



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
05700310

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
JOHN JOHNSTON
304-558-2402
FEB 14 2007

VENDOR

*70905926 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
02/12/2007				

BID OPENING DATE: **03/07/2007** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	7	LS		210-16	5997.14	41,980 ⁰⁰
				PRESTRESSED CONCRETE BOX BEAMS		
				SEE ATTACHED		
				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).		
				A. APPLICATION IS MADE FOR 2.5% 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		
				(X) BIDDER IS A PARTNERSHIP, ASSOCIATION OR CORPORATION RESIDENT VENDOR AND HAS MAINTAINED ITS HEAD-QUARTERS 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 CORPORATION NONRESIDENT VENDOR		

RECEIVED
 2007 MAR -7 A 10 20
 PURCHASING DIVISION
 STATE OF WV

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE *Robert E. Stanley Jr* TELEPHONE **304-464-4441** DATE **3/6/07**
 TITLE **Project Manager** FEIN **55-0685425** ADDRESS CHANGES TO BE NOTED ABOVE

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



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<p>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.</p> <p>B. APPLICATION IS MADE FOR 2.5% PREFERENCE FOR THE REASON CHECKED:</p> <p>() 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 () 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 BIDDERS' 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.</p> <p>BIDDER UNDERSTANDS IF THE SECRETARY OF TAX & 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) RESCIND THE CONTRACT OR PURCHASE ORDER ISSUED; OR (B) ASSESS A PENALTY AGAINST SUCH BIDDER IN AN AMOUNT NOT TO EXCEED 5% OF THE BID AMOUNT</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

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<p>AND THAT SUCH PENALTY WILL BE PAID TO THE CONTRACTING AGENCY OR DEDUCTED FROM ANY UNPAID BALANCE ON THE CONTRACT OR PURCHASE ORDER.</p> <p>BY SUBMISSION OF THIS CERTIFICATE, BIDDER AGREES TO DISCLOSE ANY REASONABLY REQUESTED INFORMATION TO THE PURCHASING DIVISION AND AUTHORIZES THE DEPARTMENT OF TAX AND 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.</p> <p>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.</p> <p>BIDDER: <u>Carr Concrete Corp</u></p> <p>DATE: <u>March 6, 2007</u></p> <p>SIGNED: <u>Robert E. Stanley Jr</u></p> <p>TITLE: <u>Project Manager</u></p> <p>* CHECK ANY COMBINATION OF PREFERENCE CONSIDERATION(S) IN EITHER "A" OR "B", OR BOTH "A" AND "B" WHICH YOU AR</p>						

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CONTACT PERSON (PLEASE PRINT CLEARLY): <u>Burr Stanley</u>						
***** THIS IS THE END OF RFQ 05700310 ***** TOTAL:						<u>41,980⁰⁰</u>

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE		TELEPHONE		DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE		

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**Prestressed Concrete Box Beams for Pin Oak Road Bridge Project
State Project S314-29/3-0.74**

The following 21" prestressed concrete box beams shall be fabricated, approved, and delivered to the project site.

Two (2) exterior beam sections at 45'-6" overall length (44'-0" span length)

Five (5) interior beam sections at 45'-6" overall length (44'-0" span length)

Elastomeric bearing pads (3/4" x 5" x 24"), No. 8 deformed reinforcing (Grade 60) bar (1" x 2'-0"), 1" thick sponge rubber preformed joint filler, Guardrail attachment assemblies for box beams (installed insert and attachment hardware), 1" diameter Post-tensioning thread-bar with bearing plates, couplers, and hex nuts as required.

The box beams and associated hardware shall be delivered to the project site. This project is located on CR 29/3, 2.20 miles north of the junction with WV 29 near Slanesville in Hampshire County, WV. (See attached location map)

SPECIFICATIONS

The following sections of the West Virginia Department of Transportation, Division of Highways Standard Specifications Road and Bridges, adopted 2000 as modified by the January 1, 2003 Supplemental Specifications shall apply to the administration of this requisition: Sections 101, 102.4, 102.5, 105.1, 105.3, 105.4, 105.10, 105.11, 105.12, 105.13, 106.3, 106.4, 106.5, 106.6, 106.7, 106.9, 107.1, 107.2, 107.3, 107.14, 107.19, 107.20, 108.8, 108.9, 109.1, 109.2 and 109.20

All items supplied under this requisition shall meet the requirements of the "West Virginia Department of Transportation, Division of Highways Standard Specifications Road and Bridges, adopted 2000, as modified by the January 1, 2003 Supplemental Specifications.

All Prestressed Concrete Box Shaped Beams shall be manufactured in accordance with West Virginia Department of Transportation, Division of Highways Standard Bridge Plan Sheets as follows:

<u>Item Description</u>	<u>Standard Sheet No</u>	<u>Revision Date</u>
21" Box Beam	BR-B21A & BR-B21B	9/96
Beam Details	BR-B100, BR-B101, BR-B102 & BR-B104	9/96
Post-Tensioning Details	BR-B103	9/96

Alternates to the above Division of Highways standards will be permitted if approved by the Division. Alternate designs must be submitted for approval on the Design Date Charts provided as a part of the quotation sheets for this requisition and must be approved prior to award of this requisition purchase order. In addition to the design criteria contained on the Division of Highways Standard Bridge Plan Sheets referenced above, all alternate designs must be based on the following criteria:

- A. Two lane bridge with a deck width of 33'-8" out to out and roadway width of 33'1".
- B. Guardrail superimposed dead load of 30 pounds per linear foot assumed to be applied equally to all beams.
- C. Future wearing surface superimposed dead load of 50 psf applied equally to all beams.

D. Live loading of 1.25X HS20-44(HS25).

The terms "Contractor" and "Vendor" used in the above specifications or this requisition are interchangeable. Contractor shall mean Vendor and Vendor shall mean Contractor.

West Virginia Department of Transportation, Division of Highways Standard Specifications Road and Bridges, adopted 2000 and Supplemental Specifications dated January 1, 2003 may be obtained from:

WEST VIRGINIA DIVISION OF HIGHWAYS
 CONTRACT ADMINISTRATION DIVISION
 1900 KANAWHA BLVD., EAST
 BLDG. 5, ROOM A-729
 CHARLESTON, WV 25305
 PHONE (304) 558-2871

West Virginia Department of Transportation, Division of Highways Standard Bridge Plan Sheets may be obtained from:

WEST VIRGINIA DIVISION OF HIGHWAYS
 ENGINEERING DIVISION
 1900 KANAWHA BLVD., EAST
 BLDG. 5, ROOM A-454
 CHARLESTON, WV 25305
 PHONE (304) 558-2830

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 preformed at no additional cost to the Division of Highways.

DELIVERY

All beam sections and accessories shall be delivered to the specified delivery site within (90) calendar days after Vendor's receipt of approved shop drawings.

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 Road and Bridges.

Sites for delivery of beam sections and accessories under this requisition purchase order 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 Requisition Purchase Order the Vendor must notify the District Engineer within ten (10) calendar days if delivery under the terms of this requisition 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 Road and Bridges adopted 1993 as modified by the July 1, 1998 Supplemental Specifications

VENDOR INVOICE

Vendors invoices must be submitted in original and one copy and contain the following:

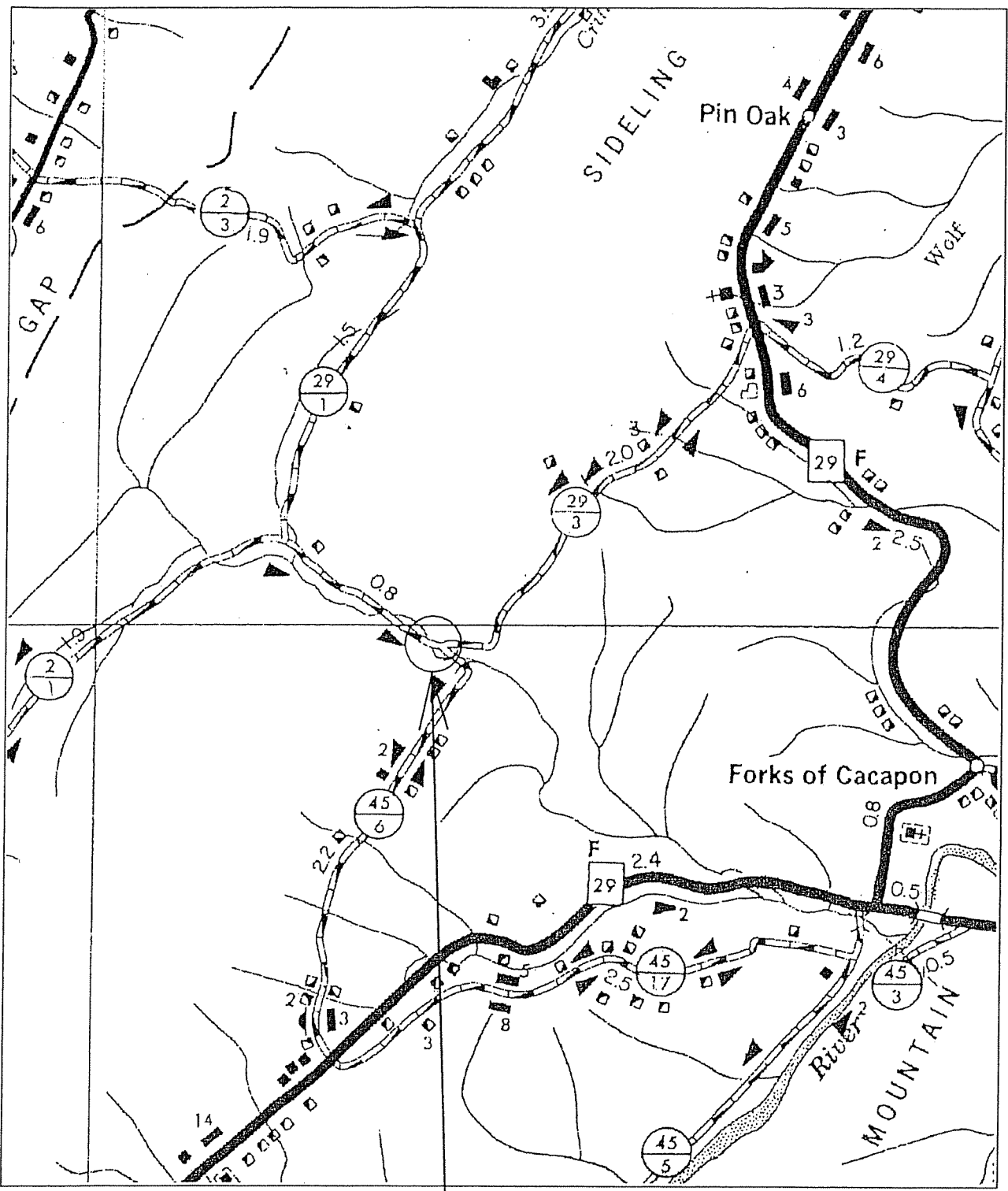
- a. Division of Highways Requisition Purchase Order number
- b. Total quantity and unit price with the total cost of each type of beam section, accessory and optional item furnished.

NOTE: Under no circumstance will the West Virginia Division of Highways, accept or pay for quantities of material in excess of the quantity stated on the Requisition Purchase Order.

PARTIAL PAYMENT OF APPROVED BEAMS

Upon completion of manufacture and approval by the Division of Highways of all Beams, specified on the Requisition 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 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 Requisition Purchase Order.
- c. The vendor shall furnish a statement of approved beam 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 used for any purpose not designated by the Division.



PROJECT SITE
S314-29/3-0.74
HAMPSHIRE COUNTY

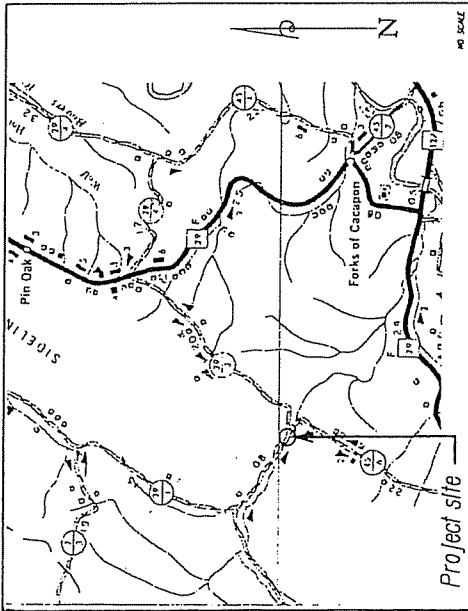
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR CONSTRUCTION

OF PINOAK BRIDGE

STATE PROJECT NO. S314-29/3-0.74
ROUTE NO. CO. 29/3 (SLS)
BLOOMERY DISTRICT
HAMPSHIRE COUNTY

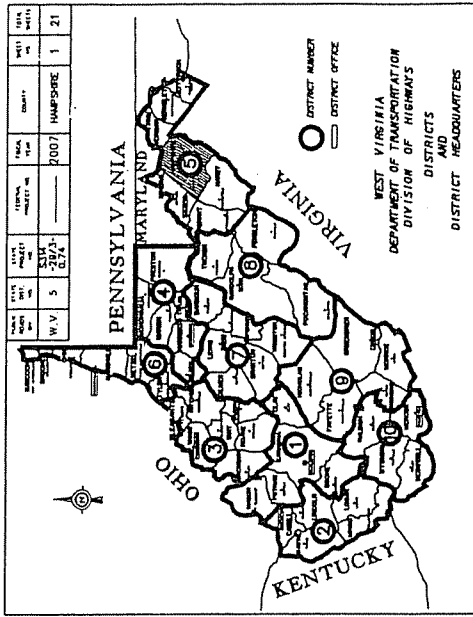
PROJECT LENGTH

BEGIN PROJECT STATION 37+80.00
END PROJECT STATION 40+25.00
TOTAL PROJECT LENGTH - 245.00 FT. - 0.0046 MI.

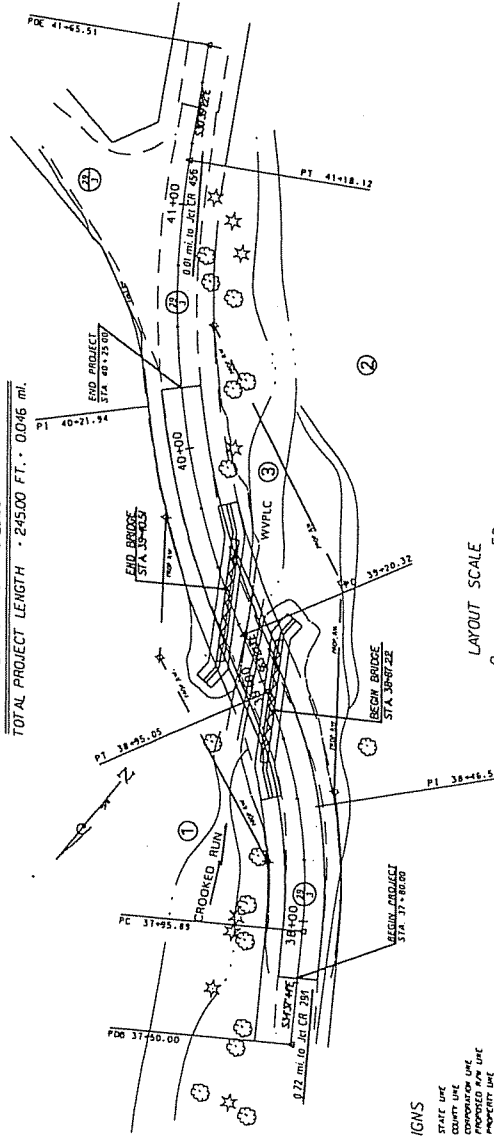


UTILITIES ENCOUNTERED

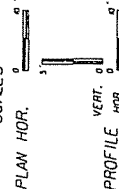
NONE



TYPE OF CONSTRUCTION
BRIDGE NO. 14-29/3-0.74,
GRADE, DRAIN & PAVE



SCALES



DESIGN DESIGNATION

A - 0' T. (EXHIBIT - 30)

D - 1/4" V

G - GAS LINE

H - HIGHWAY

I - IRON PIPE

L - LIGHTNING ROD

M - MASONRY

N - NAIL

P - PAVEMENT

R - RAILROAD

S - SURFACE

T - TELEPHONE

V - WATER

W - WOOD

X - EXISTING

CONVENTIONAL SIGNS

- STATE LINE
- COUNTY LINE
- COMPARISON LINE
- PROPOSED NEW LINE
- EXISTING FENCE
- PROPOSED FENCE
- EDGE OF STREAM
- EXISTING ROAD
- RAILROAD
- GAS LINE
- WATER LINE
- TELEPHONE LINE
- ELECTRIC LINE
- TELEPHONE POLE
- POWER POLE
- CONCRETE PIER AND TELEPHONE POLE
- TRAIL
- SHRUB
- ROOT OF MAP MARKER

LAYOUT SCALE



INDEX TO SHEETS

NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATE OF QUANTITIES
3	GENERAL NOTES
4	MAINTENANCE OF TRAFFIC
5	PROFILES & TYPICAL SECTION
6	CROSS SECTIONS
7-10	CROSS SECTIONS

BRIDGE NO. 14-29/3-0.74

FEDERAL STATE DIST. NO.	PROJECT NUMBER	COUNTY	SHEET TOTAL
0	8714-REV-3-0.14	HAMPSHIRE	7 21
N.Y.C. NO.			

CONTROL ELEVATIONS

CODE	ABUTMENT	ABUTMENT ?
1*	598.21	597.66
2	598.15	595.91

CONTROL ELEVATIONS ESTABLISHED FROM SURVEY

CONTROL STATIONING

CODE	LOCATION	STATION VALUE
3	ROADWAY AT BEARING	38+11.49
4	ROADWAY AT BEARING	38+05.04

CONTROL STATIONING ESTABLISHED FROM SURVEY

CONTROL DIMENSIONS

DIMENSION	CODE	VALUE
BEARING CROSSING	A	60" W
LENGTH OF BEAMS, OUT-TO-OUT	B	41'-4"
DECK WIDTH, OUT-TO-OUT	D	81'-0"
NUMBER OF BEAMS	E	7
SPAN LENGTH, & BEARING TO	F	41'-0"
DISTANCE FROM END OF BEAM TO & OF DRAIN	H	N/A
NUMBER OF DRAINS, EACH SIDE	I	N/A
PERPENDICULAR DISTANCE FROM & BEARING TO END OF BEAM	J	4'-0"
DISTANCE FROM END OF BEAM TO FIRST SUBRAIL POST	K	1'-4"
NUMBER OF SUBRAIL POSTS EACH SIDE	L	16
DISTANCE FROM & BEARING TO END OF BEAM (PARALLEL TO & ROAD)	M	8"
WIDTH OF EXPANSION JOINT PARALLEL TO & OF ROADWAY	N	2"
PERPENDICULAR WIDTH OF EXPANSION JOINTING	P	1"
GRADE %	R	-1.25%

ESTIMATE OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITY
402018-011	PRESTRESSED CONCRETE BEAMS	LF	318.5
401002-001	INRA BEARING CROSSING	TOP	12

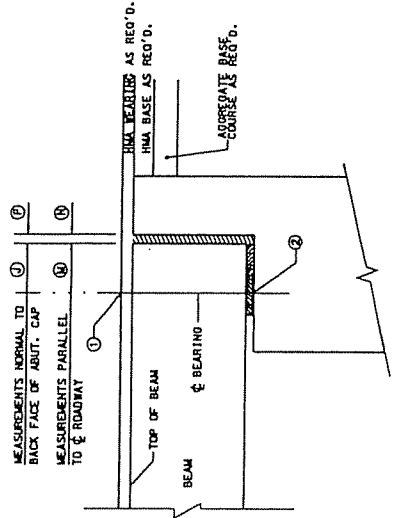
THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - STRUCTURES

PINOAK BRIDGE
OVER
CROOKED RUN
IN
HAMPSHIRE COUNTY
SUPERSTRUCTURE PLAN

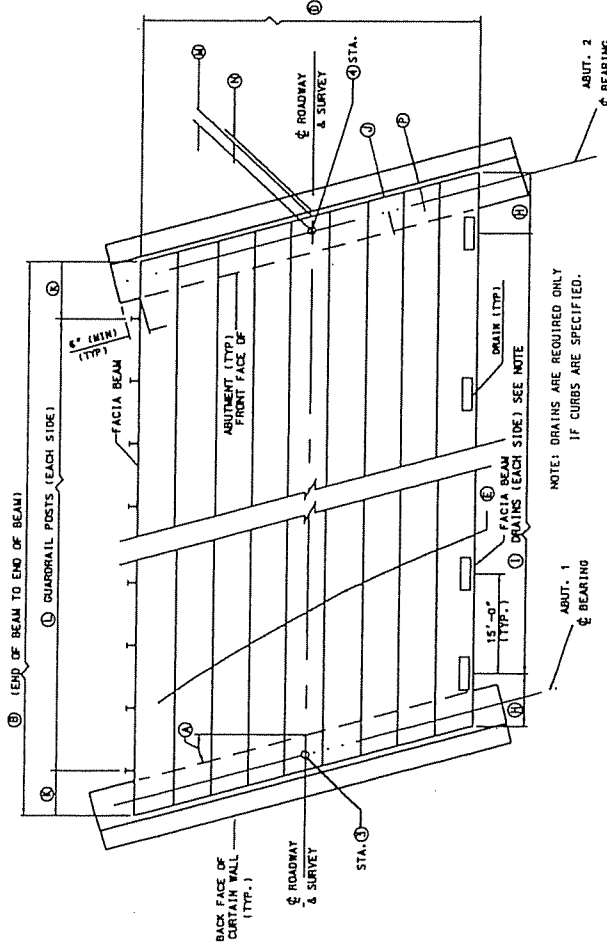
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - STRUCTURES
DESIGNED BY: [blank]
DRAWN BY: [blank]
CHECKED BY: [blank]
APPROVED BY: [blank]
DATE: 11-04
SCALE: AS SHOWN
PROJECT NO. 14-23(2)-0.14
BRIDGE DESIGN NO. [blank]

SHEET BR-1A

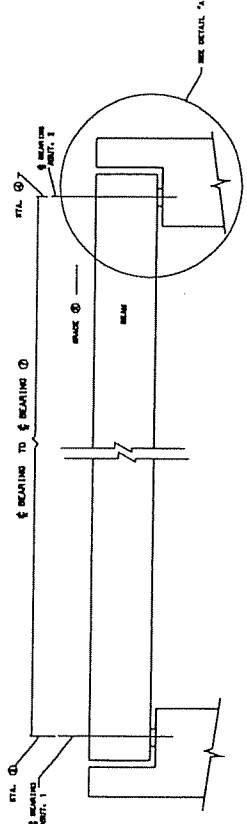
* IF BEARING SURFACE IS DELETED, AFFECTED ELEVATIONS SHALL BE MEASURED FROM TOP SURFACE OF THE BEAM



CONTROL ELEVATIONS & BEARING DIMENSIONS ALONG & ROADWAY
DETAIL "A"



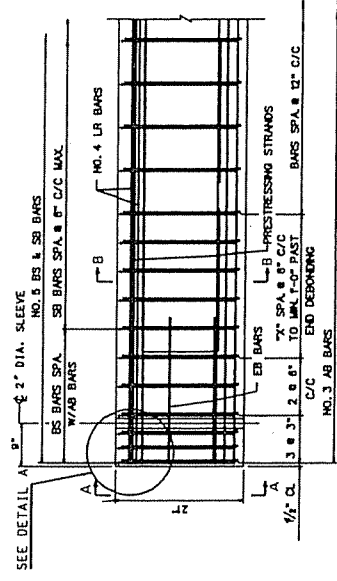
SUPERSTRUCTURE LAYOUT PLAN



SUPERSTRUCTURE ELEVATION ALONG & ROADWAY

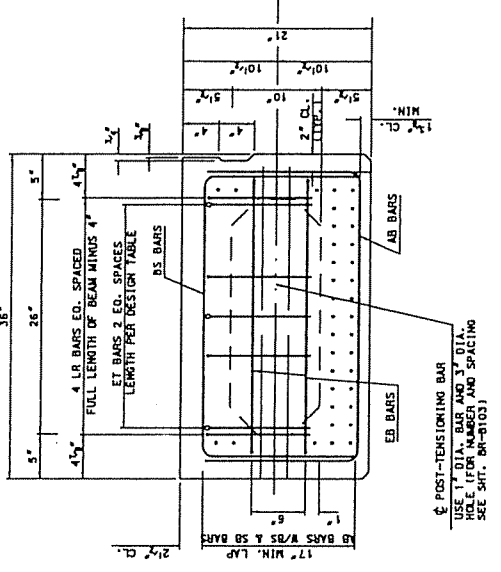
PROJECT NO.	PROJECT NUMBER	COUNTY	SHEET NO.
14-297-0-74	14-297-0-74	HAMPSHIRE	13

- NOTES:
1. ALL NON-PRESTRESSING REINFORCING BARS SHALL BE GRADE 60.
 2. ALL LAP SPICES LENGTHS EXCEPT WHERE SHOWN SHALL BE AS IN TABLE ON SHEET BR-B01.
 3. ALL REINFORCING STEEL BARS SHALL BE EPOXY COATED.
 4. ALL STRANDS SHALL BE ENCLOSED INSIDE STRIP CAGE ENTIRE LENGTH OF BEAM.
 5. THIS SHEET TO BE USED WITH STANDARD SHEET NUMBERS BR-B01, BR-B02, BR-B03, BR-B04, BR-B05, BR-B06, BR-B07, BR-B08, AND BR-B09 FOR DETAIL OF 21" DIA. ANCHOR BELLIE.
 6. WHEN STRAND NO. 20 AND 30 ARE USED, SEE SHEET BR-B01 FOR DETAIL OF 21" DIA. ANCHOR BELLIE.

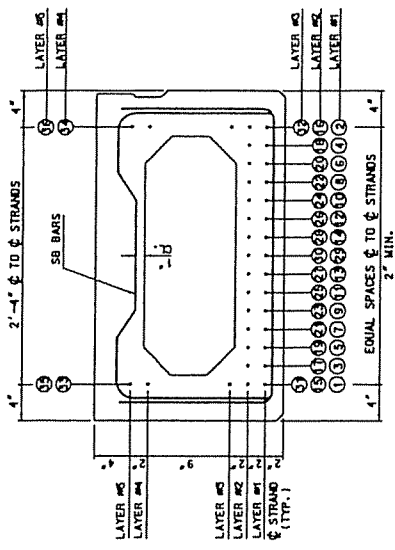


NOTE: SEE SHEET BR-B01 FOR REINFORCING BAR DETAILS FOR SKEWED BEAM.

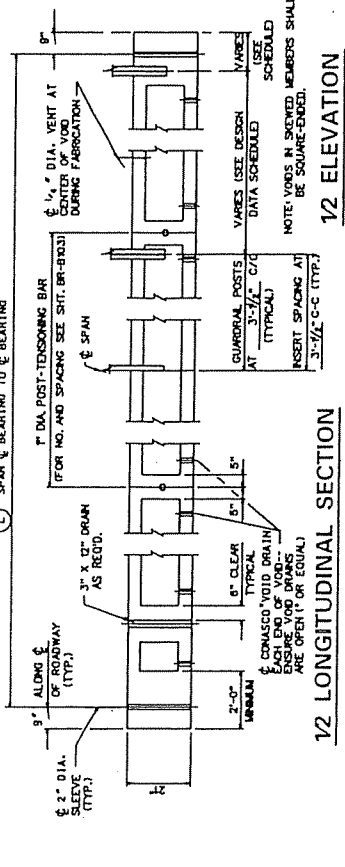
REINFORCING STEEL ELEV. VIEW



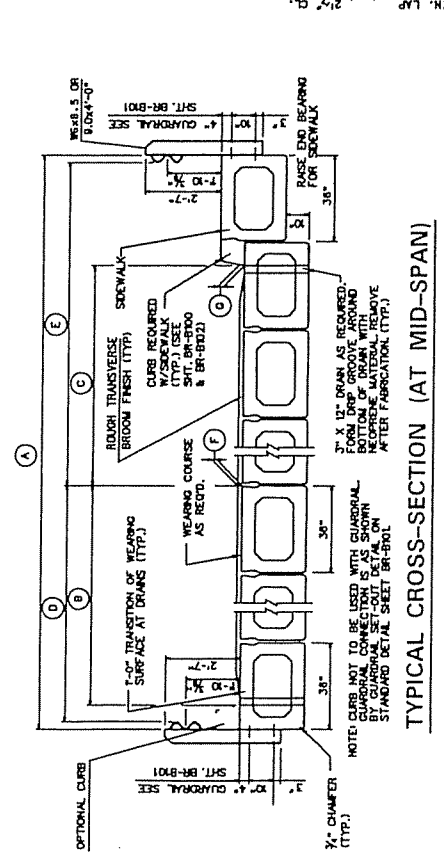
TYPICAL BEAM REINFORCEMENT



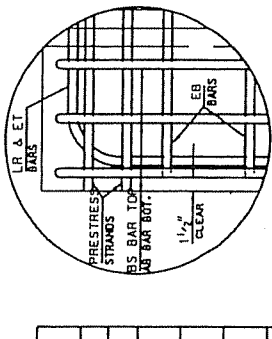
SECTION B-B
TYPICAL BEAM PRESTRESSING



1/2 LONGITUDINAL SECTION



TYPICAL CROSS-SECTION (AT MID-SPAN)



DETAIL A

CODE	DESCRIPTION	VALUE	DESCRIPTION	VALUE
A	DECK WIDTH, OUT TO OUT	21'-0"	HOT-LAND BITUMINOUS CONCRETE REQUIRED (YES OR NO)	YES
B	DISTANCE FROM & ROADWAY TO FACE OF CURB (AND SIDEWALK)	N/A	GUARDRAIL REQUIRED (YES OR NO)	YES
C	DISTANCE FROM & ROADWAY TO FACE OF CURB (WITH SIDEWALK)	N/A	DRAINS REQUIRED (YES OR NO)	NO
D	DISTANCE FROM & ROADWAY TO FACE OF GUARDRAIL (AND SIDEWALK)	10'-0"	CURTAIN WALL REQUIRED (YES OR NO)	YES
E	DISTANCE FROM & ROADWAY TO FACE OF GUARDRAIL (WITH SIDEWALK)	N/A	GUARDRAIL SET-OUT REQUIRED (YES OR NO)	YES
F	THICKNESS OF WEARING COURSE AT & ROADWAY	3"	GUARDRAIL BLOCK-OUT REQUIRED (YES OR NO)	YES
G	THICKNESS OF WEARING COURSE AT FACE OF CURB	1"		
L	SPAN LENGTH, & BEARING TO & BEARING	44'		

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-STRUCTURES

PINOAK BRIDGE
OVER
CROOKED RUN
IN
HAMPSHIRE COUNTY

21" PRESTRESSED BOX BEAM
DESIGN & ASSEMBLY DETAILS

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS-STRUCTURES

21" PRESTRESSED CONCRETE
BOX BEAMS

DESIGN & ASSEMBLY DETAILS
SHEET BR-B21A

DATE	BY	CHECKED
11/20/00	DLH	
DATE	BY	CHECKED
11/20/00	DLH	
DATE	BY	CHECKED
11/20/00	DLH	
DATE	BY	CHECKED
11/20/00	DLH	

STATE	PROJECT NUMBER	COUNTY	SHEET TOTAL
VA	5314-2A/2-0-74	HAMPSHIRE	14
DATE	W.V.A.	5	21

MIN CONCRETE STRENGTH @ DETENSION = 4,000 PSI.
 MIN CONCRETE STRENGTH @ 28 DAYS = 5,000 PSI.
 JACKING FORCE /LOW RELAX STRAND = 30,980 LBS

DESIGN DATA FOR 21" DEPTH BOX BEAM

SPAN LENGTH ϕ TO ϕ BEARING	30'	32'	34'	36'	38'	40'	42'	44'	46'	48'	(4)	(4)	(4)	(4)
	OVERALL LENGTH ALONG ϕ ROADWAY	31'-6"	33'-6"	35'-6"	37'-6"	39'-6"	41'-6"	43'-6"	45'-6"	47'-6"	49'-6"			
NO. OF GRADE 270, 1/2" DIA. LDW-RELAX. STRANDS, AREA/STRAND=0.153 SQ. IN.	8	10	10	12	12	14	14	15	16	17				
STRAND POSITION NUMBER	1-2, 7-8, 13, 14, 35 & 36	1-2, 5-6, 9, 10, 13, 14, 35 & 36	1-2, 5-6, 9, 10, 13, 14, 35 & 36	1-2, 5 thru 10, 35 & 36	1-2, 5 thru 10, 35 & 36	1 thru 12, 35 & 36	1 thru 12, 35 & 36	1 thru 12, 35 & 36	1 thru 12, 35 & 36	1 thru 12, 15, 16, 29, 35 & 36				
PRESSURING FORCE AT DETENSION (KIPS/BEAM)	241	239	239	356	357	413	413	441	470	498				
FINAL PRESTRESSING FORCE (KIPS/BEAM)	223	273	274	321	323	368	370	393	417	440				
ULTIMATE DESIGN MOMENT (FT-KIPS/BEAM)	349	397	444	493	542	592	643	695	746	797				
ULTIMATE RESISTING MOMENT (FT-KIPS/BEAM)	375	481	481	583	583	679	679	725	757	801				
TOTAL NUMBER OF DEBONDED STRANDS	-	-	-	-	-	-	-	1	-	1				
LAYER 1-DEBONDED STRAND POSITION NUMBER AND LENGTH FROM EACH END	-	-	-	-	-	-	-	29 @ 3'-0"	-	29 @ 3'-0"				
LAYER 2-DEBONDED STRAND POSITION NUMBER AND LENGTH FROM EACH END	-	-	-	-	-	-	-	-	-	-				
END TENSION STEEL EACH END (SIZE & LENGTH)	3-#4 X 8'-6"	3-#4 X 7'-0"	3-#4 X 7'-6"	3-#4 X 8'-0"	3-#4 X 8'-0"	3-#4 X 8'-6"	3-#4 X 9'-0"	3-#4 X 9'-6"	3-#4 X 10'-0"	3-#4 X 10'-0"				
CAMBER (I)	DETENSION, INCHES \rightarrow UPWARD (in)	0.08	0.18	0.18	0.30	0.46	0.46	0.55	0.61	0.71				
	ERECTION, INCHES \rightarrow UPWARD (in)	0.11	0.27	0.26	0.47	0.46	0.70	0.69	0.82	0.88				
WEIGHT OF TYPICAL BEAM INCLUDING DIAPHRAGM (TONS) (0.12)	FINAL, INCHES \rightarrow UPWARD (in)	0.08	0.28	0.24	0.48	0.43	0.72	0.65	0.78	0.91				
	NO. OF INSERTS	9-1	9-6	10-1	10-6	11-2	11-7	12-2	12-7	13-4	13-9			
NUMBER AND SPACING OF GUARDRAIL INSERTS	END OF BEAM TO FIRST INSERT EACH END	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"	1'-9"				
	ϕ OF FIRST INSERT TO ϕ OF SECOND INSERT EACH END	3'-0 1/2"	2'-5"	1'-11 1/2"	2'-11 1/2"	2'-4 1/2"	1'-9 1/2"	2'-9 1/2"	2'-3"	1'-8 1/2"				

NOTES:

- BEAM WEIGHTS LISTED IN DESIGN TABLES ARE APPROXIMATE AND ARE BASED ON ZERO SKEW AND DIAPHRAGMS SPA @ 15'-0" C-C MAX. ADDITION OF SKEW AND EXTRA DIAPHRAGMS WILL INCREASE WEIGHT.
- FOR STANDARD CURB, ADD 93 LBS. (0.05 TON) PER CURB, PER FOOT OF BEAM.
- CAMBER VALUES LISTED IN DESIGN TABLE ARE APPROXIMATE AND ARE FOR COMPARISON PURPOSES ONLY. THEY ARE NOT TO BE USED FOR INSPECTION PURPOSES UNLESS PERMITTED BY THE DIRECTOR OF STRUCTURES DIVISION.
- DATA LISTED IN THE DESIGN TABLE MAY NOT BE VALID FOR SPAN LENGTHS THAT FALL BETWEEN THE SPAN LENGTHS LISTED. IF DIFFERENCES ARE ENCOUNTERED, CALCULATE AND ENTER SPECIFIC DATA FOR BEAM LENGTH REQUIRED IN THIS COLUMN.
- THIS SHEET IS TO BE USED WITH STANDARD SHEET NUMBERS BR-1A OR BR-1A, BR-21A, BR-810A, BR-810B, BR-810C, BR-810D, AND BR-810E.
- HORIZONTAL BEAM SKEW SHALL BE 30 DEGREES.
- BEAM FABRICATOR AND DIRECTOR SHALL BE AWARE THAT SKEWED BEAM ENDS MAY TWIST OR WARP. CAUSING UNDESIRABLE BEHAVIOR. BEAMS SHOULD BE CHECKED FOR CORRECT AT THE TIME OF BEAM ERECTION BEFORE BEAMS ARE SECURED IN PLACE AND A LEVEL, TOP BEAM SURFACE METHOD BY DIRECTOR OF STRUCTURES DIVISION.
- TOTAL BEARING ON THE PADS AND A LEVEL, TOP BEAM SURFACE METHOD SHALL BE A PRE-APPROVED METHOD BY DIRECTOR OF STRUCTURES DIVISION.
- BEAM FABRICATOR SHALL NOTIFY CONTRACTOR THAT BEAM ENDS ARE TWISTED PRIOR TO SHIPPING OF BEAMS.

THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS-STRUCTURES

PINOAK BRIDGE
 OVER
 CROOKED RUN
 IN
 HAMPSHIRE COUNTY

DESIGN TABLE FOR 21"
 BRIDGE NUMBER
 14-29-AM-0-74

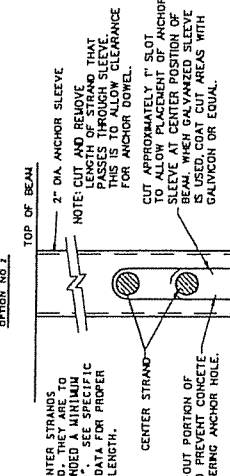
PRESTRESSED BOX BEAM

STANDARD SHEET BR-821B

DATE: 4-16-95
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]

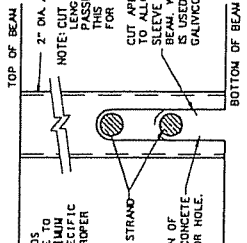
PUBLIC STATE FUNDS DIST. NO.	PROJECT NUMBER	COUNTY	SHEET TOTAL SHEETS
5	531-A-28/2-0-14	HAMPSHIRE	16 21

TO ASSURE THE 2" DIAMETER ANCHOR SLEEVE WHEN CENTER STRANDS 1" AS LONG AS THEY REMAIN STRAIGHT ABOUT THE CENTERLINE OF THE STRAND CHECK DESIGN OF NEW PATTERN AND COMPLETE DESIGN TABLE WITH NEW DATA.

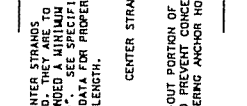


ANCHOR SLEEVE DETAILS
USE WHEN CENTER STRAND IS SPECIFIED

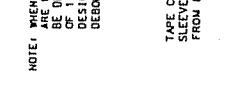
SECTION NO. 1
SECTION NO. 2



SECTION NO. 1
SECTION NO. 2



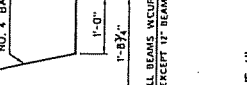
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SECTION NO. 1
SECTION NO. 2



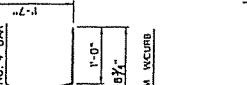
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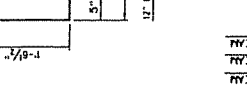
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SECTION NO. 2



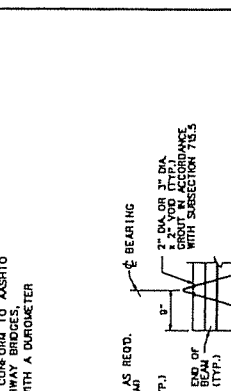
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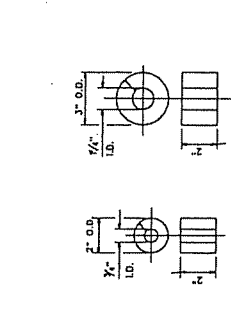
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SECTION NO. 2



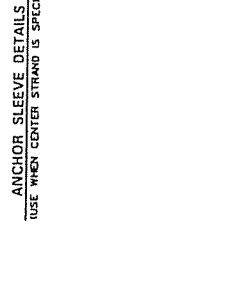
SECTION NO. 1
SECTION NO. 2



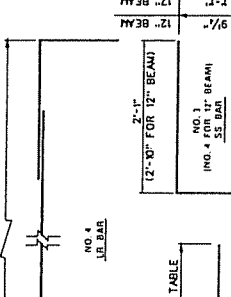
ELASTOMERIC BEARING PAD DETAIL
NOTES: THE BEARING PAD SHALL CONFORM TO ASHTO SECTION 10 DIVISION 1, WITH A CHARACTER HARDNESS OF 60.



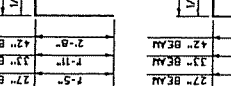
LIFTING LOOP
BLOCKOUT DETAILS



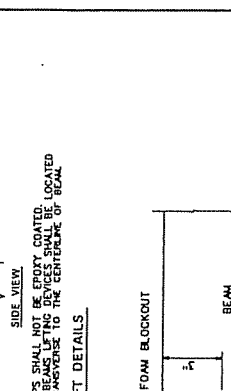
LIFTING LOOP
BLOCKOUT DETAILS



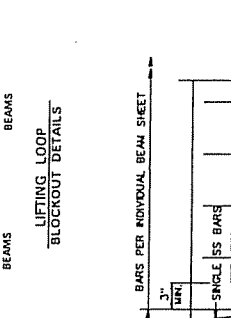
LIFTING LOOP
BLOCKOUT DETAILS



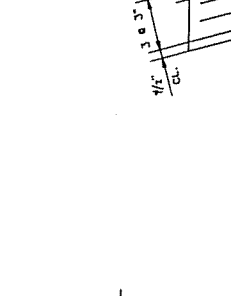
LIFTING LOOP
BLOCKOUT DETAILS



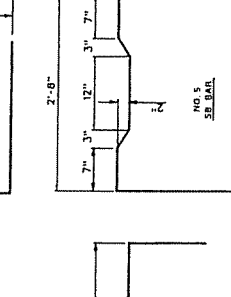
BLOCKOUT DETAIL
NOTES: 1) OPERATOR SHALL PROVIDE BLOCKOUT OF ACUTE CORNERS ON ALL BEAMS WITH SLOPES OF 10 DEGREES OR GREATER. 2) AFTER ERECTION, ALL INTERIOR BLOCKOUT Voids SHALL BE FILLED WITH GROUT IN ACCORDANCE WITH SUBSECTION 715.5 OF THE STANDARD SPECIFICATIONS.



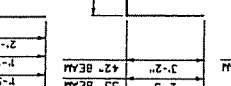
BLOCKOUT DETAIL



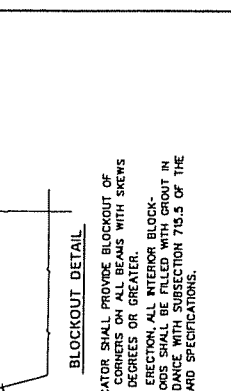
BLOCKOUT DETAIL



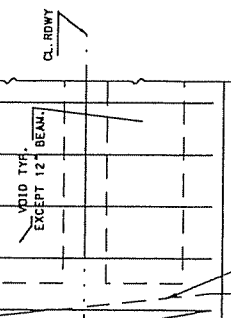
BLOCKOUT DETAIL



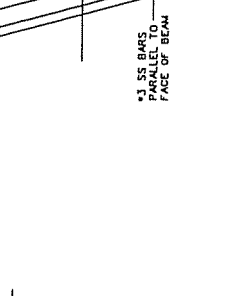
BLOCKOUT DETAIL



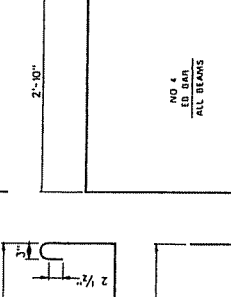
SHEAR REINFORCEMENT DETAIL
SKEWED BEAMS



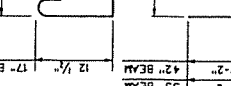
SHEAR REINFORCEMENT DETAIL
SKEWED BEAMS



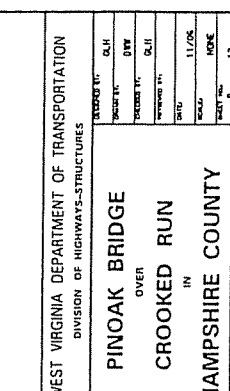
SHEAR REINFORCEMENT DETAIL
SKEWED BEAMS



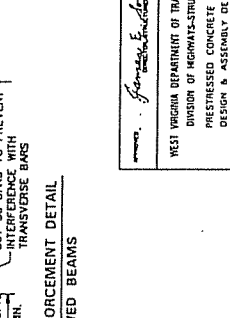
SHEAR REINFORCEMENT DETAIL
SKEWED BEAMS



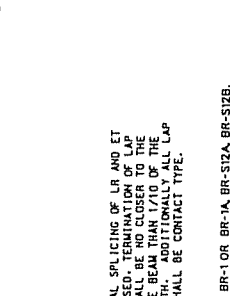
SHEAR REINFORCEMENT DETAIL
SKEWED BEAMS



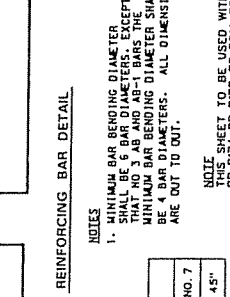
REINFORCING BAR DETAIL



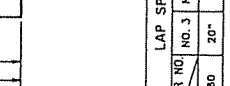
REINFORCING BAR DETAIL



REINFORCING BAR DETAIL



REINFORCING BAR DETAIL



REINFORCING BAR DETAIL

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
20"	NO. 3	20"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
27"	NO. 3	27"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
33"	NO. 3	33"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
42"	NO. 3	42"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
47"	NO. 3	47"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
52"	NO. 3	52"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
57"	NO. 3	57"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
62"	NO. 3	62"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
67"	NO. 3	67"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
72"	NO. 3	72"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
77"	NO. 3	77"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
82"	NO. 3	82"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
87"	NO. 3	87"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
92"	NO. 3	92"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
97"	NO. 3	97"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
102"	NO. 3	102"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
107"	NO. 3	107"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
112"	NO. 3	112"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
117"	NO. 3	117"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
122"	NO. 3	122"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
127"	NO. 3	127"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
132"	NO. 3	132"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
137"	NO. 3	137"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
142"	NO. 3	142"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
147"	NO. 3	147"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
152"	NO. 3	152"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
157"	NO. 3	157"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
162"	NO. 3	162"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
167"	NO. 3	167"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
172"	NO. 3	172"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
177"	NO. 3	177"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
182"	NO. 3	182"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
187"	NO. 3	187"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
192"	NO. 3	192"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
197"	NO. 3	197"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
202"	NO. 3	202"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
207"	NO. 3	207"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
212"	NO. 3	212"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
217"	NO. 3	217"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
222"	NO. 3	222"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
227"	NO. 3	227"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
232"	NO. 3	232"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
237"	NO. 3	237"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
242"	NO. 3	242"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
247"	NO. 3	247"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
252"	NO. 3	252"	33"	36"	45"	

GRADE	BAR NO.	NO. 3	NO. 4	NO. 5	NO. 6	NO. 7
257"	NO. 3	257"	33"	36"	45"	

GRADE	BAR
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A F F I D A V I T

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 owned 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 exceeds 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.

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. Vendors should visit www.state.wv.us/admin/purchase/privacy for the Notice of Agency Confidentiality Policies.

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

Vendor's Name: Carr Concrete Corp.
 Authorized Signature: Robert Starley Date: 3/6/07