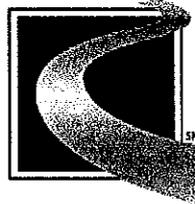


MARYLAND TRANSPORTATION AUTHORITY
Baltimore, Maryland

Invitation for Bids

MULTI-FACILITY



Maryland
Transportation
Authority

Contract No. MA-2291-000-002

Multi-Facility Intercom System Replacement

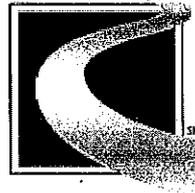
Anne Arundel County, Baltimore County, Baltimore City,
Cecil County, Charles County, Harford County, Queen
Anne's County

July 2009

MARYLAND TRANSPORTATION AUTHORITY
Baltimore, Maryland

Invitation for Bids

MULTI-FACILITY



Maryland
Transportation
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Contract No. MA-2291-000-002

Multi-Facility Intercom System Replacement

Anne Arundel County, Baltimore County, Baltimore City,
Cecil County, Charles County, Harford County, Queen
Anne's County

July 2009

NOTICE TO BIDDERS

A "Pre-Bidding Session" for the purpose of answering or obtaining answers to questions of parties interested in constructing the work relative to Right-of-Way, Utilities, Design, and Construction Details will be conducted at **10:00 am** on **July 20, 2009**, in the Francis Scott Key Bridge Engineering Building conference room at 300 Authority Drive, 1st Floor, Baltimore, Maryland 21222. While attendance at the Pre-Bid conference is not mandatory, this is the Offeror's opportunity to raise questions and/or issues of concern regarding the project.



NOTICE TO BIDDERS

Please review the checklist prior to submitting your bid on this Contract.

- When submitting your completed bid, do not separate the book. Submit the whole book including all addenda acknowledgment pages.
- Make sure that all addenda letters are attached outside of the front cover of the bid book.
- If the addendum has revised the Schedule of Prices, make sure that you have included the revised pages in your bid. Your price should reflect any and all changes.
- Prices must be written numerically and in words, unless approved substitute forms are used (Refer to GP-2.06). Don't leave any items blank.
- When tabulating your final price, make sure all your calculations are correct.
- The Bid/Proposal Affidavit must be completely filled out and signed by all the parties as indicated.
- If Escrow is being offered in a contract, the contractor must indicate whether or not they wish to utilize an Escrow Account for Retained Funds on the provided form.
- A bid bond must accompany all bids of One Hundred Thousand Dollars (\$100,000.00) or more. The bid bond document must be completely filled out and have an original Power of Attorney form attached.
- If the document is too large for the envelope that we have provided, you can place the document in another form of packaging that can be sealed and submitted. If the document is too large for the bid box, you should alert the receptionist.
- Make sure that your company's name, address, the contract number and the bid date appears on the front of the packaging.
- When submitting bid packages via US Mail, Federal Express, DHL, UPS or any other delivery service it is your responsibility to make sure that the bid reaches the bid box before the time deadline. It may be in your best interest to send the package 24 hours in advance of the deadline. Also, when sending packages this way, make sure that the labeling specifies that it is a bid submission.



Maryland
Transportation
Authority

Notice to Bidders/Offerors

eMaryland Marketplace

In order to take advantage of Maryland State and Local government contracting opportunities, vendors/contractors are encouraged to register with eMaryland Marketplace. The free registration provides a means for businesses to receive e-mail notification of upcoming contracting opportunities in their specified areas of interest and expertise.

For registration requirements, visit:
www.eMarylandMarketplace.com



NOTICE TO ALL HOLDERS OF THIS CONTRACT DOCUMENT

**NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP)
REPORT 350 IMPLEMENTATION SCHEDULE FOR DEVICES USED IN THE
MAINTENANCE OF TRAFFIC**

Except as otherwise specified in this Section, all items for the maintenance of traffic, including those listed under the following categories, shall be crashworthy in conformance with Level 3 or other Level as specified by the Engineer in conformance with the safety crash testing and performance criteria published in the National Cooperative Highway Research Program (NCHRP) Report 350, "Recommended Procedures for the Safety Performance Evaluation of Highway Features." When conformance with NCHRP Report 350 is required, the Contractor shall provide the Engineer with the manufacturers' certifications that the devices comply with the specified criteria.

Unless specifically waived by an attachment to these Contract Provisions, devices must be approved by the Office of Traffic and Safety.

Category 1 Devices

These devices are cones, tubular markers, flexible delineator posts, and drums, all without any accessories or attachments, which are used for channelization and delineation.

Category 2 Devices

These devices are Type I, II, and III barricades; portable sign supports with signs; intrusion alarms; and drums, vertical panels, and cones, all with accessories or attachments.

Category 3 Devices

- (a) Truck Mounted Attenuators (TMAs).
- (b) Temporary Barrier.
 - (1) Concrete Barrier.
 - (2) Traffic Barrier W Beam and Water Filled Barrier.
- (c) Temporary End Treatments.

Category 4 Devices

These devices are area lighting supports, arrow panels, and portable variable message signs that are usually portable or trailer-mounted.



WORK ZONE DEVICES	IMPLEMENTATION SCHEDULE TO CONFORM TO NCHRP REPORT 350 CRITERIA
<p>CATEGORY 1 Cones, tubular markers, flexible delineator posts, and drums (all without any accessories or attachments)</p>	<p>All devices shall conform to NCHRP Report 350 criteria.</p>
<p>CATEGORY 2 Type I, II, and III barricades; portable signs supports with signs; intrusion alarms; and drums, vertical panels, and cones (all with accessories or attachments)</p>	<p>All devices shall conform to NCHRP Report 350 criteria.</p>
<p>CATEGORY 3 (a) Truck Mounted Attenuators (TMA) (b) Temporary Barriers (1) Concrete Barrier (2) Traffic Barrier W Beam and Water Filled Barrier (c) Temporary End Treatments</p>	<p>All devices shall conform to NCHRP Report 350 criteria.</p>
<p>CATEGORY 4 Portable trailer mounted devices including area lighting supports, arrow panels, and changeable message signs</p>	<p>The Contractor may use devices that do not conform to NCHRP Report 350 criteria, until compliance dates are established. Use of these devices shall comply with the provisions of Part 6 of the MUTCD.</p>



NOTICE TO ALL HOLDERS OF THIS CONTRACT DOCUMENT

HIGH VISIBILITY SAFETY APPAREL POLICY

BACKGROUND. Research indicates that high visibility garments have a significant impact on the safety of employees who work on highways and rights-of-way. In addition, high visibility garments may help to prevent injuries and accidents and to make highway workers more visible to the motoring public, which ultimately improves traffic safety.

STATEMENT OF POLICY.

- (a) The High Visibility Safety Apparel Policy provides a standardized apparel program.
- (b) The program seeks to improve the visibility of all persons who work on Administration highways and rights-of-way.
- (c) All apparel shall contain the appropriate class identification label.
- (d) Compliance with this policy is retroactive and becomes effective immediately. All affected employees shall receive high visibility apparel awareness training.

APPLICABILITY. This policy applies to all Administration employees and all other persons who work on Administration highways and rights-of-way. All workers shall wear, at a minimum, Class 2 ANSI/ISEA 107/2004 apparel.

- (a) For Administration employees, this apparel shall have a fluorescent yellow-green background material color and be the outermost garment worn.
- (b) Retro-reflective material color for Administration employee apparel shall be silver or white and be visible at a minimum distance of 1,000 feet. The retro-reflective safety apparel shall be designed to clearly recognize and differentiate the wearer from the surrounding work environment. The retro-reflective material may be contrasted by fluorescent orange background material not exceeding one and one half inches on either side of the retro-reflective material.
- (c) For non-Administration employees, this apparel shall be either fluorescent orange-red or fluorescent yellow-green background material color and be the outermost garment worn.
- (d) Retro-reflective material color for non-Administration employee apparel shall either be orange, yellow, white, silver, yellow-green, or a fluorescent version of these colors, and be visible at a minimum distance of 1,000 feet. The retro-reflective safety apparel shall be designed to clearly recognize and differentiate the wearer from the surrounding work environment.

REFERENCES.

- (a) ANSI/ISEA 107/2004 standard – American National Safety Institute/International Safety Equipment Association



- (b) MUTCD 2003 – Manual for Uniform Traffic Control Devices - Sections 6D.03B and 6E.02
- (c) Visibility Research – The VCTR 1989 report concludes that fluorescent colors, when compared with non-fluorescent colors, enhance the daytime conspicuity of worker clothing.

DEFINITIONS.

- (a) Apparel – The outermost high-visibility garment worn by employees who work on Administration highways and rights-of-way.
- (b) Highways – All roads owned by the Maryland Department of Transportation and maintained by the Administration.
- (c) High Visibility – The ability for workers to be distinguishable as human forms to be seen, day and night, at distances that allow equipment operators and motorists to see, recognize, and respond.



Security Guidelines and Procedures Applicable to Contractors Working on Non-Security Sensitive Contracts

The following guidelines and procedures shall be enforced for Contractors. Contractors shall include vendors, prime contractors, subcontractors, consultants, or service personnel.

1. All Contractor personnel shall exercise due diligence in carrying out the Authority required security policies, laws, and regulations, as described below, while conducting work for the Authority.
2. The Contractor shall coordinate on-site visitations with the Office of Engineering - Construction. Situations that require Contractor employees to make "on site" visits will need to be planned in advance and coordinated with the Authority in order to have supervision provided. The Contractor shall coordinate with the Authority in advance of his/her visit. For roadway access, the Contractor shall follow the MOT requirements.
3. In the event of a security incident or suspected security incident, Contractor employees shall notify the Contractor's Project Manager immediately. The Contractor's Project Manager will in turn notify the nearest police detachment for investigation. The Contractor shall cooperate fully in all security incident investigations.
4. Any individual who is an employee or agent of the Contractor or any subcontractor shall display his or her company badge at all times while on the Authority's premises. Such employees or agents shall provide additional photo identification upon request of the Authority's employees. If the employee has an Authority ID, displaying a company badge is not necessary.
5. All Contractor's vehicles must display a valid Authority permit (hanging on the rearview mirror) while parked on the Authority's premises. The hanging tags are issued through the Division of Engineering – Construction.
6. The Contractor's personnel – who, in the performance of their duties, must have access to the site and security systems – shall obtain a valid Authority temporary/contractual ID badge. The Contractor shall apply for a badge and is required to present two forms of identification, one with the individual's photograph.
7. ID badges must be displayed at all times on outer garment above the waist while at Authority facilities.
8. Any Contractor employee, who is assigned to work on an Authority Contract and will be in and out of the facilities on a daily basis, must participate in an Authority-sponsored security orientation and training session. This training is sponsored by the Authority Security Office.
9. The Authority requires each person entering the premises with tools, equipment, etc., to have a written inventory of such tools and equipment being brought onto the site and to provide that inventory to the Authority when requested.



10. The Contractor is hereby warned that all persons not properly identified by an Authority issued ID badge or without a Company badge may be challenged, and if positive identification cannot be made, the appropriate corrective action shall be taken.
11. At the completion of the contract or when work at a given facility is complete, or in the event any employees are terminated, the Contractor must return all ID badges to the Authority within one business day.
12. The Contractor shall comply with and adhere to the "State Information Technology Security Policy and Standards." These policies may be revised from time to time. The Contractor shall comply with the most recent version. Current and revised versions of the security policy are available on-line at the following web location:
<http://doit.maryland.gov/support/Pages/SecurityPolicies.aspx>.
13. The Contractor shall not connect any Contractor-owned equipment (including but not limited to laptops, desktops, storage devices, such as thumb drives, or other peripherals) or other personal equipment to any Authority LAN/WAN without prior written approval by the Authority. The Authority will provide equipment as necessary for support that requires connection to the Authority LAN/WAN, or give prior written approval as necessary for connection. All approvals shall be in writing from a Director or Assistant Director from the Division of Information Technology.
14. All personnel working on this contract are required to attend a 1-hour MdTA Security Awareness training session.



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CONTRACT PROVISIONS
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SP 1-1 PROJECT DESCRIPTION

CONTRACT NO.: MA-2291-000-002

TITLE: Multi-Facility Intercom System Replacement

FACILITY: Francis Scott Key Bridge, William Preston Lane, Jr. Memorial Bridge (Bay Bridge), Governor Harry W. Nice Memorial Bridge, Fort McHenry Tunnel, Baltimore Harbor Tunnel, and Millard E. Tydings Bridge

LOCATION: Anne Arundel County, Baltimore County, Baltimore City, Cecil County, Charles County, Harford County, Queen Anne's County

ADVERTISED: **July 7, 2009**

PRE-BID MEETING: **10:00 a.m. on Monday July 20, 2009** in the Conference Room at the Maryland Transportation Authority, 300 Authority Drive, 1st Floor, Engineering Building, Baltimore, MD 21222

SITE VISIT: **July 21, 2009**

ALL QUESTIONS DUE: On or before July 28, 2009 at 4:00 p.m.

PROJECT CONTACT: Project Manager: Mr. Robert Jordan, P.E. at 410-537-7851.
Contract Administration: Ms. Maggie Johnson at 410-537-7807.

BIDS DUE: **12:00 Noon on August 10, 2009** in the Bid Box on the 1st floor of the Maryland Transportation Authority, Engineering Building, 300 Authority Drive, Baltimore, MD 21222

CLASSIFICATION: Class B (\$100,001 to \$500,000)

CONTRACT TIME: 180 calendar days

LIQUIDATED DAMAGES: **\$800.00 per Calendar Day**

MINIMUM MBE GOALS: N/A

BID DOCUMENTS: **\$25.00** - Bid documents can be purchased between 7:30am and 3:30pm, Mondays, Wednesdays, Thursdays and Fridays and between 10:00am and 4:00pm on Tuesdays at the Ticket Office located at the Francis Scott Key Bridge, Maryland Transportation Authority, Administration Building, 303 Authority Drive, Baltimore, MD 21222.



The Maryland Transportation Authority (Authority) is issuing this Invitation for Bid (IFB) to procure a Contractor to furnish and install replacement intercom systems in multiple facilities throughout the Maryland Transportation Authority

SP 1-2 SPECIFICATIONS

All work on this project shall conform to the Maryland Department of Transportation, State Highway Administration's Specifications entitled, "Standard Specifications for Construction and Materials" dated July 2008, revisions thereof, or additions thereto, and the Special Provisions included in this Invitation for Bids.

SP 1-3 SITE VISITS

Parties interested in visiting the site should contact Mr. Dave Dikes, MdTA's ITS Manager at (410) 537-1096.

SP 1-4 PROMPT PAYMENT TO SUBCONTRACTORS

The prime Contractor is responsible for making timely payments to all Subcontractors and Suppliers as required in the 1988 edition of the State Finance and Procurement Article of the Annotated Code of Maryland, Section 17-106.

This contract requires the Contractor to make payment to all Subcontractors within 10 days of receiving payment from the Authority.

Each month, the Project Engineer will review the current pay items with the Prime Contractor and all involved Subcontractors to ensure that all work satisfactorily completed within specifications is included in the monthly progress payment. For payment purposes, the same quantity totals used to compute the payment to the prime Contractor will be the basis for payment to the Subcontractor.



If the Subcontractor does not receive payment within the required 10 days, the Subcontractor shall notify the Project Engineer in writing of the amount in dispute including the item numbers and payment quantity for each. The Project Engineer will then notify the Director of Construction of the dispute. The Director of Construction or his representative will verbally contact the Prime Contractor within 48 hours to ascertain whether or not a performance dispute exists which necessitates non-payment to the subcontractor. If a performance dispute exists, the Prime Contractor must demonstrate that there is a valid basis to withhold payment from the Subcontractor. If the Contractor withholds payment from a Subcontractor, the Contractor shall provide to the Subcontractor written notice of the withholding of payment. The notice shall detail the reasons for withholding payment as well as the amount. A copy of the notice shall be provided to the Surety and the Authority. If no valid dispute exists, the prime Contractor will be directed to make immediate payment to the Subcontractor. The Subcontractor will be responsible for notifying the Director of Construction if this payment is not made. Upon receipt of notification, the Director of Construction will schedule a meeting with the Contractor and Subcontractor to verify and discuss the non-payment issue. This meeting will be held at the Authority's offices within (2) working days of the Authority's contact with the subcontractor. If it is determined that the prime Contractor has withheld payment to the Subcontractor without cause, further progress payments to the prime Contractor will be withheld until the Subcontractor is paid. In addition, the Authority may order a suspension of work or other administrative actions as it sees fit.

If an action is taken as stated above the Contractor shall notify the Authority's Project Engineer when payment is made. After the Project Engineer verifies that payment has been made to the Subcontractor the Authority shall release withheld progress payments.

Nothing in this Special Provision shall be construed to prevent the Subcontractor from pursuing a claim with the surety under the Prime Contractor's payment bond at any time.

SP 1-5 WORK HOURS

Reference Section 104 – Maintenance of Traffic for the hours that maybe worked at MdTA's facilities.

SP 1-6 INSURANCE

TC-5.01 INSURANCE

Section TC 5.01 of the Standard Specifications is supplemented as follows:

1. The Contractor shall not commence work under this contract until he has obtained all of the minimum amounts of insurance required by these Special Provisions and the insurance has been



approved by the Project Engineer. The Contractor shall furnish to the Maryland Transportation Authority ("Authority") duly executed certification of all required insurance on forms satisfactory to the Authority (e.g., ACCORD FORM). The certificates of insurance shall state that it is in force and cannot be cancelled, released or non-renewed except upon thirty (30) days prior written notice, registered mail to the Authority. All Contractors' insurance policies, with the exception of the Worker's Compensation and Employer's Liability shall be endorsed to provide as additional insureds, the Maryland Transportation Authority and the State of Maryland.

2. The Contractor shall purchase and maintain such insurance as is specified herein which will provide the Authority, its members, employees and agents, as well as the Contractor from claims which may arise out of or as a result of the Contractor's operations under this contract, whether such operations be by the Contractor, by any Subcontractor, by anyone directly or indirectly employed by any of them or by anyone whose acts any of them may be liable. This insurance shall be maintained in full force until the Authority has accepted the Contract and final payment is made.

3. The Authority requires the following minimum levels of insurance coverage for this contract:

- a) Worker's Compensation and Employer's Liability

The Contractor shall, at all times, maintain and keep in force such insurance as will protect him from claims under the Worker's Compensation Act of the State of Maryland and maintain and keep Employer's Liability Insurance at a limit of \$100,000. The Contractor shall also maintain United States Long Shore and Harbors Act coverage, if such exposure exists.

- b) Comprehensive General Liability Insurance

The Contractor shall maintain Comprehensive General Liability Insurance in the amount of at least One Million Dollars (\$1,000,000) Combined Single Limit for Bodily Injury Liability and Property Damage Liability Insurance per occurrence and in the aggregate. Such insurance shall specifically include the Comprehensive General

Liability Broad Form Endorsement and indicate explosion, collapse, and underground damage coverage.

- c) Comprehensive Automobile Liability Insurance

The Contractor shall maintain Comprehensive Automobile Liability Insurance (including all automotive equipment owned, operated, rented, or leased), in the amount of at least Five



Hundred Thousand (\$500,000) Combined Single Limit for bodily injury and property damage.

d) Additional Insurance

The Contractor shall also procure and keep in effect:

Excess liability (umbrella coverage) in excess of and applicable to the coverage in the Comprehensive General Public Liability and Property Damage Insurance, "X, C, U" and

Comprehensive Automobile Insurance in the amount of at least Two Million Dollars (\$2,000,000) for each occurrence.

4. Accident Notification - The Contractor shall send a written report to the Engineer and to the Maryland Transportation Authority within twenty-four (24) hours of any accident or other event arising in any manner from the performance of the contract which results in or might result in personal injury or property damage.
5. Failure to comply with these Special Provisions may lead to termination from default/convenience.
6. There will be no special payment for the insurance as required by this contract and all costs incidental thereto shall be included in the Lump Sum for "Mobilization" (refer to Section 108), or if the Contract does not include such an item, the insurance costs are to be included in pay items for the Proposal.

SP 1-8 PROGRESS SCHEDULE REQUIREMENTS

Refer to Section 110 of the Standard Specifications and the revisions herewith.



SP 1-9 CORPORATE REGISTRATION

A foreign corporation is any corporation not incorporated under the Laws of the State of Maryland. All foreign corporations, prior to performing any services for the Authority, must register with the Maryland State Department of Assessment and Taxation in compliance with Article 23, Section 90, Annotated Code of Maryland. Compliance is required of the successful vendor as well as the proposed subcontractors.

To accomplish the required registration, a foreign corporation must request and complete "Qualification Application Forms" which can be obtained from the Department of Assessment and Taxation, State

Office Building, Room 803, 301 West Preston Street, Baltimore, Maryland 21201. Forms can be obtained via web site at e-mail address: www.dat.state.md.us.

The Contractor will be responsible for documenting compliance with the aforesaid. This documentation will be required prior to the execution of a contract with the successful bidder.

SP 1-10 CONTRACTOR'S EMPLOYEE IDENTIFICATION

The Contractor shall provide to the Authority, a list containing the following for the Contractor and all Sub-Contractors that would be working at the site. This shall include trucking companies who would come to the site on a repetitive basis for supply or remove materials:

- Name of Company
- Name and Title of Contact Person
- Address of the Company
- Phone Number
- Facsimile number
- E-Mail Address of Contact Person (if any)

All Contractor's employees, including employees of Subcontractors, on this project, present at the site, shall be in possession of a valid employee identification card provided by the Employer, which shall contain a photograph and identify the employee by name and job title. The employee must produce the said identification if required by the Project Engineer or the Authority Police.

When working in or around the Authority's buildings, said employees identification shall be displayed at all times.



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While working on the transportation facility projects of the Authority, Contractor's personnel shall have an ID decal displayed on their hardhat. These decals will be provided by the Authority. All Contractor's vehicles shall have a parking decal, attached to the rear view mirror. These parking decals will also be provided by the Authority and a distribution list will be maintained. At the time of project completion these decals shall be returned to the Authority. Request for hardhat and rearview mirror decals shall be made to the Construction Division before the beginning of construction and should include the number required of each type.

All costs associated with ID's will not be paid for separately and shall be incorporated under other items of payment in the contract.



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Multi-Facility Intercom System Replacement

Page 1 of 8

GENERAL PROVISIONS
GP-SECTION 1

DEFINITIONS AND TERMS

GP 1.03 – ORGANIZATIONAL DEFINITIONS

Revise the definitions of Administration to read as follows:

Administration – The word “Administration” shall mean “Maryland Transportation Authority”.

Except for Office of Materials and Research, all references to the Maryland State Highway Administration’s offices and positions shall mean the Authority’s corresponding offices and positions.



GENERAL PROVISIONS
GP-SECTION 2

BIDDING REQUIREMENTS AND CONDITIONS

GP-2.04 SITE INVESTIGATION

Revise the paragraph to read as follows:

The Contractor acknowledges that he has investigated and satisfied himself as to the conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, river stages, tides or similar physical conditions at the site, and confirmation and conditions of the ground, the character of equipment and facilities needed preliminary to and during prosecution of the work. The Contractor further acknowledges that he has satisfied himself as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory INFORMATION IN POSSESSION OF THE AUTHORITY, as well as from information presented by any drawings and specifications made a part of this contract. Any failure by the Contractor to acquaint himself with the available information shall not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the work. The MdTA assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the MdTA.

GP-2.06 PREPARATION OF THE BID

ADD: After paragraph (a), the following.

The Contractor may elect to submit his bid on forms he has generated in the development of his bid. These may be submitted in lieu of the schedule of prices bid forms furnished by the Administration in the Invitation for Bids. These forms shall emulate the forms currently furnished by the Administrations and, of a minimum, contain the following information.

- (1) State Contract No.
- (2) State Item Nos.
- (3) State's Proposed Quantities
- (4) Description of Items
- (5) Unit Price
- (6) Total Cost of Each Item



(7) Total Bid Amount

The document shall be 8-1/2 x 11 inches, and oriented in a landscape format. The font size shall be no less than 10 points with horizontal lines dividing each item. Any addendum which revised items or quantities shall be noted on all affected schedule of prices sheets. Any special bid requirements that are noted in the schedule of prices shall also be listed on the form.

Should the Contractor elect to submit bids on the Contractor's own forms, the Contractor shall submit a sample of the form to the Administration at least two weeks prior to the scheduled opening of bids. The use of Contractor generated forms shall be approved, in writing, prior to their use. If the Contractor's forms were previously approved in writing on another Administration project and have not changed, they need not be resubmitted for this project.

Sample forms shall be submitted to:

Ms. Linda D. McGill, CPPB
Chief Procurement Officer
Maryland Transportation Authority
Office of Procurement & Statutory Program Compliance
300 Authority Drive, 1st Floor
Baltimore, MD 21222-2200

Acceptance of Terms and Conditions, and Amendments to General Provisions and Conditions

By submitting an offer in response to this IFB, an Offeror, if selected for award, shall be deemed to have agreed to and accepted all of the terms, conditions and requirements set forth in the following: this IFB; Part I (General Provisions) and Part II (Terms and Conditions); Section 104 (Maintenance of Traffic), and 110 (Activities Chart Project Schedule) in the Maryland Department of Transportation, State Highway Administration Standard Specifications of Construction and Materials, dated July 2008. Contracts are also subject to all other requirements of Maryland Law, including the State Finance and Procurement Article, Annotated Code of Maryland, and the Code of Maryland Regulations, (COMAR) Title 21, State Procurement Regulations. The particular attention of all Offerors is directed to Title 17, Subtitle 2, State Finance and Procurement Article, dealing with Prevailing Wage Rates on Public Works Contracts of \$500,000 or more.

Any exceptions to this IFB, or the Contract, must be clearly identified (e.g., in an itemized list) as an Attachment to the Proposal Form (and nowhere else) of the Offeror's bid submission. A bid that takes exception(s) to these terms may be rejected.



GENERAL PROVISIONS
GP-SECTION 2
BIDDING REQUIREMENTS AND CONDITIONS

GP 2.23 - BID PROTESTS

Section GP 2.23 of the General Provisions is supplemented as follows:

The Board of Public Works does not have the jurisdiction to consider protests relating to this solicitation or an award of this contract under this solicitation.

All protests relating to this solicitation, the selection, and/or award must be filed in writing with the Authority's Procurement Officer; within the time limitations set forth in COMAR 21.10.07 and 21.10.02. Bid protests shall be filed not later than 7 days after the basis for protest is known, or should have been known, whichever is earlier. Oral protests will not be considered.

The specific details of the protest procedures shall be followed by aggrieved actual or prospective Bidders or Offerors are contained in COMAR 21.10.



Maryland
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GENERAL PROVISIONS
GP SECTION 4
SCOPE OF WORK

GP 4.10 - WARRANTY OF CONSTRUCTION

GP 4.10 of the Standard Specifications is revised to read as follows:

Delete: The first paragraph in its entirety.

Insert: The following:

The Warranty as defined under paragraphs A through G in GP 4.10 (Warranty of Construction) shall apply to this Maryland Transportation Authority contract unless specified elsewhere in this Invitation for Bids.



GENERAL PROVISIONS
GP SECTION 5
CONTROL OF WORK

GP 5.12 - FAILURE TO MAINTAIN ENTIRE PROJECT

Delete: Section GP 5.12 in its entirety

Insert: Revise the paragraph to read as follows:

Failure on the part of the Contractor, at any time, to RESPOND TO the provisions of GP 5.11 above, will result in the procurement officer's immediately notifying the Contractor to comply with the required maintenance provisions. In the event that the Contractor fails to PROCEED WITH CORRECTIONS TO UNSATISFACTORY MAINTENANCE SO AS TO CONFORM TO THE PROVISIONS OF GP 5.11 within 4 hours of receipt of such notice, the procurement officer MAY NOTIFY THE CONTRACTOR TO SUSPEND ALL OTHER WORK ON THE CONTRACT UNTIL SUCH TIME AS THE UNSATISFACTORY MAINTENANCE IS CORRECTED. In the event that the Contractor fails to RESPOND TO unsatisfactory maintenance within 4 hours after receipt of such notice, the procurement officer will immediately proceed with adequate forces and equipment to maintain the project, and the entire cost of this maintenance will be deducted from monies due the Contractor ON THE NEXT MONTHLY ESTIMATE.



GENERAL PROVISIONS
GP SECTION 8
PROSECUTION AND PROGRESS

GP 8.09 - LIQUIDATED DAMAGES

Delete: Section GP 8.09 in its entirety

Insert: Time is an essential element of the Contract and it is important that the work be vigorously prosecuted until completion.

For every calendar day that the contract remains uncompleted after the expiration of the contract time specified herein, or amended by extra work authorization, change orders or supplemental agreements, the Contractor will be liable for Liquidated Damages. The amount of Liquidated Damages shall be as specified in Contract Time and Bonding. This amount shall be deducted from any money due the Contractor, not as a penalty, but as Liquidated Damages. Damages in excess of any retained percentage shall be paid to the Authority by the Contractor.

Refer to Contract time and Bonding sheet contained elsewhere herein. See Table of Contents.



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GENERAL PROVISIONS
GP SECTION 9

PAYMENT

GP 9.05 LATE PAYMENTS

ADD the following:

- Payments will be made within thirty (30) days of the date when the contract amount becomes due and payable or the date of receipt of a proper invoice, whichever is later. The State's failure to remit payment within forty-five (45) days from that date may entitle the Contractor to interest at the rate of 10% per annum beginning on the 31st day.



TERMS AND CONDITIONS
TC SECTION 4
CONTROL OF WORK

TC 4.01 - SHOP PLANS AND WORKING DRAWINGS

DELETE SECTION (a) IN ITS ENTIRETY AND REPLACE WITH THE FOLLOWING

ADD:

- (a) General. The specifications will be supplemented by working drawings, catalog cuts, schematics, material data, installation plans and manuals, user manuals, and other data necessary to demonstrate to the Engineer adequate control of the work, proper installation and handling, conformance to the specifications, and that the proposed materials and equipment is suitable for the intended use. All submittals involving structural work must be submitted and stamped by a registered Structural Engineer with Professional Engineer certifications valid in Maryland. All authorized alterations affecting the requirements and information given on the working drawings shall be in writing to the Engineer. Any deviations from the Specifications or Special Provisions shall be clearly highlighted and explained. When reference is made to the working drawings, the interpretation shall be the working drawings as affected by all authorized alterations then in effect. When reference is made to the working drawings, the interpretation shall be that working drawings include working drawings, catalog cuts, schematics, material data, installation plans and manuals, user manuals, and other data necessary to demonstrate to the Engineer adequate control of the work, proper installation and handling, conformance to the specifications, and that the proposed material or equipment is suitable for the intended use.

Working drawings will show details of all structures, lines, grades, typical cross section of roadway, general cross sections, location and designation of all units and elements. Cabinet drawings shall be to-scale showing the location of all equipment proposed to be mounted within the cabinet. One-line diagrams and schematics shall be provided for equipment cabinets showing the interconnection of all devices located therein. Equipment layouts shall include rack-level elevation views as well as floor plans for all equipment racks. All working drawings, regardless if submitted as specified or submitted as equal substitutes, shall be furnished with complete, specific, detailed information from the manufacturer or supplier for the material or equipment the Contractor proposes to furnish, in which the requirements of the Specifications and Special Provisions shall be clearly shown to be met.



When any article is specified by trade name of manufacturer with or without the clause “or equal”, it is intended to establish the quality of the article. If the Contractor proposes to use material or equipment of another manufacturer as an “or equal” to the material or equipment specified, all working drawings shall conform to the following requirements, conditions, and procedures:

1. Substitution of equipment or materials other than those specified will be considered, providing, in the opinion of the Engineer, such equipment or material is equal to, or better than specified. The decision of the Engineer with respect to approval or disapproval of any material or equipment proposed to be substituted as an “or equal” is final. The Contractor shall have no claim of any sort by reason of such decision.
2. If the Contractor proposes to substitute materials or equipment as “or equal” to those specified, it shall be his responsibility to furnish, in addition to the information discussed above, a point by point comparison of the material or equipment specified under the contract and that proposed to be substituted. The burden of responsibility in furnishing this information is with the Contractor.
3. If the substitute material or equipment requires any re-design or affects other aspects of the project, the Contractor shall be responsible to provide such re-design including details and to adjust elements as necessary to achieve the re-design at no additional cost to the Authority. Cost saving re-designs will be considered under the value engineering specifications.

If incomplete or irrelevant data is submitted as evidence of compliance with Specifications, or Special Provisions the data will be returned and the request for approval of working drawings will be denied.

The Contractor shall provide, at no additional cost to the Authority, all required working drawings and shall have them adequately checked, after which they shall be submitted to the Engineer for review. The engineer may reject working drawings and return them for revisions, in which case the Contractor shall submit revised working drawings as required. No items involving working drawings shall be incorporated into the work until working drawings have been accepted by the Engineer, however, acceptance shall not relieve the Contractor of any responsibility in connection with the working drawings.

The working drawings shall be prepared on sheets no smaller than 8.5” x 11” and no larger than 22” x 36”. The sheet size and scale of the drawings shall be appropriate for the work depicted.

All working drawings shall be submitted by the Contractor, no working drawings submitted directly by subcontractors, fabricators, suppliers, etc. shall be accepted. Acceptance of a material source or equipment source by the Engineer or the Authority shall NOT constitute approval of the material or equipment nor approval of the materials or equipment as a substitute or an “equal” product.



ADD:

- (b) The working drawings shall be submitted electronically as files (FAXES are NOT acceptable). Electronic submission may be made via email for small submissions. Email is the preferred submission method. The email submissions shall be made to the email addresses provided by the Authority upon notice to proceed of the project and shall include bjordan@mdta.state.md.us. Where electronic submittals are larger than what the Authority's email can support (currently about 4MB), the submission may be made using one or more of the following alternatives:
1. Post the submittals on a contractor-supported FTP server, or a service-provider server that may be accessed by the Authority, as long as an email notice with downloading instructions (including user ID and password if applicable) is made with the 'cover' sheet.
 2. Copied onto a CD, DVD, or other supported data media and submitted to the Authority via standard mail. At least 5 copies of the media shall be provided for in-house distribution.

The address to mail such media transfers is:
Maryland Transportation Authority
Engineering Division
300 Authority Drive
Baltimore, MD 21222
ATTN: Robert Jordan

ADD:

- (c) Electronic Submittal Format. All electronic submittals shall be in a format readable by the Authority. The submittals shall be in Adobe portable document format (PDF) compatible with version 6.0 of Adobe Acrobat (not any later version).

Each submittal shall be a single file and for a single component or a group of components described in the associated bid line item. The Contractor may divide a bid item into multiple submittals for convenience if the situation warrants. Multi-file submittals shall not be accepted.

The first page of each submittal shall be a cover page. The cover page must be in the 8.5 x 11" sheet format. The cover page must include:

1. The Contract number.
2. The Contract title.
3. Submittal Number. For each project (Contract), a sequential number starting with number 1 shall be used. Where a submittal is rejected, or otherwise requires a re-submittal or replacement, the submittal number shall be appended with an "R" followed by the revision number.
4. The Contractor's name, mailing address, contact phone number, contact email address.



5. The relevant line items in the contract that the submittal is associated with.
6. A brief description of the materials or data represented in the submittal package.
7. The date of the submittal.
8. The manufacturer's name, web site address, mailing address, and contact phone number, if applicable.
9. The vendor's or reseller's name, web site address, mailing address, and contact phone number if applicable.
10. The cover page must contain a 6" x 3" blank space where the reviewers' stamps may be placed (electronically) without covering the data in the page.

The electronic file must not be secured. The reviewers of the electronic submittals will place electronic stamps and may include comments in the electronic submittals provided by the Contractor. Any security or incompatibility problems that prevent the use of the electronic stamps or electronic commenting will render the submittal unacceptable. The returned file may be secured to prevent accidental changes.

ADD:

(d) File Naming Conventions and Rules. It is necessary and required that file naming conventions and rules be followed to lend to organization and reduce confusion regarding the electronic submissions. Submittals that do not follow the file naming conventions described herein will be rejected without review. Strict adherence to the file naming rules is required. The file names for electronic submissions shall follow these rules:

1. The first five characters must be the first five characters of the contract number. For example, for contract MA 510-000-006, the first five characters of the file name must be MA510.
2. The sixth character must be a dash.
3. The seventh through ninth characters shall be the text "SUB," which is short for "Submittal" and used to indicate that the file is a submittal from a Contractor.
4. The tenth character must be a dash.
5. The eleventh through thirteenth characters must be the submittal number, e.g., 001.
6. In the event of a re-submittal, the 14th character will be an R followed by the re-submittal number.
7. The remaining filename characters may be any short descriptive characters that may be useful to identify the nature of the submittal (fewer than 40 additional characters)



8. Examples of filenames:

- i. MA510-SUB-001-Conduit.pdf
- ii. MA510-SUB-001R2-Conduit.pdf
- iii. MA510-SUB-015-Fiber Optic Cable.pdf

9. After the submittal has been reviewed, the text 'SUB' will be replaced by the text 'TRN' by the Authority and the electronic file with electronic stamps and possibly containing electronic comments will be returned to the contractor via email, CD, DVD, or similar electronic file transfer.

ADD:

- (e) Upon completion of the project, all electronic files that have been transmitted to the Contractor (TRN's) shall be transferred to CD's, DVD's or other media by the Contractor and provided to the Authority along with as-built data. Data provided shall include any original files in original format, used to generate the PDF submittals, these may include CADD, Visio, Word, Excel, MathCad, Access/Database, HTML, JPG/Pictures, Power point, or any other format that may have been used as the originating document. Provide 3 copies of all media.



TERMS AND CONDITIONS
TC SECTION 5
LEGAL RELATIONS AND PROGRESS

TC-5.01 INSURANCE.

DELETE: The first three paragraphs under TC-5.01 in their entireties.

INSERT: The following.

The requirement of GP-7.14 (Liability Insurance) to submit Certificate of Insurance prior to starting work is modified for Contracts to require the certificate of insurance to be submitted prior to the execution of the Contract.

The Contractor shall maintain in full force and effect third party legal liability insurance necessary to cover claims arising from the Contractor's operations under this agreement, which cause damage to the person or property of third parties. The insurance shall be under a standard commercial general liability (CGL) form endorsed as necessary to comply with the above requirements; or other liability insurance form deemed acceptable by the State. The State of Maryland shall be listed as an additional named insured on the policy. The limit of liability shall be no less than \$1,000,000 per occurrence/\$2,000,000 general aggregate. The insurance shall be kept in full force and effect until all work has been satisfactorily completed and accepted. The policies shall be endorsed to provide 30 days notice of cancellation or non-renewal to:

Director of Construction
Maryland Transportation Authority
304 Authority Drive
Baltimore, Maryland 21222



TERMS AND CONDITIONS
TC SECTION 7

PAYMENT

TC-7.03 FORCE ACCOUNT WORK.

DELETE: TC-7.05 PROGRESS PAYMENTS Subsection (a) (3) Variable Retainage

INSERT: The following.

- (3) **VARIABLE RETAINAGE.** The Contract will be subject to a variable retainage based upon the Authority's performance evaluations of the Contractor.

Those qualifying may have retainage reduced upon request of the Contractor with consent of surety. This request must be processed through the Construction Manager. If at any time during the performance of the project, the evaluation of the Contractor changes, retainage reduction may be reconsidered.

Contractors with "A" evaluations for the last two years may be reduced from 5 percent to 2.0 percent upon request after 15 percent project completion. Project completion percentage will be based upon actual work completed (excluding monies paid for stored materials). An interim evaluation of the current project must be completed and must be an "A". Contractors with "A" evaluations for the last two years may petition to have all retainage at that point released upon completion of a significant milestone. Retainage will continue at 2.0 percent until the next milestone of completion of the contract.

Contractors with "B" evaluations or any combination of "A" and "B" evaluations for the last two years may be reduced from 5 percent to 2.5 percent at 50 percent project completion and remain at that level until released upon final payment. Project completion percentage will be based upon actual work completed (excluding monies paid for stored materials). An interim evaluation of the current project shall be completed and shall be an "A" or "B".

Contractors with "C" evaluations or any combination of "C" and "D" evaluations for the last two years will begin and remain at 5 percent for the life of the project. An interim evaluation of the current project shall be completed and shall be a "C" or better rating.

Contractors with a "D" evaluation for the last two years will begin at 5 percent. Project performance will be evaluated monthly. Should the contractor performance remain at the "D" level, to protect the State's interest 10% of the progress payment will be withheld until performance improves to a "C".

New Bidders. Contractors who have not been previously rated by the Authority may be eligible for a reduction in retainage. To be eligible, their past performance on highway and bridge work shall be documented by the government agency with whom they had a contract and their performance shall be documented on Authority forms.



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All other Contractors who do not fit into the above criteria would require a 5 percent retainage throughout the life of the Contract.



**CATEGORY 100
 PRELIMINARY**

SECTION 104 — MAINTENANCE OF TRAFFIC

104.01 TRAFFIC CONTROL PLAN (TCP).

104.01.01 DESCRIPTION.

149 **DELETE: SECTION 104 – MAINTENANCE OF TRAFFIC in its entirety and replace with the following:**

Project Description. This project is an intercom replacement contract at various sites throughout MdTA facilities. All work related to this project is considered a low-priority and shall be conducted in such a way as to minimize impacts to the free flow of traffic and other higher priority activities. The schedules below provide guidance as to when such work will be permitted, but any number of events may cause additional limits. The Contractor will have no claims for delays gaining access to perform installations and must request permits and obtain approval for access wherever toll lane closures are required. The Contractor will not be assessed damages or liquidated damages for any delays caused by denied or cancelled permits.

MdTA will handle any lane closures and Maintenance of Traffic, if required, but the Contractor is required to provide a schedule to the Authority, 14 days in advance, that clearly indicates when intercoms will be installed in the toll booths. The Contractor is also expected to work within the Authority’s lane closure constraints defined by the Facility Administrator and Toll Manager at each location. In general, no more than 1 lane in each direction at a plaza can be closed at a time with a 15-minute tear-down and 15-minute setup between lane changes.

Agency Contacts.

CONTACT	TITLE	PHONE NUMBER
Gordon Garrettson	WPL (Bay Bridge) Deputy Administrator, MdTA	410-537-6652
Gary Jackson	HWN (Nice Bridge) Administrator, MdTA	410-537-6807
Charles Raycob	FSK (Key Bridge) Administrator, MdTA	410-537-7513
George Fish	JFK Administrator, MdTA	410-537-1101
Dave Roehmer	Fort McHenry and Baltimore Harbor Tunnels (FMT/BHT), MdTA	410-537-1310
Roxane Y. Mukai	Traffic Manager, MdTA	410-537-7848
Robert Jordan	Design Engineer, MdTA	410-537-7851
William Mentzer	Construction, MdTA	410-538-5730
David Dikes	ITS Manager, MdTA	410-537-1096



Work Restrictions. On Monday of each week, the Contractor shall provide the Engineer with a complete list of anticipated toll lane closures for the following two weeks, allowing the Authority a minimum of 14 calendar days or 10 working days notification. The Engineer shall then notify the affected facilities, the Engineering Division's Traffic Section and other appropriate offices. No toll lane closures shall be made without prior written approval of the Engineer in the form of an Authority lane closure permit. The Authority is not responsible for lost workdays resulting from the Contractor failing to submit schedules or providing notification of maintenance of traffic requirements in a timely manner. Other contractors may be actively working in or around the vicinity of this project. The Contractor shall cooperate with, and coordinate work activities with Contractors in adjoining or overlapping work areas.

No equipment, material or debris shall be stored or permitted to stand in open areas closer than 30 (thirty) feet from where traffic is being maintained unless protected by traffic barriers. The Contractor's employees shall not park their vehicles within the right-of-way of the through highway, unless written permission for an exception is given by the Engineer.

ALLOWABLE LANE CLOSURE SCHEDULES

The allowable closure schedules below depict the times that will typically be approved for access. However, many events and special circumstances may render specific dates and times inaccessible, including, but not limited to, other Contractors working in the area, special events known to significantly increase traffic, expectation of inclement weather, or work by the Authority in the area. The Contractor shall coordinate the scheduling of work with the Authority and other contractors working on each facility to ensure that there are no conflicts that result in severe traffic backups or safety risks for motorists or workers. Additionally, although not typical, it is possible that in special circumstances access may be granted outside of the scheduled times listed below at the sole discretion of the Authority. Flexibility of the Contractor with respect to access dates and times is required and highly desired.

For the installations of intercoms in the toll plazas, the Contractor shall work around peak traffic conditions and coordinate all installation activities with the Toll Manager a minimum of one (1) day prior to installation. This coordination is required to confirm the schedule that was provided 14 days earlier. The Contractor will only be permitted to install intercoms in toll plazas during the following time frames:

1. **BHT, FMT, FSK, JFK** – work will only be permitted between 9:30 AM and 2:30 PM, Monday through Thursday, and Friday from 9:30 AM to Noon. No installations will be permitted the day preceding, the day of, or the day following State Holidays.
2. **WPL** – work will only be permitted between 6 AM and 10 AM, Monday through Friday. No installations will be permitted the day preceding, the day of, or the day following State Holidays.



The Contractor will be permitted to install the intercoms in only one (1) toll booth at a time. Multiple lane closures, at the same time, will not be permitted. It is anticipated that the Contractor will need one (1) hour or less per toll booth to replace the intercom. If the Contractor will require more than one (1) hour per lane, advance approval will be required by the Toll Manager. Under no circumstances shall the Contractor do any work in the toll booth while the Toll Attendant/Cashier is present.

The Contractor should understand that in the event of an incident (e.g., accident, maintenance operation, equipment failure, emergency situation, etc.) the Contractor may be required to stop work in the toll booth. The Contractor shall coordinate with the Toll Manager and Shift Supervisor to reschedule work.

Contractor's request for changes to the allowed hours of closure must be submitted to the Engineer. Requested changes cannot be approved without the approval of the Facility Administrator and the Authority's Traffic Manager.

The Contractor will not be permitted to use any portions of the existing roadway or interfere with or impede the free flow of traffic in any manner during prohibited hours, or periods of time for which a permit has not been issued. All existing lanes of traffic along the subject roadway must be completely open during these hours.

No toll lane closures are permitted on the Holidays listed below. No toll lane closures are permitted on the work day preceding and work day following the Holidays with checked boxes indicated below:

- New Year's Day, January 1
- Martin Luther King's Birthday, the third Monday in January
- President's Day, the third Monday in February
- Good Friday
- Easter Weekend
- Memorial Day, the last Monday in May
- Independence Day, July 4
- Labor Day, the first Monday in September
- Columbus Day, the second Monday in October
- Veteran's Day, November 11
- Thanksgiving Day, the fourth Thursday in November
- Christmas Day, December 25

If a holiday falls on a Thursday, Friday, or Monday, no closures will be permitted during that weekend. If a holiday happens to fall between May 1 and September 30, no closures will be permitted during the week of the holiday without the expressed approval of the Bridge Administrator for the Bridge being impacted by the work.



No toll lane closure will be permitted without the written approval of the Bridge Administrator for the facility that is being impacted by the work.

As directed by the Engineer, temporary toll lane closures will not be permitted during periods of falling precipitation, in heavy fog or otherwise poor visibility, or in the event of emergencies such as serious traffic accidents or unusually severe traffic congestion. In the event that a temporary toll lane must be reopened as directed by the Engineer or authorized Authority staff, the Contractor shall evacuate all equipment, materials and personnel from the lane within 30 minutes.

When a temporary toll lane closure is in effect, work shall begin within one hour after the toll lane is closed. Any delay longer than one hour with no work in progress shall require the Authority to remove the toll lane closure.

Workers shall not enter a lane open to traffic. Workers may not be present any earlier than 15 minutes prior to the actual time the toll lane closure or restriction is permitted.



SECTION 110 — ACTIVITIES CHART PROJECT SCHEDULE

110.01 DESCRIPTION

ADD:

Activities Chart Project Schedules shall be submitted to the Engineer two (2) weeks prior to starting work and shall be updated to reflect progress and resubmitted to the Engineer once per month.

110.04 MEASUREMENT AND PAYMENT

DELETE: 110.04 Measurement and Payment in its entirety.

INSERT: The following.

Activities chart project schedules will not be measured but the cost to develop, prepare, write, record, meetings, revise, distribute, update and all incidentals necessary to complete the work will be included in the other pay items specified in the Contract Documents.



SECTION 899 — MISCELLANEOUS CONSTRUCTION AND/OR REPAIRS

899.01 DESCRIPTION

A contingent allowance of \$25,000 has been included in the Proposal Form for miscellaneous construction and/or repairs that may be deemed necessary by the Engineer during the construction period.

This work shall be performed only upon written direction of the Engineer. Upon the direction from the Engineer, the Contractor shall submit a written time and material cost for this task, for the Engineer's review prior to commencing any work. The Contractor shall allow two (2) weeks for the review and notice of approval or rejection of the proposal. If the proposal is rejected, the contractor shall have no claim for time, materials, or other costs associated with the preparation of the proposal. If the proposal is approved, the costs, if any, associated with preparation of the proposal shall be incidental to the proposal.

In lieu of a proposal, the Engineer may direct the Contractor to perform the work in accordance with the requirements of "Force Account Work" Section TC-7.03 of the Specifications.

899.02 METHOD OF MEASUREMENT AND BASIS OF PAYMENT

All work performed under this item will be paid for on the basis of approved price proposals and/or force account records submitted in accordance with Section TC-7.03 of the specifications and with the authorization of the Engineer. Approved amounts shall be a full compensation for all labor, equipment, materials, and incidental items complete and in place as directed by the Engineer. Only the agreed upon or documented costs shall be paid from a lump sum amount as specified in the schedule of prices.



CATEGORY 900
MATERIALS

The Contractor shall furnish, install, test, and warrant replacement intercoms as specified in this section.

1. OBJECTIVE

The Maryland Transportation Authority is soliciting bids from a licensed contractor to furnish and install complete intercom systems at various locations throughout the organization.

2. SCOPE OF CONTRACT

This work includes furnishing and installing a complete intercom replacement system at the following locations:

BALTIMORE HARBOR TUNNEL (B.H.T.)

Administration Building, 1200 Frankfur Avenue, Brooklyn, MD 21226
Facility contact for coordination is Mr. Jeff Robson at 410-537-1274

FRANCIS SCOTT KEY BRIDGE (F.S.K.)

Administration Building, 303 Authority Drive, Dundalk, MD 21222
Facility contact for coordination is Mr. Charlie Raycob at 410-537-7513

GOVERNOR HARRY W. NICE BRIDGE (H.W.N.)

Administration Building, U.S. Route 301, P.O. Box 8, Newburg, MD 20664
Facility contact for coordination is Mr. Gary Jackson at 410-537-6807

FORT MCHENRY TUNNEL (F.M.T.)

Administration Building, 3990 Leland Avenue, Canton, Md. 21224
Facility contact for coordination is Mr. Jeff Robson at 410-537-1274

JOHN F KENNEDY MEMORIAL HIGHWAY (J.F.K.)

Administration Building, One Turnpike Drive, Perryville, Md. 21903
Facility contact for coordination is Mr. George Fish at 410-537-1104

WILLIAM PRESTON LANE MEMORIAL BRIDGE (WPL)

Administration Building, 850 Revell Highway, Sandy Point, Md. 21401
Facility contact for coordination is Mr. Ken Cimino at 410-537-6659

The system shall consist of intercom stations described and located as follows:

- Handset stations, desktop style with LCD displays and keypads, and rated for indoor use, shall be furnished and installed in offices (e.g., Toll Supervisor), as required.



- Handset stations, identical to the desktop units, except wall mounted, shall be furnished and installed in toll lanes (one in each lane), working rooms, toll tunnels, or as required.
- Door stations, wall mounted with a single push button rated for outdoor environments, shall be furnished and installed at outside building entrance locations or other locations, as required, for access by toll customers.

The power supply and central switching unit (CSU) shall be located in MdTA-designated rooms within each building (typically storage, computer, or communication rooms). The existing wiring shall be re-used in all locations, which is used today to support the existing intercom stations. The Authority expects the current wiring to be adequate. The new system is being specified to take advantage of the existing 2-wire. This contract includes costs for up to 100' of 2-wire replacement (total for entire job) as per Section 2.3.1.1.1 item (q). Any wiring issues over and above this estimate are not anticipated, but, if encountered will be dealt with on a case-by-case basis during installation.

3. MATERIALS and FUNCTIONAL REQUIREMENTS:

The materials shall consist of CSUs, outdoor units, desktop units, wall mount units, software/firmware, expansion modules, cables, and master and substation cards.

I. Central Switching Unit and General Capabilities

For the CSU, the following model is acceptable: Commend Global Intercom Series GE-200 or equal. The CSU must have the following capabilities:

- a. The system shall support at least 32 connected intercom stations per building. Each station shall be connected via a single non-shielded twisted pair copper cable up to 2 km in length to the CSU.
- b. The CSU shall be a fully digital, microprocessor-controlled intercom server for up to 32 subscribers (masters and substations combined) at one location. The use of expansion modules are permitted to achieve the 32 subscribers requirement. The Contractor shall supply the necessary number of expansion modules and substation/interface cards. For the expansion module, the following model is acceptable: Commend Global Intercom Series GEZ-200 or equal. For the substation/interface cards for substations, the following model is acceptable: Commend Global Intercom Series G2-GED-4B or equal. For the master/interface cards for master stations, the following model is acceptable: Commend Global Intercom Series G2-GED-4D or equal.
- c. The system shall support an optional Ethernet network interface for IP routing of audio signals. The optional device is not required for the initial system, but an expansion slot in the CSU shall make this feature available at a later date without an additional hardware upgrade (except the network interface card itself).



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- d. The system shall support both 2-digit and 3-digit dialing for extensions. The system shall be configured for 2-digit dialing and fully setup for operational use by the Contractor, as directed by the MdTA designee at each facility.
- e. All program settings and configuration shall be stored in non-volatile memory such that data is preserved during power outages.
- f. The system shall support conferencing of the intercom stations. Any station (master or substation) with a keypad shall be able to transmit broadcast (e.g., "All call") announcements to all configured substations, or to groups of substations, or transmit announcements to individual substations.
- g. The system shall support at least 5 simultaneous group calls (or conferences) with at least 5 members in each group.
- h. The system shall support at least 10 simultaneous, non-blocking, point-to-point connections.
- i. Any station with a keypad (which excludes single push button outdoor stations), shall be able to dial any other station.
- j. The system shall pre-empt any current point-to-point connections during a broadcast or group announcement, so the broadcast/group announcement can be heard by all stations. The point-to-point connections will be placed on hold during the broadcast/group announcement and resumed when the broadcast/group announcement is concluded.
- k. Connections for stations shall be via plug in set-screw terminal blocks. Each station connection shall be protected for over current and surge.
- l. The system shall support audio monitoring of any other station from the master.
- m. The indoor desktop portions of the system shall operate in an indoor environment with ambient temperature range of 40° F to 100° F and humidity between 10% and 95% non-condensing.
- n. The indoor wall mount portions of the system shall operate in an indoor environment with ambient temperature range of 20° F to 100° F and humidity between 10% and 95% non-condensing.
- o. The outdoor portions of the system shall operate in an outdoor environment with ambient temperature range of -4° F to 120° F and humidity between 10% and 95% non-condensing. Outdoor components shall be rated for outdoor/exterior use.



- p. Each station shall support fully hands free communications. Communications shall be full-duplex permitting each participant to speak simultaneously.
- q. To account for some unanticipated new or relocated units, the Contractor shall plan to install and properly terminate 100' of 2-pair cable, run in various portions of buildings (through ceilings, under flooring, etc.), as required.
- r. Units installed in toll lanes shall be designed for use in noisy environments which shall include suitable output power and microphone placement and sensitivity.

II. Indoor Desktop Handsets

For indoor desktop handset stations, the following model is acceptable: Commend Global Intercom Series EE-311 or equal. The indoor desktop handsets must have the following capabilities:

- a. The unit shall have a keypad, LCD alphanumeric display, caller ID, function keys, microphone, loudspeaker with minimum 1W output, function light, and be cable of displaying alarms.
- b. Each station shall operate either hands-free (with optional handset).
- c. Each station shall have an integral keypad to support dialing of any other station, or all stations (for broadcasts).
- d. Each station shall have integral 6-character alphanumeric, backlit LCD display. Each station shall have digital volume control. The LCD display shall display the called or calling station ID.

III. Indoor Wall Mount Intercom Stations

This unit shall be functionally the same as desktop unit, except it comes with a bracket (Commend Global Intercom model EW-401 or equal) which mounts the unit to a wall. Units installed in toll lanes shall be designed for use in noisy environments which shall include suitable output power and microphone placement and sensitivity.

IV. Outdoor Intercom Stations

For outdoor intercom stations, the following model is acceptable: Commend Global Intercom Series ES-831 or equal. The outdoor intercom stations must have the following capabilities:



- a. Door Stations shall consist of a tamper resistant station with stainless steel flush mount cover plate, moisture resistant speaker (1 W) and microphone, and single push call-button.
- b. There shall be input/output connections to allow door access.

V. Software

The Contractor shall provide one licensed copy of the programming software, any required firmware, and 2 copies of all operating manuals for each building. The software shall be compatible with a MS-Windows based operating system and shall be supplied with necessary cables for laptop computer connection to the CSU. The software will not be paid for separately, but included with the cost of other bid items.

VI. Quantities and Spares

The Contractor shall provide the equipment quantities as identified in Table 1 and Table 2 below. An employee of the Authority, at each facility, will direct the Contractor as to the location of all the various existing intercoms. All existing intercoms will be replaced with new equipment. An employee of Authority will also designate where the spares shall be located. A transmittal letter, signed by the Contractor and the Authority, for all delivered spares shall be provided to ITS Supervisor, Mr. David Dikes (ph: 410-537-1096). The Contractor shall turn over spare parts to the Authority at the completion of acceptance testing at each facility. Note: Spare Parts have separate bid items in the schedule of prices. There is no installation of the spares required. The Contractor furnishes the spares and provides them to the Authority.

Note: the quantity of CSUs, expansion modules, master station cards, and substation cards identified in Table 2 are dependent on the actual equipment used. It is the Contractor's responsibility to provide the proper back-end equipment quantities to support the quantity of intercoms identified in Table 1 and to meet all functional requirements identified above.



Table 1. Equipment Quantity for Handsets

Quantity of Handsets							
Facility/ Building	Outdoor Wall Mount Single Button Intercoms (ES-831)	Spare Outdoor Single Button Intercoms (ES-831)	Indoor Desktop Handsets w/Keypad and LCD (EE-311)	Spare Indoor Desk Mounts (EE-311)	Indoor Wall Mount Handsets w/Keypad, LCD (EE-311 w/EW-401 bracket)	Spare Indoor Wall Mounts*	Total Handsets All Types
FMT Adm	2	1	2	4	28	0	37
FSK Adm	3	0	3	4	16	0	26
BHT Adm	3	0	4	4	20	0	31
HWN Adm	2	1	7	4	7	0	21
JFK Adm	0	1	5	4	18	0	28
WPL Adm	0	0	2	4	13	0	19
Totals	10	3	23	24	102	0	162

Table 2. Equipment Quantity for Central Switching Units

Equipment for Central Switching Units										
Facility/ Building	Central Switching Unit (GE-200)	Spare Central Switching Unit (GE-200)	Central Switching Unit Expansion Modules (GEZ-200)	Spare Central Switching Unit Expansion Modules (GEZ-200)	Central Switching Unit Master Station Cards* (G2-GED4D)	Spare Central Switching Unit Master Station Cards* (G2-GED4D)	Central Switching Unit Substation Cards** (G2-GED4B)	Spare Central Switching Unit Substation Cards** (G2-GED4B)	Desktop/ Laptop CSU Software	Spare Desktop/ Laptop CSU Software
FMT Adm	1	1	1	1	1	1	8	2	1	0
FSK Adm	1	0	1	0	1	0	6	0	1	0
BHT Adm	1	0	1	0	1	0	7	0	1	0
HWN Adm	1	0	0	0	1	0	4	0	1	0
JFK Adm	1	1	1	1	1	1	6	2	1	0
WPL Adm	1	1	0	1	1	1	4	2	1	0
Totals	6	3	4	3	6	3	35	6	6	0

Note: * indicates one card for every four masters. ** indicates one card required for every 4 substations.

4. CONSTRUCTION

The Contractor shall be responsible for the following:

- I. The Contractor shall complete the replacement of the existing system within two calendar weeks per building.
- II. The Contractor installer must be factory-certified and trained by the manufacturer. The Contractor shall furnish proof of this certification prior to any installation work.
- III. All existing intercom hardware and parts, except wiring, shall be carefully removed to allow for the reutilization of all removed materials. All parts of the existing system, except wiring, shall be delivered to Mr. David Dikes, ITS Supervisor (ph: 410-537-1096), and stored at the Fort McHenry Tunnel East Ventilation Building. A transmittal letter, signed by the Contractor and the Authority, for all delivered existing equipment shall be provided to Mr. Dikes.



- IV. The Contractor shall provide catalog cuts of the proposed system to the Authority for approval prior to installation. If the Authority is not familiar with the proposed products, the Authority may require, at no additional charge, that the contractor set up a demonstration consisting of one unit in a toll booth selected by the Authority and a desktop station within the building, to verify that the voice quality and power levels achieved are sufficient for the noisy environment.
- V. The Contractor shall provide all installation services necessary to complete the installation in a neat and workmanlike manner. Existing conduit and wiring shall be utilized. The Contractor shall provide all final connections and terminations. The handsets will be installed in roughly the same locations as they exist today.
- VI. The Contractor shall configure the system as directed by the Authority including establishment of 2 digit dial codes for each station.
- VII. The Contractor shall coordinate all intercom replacement work with the Project Engineer, and the Facility Administrator and Toll Manager at each facility.
- VIII. MdTA will handle any lane closures and Maintenance of Traffic, if required, but the Contractor is required to provide a schedule to the Authority, 14 days in advance, that clearly indicates when intercoms will be installed in the toll booths. The Contractor is also expected to work within the Authority's lane closure constraints defined by the Facility Administrator and Toll Manager at each location. In general, no more than 1 lane in each direction at a plaza can be closed at a time with a 15-minute tear-down and 15-minute setup between lane changes.

5. ACCEPTANCE TESTING

The Contractor shall perform the necessary programming to successfully accomplish the tests identified below.

- I. The Authority requires the completion of acceptance testing, at each building, and a signed test report, prior to final payment. A written test procedure must be provided to the MdTA Engineer for approval prior to execution, and after execution signed by the tester and MdTA witness at each facility.
 - a. The system will be installed in toll booths which are a very noisy environment. Acceptance testing will include ability to communicate effectively using the intercom in the presence of the ambient noise. Critical factors include ability to achieve sufficient output volume in the toll lane and microphone placement and sensitivity in the toll lane.
- II. Acceptance testing shall commence upon completion of all installation activities. Testing shall include a demonstration by the Contractor, and witnessed by the Engineer and the Toll Manager, to ensure the following can be performed:



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- a. all intercoms in each facility administration building (e.g., in the Toll Sergeant's office, Police office, etc.) can perform an "All-Call" that can be heard by all other stations.
 - b. all intercoms in each facility administration building (e.g., in the Toll Sergeant's office, Police office, etc.) can perform an "All-Call" (or group call) that can only be heard in the building, but not in the toll booths.
 - c. all intercoms in the building (e.g., in the Toll Sergeant's office, Police office, etc.) can call any other station as a one-on-one call.
 - d. all intercoms in the toll booths can perform an "All-Call" that can be heard by all other stations (including all those in other toll booths and in the building).
 - e. all intercoms in the toll booths cannot communicate with any single intercom in any other toll booth (this is intentional to minimize non-work related conversations).
 - f. all intercoms in the toll booths can do a group call to all stations in the building only, which is not heard by intercoms in the toll booths.
 - g. any "All-Call" announcement will pre-empt any other one-on-one or group calls occurring.
- III. The Contractor shall perform the required tests from each station and document the results in the test report.
- IV. The Contractor shall also perform a random sample of 10 station-to-station calls and document the results in the test report.
- V. In addition, the Contractor shall provide the necessary programming labor (included with the bid) to also allow for up to 10 additional customized configurations/functions (e.g., groups to be defined or capabilities to enabled/disabled at certain stations) the system is capable of that will be tailored to the unique needs of the individual facilities. These needs will be identified by the Facility Administrator or Toll Sergeant at each facility during the installation process. These functions shall be demonstrated as part of the testing process and documented in the test report.

6. TRAINING

The Contractor shall perform the following training tasks:

- I. The Contractor shall conduct two, 3-hour troubleshooting and training classes for up to 6 electronics technicians at an MdTA designated facility. The 1st training class will be conducted within 1 week of successful acceptance testing of the 1st building. The last training class will be conducted within 1 week of successful acceptance testing of the last building.



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The Authority must approve the training material in advance of the training. The Contractor shall provide a training submittal for approval at least 1 week in advance of the training. Copies of all approved training materials must be provided by the Contractor to all trainees.

- II. The training shall cover module replacement, programming, configuration, troubleshooting, testing, and other items as necessary to maintain the system in operational condition. Training must be provided to the Authority to allow Authority personnel to program/enable any programmable capability provided by the system. The Contractor shall supply copies of a maintenance manual complete with catalog cuts of all parts and components utilized within the system, including user manuals, and installation and configuration guides. Detailed procedures providing step-by-step instructions for configuring and maintaining the system shall be provided along with the training materials. Exercises shall be provided for all key operations and maintenance functions. The contractor shall include this information in the training package for each trainee. All information shall be bound in a 3 ring binder with an outside label on the binder cover and spine. In addition to each trainee receiving a copy of this binder, one full copy of the binder shall be left in each Computer room where the CSU is located. This manual is for use by on-call Electronics Technicians and must contain all information necessary to repair/reinstall/reprogram any aspect of the system.
- III. In addition to the above, the Contractor shall provide a ¼ cut-out page, laminated, with operator instructions specific to each facility. There shall be enough copies for each handset. It should identify all extensions and codes for the configured functions (e.g., volume, alarms, all call broadcasts, calls to masters, etc.). Functions only available at master stations should be noted accordingly. The Contractor shall provide at least two, 15-minute training sessions with the Toll Supervisor and his/her designees at each facility. These sessions shall be completed within two-days of successful acceptance testing at each facility.

7. WARRANTY

The Contractor shall provide the following warranty:

- I. All parts shall be warranted for a period of one year from completed installation and successful system acceptance. The warranty shall cover the cost of parts and labor at no additional expense to the Authority. If any component of the system fails during the warranty period, it must be replaced by the Contractor at his expense.
- II. For failures that occur during the warranty period, on-site Contractor technician is expected to be on-site within 4 business hours from the time they are notified by the Authority. All after hour communications will be coordinated with the Toll_Sergeant at the facility. The Contractor must provide a telephone number for the Technician on-call, and if that contact number changes the Toll Sergeants at each facility must be contacted with the new_number.



8. METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Components of the system will not be measured separately, but instead each building will be paid separately as a lump sum for the entire intercom system replaced as described herein. The lump sum for each building shall include all materials, labor, and equipment necessary to furnish and install a complete, operational, and acceptable system as specified herein. The lump sum payment shall also include all testing, training, and warranty required by the specifications and special provisions. Any requirements of the specifications or special provisions not specifically detailed or mentioned in a pay item shall be considered incidental to the pay items.

Spare parts will be measured and paid per each unit supplied as specified in the schedule of prices.