



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
09120355

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ALAN CUMMINGS 304-558-2402

VENDOR

*709055926 304-464-4441
 CARR CONCRETE CORPORATION
 PO BOX 265
 WAVERLY WV 26184-0265

SHIP TO

DIVISION OF HIGHWAYS
 JOBSITE
 SEE SPECIFICATIONS

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
02/14/2012				

BID OPENING DATE: **03/14/2012** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	SF		210-16		83,545.91
CONCRETE BEAMS, CHANNELS, PRESTRESSED THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF HIGHWAYS, IS SOLICITING BIDS TO PROVIDE THE AGENCY WITH CONCRETE BOX BEAMS PER THE ATTACHED SPECIFICATIONS. TECHNICAL QUESTIONS CONCERNING THIS SOLICITATION MUST BE SUBMITTED IN WRITING TO ALAN CUMMINGS IN THE WEST VIRGINIA STATE PURCHASING DIVISION VIA FAX AT 304-558-4115 OR VIA EMAIL AT ALAN.W.CUMMINGS@WV.GOV. DEADLINE FOR TECHNICAL QUESTIONS IS 02/29/12 AT THE CLOSE OF BUSINESS. ANY TECHNICAL QUESTIONS RECEIVED WILL BE ANSWERED BY FORMAL ADDENDUM TO BE ISSUED BY THE PURCHASING DIVISION AFTER THE DEADLINE HAS LAPSED. EXHIBIT 10 REQUISITION NO.: 09120355 ADDENDUM ACKNOWLEDGEMENT I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO MY PROPOSAL, PLANS AND/OR SPECIFICATION, ETC. ADDENDUM NO.'S:						

RECEIVED
 2012 MAR 12 AM 9:55
 WV PURCHASING DIVISION

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE	TELEPHONE	DATE	
Robert "Burr" Stanley	304-464-4441	3/9/12	
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE	
Project Manager	550685425		

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

GENERAL TERMS & CONDITIONS
REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
5. Payment may only be made after the delivery and acceptance of goods or services.
6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.html and is hereby made part of the agreement provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
 09120355

PAGE
 2

ADDRESS CORRESPONDENCE TO ATTENTION OF
 ALAN CUMMINGS
 304-558-2402

VENDOR

*709055926 304-464-4441
 CARR CONCRETE CORPORATION
 PO BOX 265
 WAVERLY WV 26184-0265

SHIP TO

DIVISION OF HIGHWAYS
 JOBSITE
 SEE SPECIFICATIONS

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B	FREIGHT TERMS
02/14/2012				

BID OPENING DATE: 03/14/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
	NO. 1					
	NO. 2					
	NO. 3					
	NO. 4					
	NO. 5					
<p>I UNDERSTAND THAT FAILURE TO CONFIRM THE RECEIPT OF THE ADDENDUM(S) MAY BE CAUSE FOR REJECTION OF BIDS.</p> <p>VENDOR MUST CLEARLY UNDERSTAND THAT ANY VERBAL REPRESENTATION MADE OR ASSUMED TO BE MADE DURING ANY ORAL DISCUSSION HELD BETWEEN VENDOR'S REPRESENTATIVES AND ANY STATE PERSONNEL IS NOT BINDING. ONLY THE INFORMATION ISSUED IN WRITING AND ADDED TO THE SPECIFICATIONS BY AN OFFICIAL ADDENDUM IS BINDING.</p> <p style="text-align: center;"> <i>Robert "Burr" Stanley</i> SIGNATURE <i>Carr Concrete Corp</i> COMPANY 3-9-12 DATE </p> <p>NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTED WITH THE BID.</p> <p>REV. 09/21/2009</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
09120355

PAGE
3

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ALAN CUMMINGS 304-558-2402

VENDOR

*709055926 304-464-4441
 CARR CONCRETE CORPORATION
 PO BOX 265
 WAVERLY WV 26184-0265

SHIP TO

DIVISION OF HIGHWAYS
 JOBSITE
 SEE SPECIFICATIONS

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
02/14/2012				

BID OPENING DATE: 03/14/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p>DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p> <p>BUYER: ALAN CUMMINGS - FILE 33</p> <p>RFQ. NO.: 09120355</p> <p>BID OPENING DATE: 3/14/2012</p> <p>BID OPENING TIME: 1:30 P.M.</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:</p> <p style="text-align: center;">----- 304-464-4413 -----</p> <p>CONTACT PERSON (PLEASE PRINT CLEARLY):</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Request for Quotation

RFQ NUMBER
09120355

PAGE
4

ADDRESS CORRESPONDENCE TO ATTENTION OF:
ALAN CUMMINGS 304-558-2402

VENDOR

*709055926 304-464-4441
 CARR CONCRETE CORPORATION
 PO BOX 265
 WAVERLY WV 26184-0265

SHIP TO

DIVISION OF HIGHWAYS
 JOBSITE
 SEE SPECIFICATIONS

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
02/14/2012				

BID OPENING DATE: 03/14/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT

ANY INDIVIDUAL SIGNING THIS BID IS CERTIFYING THAT: (1) HE OR SHE IS AUTHORIZED BY THE BIDDER TO EXECUTE THE BID OR ANY DOCUMENTS RELATED THERETO ON BEHALF OF THE BIDDER, (2) THAT HE OR SHE IS AUTHORIZED TO BIND THE BIDDER IN A CONTRACTUAL RELATIONSHIP, AND (3) THAT THE BIDDER HAS PROPERLY REGISTERED WITH ANY STATE AGENCIES THAT MAY REQUIRE REGISTRATION.						
***** THIS IS THE END OF RFQ 09120355 ***** TOTAL:						<u>\$83,545.91</u>

SEE REVERSE SIDE FOR TERMS AND CONDITIONS		
SIGNATURE	TELEPHONE	DATE
FILE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

Specifications

Purpose: To establish a purchase order for concrete box beams

1.0 DEFINITIONS

- A. The "Agency" shall be defined as the West Virginia Division of Highways
- B. The "Vendor" shall be defined as the successful bidder.
- C. The "Purchase Order" shall be defined as the binding agreement that is entered into between the State of West Virginia and the Vendor to provide the services as herein specified.
- D. "Mandatory Requirements: The terms "must", "will", "shall", "minimum", "maximum", or "is/are required" identify a mandatory item or factor. Decisions regarding compliance with any mandatory requirements shall be at the sole discretion of the State.

2.0 SCOPE OF WORK

The successful Vendor shall provide concrete box beams for Paint Creek Bridge replacement

2.1 Technical Requirements:

The vendor shall provide the materials including delivery to the project site. Materials supplied under this contract shall meet the applicable requirements of the West Virginia Dept of Transportation, Division of Highways Standard Specifications Roads and Bridges and the current Supplemental Specifications. Specifications are available on the following website:
www.transportation.wv.gov/highways/engineering/Pages/publications.aspx

2.2 Freight

2.2.1 All shipments are to be FOB Destination

2.2.2 The vendor shall be responsible for all costs associated with delay to delivery to job site.

2.3 Delivery

2.3.1 The above materials are to be delivered to:

Rt 23 MP 8.37
Fayette County

2.3.2 Call Adrian Lusk @ 304-647-7829 with any questions.

2.3.3 Call Adrian Lusk 24 hours prior to delivery @ 304-647-7829

3.0 INVOICING

3.1 Payment

3.1 The Vendor must send an invoice to:

WV Dept of Transportation-Division of Highways
146 Stonehouse Rd
Lewisburg, WV 24901

3.2 Partial Payment of Approved Beams

3.2.1 Upon completion of manufacture and approval by the Division of Highways of all beams specified on an individual Requisition Purchase Order (RPO), the vendor may invoice and the Division will pay for the cost of manufacturing the beams, not to

exceed 65% of the total cost of the delivered beams. The remaining 35% or more may be invoiced when all the beams are delivered. Partial payment for beams shall be subject of the following conditions:

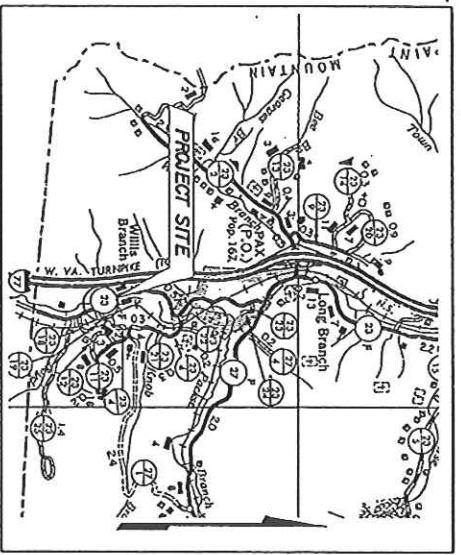
- a. The vendor must request partial payment and furnish an official invoice for the manufactured and approved beams.

4.0 AWARD

Purchase order will be awarded to the lowest responsible bidder meeting specifications, complete and not split

Cost Sheet
RFQ#: 09-12-0355

Item Number	Quantity	Unit of Measure	Description	Unit Price	Extended amount
1	345	linear ft	6 interior LRFD prestressed concrete box beams (57'6" long x 3' wide x 27" deep)-2 beams with access pockets per plans	102. ⁰⁰	\$ 35,190. ⁰⁰
2	115	linear ft	2 exterior LRFD prestressed concrete box beams (57'6" long x 3' wide x 27" deep) w/ 10 sets type TL-2 GR inserts & GR posts per beam INSTALLED	102. ⁰⁰	\$ 11,730. ⁰⁰
3	129.167	linear ft	2 sets type TL-2 GR system INSTALLED-total length of guardrail per plans=129' 2"	233. ⁰⁰	\$ 30,095. ⁹¹
4	4	each	4 post tensioning bars (1" diameter x 27' long) with two 9" x 9" bearing plates and two hex nuts per bar	495. ⁰⁰	\$ 1,980. ⁰⁰
5	2	each	2 post tensioning bars (1" diameter x 15' long) with one 9" x 9" x 1" bearing plate, one 5" x 5" x 11/4" bearing plate and two hex nuts per bar	495. ⁰⁰	\$ 990. ⁰⁰
6	14	each	14 elastomeric bearing pads (4 3/4" x 28" x 1 13/16") with 3 shims each (1/16" x 4 1/2" x 27 3/4")	180. ⁰⁰	\$ 2,520. ⁰⁰
7	4	each	4 elastomeric bearing pads (4 3/4" x 15 1/2" x 1 13/16") with 3 shims each (1/16" x 4 1/2" x 15 1/4")	180. ⁰⁰	\$ 720. ⁰⁰
8	16	each	16 anchor rods (1" diameter x 2' long) grade 60-galvanized	20. ⁰⁰	\$ 320. ⁰⁰
			Total Amount		\$ 83,945. ⁹¹



UTILITIES

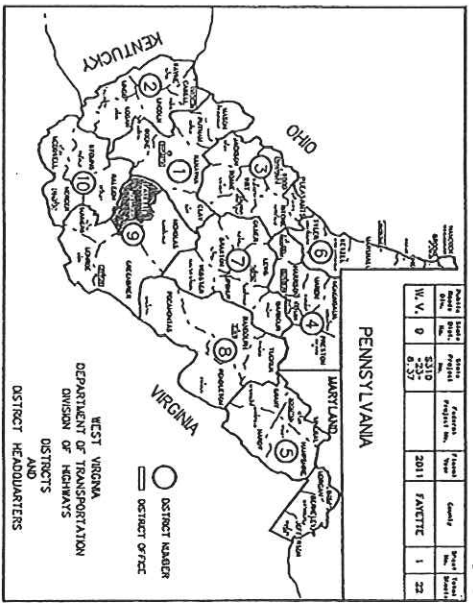
FRONTIER COMMUNICATIONS
APPLACHIAN POWER COMPANY

WEST VIRGINIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR CONSTRUCTION
OF
STATE HIGHWAY

FEDERAL PROJECT NO.
STATE PROJECT NO. S310-23-8.37
ROUTE NO. GR 23
PLATEAU DISTRICT
FAYETTE COUNTY

PAINT CREEK BRIDGE REPLACEMENT

Station	Station	F. I.	
		feet	meters
Roadway 1+57	2+53	96	0.018
Bridge 2+53	3+13	60	0.011
Roadway 3+13	4+78	165	0.031
Total Project Length = 321 = 0.061			



TYPE OF CONSTRUCTION
GRADE, DRAIN & PAVE
BRIDGE REPLACEMENT *10942

Year	Project No.	Sheet No.	Scale	Date
2011	S310-23-8.37	1	1"=40'	11/17/2011

SCALES

PLAN HOR. 1" = 100'

PROFILE VERT. 1" = 10'
HOR. 1" = 100'

DESIGN DESIGNATION

A. O. 1 (2008) 2. 1490
A. O. 1 (2008) 2. 1708
O. H. V.
D. H. V.
T. H. V.
V. H. V.

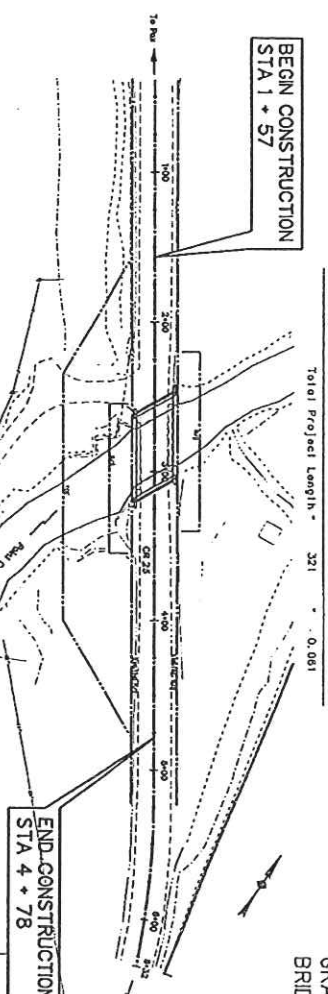
- CONVENTIONAL SIGNS**
- STATE L&E
 - COUNTY L&E
 - MUNICIPALITY L&E
 - UNINCORPORATED AREA
 - EXISTING R&A L&E
 - EXISTING B&A L&E
 - PROPOSED STATE L&E
 - PROPOSED COUNTY L&E
 - PROPOSED R&A L&E
 - PROPOSED B&A L&E
 - PROPOSED GUARD RAIL
 - PROPOSED GUARD WALL
 - TELEPHONE L&E
 - TELEPHONE POLE
 - TELEPHONE POLE AND WIRE
 - TELEPHONE POLE AND WIRE AND SIGN
 - TELEPHONE POLE AND WIRE AND SIGN AND LIGHT
 - TELEPHONE POLE AND WIRE AND SIGN AND LIGHT AND WALKER

INDEX TO SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL NOTES
3-4	GENERAL NOTES
5	PROPOSED GRADE ELEVATION
6	PROPOSED DRAINAGE
7	HOW PLAT
8	AUTUMNT & PROXIMALS
9	OPERATIONS TO EXISTING AUTUMNT & PROXIMALS
10	PROPOSED DRAINAGE
11	CONCRETE BRIDGE DETAILS
12	CONCRETE BRIDGE DETAILS
13	SOLUTION PLAN
14-23	CONCRETE BRIDGE, ROAD TIE-IN, CURBS, GUTTERS

INDEX CARRY THAT HAS A CORRECT COPY OF THE PLANS OF PROJECT

DATE	BY	REVISIONS



RECOMMENDED FOR APPROVAL

DATE: 11/17/2011

RESPONSIBLE ENGINEER: K. D. Alenbergs

DESIGNED BY: [Signature]

CHECKED BY: [Signature]

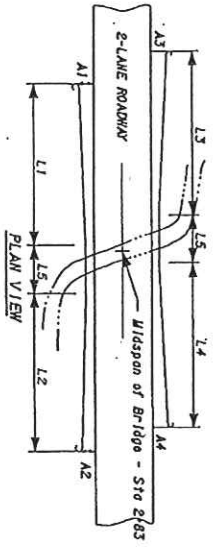
REVISIONS

DATE

BY

REVISIONS

PROJECT NO. S310-23-8.37



GUARDRAIL LENGTHS (FT.)	CLASS	FET/LET OR BUF	OFFSET FROM PAVEMENT
L1	25'	111	BUF
L2	25'	111	BUF
L3	25'	111	BUF
L4	25'	111	BUF
L5	25'	111	BUF

Note 1 - Four feet (Class based on field conditions) as approved by the Engineer.

Minimum lengths of L1, L2, L3, and L4 are 25' unless special circumstances are announced. Heavy instrumentation for bridge structures requires special lengths and details. Length adjustments may be made as per the guardrail notes on Standard 082.

Anchors are to be expanded steel type as manufactured by Phillips Red Head, Hilli Fastening Systems. Wally Paradoit or equal as approved by the Engineer.

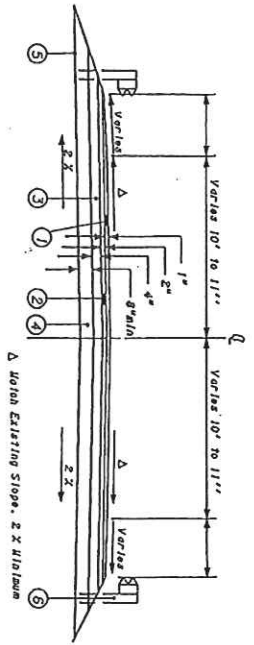
Fastening requirements for the bolts and steel angles are waived.

Guardrail to be attached to the structure at a maximum of 6' 3" post spacing along the entire length. All bolts, nuts, washers and plates are to be galvanized and meet strength requirements of similar items as depicted in the Standards.

L1, L2, L3 and L4 to have a minimum length of 25' with the post spacing for the first 18'-9" as per standard sheet 089.

See Framing Plan and Framing Details for additional guardrail requirements on bridge.

Typical Guardrail Layout (no scale)



Typical Approach Roadway (no scale)

- LEGEND**
- ① ITEM 401002-001, HOT-MIX ASPHALT WEARING COURSE, STONE OR GRAVEL, TYPE 1
 - ② ITEM 401001-001, HOT-MIX ASPHALT BASE COURSE, STONE OR GRAVEL, TYPE 2
 - ③ ITEM 401001-001, HOT-MIX ASPHALT BASE COURSE, STONE OR GRAVEL, TYPE 1
 - ④ ITEM 307001-000, AGGREGATE BASE COURSE, CLASS 1
 - ⑤ ITEM 207002-000, SUBGRADE
 - ⑥ ITEM 607001-001, TYPE 1 GUARDRAIL, CLASS 111

PROJECT NO.	0	DATE	8/22/10	DESIGNER	WV	SCALE	AS SHOWN	DATE	2011	SHEET NO.	2	TOTAL SHEETS	22
-------------	---	------	---------	----------	----	-------	----------	------	------	-----------	---	--------------	----

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PAINT CREEK BRIDGE
OVER
PAINT CREEK
ON
COUNTY ROUTE 23

PROJECT NO. 10942
DATE 2/6/22
DRAWN BY [blank]
CHECKED BY [blank]

GENERAL NOTES

Project No.	2310	Project Name	2011	County	3
W. V.	9	R 37	FAWETTE		12

GOVERNING SPECIFICATIONS

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, ADOPTED 2010, AS AMENDED BY WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS AND SUPPLEMENTAL SPECIFICATIONS, DATED JANUARY 1, 2011, THE CONTRACT DOCUMENTS AND THE CONTRACT PLANS ARE THE GOVERNING PROVISIONS APPLICABLE TO THIS PROJECT.

STANDARD DETAILS

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, STANDARD DETAILS BOOK, VOLUME I, DATED JANUARY 1, 2006 & VOLUME II, DATED JANUARY 1, 1994, AND VOLUME III, DATED AUGUST 1, 1999 SHALL APPLY TO THIS PROJECT. REVISED STANDARD DRAWINGS LISTED IN THE TABLE ON THIS SHEET WITH THEIR CORRESPONDING DATE SUPERSEDE THE AFORMENTIONED STANDARD DETAILS. STANDARD DETAILS DRAWINGS CAN BE FOUND AT <http://www.tansmountain.com/wwv/standard/specifications/StandardPublications.aspx>

ASAP PLANS

THESE PLANS WERE DEVELOPED UNDER AN ACCELERATED PROGRAM IN WHICH THE QUANTITIES, CROSS SECTIONS AND OTHER DETAILS ARE NOT INCLUDED. IT IS INTENDED THAT ANY DETAILS THAT NEED CLARIFICATION DURING CONSTRUCTION OR ANY CHANGES PROPOSED BY THE CONTRACTOR BE SIGNED BY A LICENSED ENGINEER AND SUBMITTED TO THE WV DOH FOR REVIEW. THE COST OF ANY APPROVED DETAILS OR CHANGES ARE INCLUDED IN THE LUMP SUM BID FOR THIS PROJECT.

SCOPE OF WORK

AREA OF WORK REQUIRED FOR THIS PROJECT WILL INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING

ITEMS:

1. FINAL ROADWAY ELEVATIONS, PROVIDED TO THE ENGINEER.
2. FINAL BRIDGE ELEVATIONS - PER PLANS
3. DRAINAGE INCLUDING SEDIMENT AND EROSION CONTROL.
4. CONSTRUCTION
5. UTILITY COORDINATION
6. PERMIT ACQUISITION
7. TRAFFIC CONTROL

PERMITS

ALL PERMITS AS REQUIRED BY THE US ARMY CORPS OF ENGINEERS (USACE), WV DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) AND THE US COAST GUARD SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN. THE CONTRACTOR SHALL PREPARE ALL PERMITS READY FOR SUBMISSION TO THE APPROPRIATE AGENCIES AND SHALL IDENTIFY THE WYDOW/VYDOW AS THE OWNER AND THE CONTRACTOR AND THE WYDOW SHALL BE IDENTIFIED AS CO APPLICANTS. THE CONTRACTOR IS RESPONSIBLE FOR ALL APPLICATION FEES AND ANY FINES THAT MAY BE INCURRED. ALL COMPLETED APPLICATION PACKAGES SHALL BE SUBMITTED TO THE ENGINEERING DIVISION, TECHNICAL SECTION FOR REVIEW AND FURTHER SUBMISSION TO THE APPROPRIATE AGENCY.

THERE IS A 60 DAY TIME FRAME ALLOWED FOR THE PURPOSE OF OBTAINING PERMITS. ANY ADDITIONAL TIME CAN BE GRANTED IN THE FORM OF NON-COMPENSABLE TIME.

USACE (604) - MS. SARAH WORKSMAN (304) 999-5710

WVDEP(604) - MR. LYLE BENNETT (604) 226-0695

WYDOW/ VYDOW - MR. BILL TIMMERMEYER (604) 226-0465

RELOCATION - MR. WILLIAM HEROLD (304) 558-2381

UTILITIES

UTILITIES HAVE BEEN LOCATED BY FIELD OBSERVATION ON THE CURRENT RIGHT OF WAY PLAT BUT IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CORROBORATE ALL UTILITY RELOCATIONS NECESSARY TO CONSTRUCT THE PROJECT. ONCE THE CONTRACTOR HAS DETERMINED THE EXTENT OF THE RELOCATIONS, RELOCATION PLANS SHALL BE PROVIDED TO THE DISTRICT COORDINATOR AT WHICH TIME RELOCATIONS SHALL BE ACCOMMODATED AS PER DIVISION POLICY. NO ADDITIONAL COMPENSATION WILL BE MADE BY THE DOH DUE TO THE CONTRACTOR'S COORDINATION OR THE LACK THEREOF WITH AFFECTED UTILITIES.

THERE IS A 60 DAY TIME FRAME ALLOWED FOR THE PURPOSE OF RELOCATING UTILITIES. ANY ADDITIONAL TIME CAN BE GRANTED IN THE FORM OF NON-COMPENSABLE TIME.

RELOCATED UTILITIES ADVERSELY AFFECTED BY THE CONTRACTOR'S VE PROPOSAL SHALL BE ACCOMMODATED/RELOCATED AT THE EXPENSE OF THE CONTRACTOR. NO ADDITIONAL COMPENSATION SHALL BE GIVEN.

DRAINAGE

ALL CULVERTS, INLETS, AND OTHER DRAINAGE ITEMS ON THIS PROJECT HAVE BEEN LOCATED AS AVAILABLE INFORMATION ALLOWS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE EXACT LOCATION AND ELEVATION OF ALL DRAINAGE ITEMS AND MAKE ANY NECESSARY ADJUSTMENTS IN THE FIELD TO INSURE PROPER DRAINAGE. AFTER REVIEW BY THE PROJECT ENGINEER, THE CONTRACTOR SHALL MAINTAIN WORKING STORM DRAINAGE SYSTEMS THROUGHOUT THE WORK AREA AT ALL TIMES DURING CONSTRUCTION. THE WORKING SYSTEM MAY CONSIST OF THE EXISTING STORM DRAINAGE SYSTEM, THE PROPOSED STORM DRAINAGE SYSTEM OR A COMBINATION THEREOF. THE CONTRACTOR SHALL EXERCISE CARE WHEN WORKING NEAR EXISTING DRAINAGE STRUCTURES (PIPES, INLETS, ETC.). ANY DAMAGES RESULTING FROM THE CONTRACTOR'S NEGLIGENCE TO EXISTING STRUCTURES WHICH ARE TO REMAIN IN PLACE WILL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.

RIGHT OF WAY

DOH WILL BE RESPONSIBLE FOR OBTAINING THE RIGHT OF WAY AS DEPICTED IN THE MOST RECENT RIGHT OF WAY PLAT, WHICH IS INCLUDED WITH THE BID DOCUMENTS. DOH INTENDS TO MAKE ALL THE RIGHT OF WAY AVAILABLE BY THE NOTICE TO PROCEED.

ASBESTOS REPORT

IT WILL BE THE WYDOT RESPONSIBILITY TO VERIFY AN ASBESTOS REPORT HAS BEEN PERFORMED PRIOR TO BUILDING AND/OR STRUCTURE DEMOLITION.

FERTILIZER, SEEDING AND MULCHING

ALL DISTURBED SOIL AREAS ARE TO BE SEED, MULCHED AND FERTILIZED. SEEDING, MULCHING AND FERTILIZING WILL BE AS SPECIFIED IN SECTION 642 AND SECTION 652 OF THE STANDARD SPECIFICATIONS.

FISH SPAWN

IN STREAM WORK MAY NOT BE PERMISSIBLE DURING THE WARM WATER FISH SPAWNING SEASON, APRIL 1 THROUGH JUNE 30 OR DURING THE COLD WATER FISH SPAWNING SEASON, SEPTEMBER 15 THROUGH FEBRUARY 28. AN EXCEPTION MAY BE AUTHORIZED BY THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, DIVISION OF WATER AND WASTE MANAGEMENT, AND THE DEPARTMENT OF NATURAL RESOURCES, WILDLIFE RESOURCES SECTION. THE CONTRACTOR IS CAUTIONED TO REVIEW THE CONDITIONS OF THE PERMIT WHEN ISSUED AND IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY WAIVERS.

FOR INFORMATION CALL:

COLD WATER FISH SPAWNING (304) 637-0245

WARM WATER FISH SPAWNING (304) 558-2771

GUARDRAIL REMOVAL

ALL GUARDRAIL REMOVED THAT IS NOT RESET SHALL BE INCLUDED IN CLEARING AND GRUBBING AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

STREAM RELOCATION

IF NECESSARY, CONSTRUCTION SHALL BEGIN ON THE STREAM CHANNEL RELOCATION AS ONE OF THE FIRST ITEMS OF WORK, WITH SEEDING WORK COMMENCING AS SOON AS PRACTICABLE. CONTRACTOR SHALL NOT DIVERT WATER INTO THE RELOCATED STREAM CHANNEL UNTIL ADEQUATE COVER HAS BEEN ESTABLISHED.

REVISION DATE	REVISED STANDARD DRAWINGS USED

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

GENERAL NOTES

GENERAL NOTES

Project No.	2310	Project No.	2011	Sheet No.	4
W.M.	0	Sheet No.	FAVETTC	Sheet No.	4

USGS BENCHMARK

IF ENCOUNTERED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE USGS BENCHMARK ON THIS PROJECT. CONTACT THE NATIONAL GEOLOGICAL SURVEY VIA TELEPHONE (1-800-245-2606) FOR A PROCEDURAL MANUAL PRIOR TO DISTURBANCE.

WASTE MATERIAL

ALL MATERIAL REMOVED AND NOT REUSED IN THE CONSTRUCTION OF THE PROJECT WILL BE REMOVED FROM THE PROJECT AND DISPOSED OF BY THE CONTRACTOR. NO WASTE EXCAVATION MATERIAL SHALL BE PLACED IN THE 100 YEAR FLOOD PLAIN.

CONCRETE (CAST-IN-PLACE)

CONCRETE SHALL BE CURED IN ACCORDANCE WITH SUBSECTION 601.12 OF THE STANDARD SPECIFICATIONS. IF USED, POLYETHYLENE COATED BURLAP SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 707.5 OF THE STANDARD SPECIFICATIONS. THE MINIMUM COVERING, MEASURED FROM THE SURFACE OF THE CONCRETE TO THE FACE OF ANY REINFORCING STEEL BAR, SHALL BE 3 INCHES IF THE CONCRETE IS IN CONTACT WITH THE GROUND SURFACE AND 2 INCHES OTHERWISE.

DESIGN NEW STRUCTURES - STANDARD BRIDGE PLANS OR EQUIVALENT

THE CONTRACT PLANS HAVE BEEN DEVELOPED AS PER CURRENT DIVISION POLICY. THE CONTRACTOR SHALL RESTORE IN AN ACCEPTABLE MANNER ALL PROPERTY, BOTH PUBLIC AND PRIVATE, WHICH HAS BEEN DAMAGED DURING THE PROSECUTION OF WORK AND SHALL LEAVE THE SITE IN A NEAT AND PRESENTABLE CONDITION. PRIVATELY OWNED TREES, SHRUBS, AND FENCES SHALL BE REMOVED, STORED, AND RESET OR REPLACED BY THE CONTRACTOR.

DISMANTLING STRUCTURE

THE CONTRACTOR SHALL DISMANTLE AND REMOVE THE EXISTING STRUCTURE IN ACCORDANCE WITH SECTION 203 OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS. THE DEMOLITION/DISMANTLING PLANS SHALL BE PROVIDED TO THE DISTRICT BRIDGE ENGINEER AT LEAST SEVEN DAYS PRIOR TO BEGINNING ANY DEMOLITION/DISMANTLING WORK. RECEIPT OF THE DEMOLITION/DISMANTLING PLANS DOESN'T RELIEVE THE CONTRACTOR OF HIS/HER RESPONSIBILITY TO SATISFACTORILY DEMOLISH/DISMANTLE THE STRUCTURE SPECIFIED. THE DEMOLISH/DISMANTLED STRUCTURE SHALL BECOME THE PROPERTY OF THE CONTRACTOR, EXCEPT AS NOTED ON PLANS AND WITH THE EXCEPTION OF THE BRIDGE PLATES, WHICH SHALL BE REMOVED FROM THE PROJECT SITE IN AN APPROVED MANNER AND TURNED OVER TO THE ENGINEER.

REINFORCING STEEL BARS

ALL REINFORCING STEEL BARS SHALL BE INTERMEDIATE GRADE BILLET STEEL, GRADE 60 IN ACCORDANCE WITH SUBSECTION 709.1 OF THE STANDARD SPECIFICATION. THE REQUIREMENT OF SECTION 8602 OF THE STANDARD SPECIFICATIONS SHALL BE FOLLOWED. THE MINIMUM SPICE LENGTH OR DOWEL BAR EMBEDMENT SHALL BE 30 BAR DIAMETERS. REINFORCEMENT UNDER THE SHOES OR OTHER BEARING DEVICE SHALL BE SO PLACED SO AS TO AVOID INTERFERENCE WITH DRILLING OF ANCHOR BOLT HOLES.

SUBSTRUCTURE CONCRETE (CAST-IN-PLACE)

ALL CONCRETE IN THE SUBSTRUCTURE SHALL BE CLASS B, AIR ENTRAINED. CHAMFER ALL EXPOSED EDGES OF THE SUBSTRUCTURE CONCRETE 1 INCH, EXCEPT FOR THE ABUTMENT CURBS, WHICH SHALL BE CHAMFERED 1/4 INCH. THE EXPOSED SURFACE OF THE SUBSTRUCTURE SHALL BE CLASS 1, ORDINARY SURFACE FINISH IN ACCORDANCE WITH 601.11.1 OF THE STANDARD SPECIFICATIONS, EXCEPT FOR THE ABUTMENT CURBS AND WING WALLS, WHICH SHALL BE CLASS 2 RUBBED FINISHED IN ACCORDANCE WITH SUBSECTION 601.11.2 OF THE STANDARD SPECIFICATION. FILL ANCHOR BOLT HOLES WITH NON-SHRINK GROUT AFTER ANCHOR BOLTS ARE SET. THE NON-SHRINK GROUT SHALL BE PROVIDED FROM AN APPROVED SOURCE.

PILING

PILING SHALL BE 50 KSI STEEL AND SHALL BE INSTALLED PER SECTION 616 OF THE SPECIFICATIONS. PRE-DRILLING MAY BE UTILIZED PROVIDED DIVISION POLICY CRITERIA IS MET. THE PILE DRIVING EQUIPMENT SHALL DELIVER A MINIMUM ENERGY OF 15,000 FT-LBS PER BLOW. REFUSAL IS DEFINED AS 20 BLOWS PER INCH OF PENETRATION WITH A HAMMER RATED AT 15,000 FT-LBS PER BLOW.

TEMPORARY BRIDGE

THE CONTRACTOR SHALL ERECT AND MAINTAIN A TEMPORARY BRIDGE AT THE LOCATION SHOWN ON THE PLANS PRIOR TO CLOSING THE EXISTING BRIDGE. IT SHALL BE MAINTAINED UNTIL THE NEW BRIDGE IS OPEN TO TRAFFIC. THE BRIDGE LENGTH SHALL BE DETERMINED BY APPLYING THE FOLLOWING MINIMUM SUPERSTRUCTURE ELEVATION AND NET WATERWAY OPENING.

THE TEMPORARY BRIDGE SHALL BE PLACED SO AS THE LOWER CHORD MATCHES THE EXISTING STRUCTURE TO THE EXTENT PRACTICAL.

A MINIMUM NET WATERWAY OPENING SHALL MATCH EXISTING TO THE EXTENT PRACTICAL.

THE STRUCTURE SHALL BE DESIGNED FOR HL-93 LIVE LOADING. THE USE OF USED MATERIAL IS ACCEPTABLE. SUCH MATERIAL SHALL BE INSPECTED VISUALLY AND ACCEPTED BY THE ENGINEER PRIOR TO ITS USE. THE DESIGN AND PLANS FOR THE TEMPORARY STRUCTURE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE BEGINNING CONSTRUCTION. IF THE PLANS AND CALCULATIONS SUBMITTED FOR REVIEW ARE NOT SATISFACTORY TO THE ENGINEER, THE CONTRACTOR SHALL MAKE SUCH CHANGES IN THEM AS MAY BE REQUIRED.

MAINTENANCE OF TRAFFIC

ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE MANUAL ON TRAFFIC CONTROL FOR STREETS AND HIGHWAYS, 2006 EDITION. THE TRAFFIC CONTROL CASE SHALL BE AS PROVIDED IN THE PLAN NOTES.

THE TRAFFIC CASE TO BE UTILIZED FOR THIS PROJECT IS CASE A12.

BACKFILL AND DRAINAGE

ALL BACKFILL PLACED AROUND ABUTMENTS, WINGWALLS, FOOTINGS AND PILE CAPS OR PLACED UNDER ROADWAYS SHALL BE SELECT BACKFILL WHICH CONFORMS TO THE REQUIREMENTS OF SECTION 212.2 OF THE STANDARD SPECIFICATIONS AND IS PLACED IN ACCORDANCE WITH SECTION 212.10.

DRAINAGE STRUCTURES ARE TO BE INSTALLED BEHIND ABUTMENTS AND WINGWALLS AND SHALL BE IN ACCORDANCE WITH SECTION 212.9 OF THE STANDARD SPECIFICATIONS.

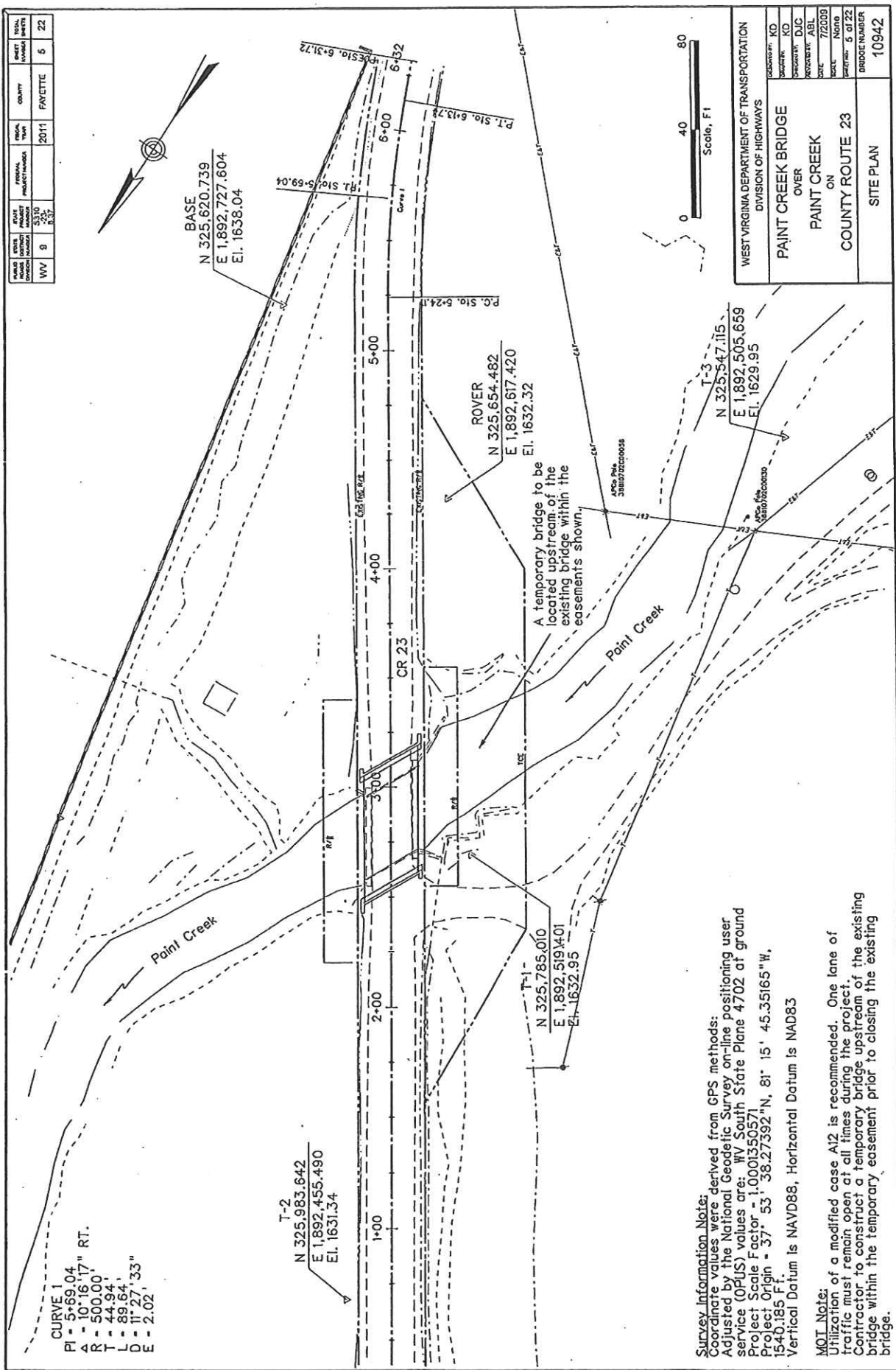
FOUNDATION PROTECTION

FOUNDATION PROTECTION SHALL BE PER SPECIFICATION SECTION 218.4 EXCEPT THAT THE MAXIMUM ROCK SIZE SHALL NOT EXCEED 18" IN ANY ONE DIMENSION. THE FOUNDATION PROTECTION SHALL EXTEND PERPENDICULAR FROM THE ABUTMENTS AND WINGWALLS TO THE OHW AND THE ROCK LAYER SHALL BE AT LEAST 18" THICK. THE DETERMINATION OF THE OHW SHALL BE MADE BY WYDOH FIELD PERSONNEL.

PROJECT NO.	DATE	BY
PROJECT NO.	DATE	BY

THE BEST VIRGINIA DEPARTMENT OF TRANSPORTATION
OFFICE OF PERMITS

GENERAL NOTES



STATE	PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
WV	8	2011	FAYETTE	5	22

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
PROJECT NO.	KD
CONTRACT NO.	DJC
SECTION NO.	ABJ
DATE	7/20/09
SCALE	AS SHOWN
PROJECT	5 of 22
DRIDGE NUMBER	
10942	

CURVE 1
 PI = 5+69.04
 A = 10' 16.17" RT.
 R = 500.00'
 T = 44.94'
 L = 89.64'
 D = 11° 27' 33"
 E = 2.02'

T-2
 N 325.983.642
 E 1,892,455.490
 El. 1631.34

T-1
 N 325,785,010
 E 1,892,519,401
 El. 1632.95

ROVER
 N 325,654,482
 E 1,892,617,420
 El. 1632.32

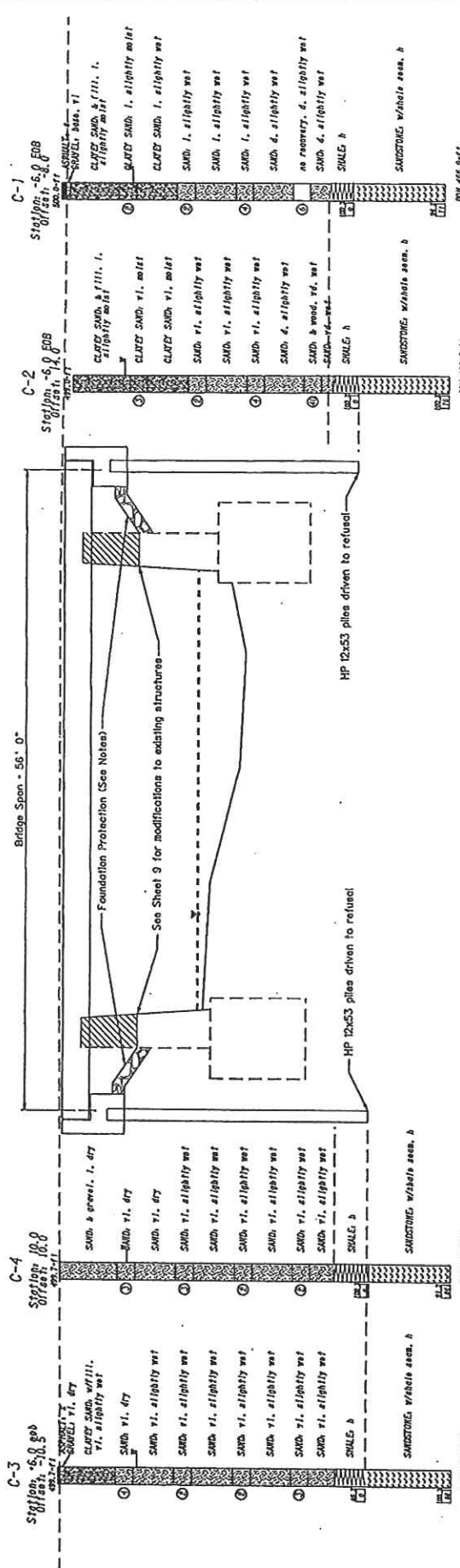
T-3
 N 325,547,115
 E 1,892,505,659
 El. 1629.95

BASE
 N 325,620,739
 E 1,892,727,604
 El. 1638.04

Survey Information Note:
 Coordinate values were derived from GPS methods:
 Adjusted by the National Geodetic Survey on-line positioning user
 advice (OPUS) values are: WV South State Plane 4702 at ground
 Project Scale Factor = 1.0001500571
 Project Origin = 37° 53' 38.27392" N, 81° 15' 45.35165" W,
 1540.185 F.T.
 Vertical Datum is NAVD88, Horizontal Datum is NAD83

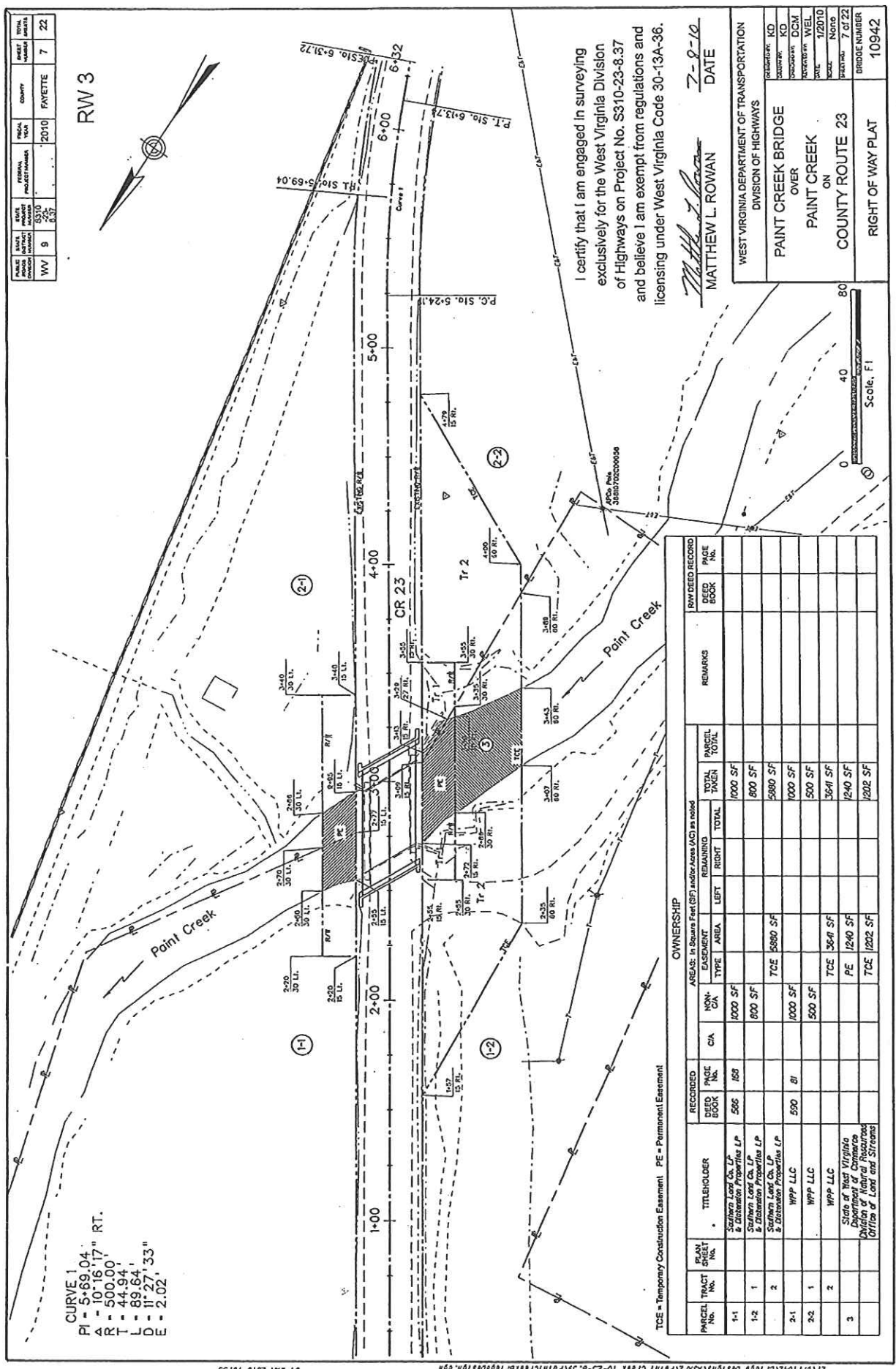
MOI Note:
 Utilization of a modified case A12 is recommended. One lane of
 traffic must remain open at all times during the project.
 Contractor to construct a temporary bridge upstream of the existing
 bridge within the temporary easement prior to closing the existing
 bridge.

STATE WV	FEDERAL PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
9	2011	FAYETTE	6	22	



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
PAINT CREEK BRIDGE OVER PAINT CREEK ON COUNTY ROUTE 23	
CONTRACT NO. KD	BRIDGE NUMBER 10944
DESIGN NO. DUC	
POSTED DATE ABL	
DATE 7/20/09	
POSTED None	
PREPARED BY 6 of 22	
BORINGS & BRIDGE ELEVATION	

Notes:
 1. The actual thicknesses of the abutment walls and footings are unknown. The dashed lines are shown for illustrative purposes.
 2. The depth of the footings was obtained from cores drilled in 1992.
 3. See General Note on Foundation Protection.



CURVE 1
 PI = 5+59.04'
 R = 10.18' 17" RT.
 A = 500.00'
 T = 44.94'
 L = 89.64'
 D = 11° 27' 33"
 E = 2.02'

STATE	WV	9	8.32
COUNTY	FAYETTE	7	22

RW 3

I certify that I am engaged in surveying exclusively for the West Virginia Division of Highways on Project No. S310-23-8.37 and believe I am exempt from regulations and licensing under West Virginia Code 30-13A-36.

Matthew L. Rowan
 MATTHEW L. ROWAN
 DATE 7-9-10

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
PARTICIPATE: KD	PROJECT NO: KD
DESIGN: DCM	CONTRACT NO: WEL 12010
DATE: 7.07.22	BRIDGE NUMBER: 10942
PAINT CREEK BRIDGE OVER PAINT CREEK ON COUNTY ROUTE 23 RIGHT OF WAY PLAT	

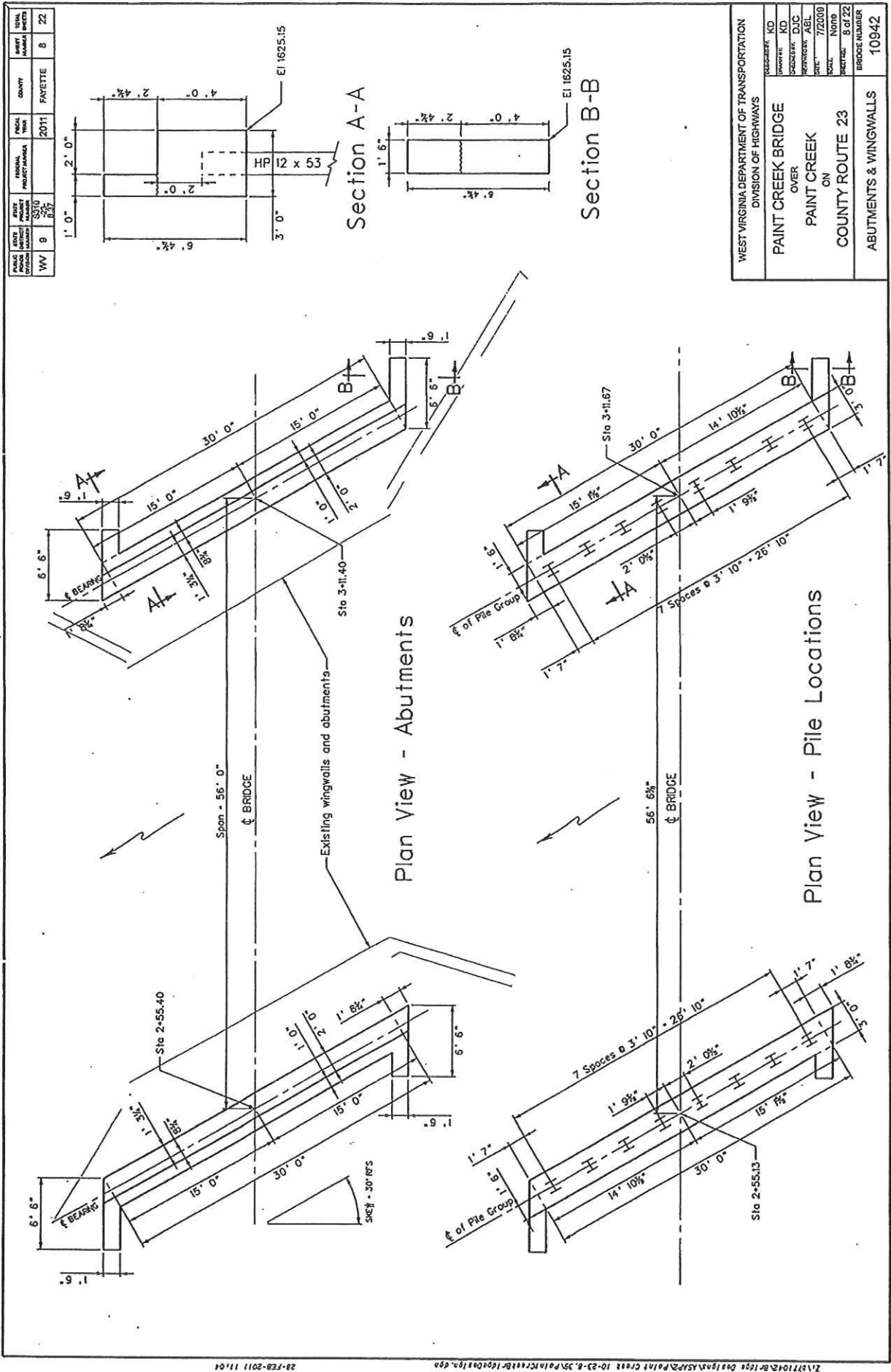
PARCEL TRACT No.	PLAN SHEET No.	TITULOGLER	RECORDED DEED BOOK PAGE	C/A	NON-CON.	EASEMENT		REMAINING	TOTAL TAKEN	PARCEL TOTAL	REMARKS	RAW DEED RECORD BOOK PAGE No.
						TYPE	AREA					
1-1		Starbuck Land Co. LP & Distribution Properties LP	586	153	1000 SF				1000 SF			
1-2		Starbuck Land Co. LP & Distribution Properties LP			600 SF				600 SF			
2-1		Starbuck Land Co. LP & Distribution Properties LP			1000 SF	5880 SF			5880 SF			
2-2		WPP LLC	590	81	500 SF				500 SF			
		WPP LLC			364 SF				364 SF			
3		State of West Virginia Department of Conservation & Natural Resources Division of Land and Streams			1240 SF				1240 SF			
					1202 SF				1202 SF			

OWNERSHIP

AREAS: In Square Feet (SF) and/or Acres (AC) as noted

TCE = Temporary Construction Easement PE = Permanent Easement

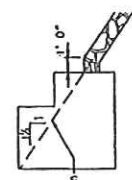
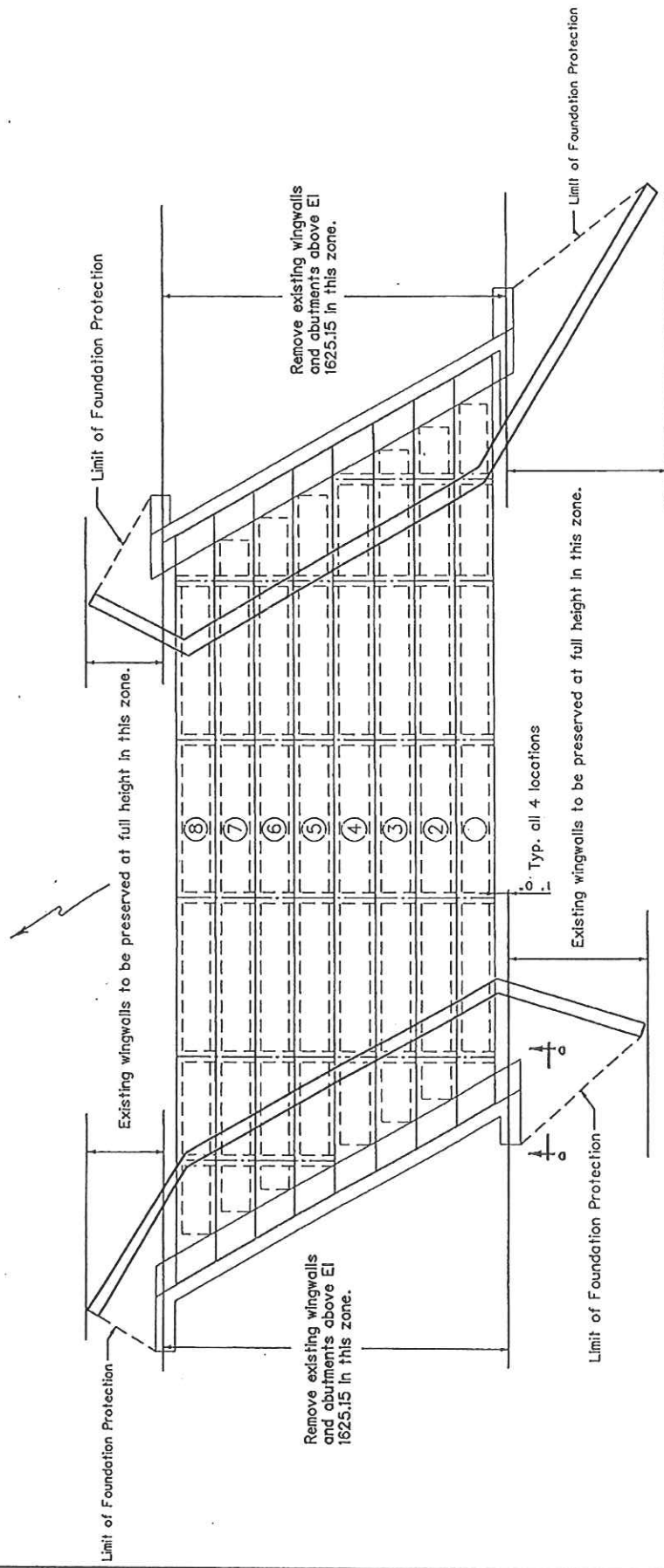




WEST VIRGINIA DIVISION	PROJECT NUMBER	FISCAL YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
WV 9	2011	2011	FAYETTE	8	22

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION	
DIVISION OF HIGHWAYS	
PROJECT NO.	10942
PROJECT NAME	PAINT CREEK BRIDGE
LOCATION	OVER PAINT CREEK
SECTION	ON COUNTY ROUTE 23
BRIDGE NUMBER	10942

STATE	PROJECT NUMBER	PROJECT NAME	YEAR	COUNTY	DATE
WV	9	53170	2011	FAVETTE	9 22



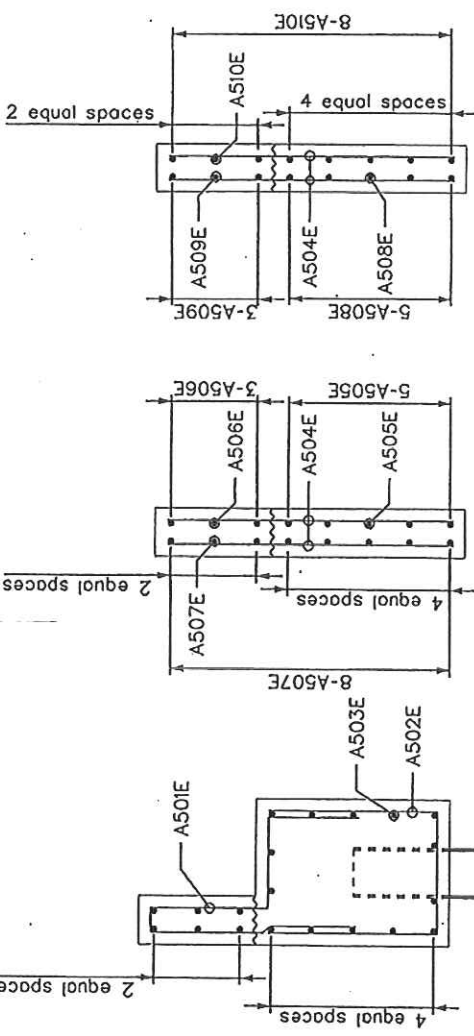
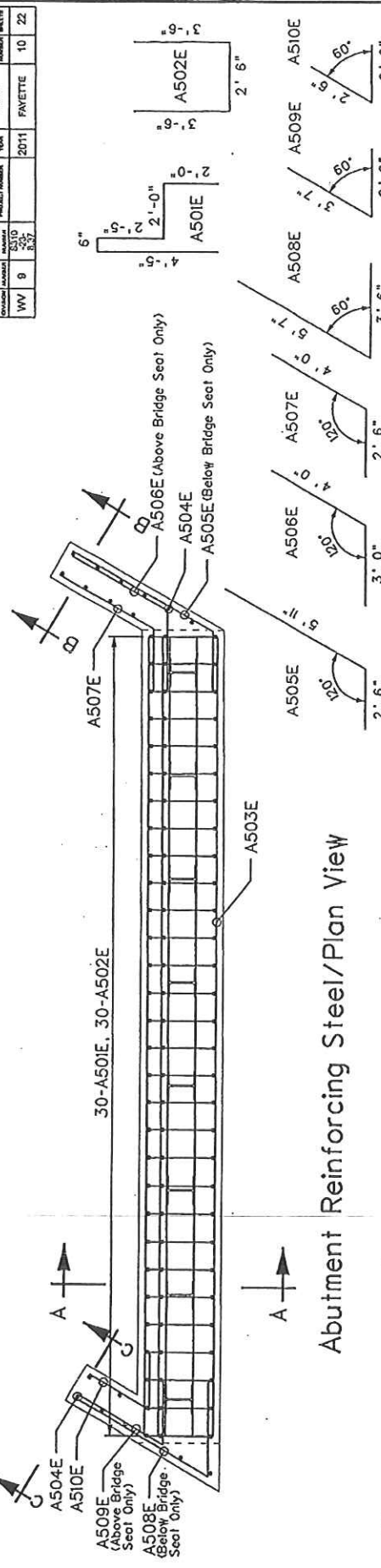
Section D-D
(Typical on all 4 wingwalls)

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION	
DIVISION OF HIGHWAYS	
PROJECT NO.	KD
SECTION NO.	KD
DESIGNED BY	DJC
CHECKED BY	AGL
DATE	7/20/09
SCALE	NONE
POSTED BY	9.01.22
BRIDGE NUMBER	10942

Notes:

1. All vertical and horizontal cut lines in existing structures to be saw cut.
2. If the sections of wingwalls and/or abutments that are intended to be preserved become damaged by the contractor, they are to be repaired or replaced by the contractor at his expense to the satisfaction of the engineer.
3. Foundation Protection to extend between limits shown. See General Note on Foundation Protection.

STATE	PROJECT NUMBER	PROJECT NAME	COUNTY	DATE
WV	9	2011	FAVETTE	10 22



REINFORCING BAR SCHEDULE						
MARK	SIZE OF BAR	TYPE OF BAR	LENGTH OF BAR	NUMBER OF BARS ABUT. 1	NUMBER OF BARS ABUT. 2	WEIGHT OF BARS TOTAL
A501E	#5	BENT	11'-4"	30	30	710
A502E	#5	BENT	9'-6"	30	30	595
A503E	#5	STRAIGHT	29'-6"	20	40	1231
A504E	#5	STRAIGHT	5'-10"	17	34	207
A505E	#5	BENT	8'-5"	5	10	88
A506E	#5	BENT	7'-0"	3	6	44
A507E	#5	BENT	6'-6"	8	16	109
A508E	#5	BENT	9'-1"	5	10	95
A509E	#5	BENT	6'-1"	3	6	39
A510E	#5	BENT	5'-0"	8	16	84

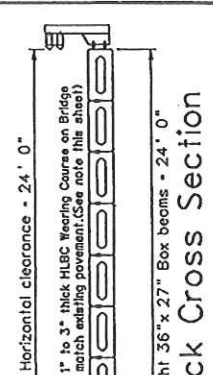
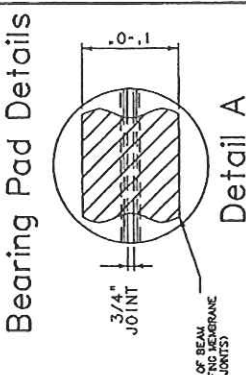
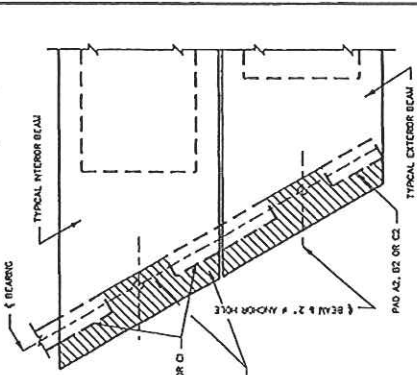
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
PROJECT NO.	10942
CONTRACT NO.	2011
SECTION NO.	23
DATE	10/22
BY	10/22
CHECKED BY	10/22
APPROVED BY	10/22
BRIDGE NUMBER	10942

Section C-C

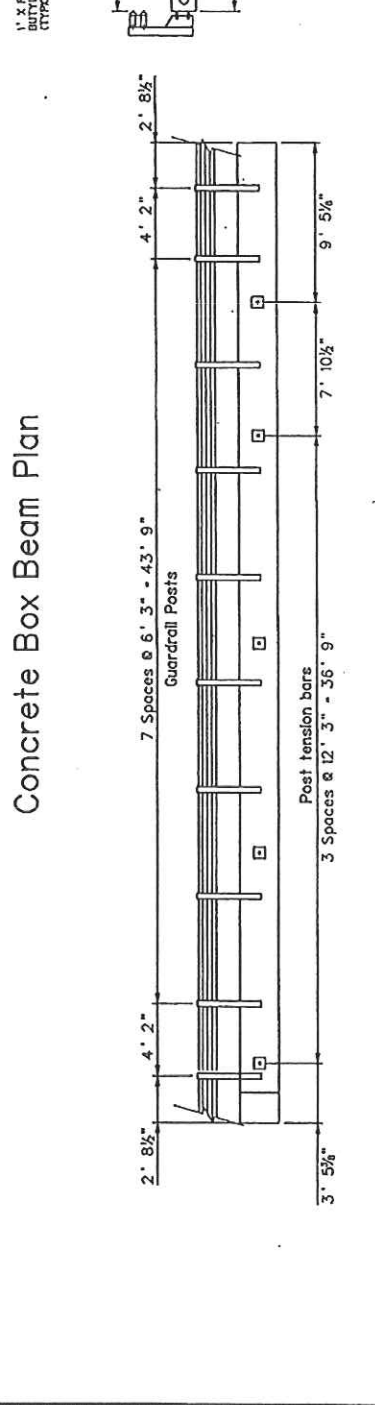
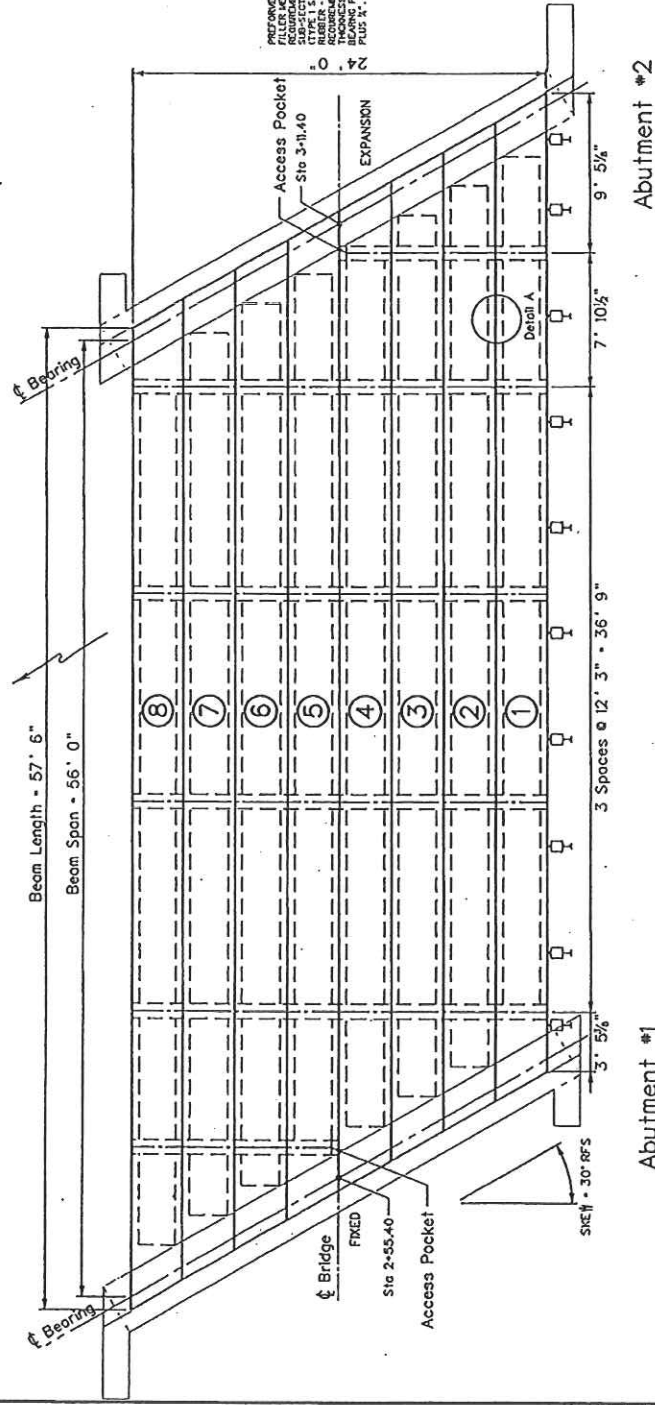
Section B-B

Section A-A

STATE PROJECT NUMBER	STATE PROJECT YEAR	FEDERAL PROJECT NUMBER	PROJECT YEAR	COUNTY	SHEET NUMBER	TOTAL SHEETS
WV 9	2011	3310	2011	FAVETTE	11	22

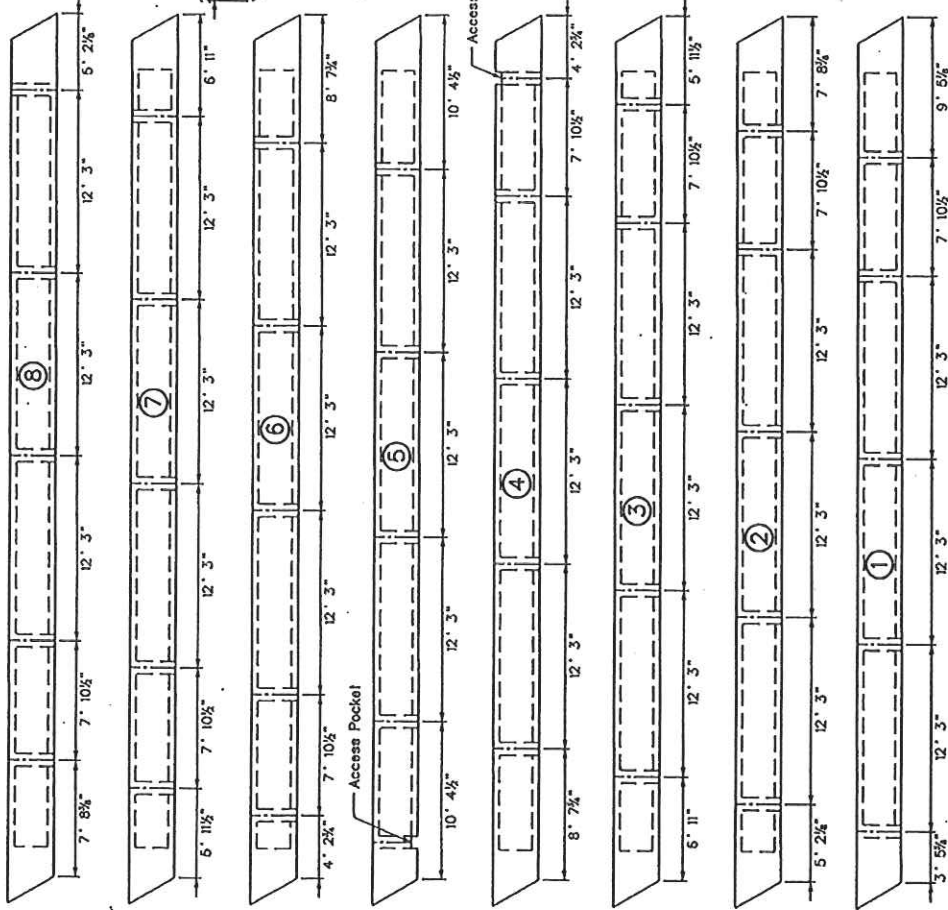


WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS		CONTRACT NO. 10-23-8-39	PROJECT NO. 772009	DATE 11/01/2011
PAINT CREEK BRIDGE OVER PAINT CREEK ON COUNTY ROUTE 23		CONTRACT NO. 10-23-8-39	PROJECT NO. 772009	DATE 11/01/2011
CONCRETE BOX BEAMS		BRIDGE NUMBER 10942		

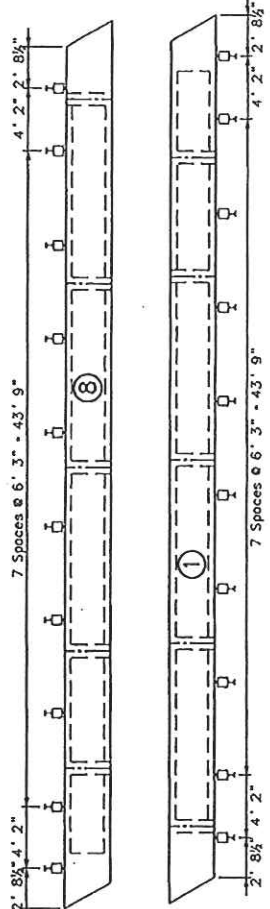


Note: Install Butyl waterproofing membrane per Detail A before placing the HLBC wearing course.

STATE WV	FEDERAL PROJECT NUMBER 3310	FISCAL YEAR 2010	COUNTY FAVETTE	TOTAL SHEET COUNT 22
9	837			12



Locations of Guardrail Inserts

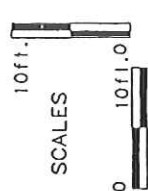
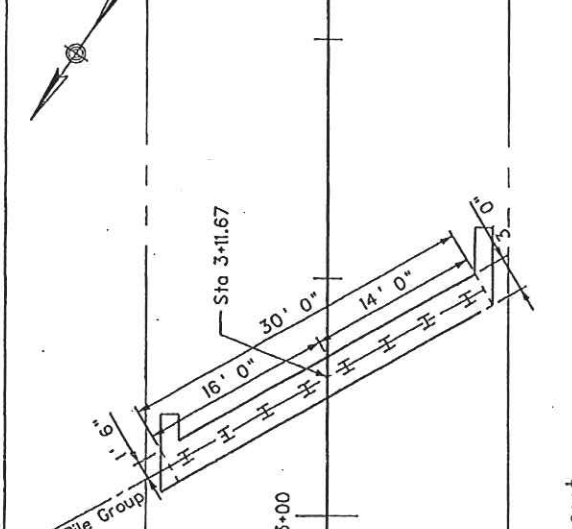


Locations of Post Tensioning Sleeves

Plan View - Concrete Box Beam

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS	
PROJECT PAINT CREEK BRIDGE OVER PAINT CREEK ON COUNTY ROUTE 23	CONTRACT NO. 722008 DATE 12 of 22 BRIDGE NUMBER 10942

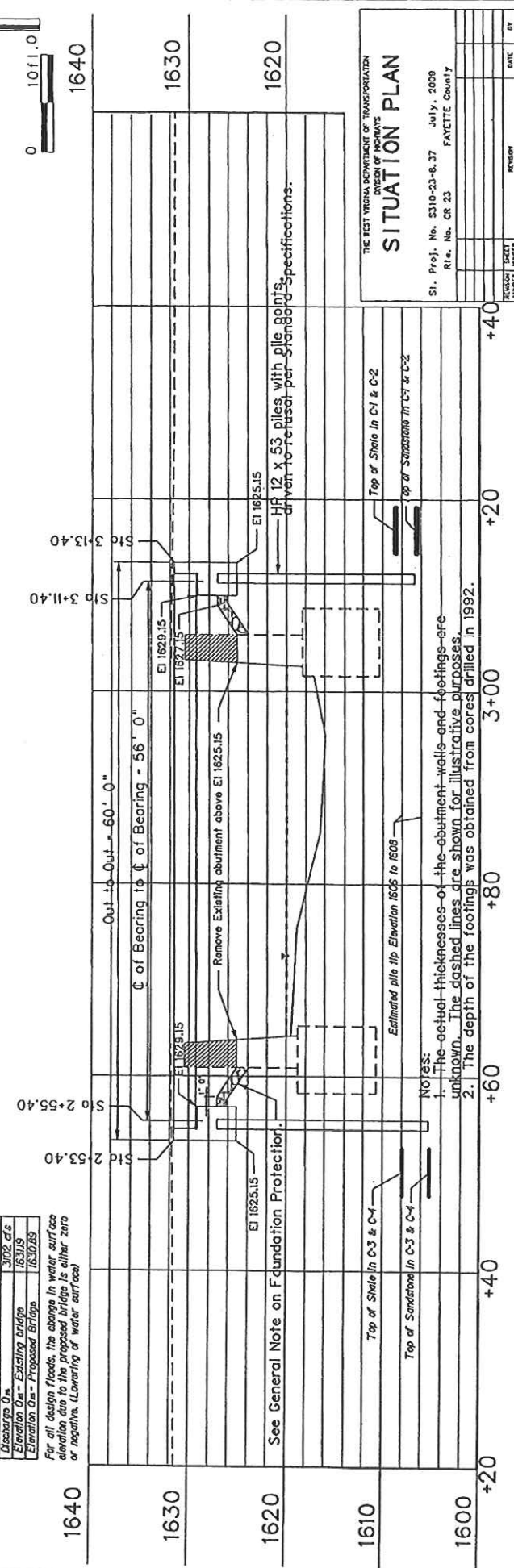
State	Project	Year	County
N.C.	2011	FAYETTE	
Sheet No.	Project No.	Scale	Sheet Count
9	2310	1" = 30' 0"	13
of 13			22



Substructure Layout

HYDRAULIC DATA	
Discharge On	3102 cfs
Elevation On - Existing Bridge	1631.9
Elevation On - Proposed Bridge	1630.25

For all design floods, the change in water surface elevation due to the proposed bridge is either zero or negative. (Lowering of water surface)



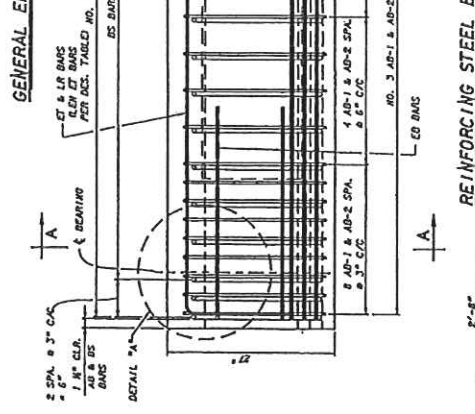
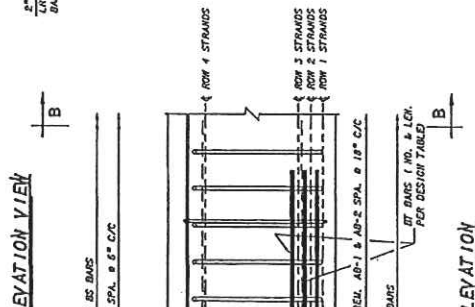
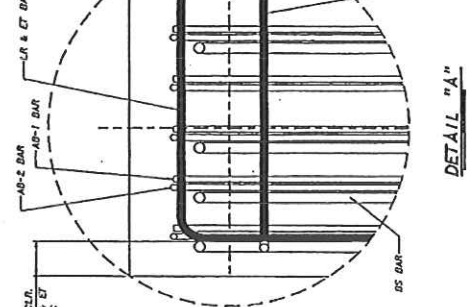
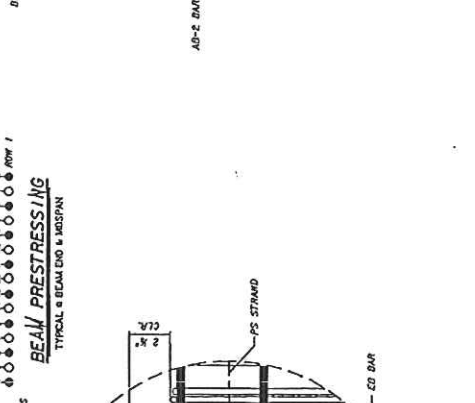
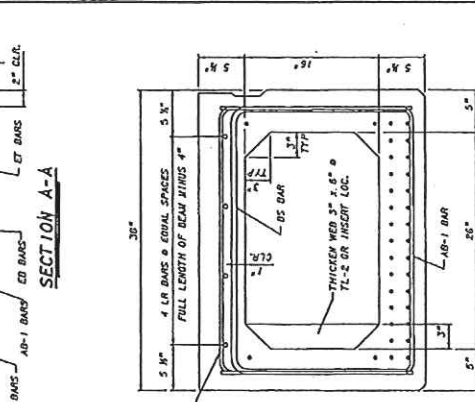
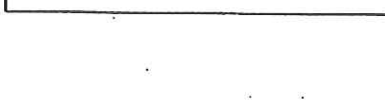
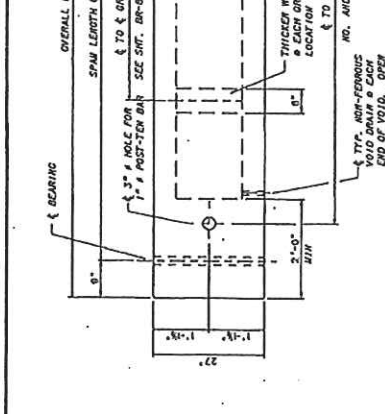
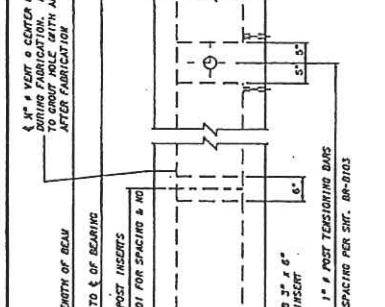
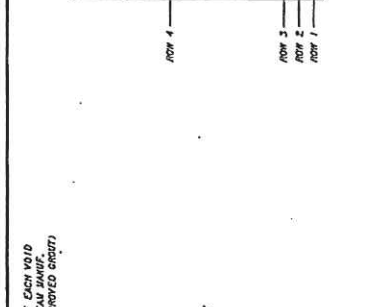
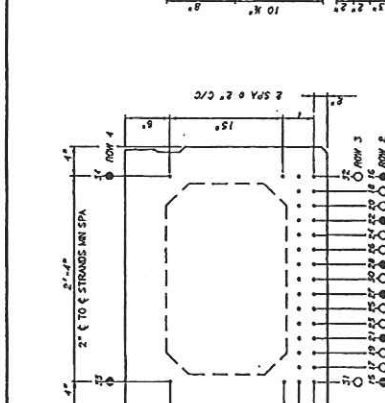
THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SITUATION PLAN

St. Proj. No. 2310-23-8-37 July, 2009
Rt. No. CR 23 FAYETTE County

DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
REVISION	DATE

PROJECT NUMBERS	DISTRICT	COUNTY	SHEET TOTAL
STATE FEDERAL	9	FAYETTE	14 22
5-10 6-27			



NOTES:

1. REFER TO SHEET BR-B102A FOR SHEAR KEY DETAILS.
2. DESIGNER SHALL USE THE FOLLOWING KEY TO INDICATE STRAND AND DEFORMING PATTERN ON "BEAM PRESTRESSING" DRAWING:
 - - ACTIVE STRAND
 - △ - DEFORM STRAND
 - - DEFORM STRAND
3. THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-B100, BR-B101, BR-B102, BR-B103, BR-B104 & BR-B105 AS APPLICABLE.

DESIGNED BY: T.V. ...
CHECKED BY: T.V. ...
REVISED BY: T.V. ...
DATE: ...
SCALE: ...
SHEET OF 10942.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

PAINT CREEK BRIDGE
OVER
PAINT CREEK
ON
COUNTY ROUTE 23

27" PRESTRESSED CONCRETE
BOX BEAMS
DESIGN AND ASSEMBLY DETAILS

STANDARD SHEET BR-B27A

DESIGNED BY: T.V. ...
CHECKED BY: T.V. ...
REVISED BY: T.V. ...
DATE: ...
SCALE: ...
SHEET OF 10942.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

PAINT CREEK BRIDGE
OVER
PAINT CREEK
ON
COUNTY ROUTE 23

27" PRESTRESSED CONCRETE
BOX BEAMS
DESIGN AND ASSEMBLY DETAILS

STANDARD SHEET BR-B27A

DESIGN DATA FOR 27" DEPTH ADJACENT BOX BEAM

PROJECT NO.	370	DATE	9-5-63
PROJECT NAME	FAVETTE	SCALE	1/4" = 1'-0"
DISTRICT	9	COUNTY	FAVETTE
SHEET NO.	15	TOTAL SHEETS	22

MIN. CONCRETE STRENGTH @ RELEASE: 5500 PSI
 MIN. CONCRETE STRENGTH @ 28 DAYS: 8000 PSI
 INITIAL PULL/STRAHD = 33,820 LBS
 CROSS-SECTION AREA/STRAHD = 0.167 SQ. IN.

SPAN LENGTH & TO & BEARING	40'-0"	41'-0"	42'-0"	43'-0"	44'-0"	45'-0"	46'-0"	47'-0"	48'-0"	49'-0"	50'-0"	51'-0"	52'-0"	53'-0"	54'-0"	55'-0"	56'-0"	57'-0"	58'-0"	59'-0"	60'-0"			
OVERALL LENGTH OF BEAM	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10			
NO. OF STR. #1 LHM-RELAXATION STRANDS, MAXIMUM STRENGTH = 0.167 SQ. IN.	1, 2, 11, 12	1, 2, 4, 10, 11	1, 2, 5, 10, 11, 12	1, 2, 4, 10, 11, 12	1, 2, 5, 10, 11, 12	1, 2, 4, 10, 11, 12	1, 2, 5, 10, 11, 12	1, 2, 4, 10, 11, 12	1, 2, 5, 10, 11, 12	1, 2, 4, 10, 11, 12	1, 2, 5, 10, 11, 12	1, 2, 4, 10, 11, 12	1, 2, 5, 10, 11, 12	1, 2, 4, 10, 11, 12	1, 2, 5, 10, 11, 12	1, 2, 4, 10, 11, 12	1, 2, 5, 10, 11, 12	1, 2, 4, 10, 11, 12	1, 2, 5, 10, 11, 12	1, 2, 4, 10, 11, 12	1, 2, 5, 10, 11, 12			
STRAND POSITION NUMBER																								
PRESTRESSING FORCE IMMEDIATELY AFTER STRAND RELEASE, PPT. (KIPS/BEAM) ALL LOSSES, PPT. (KIPS/BEAM)	ROW 1	329	329	329	329	329	329	329	329	329	329	329	329	329	329	329	329	329	329	329	329	329	329	
	ROW 2	301	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302	302
REQUIRED FACTORED MOMENT @ STRONG 1. IN. RT-KIPS/BEAM	563	608	608	608	608	608	608	608	608	608	608	608	608	608	608	608	608	608	608	608	608	608	608	608
FACTORED TENSILE RESISTANCE, PPT. KIPS/BEAM	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706	706
TOTAL NO. DEBONDED STRANDS																								
DEBONDED STRAND POSITION NUMBER & SHIELDING LENGTH FROM EACH END	ROW 1																							
NUMBER & LENGTH #4 ET TOP TENSION BARS @ EACH END	ROW 2	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	3 #4 x 5'-0"	
NUMBER & LENGTH #5 BT BOTTOM TENSION BARS @ EACH END		6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	6 #5 x 7'-0"	
DESIGN CAMBER @ RELEASE		0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	0.13	
@ ENJOINT		0.16	0.15	0.15	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14	
@ FINISH		0.13	0.07	0.07	0.14	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	
NO. OF INSERTS REQD.																								
NUMBER & SPACING OF TL-2 GUARDRAIL EA. END																								
NUMBER & SPACING OF TL-2 GUARDRAIL EA. END																								
SEE NOTE 6																								
WEIGHT OF TYPICAL BEAM INCLUDING DIAPHRAGM (TONS)		12.8	14.4	15.0	15.7	16.3	16.9	17.5	18.1	18.7	19.3	19.9												

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 ENGINEERING DIVISION

PAINT CREEK BRIDGE
 OVER
 PAINT CREEK
 ON
 COUNTY ROUTE 23
 DESIGN TABLE FOR 27" DEPTH PRESTRESSED BOX BEAM

STANDARD SHEET BR-8279

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 ENGINEERING DIVISION

10-22-07
 07-02-07

DESIGNER: J. A. MCNEIL
 CHECKER: J. A. MCNEIL
 DATE: 10-22-07

1. DESIGNER, FABRICATOR, AND ENJOINTOR SHALL BE AWARE THAT SPORED END BEAMS USE TRILET OR WARP. THESE BEAMS SHALL BE RELEASED IN 28 DAYS. THE CONTRACTOR IS REQUIRED TO CORRECT AT THE TIME OF ENJOINTION BECAUSE THE BEAMS ARE SECURED IN PLACE. METHOD OF CORRECTION SHALL PROVIDE AN EVEN TOTAL BEARING AND A LEVEL TOP BEAM SURFACE. TOLERANCE, AFTER CORRECTION, SHALL BE (1/2) IN. THE FABRICATOR SHALL NOTIFY THE CONTRACTOR AND DESIGNER IF CORRECTIONS ARE REQUIRED PRIOR TO SHIPMENT.

2. MAXIMUM BEAM SLOPE SHALL BE 30 DEGREES.

3. DESIGNER INPUT VALUES OF NUMBER OF JOISTS, DISTANCE FROM END OF BEAM TO 1st INSERT, AND 1st INSERT TO 2nd INSERT. ABOVE VALUES SHALL BE BASED ON THE REQUIRED 5'-3" GUARDRAIL POST SPACING ADDRESS TO 2nd INSERT.

4. THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-8274, BR-8100, BR-8101, BR-8102 & 8. BR-8103, BR-8104, BR-8104A & B AND BR-8106 AS APPLICABLE.

5. DESIGNER, FABRICATOR, AND ENJOINTOR SHALL BE AWARE THAT SPORED END BEAMS USE TRILET OR WARP. THESE BEAMS SHALL BE RELEASED IN 28 DAYS. THE CONTRACTOR IS REQUIRED TO CORRECT AT THE TIME OF ENJOINTION BECAUSE THE BEAMS ARE SECURED IN PLACE. METHOD OF CORRECTION SHALL PROVIDE AN EVEN TOTAL BEARING AND A LEVEL TOP BEAM SURFACE. TOLERANCE, AFTER CORRECTION, SHALL BE (1/2) IN. THE FABRICATOR SHALL NOTIFY THE CONTRACTOR AND DESIGNER IF CORRECTIONS ARE REQUIRED PRIOR TO SHIPMENT.

6. MAXIMUM BEAM SLOPE SHALL BE 30 DEGREES.

7. DESIGNER INPUT VALUES OF NUMBER OF JOISTS, DISTANCE FROM END OF BEAM TO 1st INSERT, AND 1st INSERT TO 2nd INSERT. ABOVE VALUES SHALL BE BASED ON THE REQUIRED 5'-3" GUARDRAIL POST SPACING ADDRESS TO 2nd INSERT.

8. THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-8274, BR-8100, BR-8101, BR-8102 & 8. BR-8103, BR-8104, BR-8104A & B AND BR-8106 AS APPLICABLE.

9. DESIGNER, FABRICATOR, AND ENJOINTOR SHALL BE AWARE THAT SPORED END BEAMS USE TRILET OR WARP. THESE BEAMS SHALL BE RELEASED IN 28 DAYS. THE CONTRACTOR IS REQUIRED TO CORRECT AT THE TIME OF ENJOINTION BECAUSE THE BEAMS ARE SECURED IN PLACE. METHOD OF CORRECTION SHALL PROVIDE AN EVEN TOTAL BEARING AND A LEVEL TOP BEAM SURFACE. TOLERANCE, AFTER CORRECTION, SHALL BE (1/2) IN. THE FABRICATOR SHALL NOTIFY THE CONTRACTOR AND DESIGNER IF CORRECTIONS ARE REQUIRED PRIOR TO SHIPMENT.

10. MAXIMUM BEAM SLOPE SHALL BE 30 DEGREES.

11. DESIGNER INPUT VALUES OF NUMBER OF JOISTS, DISTANCE FROM END OF BEAM TO 1st INSERT, AND 1st INSERT TO 2nd INSERT. ABOVE VALUES SHALL BE BASED ON THE REQUIRED 5'-3" GUARDRAIL POST SPACING ADDRESS TO 2nd INSERT.

12. THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-8274, BR-8100, BR-8101, BR-8102 & 8. BR-8103, BR-8104, BR-8104A & B AND BR-8106 AS APPLICABLE.

DATE	BY	NO.	REV.
5-17-03	JLS	9	22

PROJECT NUMBER	SCALE	SHEET	TOTAL SHEETS
3-170	AS SHOWN	9	16
3-171			22

POST-TENSIONING NOTES

- POST - TENSIONING TENDON BARS SHALL BE ONE INCH DIAMETER, 150 KSI STEEL, AND SHALL CONFORM TO AASHTO A420, TYPE 1, STEEL TENDON BARS SHALL BE DESIGNED TO ALLOW THE USE OF HEAVY HEX NUTS AND COUPLERS THAT THREAD ONTO THE END OF THE DEFORMATIONS. HEAVY HEX NUTS AND COUPLERS SHALL BE OF A DESIGN AND MATERIAL RECOMMENDED BY THE BAR MANUFACTURER TO DEVELOP THE FULL TENSILE STRENGTH OF THE BAR. PROPERTY DOCUMENTED CERTIFIED MILL TEST REPORTS SHALL BE PROVIDED FOR EACH END OF STEEL TENDON BAR.
- ALL POST-TENSIONING TENDON BARS, NUTS, BEARING PLATES, COUPLERS, AND METALLARY HARDWARE SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH AASHTO M11, THE GALVANIZING PLANT SHALL ADMINISTER ADEQUATE QUALITY CONTROL MEASURES TO SAVING AND AGAINST HYDRIDE EMULGIFICATION. QUALITY CONTROL MEASURES SHALL COMPLY WITH ASTM A-143. CERTIFICATION FOR HOT-DIP GALVANIZING SHALL BE PROVIDED BY THE GALVANIZING PLANT.
- ALL POST-TENSIONING BEARING PLATES SHALL CONFORM TO AASHTO M20, GRADE 36, STEEL GRADE.
- STEEL KEY GROUT SHALL BE A GROUT THAT IS RECOMMENDED BY THE MANUFACTURER FOR A POURABLE GROUT APPLICATION AND THAT BASED ON THE MANUFACTURER'S TEST DATA WILL ATTAIN A MINIMUM OF 4800 PSI COMPRESSIVE STRENGTH IN 3 DAYS UNDER CONDITIONS REPRESENTATIVE OF THE CONDITIONS TO BE EXPERIENCED AT THE SITE. THE GROUT MUST BE LISTED ON THE APPROVED LIST OF GROUTS PUBLISHED BY THE WEST VIRGINIA DIVISION OF HIGHWAYS. MATERIALS CONTROL, SOIL AND TESTING DIVISION, THE CONTRACTOR SHALL PRE-TEST THE PROPOSED GROUT FOR COMPRESSIVE STRENGTH AT 3 AND 7 DAYS AND SUBMIT THE RESULTS TO THE BRIDGE PROJECT MANAGER FOR APPROVAL PRIOR TO INSTALLATION OF THE GROUT IN THE STRUCTURE. THE TESTS WILL BE BASED ON A POURABLE CONSISTENCY WITH THE SAME WATER/GROUT MIXTURE RATIO TO BE USED IN THE STRUCTURE.
- THE CONTRACTOR SHALL BE REQUIRED TO SUBMIT FOR EACH PROJECT, THE GROUT PRE-TEST RESULTS OBTAINED IN THE NOTE ABOVE. THE CONTRACTOR SHALL BE REQUIRED TO PERFORM A NEW PRE-TEST AND SUBMISSION FOR APPROVAL UNDER ANY OF THE FOLLOWING CONDITIONS:
 - A PERIOD OF 18 MONTHS HAS ELAPSED SINCE LAST PRE-APPROVAL TESTING.
 - GROUT MANUFACTURER HAS REVISED OR CHANGED THE GROUT SPECIFICATIONS.
 - THE CONTRACTOR ALTERS THE WATER/GROUT MIXTURE RATIO.
 - THE CONTRACTOR IS REQUIRED TO COMPLETE THE GROUT STRENGTH TABLE ON BR-800.
- TEST PROCEDURE FOR DETERMINING THE COMPRESSIVE STRENGTH OF GROUT SHALL USE CUBE SPECIMENS IN ACCORDANCE WITH ASTM C109, AS MODIFIED BY ASTM C1107. GROUT TESTING IN ACCORDANCE WITH AASHTO T25 (STANDARD CYLINDER TEST) IS NOT ACCEPTABLE.
- CONTRACTIVE SURFACE TREATMENTS
- EACH PRESTRESSED CONCRETE BEAM SHALL BE TREATED BY THE MANUFACTURER AT THE FABRICATION PLANT WITH AN APPROVED CONCRETE SEALER. AN APPROVED LIST OF CONCRETE SEALERS ARE ON FILE AT THE WEST VIRGINIA DIVISION OF HIGHWAYS. MATERIALS CONTROL, SOIL AND TESTING DIVISION, COVERAGE SHALL INCLUDE TOP AND BOTTOM OF INTERIOR BEAMS, AND TOP, BOTTOM AND EXTERIOR SIDE OF EXTERIOR BEAM. APPLICATION RATE SHALL BE PER TREATMENT MANUFACTURER'S RECOMMENDATION.
- AFTER COMPLETION OF THE SILANE TREATMENT, BY FABRICATOR AND A MAXIMUM OF FIVE WORKING DAYS PRIOR TO SHIPMENT OF THE BEAMS, THE FABRICATOR SHALL BE RESPONSIBLE FOR ADHESIVE BLAST CLEANING TO CLEAN WHITE CONCRETE THE INTERIOR SIDES OF BEAMS FOR THE FULL LENGTH. CLEAN WHITE CONCRETE SHALL MEAN REMOVAL OF ALL DIRT, GREASE, OIL, AND LOOSE CONCRETE LAITANCE AND PROVIDE A ROUGHENED CONCRETE SURFACE. BLASTING MEDIUM SHALL BE APPROVED BY THE DIVISION OF HIGHWAYS.

WATERLAYS & FABRICATION NOTES

- ALL WILD REINFORCING STEEL SHALL BE GRADE 60, DEFORMED RIBBED STEEL AND SHALL BE EPOXY COATED EXCEPT WHERE NOTED. ALL UNCOATED REINFORCING SHALL MEET THE REQUIREMENTS OF AASHTO M31, ALL EPOXY COATED REINFORCING SHALL MEET THE REQUIREMENTS OF AASHTO M984, EXCEPT WHERE INDICATED BY SECTION 700.1 OF THE STANDARD SPECIFICATIONS.
- ALL TENDON LAP SPACINGS SHALL BE A CLASS B, CONTACT TYPE. MINIMUM LAP SPACING SHALL BE AS GIVEN IN THE "LAP SPACING TABLE", THIS SHEET, ADDITIONALLY, IF LAP SPACING OF 4", 6", 8" AND 10" IS USED, TERMINATION OF THE SPLICE SHALL BE NO CLOSER TO THE END OF THE BEAM THAN 1/10 OF THE SPAN LENGTH.
- MINIMUM BAR BENDING DIAMETER SHALL BE 6 BAR DIAMETERS, EXCEPT THAT NO. 4 BAR BARS MAY HAVE A MINIMUM BEND DIAMETER OF 4 BAR DIAMETERS.
- MINIMUM CONCRETE COVER SHALL BE AS SPECIFIED IN SECTION 604.6 OF THE STANDARD SPECIFICATIONS, EXCEPT WHERE NOTED ON THE PLANS.
- ALL PRESTRESSING STRANDS
- ALL PRESTRESSING STEEL SHALL BE #4, GRADE 270, 7 WIRE UNCOATED, LOW-RELAXATION STRAND MEETING THE REQUIREMENTS OF AASHTO M303, SUPPLEMENT S1.
- ALL BEAMS DESIGNED IN THESE STANDARDS UTILIZE STRANDS WITH A NOMINAL AREA OF 0.147 SQ. IN. STRANDS WITH A NOMINAL AREA OF 0.153 SQ. IN. IS PERMITTED FOR INDIVIDUAL OR ALTERNATE DESIGNS, HOWEVER THE DESIGNER IS ENCOURAGED TO USE THE LARGER STRAND FOR UNIFORMITY REASONS. IN NO CASES WILL STRESS-RELIEVED STRAND BE PERMITTED.
- ALL STRANDS SHALL BE ENCLOSED INSIDE THE STAMP CASE FOR THE FULL LENGTH OF THE BEAM.
- ALL EXPOSED PRESTRESSING STRAND AT EACH BEAM END SHALL BE EPOXY COATED WITH A LIQUID COLD-APPLIED BITUMINOUS ELASTOMERIC WATERPROOFING MEMBRANE. MATERIAL SHALL MEET ASTM C936-84.
- ALL CONCRETE USED IN MANUFACTURING PRESTRESSED CONCRETE BEAMS SHALL MEET THE REQUIREMENTS OF SECTION 604.6 OF THE STANDARD SPECIFICATIONS. DESIGN STRENGTHS SHALL MEET OR EXCEED THE MINIMUM VALUES SET FORTH IN THESE PLANS.
- ALL CONCRETE USED IN PARAPETS AND CURBS SHALL BE CLASS F CONCRETE. ELASTOMERIC COUPLING ENDS
- ALL BEARING PADS SHALL MEET THE APPLICABLE REQUIREMENTS AS SET FORTH IN SECTION 16.2 OF THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, 1998 EDITION WITH CURRENT INTERIMS. ALL BEARINGS SHALL BE STEEL REINFORCED LAMINATED BEARINGS.
- THE ELASTOMERIC MATERIAL SHALL BE 60 DIAMETERS WITH A MINIMUM LOW TEMPERATURE GRADE OF 3 (DUNE C).
- ALL STEEL REINFORCING SHALL MEET THE REQUIREMENTS OF AASHTO M20, GRADE 36.

COVERING SPECIFICATIONS

- THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, ADOPTED 2003, HAS BEEN ADOPTED BY THE CURRENT SUPPLEMENTAL SPECIFICATIONS. THE CONTRACT PLANS AND CONTACT SUPPLEMENTAL SPECIFICATIONS ARE THE GOVERNING PROVISIONS APPLICABLE TO THIS PROJECT.
- ALL BEAMS ARE DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, DATED 1989 AS AMENDED BY THE 2003 INTERIM SPECIFICATIONS.
- ALL STANDARD ADJACENT PRESTRESSED CONCRETE BRIDGE BEAMS ARE DESIGNED TO MEET THE FOLLOWING CRITERIA:
 1. DESIGN LOADS,
 - DC+SK+LL+LD
 - HL-93 LIVE LOAD IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
 - FUTURE WEARING SURFACE OF 20 PSF OF ROADWAY.
 - TYPE F PARAPET WEIGHING 321 PLF.
 - DIMENSIONAL DEAD LOAD, BURST REQUIRED BASED ON 15'-0" MAX. SPACING.
 2. TWO LANE BRIDGE WITH AN OVERALL WIDTH OF 24'-5" UNCL. W/ GAP AND ZERO SIDE BEAMS. A CURB-TO-CURB WIDTH OF 24'-1", TRANSVERSE POST-TENSIONING.
 3. DESIGN STRENGTH AND UNIT STRESSES.
 - MINIMUM CONCRETE STRENGTH @ STRAND RELEASE --- 5000 PSI
 - MINIMUM CONCRETE STRENGTH @ 28 DAYS --- 4000 PSI
 - TENSILE STRESS LIMITS IN CONCRETE BEFORE LOSSES, --- 3600 PSI
 - TENSION STRESS LIMIT @ STRAND RELEASE --- 500 PSI
 - COMBINED STRESS LIMITS IN CONCRETE @ SERVICE 1 AFTER LOSSES,
 - FINAL 2, 0PS-0L-4LL --- 4800 PSI
 - FINAL 3, 0PS-0L-4LL --- 3600 PSI
 - FINAL 4, 0PS-0L-4LL --- 3200 PSI
 - TENSILE STRESS LIMIT IN CONCRETE @ SERVICE 111 AFTER LOSSES, --- 290 PSI
 - TENSION STRESS LIMIT PRIOR TO TRANSFER --- 205.5 KSI
 - TENSION STRESS LIMIT AFTER ALL LOSSES --- 194.4 KSI
 4. DEFORMING OR SHELTING OF STRANDS TO REDUCE TEMPORARY TENSILE STRESSES IS NOT PERMITTED. HOWEVER DEFORMING IS LIMITED TO 40% PER ROW AND 62% TOTAL. IN NO INSTANCES SHALL UPPER STRANDS BE DEFORMED. DEFORMED STRANDS SHALL BE SEPARATED BY AT LEAST ONE FULLY BONDED STRAND AND SHALL BE STRUCTURAL ABOUT THE 1/2 OF THE BEAM.
 5. THE ELASTOMERIC BEARING PADS PROVIDED IN THE STANDARD DESIGNS ARE BASED ON ZERO GRADE AND ARE LIMITED TO A MAXIMUM OF 5% GRADE. IN INSTANCES OF GRADES EXCEEDING THIS LIMIT, PADS SHALL BE SPECIFICALLY DESIGNED. INDIVIDUAL PAD DESIGNS SHALL BE IN ACCORDANCE WITH SECTION 14, AASHTO LRFD. BEVELED SOLE PLATES ARE PERMITTED.
 6. MAXIMUM BEAM SKEN SHALL BE 30 DEGREES.
 7. WHEN ALTERNATE DESIGNS OR SITE SPECIFIC DESIGNS ARE PROVIDED, CRITERIA SET FORTH IN THESE STANDARDS SHALL APPLY.
 8. NEGATIVE DESIGN CAUBER AFTER ALL LOSSES IS NOT PERMITTED.
- EACH BEAM PROVIDED IN THESE STANDARDS DESIGNS HAS BEEN LOAD RATED IN ACCORDANCE WITH SECTION 3.15 OF THE WEST VIRGINIA DIVISION OF HIGHWAYS BRIDGE DESIGN MANUAL, 2004. ADDITIONALLY, LOAD RATING PROCEDURES ARE IN ACCORDANCE WITH THE AASHTO MANUAL FOR CONDITION EVALUATION AND LOAD AND RESISTANCE FACTOR RATING OF HIGHWAY BRIDGES, 2000.

LAP SPACING TABLE			
BAR SIZE	NO. 3	NO. 4	NO. 5
SPLICE LEN	24"	20"	34"

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS ENGINEERING DIVISION			
PAINT CREEK BRIDGE OVER COUNTY ROUTE 23 PRESTRESSED CONCRETE BEAM			
DESIGN & ASSEMBLY NOTES			

DESIGNED BY/CHKD	10-25-07
DRAWN BY/CHKD	07-08-07
CHECKED BY/CHKD	
SCALE	
DATE	

ITEM	DESCRIPTION	COATING SPEC.
POST	W6x25	AASHTO M111
TUBING	1/2" X 7"	AASHTO M111
ANCHOR	TS 84142/16	AASHTO M111
ANCHOR	TS 84142/16	AASHTO M111
WIRE	TYPE SA 18" X 28" WITH LEN.	AASHTO M303
ANCHOR	1/4" X 4" X 28"	AASHTO M303
STUDS	1/4" X 4" X 6" LONG	AASHTO M303
NUTS	1/4"	AASHTO M303
COUPLERS	TYPE 1A 1/4" X 4" X 5" LONG	AASHTO M303
BOLTS	1/4" X 4" X 1 1/2" LONG	AASHTO M303
BOLTS	1/4" X 4" ALL LEN.	AASHTO M303
NUTS	AASHTO M303	AASHTO M303
WELDS	ALL	AASHTO M303

THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-B7A & B THRU BR-B7E & B, BR-B101, BR-B102 & B, BR-B103, BR-B104, BR-B105A & B AND BR-B106 AS APPLICABLE. ALL WELDING OF FABRICATED ITEMS, AS SHOWN IN THESE PLANS SHALL BE IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF AASHTO/M95 D1.5, 2002.

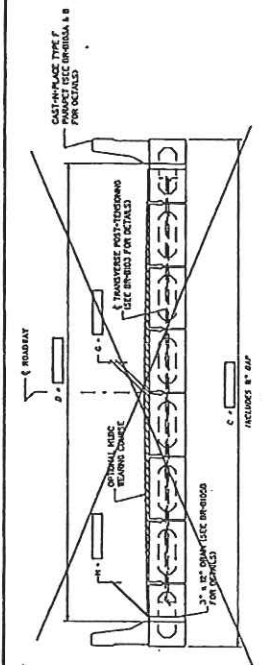
STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	HAZ. DIST. NO.	COUNTY	SHEET NUMBER	TOTAL SHEETS
VA-10-02-07	9	9	FRETTE	17	22

DESCRIPTION	CODE	VALUE
CONTROL DIMENSIONS		
OVERALL BEAM LENGTH	A	97' 6"
SPAN LENGTH, ξ BEAMS TO ξ CURB	B	84' 6"
SUPPLEMENTARY WIDTH - OUT TO OUT	C	24' 0"
ROADWAY WIDTH - FACE OF PARAPET TO FACE OF PARAPET	D	24' 0"
NUMBER OF BEAMS REQUIRED		6
BEAM SIZE (WIDTH x DEPTH)		36" x 48"
ACEY ANGLE (NORMAL, DEC. WFS OR REG. LFS)	E	30° WFS
PERPENDICULAR DISTANCE FROM FACE OF BEAM TO ξ BEARING	F	78"
MISC BEARING COURSE REQUIRED (YES/NO)		YES
THICKNESS OF BEARING COURSE x ξ OF GIRD OR ROADWAY	G	3"
THICKNESS OF BEARING COURSE x ξ OF GIRD OR PARAPET	H	1"
T/C BEFORE OVERHAUL SYSTEM		YES
FABRICATOR TO SUPPLY T/C BEFORE OVERHAUL (YES/NO)		YES
CONCRETE BEARING COURSE TO BE SUPPLIED BY FABRICATOR (YES/NO)		YES
NUMBER OF GUARDRAIL POSTS REQUIRED PER SEC		10
TYPE OF PARAPET REQUIRED (YES/NO)		NO
NUMBER OF DAMS REQUIRED FOR SEC		N/A
10' CURB REQUIRED (YES/NO)		NO

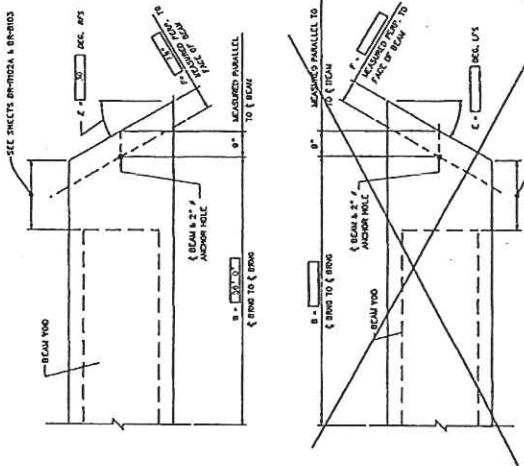
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

PAINT CREEK BRIDGE
OVER
PAINT CREEK
ON
COUNTY ROUTE 23
PRESTRESSED CONCRETE BEAM
DESIGN & ASSEMBLY NOTES

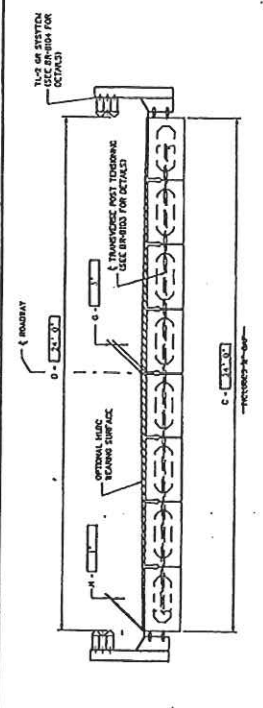
10942



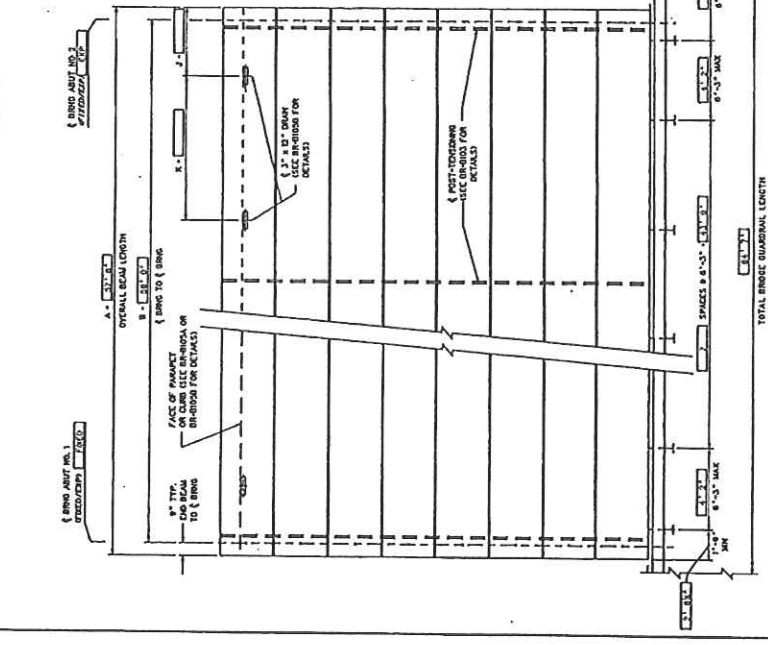
TYPICAL CROSS-SECTION WITH PARAPET OR CURB



BEAM PLAN VIEW - SKEWED ENDS



TYPICAL CROSS-SECTION WITH GUARDRAIL



DECK PLAN VIEW

ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	UNITS	QUANTITY
60301	PRESTRESSED CONCRETE BOX BEAM	LF	440

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

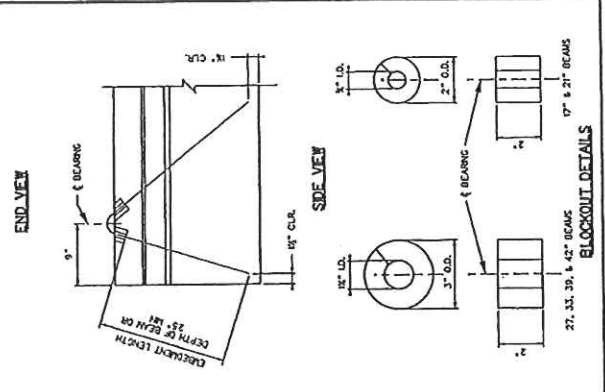
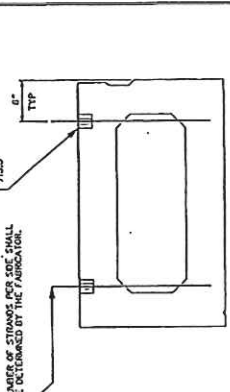
10-02-07

DESIGN AND ASSEMBLY NOTES
STANDARD SHEET BR-8101

1. BEAM BRIDGE GUARDRAIL IS TO BE SUPPLIED BY THE BEAM FABRICATOR. ALL OTHER GUARDRAIL AND BEARING COURSE ELEMENTS, ATTACHMENT HARDWARE, AND MISCELLANEOUS ITEMS REQUIRED TO COMPLETE INSTALL BEAM GUARDRAIL SHALL BE INCLUDED IN THE BIDDING PRICE.
2. THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-8101, BR-8102, BR-8103, BR-8104, BR-8105, BR-8106, BR-8107, BR-8108, BR-8109, BR-8110, BR-8111, BR-8112, BR-8113, BR-8114, BR-8115, BR-8116, BR-8117, BR-8118, BR-8119, BR-8120, BR-8121, BR-8122, BR-8123, BR-8124, BR-8125, BR-8126, BR-8127, BR-8128, BR-8129, BR-8130, BR-8131, BR-8132, BR-8133, BR-8134, BR-8135, BR-8136, BR-8137, BR-8138, BR-8139, BR-8140, BR-8141, BR-8142, BR-8143, BR-8144, BR-8145, BR-8146, BR-8147, BR-8148, BR-8149, BR-8150, BR-8151, BR-8152, BR-8153, BR-8154, BR-8155, BR-8156, BR-8157, BR-8158, BR-8159, BR-8160, BR-8161, BR-8162, BR-8163, BR-8164, BR-8165, BR-8166, BR-8167, BR-8168, BR-8169, BR-8170, BR-8171, BR-8172, BR-8173, BR-8174, BR-8175, BR-8176, BR-8177, BR-8178, BR-8179, BR-8180, BR-8181, BR-8182, BR-8183, BR-8184, BR-8185, BR-8186, BR-8187, BR-8188, BR-8189, BR-8190, BR-8191, BR-8192, BR-8193, BR-8194, BR-8195, BR-8196, BR-8197, BR-8198, BR-8199, BR-8200.

STATE PROJECT NUMBER	FEDERAL PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
17	17	9	22

17-4 STAINS AFTER LAROS BEARING AFTER ERECTION, CUT STAINS FULL DEPTH OF BEAM JOINTS COVER ON A MINIMUM OF 20 HOLES. NUMBER OF STAINS FOR SIDE SHALL BE DETERMINED BY THE FABRICATOR.



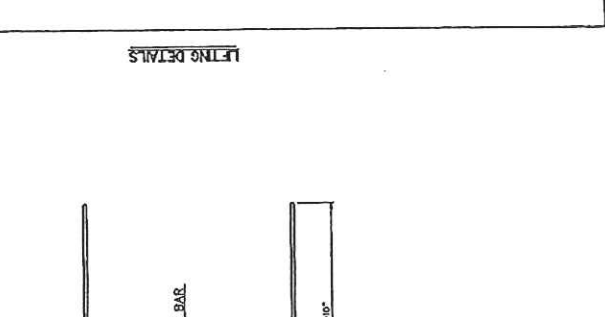
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

PAINT CREEK BRIDGE
OVER
PAINT CREEK
ON
COUNTY ROUTE 23
PRESTRESSED CONCRETE BEAM
SKEWED END REINFORCING
MISC. DESIGN AND ASSEMBLY DETAILS

DESIGNED BY: THO
DRAWN BY: TMV
CHECKED BY: TMV
APPROVED BY: TW
SCALE:
SHEET OF
DIVISION NO.
10942

DATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
10-25-07	17	9	22

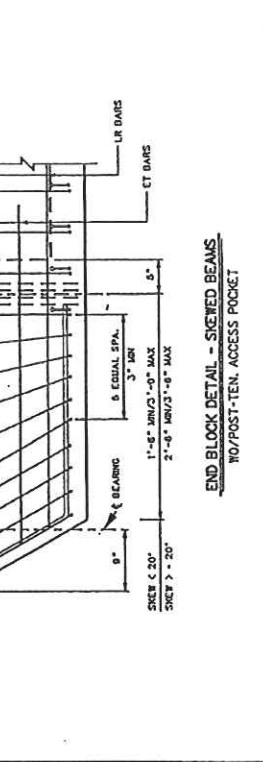
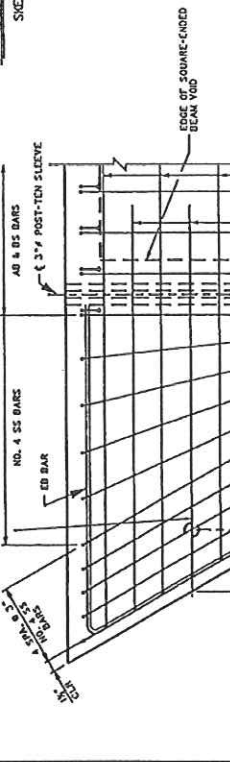
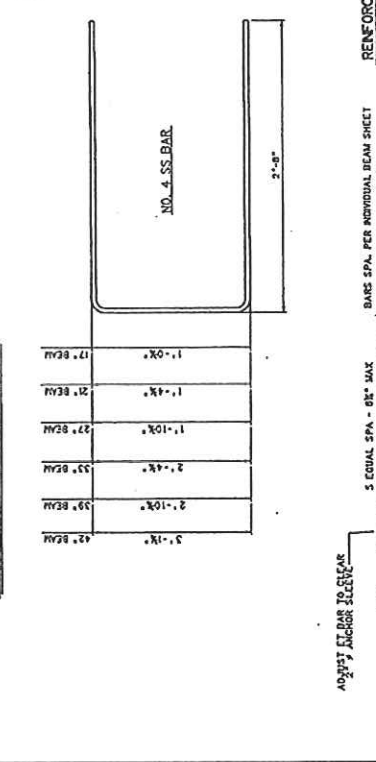
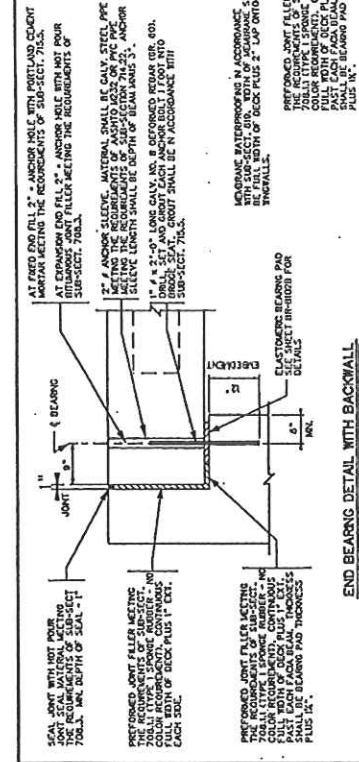
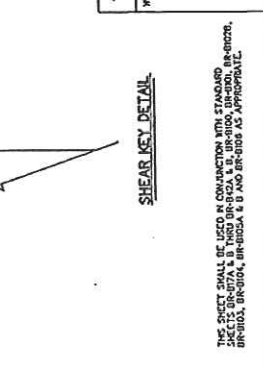
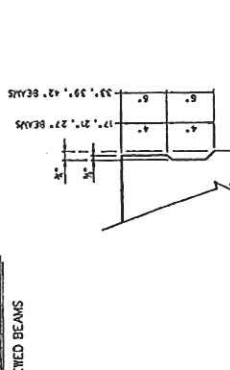
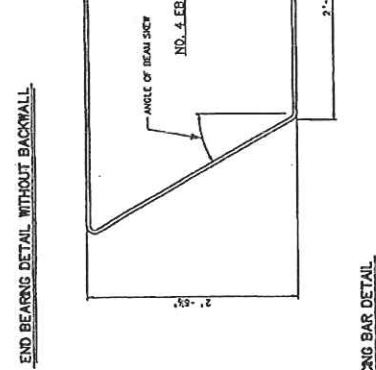
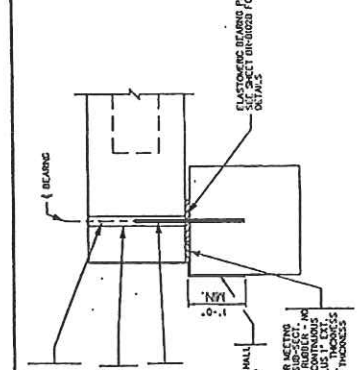
17-4 STAINS AFTER LAROS BEARING AFTER ERECTION, CUT STAINS FULL DEPTH OF BEAM JOINTS COVER ON A MINIMUM OF 20 HOLES. NUMBER OF STAINS FOR SIDE SHALL BE DETERMINED BY THE FABRICATOR.



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

PAINT CREEK BRIDGE
OVER
PAINT CREEK
ON
COUNTY ROUTE 23
PRESTRESSED CONCRETE BEAM
SKEWED END REINFORCING
MISC. DESIGN AND ASSEMBLY DETAILS

DESIGNED BY: THO
DRAWN BY: TMV
CHECKED BY: TMV
APPROVED BY: TW
SCALE:
SHEET OF
DIVISION NO.
10942

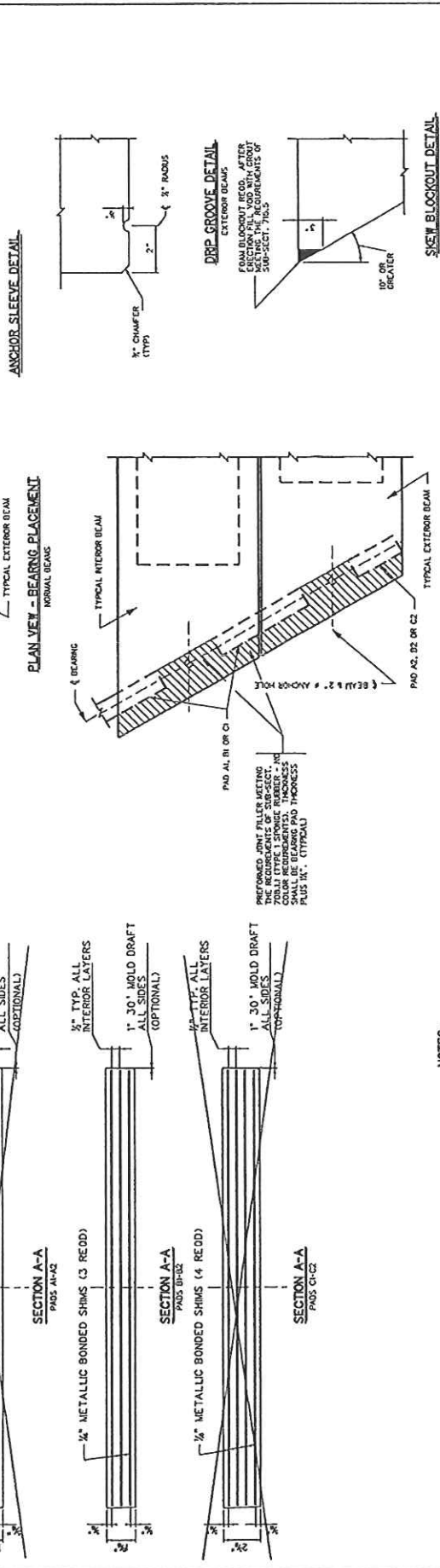
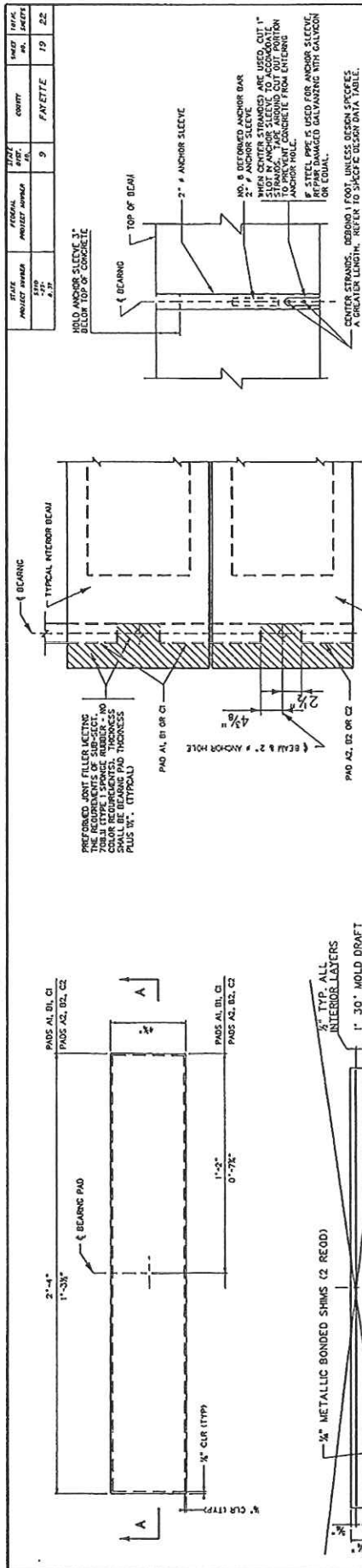


THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-0101A & BR-0102A. BEAM AND BRIDGE DIMENSIONS SHALL BE AS SHOWN UNLESS OTHERWISE SPECIFIED.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

PAINT CREEK BRIDGE
OVER
PAINT CREEK
ON
COUNTY ROUTE 23
PRESTRESSED CONCRETE BEAM
SKEWED END REINFORCING
MISC. DESIGN AND ASSEMBLY DETAILS

DESIGNED BY: THO
DRAWN BY: TMV
CHECKED BY: TMV
APPROVED BY: TW
SCALE:
SHEET OF
DIVISION NO.
10942



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

PAINT CREEK BRIDGE
OVER
PAIN CREEK
ON
COUNTY ROUTE 23

DESIGNED BY: THP
DRAWN BY: THP
CHECKED BY: THP
REVIEWED BY: THP
DATE:
SCALE:
SHEET OF
BRIDGE NO. 10942

APPROVED: *[Signature]* DATE: 10-25-07
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

PRESTRESSED CONCRETE BEAM
ELASTOMERIC BEARING PAD DETAILS
MISC. DESIGN AND ASSEMBLY DETAILS

STANDARD SHEET BR-8102B

PLAN VIEW - BEARING PLACEMENT
TYPICAL INTERIOR BEAM
TYPICAL EXTERIOR BEAM

PREPARED JOINT FILLER LACING SHALL BE USED FOR ALL JOINTS. THE JOINT FILLER SHALL BE 70 MIL TYPE 1 SPRING RUBBER WITH COLOR REQUIREMENTS AND THICKNESS PLUS 1/8" (TYPICAL).

PAD A1, B1, C1 OR C2
PAD A2, D2, OR C2

1'-2 1/2" (TYP.)
0'-7 1/2" (TYP.)

2'-4" (TYP.)
1'-3 1/2" (TYP.)

1/2" CLR (TYP.)

1/2" METALLIC BONDED SHIMS (2 REOD)

SECTION A-A
PADS B1-B2

1/2" METALLIC BONDED SHIMS (3 REOD)

SECTION A-A
PADS B1-B2

1/2" METALLIC BONDED SHIMS (4 REOD)

SECTION A-A
PADS C1-C2

3/8" TYP. ALL INTERIOR LAYERS ALL SIDES (OPTIONAL)

3/8" TYP. ALL INTERIOR LAYERS ALL SIDES (OPTIONAL)

1" 30° MOLD DRAFT ALL SIDES (OPTIONAL)

1" 30° MOLD DRAFT ALL SIDES (OPTIONAL)

NOTES:

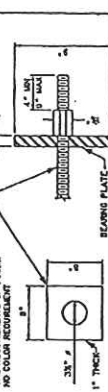
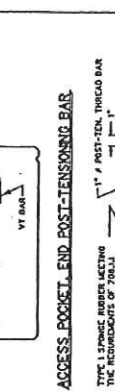
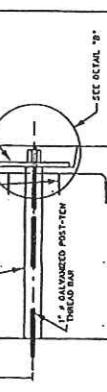
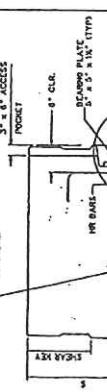
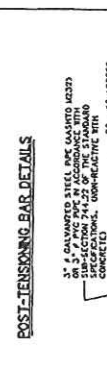
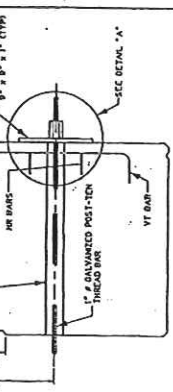
- ELASTOMERIC BEARING PADS ARE ORDERED IN ACCORDANCE WITH DESIGN METHOD B CONTAINED IN SECTION 18 OF THE MARIETTA LEAD BRIDGE DESIGN SPECIFICATIONS. FABRICATION SHALL BE IN ACCORDANCE WITH SECTION 18 OF THE MARIETTA LEAD BRIDGE CONSTRUCTION SPECIFICATIONS.
- ALL BEARINGS ARE DESIGNED FOR A LOW TEMPERATURE ZONE C AND SHALL HAVE A DUMP-TYPE RESILIENCE OF 60. METALLIC REINFORCEMENT SHALL HAVE A MINIMUM YIELD STRENGTH OF 50 KSI. BEARING PADS ARE DESIGNED FOR ZERO MOISTURE GAIN. FOR BRIDGE SPANCS, DUMP-TYPE REVEALED SAE PLATES MAY BE USED.
- DESIGNER, FABRICATOR AND ERECTOR SHALL BE AWARE THAT SKEWED END BEAMS MAY TEND TO WARP, CAUSING UNEVEN BEAM SEATING AT THE BEARINGS. THE CONTRACTOR IS REQUESTED TO CHECK THE BEARING SEATING AFTER CONSTRUCTION. TOTAL BEARING AND A LEVEL TOP BEAM SURFACE CORRECTION SHALL BE 1/8" INCH. THE FABRICATOR SHALL NOTIFY THE CONTRACTOR AND DESIGNER IF CORRECTIONS ARE REQUIRED PRIOR TO APPROVAL.
- FOR BEAMS WITH STEPPED ENDS USE PADS A2, D2, OR C2 ON BOTH SIDES OF EACH BEAM.
- ELASTOMERIC BEARING PADS SHALL BE INCLUDED IN THE PRICE OF THE BEAMS.
- THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-810A & B THRU BR-810A & B, BR-810C, BR-810D, BR-810E, BR-810F, BR-810G, BR-810H, BR-810I, BR-810J, BR-810K & G AND BR-100 AS APPROPRIATE.

PAD	LENGTH	WIDTH	HEIGHT	MIN. SHIMS	SHIM SIZE	SPAN RANGES	MAXIMUM REACTION	MAXIMUM SPAN
B1	48"	28"	8 1/2"	3	3/8" x 1 1/2"	40' - 76'	75,000	100'
B2	48"	16 1/2"	8 1/2"	3	3/8" x 1 1/2"	40' - 76'	38,000	100'
C1	48"	16 1/2"	8 1/2"	3	3/8" x 1 1/2"	40' - 76'	38,000	100'

DATE	PROJECT NUMBER	SHEET NUMBER	CONTRACT NUMBER	TOTAL SHEETS
4/29	423	9	FAVETTE	20

REF TO STANDARD SHEET BR-1024 FOR REINFORCING DETAILS.

3" GALVANIZED STEEL PIPES (AS SHOWN IN SECTION) SHALL BE USED IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED:



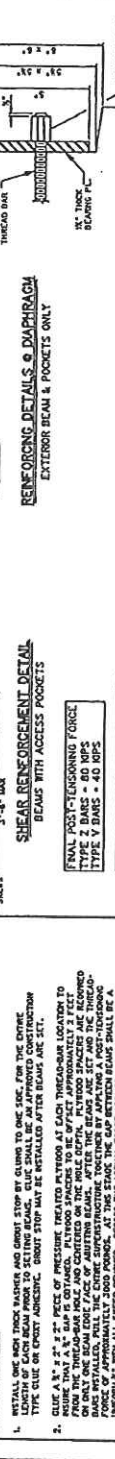
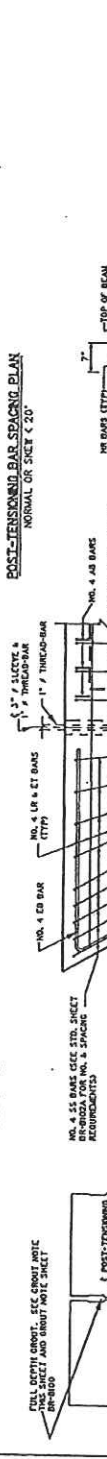
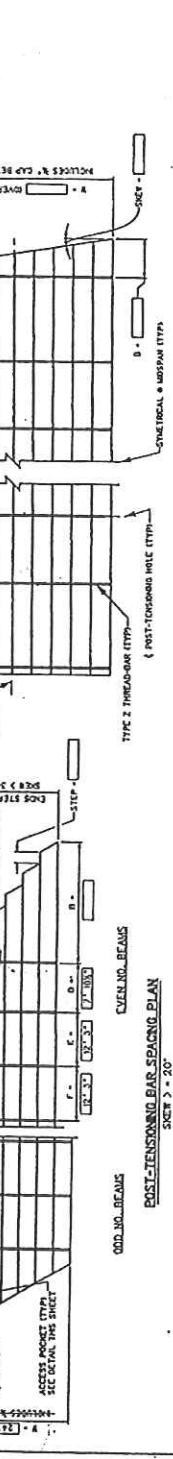
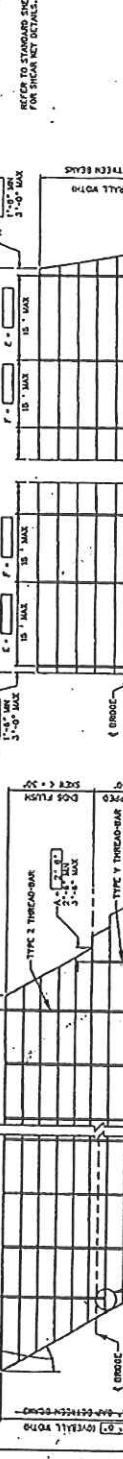
DO NOT STAY IN USE WITH THE POST-TENSIONING BAR DURING TENSIONING.

PREPARED BY THE ENGINEER AND CHECKED BY THE ARCHITECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE REINFORCING BARS AND THE POST-TENSIONING BARS DURING TENSIONING.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEER JAMES H. WILSON

PAINT CREEK BRIDGE
OVER
PAINT CREEK
ON
COUNTY ROUTE 23
PRESTRESSED CONCRETE BEAM
TRANSVERSE POST-TENSIONING DETAILS

STANDARD SHEET BR-1024



DIMENSIONS

BEAM	REINFORCING BAR	TYPE	SPACING	DIST	TH	TR	TR	TR	TR	TR
1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10	10

POST-TENSIONING BAR LAYOUT SCHEDULE

SPAN	STEP	W	A	D	C	E	F	STEP

GROUT STRENGTH TABLE

SPACING	STRENGTH
3 DAY	7 DAY

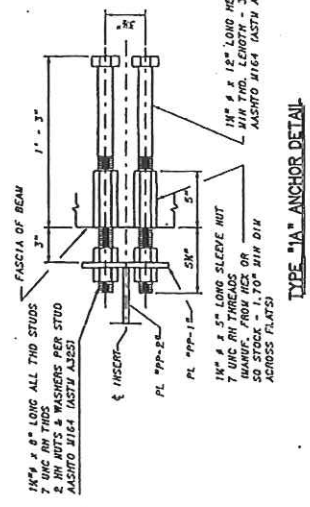
ELONGATION (INCHES)

BAR	0%	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

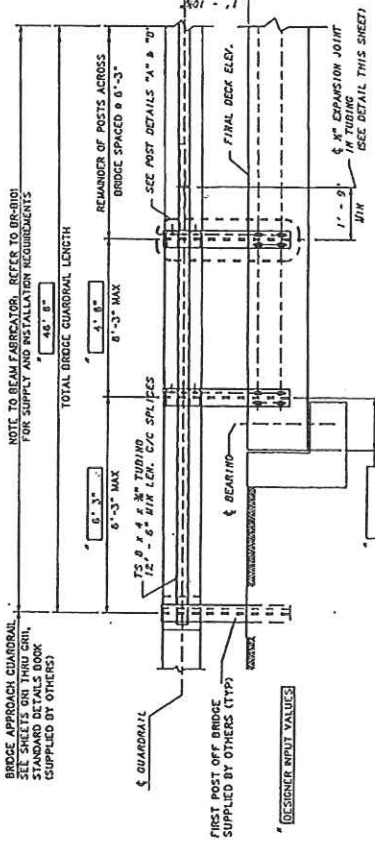
PROCEDURE NOTES

- INSTALL ONE NON-TENSIONING BAR AND ONE STOP BAR AT EACH END OF THE SPAN. THE OVERALL LENGTH OF EACH BEAM FROM SETTING BEAMS TO SETTING BEAMS SHALL BE APPROXIMATELY 20'.
- ELABORATE THE STOP BARS WITH PRESSURE TREATED PLYWOOD AT EACH THROUGH-BEAR LOCATION TO PREVENT THE BEAMS FROM MOVING. THE STOP BARS SHALL BE APPROXIMATELY 3" HIGH ON ONE SIDE OF THE BEAM AND APPROXIMATELY 3" HIGH ON THE OTHER SIDE. THE STOP BARS SHALL BE APPROXIMATELY 3" HIGH ON ONE SIDE OF THE BEAM AND APPROXIMATELY 3" HIGH ON THE OTHER SIDE. THE STOP BARS SHALL BE APPROXIMATELY 3" HIGH ON ONE SIDE OF THE BEAM AND APPROXIMATELY 3" HIGH ON THE OTHER SIDE.
- INSTALL THE GROUT BETWEEN BEAMS AND SHEAR KEY WITH THE PRE-APPROVED, PRECASTERED CONCRETE. THE GROUT SHALL BE PLACED IN THE JOINTS BETWEEN BEAMS AND SHEAR KEYS. THE GROUT SHALL BE PLACED IN THE JOINTS BETWEEN BEAMS AND SHEAR KEYS. THE GROUT SHALL BE PLACED IN THE JOINTS BETWEEN BEAMS AND SHEAR KEYS.
- OTHER NOTES AS BEEN PLACED AND REVISIONS TO THE CONTRACT DOCUMENTS SHALL BE MADE AT THE CONTRACTOR'S RISK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE REINFORCING BARS AND THE POST-TENSIONING BARS DURING TENSIONING.

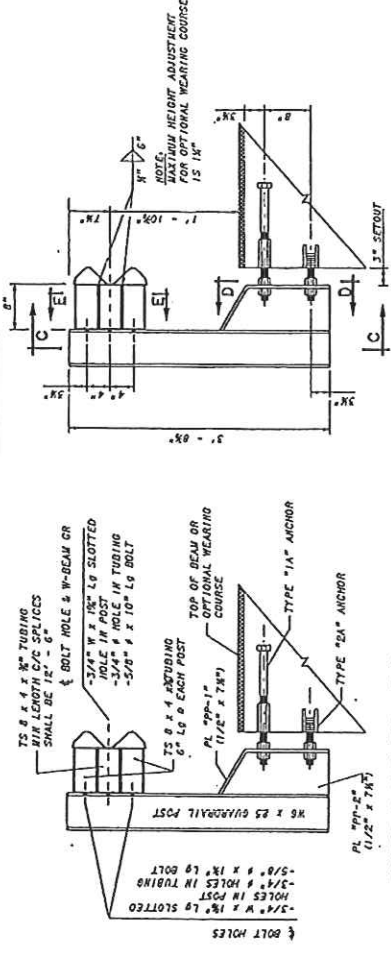
STATE	FEDERAL	STATE	SWIFT
VA	PROJECT NUMBER	NO.	NO.
110	9	9	22
110	FAVETTE		



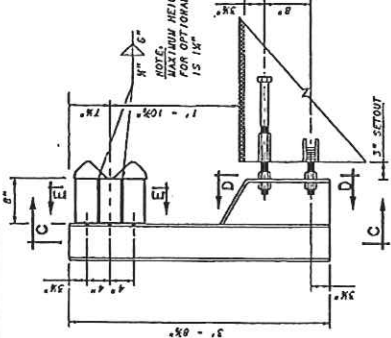
TYPE "1A" ANCHOR DETAIL



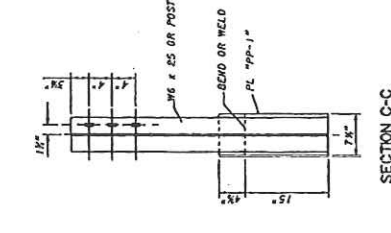
GUARDRAIL ELEVATION



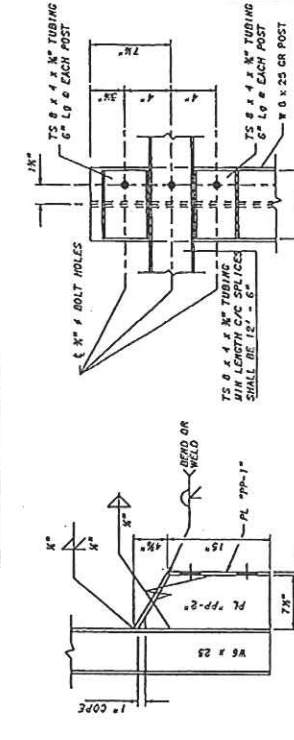
GUARDRAIL POST DETAIL "A"



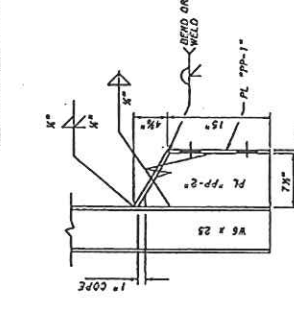
GUARDRAIL POST DETAIL "B"



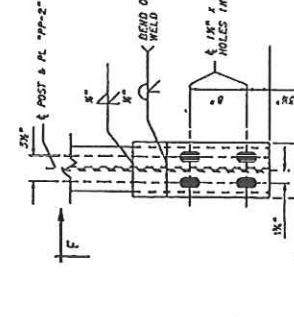
SECTION C-C



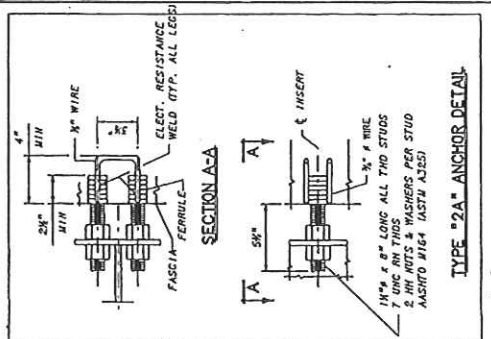
SECTION E-E



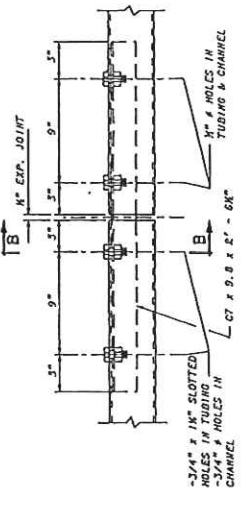
SECTION F-F



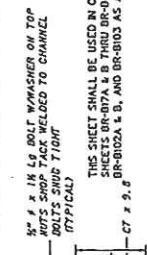
SECTION D-D



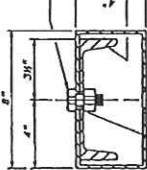
TYPE "2A" ANCHOR DETAIL



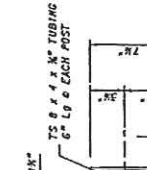
TUBING SPLICE/EXPANSION JOINT DETAIL



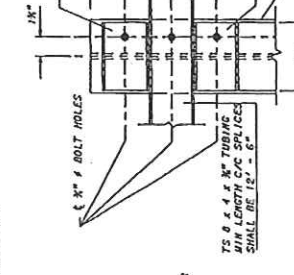
SECTION B-B



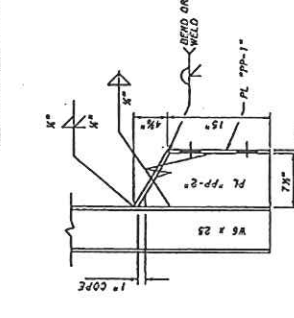
SECTION B-C



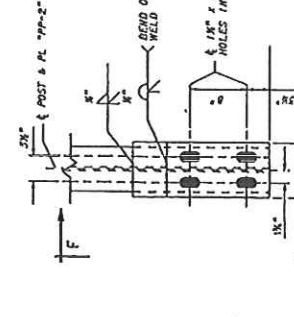
SECTION C-C



SECTION E-E



SECTION F-F



SECTION D-D

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS ENGINEER IN CHARGE	
DESIGNED BY	PAINT CREEK BRIDGE
CHECKED BY	OVER
APPROVED BY	PAINT CREEK
DATE	COUNTY ROUTE 23
SCALE	PRESSTRESSED CONCRETE BEAM
SHEET NO.	TYPE TL-2 GUARDRAIL SYSTEM
TOTAL SHEETS	DESIGN & ASSEMBLY DETAILS
	10942

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS ENGINEER IN CHARGE	
DESIGNED BY	PAINT CREEK BRIDGE
CHECKED BY	OVER
APPROVED BY	PAINT CREEK
DATE	COUNTY ROUTE 23
SCALE	PRESSTRESSED CONCRETE BEAM
SHEET NO.	TYPE TL-2 GUARDRAIL SYSTEM
TOTAL SHEETS	DESIGN & ASSEMBLY DETAILS
	10942

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS ENGINEER IN CHARGE	
DESIGNED BY	PAINT CREEK BRIDGE
CHECKED BY	OVER
APPROVED BY	PAINT CREEK
DATE	COUNTY ROUTE 23
SCALE	PRESSTRESSED CONCRETE BEAM
SHEET NO.	TYPE TL-2 GUARDRAIL SYSTEM
TOTAL SHEETS	DESIGN & ASSEMBLY DETAILS
	10942

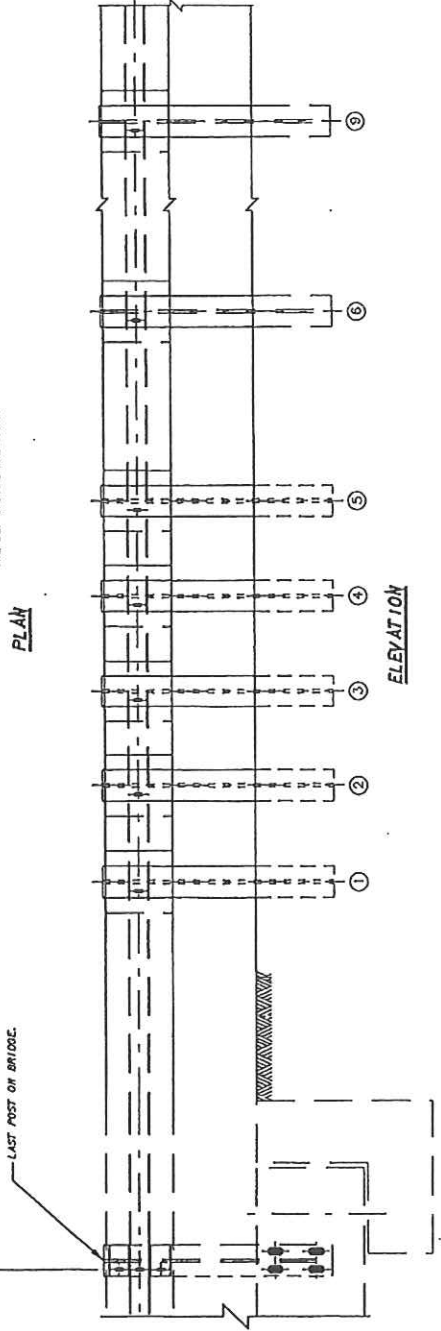
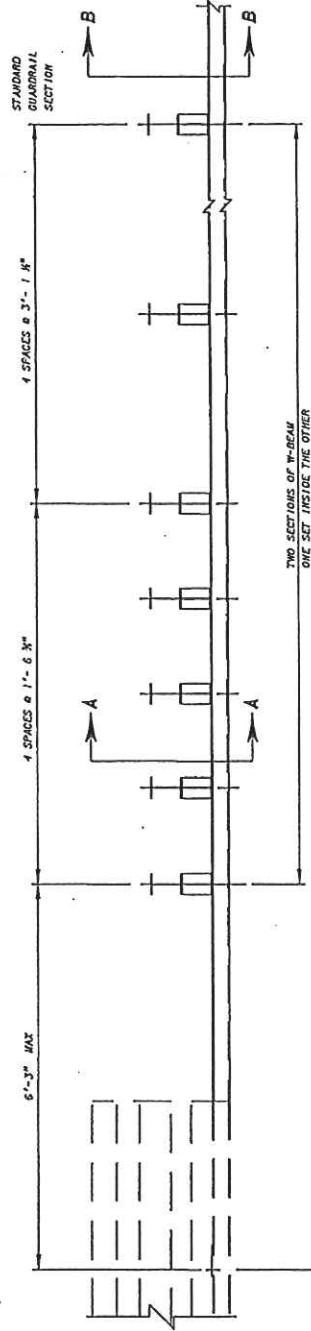
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS ENGINEER IN CHARGE	
DESIGNED BY	PAINT CREEK BRIDGE
CHECKED BY	OVER
APPROVED BY	PAINT CREEK
DATE	COUNTY ROUTE 23
SCALE	PRESSTRESSED CONCRETE BEAM
SHEET NO.	TYPE TL-2 GUARDRAIL SYSTEM
TOTAL SHEETS	DESIGN & ASSEMBLY DETAILS
	10942

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS ENGINEER IN CHARGE	
DESIGNED BY	PAINT CREEK BRIDGE
CHECKED BY	OVER
APPROVED BY	PAINT CREEK
DATE	COUNTY ROUTE 23
SCALE	PRESSTRESSED CONCRETE BEAM
SHEET NO.	TYPE TL-2 GUARDRAIL SYSTEM
TOTAL SHEETS	DESIGN & ASSEMBLY DETAILS
	10942

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS ENGINEER IN CHARGE	
DESIGNED BY	PAINT CREEK BRIDGE
CHECKED BY	OVER
APPROVED BY	PAINT CREEK
DATE	COUNTY ROUTE 23
SCALE	PRESSTRESSED CONCRETE BEAM
SHEET NO.	TYPE TL-2 GUARDRAIL SYSTEM
TOTAL SHEETS	DESIGN & ASSEMBLY DETAILS
	10942

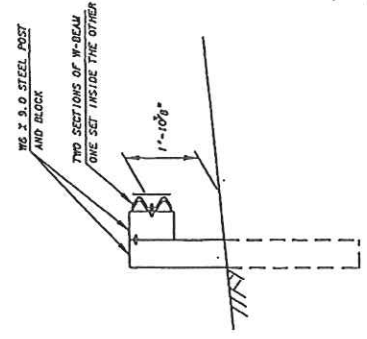
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS ENGINEER IN CHARGE	
DESIGNED BY	PAINT CREEK BRIDGE
CHECKED BY	OVER
APPROVED BY	PAINT CREEK
DATE	COUNTY ROUTE 23
SCALE	PRESSTRESSED CONCRETE BEAM
SHEET NO.	TYPE TL-2 GUARDRAIL SYSTEM
TOTAL SHEETS	DESIGN & ASSEMBLY DETAILS
	10942

PROJECT NUMBERS		DISTRICT	COUNTY	SHEET NO.	TOTAL
STATE	FEDERAL	9	FAYETTE	22	22
20	20				
8.37	8.37				

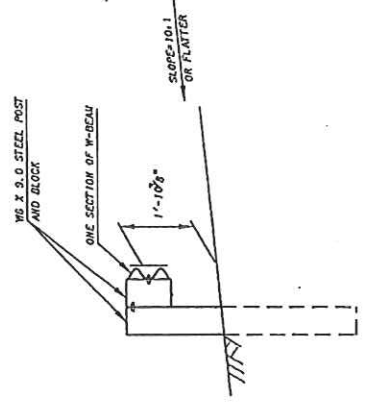


NOTES

1. THIS GUARDRAIL TRANSITION IS APPROPRIATE FOR CONNECTION TO GUARDRAIL ON BRIDGE.
2. W-BEAM IS NOT BOLTED TO POSTS AT POSTS 2 THROUGH 4 AND POST 6.
3. SEE STANDARD SHEET BR-B104 FOR ANCHOR DETAILS.
4. THERE IS NO SEPARATE PAY ITEM FOR THIS CONNECTION AND ALL COMPONENTS AS DETAILLED HEREIN SHALL BE INCLUDED IN THE CONTRACT PRICE FOR GUARDRAIL.



SECTION A-A



SECTION B-B

THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-B104 & B THRU BR-B106 & BR-B100, BR-B101, BR-B102 & D, BR-B103 AND BR-B104 AS APPLICABLE.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS ENGINEERING DIVISION		DESIGNED BY: TW
PAINT CREEK BRIDGE OVER PAINT CREEK ON COUNTY ROUTE 23		DRAWN BY: DW
TYPE TL-2 GUARDRAIL TRANSITION		CHECKED BY: TW
		REVISED BY: TW
		DATE:
		SCALE:
		SHEET OF
		BRIDGE NO.
		10942

APPROVED:	DATE:
<i>[Signature]</i>	10-25-07
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS ENGINEERING DIVISION	
APPROVED CONTRACT NO. 07-02-07	
TYPE TL-2 GUARDRAIL SYSTEM ANCHOR & ASSOCIATE DETAILS	
STANDARD SHEET BR-B106	

VENDOR PREFERENCE CERTIFICATE

Certification and application* is hereby made for Preference in accordance with *West Virginia Code*, §5A-3-37. (Does not apply to construction contracts). *West Virginia Code*, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the *West Virginia Code*. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1. Application is made for 2.5% resident vendor preference for the reason checked:

_____ Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or,**

_____ Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or,**

_____ Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; **or,**

2. Application is made for 2.5% resident vendor preference for the reason checked:

_____ Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or,**

3. Application is made for 2.5% resident vendor preference for the reason checked:

_____ Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or,**

4. Application is made for 5% resident vendor preference for the reason checked:

Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; **or,**

5. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:

_____ Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; **or,**

6. Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:

_____ Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (*West Virginia Code*, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: Carr Concrete Corp Signed: Robert "Burr" Stanley

Date: 3-9-12 Title: Project Manager

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: Carr Concrete Corp

Authorized Signature: Robert "Burr" Stanley Date: 3/9/12

State of WV

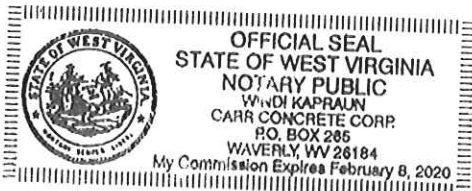
County of Wood, to-wit:

Taken, subscribed, and sworn to before me this 9 day of March, 2012.

My Commission expires 2-8, 2020.

AFFIX SEAL HERE

NOTARY PUBLIC Windi Kaplan



Please use this document for technical questions, posing in a question format

Please refer to the section your question is in reference to.

Technical questions for RFQ# _____

Vendor Name: _____

Questions:
