

## REQUEST FOR QUOTATION

<p><b>Contact person/Telephone</b>                  Srividya Deshpande/212-435-4637</p>	<p><b>Collective# / / Bid Due Date</b>                  0000043014 / / 07/23/2015                  Bids must be received no later than 11:00 AM on the above Bid Due Date.</p> <p><b>Deliver Goods/Services To:</b>                  Path Harrison Stockroom                  Foot of Cape May St.                  Harrison NJ 07029</p>
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Quantity	Description	Unit Price	Total
	<p>Supply and deliver Air Filters in accordance with PATH Car Equipment Division specifications - Two (2) Year Requirements contract to commence on or about 11/1/15.</p> <p>The attached "PATH STOCKROOM REQUIREMENT CONTRACT: INFORMATION FOR BIDDERS/STANDARD TERMS &amp; CONDITIONS" (5 pages) and specifications (attachments A,B,C &amp; D) are included and are to be made part of this solicitation.</p> <p>Contract Delivery Terms: Within seven (7) business days A.R.O.</p> <p>PRIOR TO CONTRACT AWARD, THE SELECTED VENDOR WILL BE REQUIRED TO SUBMIT FOR APPROVAL A SAMPLE OF EACH FILTER WITHIN 10 DAYS OF REQUEST. SEE ATTACHED SPECIFICATIONS (ATTACHMENTS: A, B, C &amp; D) FOR MORE DETAILS.</p> <p>***PLEASE QUOTE FULLY DELIVERED PRICES FIRM FOR TWO (2) YEARS***</p> <p>In addition to signing this RFQ, please print the name of the authorized signatory:                  _____</p>		
	<b>PLEASE QUOTE FULLY DELIVERED PRICES</b>	<b>PAYMENT TERMS</b>	<b>Total Delivered Price</b>

**This Quotation is subject to the terms and conditions set forth on the back page hereof. Bidder is advised to read these before signing.**

We have read the instructions and, if favored with an order, we agree to furnish the items enumerated herein at the prices and under the conditions indicated.

Signed \_\_\_\_\_  
 Firm Name \_\_\_\_\_  
 Telephone number \_\_\_\_\_ Date \_\_\_\_\_  
 Fax Number \_\_\_\_\_  
 Federal Taxpayer ID \_\_\_\_\_

**Bidder  
 Must  
 Sign  
 In  
 Two  
 Places**

**NOTICE TO BIDDERS:** Unless the following term of assurance that the above offer is irrevocable is signed, the offer submitted herein shall not be deemed to be complete.

The foregoing offer shall be irrevocable for 90 days after the date on which The PORT AUTHORITY TRANS-HUDSON CORPORATION opens this proposal.

Signed \_\_\_\_\_ Date \_\_\_\_\_  
 Firm Name \_\_\_\_\_

# REQUEST FOR QUOTATION

Bid Due Date  
 07/23/2015

Quantity	Description	Unit Price	Total
	<p>Questions concerning bid may be addressed to Srividya Deshpande at 212-435-4637 or sdeshpande@panynj.gov</p> <p>A price preference of 10% is available for NY/NJ Minority and Women Business Enterprises (M/WBE) or 5% for NY/NJ Small Business Enterprises (SBE) certified by the Port Authority (PA) by the day before the bid opening for awards not exceeding \$1,000,000. My firm was certified as a _____ on _____.</p> <p>This is a Formal Bid Invitation                      Mail Sealed Bids to:</p> <p>The Port Authority of NY &amp; NJ                      Attn: Bid Custodian                      Procurement Department                      4 World Trade Center                      150 Greenwich Street, 21st Floor                      New York, NY 10007</p> <p>by the date and time listed above, where it will be publicly opened and read.</p> <p>You must clearly mark the outside envelope/package with 'BID ENCLOSED' and show the company name, address, as well as Bid number and Due date as stated on this bid document.</p> <p>Bids are only accepted Monday through Friday, excluding Port</p>		
	<b>PLEASE QUOTE FULLY DELIVERED PRICES</b>	<b>PAYMENT TERMS</b>	<b>Total Delivered Price</b>

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 Federal Taxpayer ID \_\_\_\_\_

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 Firm Name \_\_\_\_\_

## REQUEST FOR QUOTATION

Bid Due Date  
 07/23/2015

Quantity	Description	Unit Price	Total
	<p>Authority holidays, between the hours of 8 A.M. &amp; 5 P.M., via regular mail, express delivery service or hand delivery.</p> <p>Express carrier deliveries by commercial vehicles can be made via vendors approved by Silverstein Properties, the 4 World Trade Center (4WTC) Property Manager, through the Vehicle Security Center (VSC). Presently, UPS is the only delivery vendor with approved recurring delivery times.</p> <p>There is extensive security at the World Trade Center Site. Individuals must present a valid government-issued photo ID to enter 4 WTC to hand deliver a bid or to attend the bid opening. Individuals without packages or carrying small packages or boxes that can be conveyed by hand or on a hand truck may enter through the lobby. All envelopes, packages and boxes may be subject to additional security screening.</p> <p>There is no parking available at 4 WTC/150 Greenwich Street, and parking in the surrounding area is extremely limited.</p> <p>The Port Authority assumes no responsibility for delays, including, but not limited to delays caused by any delivery service, building access procedure or security requirement</p> <p>Bids that are not received by the bid custodian by the scheduled bid opening date and time will be considered late.</p>		
	<b>PLEASE QUOTE FULLY DELIVERED PRICES</b>	<b>PAYMENT TERMS</b>	<b>Total Delivered Price</b>

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Signed \_\_\_\_\_ Date \_\_\_\_\_  
 Firm Name \_\_\_\_\_

# REQUEST FOR QUOTATION

Bid Due Date  
 07/23/2015

Quantity	Description	Unit Price	Total
3,600 EA	0280101 Filter, Air, Inverter, APU, 11.73 x 17.12 x 1, 12 Filters per box, As per Path Car Equipment Specification Dated 07/11/2011, Document #CED071111-1.		
3,600 EA	0280102 Filter, Side Blower, APU, 13.7 x 7.32 x 2, 12 Filters per box, As per Path Car Equipment Specification dated 07/11/2011, Document #CED71111-2.		
28,800 EA	0480101 Filter, Return Air, A/C, 20 x 16 x 2, 12 Filters per box, As per Path Car Equipment Specification dated 02/11/2011, Document #CED021111-1.		
14,200 EA	0480102 Filter, Fresh Air, A/C, 20" x 10" x 2", 12 Filters per box, As per Path Car Equipment Specification dated 02/11/2011, Document #CED021111-2.		
<b>PLEASE QUOTE FULLY DELIVERED PRICES</b>		<b>PAYMENT TERMS</b>	<b>Total Delivered Price</b>

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The foregoing offer shall be irrevocable for 90 days after the date on which The PORT AUTHORITY TRANS-HUDSON CORPORATION opens this proposal.

Signed \_\_\_\_\_ Date \_\_\_\_\_  
 Firm Name \_\_\_\_\_

## TERMS AND CONDITIONS

1. The Port Authority (PA) reserves the right to request information relating to seller's responsibility, experience and capability to perform the work.
2. Unless otherwise provided, complete shipment of all items must be in one delivery FOB delivery point. Payment will not be made on partial deliveries unless authorized in advance by the party to be charged and the discount, if any, will be taken on the total order.
3. PA payment terms are net 30 days. Cash discounts for prompt payment of invoices may be taken but will not be considered in determining award, except in the case of tie bids.
4. Separate unit and total FOB delivered prices must be shown.
5. Sales to the PA and to PATH are currently exempt from New York and New Jersey State and local taxes and generally from federal taxation. The seller certifies that there are no federal, state, municipal or any other taxes included in the prices shown hereon.
6. The PA shall have the absolute right to reject any or all proposals or to accept any proposal in whole or part and to waive defects in proposals.
7. Unless the phrase "no substitute" is indicated, bidder may offer alternate manufacturer / brands, which shall be subject to Port Authority approval. Please indicate details of product being offered with bid.
8. Acceptance of seller's offer will be only by Purchase Order Form signed by the PA. No change shall be made in the agreement except in writing.
9. If the seller fails to perform in accordance with the terms of this purchase order, the PA may obtain the goods or services from another contractor and charge the seller the difference in price, if any, a reletting cost of \$100, plus any other damages to the PA.
10. Upon request, sellers are encouraged to extend the terms and conditions of any terms agreement with the PA to other government and quasi-government entities by separate agreement.
11. By signing this quotation or bid, the seller certifies to all statements on Form PA 3764A regarding non-collusive bidding; compliance with the PA Code of Ethics; and the existence of investigations, indictments, convictions, suspensions, terminations, debarments and other stated occurrences to assist the PA in determining whether there are integrity issues which would prevent award of the contract to the seller. The PA has adopted a policy set forth in full on PA 3764A, that it will honor a determination by an agency of the State of New York or New Jersey that a bidder is not eligible to bid on or be awarded public contracts because the bidder has been determined to have engaged in illegal or dishonest conduct or to have violated prevailing wage legislation. The Terms and Conditions of PA 3764A apply to this order. A copy can be obtained by calling (212) 435-4600 or at <http://www.panynj.gov/business-opportunities/become-vendor.html>
12. The vendor may subcontract the services or use a supplier for the furnishing of materials required hereunder to such persons or entities as the Manager, Purchasing Services may from time to time expressly approve in writing. All further subcontracting shall also be subject to such approval.
13. The successful bidder (vendor) shall not issue nor permit to be issued any press release, advertisement, or literature of any kind, which refers to the Port Authority or that goods will be, are being or have been provided to it and/or that services will be, are being or have been performed for it in connection with this Agreement, unless the vendor first obtains the written approval of the Port Authority. Such approval may be withheld if for any reason the Port Authority believes that the publication of such information would be harmful to the public interest or is in any way undesirable.
14. Neither the Commissioners of the Port Authority, nor Directors of PATH, nor any of them, nor any officer, agent or employee thereof, shall be charged personally by the Contractor with any liability, or held personally liable to the Contractor under any term or provision of this Agreement, or because of its execution or attempted execution, or because of any breach, or attempted or alleged breach, thereof.

**PATH STOCKROOM REQUIREMENT CONTRACT****Information for Bidders****1. AWARD METHOD****AWARD TO SINGLE BIDDER:**

It is the intent of the Port Authority to award this Bid to one Bidder based on the total estimated delivered price for all items. However, the Port Authority shall have the absolute right to reject any or all bids or to accept any bid in whole or in part and to waive defects in bids.

**2. CORRECTION IN COMPUTATION**

Each Bidder shall insure that all information and figures are inserted as required and that all computations have been verified for accuracy. Bidders are advised that the Port Authority may verify only the quotation or quotations that it deems appropriate and may not check each bid for errors in computation. The Port Authority reserves the unqualified right to recalculate any and all extensions set forth by the Bidder. In the event there is a discrepancy between any unit price listed and the "Estimated Total Price" or the "Total Estimated Contract Price," the Bidder's unit price, shall prevail.

**3. ACCEPTABLE PRODUCTS**

This Contract may call for specific brands that have been deemed acceptable for the purpose intended. The Bidder may however, offer alternate products other than those listed hereunder. In the event the Bidder offers alternate products, the Bidder may be requested, at its own expense, to submit a sample of the proposed alternate along with a copy of the specifications for the sample being submitted. All samples shall become the property of the Port Authority upon submittal, and all samples submitted to the Port Authority for evaluation shall be delivered within seven (7) days of request. Failure by the Bidder to deliver samples within the required time frame may result in the rejection of the bid. All samples submitted by the Bidder will be evaluated by the Port Authority/PATH and the Port Authority/PATH will make the final determination as to whether or not the alternate product is acceptable. Samples of proposed alternate products shall be sent separately from the Bid. The package containing samples should clearly indicate the following: 1) the Bidder's name and address 2) the Quotation number, 3) the Bid due date. Additionally, each item must be tagged with the PATH Material Number and Bidder's name and address. Samples of proposed alternate products are to be sent to: The PATH Harrison Stockroom, Foot of Cape Street, Harrison, N. J. 07029. The Bidder must identify the specific manufacturer and / or model number they intend to supply for alternate products only. The Bidder shall bear all costs of evaluation, if any. Should the proposed alternate product be deemed not acceptable, the Bidder shall be obligated to provide one of the listed acceptable brands and/or manufacturer and model numbers at the original quoted price to maintain eligibility for contract award.

## **STANDARD TERMS AND CONDITIONS**

### **1. GENERAL AGREEMENT**

The Vendor agrees to furnish and deliver on an "as needed" basis to the Port Authority's stockrooms as set forth herein, the Authority's stockroom requirements for the items set forth in the "Request for Quotation" form, within the calendar days indicated in paragraph 4 below. The furnishing and delivery shall be at the prices quoted in the Request for Quotation. The contract term is **2 year**. The dollar value of this requisition is for evaluation purposes only and there are no guarantees as to the actual amount, if any, that may be ordered. In full consideration for the performance of all duties and obligations hereunder, the Vendor agrees to accept from the Port Authority a compensation consisting of payment for the items or services supplied by the Vendor computed at the bid prices quoted in the Request for Quotation. The "Unit Prices" quoted **shall not** exceed two decimal places. The Port Authority Trans Hudson Corporation (PATH) is a third party beneficiary of this agreement and may order its requirements for stockroom items upon the same terms and conditions by issuing a separate purchase order.

### **2. EXTENSION PERIOD**

The Port Authority shall have the absolute right to extend the Base Term for an additional period of up to one hundred and twenty (120) days subsequent to the Expiration Date of the Base Term, or the Expiration Date of the final exercised Option Period (hereinafter called the "Extension Period"), subject to the same terms and conditions as the previous contract period. The prices quoted by the Contractor for the previous contract period shall remain in effect during this Extension Period without adjustment. If it so elects to extend this Contract, the Port Authority will advise the Contractor, in writing that the term is so extended, and stipulate the length of the extended term, at least thirty (30) days prior to the expiration date of the previous contract period.

### **3. FACSIMILE EQUIPMENT**

The Vendor shall have available a facsimile machine for receipt of releases via facsimile message from the Port Authority Trans-Hudson Corp.

### **4. PURCHASE ORDERS**

Releases against the Contract for the PATH stockroom(s) will be coordinated using Purchase Orders issued by PATH. Purchase Orders may be verbal or in writing. If verbal, the Port Authority will confirm all orders by a facsimile hard copy transmission bearing the stock number, quantity, delivery location and Purchase Order number. The Vendor shall accept Purchase Orders only from PATH. The Vendor shall deliver within **seven (7) business days**, from receipt of Purchase Order. There shall be no minimum quantities or dollars per order.

**5. ADDITIONAL ITEMS**

Additional related items may be added to this contract by the Manager, Purchasing Services Division. If the items on the contract were bid at a specified discount off list price, additional items, as determined by the Manager, Purchasing Services shall be priced at the same discount. Prices for items not covered by a discount off list price may be negotiated or bid by the Buyer, and added to the order if prices are deemed acceptable. The Port Authority shall not be obligated to add new items to the contract unless it is in the best interest of the Port Authority. All items to be added shall be set forth in a change order.

**6. DELIVERY**

Delivery shall be, FOB delivered, to any or all stockrooms listed in paragraph 7, below. All deliveries shall be made between the hours of 7:00 a.m. and 2:30 p.m. unless otherwise noted in the specifications. The Vendor **MUST** follow instructions for the proper method of making deliveries. Failure to do so may result in delayed payments.

- A. All deliveries must be accompanied by an original packing slip, which shall always contain:
  - 1. The PATH Purchase Order
  - 2. The Stock Number (s)
  - 3. A description of each item.
  - 4. The quantity shipped of each item.
  - 5. The Vendor's packing slip/invoice number.

- B. The Vendor shall not combine orders.

In the event the Vendor receives more than one separate and distinct purchase order for one delivery point, the Vendor shall package each order individually though delivery is made to the same location simultaneously. Each separate order must be accompanied by its own packing slip/invoice containing all information numbered 1 through 5 in Paragraph A above.

- C. Shipping cartons shall not contain loose and/or unmarked items.
- D. Unless otherwise provided, complete shipment of all items must be in one delivery. Only in extenuating circumstances partial deliveries to Port Authority stockrooms will be accepted. When partial deliveries are made, the receiving stockroom must be notified as to when the balance of the order will be shipped
- E. Trucks making deliveries must be standard loading dock height. No delivery from smaller trucks will be accepted.

**7. DELIVERY CONDITIONS**

Following a reasonable **two (2) weeks** set-up time after the initial award of the contract, delivery of material should be within **seven (7) days** from receipt of purchase order release.

**8. DELIVERY LOCATIONS AND RESTRICTIONS**

All shipments must be “inside standard delivery, dock level” except where noted below.

PATH **HARRISON** Stockroom  
Foot of Cape May Street  
Harrison, NJ 07029  
(973) 350-3944/3945

**9. LEGAL HOLIDAYS**

Except where otherwise specified, all of the following holidays will be observed at the Facility. Where specified, these holidays shall mean and include:

- |                               |                                |
|-------------------------------|--------------------------------|
| New Year’s Day                | Labor Day                      |
| Martin Luther King’s Birthday | Columbus Day                   |
| Lincoln’s Birthday            | Veterans Day                   |
| President’s Day               | Thanksgiving Day               |
| Memorial Day                  | The day after Thanksgiving Day |
| Independence Day              | Christmas                      |

**10. MATERIAL SAFETY DATA SHEETS**

When required by Federal, State or Local law, a Material Safety Data Sheet must be included with all deliveries.

**11. UNION JURISDICTION**

The Vendor is advised to ascertain whether any union now represented or not represented at the facility will claim jurisdiction over any aspect of the operation to be performed hereunder including delivery.

**12. BILLING**

An invoice with a unique invoice number must be issued for all deliveries. The vendor must attach backup delivery receipts with Purchase Order number. **Mail all invoices to: The Port Authority of New York and New Jersey, Accounts Payable, 1 PATH Plaza, 3<sup>rd</sup> Floor, Jersey City, New Jersey 07306.**

**13. NON-PERFORMANCE OF VENDORS DUTIES RELETING CHARGES**

If the Vendor fails to perform in accordance with the terms of this Contract, the Port Authority may obtain the goods or services from another Vendor and charge the seller the difference in price, if any, plus a reletting cost of \$100, plus any other damages to the Port Authority.

**14. TERMINATION**

The Port Authority may terminate this Contract with cause or without cause at any time upon five (5) days written notice to the Vendor and in such an event this Contract shall cease and expire on the date set forth in the notice of termination as fully and completely as though such date was the original expiration date. Such cancellation shall be without prejudice to the rights and obligations of the parties arising out of portions of this agreement already performed but no allowance shall be made for anticipated profits. The Vendor shall complete delivery of all items ordered before receipt of the notice of termination.

**15. CONFLICT OF TERMS AND CONDITIONS**

In the event of any conflict between these "stockroom requirement contract terms and conditions" and the terms and conditions on the "Request for Quotation" form, these standard terms and conditions shall prevail.

**16. PURCHASE BY OTHER GOVERNMENT AGENCIES**

Upon such request, vendors who are awarded contracts are encouraged to extend the terms and conditions of these contracts under separate agreement, to other government and quasi-governmental entities.

**PORT AUTHORITY**  
**TRANS-HUDSON CORPORATION**



**PATH Car Equipment Division**  
**Specification**

**AUXILIARY POWER UNIT INVERTER MODULE FILTER**  
**PA-5 CARS**  
**PATH STOCK NO. 0280101**

Document Number: CED071111-1

Date Issued: 07/11/11

Page 1 of 4

**PORT AUTHORITY**  
**TRANS-HUDSON CORPORATION**



**PATH Car Equipment Division – Specification**

Document No. CED071111-1

Date: 07/11/11

Prepared by:

Peter J. Harris  
Supervisor – Technical Services

Approved:

Thomas Rowbottom  
Asst. Superintendent – Car Equipment Division

PORT AUTHORITY TRANS HUDSON  
CAR EQUIPMENT DIVISION  
FOOT OF CAPE MAY STREET  
HARRISON, NJ 07029

SPECIFICATION CED071111-1, "AUXILIARY POWER UNIT INVERTER MODULE FILTER FOR PA-5  
CARS"

**DOCUMENT NO.: CED071111-1**

07/11/11

Item: PATH Stock Number 0280101 used on PATH PA-5 cars only. One per car. Framed.

### 1.0 General

- 1.1-For comparison and evaluation bids prior to award, PATH may request one or more samples of those filters which the successful bidder proposes as meeting the specifications outlined below. The successful vendor's filters will be retained by PATH for comparison against the media, construction and performance of all filters received during the course of the award.
- 1.2-All filters found unacceptable in comparison with those approved samples provided at the time of award will be replaced at no cost to PATH.

### 2.0 Construction

- 2.1 Filters shall be of the pleated type construction, disposable and non-renewable as defined in ARI Standard 850, latest version
- 2.2 Actual size (inches) to be 11.73 x 17.12 x 1 (WxHxD).
- 2.3 Filters shall be water resistant.
- 2.4 Filter to contain new white 100% synthetic water resistant media.
- 2.5 An enclosing double wall frame of water resistant beverage board (24 point) shall provide a rigid and durable enclosure. The frame shall be bonded to the media on all sides with locking corners to prevent air bypass. Integral diagonal support members on the air entering and air exiting side shall be bonded to the apex of each pleat to maintain uniform pleat spacing and ensure stability.
- 2.6 A rust resistant, expanded metal support shall be bonded to the downstream side of the media to maintain radial pleats and prevent media oscillation.
- 2.7 Each filter shall contain 22 pleats and shall not have less than 3.33 square feet of media.

### 3.0 Performance

- 3.1 The filter shall have a minimum MERV 8 rating when evaluated under the guidelines of ANSI/ASHRAE Standard 52.2-2007 with an average efficiency of not less than 35-40% when evaluated under the guidelines of ANSI/ASHRAE Standard 52.1-1999.
- 3.2 The filter shall have a minimum airflow capacity of 425 cfm.
- 3.3 Initial resistance: 0.21 inches W.G.
- 3.4 Final resistance: 1.0 inches W.G.
- 3.5 Rated velocity: 300 fpm
- 3.6 Underwriters Laboratories shall classify the filter as UL Class 2 per UL Standard 900.
- 3.7 Maximum operating temperature: 200 degrees fahrenheit and 93 degrees celsius.
- 3.8 Tolerance: height and width  $\pm 1/8$ ", depth  $\pm 1/16$ ".

CED071111-1

#### 4.0 Identification

- 4.1 The filter shall be identified on the exterior of the frame with the manufacturer's name and part number, arrows showing the direction of air flow, UL classification and size.

**End of Section**

**PORT AUTHORITY**  
TRANS-HUDSON CORPORATION



PATH Car Equipment Division  
Specification

AUXILIARY POWER UNIT BLOWER FILTER  
PA-5 CARS  
PATH STOCK NO. 0280102

Document Number: CED071111-2

Date Issued: 07/11/11

Page 1 of 4

**PORT AUTHORITY**  
**TRANS-HUDSON CORPORATION**



**PATH Car Equipment Division – Specification**

Document No. CED071111-2

Date: 07/11/11

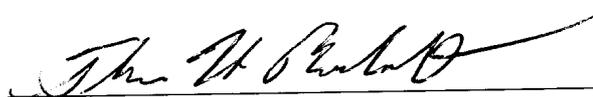
Prepared by:



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Peter J. Harris  
Supervisor – Technical Services

Approved:



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Thomas Rowbottom  
Asst. Superintendent – Car Equipment Division

PORT AUTHORITY TRANS HUDSON  
CAR EQUIPMENT DIVISION  
FOOT OF CAPE MAY STREET  
HARRISON, NJ 07029

SPECIFICATION CED071111-2, "AUXILIARY POWER UNIT BLOWER FILTER FOR PA-5 CARS"

**DOCUMENT NO.:** CED071111-2

07/11/11

Item: PATH Stock Number 0280102 used on PATH PA-5 cars only. One per car. Framed.

### 1.0 General

- 1.1-For comparison and evaluation bids prior to award, PATH may request one or more samples of those filters which the successful bidder proposes as meeting the specifications outlined below. The successful vendor's filters will be retained by PATH for comparison against the media, construction and performance of all filters received during the course of the award.
- 1.2-All filters found unacceptable in comparison with those approved samples provided at the time of award will be replaced at no cost to PATH.

### 2.0 Construction

- 2.1 Filters shall be of the pleated type construction, disposable and non-renewable as defined in ARI Standard 850, latest version.
- 2.2 Actual size (inches) to be 13.7 x 7.32 x 2 (WxHxD).
- 2.3 Filters shall be water resistant.
- 2.4 Filter to contain new white 100% synthetic media.
- 2.5 An enclosing double wall frame of water resistant beverage board (24 point) shall provide a rigid and durable enclosure. The frame shall be bonded to the media on all sides with locking corners to prevent air bypass. Integral diagonal support members on the air entering and air exiting side shall be bonded to the apex of each pleat to maintain uniform pleat spacing and ensure stability.
- 2.6 A rust resistant, expanded metal support shall be bonded to the downstream side of the media to maintain radial pleats and prevent media oscillation.
- 2.7 Each filter shall contain 9 pleats and shall not have less than 3.6 square feet of media.

### 3.0 Performance

- 3.1 The filter shall have a minimum MERV 8 rating when evaluated under the guidelines of ANSI/ASHRAE Standard 52.2-2007 with an average efficiency of not less than 35-40% when evaluated under the guidelines of ANSI/ASHRAE Standard 52.1-1999.
- 3.2 The filter shall have a minimum airflow capacity of 350 cfm.
- 3.3 Initial resistance: 0.19 inches W.G.
- 3.4 Final resistance: 1.0 inches W.G.
- 3.5 Rated velocity: 500 fpm
- 3.6 Underwriters Laboratories shall classify the filter as UL Class 2 per UL Standard 900.
- 3.7 Maximum operating temperature: 200 degrees fahrenheit and 93 degrees celsius.
- 3.8 Tolerance: height and width  $\pm 1/8"$ , depth  $\pm 1/16"$ .

CED071111-2

#### 4.0 Identification

- 4.1 The filter shall be identified on the exterior of the frame with the manufacturer's name and part number, arrows showing the direction of air flow, UL classification and size.

**End of Section**

**PORT AUTHORITY**  
TRANS-HUDSON CORPORATION



PATH Car Equipment Division  
Specification

RETURN AIR FILTERS  
PA-5 CARS  
PATH STOCK NO. 0480101

Document Number: CED021111-1

Date Issued: 02/11/11

**PORT AUTHORITY**  
**TRANS-HUDSON CORPORATION**



**PATH Car Equipment Division – Specification**

Document No. CED021111-1

Date: 02/11/11

Prepared by:

Peter J. Harris  
Supervisor – Technical Services

Approved:

Thomas Rowbottom  
Asst. Superintendent – Car Equipment Division

PORT AUTHORITY TRANS HUDSON  
CAR EQUIPMENT DIVISION  
FOOT OF CAPE MAY STREET  
HARRISON, NJ 07029

SPECIFICATION CED021111-1, "RETURN AIR FILTERS FOR PA-5 CARS"

**DOCUMENT NO.: CED021111-1**

02/11/11

Item: PATH Stock Number 0480101 used on PATH PA-5 cars only. Four each per car. Framed.

**1.0 General**

- 1.1-Air filters shall be medium efficiency, ASHRAE pleated disposable type of nominal size 20"x16"x2". Filters shall consist of a cotton and synthetic media blend, with welded wire media support grid, and enclosing frame.
- 1.2-For comparison and evaluation bids prior to award, PATH will request one or more samples of those filters with which the successful bidder proposes as meeting the specifications outlined below. The successful vendor's filters will be retained by PATH for comparison against the media, construction and performance of all filters received during the course of the award.
- 1.3-All filters found unacceptable in comparison with those samples provided at the time of award will be replaced at no cost to PATH.

**2.0 Construction**

- 2.1 Filter media shall be a cotton and synthetic blend, lofted to a uniform depth of 0.15", and formed into a uniform radial pleat. The media shall not contain less than 15 pleats per linear foot and shall not have less than 10.0 square feet of media.
- 2.2 A welded wire grid, spot-welded on one-inch centers and treated for corrosion resistance shall be bonded to the downstream side of the media to maintain radial pleats and prevent media oscillation.
- 2.3 An enclosing frame of wet-strength beverage board shall provide a rigid and durable enclosure. The frame shall be bonded to the media on all sides with locking corners to prevent air bypass. Integral diagonal support members on the air entering and air exiting side shall be bonded to the apex of each pleat to maintain uniform pleat spacing and ensure stability.

**3.0 Performance**

- 3.1 The filter shall have a minimum MERV 8 rating when evaluated under the guidelines of ANSI/ASHRAE Standard 52.2-2007 with an average efficiency of not less than 25-30% and an average arrestance of not less than 90% when evaluated under the guidelines of ANSI/ASHRAE Standard 52.1-2007.
- 3.2 The filter shall have a minimum airflow capacity of 1100 cfm.
- 3.3 Underwriters Laboratories shall classify the filter as UL Class 2.
- 3.4 Filters shall be EFC High Capacity, Farr 30/30 or equal.

**End of Section**

**PORT AUTHORITY**  
TRANS-HUDSON CORPORATION



PATH Car Equipment Division  
Specification

FRESH AIR FILTERS  
PA-5 CARS  
PATH STOCK NO. 0480102

Document Number: CED021111-2

Date Issued: 02/11/11

**PORT AUTHORITY**  
**TRANS-HUDSON CORPORATION**



**PATH Car Equipment Division – Specification**

Document No. CED021111-2

Date: 02/11/11

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PORT AUTHORITY TRANS HUDSON  
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SPECIFICATION CED021111-2, "FRESH AIR FILTERS FOR PA-5 CARS"

**DOCUMENT NO.:** CED021111-2

02/11/11

Item: PATH Stock Number 0480102 used on PATH PA-5 cars only. Four each per car. Framed.

### 1.0 General

- 1.1-Air filters shall be medium efficiency, ASHRAE pleated disposable type of nominal size 20"x10"x2". Filters shall consist of a cotton and synthetic media blend, with welded wire media support grid, and enclosing frame.
- 1.2-For comparison and evaluation bids prior to award, PATH will request one or more samples of those filters with which the successful bidder proposes as meeting the specifications outlined below. The successful vendor's filters will be retained by PATH for comparison against the media, construction and performance of all filters received during the course of the award.
- 1.3-All filters found unacceptable in comparison with those samples provided at the time of award will be replaced at no cost to PATH.

### 2.0 Construction

- 2.1 Filter media shall be a cotton and synthetic blend, lofted to a uniform depth of 0.15", and formed into a uniform radial pleat. The media shall not contain less than 15 pleats per linear foot and shall not have less than 6.0 square feet of media.
- 2.2 A welded wire grid, spot-welded on one-inch centers and treated for corrosion resistance shall be bonded to the downstream side of the media to maintain radial pleats and prevent media oscillation.
- 2.3 An enclosing frame of wet-strength beverage board shall provide a rigid and durable enclosure. The frame shall be bonded to the media on all sides with locking corners to prevent air bypass. Integral diagonal support members on the air entering and air exiting side shall be bonded to the apex of each pleat to maintain uniform pleat spacing and ensure stability.

### 3.0 Performance

- 3.1 The filter shall have a minimum MERV 8 rating when evaluated under the guidelines of ANSI/ASHRAE Standard 52.2-2007 with an average efficiency of not less than 25-30% and an average arrestance of not less than 90% when evaluated under the guidelines of ANSI/ASHRAE Standard 52.1-2007.
- 3.2 The filter shall have a minimum airflow capacity of 700 cfm.
- 3.3 Underwriters Laboratories shall classify the filter as UL Class 2.
- 3.4 Filters shall be EFC High Capacity, Farr 30/30 or equal.

**End of Section**