



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
06900286

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
MICHAEL AUSTIN 304-558-2402

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO

DIVISION OF HIGHWAYS
 JOBSITE
 SEE SPECIFICATIONS

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
05/10/2009				

BID OPENING DATE: **05/27/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LS		210-16		
1956 SF OF 42" DEEP PRESTRESSED CONCRETE BEAMS TO PROVIDE DEEP PRESTRESSED CONCRETE BEAMS WITH ACCESSORIES FOR STATE PROJECT S348-7-10.47, SUGAR CREEK BRIDGE PER THE ATTACHED SPECIFICATIONS. CLARIFICATION OF ATTACHED PLANS: BRIDGE GUARDRAIL IS TO BE SPACED 6'-3" NOT 3'-1 1/2" PLEASE CALL 24 HOURS BEFORE ANY DELIVERY @ 304-843-3656 EXHIBIT 10 REQUISITION NO.: 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: NO. 1 NO. 2 NO. 3 NO. 4						

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'

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. All quotations are governed by the *West Virginia Code* and the *Legislative Rules* of the Purchasing Division.
4. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
5. 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.
6. Payment may only be made after the delivery and acceptance of goods or services.
7. Interest may be paid for late payment in accordance with the *West Virginia Code*.
8. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
9. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
10. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
11. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern all rights and duties under the Contract, including without limitation the validity of this Purchase Order/Contract.
12. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
13. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, this Contract may be deemed null and void, and terminated without further order.
14. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, and available online at the Purchasing Division's web site (<http://www.state.wv.us/admin/purchase/vrc/hipaa.htm>) 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.
15. **WEST VIRGINIA ALCOHOL & DRUG-FREE WORKPLACE ACT:** If this Contract constitutes a public improvement construction contract as set forth in Article 1D, Chapter 21 of the West Virginia Code ("The West Virginia Alcohol and Drug-Free Workplace Act"), then the following language shall hereby become part of this Contract: "The contractor and its subcontractors shall implement and maintain a written drug-free workplace policy in compliance with the West Virginia Alcohol and Drug-Free Workplace Act, as set forth in Article 1D, Chapter 21 of the West Virginia Code. The contractor and its subcontractors shall provide a sworn statement in writing, under the penalties of perjury, that they maintain a valid drug-free work place policy in compliance with the West Virginia and Drug-Free Workplace Act. It is understood and agreed that this Contract shall be cancelled by the awarding authority if the Contractor: 1) Fails to implement its drug-free workplace policy; 2) Fails to provide information regarding implementation of the contractor's drug-free workplace policy at the request of the public authority; or 3) Provides to the public authority false information regarding the contractor's drug-free workplace policy."

INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division.
2. **SPECIFICATIONS:** 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. Complete all sections of the quotation form.
4. Unit prices shall prevail in case of discrepancy.
5. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
6. **BID SUBMISSION:** 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



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
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DIVISION OF HIGHWAYS
 JOBSITE
 SEE SPECIFICATIONS

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DATE PRINTED 05/10/2009	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
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BID OPENING DATE: **05/27/2009** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UCP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
	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>..... SIGNATURE</p> <p>..... COMPANY</p> <p>..... DATE</p> <p>REV. 11/96</p> <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>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
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 Department of Administration
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SHIP TO

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05/10/2009				

BID OPENING DATE: 05/27/2009 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED: SEALED BID BUYER: 33 RFQ. NO.: 06900286 BID OPENING DATE: ----- BID OPENING TIME: ----- PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID: ----- CONTACT PERSON (PLEASE PRINT CLEARLY): ----- ***** THIS IS THE END OF RFQ 06900286 ***** TOTAL: _____						

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1. DESCRIPTION

The beams shall be 42" deep X 36" wide X 81'-6" long.

Two (2) exterior beams and six (6) interior beams are required.

In addition to the beams the fabricator shall also supply in accordance with the attached plans all associated items included but not limited to the following.

Guardrail Posts and Hardware attached to the exterior beams; Bearing Pads; Anchor Dowels; Post Tensioning Bars with Nuts and Bearing Plates and 2 extra nuts; Sponge Rubber Joint Filler, Washers, and Grout Stop.

2. ACCEPTANCE

Cracks developing in a beam may be cause for rejection of the beam. Cracks that are not detrimental to the structural integrity of the beam, as determined by the Division of Highways, may be accepted under the following conditions:

- 1) Cracks of 0.004 inch or less shall be treated with a second coat of a Division of Highways approved concrete sealer.
 - 2) Cracks of greater than 0.004 inch shall be treated by a Division of Highways approved epoxy injection methods.
- All concrete sealer and epoxy injection required for acceptance shall be performed at no additional cost to the Division of Highways.

3. DELIVERY

ALL BEAMS AND ACCESSORIES SHALL BE DELIVERED TO THE PROJECT SITE DURING THE WEEK OF JULY 20, 2009.

Upon receipt of a Purchase Order the Vendor shall submit shop drawings to the District Bridge Engineer within fifteen (15) calendar days. Shop drawings must be approved by the Division of Highways prior to the manufacture of any beam sections.

Should the Vendor fail to meet the above delivery schedule, liquidated damages will be assessed in accordance with Section 108.7 of the current Division of Highways Standard Specifications Roads and Bridges.

Sites for delivery of beam sections and accessories under this contract shall be accessible to equipment that is normally and customarily used for transportation of beam sections. Delivery will not be required where gross vehicle loaded weights will exceed the legal road or bridge load. Upon receipt of an approved Purchase Order, the Vendor must notify the District Bridge Engineer within ten (10) calendar days if delivery under the terms of this contract cannot be performed due to weight restrictions or roadway geometrics.

Prior to delivery, all Beams, Accessories and Optional Items shall be tested and accepted in accordance with Section 603 of the Division of Highways Standard Specifications Roads and Bridges adopted 1993, as modified by the July 1, 1998 Supplemental Specifications.

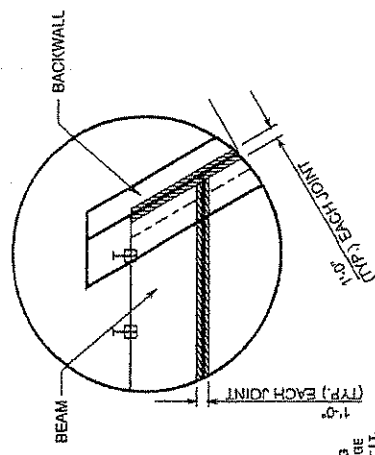
4. PARTIAL PAYMENT OF APPROVED BEAMS

Upon completion of manufacture and approval by the Division of Highways of all beams specified on Purchase Order, 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. Partial payment for the beams shall be subject to the following conditions:

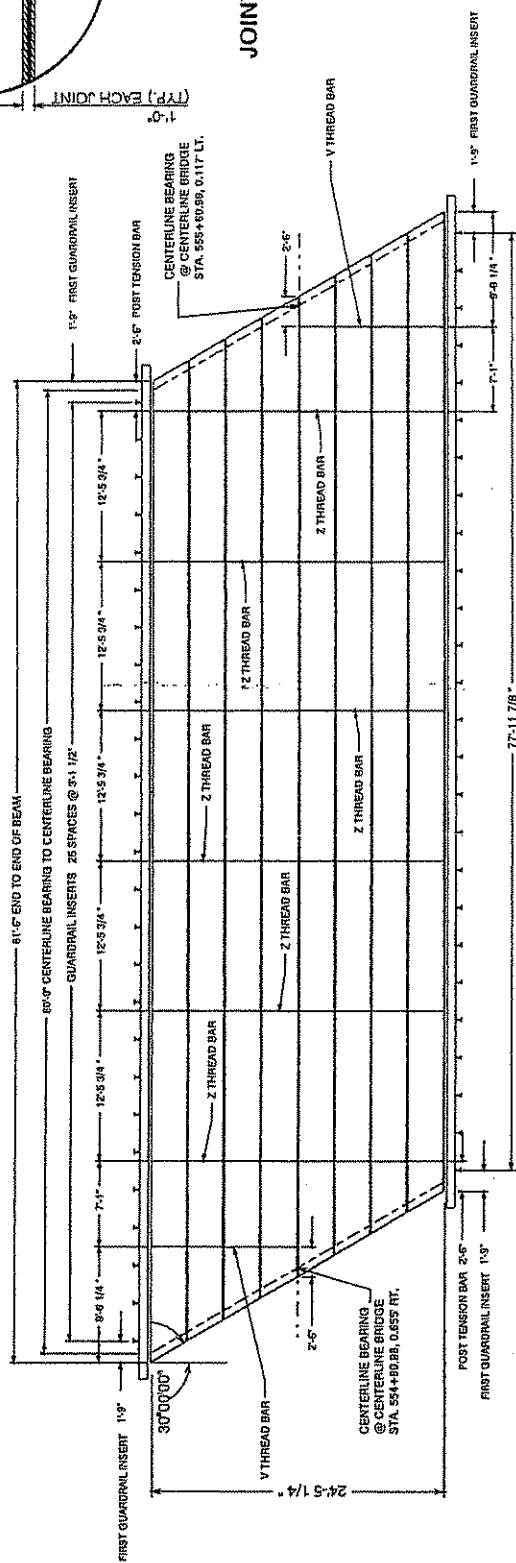
- a. The vendor must request partial payment and furnish an official invoice for the manufactured and approved beams.
- b. The partial payment invoice shall be accompanied by a surety bond equal to the invoiced amount guaranteeing delivery of all items specified on the Purchase Order.
- c. The vendor shall furnish a statement of approved beams condition and exact storage location.
- d. The vendor shall furnish a legal right-of-entry onto the storage site to Division of Highways' employees and/or agents for the purpose of inspecting, sampling, testing and removing any or all Beams.
- e. The vendor shall certify that the stored beams are suitably marked and identified as property of the Division of Highways and will not be for any purpose not designated by the Division.

NO.	DATE	BY	CHKD.	APP.	REVISION
1					
2					
3					
4					
5					
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7					
8					
9					
10					

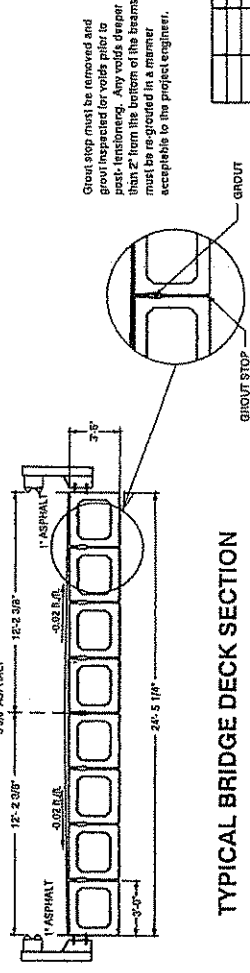
Butyl Waterproofing Membrane
12" Wide Centered Along Full
Length of Beam & Backwall



JOINT WATERPROOFING DETAIL



DECK PLAN



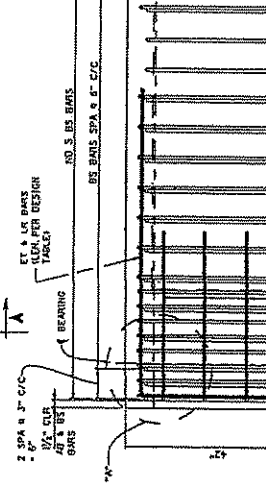
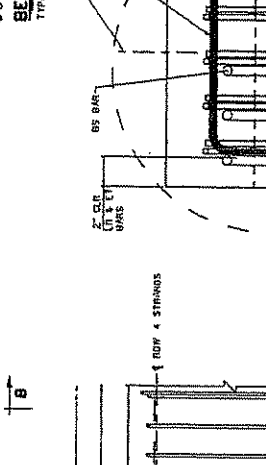
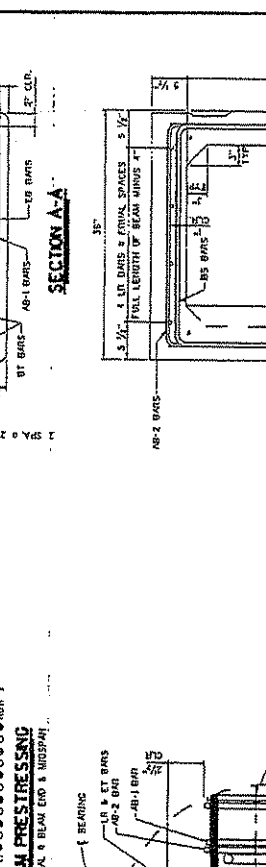
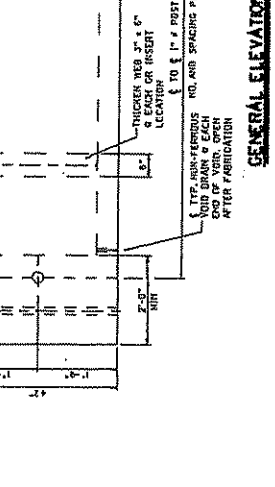
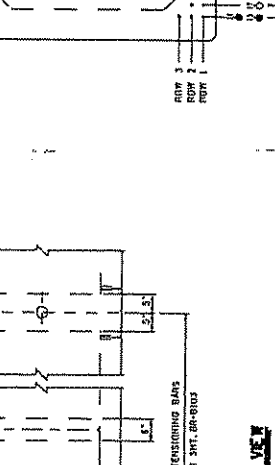
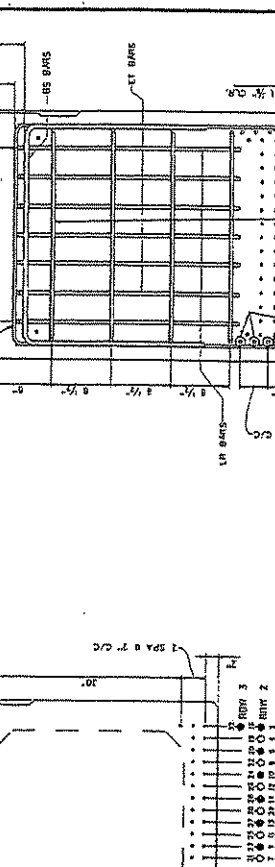
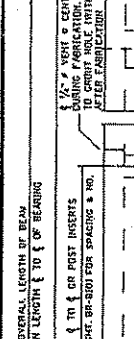
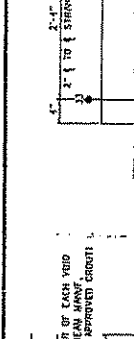
TYPICAL BRIDGE DECK SECTION

Grout stop must be removed and
grove inspected for voids prior to
post-tensioning. Any voids deeper
than 2\"/>

SUGAR CREEK BRIDGE			TYLER COUNTY		
C.R. 17			BEAM LAYOUT		
NO.	DATE	BY	NO.	DATE	BY

PROJECT NUMBER	8340-7-10-47	TECHNICAL	1/A	6	TYLER	12	27
STATE	VA	COUNTY	TYLER				
SHEET TOTAL							

1. LP BARS & EQUAL SPACES
2. FULL LENGTH OF BEAM MINUS 4"
3. 1/2" C/C



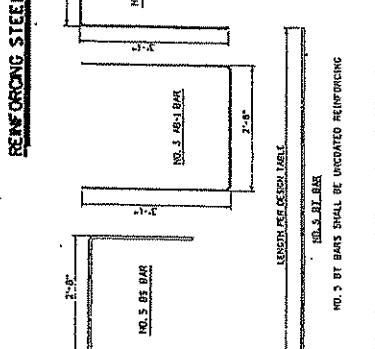
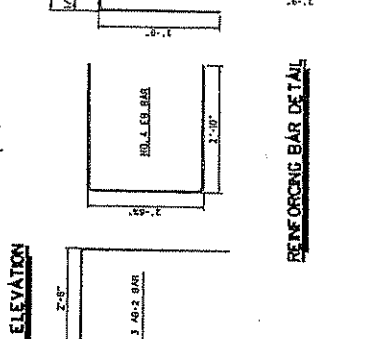
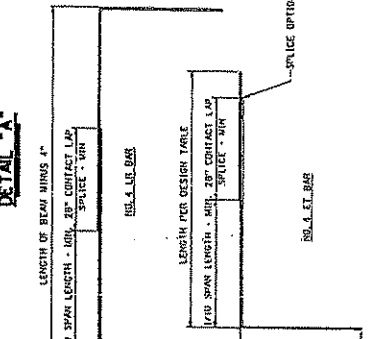
NOTES:
 1. REFER TO SHEET BR-802A FOR SIEBE KEY DETAILS.
 2. DESIGNER SHALL USE THE FOLLOWING KEY TO INDICATE STRANDS IN ROWS 3 AND 4 SHALL BE ELIMINATED. THE BEAM SHALL BE REDESIGNED AS NECESSARY.
 V - DEBRID STRAND; LENGTH FROM END OF BEAM
 O - REBID STRAND; LENGTH FROM END OF BEAM
 THIS SHEET SHALL BE USED IN CONSTRUCTION WITH STANDARD SHEETS BR-842B, BR-802A, BR-802B, BR-802C & BR-802D.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 ENGINEERING DIVISION

SUGAR CREEK BRIDGE
OVER SUGAR CREEK
 TYLER CO. C.R. 7
 42" PRESTRESSED BOX BEAM
 DESIGN AND ASSEMBLY DETAILS
 STANDARD SHEET BR-842A

DESIGNED BY/TITLE	DATE
CHECKED BY/TITLE	DATE
REVIEWED BY/TITLE	DATE
DATE	BY
SHEET	OF
10227	12

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 ENGINEERING DIVISION
 42" PRESTRESSED CONCRETE
 BOX BEAMS
 DESIGN AND ASSEMBLY DETAILS
 STANDARD SHEET BR-842A



STATE PROJECT NUMBER	3308-1-10-41	FISCAL YEAR	1974	COUNTY	TYLER	PROJECT NO.	13	DATE	12
STATE DIST.	0A	MIN. CONCRETE STRENGTH @ RELEASE	5500 PSI	MIN. CONCRETE STRENGTH @ 28 DAYS	6000 PSI	INITIAL PULL/STRAND	33,820 LBS	CROSS-SECTION AREA/STRAND	0.167 SQ. IN.

DESIGN DATA FOR 42" DEPTH ADJACENT BOX BEAM

SPAN LENGTH @ TO BEARING	78'-0"	79'-0"	80'-0"	81'-0"	82'-0"	83'-0"	84'-0"	85'-0"	86'-0"	87'-0"	88'-0"	89'-0"	90'-0"	91'-0"	92'-0"	93'-0"	94'-0"	95'-0"	96'-0"	97'-0"	98'-0"	99'-0"	100'-0"
OVERALL LENGTH OF BEAM	77'-6"	78'-6"	79'-6"	80'-6"	81'-6"	82'-6"	83'-6"	84'-6"	85'-6"	86'-6"	87'-6"	88'-6"	89'-6"	90'-6"	91'-6"	92'-6"	93'-6"	94'-6"	95'-6"	96'-6"	97'-6"	98'-6"	99'-6"
NO. OF 270 KSI, 1/2" x 1/2" UPR-RELAXATION STRINGS, PREL-STRAND - 0.07 SQ. IN.	19	19	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
STRAND POSITION NUMBER	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1	ROW 1
PRESSING FORCE IMMEDIATELY AFTER STRAND RELEASE, PPA, KIPS/BEAM	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24	36.24
EFFECTIVE PRESSING FORCE AFTER ALL LOSSES, PPA, KIPS/BEAM	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5
REQUIRED FACTORED MOMENT @ STRENGTH I, IN FT-KIPS/BEAM	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
FACTORED FLEURAL RESISTANCE, IN FT-KIPS/BEAM	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079	2079
TOTAL NO. DEFORMED STRANDS	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
REQUIRED STRAND POSITION NUMBER & SHIELDING LENGTH FROM EACH END	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"	ROW 1 5'-0"
NUMBER & LENGTH OF TOP TENSION BARS @ EACH END	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"	3 #4 3'-0"
NUMBER & LENGTH OF BOTTOM TENSION BARS @ EACH END	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"	6 #5 6'-0"
DESIGN CAMBER @ RELEASE (INCHES)	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
DESIGN CAMBER @ ERECTION (INCHES)	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
DESIGN CAMBER @ FINAL (INCHES)	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
NO. OF INSERTS REQ. END OF BEAM TO END OF FIRST INSERT	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
NO. OF 1H INSERT TO END OF BEAM TO END OF 2ND INSERT	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"
SEE NOTE B	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"	3'-1 1/2"
WEIGHT OF TYPICAL BEAM INCLUDING DIAPHRAGM (TONS)	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS LISTED IN THE DESIGN TABLE ARE BASED ON ZERO SKEW, 3 FT. LONG EMBANKMENT AND DIAPHRAGMS SPACED @ 15 FT. C/C. HEIGHTS FOR SKEWED BEAMS, LONGER EMBANKMENTS AND ADDITIONAL DIAPHRAGMS SHOULD BE ADJUSTED ACCORDINGLY.

FOR ADDITIONAL DIAPHRAGMS, AND 700 LBS/DF/APPROX. FOR SKEW AND 41 LBS/DEGREE OF SKEW/END.

FOR LONGER EMBANKMENTS, AND 840 LBS/DF/END.

DESIGNERS SHOULD NOTE THAT DATA IN STANDARD TABLE IS BASED ON EVEN SPAN LENGTHS, UNIFORM LOADS, AND UNIFORM MOMENTS. CHECK DESIGNER'S CALCULATIONS FOR ALL OTHER CASES. TYPE & PARALLEL (X) AND A PLS OF 50 PPS FOR NON-STANDARD BEAMS OR SIZES SHOULD BE VERIFIED AND IF REQUIRED NEW DESIGN DATA ENTERED INTO BLANK COLUMNS. IN NO CASE SHALL THE STANDARD DESIGN TABLE BE ALTERED.

PREDICTED DESIGN CAMBER VALUES LISTED IN THE TABLE ARE BASED ON EMPIRICAL FORMULAS AND AS SUCH ARE APPROXIMATE. FOR MEMBERS WITH SPAN-TO-DEPTH RATIOS AT OR EXCEEDING 25, THE TOLERANCE VALUES LISTED IN APPENDIX B OF PCI MANUAL FOR QUALITY CONTROL, MAY-16, MAY NOT APPLY.

DESIGNERS SHOULD BE AWARE THAT CONSTRUCTION TO PREDICTED DESIGN VALUES SHOULD BE COMPLETED WITHIN 72 HOURS OF RELEASE. ADDITIONAL CARE SHOULD BE EVALUATED UNDER CONDITIONS THAT MINIMIZE THE EFFECT OF TEMPERATURE VARIATION.

4. DESIGNER, FABRICATOR AND ERECTOR SHALL BE AWARE THAT SKEWED END BEAMS MAY, TRIST OR WARP, CAUSING UNKNEW BEAM SPACING AS THE BEAMS ARE ERECTED. CORRECTIVE MEASURES SHOULD BE TAKEN AT THE TIME OF ERECTION. BEFORE 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 1/4" IRON.

5. FABRICATOR SHALL NOTIFY THE CONTRACTOR AND DESIGNER IF CORRECTIONS ARE REQUIRED PRIOR TO SHIPMENT.

6. MAXIMUM BEAM SKEW SHALL BE 30 DEGREES.

7. THIS SHEET SHALL BE USED IN CONSTRUCTION WITH STANDARD SHEETS BR-B42A, BR-B100, BR-B102A & B, BR-B103, BR-B104, BR-B105A & B AND BR-106 AS APPLICABLE.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

SUGAR CREEK BRIDGE
OVER SUGAR CREEK
TYLER CO. C.R. 7

DESIGN TABLE FOR 42" PRESTRESSED BOX BEAM

10227

DESIGN TABLE FOR 42" PRESTRESSED BOX BEAM

STANDARD SHEET BR-B42B

STATE PROJECT NUMBER	DATE PROJECT NUMBER	YEAR	PROJECT NUMBER	DATE PROJECT NUMBER	YEAR
5348-7-10-47	1/24	1974	5	1974	21

GOVERNING SPECIFICATIONS:
 THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, ADAPTED TO THIS PROJECT AS AMENDED BY THE CURRENT SUPPLEMENTAL SPECIFICATIONS. THE CONTRACT PLANS AND CONTRACT SPECIAL PROVISIONS ARE THE GOVERNING PROVISIONS APPLICABLE TO THIS PROJECT.

ALL BEAMS ARE DESIGNED IN ACCORDANCE WITH THE ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, DATED 1989 AS AMENDED BY THE 2003 INTERIM SPECIFICATIONS.

DESIGN NOTES

- THE STANDARD PRESTRESSED CONCRETE BRIDGE BEAMS ARE DESIGNED TO MEET THE FOLLOWING CRITERIA:
 - DESIGN LOADS: HL-93 LIVE LOAD IN ACCORDANCE WITH THE ASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, WITH A CORDED-TOP-CURB WIDTH OF 22'-1", TRANSVERSE POST-TENSIONING, FUTURE WEARING SURFACE OF 50 PSF OF ROADWAY.
 - TYPE F PAVEMENT WEIGHING 311 PLF.
 - GRADIENT: 2% GRADE WITH AN OVERALL WIDTH OF 24'-0" (INCL. 2") GAP BETWEEN ADJ. BEAMS), A CURB-TO-CURB WIDTH OF 22'-1", TRANSVERSE POST-TENSIONING, AND ZERO SKEW.
- DESIGN STRENGTH AND UNIT STRESSES:

MINIMUM CONCRETE STRENGTH @ STRAND RELEASE	6000 PSI
MINIMUM CONCRETE STRENGTH @ 28 DAYS	8000 PSI
TEMPORARY STRESS LIMITS IN CONCRETE BEFORE LOSSES	3000 PSI
COMPRESSION STRESS LIMIT @ STRAND RELEASE	-200 PSI
TENSION STRESS LIMIT @ STRAND RELEASE	4800 PSI
COMPRESSION STRESS LIMITS IN CONCRETE @ SERVICE I AFTER LOSSES:	
@ FINAL 1 (PSI-0.4LL)	3000 PSI
@ FINAL 2 (PSI-0.1)	3200 PSI
@ FINAL 3 (COMPS-DL+LL)	270 PSI
TENSION STRESS LIMIT IN CONCRETE @ SERVICE III AFTER LOSSES	194.4 PSI
TENSION STRESS LIMIT AFTER ALL LOSSES:	202.3 PSI
- DEBONDING OR SHELDING OF STRANDS TO REDUCE TEMPORARY TENSILE STRESSES IS PERMITTED; HOWEVER, DEBONDING IS LIMITED TO 10% NET FIBER AND 25% TOTAL. IN NO INSTANCES SHALL OUTER STRANDS BE DEBONDED. DEBONDED STRANDS SHALL BE SEPARATED BY AT LEAST ONE FULLY BONDED STRAND AND SHALL BE SYMMETRICAL ABOUT THE I OF THE BEAM. CURE SHALL BE ACCOMPLISHED BY TAPING OR TIGHT FITTING PLASTIC SHELDING OF STRANDS TO EACH END.
- THE ELASTOMERIC BEARING PAWS PROVIDED IN THE STANDARD DESIGN ARE BASED ON ZERO GRADE AND ARE LIMITED TO A MAXIMUM OF 5X GRADE. IN INSTANCES OF PAW DESIGN EXCEEDING THIS LIMIT, PAWS SHALL BE SPECIFICALLY DESIGNED. INDIVIDUAL PAW DESIGN SHALL BE IN ACCORDANCE WITH SECTION 14, ASHTO LRFD, BEVELED SOLE PLATES ARE PERMITTED.
- WAKBARK BEAM SHEW SHALL BE 30 DEGREES.
- WHEN ALTERNATE DESIGNS OR SITE SPECIFIC DESIGNS ARE PROVIDED, CRITERIA SET FORTH IN THESE STANDARDS SHALL APPLY.
- NEGATIVE DESIGN CAMBER AFTER ALL LOSSES IS NOT PERMITTED.
- EACH BEAM PROVIDED IN THESE STANDARDS DESIGNS HAS BEEN LOADED RATED IN ACCORDANCE WITH SECTION 3.10 OF THE WEST VIRGINIA DIVISION OF HIGHWAYS BRIDGE DESIGN MANUAL, 2004. ADDITIONALLY, LOAD RATING PROCEDURES ARE IN ACCORDANCE WITH THE ASHTO MANUAL FOR CONDITION EVALUATION AND LOAD AND RESISTANCE FACTOR RATING OF HIGHWAY BRIDGES, 2001.

THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-B17A & B THRU BR-B27A & B, BR-B30A & B, BR-B30B, BR-B30C, BR-B30D, BR-B30E & B AND BR-3100 AS APPLICABLE.

STANDARD SHEET BR-B100

MATERIALS & FABRICATION NOTES:

- THE PRESTRESSED CONCRETE BEAMS SHALL CONFORM TO ALL APPLICABLE PROVISIONS OF SECTION 603 OF THE STANDARD SPECIFICATIONS.
- ALL WELD REINFORCEMENT SHALL BE GRADE 60 DEFORMED BILLET STEEL AND SHALL BE EPoxy COATED EXCEPT WHERE NOTED. ALL UNCOATED REINFORCING SHALL MEET THE REQUIREMENTS OF ASTM A36. ALL EPoxy COATED REINFORCING SHALL MEET THE REQUIREMENTS OF ASTM A284, EXCEPT WHERE AMENDED BY SECTION 708.1 OF THE STANDARD SPECIFICATIONS.
- ALL TENSION LAP SPICES SHALL BE CLASS B, CONTACT TYPE, MINIMUM LAP SPICE LENGTH SHALL BE AS GIVEN IN THE TABLE, THIS TABLE, ADDITIONALLY, IF LAP SPICES ARE TO BE USED, THE MINIMUM LAP SPICE TERMINATION OF THE SPICE 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 BEARS MAY HAVE A MINIMUM BEND DIAMETER OF 4 BAR DIAMETERS.
- MINIMUM CONCRETE COVER SHALL BE AS SPECIFIED IN SECTION 603.5 OF THE STANDARD SPECIFICATIONS, EXCEPT WHERE NOTED ON THE PLANS.

POST-TENSIONING BEAMS:

- POST-TENSIONING BEAMS SHALL BE ONE INCH DIAMETER, 150 KSI STEEL, AND SHALL CONFORM TO ASTM A275, TYPE II. STEEL THREAD BARS SHALL BE DESIGNED TO ALLOW THE USE OF HEAVY HEX NUTS AND COUPLERS THAT THREAD INTO THE END OF THE DEFORMATION. 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. PROPERLY DOCUMENTED CERTIFIED MILL TEST REPORTS SHALL BE PROVIDED FOR EACH SET OF STEEL THREAD BARS.
- ALL POST-TENSIONING BEAMS SHALL BE SUPPLIED TO THE CONTRACTOR BY THE MANUFACTURER OF THE BEAMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION OF SHOP DRAWINGS IN ACCORDANCE WITH THE WEST VIRGINIA DIVISION OF HIGHWAYS BRIDGE DESIGN MANUAL, 2004. ADDITIONALLY, LOAD RATING PROCEDURES ARE IN ACCORDANCE WITH THE ASHTO MANUAL FOR CONDITION EVALUATION AND LOAD AND RESISTANCE FACTOR RATING OF HIGHWAY BRIDGES, 2001.
- ALL POST-TENSIONING BEARING PLATES SHALL CONFORM TO ASHTO #4270, GRADE 35.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION OF SHOP DRAWINGS IN ACCORDANCE WITH THE WEST VIRGINIA DIVISION OF HIGHWAYS BRIDGE DESIGN MANUAL, 2004. ADDITIONALLY, LOAD RATING PROCEDURES ARE IN ACCORDANCE WITH THE ASHTO MANUAL FOR CONDITION EVALUATION AND LOAD AND RESISTANCE FACTOR RATING OF HIGHWAY BRIDGES, 2001.

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BAR SIZE	NO.	NO.	NO.	NO.	NO.
1/2"	1	2	3	4	5
3/4"	6	7	8	9	10
1"	11	12	13	14	15
1 1/4"	16	17	18	19	20
1 1/2"	21	22	23	24	25
2"	26	27	28	29	30
2 1/2"	31	32	33	34	35
3"	36	37	38	39	40

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 ENGINEERING DIVISION
**SUGAR CREEK BRIDGE
 OVER SUGAR CREEK**
 TYLER CO. C.R. 7
 PRESTRESSED CONCRETE BEAM
 DESIGN & ASSEMBLY NOTES

DATE	BY	NO.
10-22-07

STANDARD SHEET BR-B100

PROJECT NUMBER	3248-7-10-47	DATE	11/18/87	SHEET	15	TOTAL	27
PROJECT OWNER	N/A	PROJECT NUMBER	6	DATE	11/18/87	PROJECT NUMBER	15

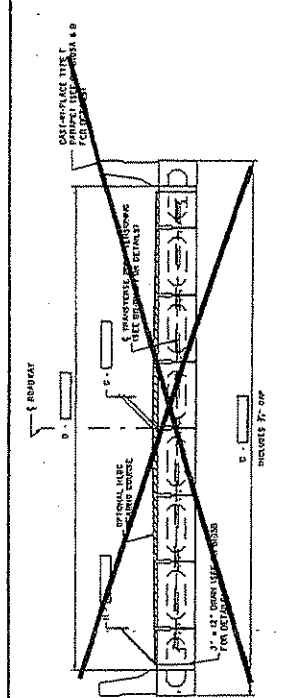
DESCRIPTION	CODE	VALUE
OVERALL BEAM LENGTH	A	81'-0"
SPAN LENGTH, & RAMPING TO & FROM	B	80'-0"
SUPPORTS STRUCTURE WIDTH - OUT TO OUT	C	34'-0 1/2"
ROADWAY WIDTH - FACE OF PARAPET TO FACE OF PARAPET	D	24'-1 1/2"
NUMBER OF BEAMS REQUIRED	E	8
BEAM SIZE (INCH x DEPTH)	F	3'-0" x 42"
SLEW ANGLE (DEG. FOR DEC. USE)	G	30°
PRESTRESSING STRIKE FROM FACE OF BEAM TO U.B. ANCHOR	H	7 1/2"
TUB REPAIRS COURSE REQUIRED	I	YES
HYPOTHESE OF KLEIN COURSE & OF BEAM ON ROADWAY	J	3 3/4"
PROPOSED EX. LEADING COURSE & FACE OF PARAPET	K	1"
U.B. ANCHOR GUARDRAIL SYSTEM REQUIRED (YES/NO)	L	YES
CONCRETE TO BE SUPPLIED BY THE BEAM FABRICATOR (YES/NO)	M	YES
CONCRETE TO BE SUPPLIED BY THE BEAM FABRICATOR (YES/NO) - PRESTRESSING STRIKE FROM FACE OF BEAM TO U.B. ANCHOR	N	NO
NUMBER OF GUARDRAIL POSTS REQUIRED PER FOOT	O	26
TYPE OF PARAPET REQUIRED	P	HD
BEAMS REQUIRED (YES/NO)	Q	NO
NUMBER OF GRANS REQUIRED FOR SET	R	0
10' CURB REQUIRED (YES/NO)	S	NO

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

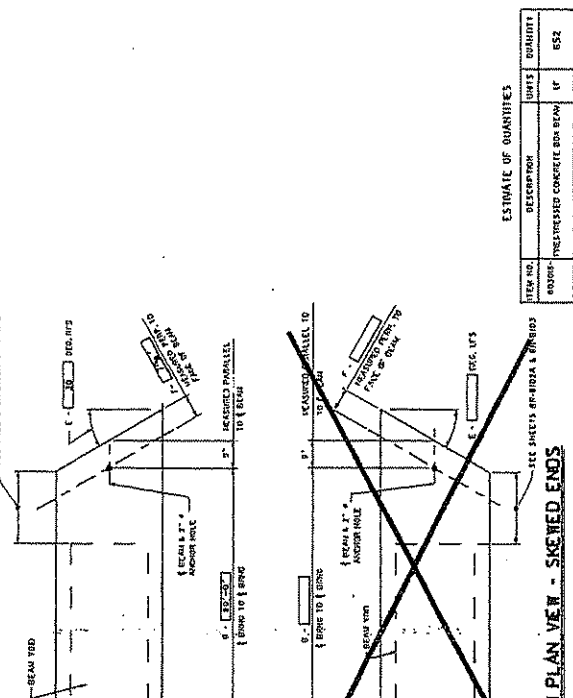
SUGAR CREEK BRIDGE
OVER SUGAR CREEK
TYLER CO. C.R. 7

PRESTRESSED CONCRETE BEAM
DESIGN & ASSEMBLY NOTES

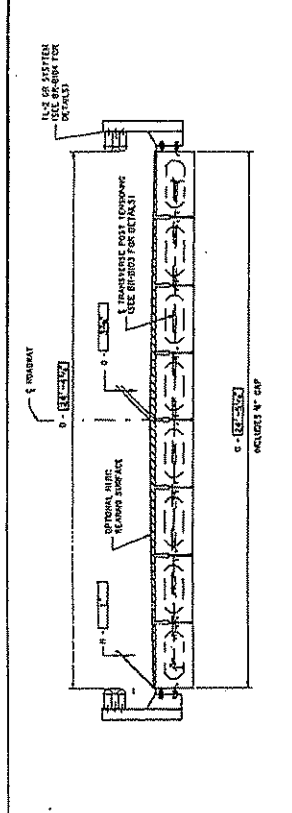
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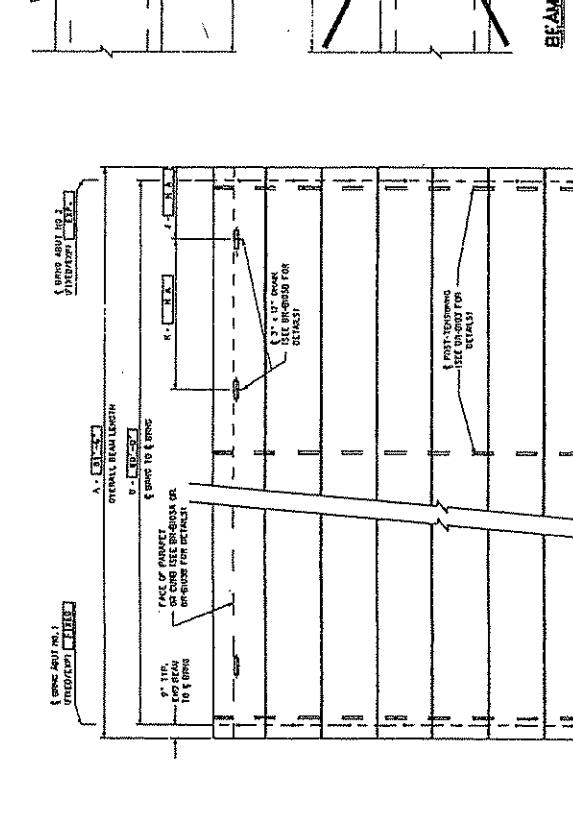
TYPICAL CROSS-SECTION WITH PARAPET OR CURB



BEAM PLAN VIEW - SKEWED ENDS



TYPICAL CROSS-SECTION WITH GUARDRAIL



DECK PLAN VIEW

ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	UNITS	QUANTITY
652	PRESTRESSED CONCRETE BOX BEAM 10'	LF	652

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

DATE: 11/18/87

PROJECT: SUGAR CREEK BRIDGE OVER SUGAR CREEK, TYLER CO., C.R. 7

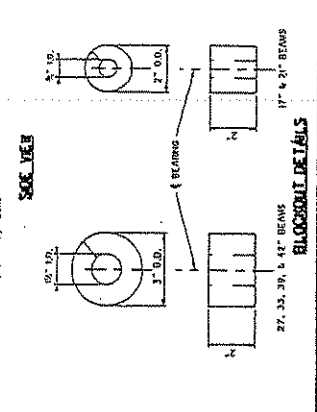
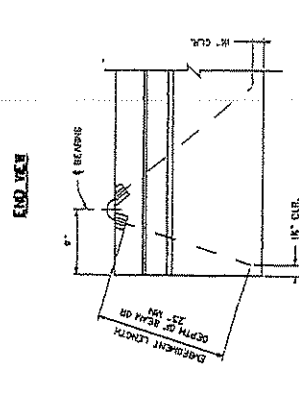
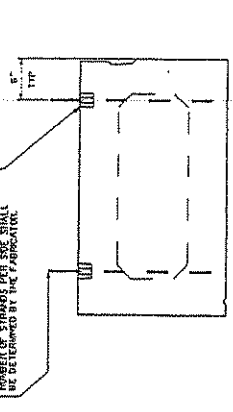
DESIGN AND ASSEMBLY NOTES

STANDARD SHEET BR-6101

- NOTES:
1. HIGH BRIDGE GUARDRAIL IS TO BE SUPPLIED BY THE BEAM FABRICATOR. COMPLETELY PRECAST GUARDRAIL SYSTEMS ARE NOT PERMITTED. TO COMPLETELY INSTALL BROKE GUARDRAIL SHALL BE INCLUDED WITH COSTS - PRESTRESSED CONCRETE BOX BEAM.
 2. THIS SHEET SHALL BE USED IN CONJUNCTION WITH STANDARD SHEETS BR-6101, BR-6102, BR-6103, BR-6104, BR-6105, BR-6106, BR-6107, BR-6108, BR-6109, BR-6110, BR-6111, BR-6112, BR-6113, BR-6114, BR-6115, BR-6116, BR-6117, BR-6118, BR-6119, BR-6120, BR-6121, BR-6122, BR-6123, BR-6124, BR-6125, BR-6126, BR-6127, BR-6128, BR-6129, BR-6130, BR-6131, BR-6132, BR-6133, BR-6134, BR-6135, BR-6136, BR-6137, BR-6138, BR-6139, BR-6140, BR-6141, BR-6142, BR-6143, BR-6144, BR-6145, BR-6146, BR-6147, BR-6148, BR-6149, BR-6150, BR-6151, BR-6152, BR-6153, BR-6154, BR-6155, BR-6156, BR-6157, BR-6158, BR-6159, BR-6160, BR-6161, BR-6162, BR-6163, BR-6164, BR-6165, BR-6166, BR-6167, BR-6168, BR-6169, BR-6170, BR-6171, BR-6172, BR-6173, BR-6174, BR-6175, BR-6176, BR-6177, BR-6178, BR-6179, BR-6180, BR-6181, BR-6182, BR-6183, BR-6184, BR-6185, BR-6186, BR-6187, BR-6188, BR-6189, BR-6190, BR-6191, BR-6192, BR-6193, BR-6194, BR-6195, BR-6196, BR-6197, BR-6198, BR-6199, BR-6200.

STATE	FEDERAL	TITLE	DATE	NO.	SHEET
VA	10-A	TYLER	16	27	
PROJECT NUMBER	PROJECT NUMBER	NO.	NO.	NO.	NO.
5249-7-10-47	10-A	6	16	27	

3" x 4" STRINGS (STAYS) USED BEHIND FULL DEPTH OF BEAM UNLESS OTHERWISE SPECIFIED BY THE FABRICATOR. NUMBER OF STRINGS PER SIDE SHALL BE DETERMINED BY THE FABRICATOR.

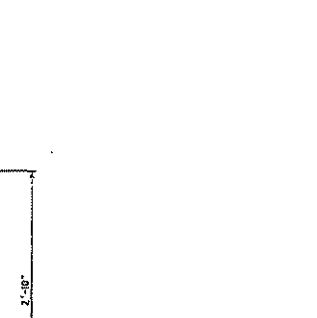
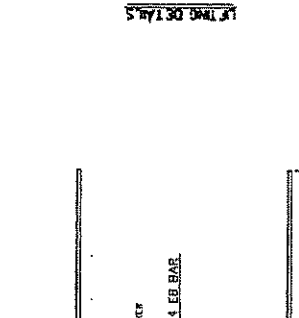


WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

DESIGNED BY: TRH	DESIGNED BY: TRH
CHECKED BY: TUP	CHECKED BY: TUP
REVIEWED BY: TUP	REVIEWED BY: TUP
DATE: 02-08	DATE: 02-08
SCALE:	SCALE:
SHEET 16 OF 27	SHEET 16 OF 27
PROJECT NO. 5249-7-10-47	PROJECT NO. 5249-7-10-47
10227	10227

SUGAR CREEK BRIDGE
OVER SUGAR CREEK
TYLER CO. C.R. 7
PRESTRESSED CONCRETE BEAM
SKEWED END REINFORCING
MISC. DESIGN AND ASSEMBLY DETAILS

AT FIXED END, FILL 2" x 4" ANCHOR HOLE WITH PORTLAND CEMENT MORTAR MEETING THE REQUIREMENTS OF SUB-SECT. 715.3. REINFORCING BARS SHALL BE FULLY DEVELOPED IN THE MORTAR.

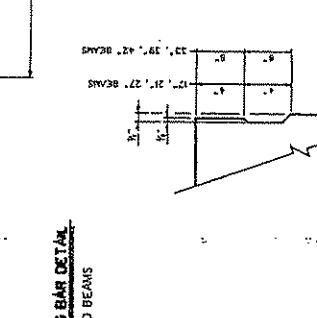
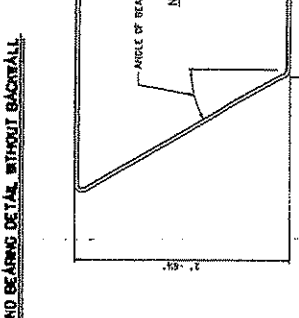
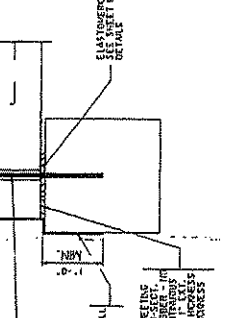


WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

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SCALE:	SCALE:
SHEET 16 OF 27	SHEET 16 OF 27
PROJECT NO. 5249-7-10-47	PROJECT NO. 5249-7-10-47
10227	10227

SUGAR CREEK BRIDGE
OVER SUGAR CREEK
TYLER CO. C.R. 7
PRESTRESSED CONCRETE BEAM
SKEWED END REINFORCING
MISC. DESIGN AND ASSEMBLY DETAILS

SEAL JOINT WITH HOT POUR EPICURE. THE REQUIREMENTS OF SUB-SECT. 708.1, MIN. DEPTH OF SEAL SHALL BE 1" MIN.

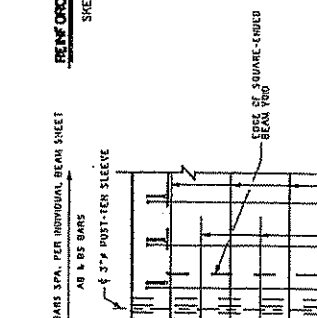
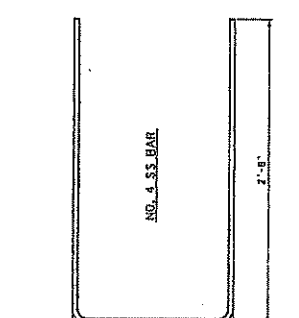
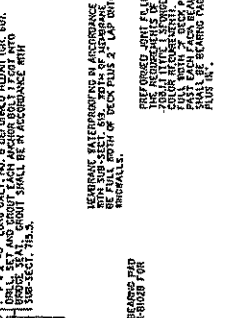


WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

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PROJECT NO. 5249-7-10-47	PROJECT NO. 5249-7-10-47
10227	10227

SUGAR CREEK BRIDGE
OVER SUGAR CREEK
TYLER CO. C.R. 7
PRESTRESSED CONCRETE BEAM
SKEWED END REINFORCING
MISC. DESIGN AND ASSEMBLY DETAILS

SEAL JOINT WITH HOT POUR EPICURE. THE REQUIREMENTS OF SUB-SECT. 708.1, MIN. DEPTH OF SEAL SHALL BE 1" MIN.

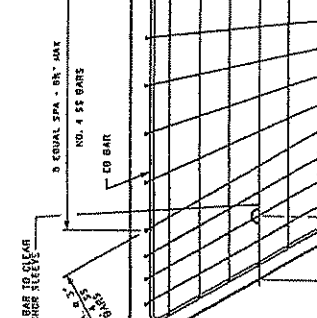
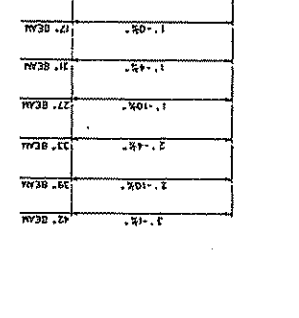
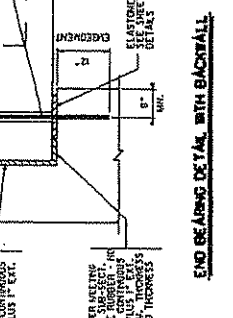


WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

DESIGNED BY: TRH	DESIGNED BY: TRH
CHECKED BY: TUP	CHECKED BY: TUP
REVIEWED BY: TUP	REVIEWED BY: TUP
DATE: 02-08	DATE: 02-08
SCALE:	SCALE:
SHEET 16 OF 27	SHEET 16 OF 27
PROJECT NO. 5249-7-10-47	PROJECT NO. 5249-7-10-47
10227	10227

SUGAR CREEK BRIDGE
OVER SUGAR CREEK
TYLER CO. C.R. 7
PRESTRESSED CONCRETE BEAM
SKEWED END REINFORCING
MISC. DESIGN AND ASSEMBLY DETAILS

SEAL JOINT WITH HOT POUR EPICURE. THE REQUIREMENTS OF SUB-SECT. 708.1, MIN. DEPTH OF SEAL SHALL BE 1" MIN.

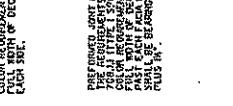


WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

DESIGNED BY: TRH	DESIGNED BY: TRH
CHECKED BY: TUP	CHECKED BY: TUP
REVIEWED BY: TUP	REVIEWED BY: TUP
DATE: 02-08	DATE: 02-08
SCALE:	SCALE:
SHEET 16 OF 27	SHEET 16 OF 27
PROJECT NO. 5249-7-10-47	PROJECT NO. 5249-7-10-47
10227	10227

SUGAR CREEK BRIDGE
OVER SUGAR CREEK
TYLER CO. C.R. 7
PRESTRESSED CONCRETE BEAM
SKEWED END REINFORCING
MISC. DESIGN AND ASSEMBLY DETAILS

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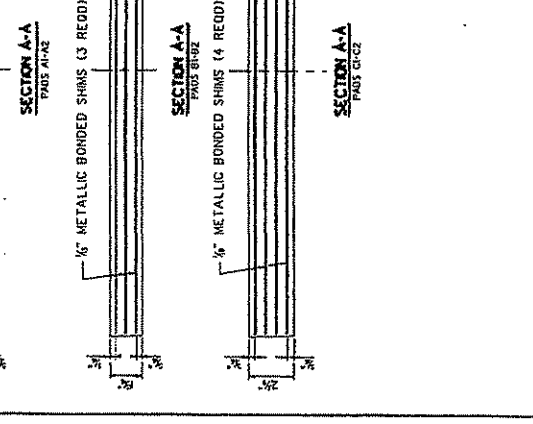
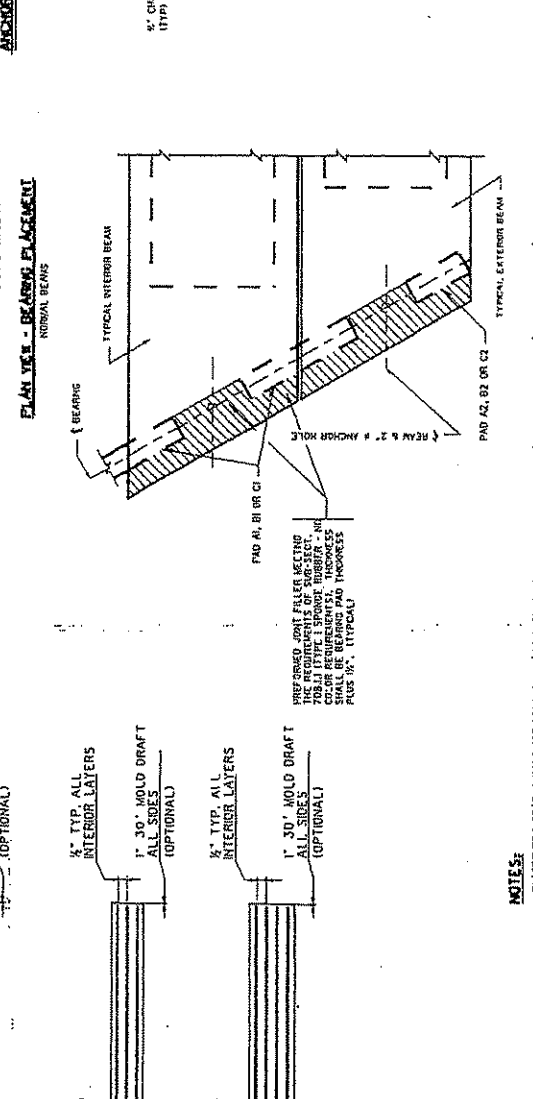
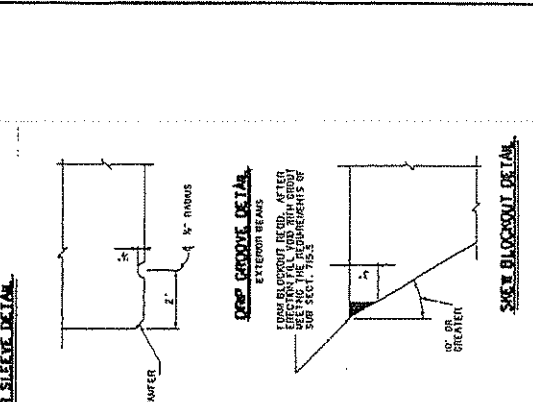
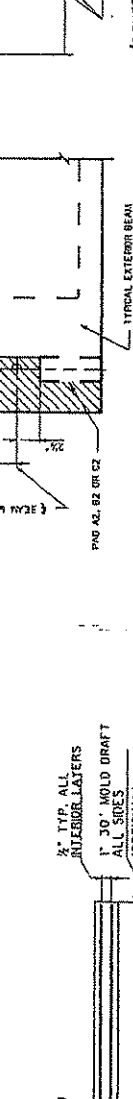
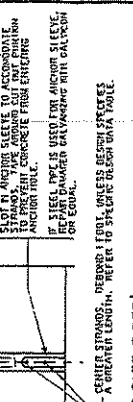
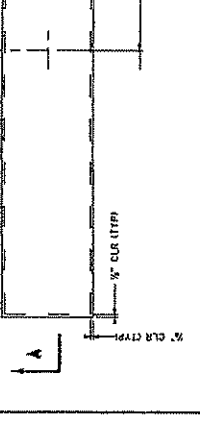
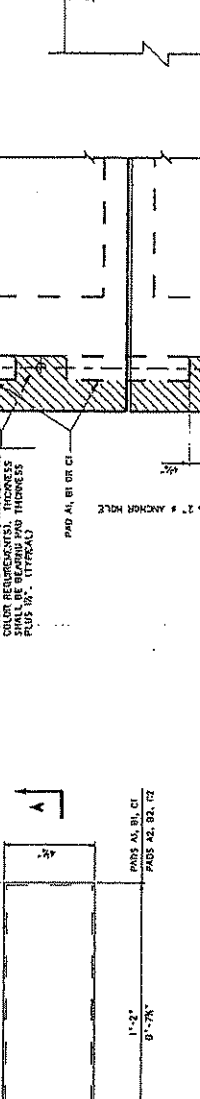
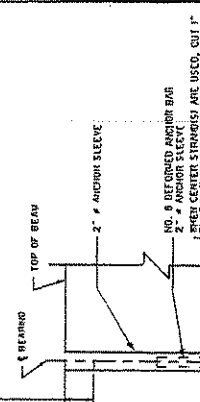
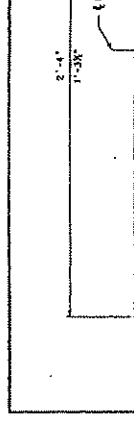
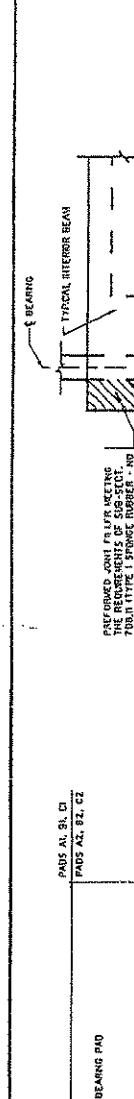


WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

DESIGNED BY: TRH	DESIGNED BY: TRH
CHECKED BY: TUP	CHECKED BY: TUP
REVIEWED BY: TUP	REVIEWED BY: TUP
DATE: 02-08	DATE: 02-08
SCALE:	SCALE:
SHEET 16 OF 27	SHEET 16 OF 27
PROJECT NO. 5249-7-10-47	PROJECT NO. 5249-7-10-47
10227	10227

SUGAR CREEK BRIDGE
OVER SUGAR CREEK
TYLER CO. C.R. 7
PRESTRESSED CONCRETE BEAM
SKEWED END REINFORCING
MISC. DESIGN AND ASSEMBLY DETAILS

DATE	PROJECT NUMBER	CONTRACT NO.	MARKING	DATE	DRAWN	CHECKED	SCALE
5/28/7-10/17	16/4	16/4	16/4	6	TYLER		17



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

SUGAR CREEK BRIDGE
OVER SUGAR CREEK
TYLER CO. C.R. 7

DESIGNED BY: HR7
CHECKED BY: HR7
REVIEWED BY: HR7
DATE: 02-08
SCALE: 1" = 2'-0"

SHEET 17 OF 27
BRIDGE NO. 10227

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

STANDARD SHEET BR-B02B

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
ENGINEERING DIVISION

SUGAR CREEK BRIDGE
OVER SUGAR CREEK
TYLER CO. C.R. 7

DESIGNED BY: HR7
CHECKED BY: HR7
REVIEWED BY: HR7
DATE: 02-08
SCALE: 1" = 2'-0"

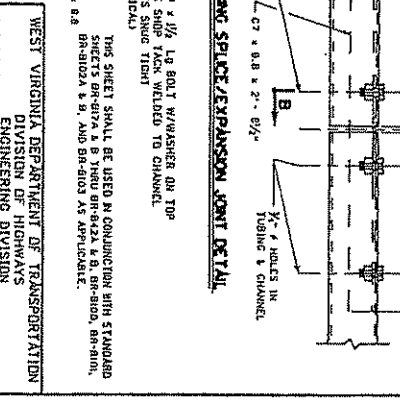
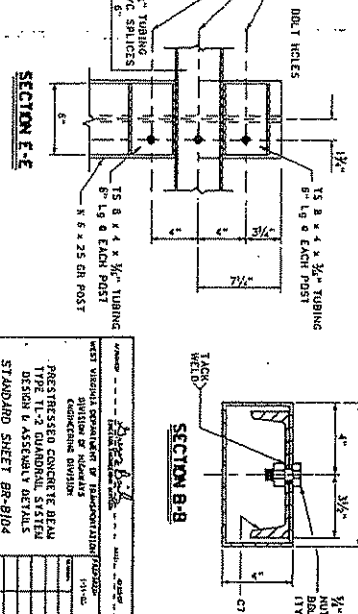
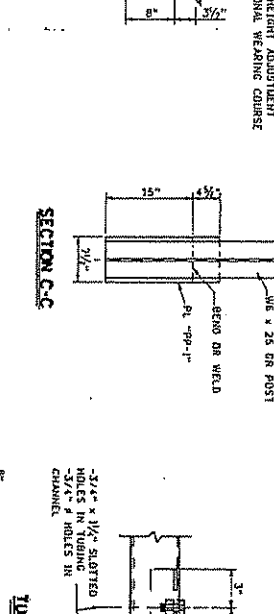
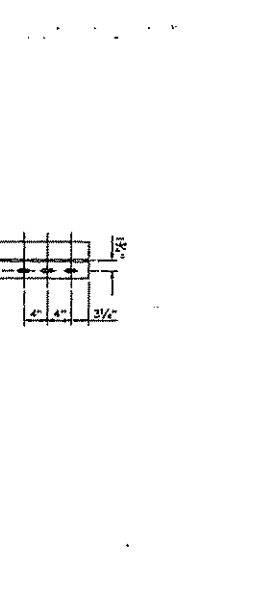
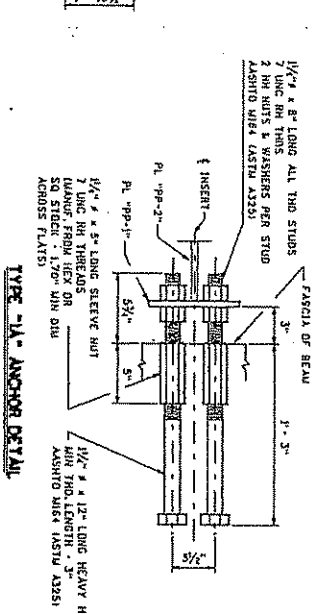
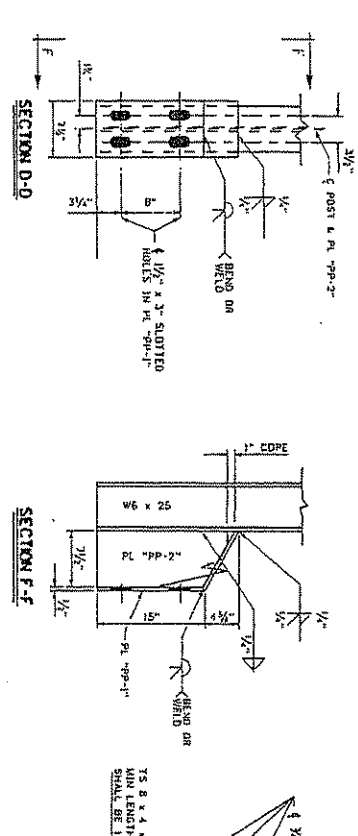
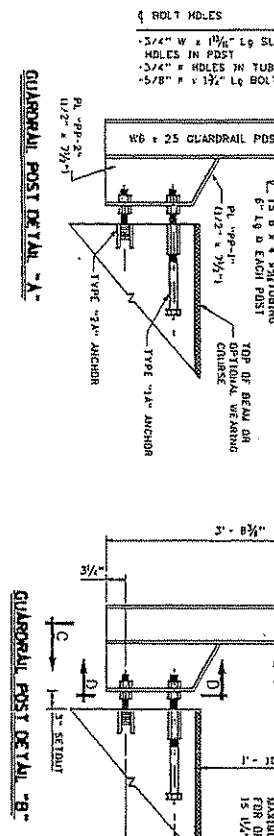
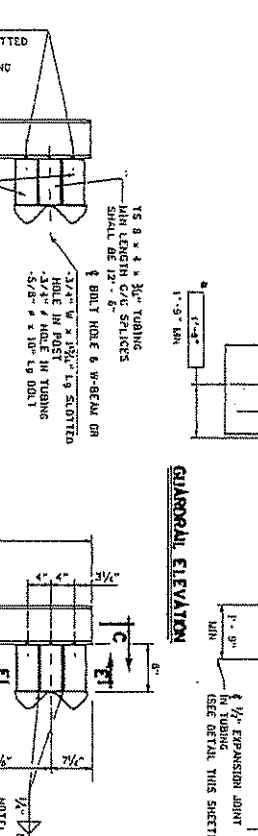
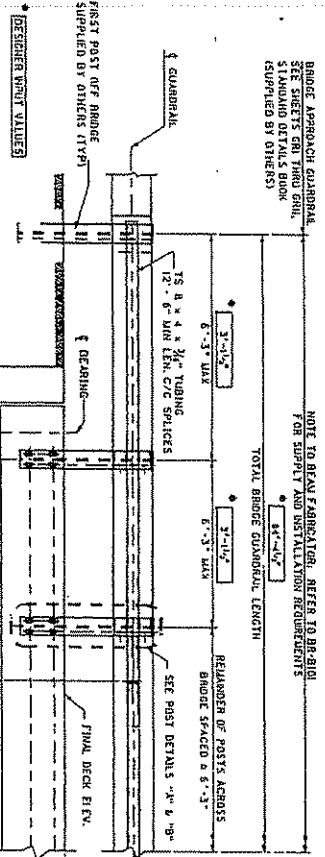
SHEET 17 OF 27
BRIDGE NO. 10227

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

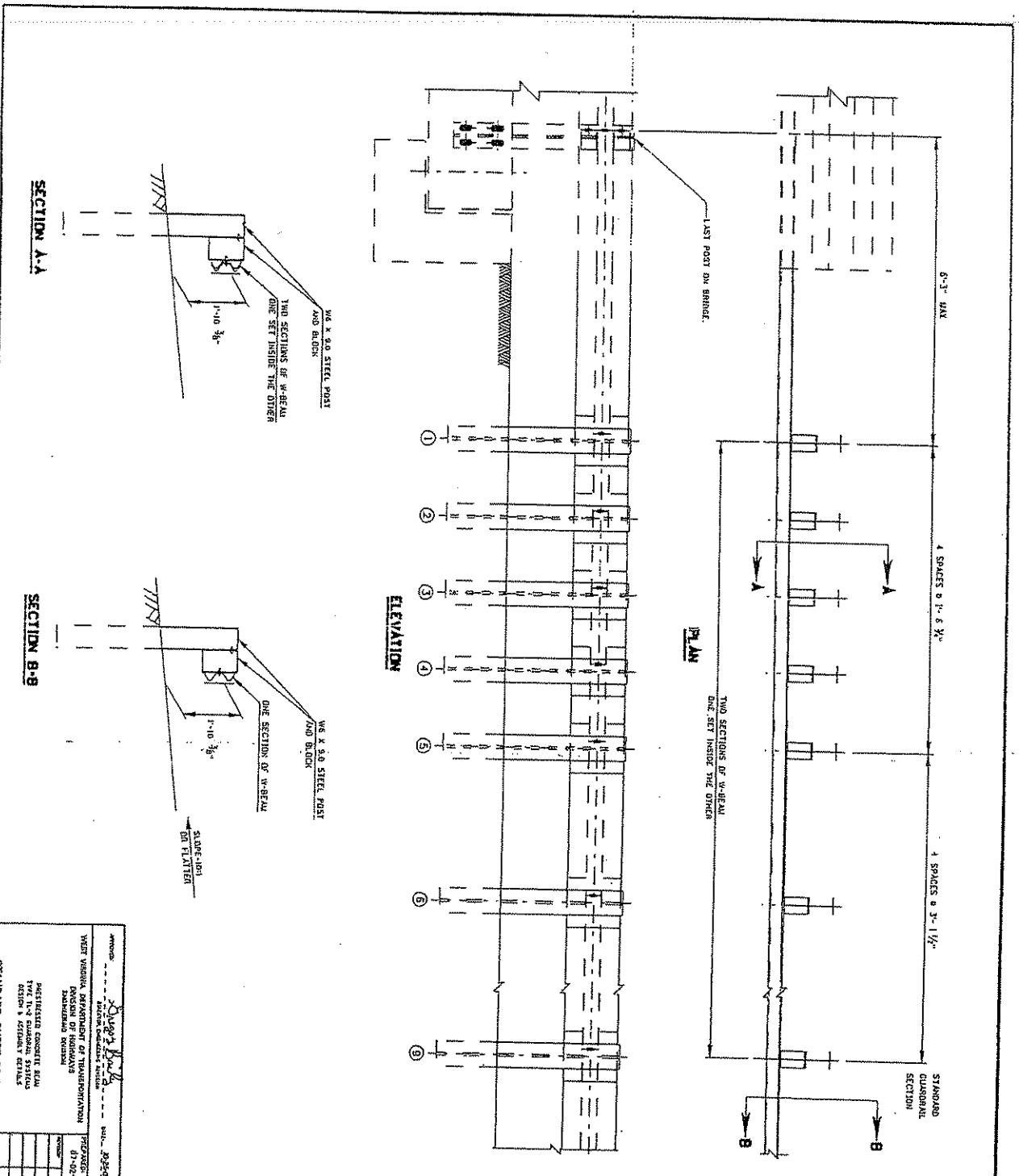
STANDARD SHEET BR-B02B

- NOTES:
- ELASTOMERIC BEARING PADS ARE REQUIRED TO ACCOMMODATE THE BEARING CAPACITY OF THE BEAMS AND SHALL BE IN ACCORDANCE WITH SECTION 708.11 OF THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION CONSTRUCTION SPECIFICATIONS, HARDSHIP OF 60. METALLIC REINFORCEMENT SHALL HAVE A MINIMUM TENSILE STRENGTH OF 100 KSI.
 - BEARING PADS ARE DESIGNED FOR ZERO BEARING GRADE. FOR BEARING GRADES GREATER THAN 1/8" BEVELED SOLE PLATES MAY BE USED.
 - DESIGNER, FABRICATOR AND ERECTOR SHALL BE AWARE THAT SKETCHED END BEAMS MAY NOT BE ORRANGE-COLORED UNLESS BEAM SEATING AT THE BEARINGS. THE CONTRACTOR IS REQUIRED TO CORRECT ANY DISCREPANCIES. TOTAL BEARING AND A LEVEL TOP BEAM SURFACE TOLERANCE AFTER CORRECTION SHALL BE ± 1/4" INCH. THE FABRICATOR SHALL NOTIFY THE CONTRACTOR AND DESIGNER OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
 - FOR BEAMS WITH STREPPED ENDS USE PADS A1, B1, B2, OR C1 OR C2 ON BOTH SIDES OF EACH BEAM.
 - ELASTOMERIC BEARING PADS SHALL BE INCLUDED IN THE PRICE OF THE BEAMS.
 - THE BEAMS SHALL BE USED IN CONJUNCTION WITH SMOOTHING GUIDES BR-B071, BR-B072, BR-B073, BR-B074, BR-B075, BR-B076, BR-B077, BR-B078, BR-B079, BR-B080, BR-B081, BR-B082, BR-B083, BR-B084, BR-B085, BR-B086, BR-B087, BR-B088, BR-B089, BR-B090, BR-B091, BR-B092, BR-B093, BR-B094, BR-B095, BR-B096, BR-B097, BR-B098, BR-B099, BR-B100.

PAD	LENGTH	WIDTH	HEIGHT	NO. SHIMS	SHIM SIZE	SPACING BETWEEN SHIMS	MAXIMUM ALLOWED UNIFORM DEFLECTION	MINIMUM DEFLECTION
A1	48"	28"	6"	2	1/4" x 3/8"	20" - 38"	0.39"	0.39"
B1	48"	28"	6"	3	1/4" x 3/8"	40" - 78"	0.80"	0.80"
C1	48"	28"	6"	4	1/4" x 3/8"	80" - 100"	1.02"	1.02"
A2	48"	28"	6"	2	1/4" x 3/8"	20" - 38"	0.39"	0.39"
B2	48"	28"	6"	3	1/4" x 3/8"	40" - 78"	0.80"	0.80"
C2	48"	28"	6"	4	1/4" x 3/8"	80" - 100"	1.02"	1.02"



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS ENGINEERING DIVISION	SUGAR CREEK BRIDGE OVER SUGAR CREEK	TYLER CO. C.R. 7	PRESTRESSED CONCRETE BEAM TYPE TL-2 GUARDRAIL SYSTEM DESIGN & ASSEMBLY DETAILS STANDARD SHEET BR-BID	SHEET NO. 19 OF 27
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SECTION A-A

SECTION B-B

APPROVED: *[Signature]*
 WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 ENGINEERING DIVISION
 DATE: 07-02-07
 PROJECT NO. 07-02-07
 SHEET NO. 20 OF 27

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 ENGINEERING DIVISION
 SUGAR CREEK BRIDGE
 OVER SUGAR CREEK
 TYLER CO.
 C.R. 7
 TYPE 11-2 GUARDRAIL TRANSITION
 SCALE: 1" = 8'-0"

THIS SHEET SHALL BE USED IN CONNECTION WITH
 STANDARD SHEETS BR-817A & B THRU BR-817A 1
 & BR-817B, BR-818, BR-819, BR-820A & B, BR-8103 AND
 BR-8104 AS APPLICABLE.

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-8104 FOR ANCHOR DETAILS.
4. THERE IS NO SEPARATE PAY ITEM FOR THIS CONNECTION AND ALL COMPONENTS AS DETAILED HEREIN SHALL BE INCLUDED IN THE CONTRACT PRICE FOR GUARDRAIL.

PROJECT NUMBER	SECTION	COUNTY	SHEET NO.	TOTAL
5348-7-10-41	W/A	TYLER	20	27

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: _____ Signed: _____

Date: _____ Title: _____

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

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

VENDOR OWING A DEBT TO THE STATE:

West Virginia Code §5A-3-10a provides that: 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.

PUBLIC IMPROVEMENT CONTRACTS & DRUG-FREE WORKPLACE ACT:

If this is a solicitation for a public improvement construction contract, the vendor, by its signature below, affirms that it has a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code*. The vendor **must** make said affirmation with its bid submission. Further, public improvement construction contract may not be awarded to a vendor who does not have a written plan for a drug-free workplace policy in compliance with Article 1D, Chapter 21 of the *West Virginia Code* and who has not submitted that plan to the appropriate contracting authority in timely fashion. For a vendor who is a subcontractor, compliance with Section 5, Article 1D, Chapter 21 of the *West Virginia Code* may take place before their work on the public improvement is begun.

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 materials, 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.

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, West Virginia Insurance Commission, or any other state agencies or political subdivision. Furthermore, 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.

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>.

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.

Vendor's Name: _____

Authorized Signature: _____ Date: _____