



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
 RMA10030

PAGE
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF
 FRANK WHITTAKER
 304-558-2316

RFQ COPY
 TYPE NAME/ADDRESS HERE

VENDOR

SHIP TO

WV STATE RAIL AUTHORITY
 (DBA) SOUTH BRANCH VALLEY
 RAILROAD
 120 WATER PLANT DRIVE
 MOOREFIELD, WV
 26836 304-538-2305

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
07/06/2010				

BID OPENING DATE: 07/22/2010 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
***** ADDENDUM NO. 1 *****						
THIS ADDENDUM IS ISSUED TO PROVIDE THE ATTACHED REVISED SPECIFICATIONS, ATTACHEMENT A, ATTACHMENT B, ATTACHMENT C (MANDATORY PRE-BID SIGN IN SHEET) AND TO EXTEND THE BID OPENING DATE AND TIME.						
BID OPENING CHANGED TO: 07/22/10 AT 1:30 PM.						
***** END ADDENDUM NO.1 *****						
0001	1	FT		570-48		
CROSSTIE REPLACEMENT AND SURFACING						

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

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

INSTRUCTIONS TO BIDDERS

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

Addendum #1

This addendum will completely replace the original RFQ for RMA10030. All changes from the original will be in italics. Removed sections will be shown as strikethroughs.

The West Virginia Purchasing Division for the agency, The West Virginia State Rail Authority is soliciting bids for crosstie replacement, surfacing, regulating, welding of rail joints, culvert replacement and highway-railroad grade crossing replacement. All work is located on the West Virginia Central Railroad (WVCR).

DESCRIPTION OF WORK

4000 TIES: ~~MP 3.0 to MP 16.0 – 2500 ties and MP 45.0 to MP 53.0 – 1500 ties. (75% of the 4000 ties are in curves)~~ *MP 0 – MP 13.0 – 1900 ties, MP 21.8 Norton Industrial Track – 100 ties, MP 24.5 – MP 28.5 – 500 ties and MP 45.0 to MP 50.0 – 1500 ties. (75% of the 4000 ties are in curves)*

1. Tie Replacement

- a. Ties will be handled carefully to avoid damage in accordance with AREMA specifications.
- b. The contractor will replace only those ties marked for replacement by WVCR.
- c. The contractor will remove and properly dispose of old ties. Ties must be stacked clear of tracks and must not be stacked on property other than WVCR right-of-way.
- d. New and old ties can be stored at Belington, Elkins, Bowden and Cheat Bridge until removed.

2. Spiking of Ties

- a. New ties will be spiked to a gage of 56 ½ inches, plus or minus ¼ inch. Additional ties will be plugged and respiked to correct gage to ensure there is no abrupt change in gage where ties are replaced.
- b. All ties replaced or respiked will have new spikes. Old spikes will not be reused. Spikes shall be started and driven vertically and square with the rail. They shall have full bearing against the side of the rail base. Spikes shall not be overdriven. Ties on tangents will get four spikes per tie. Ties on curves will get six spikes per tie. The correct spiking pattern will be used on all new ties and any adjacent ties that are respiked to correct gage.

3. Rail Anchors

- a. All rail anchors will be reapplied in their existing location and properly fitted against ties.

4. Tamping

- a. Tie gang will tamp all newly inserted ties as they are placed in the track and ballast will be replaced at ends of ties. *Ballast regulator will be used to regulate ballast and reshape shoulders. Track needs to be restored to proper surface with a minimum of two insertions for each tie. Final tamping for tie replacement will be done as described in section 5 of these specifications.*

5. ~~Final Surfacing, Alinement and Ballast Regulating~~

- a. ~~Contractor will use a Jackson 6700, Mark IV or equivalent tamper to give the track within the designated area a "skin lift" and establish best fit for curves including appropriate spirals. Surfacing will taper into bridges and grade crossings.~~
- b. ~~Track needs to be restored to proper surface with a minimum of two insertions for each tie.~~
- c. ~~WVCR will provide information on superelevation of curves.~~
- d. ~~When surfacing a turnout, tamping will continue for a distance of at least 100 feet onto the side track to ensure uniform surface through the turnout.~~
- e. ~~A ballast regulator will follow the tamper to regulate ballast and reshape shoulders. Contractor will place any additional ballast where it may be needed after surfacing. All curves with welded rail will have a ballast shoulder of at least 12 inches on the outside of the curve.~~

SURFACING & BALLAST REGULATION:

In addition to areas where ties and ballast are installed, additional regulating will be needed from MP 14.0 to MP 15.0. There is adequate ballast at these locations just needs to be dressed with the regulator.

~~In addition to areas where ties and ballast are installed, An additional 10 miles of track will be surfaced between MP 72 – MP 82. The West Virginia Central Railroad will be responsible for proper ballast at these locations. The contractor will have to regulate and surface this area. There are three (3) turnouts in this section. Surfacing will be completed as follows:~~

- *Final Surfacing, Alinement and Ballast Regulating*
 - a. *Contractor will use a Jackson 6700, Mark IV or equivalent tamper to give the track within the designated area a "skin lift" and establish best fit for curves including appropriate spirals. Surfacing will taper into bridges and grade crossings.*
 - b. *Track needs to be restored to proper surface with a minimum of two insertions for each tie.*
 - c. *WVCR will provide information on superelevation of curves.*

- d. *When surfacing a turnout, tamping will continue for a distance of at least 100 feet onto the side track to ensure uniform surface through the turnout.*
- e. *A ballast regulator will follow the tamper to regulate ballast and reshape shoulders. Contractor will place any additional ballast where it may be needed after surfacing. All curves with welded rail will have a ballast shoulder of at least 12 inches on the outside of the curve.*
- f. *The contractor is responsible for repair of any damage done to grade crossing signal systems. Repairs must be done that same day.*

CULVERT INSTALLATION: (Depth of each culvert is listed below)

Replaced Culverts: *All culverts are 2-5 feet deep.*

MP 0.6 – Replace box culvert with 24” x 20’ culvert – 2 feet deep
 MP 1.2 - Replace box culvert with 24” x 20’ culvert – 2 feet deep
 MP 1.4 - Replace box culvert with 24” x 20’ culvert – 2 feet deep
 MP 1.5 - Replace box culvert with 24” x 20’ culvert – 2 feet deep
 MP 2.8 - Replace box culvert with 24” x 20’ culvert – 2 feet deep
 MP 3.1 - Replace box culvert with 24” x 20’ culvert – 2 feet deep
 MP 14.8 – Replace 24” culvert with 24” x 20’ culvert – 2 feet deep
 MP 15.7 – Replace 24” culvert with 24” x 20’ culvert – 1 foot deep
 MP 20.3 – Replace 24” culvert with 24” x 20’ culvert – 2 feet deep
 MP 72.7 – Replace 24” culvert with 24” x 20’ culvert – 2 feet deep
 MP 72.8 – Replace 24” culvert with 24” x 20’ culvert – 2 feet deep
 MP 74.5 - Replace 2- 12” concrete culvert with 24” x 20’ culvert – 2 feet deep
 MP 83.7 – Replace 24” culvert with 24” x 20’ culvert – 2 feet deep

Additional Culverts:

MP 17.0 – Add 24” x 20’ culvert – 2 feet deep
 MP 22.3 – Add 24” x 20’ culvert – 2-feet deep

DITCHING

The six box culverts that are being replaced between MP 0.6 and MP 3.1 each need ditching of 200 feet in each direction from the culvert (400 feet per culvert). This is simple ditching for proper drainage, for a total of 2,400 feet. Contractor is responsible to properly dispose of ditch material. Material can be disposed of over the bank at ditching sites.

WELD RAIL JOINTS:

There are 61 rail joints between MP 0 – 12. These joints are to be thermite welded per manufacturer’s instructions. The rail size is: 4 joints in 131# rail, 28 joints in 115# rail and 29 joints in #112 rail. *The quality of all welds shall be checked by the contractor*

using magnetic particle or ultrasound inspection in accordance with AREMA Specifications for Fabrication of Continuous Welded Rail. Test results are to be provided to the WV State Rail Authority.

REPLACEMENT OF HIGHWAY-RAILROAD GRADE CROSSING:

This crossing is at WVCR MP 28.3 at the industrial park in Elkins, WV. The crossing is located in tangent track and is 30 32 feet long. It currently has a timber surface. This crossing will receive the LT Resources composite crossing surface. The existing crossing timbers, rail, ties and ballast will be removed and the site excavated to the depth specified by the manufacturer. Filter fabric, drain pipes and signal conduit will be installed. *For the conduit, 4 inch- Schedule 80 pipe will be used. One on signal box side and one running under the crossing.* New 10' wood ties will be sized and spaced according to the manufacturer's specifications. *(attachment A) The 10' ties shall extend for three ties beyond each end of the crossing.* New ballast will be installed and tamped tight. The existing rail (131# RE) will be reused. ~~Four welds will be required to place the welded rail back through the crossing.~~ Contractor will be responsible to contact Mayor Duke Talbott, 304-636-5889, duke.talbott@glenville.edu to coordinate traffic flow, closure and/or detour alternatives. The road will be milled and paved for 20 feet off each edge of the crossing.

CONDUCT OF WORK

Train Traffic: Freight trains run from MP 0 to 29 during late winter and spring, freight trains typically operate five days a week. *During this time the contractor will be give a 10 hour window to work everyday.* Excursion trains run weekends thru Memorial Day, and Thursday, Friday, Saturday and Sunday during June. Additional excursions may be scheduled during weekdays or weekends on an as needed basis. Updated schedules will be provided to the contractor by DGVR. The track must be made safe for train traffic on those days. Contractor will need to coordinate work with the Durbin & Greenbrier Valley Railroad, the operator of the WVCR. Contact for track access is Mark Smith, 304-642-3050 or wcvtrack@yahoo.com.

Contractor will be responsible to provide a radio or radios capable of communicating with the DGVR. The radio must be a minimum of 40 watts. The contractor can get a radio from Hammicks Radios, 304-636-6210 and have it programmed with the same frequency as the DGVR. Each work crew must be equipped with a radio stationed to road channel 160.455. Cell service is limited so a radio is required for all crews.

All work will be subject to inspection by the SRA and WVCR.

The contractor will comply with all safety rules and regulations as required by the Federal Railroad Administration, WVCR and other parties as applicable.

The successful bidder will be required to have ALL employees that will be working on this project attend a ½ day class on track safety and track access. Also a mandatory preconstruction meeting will be held with all employees working on the project, the WVCR operator and their employees and a representative from the SRA. This meeting will assure that everyone understands the entire scope of work as outlined in the awarded purchase order. Also, it will be mandatory that a weekly status report be submitted to the SRA. This report will be signed by the contractor and railroad representative and will list the work completed for the week. A final inspection of all completed work will be conducted by the contractor, the DGVR and an SRA representative to assure all work is completed as stated in the specifications. Final payment will be withheld until this inspection is complete.

Contractor will use Heavy and Highway Construction Rates as established for Barbour, Randolph and Pocahontas Counties. These rates are pursuant to WV Code 21-5A, et. Seq. and are available at www.wvsos.com/adlaw/wagerates. Contractor will be responsible for submitting certified payrolls to the SRA.

There are sidings at Belington, Elkins, Bowden, Bemis and Cheat Bridge that can be used to tie-up equipment. These locations can also be used to stack old ties until removal.

Contractor will be responsible for clean-up of the work site. All debris and refuse will be removed from WVCR property and disposed of properly. This includes old crossties, switch ties and spikes removed during this project. *All materials are to be disposed of offsite with the exception of ditching materials which can be disposed on the railroad right-of-way.*

Track charts are provided as attachment B.

Attachment C is a copy of the pre-bid sign-in sheet.

MATERIALS

Contractor will be responsible for all materials meeting the specs below:

Culvert pipe will be polyethylene pipe with smooth interior.

4 – 131 # thermite weld kits

28 – 115 # thermite weld kits

29 – 112# thermite weld kits

Contractor is to follow the detailed manufacturer's instructions for the specific thermite process being used without deviation.

Ties will be new 7" x 9" x 8'6" industrial grade ties. Specifications in AREMA Chapter 3 will govern. Ties will be mixed hardwoods and oak, 100% end plated and creosote treated to 7# retention or refusal. Contractor will provide treated tie plugs. Contractor will

be responsible for all ties. Tie plates will be provided by the State Rail Authority where existing ties plates are defective or missing. (4000 ties)

Spikes must be new 5/8" x 6" and conform to AREMA specifications.

Bolts and washers must be new and conform to AREMA specifications.

Anchors shall be the proper size for the rail to which they are applied. Anchors will be new or reformed and be compatible with industry rail anchor machines.

Ballast shall be crushed stone or slag and shall conform to the current AREMA "Specifications of Prepared Stone, Slag, and Gravel Ballast". Size of ballast shall be AREMA #3 as indicated below:

Size of Opening	Percent Passing by Weight
2 ½"	100
2"	90 – 100
1 ½"	35 – 70
1"	0 – 15
½"	0

The phone number of JF Allen Company is 304-636-6095. This quarry is located on the mainline track.

All materials required for the LT Resources composite crossing at MP 28.3. Rail can be re-used. ~~Four thermite weld kits for 131# RE rail.~~ All material will meet AREMA specifications.

Paving will be HMA wearing skid mix and be installed by a paving contractor.

BIDDING REQUIREMENTS

The contractor MUST have previous experience in crosstie replacement, joint welding with thermite welds, culvert installation, track surfacing and regulating and installation of composite highway-railroad grade crossings. References may be required to prove past experience.

A mandatory pre-bid meeting will be held on June 15, 2010 at 10:00 am. Everyone will meet at the Elkins Depot in Elkins, WV. This meeting includes an inspection trip of the portion of railroad where the work will be completed. SRA and DGVR will not provide vendor transportation for the inspection trip. All potential vendors must make provision for their own hy-rail transportation. All vendors not participating in the inspection trip will be disqualified. Vendors will not be allowed to ride with DGVR or SRA employees.

Technical questions must be submitted in writing to Frank Whittaker in the Purchasing Division via email at Frank.m.whittaker@wv.gov or via fax at 304-558-2316. All technical questions will be addressed by addendum.

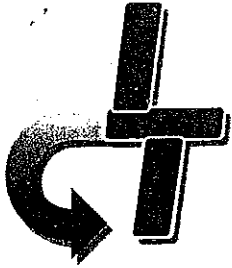
For bidding purposes, contractor is to give a unit cost for each item listed on cost sheet. Low bid will be determined by the lowest total amount for all unit costs multiplied by the quantities as listed on attached cost sheet:

RMA Cost Sheet

Line Item	Description	Unit Cost	Unit of Measure	Quantity	Extended Cost
	Tie Replacement <i>(including gaging of inserted tie)</i>				
1	Ties	\$	per tie	4,000	\$
	Additional Surfacing/Ballast Regulation				
2	Additional Surfacing	\$	per track foot	52,800	\$
				(10 miles)	
3	Additional Regulating	\$	per track foot	5,280	\$
				(1 miles)	
	Culvert Replacement				
4	Culvert (24 inch) x 20' Long -	\$	per culvert	13	\$
	New Culvert Installation				
5	Culvert (24 inch) x 20' Long	\$	per culvert	2	\$
6	Ditching				
	Ditching - MP 0.6 - MP 3.1	\$	per ft	2400	
	Rail Joint Welding				
7	Thermite Joint Welds		Per Weld	61	\$
8	Replace Highway-Railroad Grade Crossing				
	Replace crossing with new LT Resources				
	Composite crossing	\$	each		\$
				Total Bid:	\$

Notes:

- 1.) The above quantities are the agency's best estimate for the amount of work to be completed. Any variation in the actual quantities will be determine based on the unit price shown above for the given work.
- 2.) Vendors should complete this form in its entirety in lieu of submitting other quote forms. Submitted form should be provided in a legible form. (Typewritten form preferred.)
- 3.) Vendors must submit unit prices for all line items. Failure to provide unit prices will result in the disqualification of the vendor's bid.



LT Resources, Inc.

16690 Champion Forest Dr.,

360

Spring, TX 77379

281/444.3494

toll free: 800/440.1517

fax: 281/444.3495

www.ltresources.com

ENDURANCE™ Composite Crossings Installation Recommendations

Rail Size	Panel Thickness	Drill Bit Size	Fastener Size
85-100#	6"	5/8" x 12"	5/8" x 10-1/2"
110-133#	7-1/2"	5/8" x 12"	5/8" x 12"

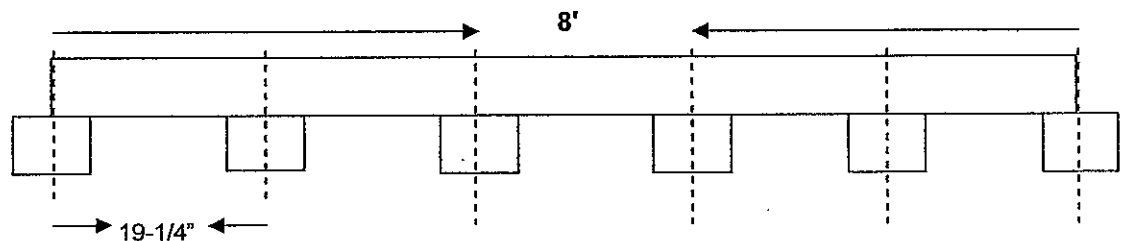
**IMPORTANT NOTE: Refer to "Installation Manual for Contractors" for
(1) Storage Recommendations Prior to Use, and
(2) Detailed Installation Instructions.**

CROSS TIES: New - 8' 6" Long or 10' Long

EQUIPMENT: Low RPM pneumatic drill
Standard track tools
5/8" carbide tip percussion rotary masonry bit
1/2" x 16" drill bit for wood
1-3/4" countersinking bit with carbide tip, or
one-step drill bit/countersink bit

FASTENER: 5/8" Recessed-head lag screws, or Dome-head screws

- **ENDURANCE™** Composite Crossings are designed for tangent track. However, with slight modifications, the crossings can easily be applied to track with 9° or less curve. Information as to the degree of the curve should be given to the supplier prior to order placement.
- The crossing bed should be prepared in accordance with recommended track construction practices.
- New cross ties should be used in new construction as well as replacement crossings.
- One 8' section of crossing consists of four (4) panels per **Figure 1**.
- Panel design includes a 3-1/2" wide x 1-1/2" deep notch on each side of each rail, allowing the panels to clear the tie plates.
- The outer edges of the panels have a radius to eliminate any damage by vehicular traffic.
- Cross ties should be positioned on 19-1/4" centers, making sure the ends of the **ENDURANCE™** Composite Crossing panels are centered and rest securely on crossties.



- A low RPM pneumatic drill should be used to reduce excess heat during the drilling process and to extend the life of the bit. The carbide masonry bit will allow the material to be ejected from the hole and the carbide material allows the bit to be sharpened for repeated use.
- (continued)*

Installation Recommendations *(continued from previous page)*

- Once the **ENDURANCE™** Composite Crossing panels are positioned, the fastener holes and countersinks can be pre-drilled.
 - The 1-3/4" bit should be used to countersink to a depth of 1". (Note: A one-step drill bit/countersink bit can also be used.)
 - A 5/8" hole (using the carbide masonry bit) should be drilled through the composite material and into tie no more than 1", being careful not to strike the assembly hardware (steel dowels).

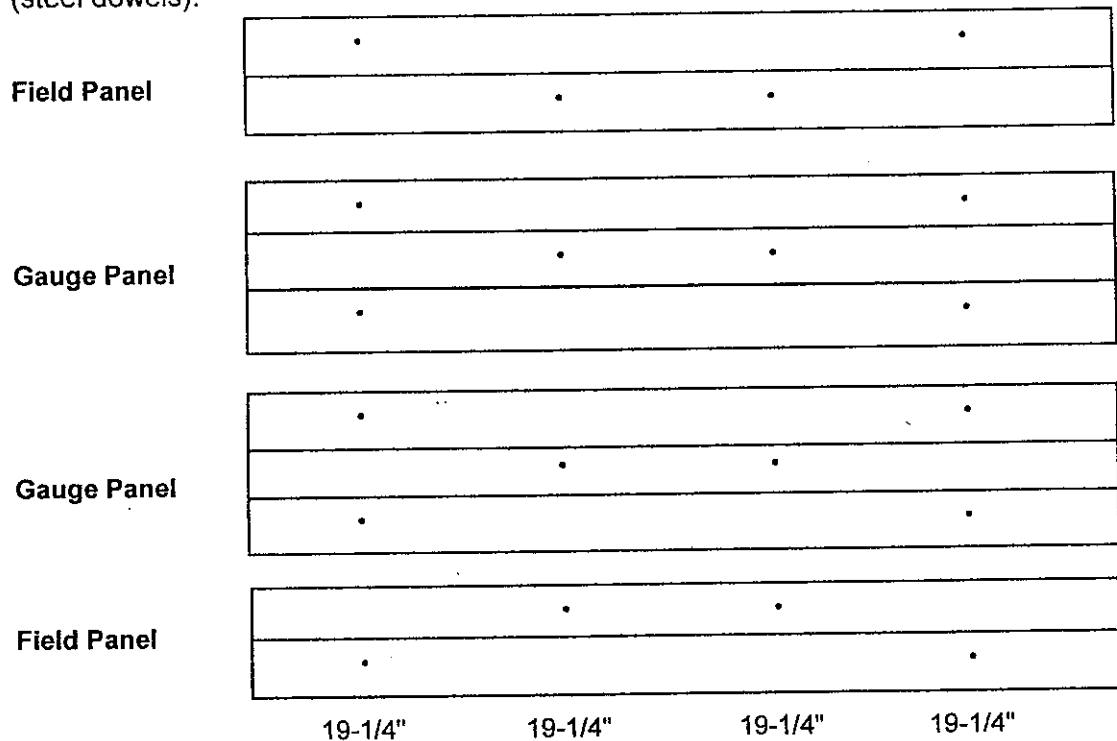
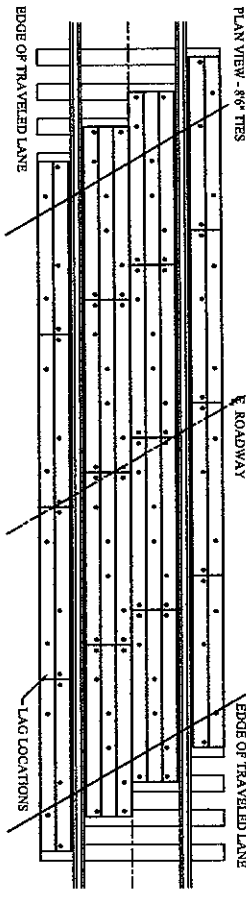


Figure 1 - Suggested Fastener Pattern

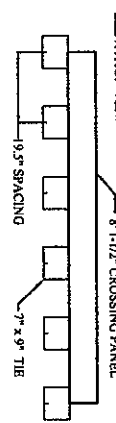
- Recessed-head lag screws can then be screwed into the holes to attach the crossing to the crossties underneath. Recessed-head lag screws with the larger number and greater depth of threads are recommended to provide a more superior "crossing-to-cross tie" attachment. **Figure 1** illustrates the suggested fastener pattern.
- Dome-head screws can be used in main entrance and heavy traffic areas; however, they should not be hammered into the crossing, as is the practice with wood crossings.
 - The appropriate length 5/8" drill bit should be used to pre-bore the holes in the crossing material, again, avoiding the assembly hardware (steel dowels) and being careful not to drill into the crosstie.
 - A 1/2" x 16" wood bit should be used to drill a 4" hole into the crosstie.
 - A 4-prong drill attachment should then be used to secure the dome-head screw into the crossing until the fastener head is flush with the crossing surface.
- Gauge panels are beveled slightly the entire length of the panel on the sides adjacent to the rail. Additional beveling on the jobsite may be needed to accommodate wheel hunting and prevent damage to the crossing panels. See instructions in "Installation Manual for Contractors".
- Flangeway filler is recommended to extend the life of the crossing.
- Factory pre-drilling and countersinking for installation hardware available at an additional charge.

TYPICAL 24' ROADWAY ON 30° SKEW (32' CROSSING)

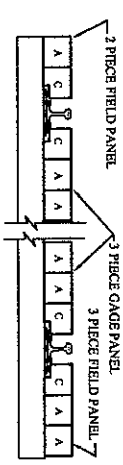


- NOTES:**
- 1) APPLICATION IS DIVIDED BETWEEN 5 1/2" AND 6" BASE RAIL. EACH CATEGORY IS SUITABLE FOR ALL AREMA STANDARD RAIL SECTIONS WITH THAT BASE DIMENSION.
 - 2) THE 1156RZ LAYOUT IS SHOWN WITH AREMA PLAN 12 PLATES. THE 1156RZ LAYOUT IS SHOWN WITH AREMA PLAN 12 PLATES.
 - 3) CONSULT MANUFACTURER WHEN USING FILLER LARGER THAN 3/4".
 - 4) THE LAYOUTS ARE SHOWN WITH UNIT BALL ANCHOR, LOW PROFILE DRIVEON AND SPRING ANCHORS EITHER OF WHICH IS REQUIRED WHEN USING POLYCORE EPITEX FLANGEWAY FILLER.
 - 5) 6" BASE RAIL APPLICATIONS REQUIRE EITHER 6 1/8" PANELS OR THE USE OF 3/4" SHIMS, SUCH AS PPS 9" PLAT SHIM OR EQUIVALENT, BETWEEN 7 1/4" PANELS. RAIL WEAR AND PLATE THICKNESS SHOULD BE CONSIDERED WHEN SELECTING SHIMS.
 - 6) RUBBER FLANGEWAY FILLER IS RECOMMENDED FOR BOTH THE FIELD AND GAGE SIDES OF THE RAIL. CONSULT MANUFACTURER FOR COMBINATION ALTERNATIVES AND PROPER APPLICATION OF THE FILLER MATERIALS.

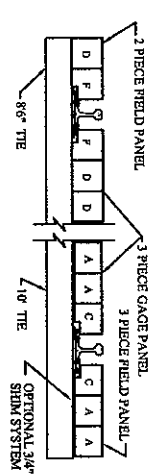
THE SPACING



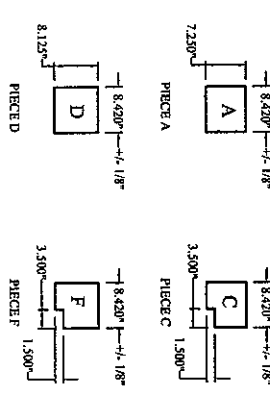
LAYOUT FOR 5 1/2" BASE RAIL / 86" & 10" TIES



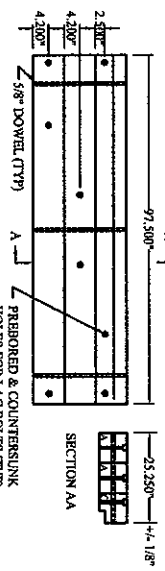
LAYOUT FOR 6" BASE RAIL / 8" 6" & 10" TIES



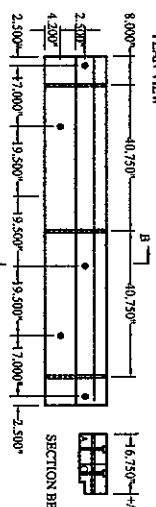
COMPONENT DIMENSIONS



3 PIECE GAGE PANEL / FIELD PANEL FOR 10" TIES

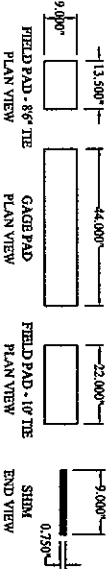


2 PIECE FIELD PANEL FOR 86" TIES

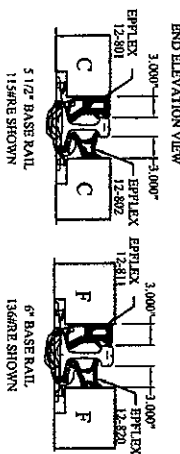


(DIMENSIONS ARE TYPICAL FOR BOTH GAGE AND FIELD PANELS)

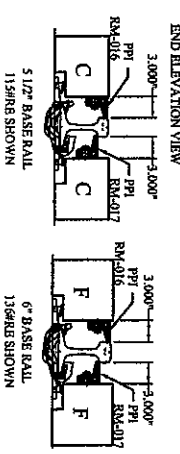
OPTIONAL SHIM SYSTEM



REMOVABLE EPITEX FLANGEWAY FILLER



PPI BOLT-ON FLANGEWAY FILLER



- MATERIALS & FABRICATION**
- 1) PANELS ARE COMPRISED OF STEEL PIECES DOVELETTED TOGETHER WITH TWISTED 5/8" DIAMETER INTERIOR BAR. THE TWISTED BAR MEASURES 3/4" DIAMETER.
 - 2) PANELS FOR 8" AND 10" TIES ARE SHOWN. PANELS FOR OTHER TIE LENGTHS ARE AVAILABLE UPON REQUEST.
 - 3) PANELS HAVE A SKID RESISTANT SURFACE.
 - 4) PANELS TO BE ASSEMBLED TO THE FILLER SHOULD BE MARKED WITH THE PATTERN INDICATED FOR THE PANEL AT THE LOCATION SHOWN.
 - 5) DOWELS FOR TWO AND THREE PIECE PANELS ARE 16" AND 24" LONG RESPECTIVELY.
 - 6) ASSEMBLED PANELS ARE TRIMMED TO MEASURE 8 1/4" x 116".
 - 7) 5/8" HOLES FOR THE PANEL FASTENERS ARE RE-DRILLED AND COUNTERSUNK 1 3/4" BY 1" DEEP IN THE PATTERN INDICATED PRIOR TO SHIPMENT.
 - 8) WHEN SPECIFIED, LIFTING DEVICES ARE PRE-INSTALLED. CONSULT MANUFACTURER FOR UTILIZATION DETAILS.
 - 9) WHEN SPECIFIED, CROSSINGS PANEL ENDS MAY BE BEVELLED.
 - 10) EACH PANEL IS MARKED WITH "ENDURANCE-XL".
 - 11) SEALANT TAPE IS RECOMMENDED FOR USE BETWEEN ENDS OF ADJACENT PANELS SUBJECT TO MOVEMENT FROM THERMAL EXPANSION AND CONTRACTION.

INSTALLATION:

- 1) THE DRAWING ASSUMES INSTALLATION ON TANGENT TRACK. FOR INSTALLATION ON CURVED TRACK, CONTACT THE MANUFACTURER FOR INSTALLATION RECOMMENDATIONS. ADHERE TO RECOMMENDATIONS ON CURVED TRACK IS NOT RECOMMENDED.
- 2) END OF CROSSING SHOULD BE AT LEAST 12' BEYOND THE EDGE OF TRAVELED LANE.
- 3) TRACK THROUGH THE CROSSING SHOULD BE CONSTRUCTED IN ACCORDANCE WITH AREMA STANDARDS OR THE INDIVIDUAL RAILROAD'S STANDARDS WITH ALL NEW 7" x 9" TIES ON 19.5" SPACING ENSURING THE TRACK IS WELL TAMPED.
- 4) PROPER SPACING IS CRITICAL TO ASSURE ENDS OF PANELS ARE PROPERLY CENTERED ON TIES AND UNSUPPORTED SPAN DOES NOT EXCEED MANUFACTURER'S RECOMMENDATIONS.
- 5) TRACK THROUGH THE CROSSING SHOULD BE ANCHORED IN ACCORDANCE WITH AREMA STANDARDS OR THE INDIVIDUAL RAILROAD'S SPECIFICATIONS. THE ANCHORS MUST BE LOW PROFILE AND ARE REQUIRED WITH POLYCORE RUBBER FLANGEWAY FILLER.
- 6) PANELS SHOULD BE POSITIONED WITH THEIR ENDS AS CLOSE TO THE CENTER OF THE TIE AS POSSIBLE WORKING FROM THE CENTER OF THE CROSSING OUTWARD.
- 7) STAGGERING OF THE PANELS IS RECOMMENDED IN ALL INSTALLATIONS.
- 8) GAGE PANELS SHOULD BE POSITIONED TIGHT TOGETHER WITH ANY RESULTING GAP BETWEEN THE RAIL AND THE PANELS EVENLY DISTRIBUTED BETWEEN THE TWO SIDES.
- 9) FACTORY DRILLING OF LAG SCREW HOLES IS RECOMMENDED.
- 10) FOR FIELD DRILLING OF LAG SCREW HOLES, ENSURE THE PANELS ARE PROPERLY POSITIONED BEFORE DRILLING 5/8" DIAMETER HOLES THROUGH THE PANEL. IN THE PATTERN INDICATED. COUNTERSINK THESE HOLES 1 3/4" DIAMETER BY 1" DEEP. A ONE STEP DRILL/COUNTERSINK BIT IS AVAILABLE. AVOID DRILLING INTO THE TIES MORE THAN 1/2" IN THE ABSENCE OF SPECIFIC RAILROAD THE DRILLING STANDARDS. THIS SHOULD BE PRE-DRILLED WITH 3/8" HOLES AT LEAST 1" DEEP.
- 11) CONSTRUCTION DRILL AND COUNTERSINK BITS WITH A LOW SPEED DRILL ARE RECOMMENDED FOR DRILLING THE HOLES.
- 12) 5/8" ACCESS HEAD LAG SCREWS ARE THE RECOMMENDED HOLD DOWN FASTENER FOR THE PANELS. 12" LAGS SHOULD BE USED FOR 7 1/4" PANEL HEIGHT AND 11" LAGS SHOULD BE USED FOR 8" AND 8 1/8" PANEL HEIGHT.
- 13) SHIMS AND FLANGEWAY FILLER SHOULD BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 14) SEALANT TAPE SHOULD BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 15) WHEN SPECIFIED, OPTIONAL 45° END BEVEL IS MANUFACTURED IN THE END PANELS STARTING 2" ABOVE THE BASE. THE END LAGS ON PANELS WITH BEVELLED ENDS SHALL BE 7 1/2" FOR 7 1/4" PANEL HEIGHT AND 10 1/2" FOR 8" AND 8 1/8" PANEL HEIGHT.

4	9 OCT 09	LT	ADD BEVELLED ENDS
3	9 OCT 09	LT	REVISED LAG PATTERN
2	3 AUG 09	LT	ADD EXPANSION FILLER
1	3 AUG 09	LT	REVISED LAG PATTERN
REV	DATE	APPROVED	REVISIONS

LT Resources, Inc.
 15814 Champion Forest Drive, #102
 Dover, OH 43003
 Phone: 781-596-7676 Fax: 781-596-7677
 Email: sales@ltresources.com

ENDURANCE-XL COMPOSITE CROSSING FOR 5 1/2" & 6" BASE RAIL

DATE: 11 MAR 09
 SCALE: NTS
 DRAWN BY: JLS
 CHECKED BY: JLS
 APPROVED BY: JLS

CUSTOMER: Endurance Crossing d/b/w

002 - 20

RS Rail Solutions Inc. 4815-Centerville Road, Cincinnati, OH 45242
 513-952-2200 Fax: 513-952-2201
 1366RZ SHOWN

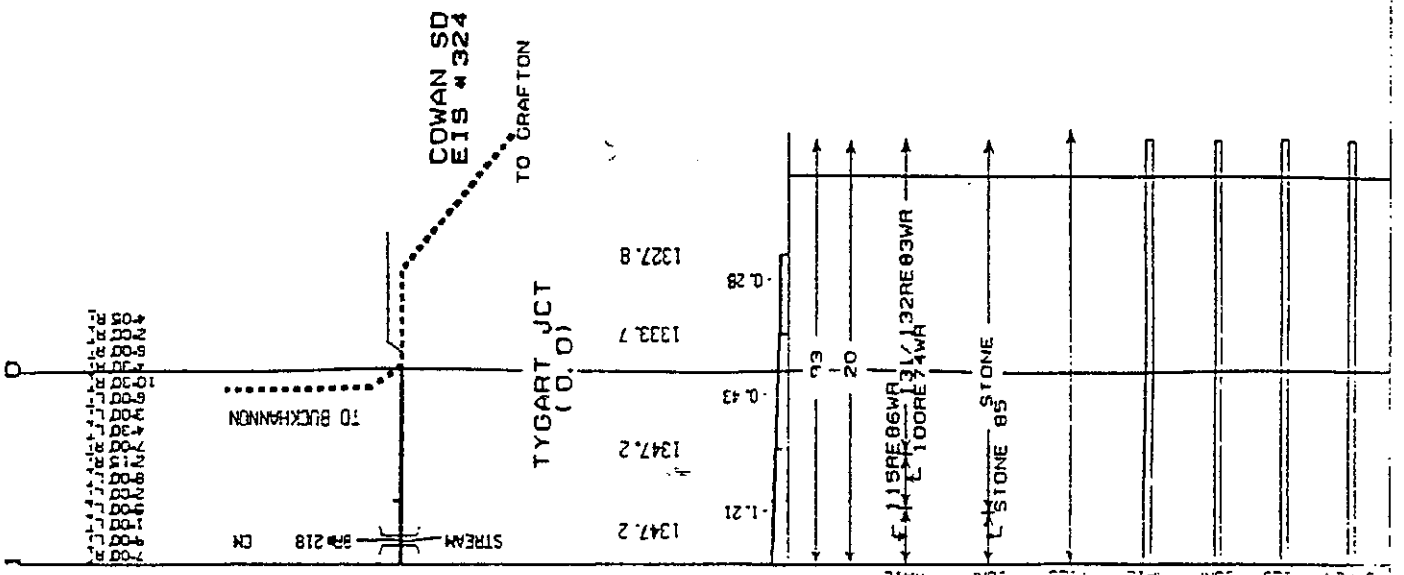
Attachment B

MPH RULE

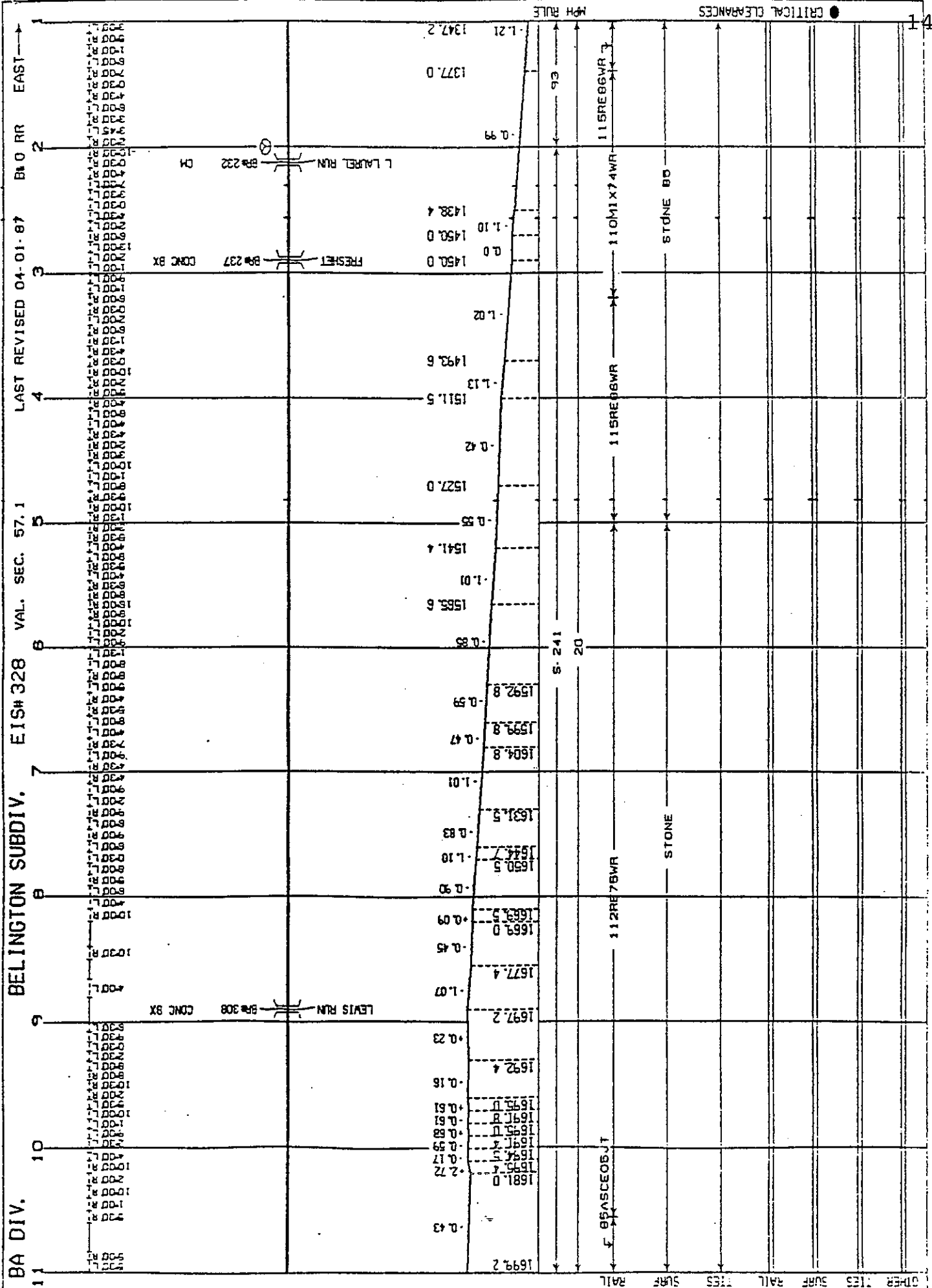
CRITICAL CLEARANCES

BA122

BA DIV. BELINGTON SUBDIV. EISH 328 VAL. SEC. 57.1 LAST REVISED 04-01-07 B&O RR EAST

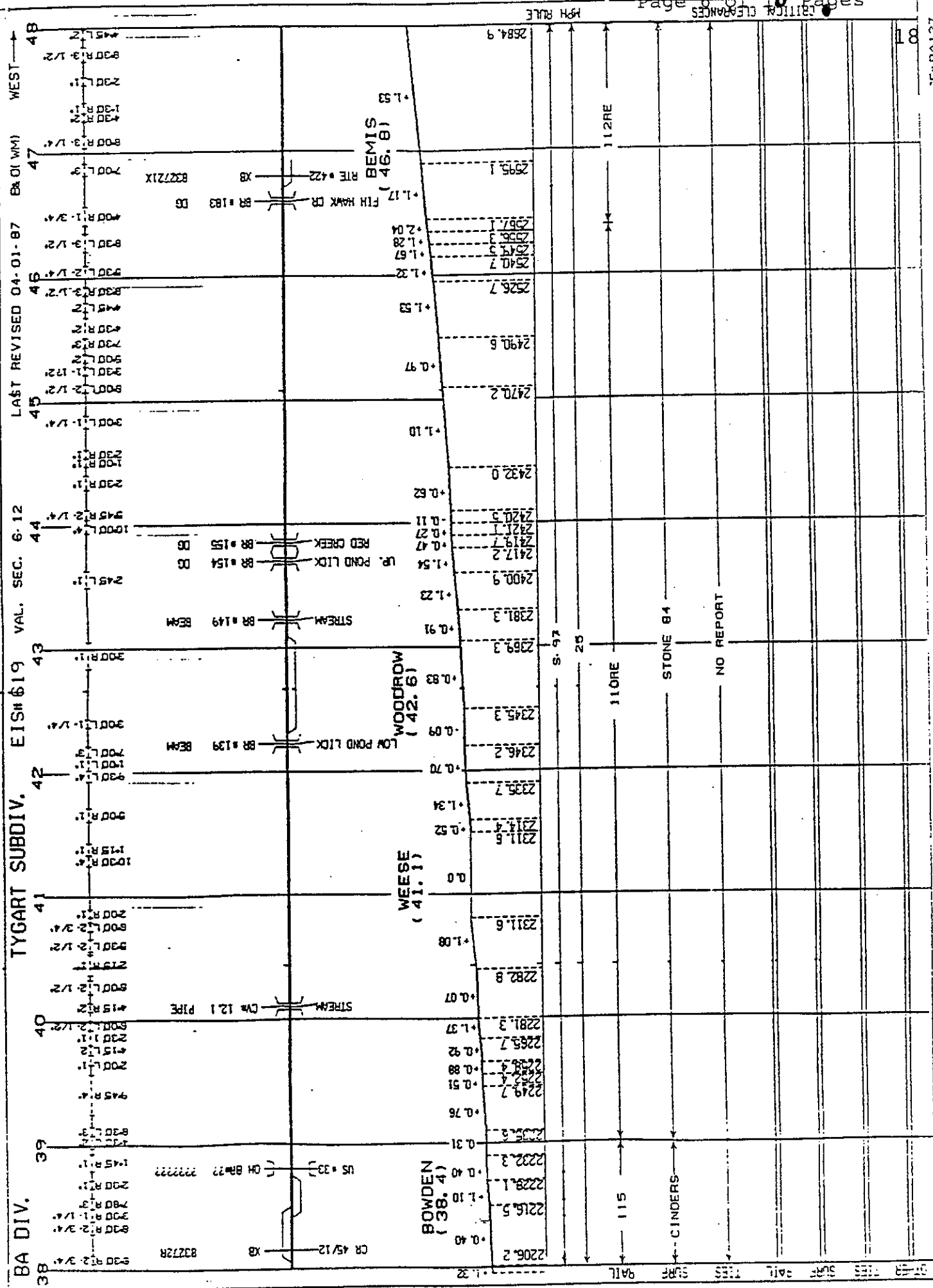


DEL. 1.00



PAGE# BA127

VAL. 1. 07



181

181

Station	Direction	Grade	Clearance	Notes	MPH Rule
58	800 L	3300.0			
59	400 R, 1000 R, 1200 R, 1400 R, 1500 R, 1600 R, 1700 R, 1800 R, 1900 R, 2000 R	3304.0		112RE64WR	
60	700 L, 700 R			STONE	
61	1024 L, 224 R, 330 R, 700 R	0.80		STONE 86	20
62	432 L, 700 R, 800 L, 900 L			STONE	
63	1245 R, 345 R, 1400 L, 1500 R, 1600 R, 1700 R, 1800 R, 1900 R, 2000 R	3464.0		STONE 86	8.97
64	1235 R, 1100 R, 1000 R, 900 R, 800 R, 700 R, 600 R, 500 R, 400 R, 300 R, 200 R, 100 R	3472.0		STONE 86	10
65	1200 R, 1300 L, 1400 L, 1500 L, 1600 R, 1700 R, 1800 L, 1900 L, 2000 R	3477.0		STONE	10
66	1200 R, 1300 L, 1400 L, 1500 L, 1600 R, 1700 R, 1800 L, 1900 L, 2000 R	3482.0		STONE 86, STONE 3	
67	1000 L, 1100 L, 1200 L, 1300 L, 1400 L, 1500 L, 1600 L, 1700 L, 1800 L, 1900 L, 2000 L	3508.0		STONE 86	20
68	1000 R, 1100 R, 1200 R, 1300 R, 1400 R, 1500 R, 1600 R, 1700 R, 1800 R, 1900 R, 2000 R	3554.0			10

LINAN (62.9)

BA DIV. TYGART SUBDIV. EISH 622 VAL. SEC. 1-WV LAST REVISED 04-01-87 BRD (WM) WEST

20

CRITICAL CLEARANCES

MPH RULE

OTHER TIES SURF RAIL TIES SURF RAIL

STATION	TYPE	VAL.	SEC.	1-WV	84	85	86	87	88	CRITICAL CLEARANCES	MPH RULE
78	BA DIV.	730 R								STONE 86	
79		520 L									
80		400 L									
81	TYGART SUBDIV.	400 R									
82		800 R									
83	EISH 622	800 R									
84	VAL. SEC.	1500 R									
85	LAST REVISED	1200 L									
86	04-01-87	900 R									
87	BN O (WMI)	1400 R									
88	WEST	200 L									
<p> HOPKINS (78.5) 3698.0 3699.0 3701.0 3702.0 3703.0 3704.0 3705.0 3706.0 3707.0 3708.0 3709.0 3710.0 3711.0 3712.0 3713.0 3714.0 3715.0 3716.0 3717.0 3718.0 3719.0 3720.0 3721.0 3722.0 3723.0 3724.0 3725.0 3726.0 3727.0 3728.0 3729.0 3730.0 3731.0 3732.0 3733.0 3734.0 3735.0 3736.0 3737.0 3738.0 3739.0 3740.0 3741.0 3742.0 3743.0 3744.0 3745.0 3746.0 3747.0 3748.0 3749.0 3750.0 3751.0 3752.0 3753.0 3754.0 3755.0 3756.0 3757.0 3758.0 3759.0 3760.0 3761.0 3762.0 3763.0 3764.0 3765.0 3766.0 3767.0 3768.0 3769.0 3770.0 3771.0 3772.0 3773.0 3774.0 3775.0 3776.0 3777.0 3778.0 3779.0 3780.0 3781.0 3782.0 3783.0 3784.0 3785.0 3786.0 3787.0 3788.0 3789.0 3790.0 3791.0 3792.0 3793.0 3794.0 3795.0 3796.0 3797.0 3798.0 3799.0 3800.0 3801.0 3802.0 3803.0 3804.0 3805.0 3806.0 3807.0 3808.0 3809.0 3810.0 3811.0 3812.0 3813.0 3814.0 3815.0 3816.0 3817.0 3818.0 3819.0 3820.0 3821.0 3822.0 3823.0 3824.0 3825.0 3826.0 3827.0 3828.0 3829.0 3830.0 3831.0 3832.0 3833.0 3834.0 3835.0 3836.0 3837.0 3838.0 3839.0 3840.0 3841.0 3842.0 3843.0 3844.0 3845.0 3846.0 3847.0 3848.0 3849.0 3850.0 3851.0 3852.0 3853.0 3854.0 3855.0 3856.0 3857.0 3858.0 3859.0 3860.0 3861.0 3862.0 3863.0 3864.0 3865.0 3866.0 3867.0 3868.0 3869.0 3870.0 3871.0 3872.0 3873.0 3874.0 3875.0 3876.0 3877.0 3878.0 3879.0 3880.0 3881.0 3882.0 3883.0 3884.0 3885.0 3886.0 3887.0 3888.0 3889.0 3890.0 3891.0 3892.0 3893.0 3894.0 3895.0 3896.0 3897.0 3898.0 3899.0 3900.0 3901.0 3902.0 3903.0 3904.0 3905.0 3906.0 3907.0 3908.0 3909.0 3910.0 3911.0 3912.0 3913.0 3914.0 3915.0 3916.0 3917.0 3918.0 3919.0 3920.0 3921.0 3922.0 3923.0 3924.0 3925.0 3926.0 3927.0 3928.0 3929.0 3930.0 3931.0 3932.0 3933.0 3934.0 3935.0 3936.0 3937.0 3938.0 3939.0 3940.0 3941.0 3942.0 3943.0 3944.0 3945.0 3946.0 3947.0 3948.0 3949.0 3950.0 3951.0 3952.0 3953.0 3954.0 3955.0 3956.0 3957.0 3958.0 3959.0 3960.0 3961.0 3962.0 3963.0 3964.0 3965.0 3966.0 3967.0 3968.0 3969.0 3970.0 3971.0 3972.0 3973.0 3974.0 3975.0 3976.0 3977.0 3978.0 3979.0 3980.0 3981.0 3982.0 3983.0 3984.0 3985.0 3986.0 3987.0 3988.0 3989.0 3990.0 3991.0 3992.0 3993.0 3994.0 3995.0 3996.0 3997.0 3998.0 3999.0 4000.0 </p>											

22

OTHER SURF RAIL SURF TIES

STONE 85
NO REPORT

STONE 86

SPRUCE (87.01)

HOPKINS (78.5)

SHAYERS FORK

CHEAT RIVER

CHEAT RIVER

BLACK RUN

BM 391

BM 374
BM 375

BM 350

BM 307

730 R
 740 R
 750 R
 760 R
 770 R
 780 R
 790 R
 800 R
 810 R
 820 R
 830 R
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 1990 R
 2000 R

Attachment C

Page 1 of 2

Pre-Bid Conference

SIGN IN SHEET

[Please Print]

Request for Proposal No.: RMA100030 Date: 6-15-10

<u>Firm & Representative Name</u>	<u>Mailing Address</u>	<u>Telephone & FAX Numbers</u>
1. <u>BW Peoples Cont Co</u> <u>Johnny Wharton</u>	<u>600 N. Bell Ave</u> <u>Bld. 1 Suite 210 Carnegie PA</u>	T: <u>412-276-2342</u> F: <u>412-276-2325</u>
2. <u>Atlas Railroad Const.</u> <u>Dave Snyder</u>	<u>P.O. Box 8</u> <u>Eighty Four, PA 15330</u>	T: <u>724-228-4500</u> F: <u>724-228-3183</u>
3. <u>Railroad Constructors Inc.</u> <u>Dave Luvary</u>	<u>705 Mantua Ave.</u> <u>Paulsboro, NJ. 08066</u>	T: <u>856-423-9385</u> F: <u>" " 9386</u>
4. <u>Balfour Beatty Rail</u> <u>LEE WILLIAMS</u>	<u>1600 Rte 136</u> <u>WASHINGTON, PA 15301</u>	T: <u>724-228-7636</u> F: <u>724-284-0025</u>
5. <u>BOB MATTHEWS</u> <u>AMTRAK RAILROAD CONTRACTORS</u>	<u>9436 EARLEY DRIVE</u> <u>HAGERSTOWN, MD 21740</u>	T: <u>301-797-3730</u> F: <u>301-797-3740</u>
6. <u>JEM MOORE</u> <u>RAIL WORKS</u>	<u>985 LINCOLN HILLS</u> <u>ALPHARETTA GA 30004</u>	T: <u>770 740 0284</u> F: <u>770 740 0384</u>
7. <u>William Russell</u> <u>Russell cont INC</u>	<u>5672 Chestnut Grove Hwy</u> <u>Camp Hill PA 16838</u>	T: <u>814-583-7875</u> F: <u>814-583-7875</u>
8. <u>Balfour Beatty Rail</u> <u>Tony Garrett</u>	<u>8630 Brookville Rd</u> <u>Indianapolis, IN. 46239</u>	T: <u>317-375-1698</u> F: <u>317-375-7098</u>
9. <u>Ame Construction</u> <u>DAVID M. HERTH</u>	<u>7695 BOND STREET</u> <u>CLEVELAND, OH 44139</u>	T: <u>440-232-7474</u> F: <u>440-232-7477</u>
10. <u>TRAKSPEC RR CORP.</u> <u>ROGER LIPSCOMB</u>	<u>PO BOX 782</u> <u>HURRICANE, WV 25526</u>	T: <u>(304) 562-2473</u> F: <u>(304) 562-0111</u>

Please print or write legibly. The fax number is essential to contact the attendees in a timely manner.

Pre-Bid Conference
SIGN IN SHEET
[Please Print]

Request for Proposal No.: RMA100030 Date: 6-15-10

Firm & Representative Name	Mailing Address	Telephone & FAX Numbers
1. <u>American Railroad</u> <u>Richard Hall</u>	<u>2870 Normandy Dr.</u> <u>Atlanta, GA 30305</u>	T: <u>404-915-3124</u> F: <u>770-393-0110</u>
2. <u>Jeff Jolly</u> <u>Hinkle Contracting</u>	<u>605 Blue Sky Parkway</u> <u>Lexington KY 40509</u>	T: <u>859-263-7558</u> F: <u>859-264-9334</u>
3. <u>JV Brown, Jr</u> <u>Hinkle Contracting</u>	<u>1930 N. Teby St</u> <u>Florence, SC 29501</u>	T: <u>843-569-5107</u> F: <u>843-569-5108</u>
4. _____ _____	_____	T: _____ F: _____
5. _____ _____	_____	T: _____ F: _____
6. _____ _____	_____	T: _____ F: _____
7. _____ _____	_____	T: _____ F: _____
8. _____ _____	_____	T: _____ F: _____
9. _____ _____	_____	T: _____ F: _____
10. _____ _____	_____	T: _____ F: _____

Please print or write legibly. The fax number is essential to contact the attendees in a timely manner.