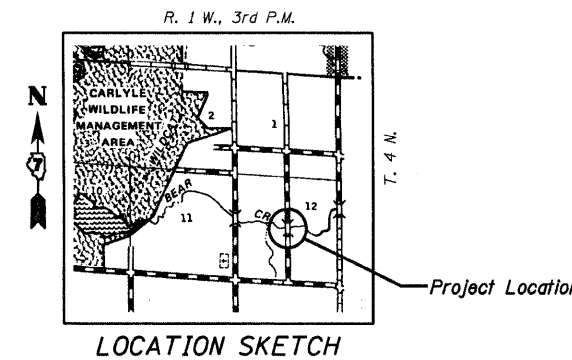
NAME PLATE

(See State Standard 515001 for details)

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



Gary L. Hahn 08/12/09
Gary L. Hahn
Centralia, Illinois
Illinois Licensed Structural
Engineer No. 81-4853
Expires Nov. 30, 2010



LOCATION SKETCH

WATERWAY DATA

Drainage Area = 3.232 Sq. Mi. Low Grade Elev. 467.25 @ Sta. 11+00

Flood Yr.	Freq.	Q C.F.S.	Opening Sq. Ft.		Natural		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	1040	269	334	466.81	0.10	0.05	466.91	466.86	
Base	100	2000	309	394	467.94	1.09	0.39	469.03	468.33	
Max. Calc.	500	2750	321	394	468.55	1.60	0.96	470.15	469.51	

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 (1/2" ϕ low lax. strands)
 $f_{pbt} = 201,960$ psi (1/2" ϕ low lax. strands)
 $f_y = 60,000$ psi (reinforcement)

DESIGN SPECIFICATIONS

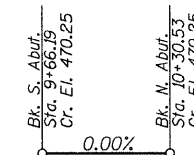
2007 AASHTO LRFD with all applicable Interims

LOADING HL-93

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

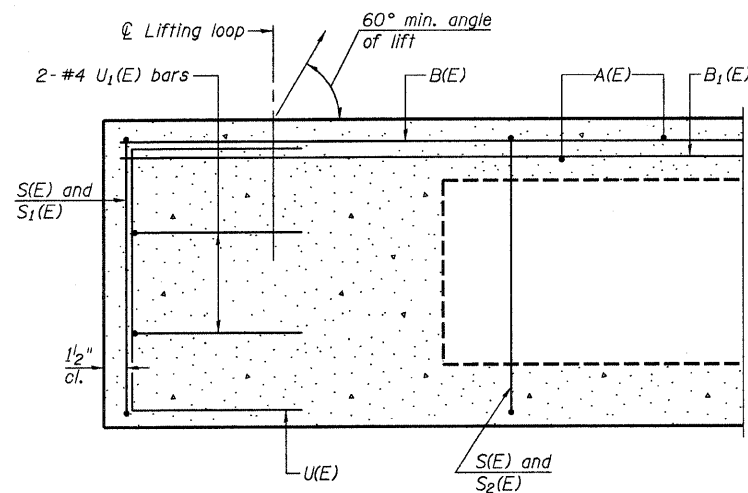
PROFILE GRADE

Along @ Roadway

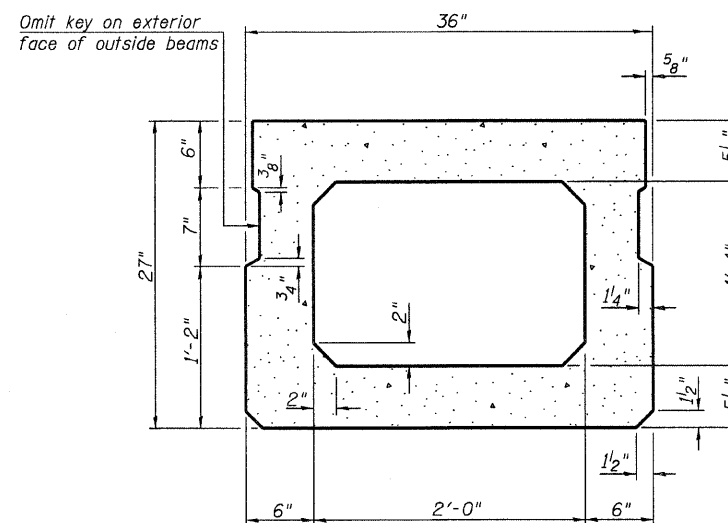


**GENERAL PLAN AND ELEVATION
PROPOSED BRIDGE OVER
BEAR CREEK
TR 140
SECTION 07-11120-00-BR
FAYETTE COUNTY, ILLINOIS**

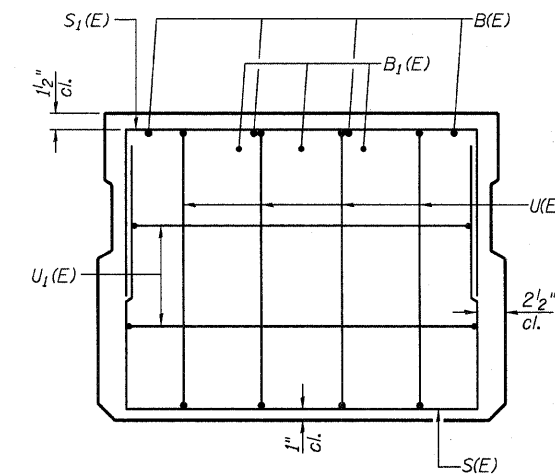
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 140	07-11120-00-BR	FAYETTE	10	5
		ILLINOIS		



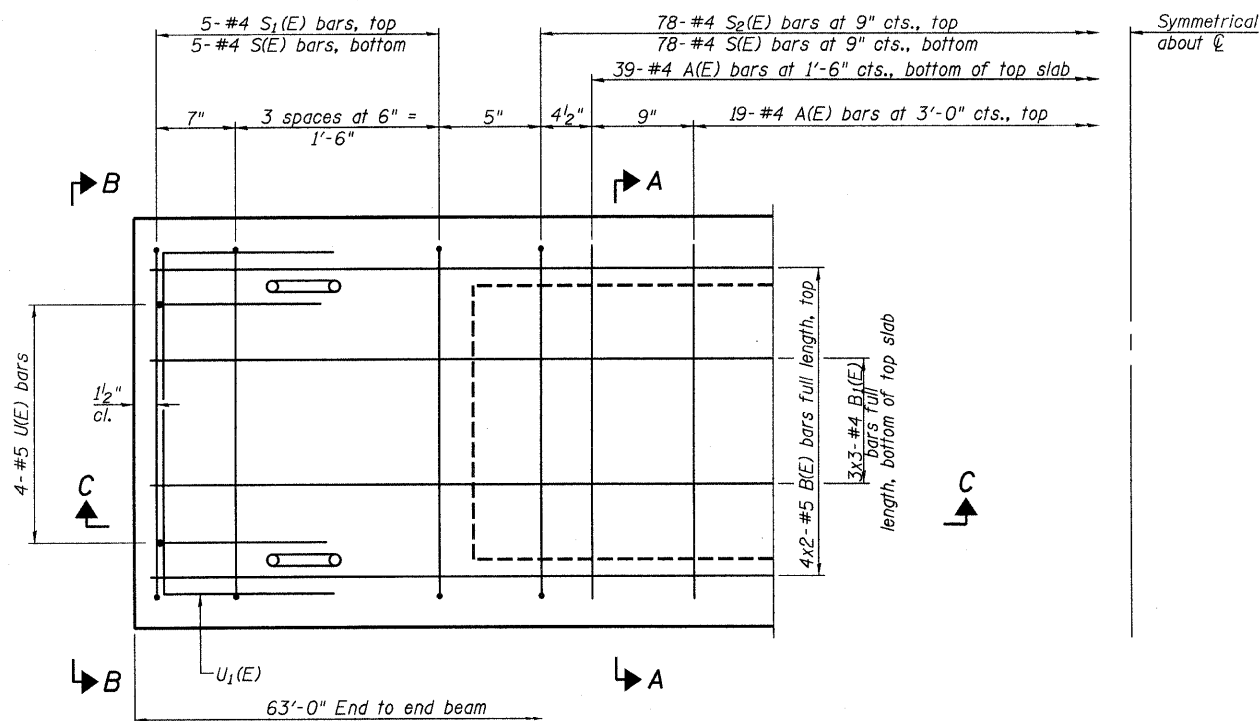
SECTION C-C



SECTION A-A
(Showing dimensions)

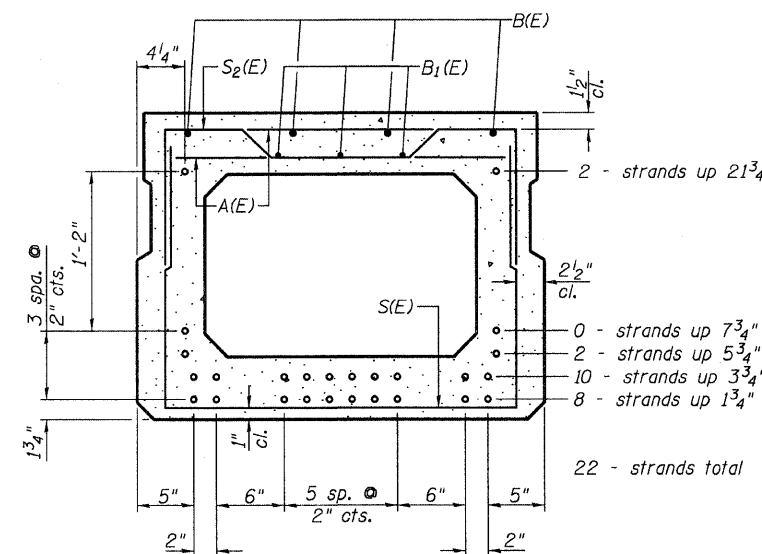


VIEW B-B



PLAN VIEW

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.
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)

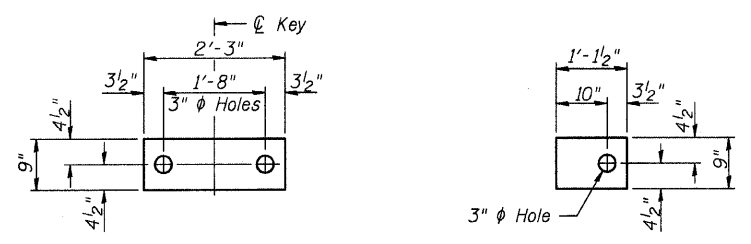
Bar	No.	Size	Length	Shape
A(E)	58	#4	2'-7"	—
B(E)	8	#5	32'-9"	—
B ₁ (E)	9	#4	22'-6"	—
S(E)	88	#4	6'-5"	⌌
S ₁ (E)	10	#4	6'-3"	⌌
S ₂ (E)	78	#4	6'-6"	⌌
U(E)	8	#5	4'-6"	⌌
U ₁ (E)	4	#4	5'-0"	⌌

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

27" X 36" PPC DECK BEAMS

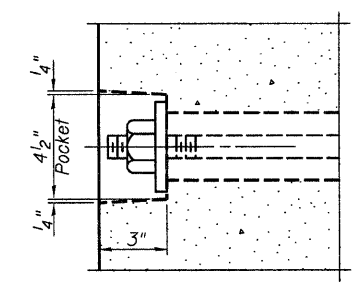
PPC DECK BEAM DETAILS
PROPOSED BRIDGE OVER
BEAR CREEK
TR 140
SECTION 07-11120-00-BR
FAYETTE COUNTY, ILLINOIS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 140	07-11120-00-BR	FAYETTE	10	6
ILLINOIS				

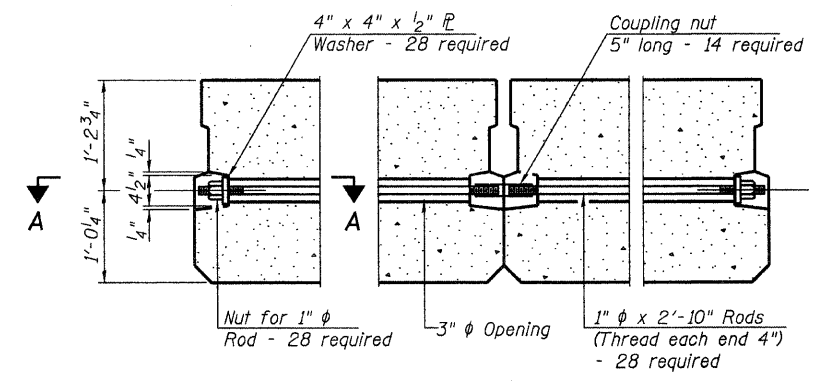


FABRIC BEARING PAD
(Interior) **FIXED**
FABRIC BEARING PAD
(Exterior)

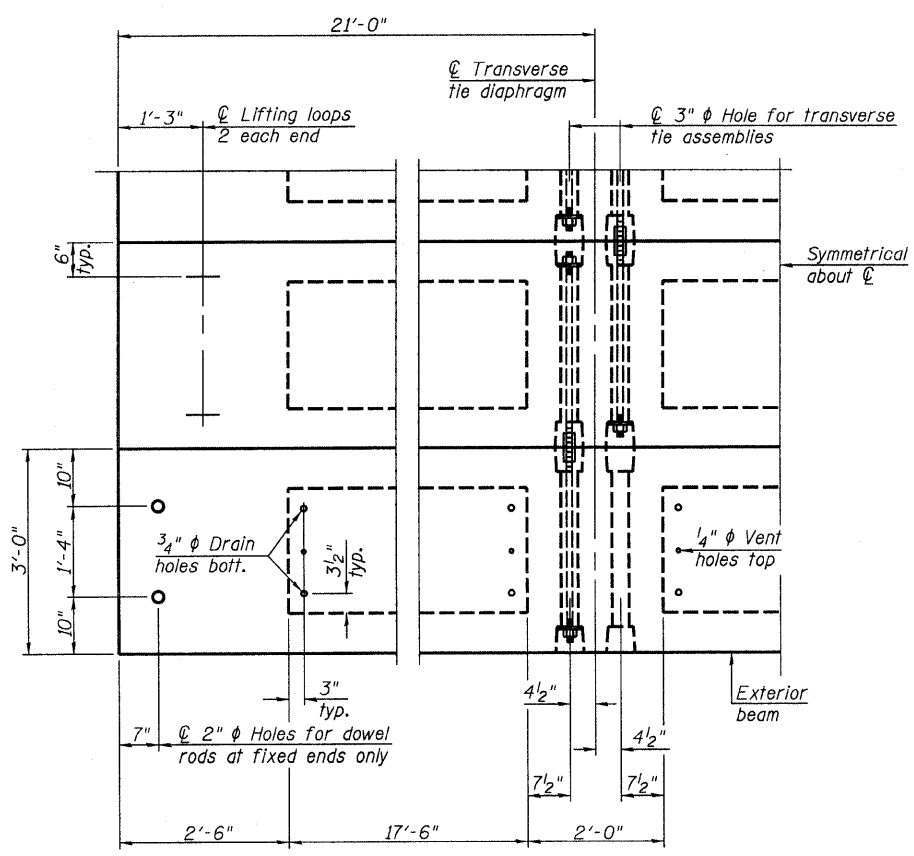
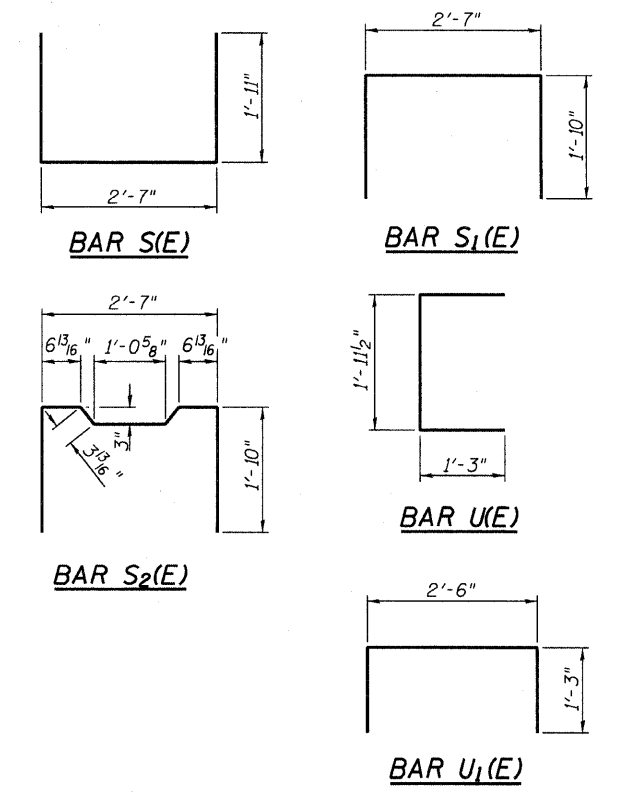
Note: Omit holes when using expansion bearings.



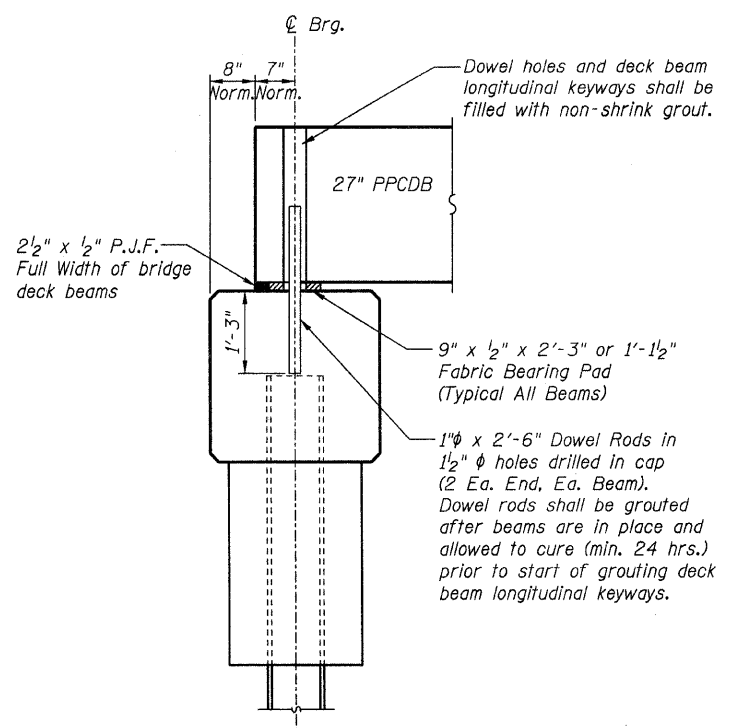
SECTION A-A



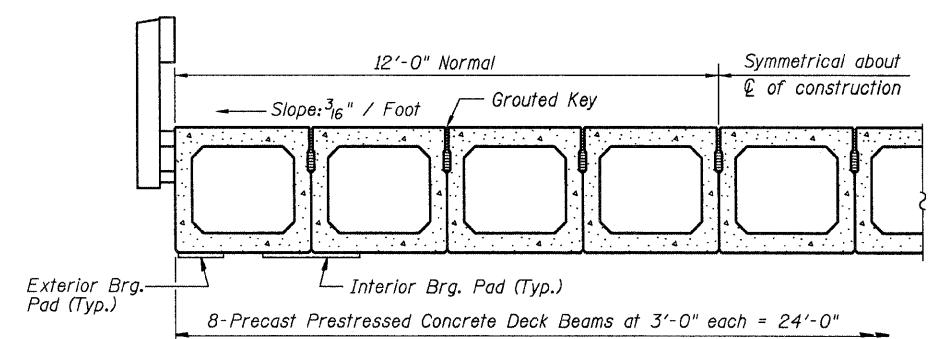
TYPICAL TRANSVERSE TIE ASSEMBLY



PLAN VIEW



FIXED BEARING ABUTMENT



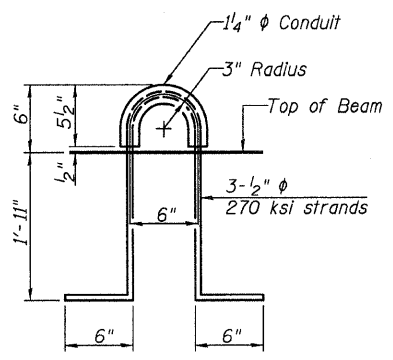
HALF CROSS SECTION

See Sheet 7 for the details showing the spacing and mounting of posts and rails to the PPCDB.

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (27" depth)	Sq. Ft.	1512
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27" X 36" PPC DECK BEAM DETAILS



LIFTING LOOP DETAIL

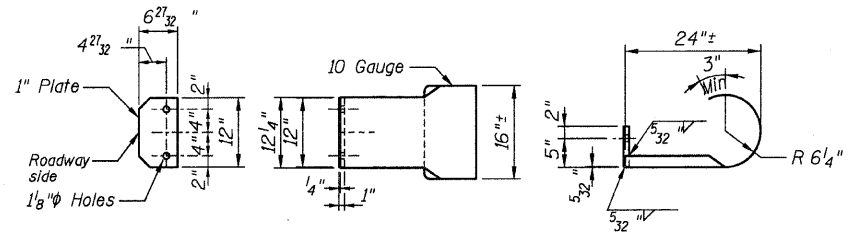
NOTES

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.

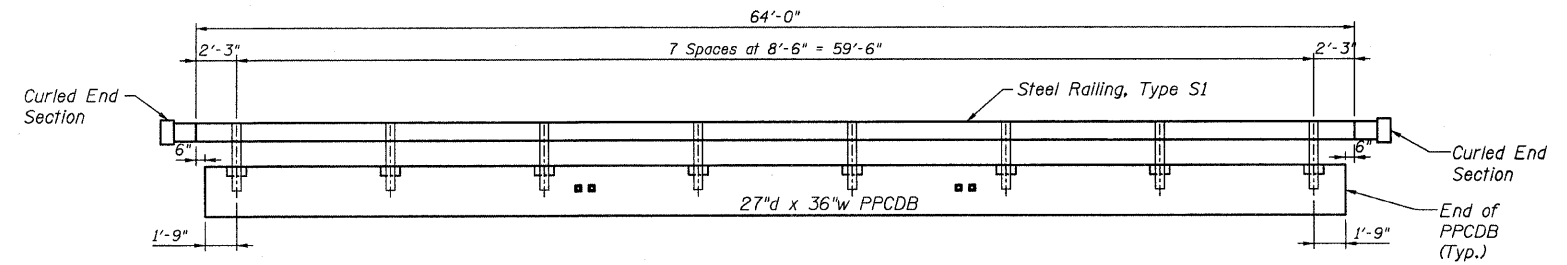
Note: Connect beams in pairs with the transverse tie configuration shown.

PD-2736-OD 8-29-07

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 140	07-11120-00-BR	FAYETTE	10	7
ILLINOIS				

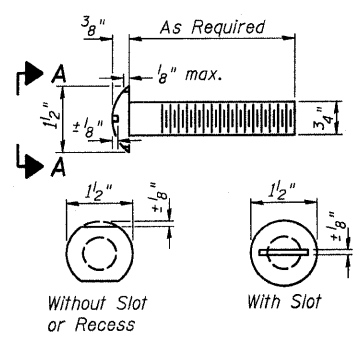


CURLLED END SECTION DETAILS

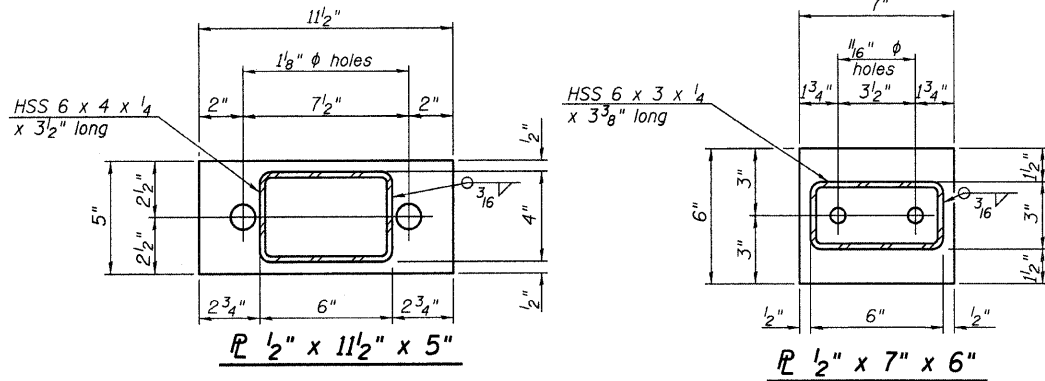


ELEVATION

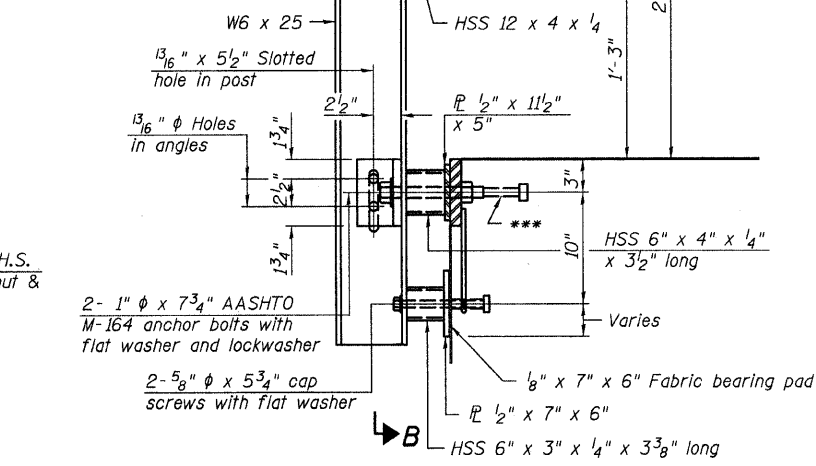
Note: The cost of the Curled End Sections shall be included in the contract unit price per foot for "STEEL RAILING, TYPE S1", and no additional compensation will be allowed.



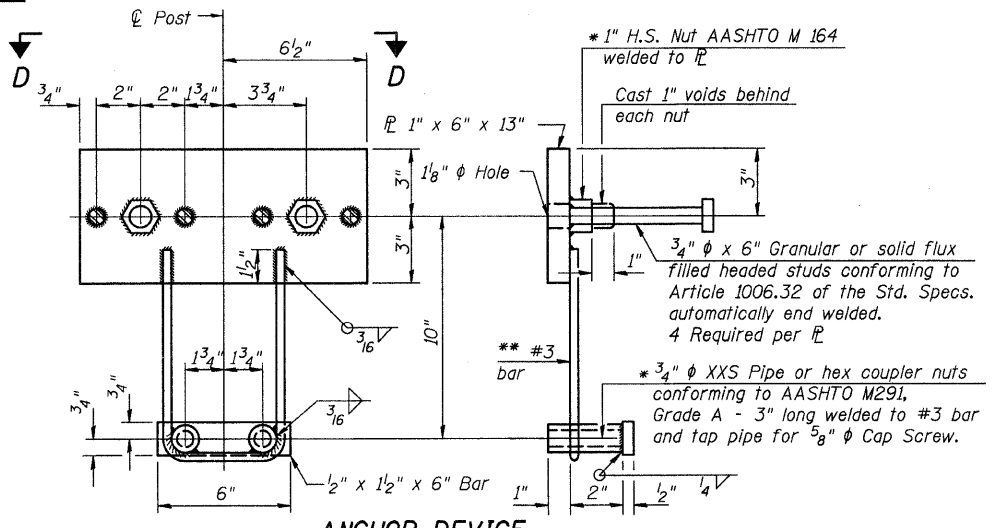
VIEW A-A ROUND HEAD BOLT



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.



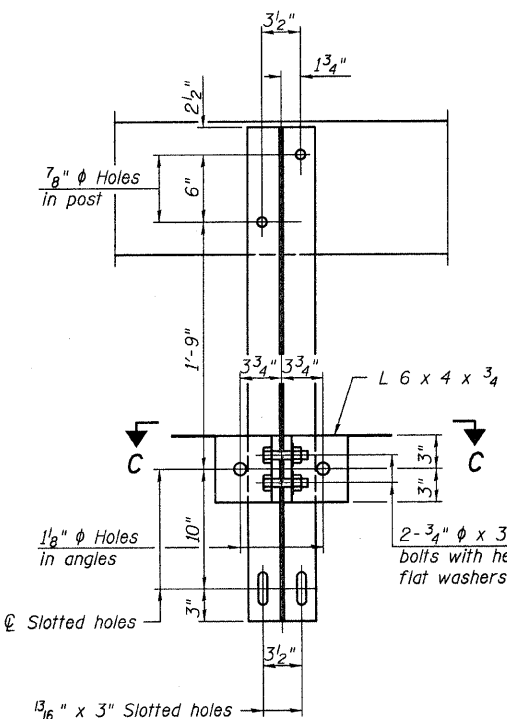
SECTION AT RAILING POST



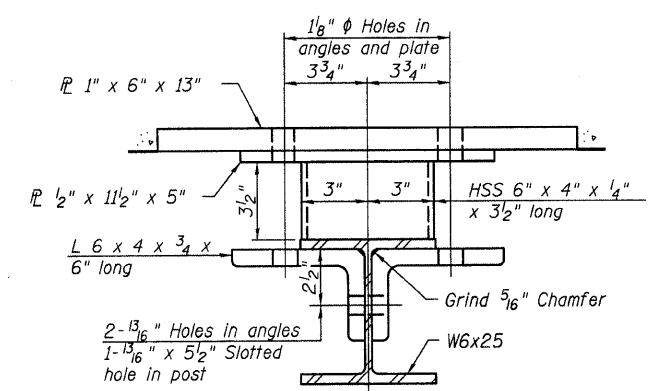
ANCHOR DEVICE

* 1" H.S. Nut AASHTO M 164 welded to \bar{L}
 Cast 1" voids behind each nut
 * 3/4" ϕ x 6" Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs. automatically end welded. 4 Required per \bar{L}
 * 3/4" ϕ XXS Pipe or hex coupler nuts conforming to AASHTO M291, Grade A - 3" long welded to #3 bar and tap pipe for 5/8" ϕ Cap Screw.
 ** 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".

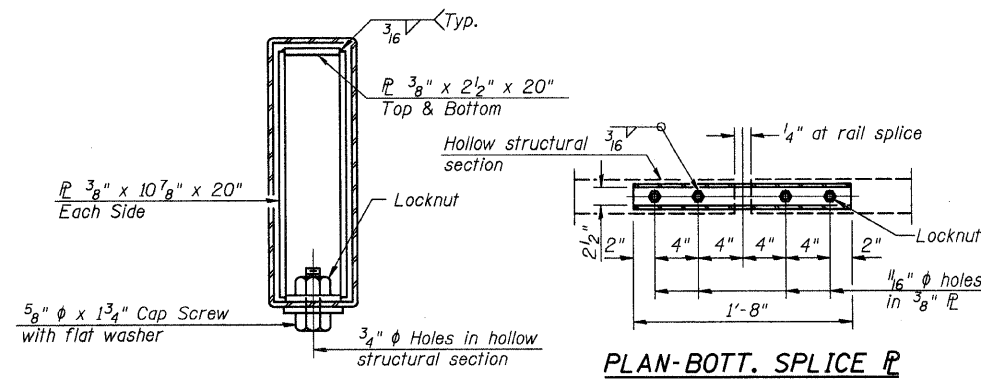
Notes:
 All field drilled holes shall be coated with an approved zinc rich paint before erection.
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type S1.
 All steel rail elements shall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



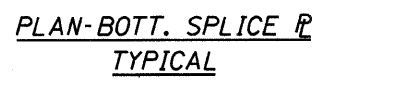
SECTION B-B



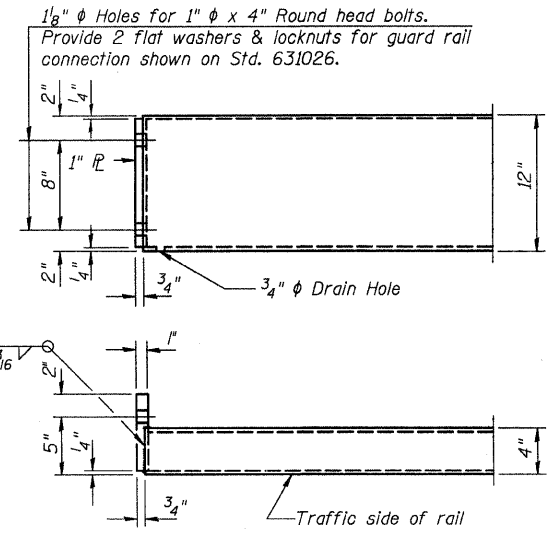
SECTION C-C



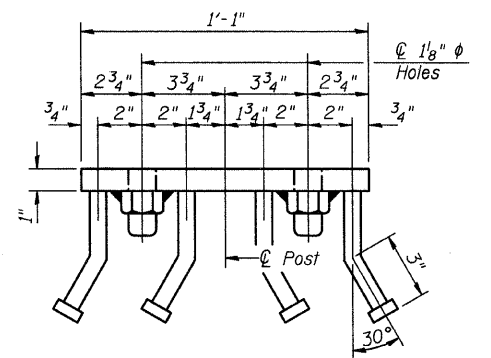
SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE R TYPICAL



END OF RAIL DETAILS



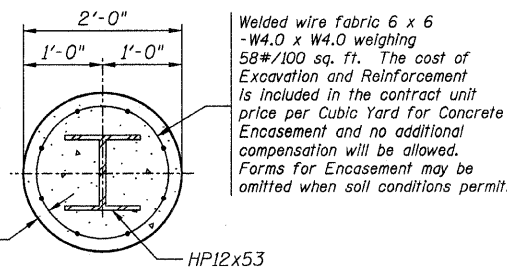
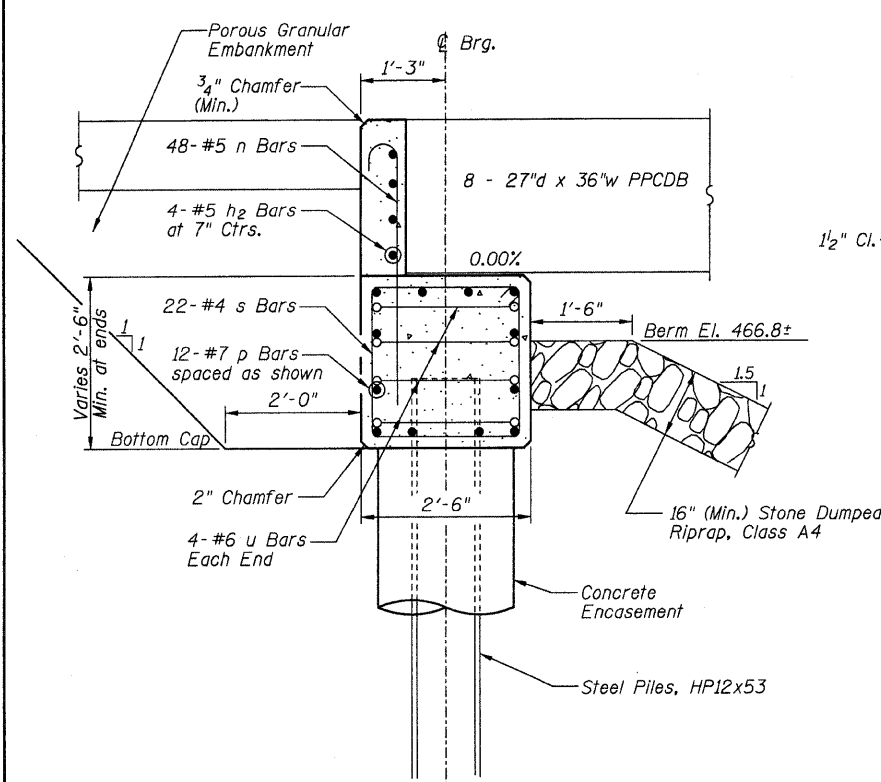
VIEW D-D

BILL OF MATERIAL

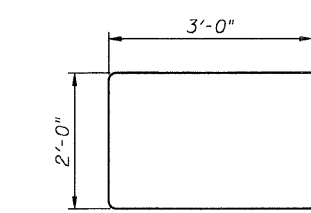
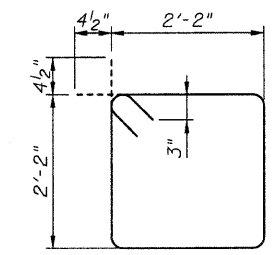
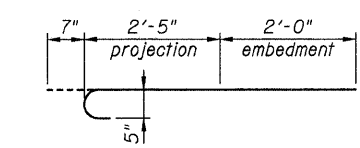
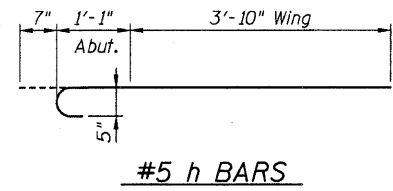
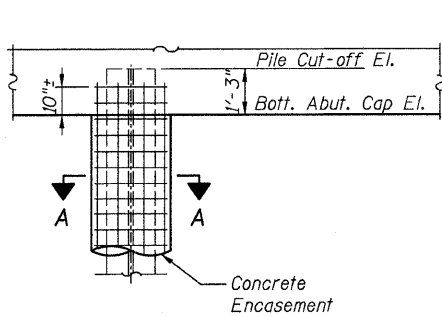
Item	Unit	Quantity
Steel Railing, Type S1	Foot	128

STEEL RAILING, TYPE S1 DETAILS
 PROPOSED BRIDGE OVER BEAR CREEK
 TR 140
 SECTION 07-11120-00-BR
 FAYETTE COUNTY, ILLINOIS

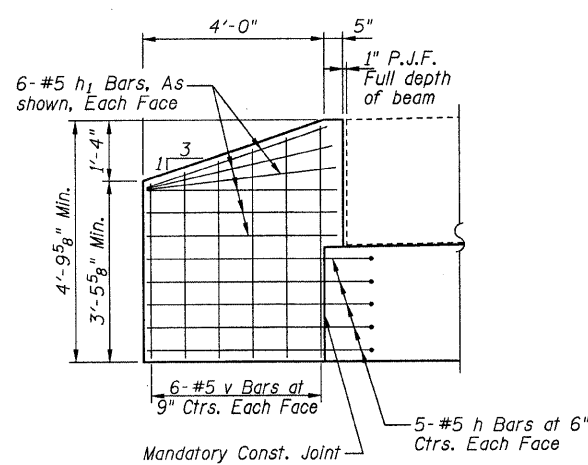
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 140	07-11120-00-BR	FAYETTE	10	8
ILLINOIS				



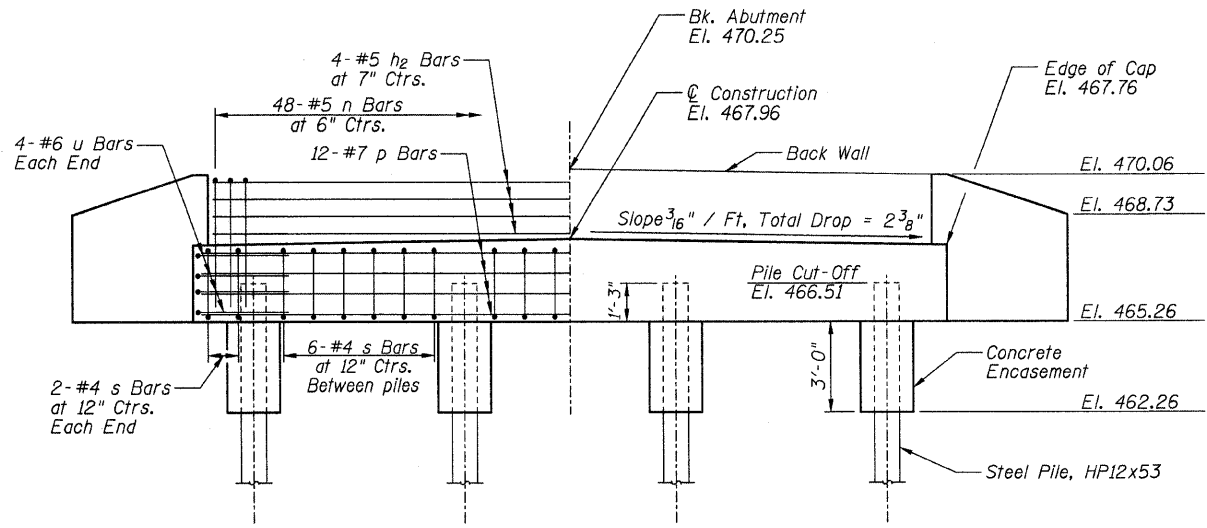
PILE ENCASEMENT DETAIL



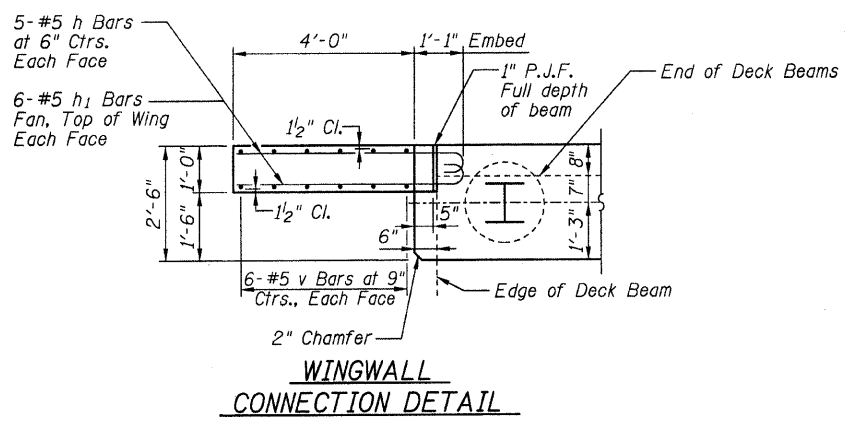
SECTION THRU ABUTMENT



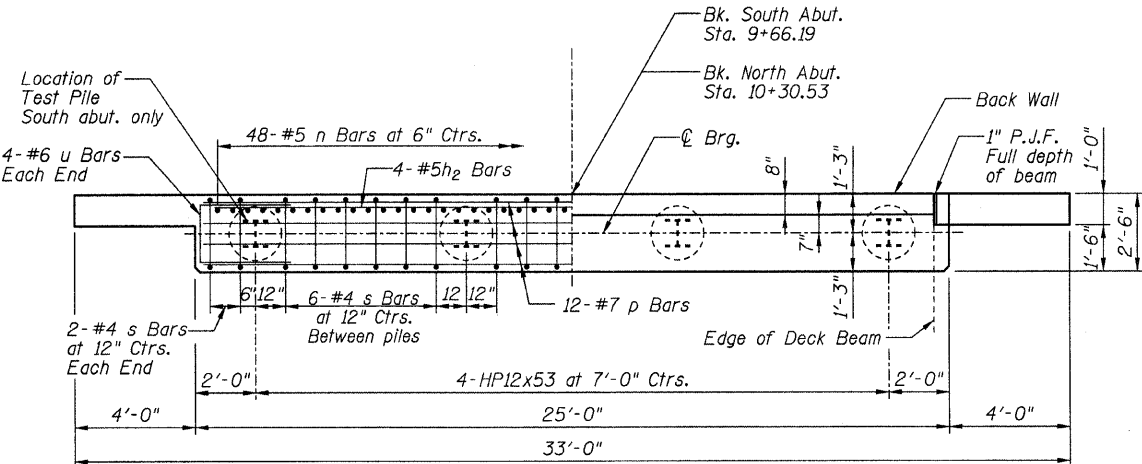
ELEVATION OF WINGWALL



ELEVATION



WINGWALL CONNECTION DETAIL



PLAN

BILL OF MATERIALS
ONE ABUTMENT w/ WINGWALLS

Bar	No.	Size	Length	Shape
h	20	#5	5'-6"	
h1	24	#5	4'-3"	
h2	4	#5	23'-8"	
n	48	#5	5'-0"	
p	12	#7	24'-8"	
s	22	#4	9'-5"	
u	8	#6	8'-0"	
v	24	#5	4'-6"	CUT IN FIELD
Concrete Structures			Cu Yd	8.8
Concrete Encasement			Cu Yd	1.4
Reinforcement Bars			Pound	1520

PILE DATA

Type and Size: Steel HP12x53

Nominal Required Bearing: 390 kips

Allowable Resistance Available: 130 kips

Estimated Length:

South Abutment:	62 Foot
North Abutment:	62 Foot

Number of Production Piles:

South Abutment:	3 Each
North Abutment:	4 Each

Number of Test Piles:

South Abutment:	1 Each
North Abutment:	None

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 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.

ABUTMENT DETAILS
PROPOSED BRIDGE OVER
BEAR CREEK
TR 140
SECTION 07-11120-00-BR
FAYETTE COUNTY, ILLINOIS

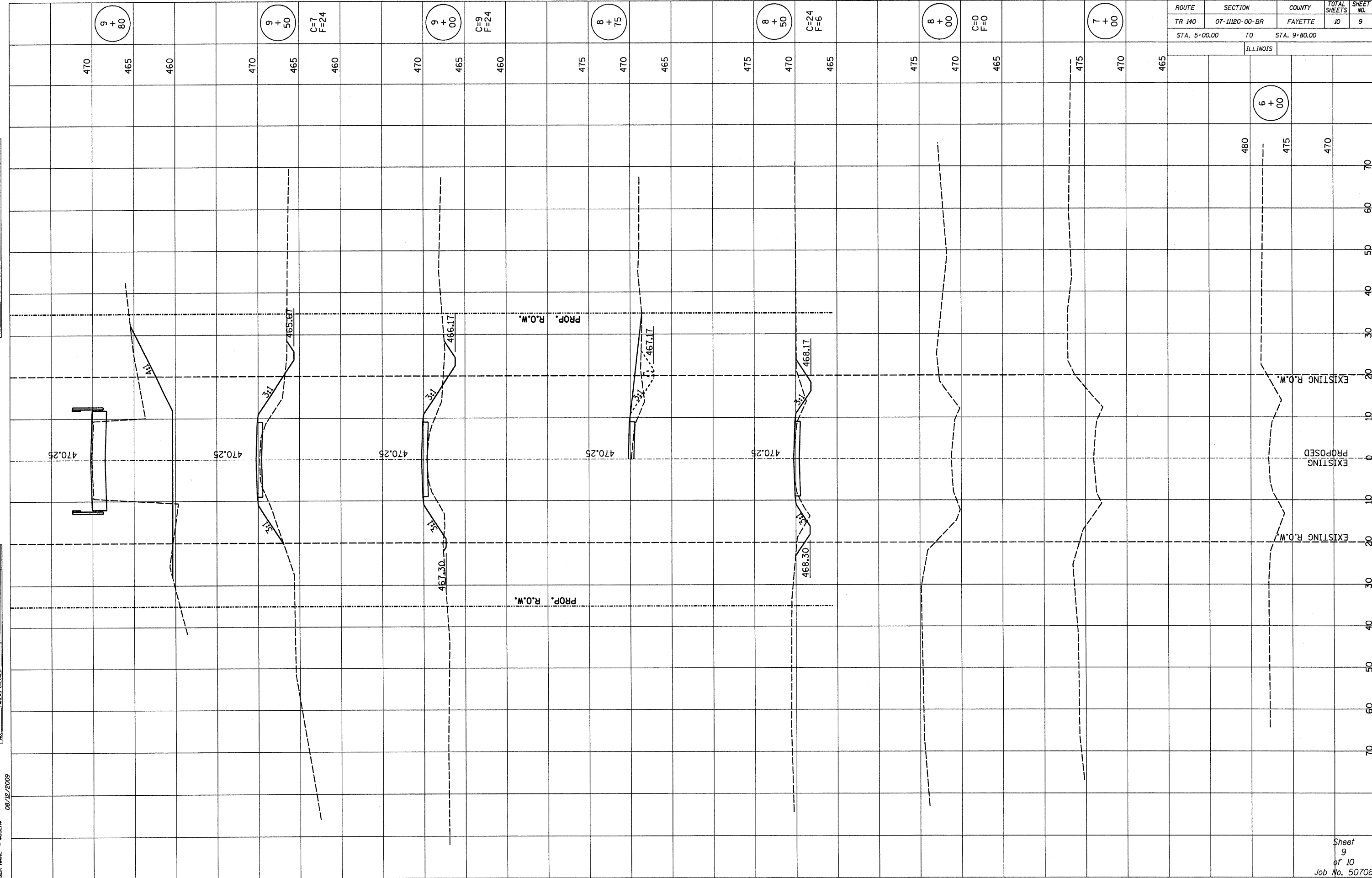
08/12/2003

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 140	07-11120-00-BR	FAYETTE	10	9
STA. 5+00.00 TO STA. 9+80.00			ILLINOIS	

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

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

PLOT DATE * * * * *
 FILE NAME * * * * *
 PLOT SCALE * * * * *
 USER NAME * * * * *



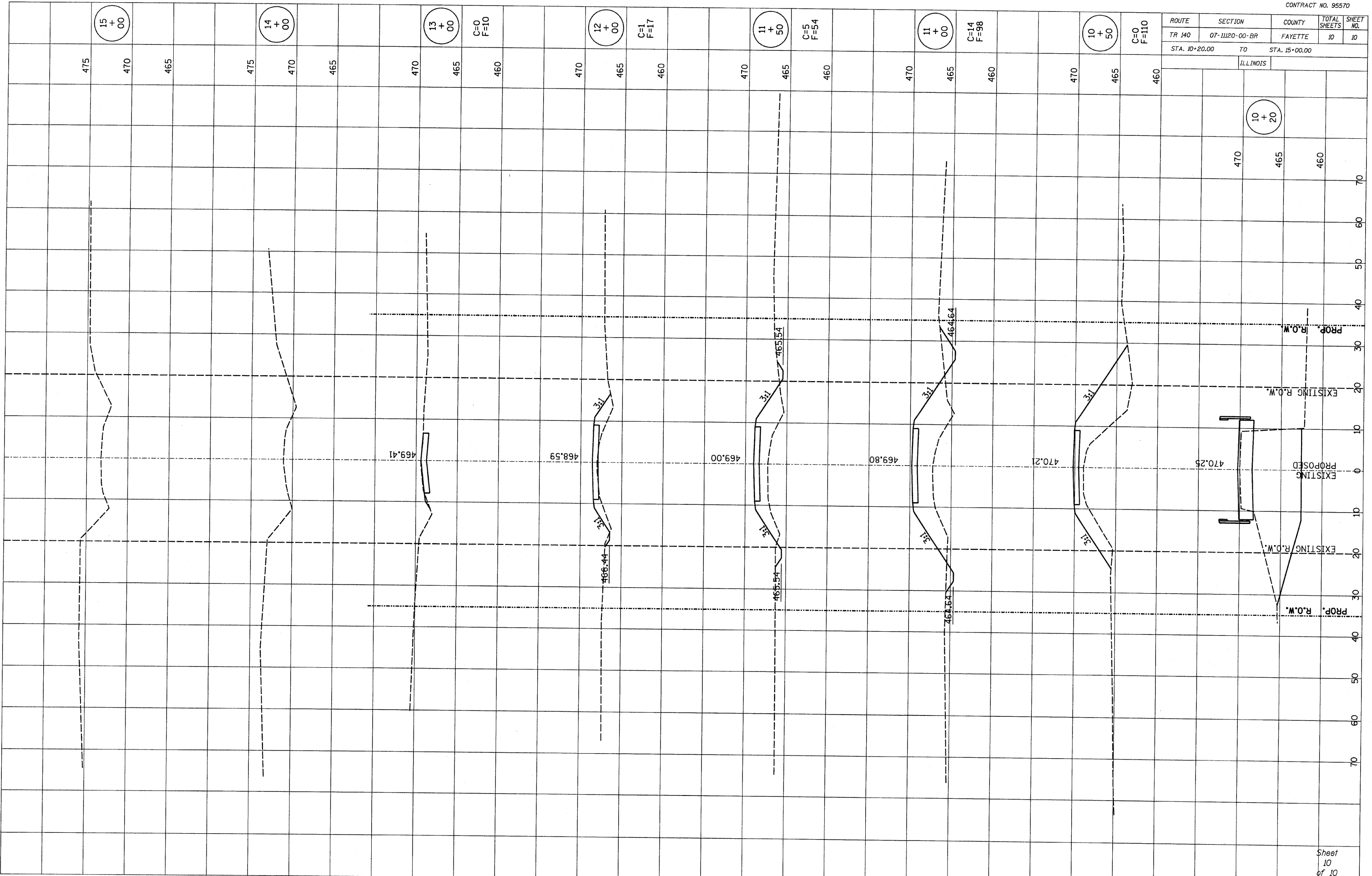
08/12/2009

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 140	07-11120-00-BR	FAYETTE	10	10
STA. 10+20.00 TO STA. 15+00.00		ILLINOIS		

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

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

PLOT DATE = 08/12/2009
 PLOT SCALE = 1"=40'
 PLOT NAME = 50708
 USER NAME =



RHUTASEL and ASSOCIATES, INC.
 CONSULTING ENGINEERS • LAND SURVEYORS
 CENTRALIA, ILLINOIS FREEBURG, ILLINOIS