THE PORT AUTHORITY OF NY & NJ

PROCUREMENT DEPARTMENT
2 MONTGOMERY STREET, 3RD FL.
JERSEY CITY, NJ 07302

3/20/2015

ADDENDUM # 1

To prospective Bidder(s) on Bid # 41769 for Bonded Insulated Joint Plug - PATH

Due back on 4/8/2015, no later than 11:00 AM

I. BIDDER'S QUESTIONS AND ANSWERS

The following information is available in response to questions submitted by prospective Bidders. The responses should not be deemed to answer all questions, which have been submitted by Bidders to the Port Authority. It addresses only those questions, which the Port Authority has deemed to require additional information and/or clarification. The fact that information has not been supplied with respect to any questions asked by a Bidders does not mean or imply, nor should it be deemed to mean or imply, any meaning, construction, or implication with respect to the terms.

The Port Authority makes no representations, warranties or guarantees that the information contained herein is accurate, complete or timely or that such information accurately represents the conditions that would be encountered during the performance of the Contract. The furnishing of such information by the Port Authority shall not create or be deemed to create any obligation or liability upon it for any reason whatsoever and each Bidder, by submitting its Bid, expressly agrees that it has not relied upon the foregoing information, and that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever. Accordingly, nothing contained herein and no representation, statement or promise, of the Port Authority, its Commissioners, officers, agents, representatives, or employees, oral or in writing, shall impair or limit the effect of the warranties of the Bidder required by this Bid or Contract and the Bidder agrees that it shall not hold the Port Authority liable or responsible therefor in any manner whatsoever. The Questions and Answers numbering sequence will be continued sequentially in any forthcoming Addenda that may be issued.

Question # 1	Please provide PATH's bonded insulated joint plug specification.
Answer # 1	See attached.

This communication should be initialed by you and annexed to your Bid upon submission. In case any Bidder fails to conform to these instructions, its Bid will nevertheless be construed as though this communication had been so physically annexed and initialed.

THE PORT AUTHORITY OF NY & NJ

KATHY LESLIE WHELAN, ASST. DIRECTOR
COMMODITIES & SERVICES DIVISION

BIDDER'S FIRM NAME: _____

INITIALED: _____DATE: _____

QUESTIONS CONCERNING THIS ADDENDUM MAY BE ADDRESSED TO SRIVIDYA DESHPANDE, AT (201) 395-3449 or at sdeshpande@panynj.gov.

PORT AUTHORITY TRANS HUDSON CORPORATION
SPECIFICATION FOR BONDED INSULATED JOINT ASSEMBIES

Rev 7/26/2011

56.1.0 General

56.1.1 Scope

This specification covers PATH's requirements for furnishing bonded insulated joint assemblies for joining continuous welded rail for use in transit track.

56.2.0 Technical Requirements

56.2.1 Material

A. Bonded insulated joint assemblies shall be manufactured to conform to the Drawings, the Bid Documents and as specified herein.

B. Bonded insulated joint assemblies shall consist of joint bars, rails, end posts, bushings, rail insulation, adhesive, bolts, nuts and washers. Separator blocks shall be provided for guard rail bonded insulated joint assemblies.

C. Joint bars shall be in accordance with the current PATH Standard Specifications for Track and Structures Materials, Section 11, Steel Rail Joint Bars. Use of alloy steel bars shall be subject to PATH approval.

D. All rail ends to be beat treated to a Brinell hardness of 363 to 401 (insulated joint end only).

E. End posts shall be an electrical grade polyurethane, polypropylene or polyamide (nylon) epoxy laminate, or approved equal. Phenolic micarta based materials will not be acceptable.

F. Bushings shall be filament wound insulator thimbles of synthetic fiber.

G. Rail Insulation shall be a synthetic electrical grade fiber laminate.

H. Adhesive shall be a structural themoset compound.

I. Bolts and nuts shall be in accordance with the current PATH Standard Specifications, Section 9, Bolts and Nuts.

J. Washers shall be in accordance with the current PATH Standard Specifications, Section 10, Spring and Plain Washers.

K. Separator blocks shall be malleable or gray cast iron in accordance with the

current Standard Specifications, Section 7, Malleable Iron Castings, or, Section 8, Gray Iron Castings.

L. Paint shall be in accordance with the current PATH Standard Specifications, Section 38, Paints and Coatings, Formulae M-28-5.

56.2.2 Dimensions

A. Bonded insulated joint assembly dimensions shall be as indicated on the Drawings and in the Invitation to Bid.

B. The joint bar section shall provide full contact to the rail web area with an appropriate allowance for the rail insulation thickness. The use of "D" bars are required in order to install Pandrol "E" clips to hold the rail.

C. Rail dimensions and the location of holes for drilling shall be as indicated on the Drawings. The length of the rails shall be as indicated in the Invitation to Bid.

D. Joint to be offset from center of rail (approx. 3 feet) for ease in handling with crane.

E. The end post thickness shall be 3/8 inch, subject to a tolerance of plus or minus 0.020 inch.

F. Insulation material thickness for the outside walls of the bushings shall be 0.048 inch, subject to a tolerance of plus 0.016 inch and minus none.

G. Rail insulation thickness shall be a minimum of 0.0295 inch, premolded.

H. Bolts and nuts shall be of a nominal diameter of at least 1 inch.

56.2.3 Performance

Bonded insulated joint assembly performance properties shall be as indicated when tested by the methods specified in Article 56.3.2 of this Section:

1. Alternating current impedance shall be a minimum of 20 Megohms ($2.0 \times l0^7$ ohms) measured from rail to rail.

2. Rail insulation shall withstand the application of 2,200 volts at 60 Hertz for a time duration of 15 seconds.

3. Water absorption shall be a maximum of 2.4 percent by weight after 4 days of water submersion.

4. Shear strength of the cured adhesive bond shall be a minimum of 3,500 pounds per square inch.

56.2.4 Fabrication

A. Bonded Insulated joint assemblies shall be fabricated and finished in a manner such that no openings or exposed surfaces of insulation material exist which would permit the penetration of moisture or other foreign substances.

B. Bonded Insulated joint rails shall be drilled in accordance with the current PATH Standard Specifications, Section 3, Steel Rail. Only the two innermost bolt holes of the extreme ends of each rail shall be drilled to permit temporary connections to existing bolted track. Holes shall be drilled only when specified on the purchase order.

C. Insulated joint rail ends to be bonded shall be thoroughly cleaned to bare metal and degreased.

D. Bonded insulated joint adhesive shall be applied to the entire assembly to ensure distribution throughout the entire insulation contact area, end post, bolt holes and exposed threads. Excess compound shall be distributed around the joint bars and exposed fasteners.

E. Bonded Insulated joint assemblies shall be cured at an appropriate temperature for a suitable time duration such that the full bond strength of the adhesive is developed.

F. Bonded insulated joint bar areas shall be painted with one coat of dielectric paint.

56.2.5 Marking

A. Each bonded Insulated Joint assembly shall be identified with the manufacturer's name, serial number and date of manufacture.

B. Bonded insulated joint rails shall be marked with the length on each extreme end on the top of the rail approximately one foot from the end.

56.3.0 Quality Assurance

56.3.1 Inspection

PATH's Inspector shall have free entry to the manufacturer's plant during normal working hours.

56.3.2 Testing

A. The manufacturer shall, at no additional cost to PATH, have performed all tests necessary to assure that all bonded insulated joint assemblies are in accordance with the specifications. The following tests, unless otherwise indicated, shall be performed in accordance with AREMA practice:

1. Insulation impedance tests shall be performed with calibrated electrical instruments.

2. Insulation voltage withstand tests shall be performed with a high voltage source and calibrated electrical instruments.

3. Water absorption tests shall be performed in accordance with the current ASTM Designation D570, Standard Test Method for Water Absorption of Plastics.

4. Shear strength tests of adhesive shall be performed In accordance with the current ASTM Designation D1002, Standard Test Method for Strength Properties of Adhesives In Shear by Tension Loading (Metal-to Metal).

B. If the results of any test do not conform to the specifications, an additional test series of each kind shall be made on a further two samples from the same lot. Failure of any of these additional tests will be cause for rejection of the entire lot.

56.4.0 Shipment and Acceptance

56.4.1 Shipment

A. Bonded insulated joint assemblies shall be shipped to the locations indicated in the Bid Documents.

B. Bonded insulated joint assemblies shall be loaded head up and in layers and shall be positioned between strips of wood to prevent damage during shipment.

C. Bonded insulated joint assemblies with different rail lengths shall be delivered

in a common load but shall be grouped according to their size.

56.4.2 Acceptance

A. Final acceptance of bonded insulated joint assemblies will be subject to verification of count and inspection.

B. Bonded insulated joint assemblies which do not comply with PATH's requirements or which, not withstanding tests, inspection or acceptance at any previous time or location are found to contain deficiencies, will be rejected.

C. The manufacturer shall assume the expense of handling and transporting rejected material.