

11-08-2013 LETTING ITEM 060

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T.R. 257	09-00011-00-BR	LAWRENCE	16	1
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 95719		

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES AND GENERAL NOTES
3.	TYPICAL CROSS SECTIONS
4.	PLAN AND PROFILE
5-6.	STATION CROSS SECTIONS
7-14.	BRIDGE PLANS
15-16.	BORINGS

**HIGHWAY STANDARDS:**

000001-06	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
515001-03	NAME PLATE FOR BRIDGES
631032-08	TRAFFIC BARRIER TERMINAL TYPE 6A
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
701901-02	TRAFFIC CONTROL DEVICES
BLR 21-9	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

**UTILITIES**

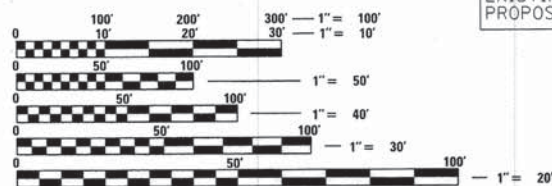
NONE

**PLANS FOR PROPOSED SURFACE TRANSPORTATION PROGRAM – BRIDGE**

**PROJECT BROS-0101(047)  
SECTION 09-00011-00-BR  
CITY OF ST. FRANCISVILLE  
LAWRENCE COUNTY  
T.R. 257 / WABASH CANNONBALL ROAD  
PROPOSED STRUCTURE NO. 051-6011  
JOB C-97-043-13**

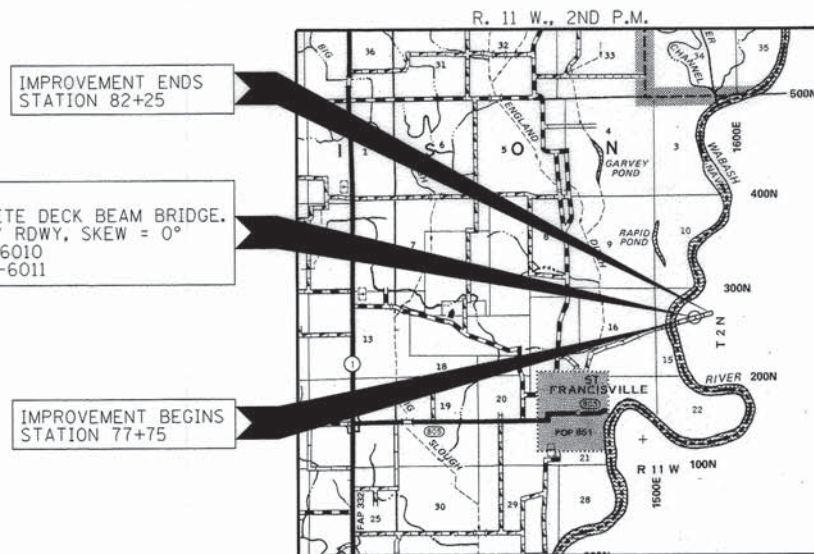


FUNCTIONAL CLASSIFICATION: LOCAL ROAD  
DESIGN SPEED: 30 MPH  
DESIGN TRAFFIC: 750 ADT (2013)



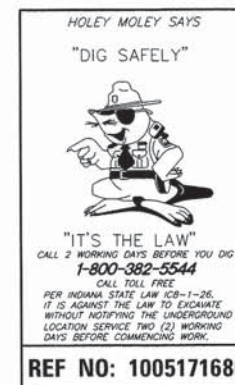
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

STA. 80+00  
PRECAST PRESTRESSED CONCRETE DECK BEAM BRIDGE.  
SINGLE SPAN @ 42'-0", 28'-0" RDWY, SKEW = 0°  
EXISTING STRUCTURE NO. 051-6010  
PROPOSED STRUCTURE NO. 051-6011

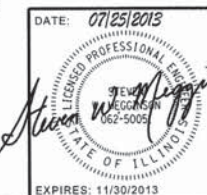


**LOCATION MAP**

APPROXIMATE SCALE: 0 1 MILE  
NET LENGTH OF SECTION = 450 FEET = 0.085 MILES



ILLINOIS DEPARTMENT OF TRANSPORTATION	
APPROVED	7-27 2013 <i>Scott Cavell</i> CITY MAYOR
PASSED	8-5 2013 <i>Maurice East</i> DISTRICT SEVEN ENGINEER OF LOCAL ROADS & STREETS
Releasing For Bid Based on Limited Review	8-5 2013 <i>Robert L. Swickard</i> DEPUTY DIRECTOR OF HIGHWAYS REGION FOUR ENGINEER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



**HAMPTON, LENZINI AND RENWICK, INC.**  
CIVIL ENGINEERS - STRUCTURAL ENGINEERS - LAND SURVEYORS  
3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
217.546.3400 www.hlrengineering.com  
184.000959  
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORPORATION

DATE: 07/25/2013  
EXPIRES: 11/30/2013  
PROJECT NUMBER: 11.0363.130  
DATE: 07/25/13

**CONTRACT NO. 95719**

SUMMARY OF QUANTITIES				
CODE NO.	ITEM	CONSTRUCTION CODE 0011		
		UNIT	QUANTITY	
20100500	TREE REMOVAL, ACRES	ACRE	0.2	
20200100	EARTH EXCAVATION	CU YD	360	
20300100	CHANNEL EXCAVATION	CU YD	224	
20400800	FURNISHED EXCAVATION	CU YD	355	
A 25100630	EROSION CONTROL BLANKET	SQ YD	1260	
28000400	PERIMETER EROSION BARRIER	FOOT	907	
A 28100207	STONE RIPRAP, CLASS A4	TON	500	
28200200	FILTER FABRIC	SQ YD	640	
35101100	AGGREGATE BASE COURSE, TYPE A 12"	SQ YD	995	
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	661	
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	156	
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	96	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	
50300225	CONCRETE STRUCTURES	CU YD	26.2	
A 50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	1176	
50800105	REINFORCEMENT BARS	POUND	2810	
* 50901050	STEEL RAILING, TYPE SM	FOOT	85	
51201400	FURNISHING STEEL PILES HP10X42	FOOT	245	
51202305	DRIVING PILES	FOOT	245	
51203400	TEST PILE STEEL HP10X42	EACH	1	
51500100	NAME PLATES	EACH	1	
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	135	
58300100	PORTLAND CEMENT MORTAR FAIRING COURSE	FOOT	63	
* A 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	
* A 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	
67100100	MOBILIZATION	L SUM	1	
A 70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21	L SUM	1	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	
A X2070302	POROUS GRANULAR EMBANKMENT, SPECIAL	TON	100	
A X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.3	
A Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	112	

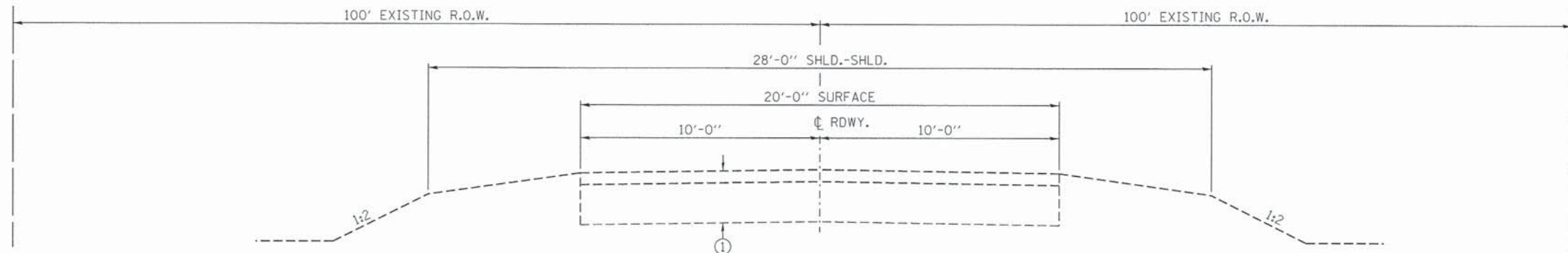
^ SEE SPECIAL PROVISIONS \* SPECIALTY ITEMS

### GENERAL NOTES

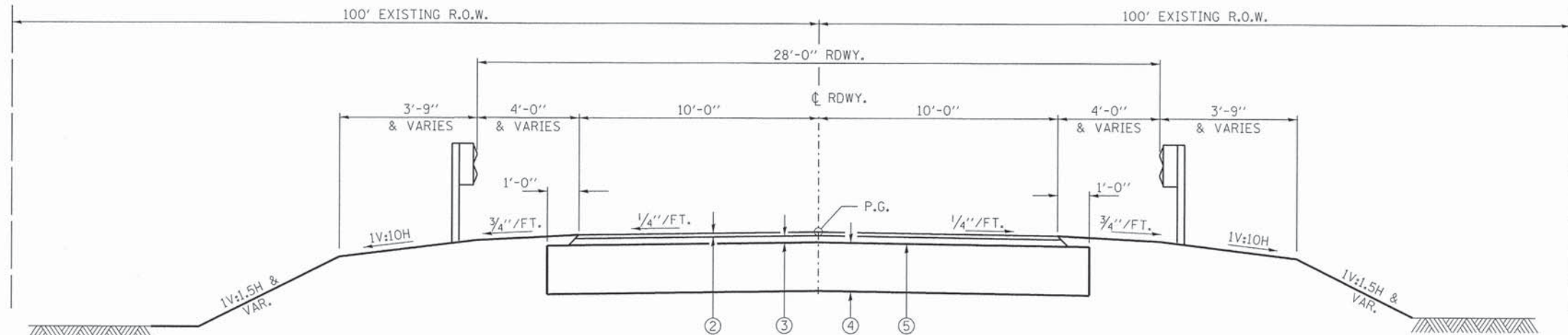
- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2012" (HEREIN AFTER REFERRED TO AS THE STANDARD SPECIFICATIONS), THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED JANUARY 1, 2013, THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", THE DETAILS IN THE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE DOCUMENTS.
- ALL CLEARING AND GRUBBING AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. ALL BITUMINOUS MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN A METHOD APPROVED BY THE ENGINEER. PROPER DISPOSAL OF BITUMINOUS MATERIAL SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- THE LOCATION ON THE PLANS OF EXISTING DRAINAGE STRUCTURES, TELEPHONE LINES, ELECTRIC LINES, WATER SERVICE LINES, GAS MAINS, AND OTHER UTILITY FACILITIES AS SHOWN ON THE PLANS ARE BASED ON FIELD INVESTIGATIONS AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS OR SPECIAL PROVISIONS SHALL BE INTERPRETED TO MEAN THE LATEST STANDARD OF THE DEPARTMENT.
- THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:  

STONE RIPRAP:	1.75 TON/CU.YD.
HMA SURFACE COURSE:	112 LBS/INCH DEPTH/SQ. YD.
HMA BINDER COURSE:	112 LBS/INCH DEPTH/SQ. YD.
BITM MATERIAL (PRIME COAT)	0.4 GAL/SQ. YD.
POROUS GRANULAR EMBANKMENT	2.0 TON/CU. YD.
- TREE REMOVAL MUST BE DONE AFTER SEPTEMBER 30 AND BEFORE APRIL 1. IN STREAM WORK MUST BE DONE AFTER JUNE 30 AND BEFORE APRIL 1.
- THE ALLOWABLE CONSTRUCTION LIMITS ARE BOUNDED BY PERMITTED WETLAND IMPACTS. THE PERIMETER EROSION BARRIER SHALL BE ERECTED ALONG THE LIMITS SHOWN ON THE PLANS. GROUND DISTURBANCE OUTSIDE THESE LIMITS IS NOT PERMISSIBLE.

FILE NAME = 110363-sht-summary.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED -	<b>STATE OF ILLINOIS CITY OF ST. FRANCISVILLE</b>	<b>SUMMARY OF QUANTITIES &amp; GENERAL NOTES</b>			T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND REHWICK, INC. 3083 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62763 ILLINOIS PROFESSIONAL GEOSURVEYING L.S./P.E. CORP. 184-000959	PLOT SCALE =	DRAWN - R.D.H.	REVISED -					257	09-00011-00-BR	LAWRENCE	16	2
PLOT DATE = 7/25/2013	DATE - 07/25/13	CHECKED - S.W.M.	REVISED -		CONTRACT NO. 95719			ILLINOIS FED. AID PROJECT BR05-01010471				
		DATE - 07/25/13	REVISED -		SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.				



**EXISTING TYPICAL SECTION**  
STA. 77+75 TO STA. 82+25



**PROPOSED TYPICAL CROSS SECTION**  
STA. 77+75 TO STA. 82+25

TRANSITIONS FROM PROPOSED ROADWAY TO THE EXISTING ROADWAY ARE TO BE CONSTRUCTED FROM STA. 77+75 TO STA. 78+25 AND STA. 81+75 TO STA. 82+25. SEE SHEET 7 FOR TRANSITION AT BRIDGE.

**PAVEMENT DESIGN**

PAVEMENT DESIGN (NON MECHANISTIC)  
 DESIGN PERIOD 15 YEARS 2028  
 STRUCTURAL DESIGN TRAFFIC (SDT) = 904 (2021)  
 PV = 791 SU = 90 MU = 23  
 ROAD/STREET CLASSIFICATION: Class III  
 PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE  
 P = 0.875 S = 0.1 MU = 0.025  
 TRAFFIC FACTOR ACTUAL TF 0.140 ACTYPE 64-22  
 MINIMUM TF NA  
 PG GRADE: BINDER = 64-22 SURFACE = 64-22

HMA - MIXTURE REQUIREMENTS	
LOCATION(S):	TR 275
MIXTURE USE(S):	HOT-MIX ASPHALT SURFACE COURSE
AC/PG:	PG 64-22
RAP % (MAX):	SEE BDE 80306
DESIGN AIR VOIDS:	4% @ Ndes 70
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL 9.5 OR IL 12.5
FRICTION AGGREGATE	MIXTURE C
MIXTURE WEIGHTS	112 LBS./SQ. YD. 1 INCH

HMA - MIXTURE REQUIREMENTS	
LOCATION(S):	TR 275
MIXTURE USE(S):	HOT-MIX ASPHALT BINDER COURSE
AC/PG:	PG 64-22
RAP % (MAX):	SEE BDE 80306
DESIGN AIR VOIDS:	4% @ Ndes 70
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL 19.0
FRICTION AGGREGATE	NONE
MIXTURE WEIGHTS	112 LBS./SQ. YD. 1 INCH

**LEGEND**

- ① EXISTING HMA SURFACE (3") ON AGGREGATE BASE (8"±).
- ② HOT-MIX ASPHALT SURFACE COURSE, MIX C, N70 (1 1/2" THICKNESS)
- ③ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70 (3" THICKNESS)
- ④ AGGREGATE BASE COURSE, TY A (12" THICKNESS)
- ⑤ BITUMINOUS MATERIAL (PRIME COAT)

FILE NAME = 110363-shs-typsections.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED -	<b>STATE OF ILLINOIS CITY OF ST. FRANCISVILLE</b>	<b>TYPICAL CROSS SECTIONS</b>			T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3060 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62761 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE COMP. 184.000089	PLOT SCALE =	DRAWN - R.D.H.	REVISED -		SCALE:	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	257	09-00011-00-BR	LAWRENCE	16	3
	PLOT DATE = 7/25/2013	CHECKED - S.W.M.	REVISED -								CONTRACT NO. 95719		
		DATE - 07/25/13	REVISED -								ILLINOIS FED. AID PROJECT BR05-01010477		

NOTE: CONSTRUCTION TRANSITIONS  
 STA. 77+75 TO STA. 78+25  
 STA. 81+75 TO STA. 82+25  
 ALL QUANTITIES ARE INCLUDED IN THE PROPOSAL



CURVE DATA  
 P.I. STA= 80+40.09  
 $\Delta = 00^{\circ}59'51''$  LT  
 NO CURVE

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	09-00011-00-BR	LAWRENCE	16	4

FED. ROAD DIST. NO. 7 ILLINOIS WABASH RIVER OVERFLOW  
 PROJECT # BR05-01010471 CONTRACT # 95719  
 LEC JOB # H0910215F

323 W. 3RD ST.  
 P.O. BOX 160  
 MT. CARMEL, IL  
 62863  
 PHONE:  
 (618)-262-8651  
 FAX:  
 (618)-263-3327

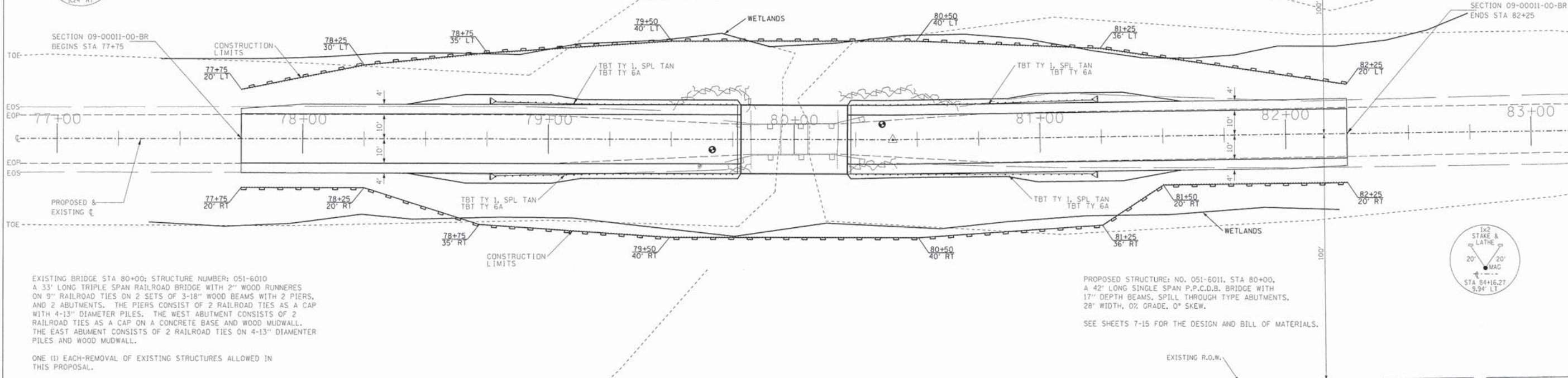
405 W. STATE ST  
 SUITE 1  
 PRINCETON, IN  
 47670  
 PHONE:  
 (812)-386-7611  
 FAX:  
 (812)-385-2812



PROFESSIONAL DESIGN FIRM  
 LAND SURVEY &  
 PROFESSIONAL  
 ENGINEERING  
 CORPORATION  
 184-00087  
 (62-032415)(35-002769)



AARON M. MEFFORD  
 NAME  
*Aaron Mefford*  
 SIGNATURE  
 7-25-13  
 DATE  
 11-30-13  
 EXPIRES

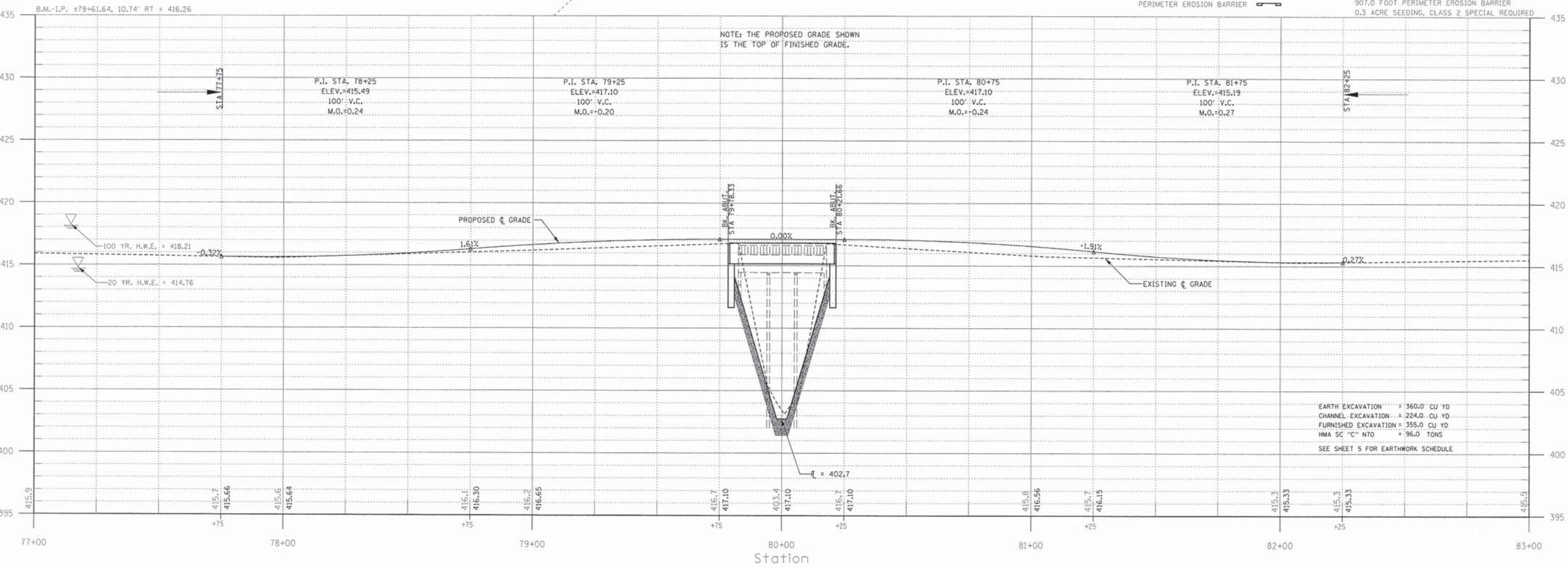


EXISTING BRIDGE STA 80+00; STRUCTURE NUMBER: 051-6010  
 A 33' LONG TRIPLE SPAN RAILROAD BRIDGE WITH 2" WOOD RUNNERS  
 ON 9" RAILROAD TIES ON 2 SETS OF 3-18" WOOD BEAMS WITH 2 PIERS,  
 AND 2 ABUTMENTS. THE PIERS CONSIST OF 2 RAILROAD TIES AS A CAP  
 WITH 4-13" DIAMETER PILES. THE WEST ABUTMENT CONSISTS OF 2  
 RAILROAD TIES AS A CAP ON A CONCRETE BASE AND WOOD MUDWALL.  
 THE EAST ABUTMENT CONSISTS OF 2 RAILROAD TIES ON 4-13" DIAMETER  
 PILES AND WOOD MUDWALL.

ONE (1) EACH-REMOVAL OF EXISTING STRUCTURES ALLOWED IN  
 THIS PROPOSAL.

PROPOSED STRUCTURE: NO. 051-6011, STA 80+00,  
 A 42' LONG SINGLE SPAN P.P.C.D.B. BRIDGE WITH  
 17" DEPTH BEAMS, SPILL THROUGH TYPE ABUTMENTS,  
 28" WIDTH, 0% GRADE, 0° SKEW.

SEE SHEETS 7-15 FOR THE DESIGN AND BILL OF MATERIALS.



WABASH RIVER OVERFLOW  
 WABASH CANNONBALL ROAD  
 CITY OF ST. FRANCISVILLE

SHEET TITLE:

PLAN & PROFILE

SCALE:	VARIES
BY:	AMM
DATE:	08/13
REV:	

4 OF 16 SHEETS

SHEET NO. 4

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	09-00011-00-BR	LAWRENCE	16	5
FED. ROAD DIST. NO. 7 ILLINOIS		WABASH RIVER OVERFLOW		
PROJECT * BR05-00000471		CONTRACT * 95719		
LEC JOB # W0910215F				

323 W. 3RD ST.  
P.O. BOX 160  
MT. CARMEL, IL  
62863  
PHONE:  
(618)-262-8651  
FAX:  
(618)-263-3327

405 W. STATE ST  
SUITE 1  
PRINCETON, IN  
47670  
PHONE:  
(812)-386-7611  
FAX:  
(812)-385-2812



PROFESSIONAL DESIGN FIRM  
LAND SURVEY & PROFESSIONAL ENGINEERING CORPORATION  
184-00087  
(62-032435)(35-002769)



AARON M. MEFFORD  
NAME  
*Aaron Mefford*  
SIGNATURE  
DATE  
7-25-13  
11-30-13 EXPIRES

WABASH RIVER OVERFLOW  
WABASH CANNONBALL ROAD  
CITY OF ST. FRANCISVILLE

SHEET TITLE:

CROSS-SECTIONS

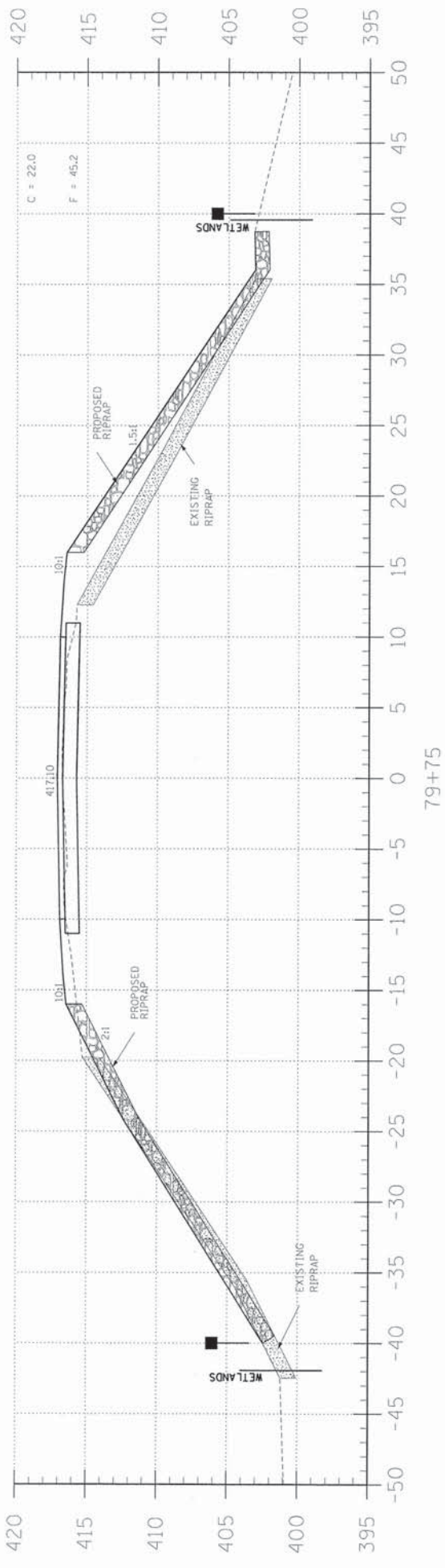
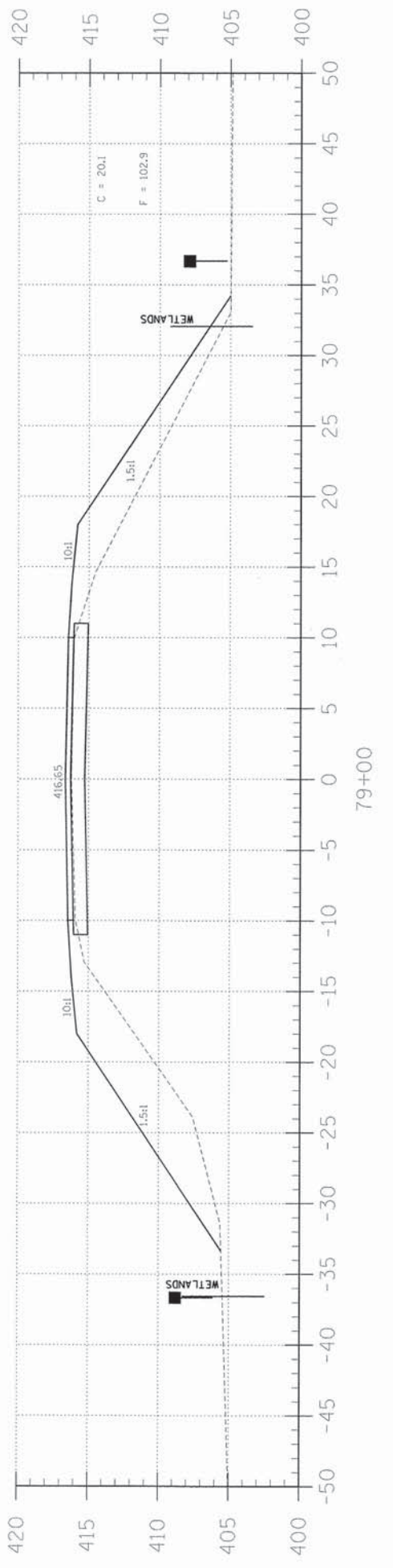
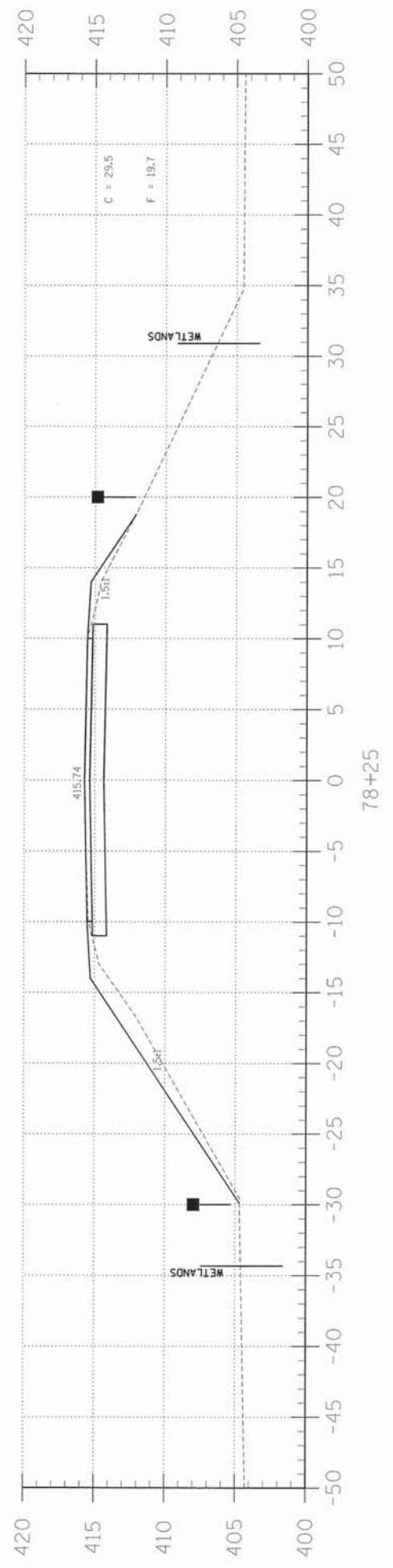
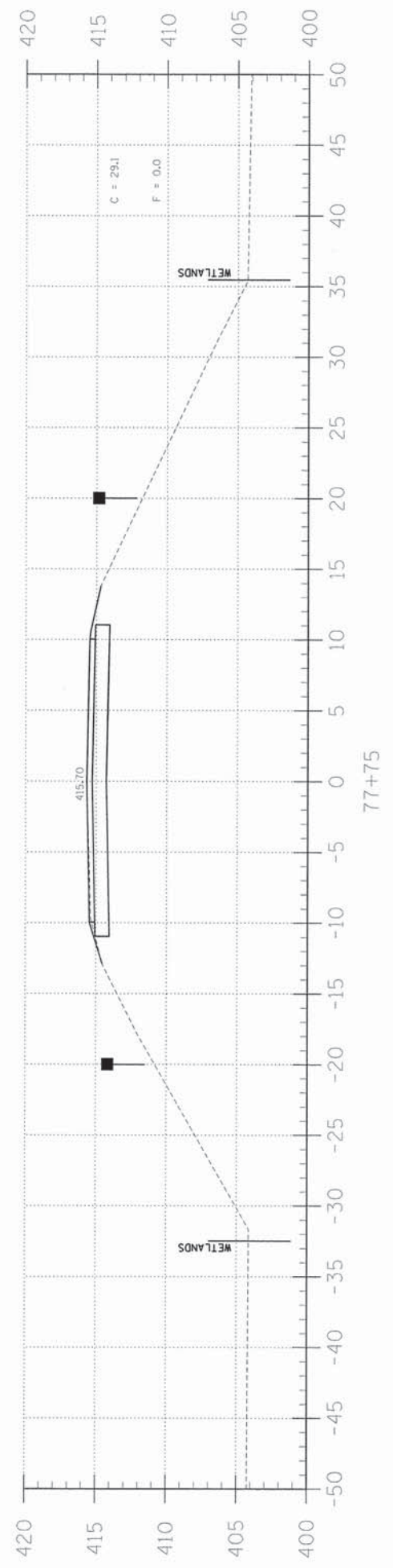
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BY: AMM  
DATE: 12/9/0  
REV:

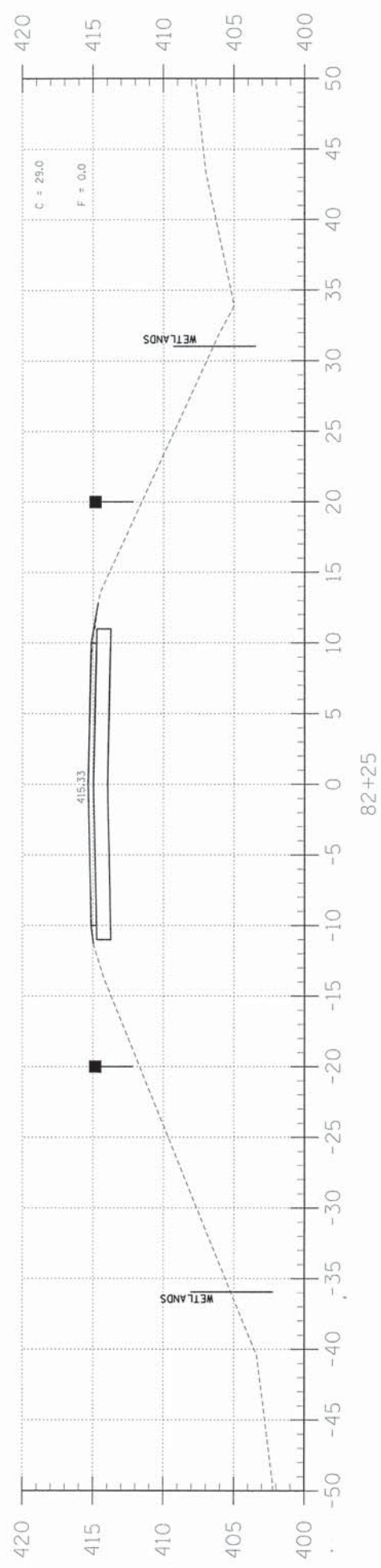
5 OF 16  
SHEETS

SHEET NO.  
5

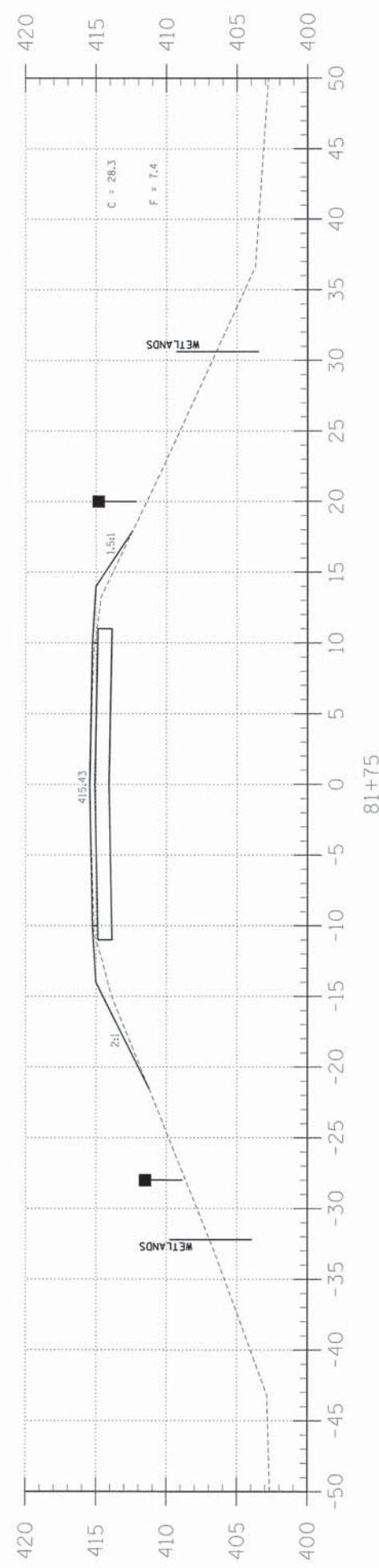
EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	CHANNEL EXCAVATION	ESTIMATED UNSUITABLE MATERIAL	SUITABLE MATERIAL ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD
STA 77+75 TO 79+78.3	191.9	0.0	0.0	143.9	361.5	-217.6
STA 79+78.3 TO 80+21.6	0.0	223.9	112.0	84.0	0.0	+84.0
STA 80+21.6 TO 82+25	168.5	0.0	0.0	126.5	347.9	-221.4
TOTAL	360.4	223.9	112.0	354.4	709.5	-355.0

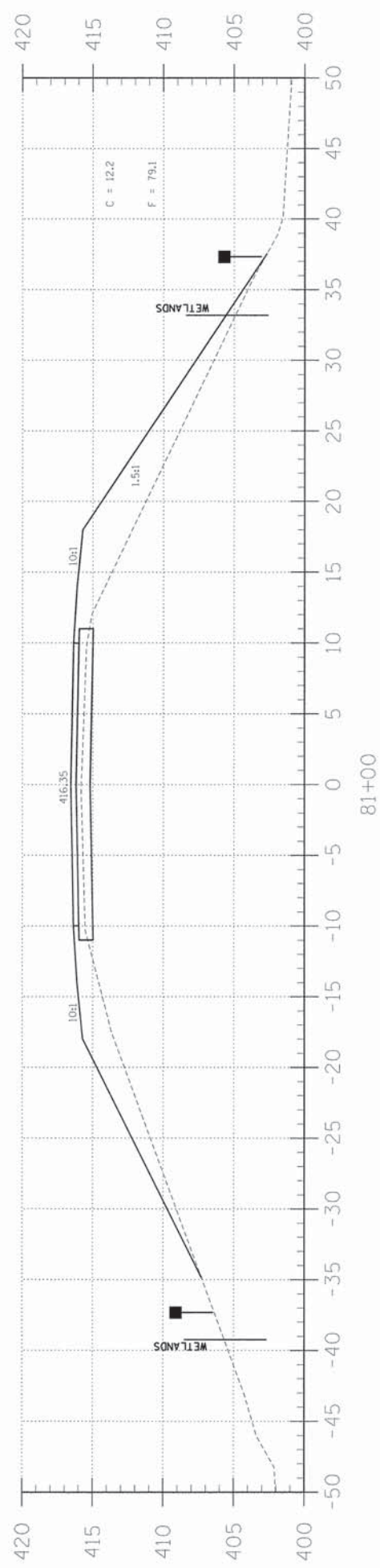




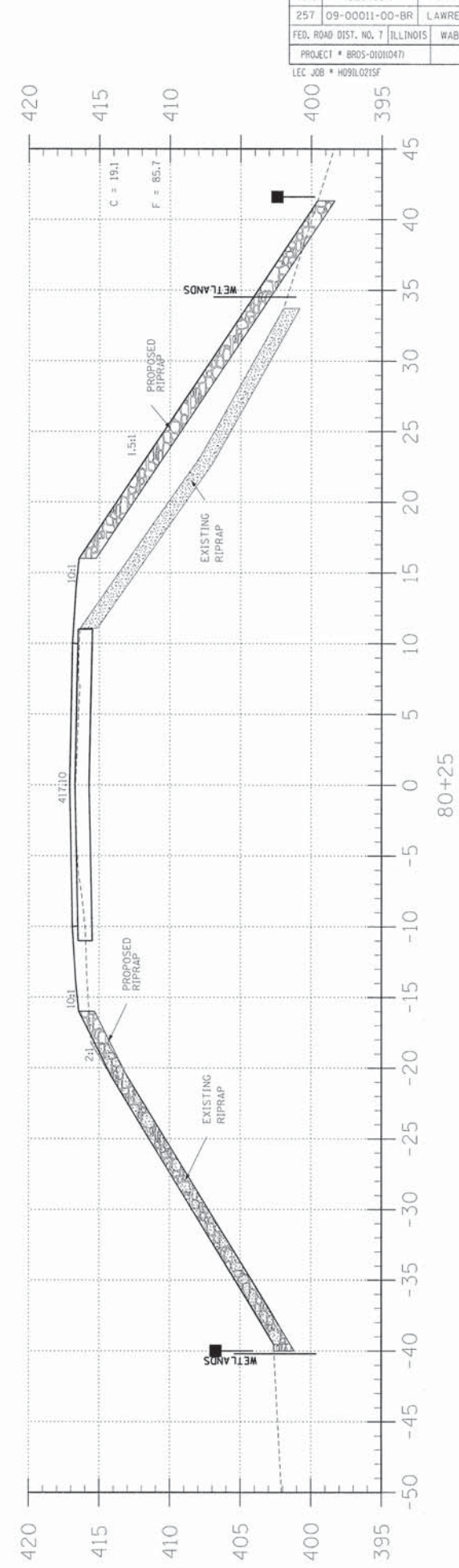
82+25



81+75



81+00



80+25

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	09-00011-00-BR	LAWRENCE	16	6
FED. ROAD DIST. NO. 7 ILLINOIS		WABASH RIVER OVERFLOW		
PROJECT # BR05-01010471		CONTRACT # 95719		
LEC JOB # HD91L0215F				

323 W 3RD ST.  
P.O. BOX 160  
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(812)-385-2812



PROFESSIONAL  
DESIGN FIRM  
LAND SURVEY &  
PROFESSIONAL  
ENGINEERING  
CORPORATION  
184-00087  
(62-032435)(35-002769)



AARON M. MEFFORD  
NAME  
*Aaron Mefford*  
SIGNATURE  
7-25-13  
DATE  
11-30-13  
EXPIRES

WABASH RIVER OVERFLOW  
WABASH CANNONBALL ROAD  
CITY OF ST. FRANCISVILLE

SHEET TITLE:

CROSS-SECTIONS

SCALE: 1" = 5'  
BY: AMM  
DATE: 7/25/13  
REV:

6 OF 16  
SHEETS

SHEET NO.  
6

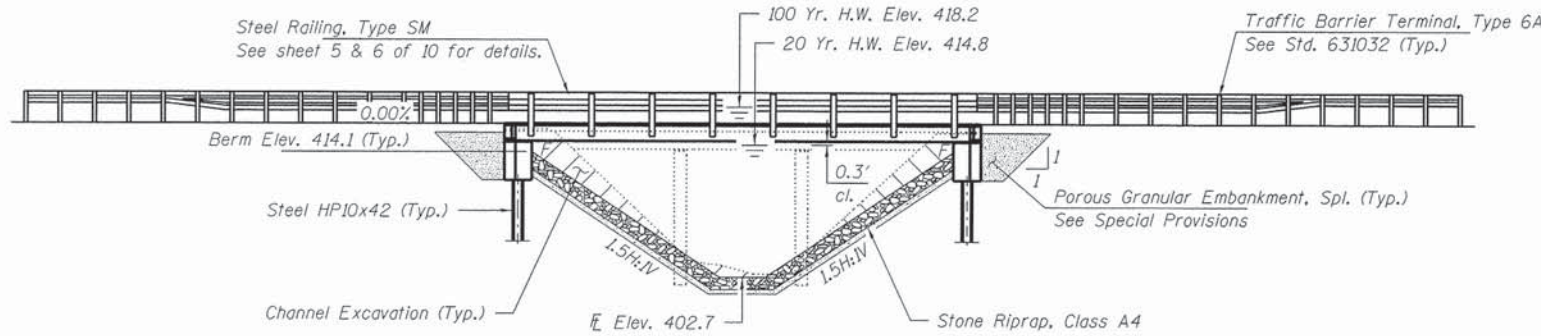
EXISTING STRUCTURE: Structure NO. 051-6010: 3 Span timber trestle, one-lane bridge with a timber tie deck on longitudinal timber stringers, with steel plate railing. Open concrete bent abutments on timber piles and timber pile bent piers, 34.5' Bk.-Bk. of abutment and 12' o.-o. of deck. The existing structure is to be removed and replaced.

The road will be closed to traffic during construction.

No Salvage

**GENERAL NOTES**

Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer. The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the West abutment or approved by the Engineer before ordering the remainder of piles. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions. Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation. All proposed construction activities shall be in accordance with Regional General Permit No. 1 of the Department of the Army authorized under Section 404 of the Clean Water Act.



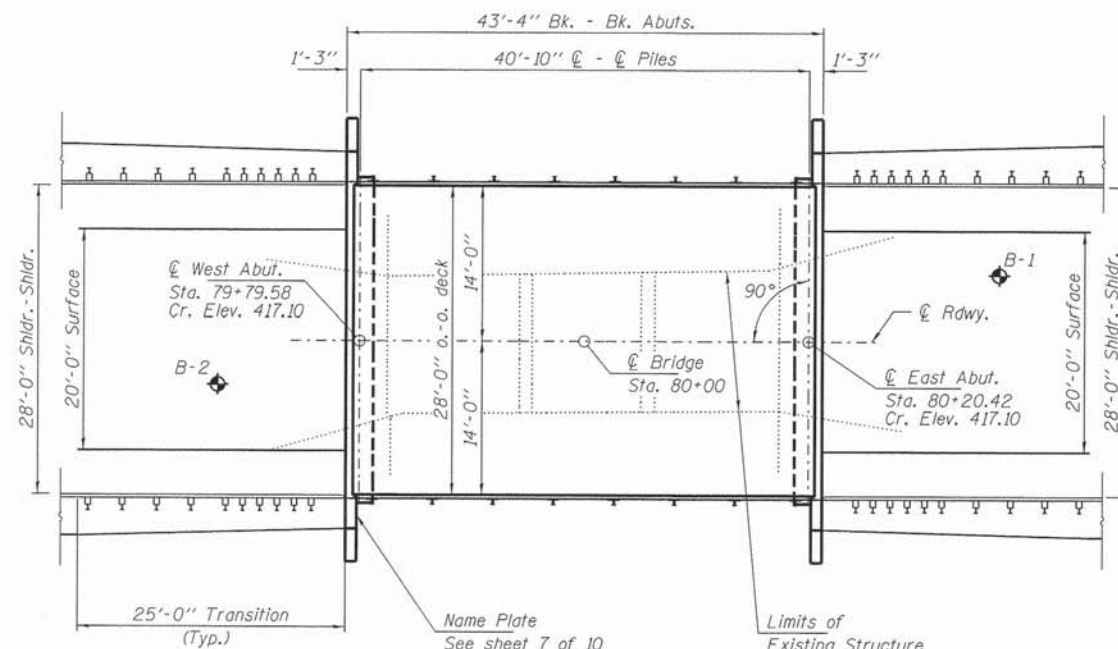
**ELEVATION**



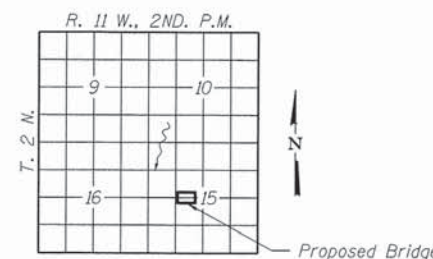
**PROFILE GRADE**

**INDEX OF STRUCTURE SHEETS**

1. General Plan & Elevation
2. Riprap Layout
3. 17"x48" PPC Deck Beam
4. 17"x48" PPC Deck Beam Details
5. Superstructure Details
6. Steel Railing, Type SM
7. Abutments
8. HP Pile Details
- 9-10. Borings



**PLAN**



**LOCATION SKETCH**

BUILT 2011 BY  
CITY OF ST. FRANCISVILLE  
SEC. 09-00011-00-BR  
STATION 80+00  
STR. NO. 051-6011  
LOADING HL-93

**NAME PLATE**  
See Std. 515001

**DESIGN SPECIFICATIONS**

2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with all applicable interims.

**LOADING HL-93**

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

**DESIGN STRESSES**

**FIELD UNITS**

f'c = 3,500 psi  
fy = 60,000 psi (Reinf.)

**PRECAST PRESTRESSED UNITS**

f'c = 6,000 psi  
f'ci = 5,000 psi  
fpu = 270,000 psi (1/2" low lax. strands)  
fpbt = 201,960 psi (1/2" low lax. strands)  
fy = 60,000 psi (Reinf.)

**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 2  
Design Spectral Acceleration at 1.0 sec. (SD1) = 0.234g  
Design Spectral Acceleration at 0.2 sec. (SDS) = 0.534g  
Soil Site Class = D

**WATERWAY INFORMATION**

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural Head - Ft.		Headwater EL.		
			Exist.	Prop.	H.W.E. Exist.	Prop.	Exist.	Prop.	
Design	10	350	180	270	413.38	0.00	0.00	413.38	413.38
Base/Overtop	100	3565	210	280	414.76	0.00	0.00	414.76	414.76
Max. Calc.	500	10845	210	280	418.21	0.00	0.00	418.21	418.21

Existing Low Grade Elev. 415.0 @ Sta. 82+00  
Proposed Low Grade Elev. 415.5 @ Sta. 83+00

10 Year Velocity through Existing Bridge = 1.9 fps  
10 Year Velocity through Proposed Bridge = 1.7 fps

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	411.5	411.5

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 "AASHTO LRFD Specifications."

Steven W. Megginson 07/25/2013  
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064



Expires 11-30-2013

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu. Yd.			224
Porous Granular Embankment, Special	Ton			100
Stone Riprap, Class A4	Ton			500
Filter Fabric	Sq. Yd.			640
Hot-Mix Asphalt Surface Course, Mix C, N70	Ton	19		19
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		26.2	26.2
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1.176		1.176
Reinforcement Bars	Pound		2,810	2,810
Steel Railing, Type SM	Foot	85		85
Furnishing Steel Piles HPI0x42	Foot		245	245
Driving Piles	Foot		245	245
Test Pile Steel HPI0x42	Each		1	1
Name Plates	Each		1	1
Waterproofing Membrane System	Sq. Yd.	135		135
P.C. Mortar Fairing Course	Foot	63		63
Pipe Underdrains for Structures 4" (Special)	Foot		112	112

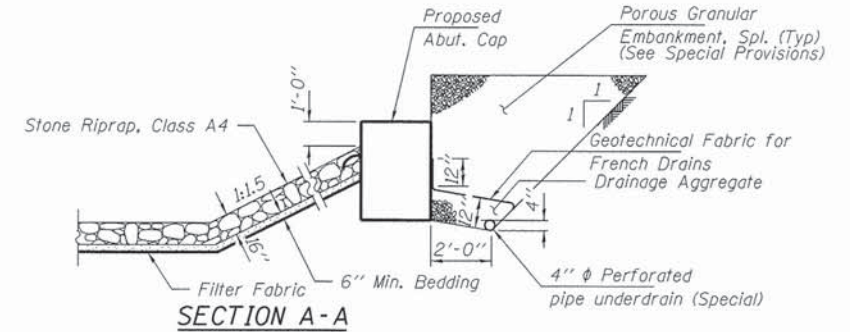
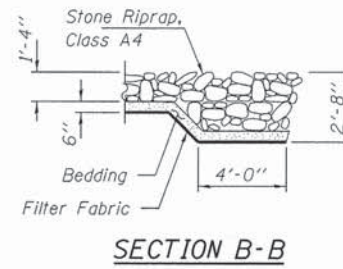
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HAMPTON, LENZINI AND RENWICK, INC. 3045 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62793 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184-00099	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
PLOT DATE = 7/25/2013		DRAWN - R.D.H.	REVISED -
		CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS  
CITY OF ST. FRANCISVILLE

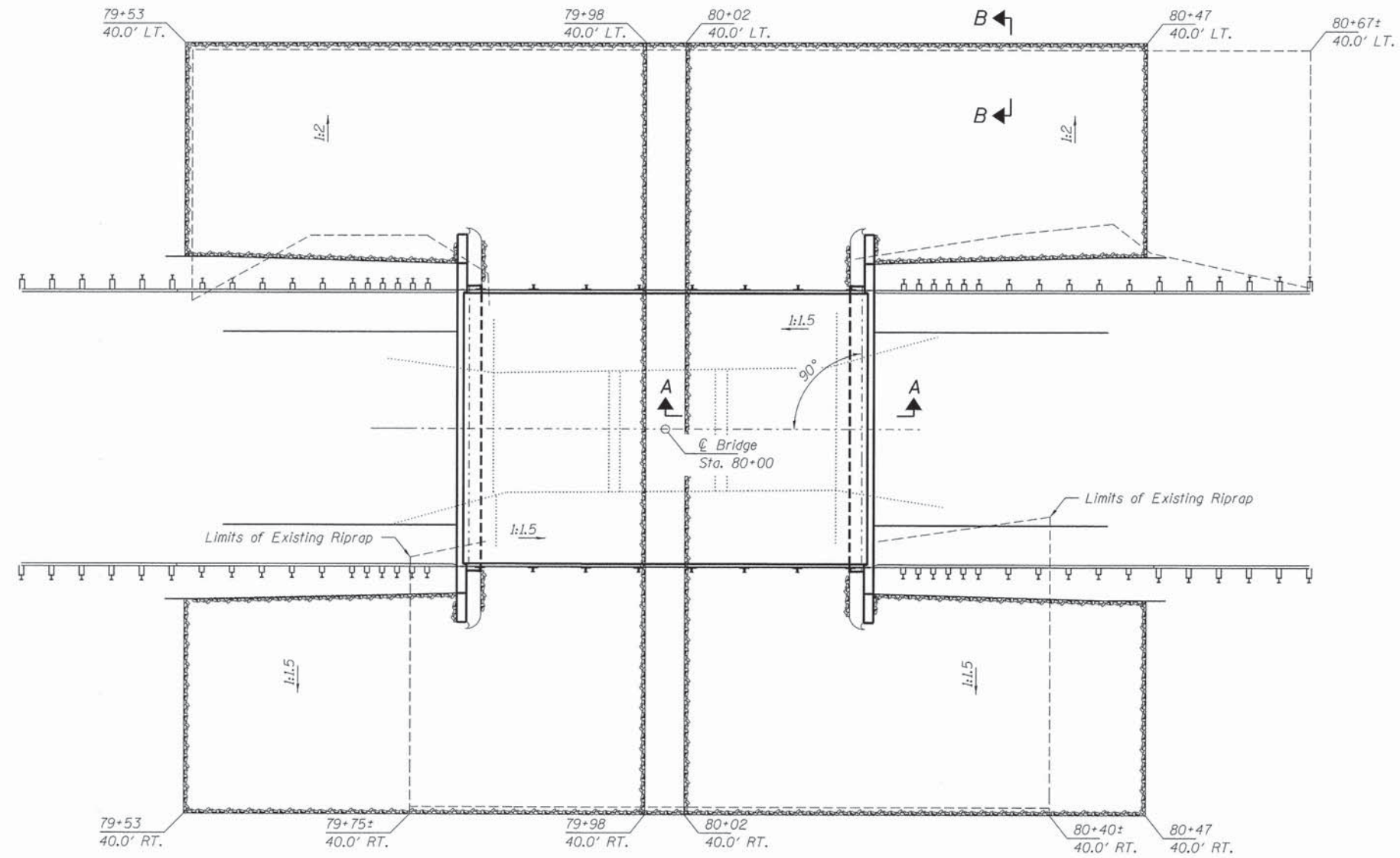
GENERAL PLAN & ELEVATION  
STRUCTURE NO. 051-6011

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	09-00011-00-BR	LAWRENCE	16	7
			CONTRACT NO. 95719	
[ILLINOIS] FED. AID PROJECT BROS-0101047				

SHEET NO. 1 OF 10 SHEETS



Note: See Special Provisions for Stone Riprap, Class A4.



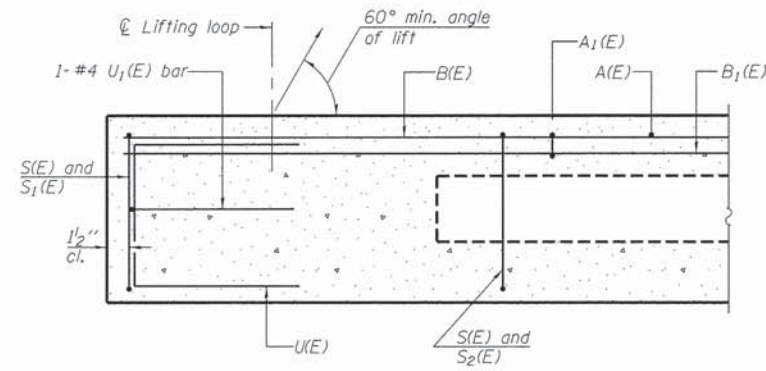
Notes:  
 The Contractor shall salvage existing Stone Riprap as directed by the Engineer. See Special Provisions.  
 All material not suitable for re-use shall be salvaged and stockpiled by the Contractor upon the approval of the Engineer.  
 Estimated Quantity of Existing Riprap = 250 Tons.

**BILL OF MATERIAL**

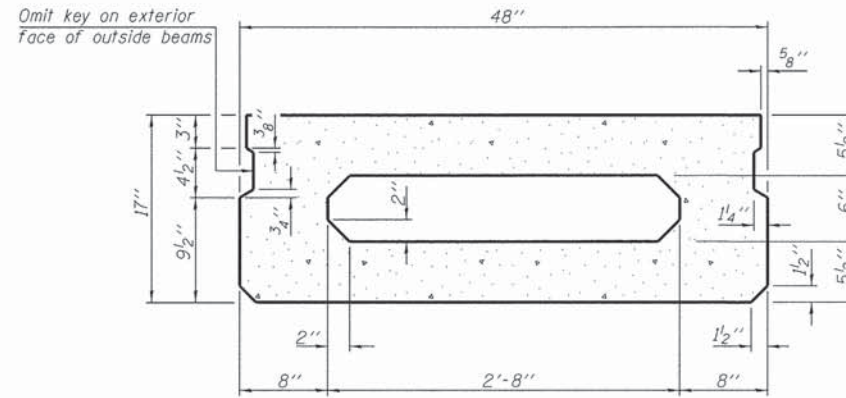
Stone Riprap, Class A4	Ton	500
Filter Fabric	Sq. Yd.	640

FILE NAME = 110363-sht-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED -	<b>STATE OF ILLINOIS CITY OF ST. FRANCISVILLE</b>	<b>RIPRAP LAYOUT STRUCTURE NO. 051-6011</b>	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 1003 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62763 ILLINOIS PROFESSIONAL DESIGN FIRM LS 7 P.E. / SE CORP. 104.000000	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			257	09-00011-00-BR	LAWRENCE	16	8
PLOT DATE = 7/25/2013	DRAWN - R.D.H.	REVIS	REVIS			<b>CONTRACT NO. 95719</b>				
	CHECKED - S.W.M.	REVIS	REVIS			<small>ILLINOIS FED. AID PROJECT BR05-01010471</small>				

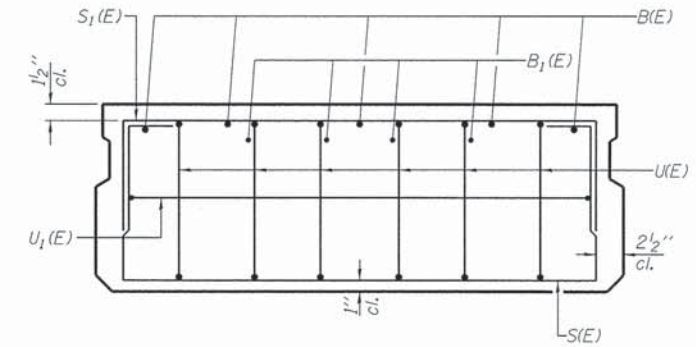




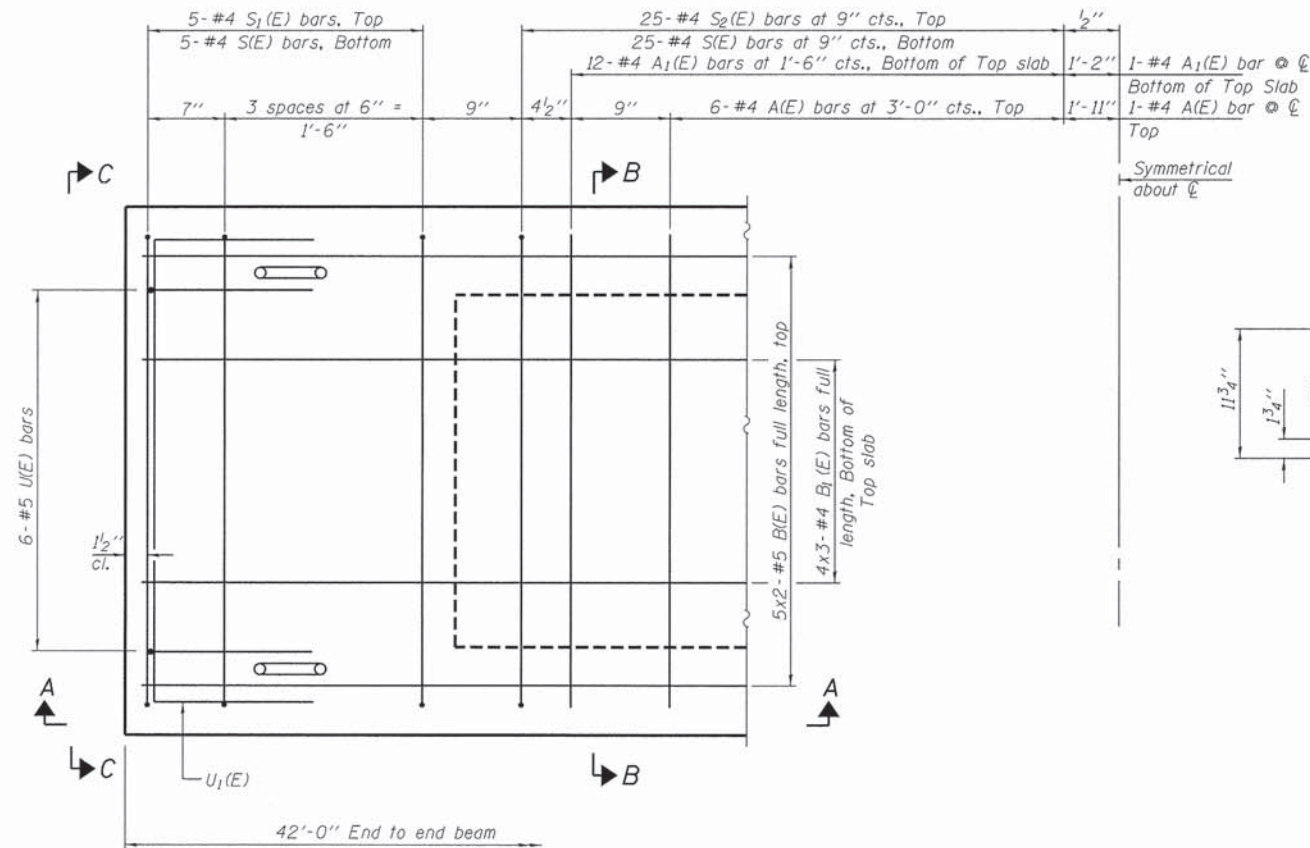
SECTION A-A



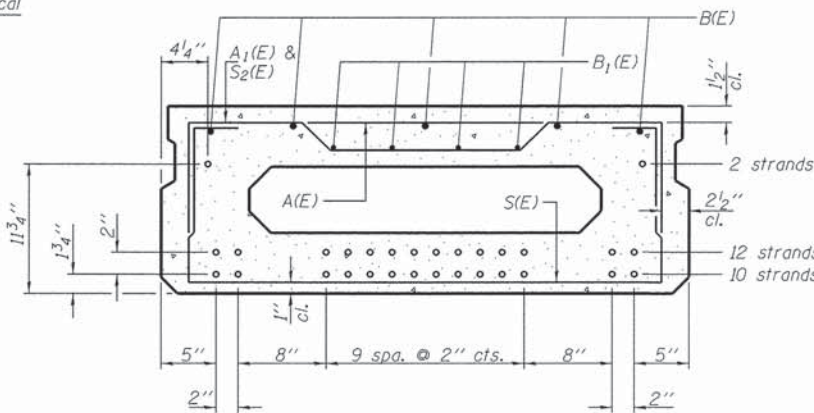
SECTION B-B  
(Showing dimensions)



VIEW C-C



PLAN VIEW



SECTION B-B  
(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)	13	#4	3'-7"	—
A1(E)	25	#4	3'-10"	—
B(E)	10	#5	22'-1"	—
B1(E)	12	#4	15'-3"	—
S(E)	60	#4	6'-9"	U
S1(E)	10	#4	5'-3"	U
S2(E)	50	#4	5'-6"	U
U(E)	12	#5	3'-8"	U
U1(E)	2	#4	6'-0"	U

Note: See sheet 4 & 5 of 10 for additional details and Bill of Material.

Notes:  
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 5x2-#5 etc. indicates 5 lines of bars with 2 lengths per line.

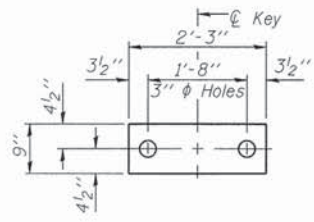
MINIMUM BAR LAP

#4 bar = 2'-0"  
#5 bar = 2'-6"

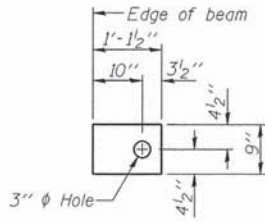
PD-1748-0 7-1-10

FILE NAME = 110363-sht-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED -	<b>STATE OF ILLINOIS CITY OF ST. FRANCISVILLE</b>	<b>17" x 48" PPC DECK BEAM STRUCTURE NO. 051-6011</b>	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 2002 S. CLAYTON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62783	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			257	09-00011-00-BR	LAWRENCE	16	9
ILLINOIS PROFESSIONAL DESIGN FIRM L.S. / P.E. / S.E. COMP. 158.000569	PLOT DATE = 7/25/2013	DRAWN - R.D.H.	REVISED -			CONTRACT NO. 95719				
		CHECKED - S.W.M.	REVISED -			ILLINOIS FED. AID PROJECT BROS-010110471				

SHEET NO. 3 OF 10 SHEETS



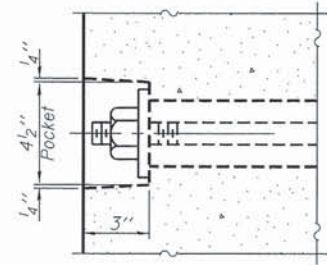
**FABRIC BEARING PAD**  
(Interior - 12 Req'd.)



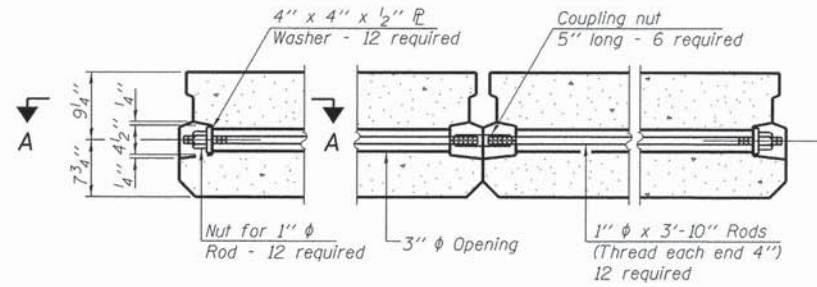
**FABRIC BEARING PAD**  
(Exterior - 4 Req'd.)

**Notes:**  
All bearing pads shall be 1" thick.  
Omit holes when using expansion bearings.  
Expansion bearing pad shall be bonded to the substructure.

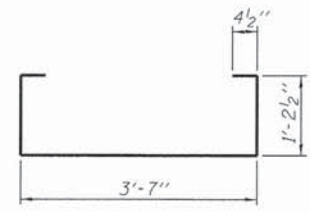
**FIXED**



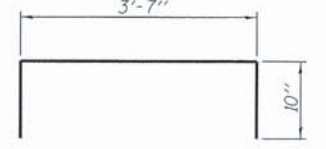
**SECTION A-A**



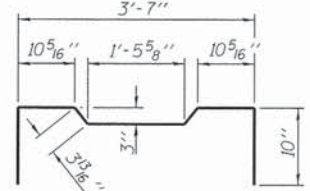
**TYPICAL TRANSVERSE TIE ASSEMBLY**



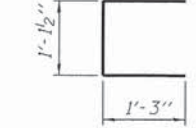
**BAR S(E)**



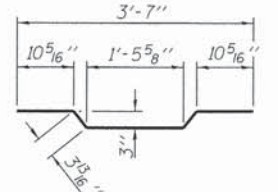
**BAR S1(E)**



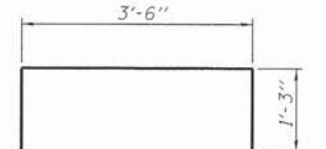
**BAR S2(E)**



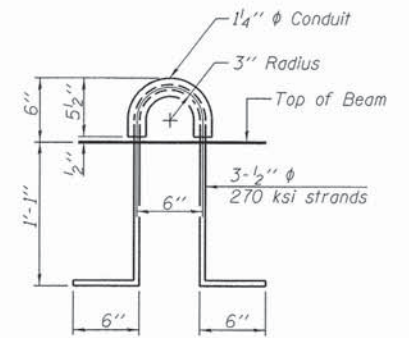
**BAR U(E)**



**BAR A1(E)**



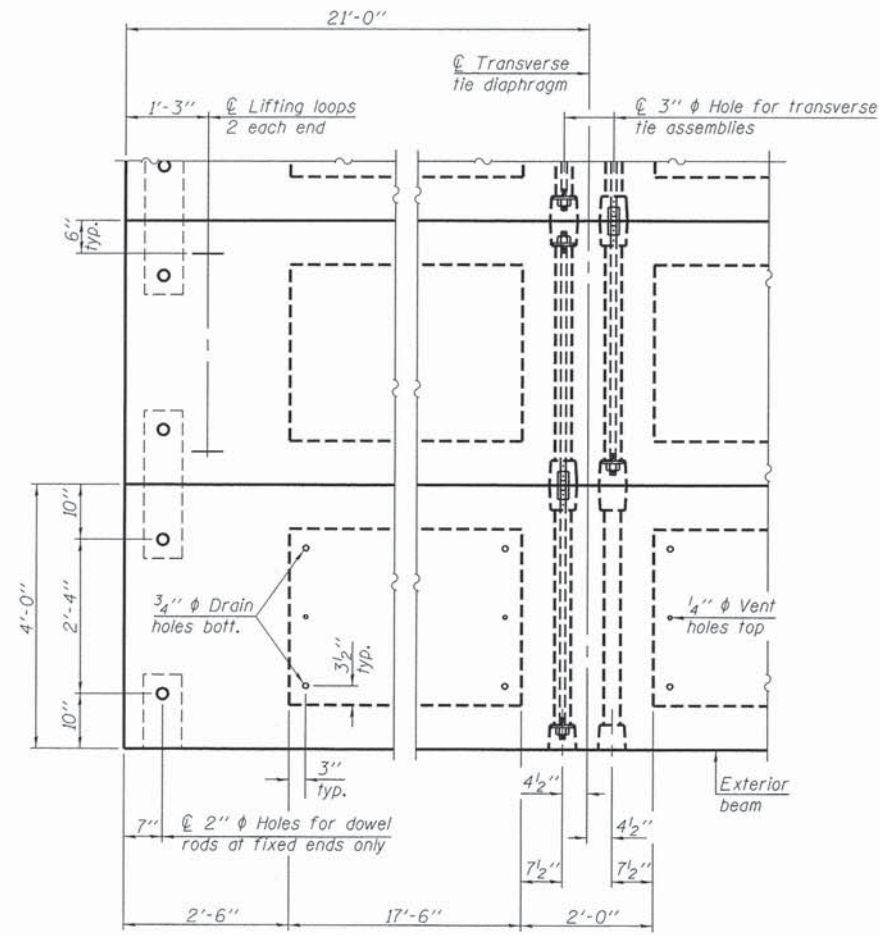
**BAR U1(E)**



**LIFTING LOOP DETAIL**

**BILL OF MATERIAL**

Material	Quantity	Unit
Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	1,176
Hot-Mix Asphalt Surface Course, Mix C, N70	Ton	19
Waterproofing Membrane System	Sq. Yd.	135
P.C. Mortar Fairing Course	Foot	63



**PLAN VIEW**

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

**NOTES**

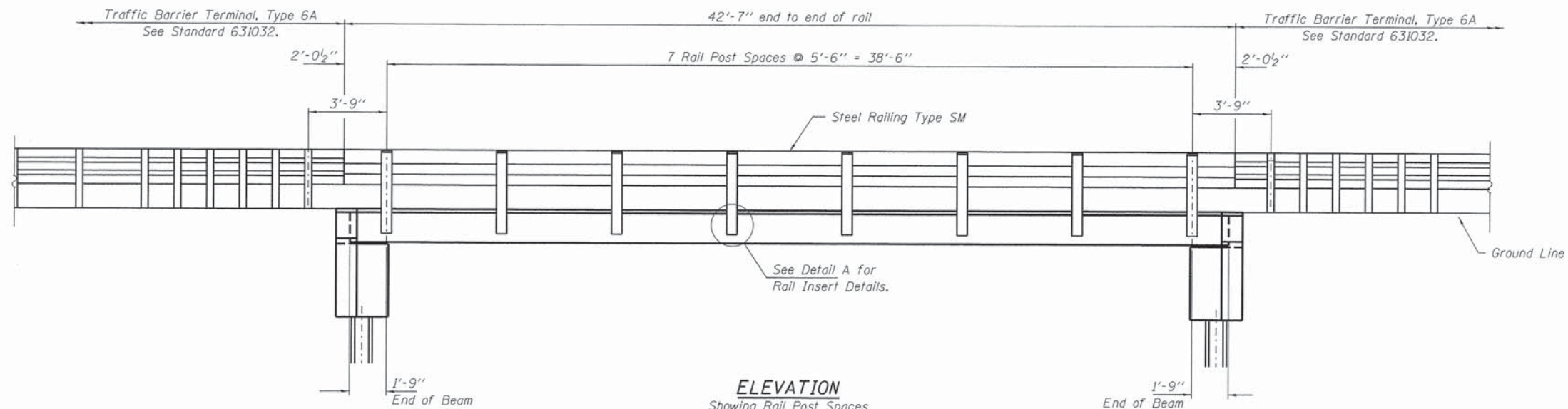
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior 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 1021.07 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.  
All reinforcement shall be epoxy coated.

PD-1748-OD

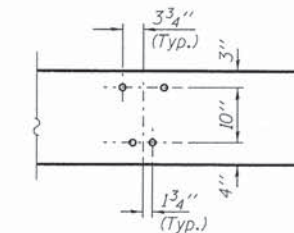
1-27-12

FILE NAME = 110363-shr-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED -	<b>STATE OF ILLINOIS CITY OF ST. FRANCISVILLE</b>	<b>17" x 48" PPC DECK BEAM DETAILS STRUCTURE NO. 051-6011</b>	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 200 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62761	PLLOT SCALE =	CHECKED - S.W.M.	REVISED -			257	09-00011-00-BR	LAWRENCE	16	10
ILLINOIS PROFESSIONAL DESIGN FIRM L.E.F.F.E. CORP. 184-000893	PLLOT DATE = 7/25/2013	DRAWN - R.D.H.	REVISED -			CONTRACT NO. 95719				
		CHECKED - S.W.M.	REVISED -			SHEET NO. 4 OF 10 SHEETS				

ILLINOIS FED. AID PROJECT BR05-0101047

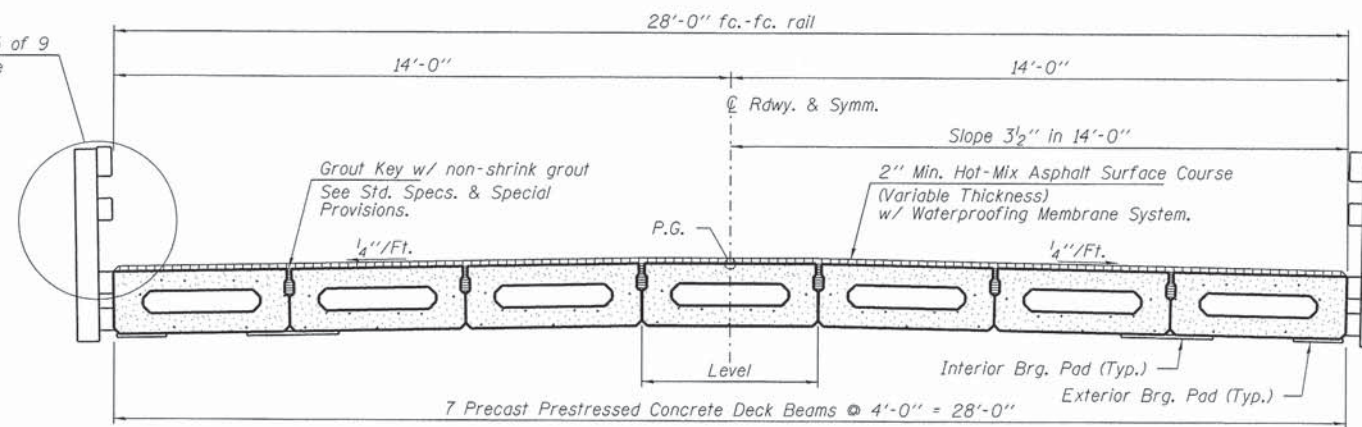


**ELEVATION**  
Showing Rail Post Spaces  
See sheet 5 of 9 for Railing Details.

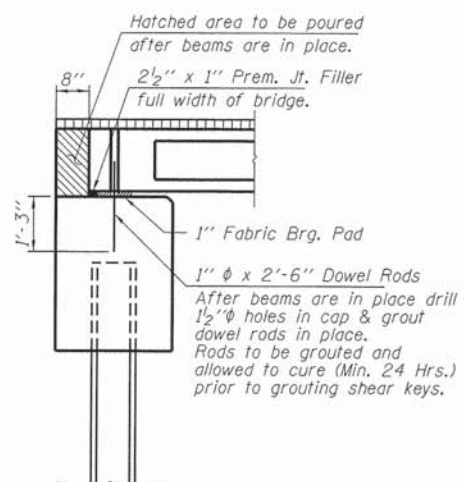


**DETAIL A**

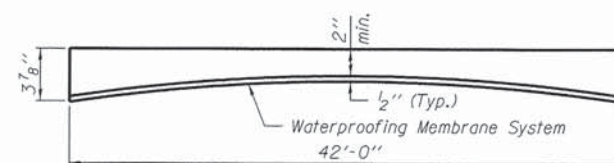
See sheet 5 of 9 for complete rail details.



**CROSS SECTION**  
See sheets 2 & 3 of 9 for Superstructure.



**SECTION AT ABUTMENTS**  
© Rt. L's



**ANTICIPATED HMA WEARING SURFACE PROFILE**  
(For information only - beam camber may vary in field.)

FILE NAME = 110363-sh1-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED -
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3008 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62761	PLOT SCALE =	DRAWN - R.D.H.	REVISED -
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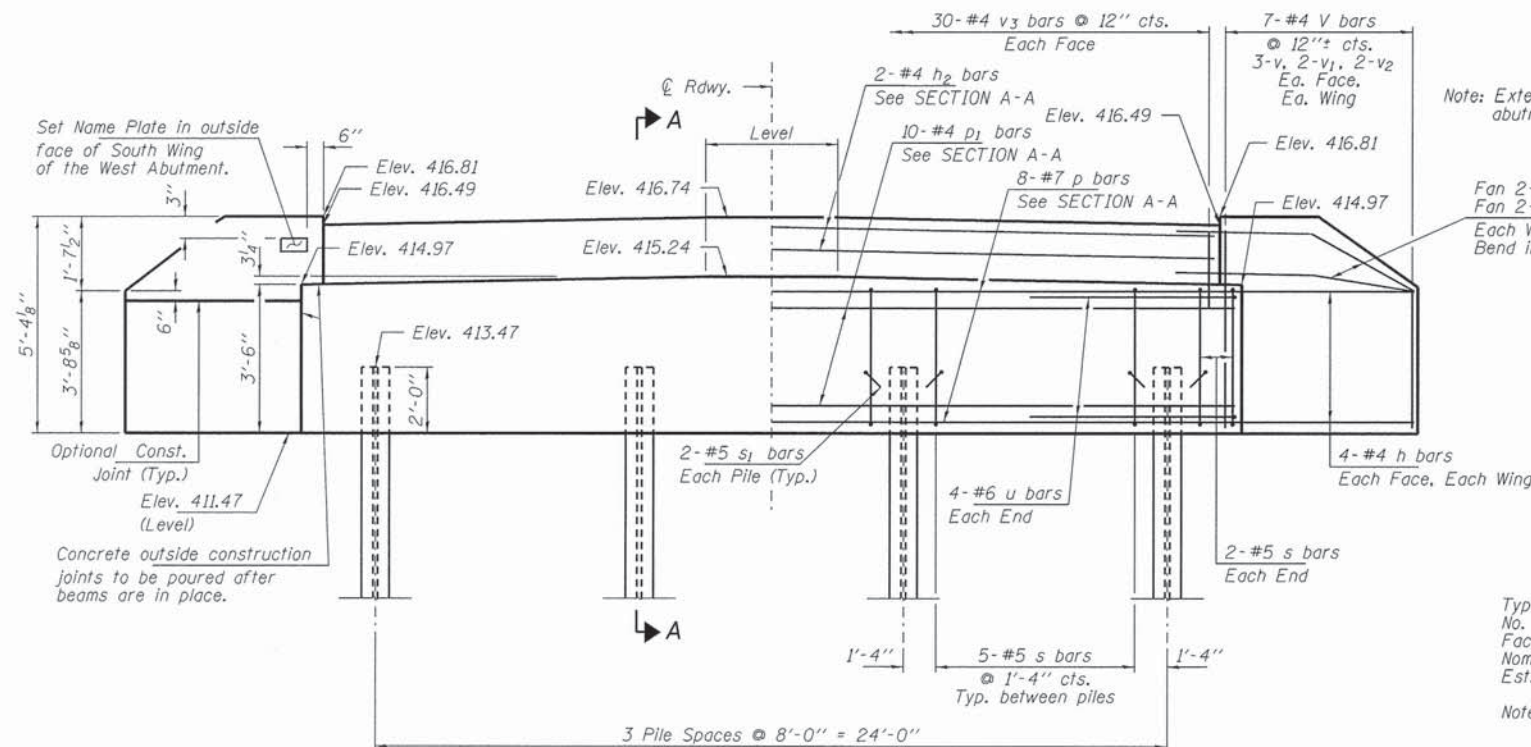
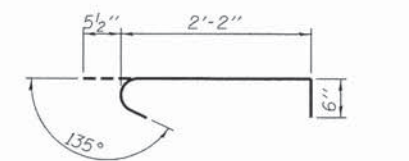
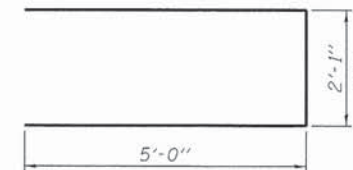
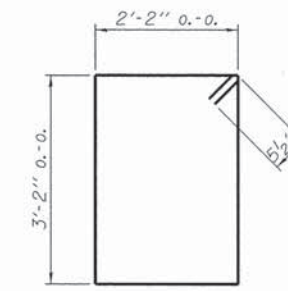
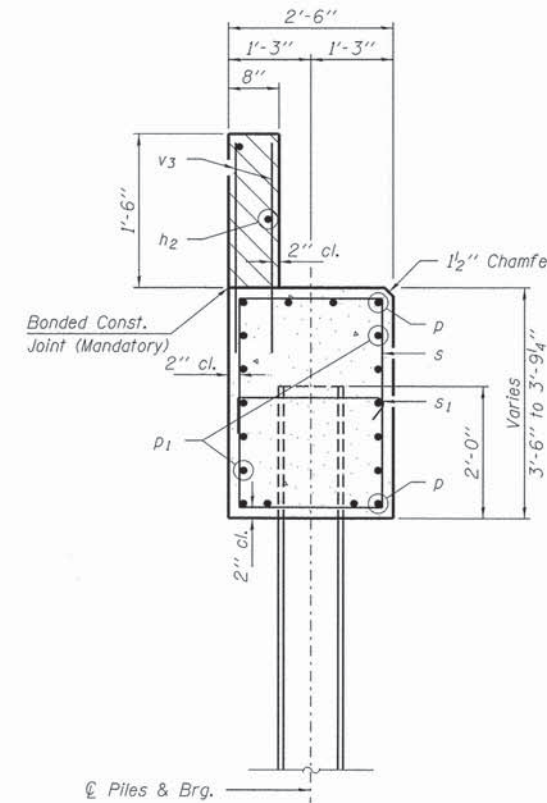
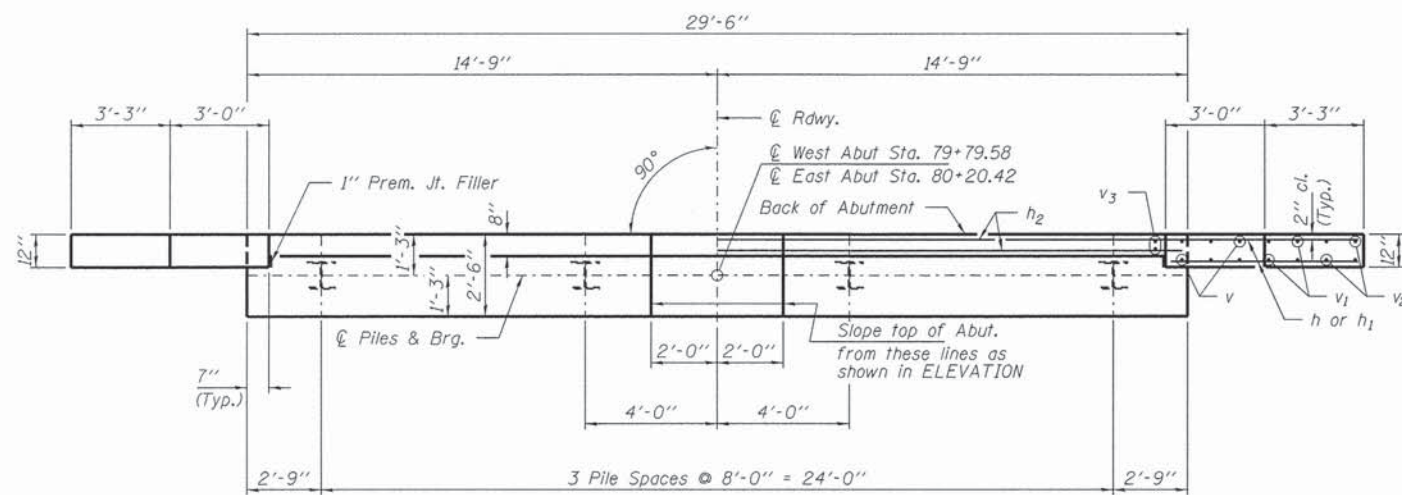
STATE OF ILLINOIS  
CITY OF ST. FRANCISVILLE

SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 051-6011

SHEET NO. 5 OF 10 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
257	09-00011-00-BR	LAWRENCE	16	11
CONTRACT NO. 95719				
ILLINOIS FED. AID PROJECT BR05-0101047				





Note: Extend h bars into abutment cap.

Fan 2-#4 h bars (B.F.)  
Fan 2-#4 h1 bars (F.F.)  
Each Wing  
Bend in field.

PILE DATA

Type Steel Piles HP10x42  
No. Req'd. (2 Abuts.) 8  
Factored Resistance Available (RF) 184 Kips/Pile  
Nominal Required Bearing (Rn) 334 Kips/Pile  
Est. Length 35 Ft/Pile

Notes: \* Includes one test pile to be driven in permanent a location of the West Abutment.

The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

BILL OF MATERIAL - 2 ABUTS.

BAR	NO.	SIZE	LENGTH	SHAPE
h	40	#4	7'-6"	—
h1	8	#4	6'-0"	—
h2	4	#4	29'-2"	—
p	16	#7	29'-2"	—
p1	20	#4	29'-2"	—
s	38	#5	11'-7"	□
s1	16	#5	3'-2"	┌
u	16	#6	12'-1"	U
v	24	#4	5'-5"	—
v1	16	#4	4'-5"	—
v2	16	#4	3'-5"	—
v3	120	#4	2'-4"	—
Concrete Structures			Cu. Yd.	26.2
Reinforcement Bars			Pound	2,810
Steel Piles HP10x42			Foot	245
Test Pile Steel HP10x42			Each	1
Name Plates			Each	1

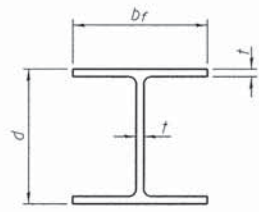
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HAMPTON, LENZINI AND RENWICK, INC. 200 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62761	PLOT SCALE =	CHECKED - S.W.M.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L3 / P.E. / S.E. CORP. 181.000193	PLOT DATE = 7/25/2013	DRAWN - R.D.H.	REVISED -
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STATE OF ILLINOIS  
CITY OF ST. FRANCISVILLE

ABUTMENTS  
STRUCTURE NO. 051-6011

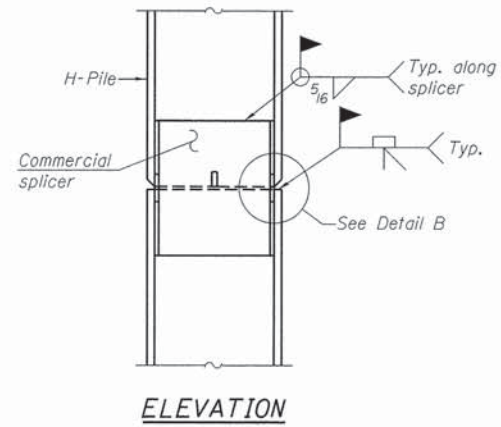
SHEET NO. 7 OF 10 SHEETS

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS FED. AID PROJECT BROS-01010471				

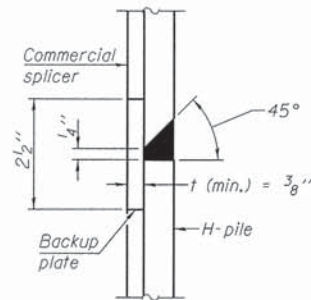


**STEEL PILE TABLE**

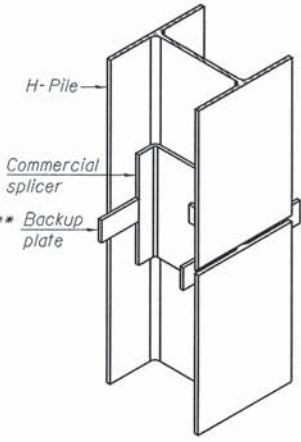
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11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

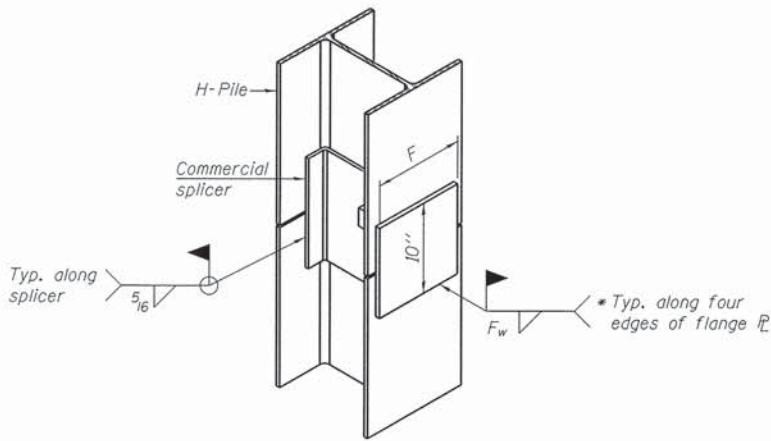


**DETAIL "B"**



**ISOMETRIC VIEW**

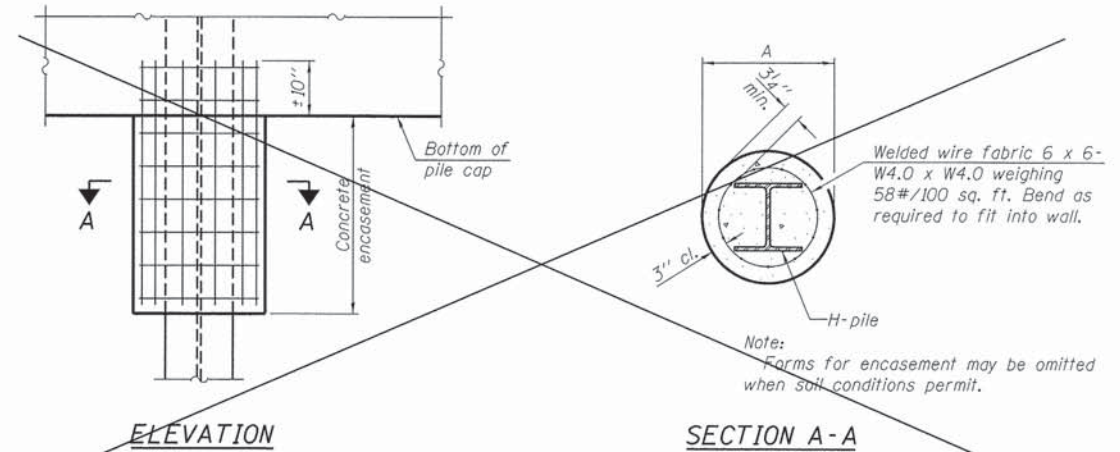
**WELDED COMMERCIAL SPLICE**



**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE ALTERNATE**

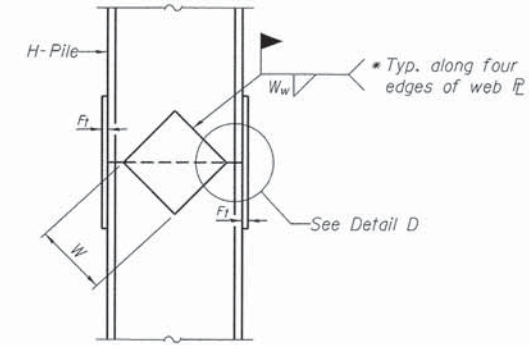
- \* Interrupt welds 1/4" from end of web and/or each flange.
- \*\* Remove portions of backup plates that extend outside the flanges.
- \*\*\* Weld size per pile shoe manufacturer (5/16" min.).



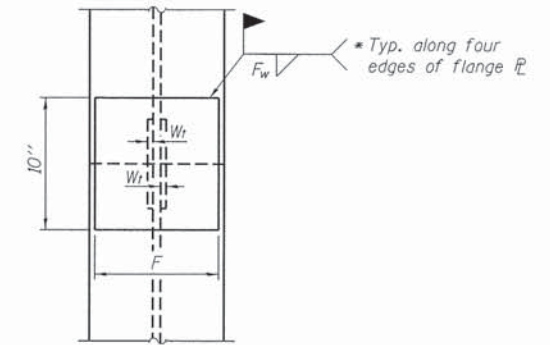
**ELEVATION**

**SECTION A-A**

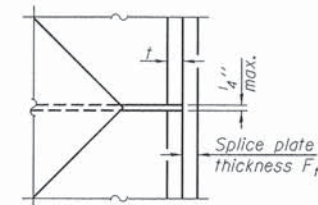
**PILE ENCASEMENT**  
(Not Required)



**ELEVATION**



**END VIEW**

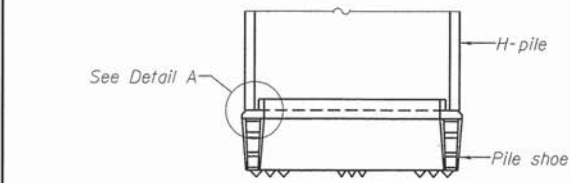


**DETAIL D**

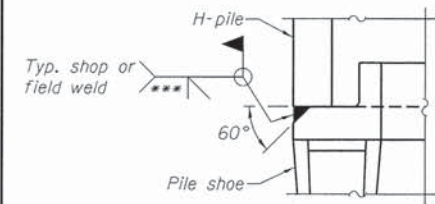
**WELDED PLATE FIELD SPLICE**

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"

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



**ELEVATION**



**DETAIL A**

**H-PILE SHOE ATTACHMENT**

F-HP 1-27-12

FILE NAME = 110363-shr-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED -	<b>STATE OF ILLINOIS CITY OF ST. FRANCISVILLE</b>	<b>HP PILE DETAILS STRUCTURE NO. 051-6011</b>	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3081 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62763 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE COMP. 184.000003	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			257	09-00011-00-BR	LAWRENCE	16	14	
	PLOT DATE = 7/25/2013	DRAWN - R.D.H.	REVISED -			CONTRACT NO. 95719					
		CHECKED - S.W.M.	REVISED -			ILLINOIS FED. AID PROJECT BR05-01010471					



**Illinois Department of Transportation**  
Division of Highways  
SCI Engineering

# SOIL BORING LOG

Page 1 of 1

Date 05/17/10

ROUTE TR257 DESCRIPTION Wabash Cannonball Road Bridge over Wabash River LOGGED BY KEG

SECTION \_\_\_\_\_ LOCATION St. Francisville, NW1/4, SEC. 15, TWP. 2N, RNG. 11W

COUNTY Lawrence DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

STRUCT. NO. 051-6010 (existing)  
Station \_\_\_\_\_  
BORING NO. B-1 (E. Abut)  
Station 80+37.74  
Offset 6 ft Lt  
Ground Surface Elev. 416.6 ft (ft) (ft) (tsf) (%)

DEPTH (ft)	SOIL DESCRIPTION	UCS (tsf)	MOISTURE (%)	DEPTH (ft)	SOIL DESCRIPTION	UCS (tsf)	MOISTURE (%)
0	ASPHALT - 3 inches			0	Surface Water Elev. _____ ft		
0	ROCK - 7 inches			0	Stream Bed Elev. _____ ft		
0	FILL: Dark gray, cinders and slag			0	Groundwater Elev.:		
1				0	First Encounter <u>395.6</u> ft		
2				0	Upon Completion _____ ft		
3				0	After _____ Hrs. _____ ft		
4				1	CLAYEY SAND: Brown, fine (A-2)		
5				2			
6				3			
7				6			
8				6			
9				6			
10				6			
11				6			
12				6			
13				6			
14				6			
15				6			
16				6			
17				6			
18				6			
19				6			
20				6			
21				6			
22				6			
23				6			
24				6			
25				6			
26				6			
27				6			
28				6			
29				6			
30				6			
31				6			
32				6			
33				6			
34				6			
35				6			
36				6			
37				6			
38				6			
39				6			
40				6			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrator)  
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

BORING-1

FILE NAME = 110363-sh1-bridge.dgn	USER NAME =	DESIGNED - L.A.P.	REVISED -	<b>STATE OF ILLINOIS CITY OF ST. FRANCISVILLE</b>	<b>BORINGS STRUCTURE NO. 051-6011</b>	T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 2045 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62763 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.009958	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			257	09-00011-00-BR	LAWRENCE	16	15	
	PLOT DATE = 7/25/2013	DRAWN - R.D.H.	REVISED -			CONTRACT NO. 95719					
		CHECKED - S.W.M.	REVISED -			SHEET NO. 9 OF 10 SHEETS					

ILLINOIS FED. AID PROJECT BR05-01010471



Illinois Department of Transportation  
Division of Highways  
SCI Engineering

## SOIL BORING LOG

Page 1 of 1  
Date 05/18/10

ROUTE TR257 DESCRIPTION Wabash Cannonball Road Bridge over Wabash River LOGGED BY KEG  
SECTION LOCATION St. Francisville; NW1/4, SEC. 15, TWP. 2N, RNG. 11W  
COUNTY Lawrence DRILLING METHOD CME 550 w/HSA HAMMER TYPE Automatic

STRUCT. NO. 051-6010 (existing) Station		DEPTWHS		UCS		MOIST		Surface Water Elev. _____ ft		DEPTWHS		UCS		MOIST			
BORING NO. B-2 (W. Abut) Station 79+66.68 Offset 4 ft Rt Ground Surface Elev. 416.7 ft		(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)
ASPHALT - 3 inches	446.5																
ROCK - 8 inches	415.8																
FILL: Dark gray, cinders and slag		3		22													
		2															
		1															
FILL: Brown, silty clay, some sand, trace cinders, gravel (A-7)	413.2																
		2															
		1	1.3	23													
		1		P													
No cinders, gravel																	
		1															
		2	1.0	27													
		3		B													
Obstruction (concrete) encountered with poor recovery in SPT sampler. Boring offset 2 feet and blind drilled to 10 feet.	408.7																
		1															
		5	0.8	23													
		3		B													
FILL: Dark gray and reddish brown cinders, trace concrete	406.7	-10															
		1															
		5															
		7			20												
FILL: Concrete and slag	403.7																
		6															
SILTY CLAY: Brown (A-7)	402.7																
		3	1.3	27													
		4		P													
SANDY CLAY: Brown (A-6)	401.2																
		1															
		2	1.2	21													
		3		B													
SANDY CLAY: Brown (A-4)	398.7																
		2															
		3	1.3	18													
		4		B													

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)  
AASHTO Classifications are based on visual classifications unless otherwise noted BBS, form 137 (Rev. 8-99)

BORING



Illinois Department of Transportation  
Division of Highways  
SCI Engineering

## ROCK CORE LOG

Page 1 of 1  
Date 05/18/10

ROUTE TR257 DESCRIPTION Wabash Cannonball Road Bridge over Wabash River LOGGED BY KEG  
SECTION LOCATION St. Francisville; NW1/4, SEC. 15, TWP. 2N, RNG. 11W  
COUNTY Lawrence CORING METHOD Rotary, surface set diamond bit

STRUCT. NO. 051-6010 (existing) Station		CORING BARREL TYPE & SIZE		RECOVERY		CORE TIME		STRENGTH		MOISTURE	
BORING NO. B-2 (W. Abut) Station 79+66.68 Offset 4 ft Rt Ground Surface Elev. 416.7 ft		NX conv dbl bbl split inner		DEPTH		DEPTH		DEPTH		DEPTH	
		Core Diameter	Top of Rock Elev.	Begin Core Elev.	(ft)	(#)	(%)	(%)(min/ft)	(tsf)	(%)	(%)
		2 in	381.7 ft	381.7 ft							
SANDSTONE: Brown (continued)					1	76		7	1		
RQD obtained in the field - 10%. RQD obtained in the laboratory - 7%.											
Approximately 2 feet of rock core unrecovered in the boring from approximately 43 to 45 feet.											
Boring terminated at 45 feet.											

Color pictures of the cores \_\_\_\_\_ Yes  
Cores will be stored for examination until \_\_\_\_\_  
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)  
BBS, form 138 (Rev. 8-99)

BORING