



REQUEST FOR PROPOSAL

SUBJECT: INTELLIGENT TRANSPORTATION SOLUTION SYSTEM

DATE: OCTOBER 15, 2020

PROPOSAL NO.: 21-05

PROPOSAL DUE: NOVEMBER 24, 2020 TIME: 2:00 p.m. C.S.T.

The Memphis Area Transit Authority invites proposals for supplies and/or services set forth above in accordance with the specifications enclosed herewith.

Proposals **MUST** be received at MATA by the date and time set forth above.

Sincerely,

Ashley Best
Contract Administrator

COMMON PROBLEMS WITH RFP SUBMITTAL

- Missing or unsigned copies of certain forms and certifications. The following must be included in the RFP:
 - Addenda Acknowledgement Form
 - Affidavit of Non-Collusion (Exhibit I)
 - Buy America (Exhibit II)
 - Certification of Primary Participation Regarding Debarment, Suspension, and Other Responsibility Matters (Exhibit III)
 - Certification of Lower-Tier Participants (Subcontractors), Debarment, Suspension, Ineligibility and Voluntary Exclusion (Exhibit III)
 - Certification of Restrictions on Lobbying (Exhibit IV)
 - Certification of Utilization of Disadvantaged Business Enterprises
 - Letter of Intent to Perform as a DBE Contractor or Subcontractor
 - Schedule of DBE Participation
 - Explanation of "No Response"
 - Exception(s) Form
 - Price Schedule (separate download)
- Incomplete or outdated information on client references and/or sufficient number of references provided.
- Failure to include adequate documentation about the role of subcontractors in the project.
- Submittal of too few copies. The RFP specifies the number of originals and number of copies of the RFP to be provided.
- Failure to properly label the RFP package with RFP label.
- RFP received late. All RFPs must be in MATA's possession by the deadline shown in the RFP. All RFPs received after the deadline will be returned unopened.

MEMPHIS AREA TRANSIT AUTHORITY
LEGAL NOTICE TO PROPOSERS

Proposals will be received by the Memphis Area Transit Authority (MATA) at its Purchasing offices, 1330 Levee Road, Memphis, TN, 38108, **Tuesday, November 24, 2020 2:00 p.m.** for furnishing the following:

INTELLIGENT TRANSPORTATION SOLUTION SYSTEM

A pre-proposal meeting will take place on **Monday, October 26, 2020, 10:30 A.M. - 12:00 P.M.** Due to the current social climate via WebEx meeting add the following link to your web browser to attend the meeting <https://matatransit.webex.com/meet/smaclin>. If you have any issues accessing the meeting link, please contact the Manager of Purchasing, Shelia Maclin at (901) 722-7102

Proposers must submit their proposal with the enclosed label attached to the envelope.

MATA hereby notifies all proposers that in regard to any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit proposals in response to this advertisement and will not be discriminated against on the grounds of race, color, sex, religion, political affiliation or national origin in consideration of an award.

Any name appearing on the Comptroller General's list of ineligible contractors is not an eligible proposer. The contractor will be required to comply with all applicable Equal Employment Laws and Regulations.

Further information and proposal requirements may be obtained by contacting Ashley Best, Contract Administrator at (901) 722-7182 or via email: abest@matatransit.com or Shelia Maclin, Manager of Purchasing, (901) 722-7102 or via email: smaclin@matatransit.com.

MATA reserves the right to reject any and all proposals, and to waive any informality in proposing.

October 15, 2020

Gary Rosenfeld
Chief Executive Officer

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- Certification of Primary Participation Regarding Debarment, Suspension, and Other Responsibility Matters (Exhibit III)
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- Exception(s) Form
- Price Schedule (separate download)

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ATTACHMENT 1 GENERAL CONTRACT PROVISIONS

SECTION A

INSTRUCTIONS TO PROPOSERS

SECTION A INSTRUCTIONS TO PROPOSERS

1.0 GENERAL

- 1.1 The Memphis Area Transit Authority (hereinafter referred to as MATA) seeks proposals from qualified firms to provide the services described in Section B.

MATA is a public agency responsible for providing public transportation services within the City of Memphis and surrounding communities.

- 1.2 "Purchaser" or "Grantee" means MATA. The words "Proposal" and "offer" are synonymous, and it is understood that once MATA accepts the same, the document will constitute the contract contemplated by these instructions. The words "contract" and "lease" are synonymous. The words "Proposer", "Contractor", "Vendor" and "Tenant" are also synonymous.

- 1.3 This Request For Proposal (RFP) does not commit MATA to award a contract or pay any costs incurred in preparation of Proposals in response to the RFP. Proposers shall be responsible for all costs incurred as part of their participation in the pre-award process.

- 1.4. A pre-proposal meeting will take place on **Monday, October 26, 2020, 10:30 A.M. - 12:00 P.M.** Due to the current social climate via WebEx meeting add the following link to your web browser to attend the meeting <https://matatransit.webex.com/meet/smaclin>. If you have any issues accessing the meeting link, please contact the Manager of Purchasing, Shelia Maclin at (901) 722-7102.

- 1.5 Proposals will be received by MATA at its Purchasing offices located at 1330 Levee Road, Memphis, TN 38108, 2:00 p.m., CST on TUESDAY, NOVEMBER 24, 2020. PROPOSALS RECEIVED AFTER THIS DATE AND TIME WILL BE RETURNED TO THE PROPOSER UNOPENED.

All Proposals shall be deemed received at the above address. Proposers are solely responsible for ensuring that his/her Proposal is timely delivered. Proposers who rely on overnight delivery services, the United States mail, private mail services, local couriers or delivery services remain solely responsible for timely delivery of the Proposal and assume all risk of late delivery, mis-delivery and non-delivery.

All Proposals will be date/time stamped, logged and deposited by MATA Staff.

Proposers are reminded that all Proposals must be securely sealed, have the enclosed label attached and be clearly marked "Proposal".

Proposers may verify receipt of Proposals by contacting MATA at (901) 722-7182.

After normal business hours (4:30 p.m. – 8:00 a.m.) proposals will be accepted at the MATA dispatcher's office, 1370 Levee Road, Memphis, TN 38108, however; proposers are reminded of their sole responsibility for ensuring that their proposal is deposited in the Purchasing Department.

- 1.6 All Proposals and related documents shall be subject to a financial assistance contract between MATA and the United States Department of Transportation, under the Federal Transit Act, as amended, and terms and conditions established under the Act will apply.

2.0 PROPOSAL REQUIREMENTS

- 2.1 Proposals must set forth full, accurate, and complete information required by this RFP including any attachments.
- 2.2 The Proposer shall provide all the work described in Section B - Scope of Services.
- 2.3 The price quoted in any Proposal shall include all labor, materials, tools, equipment and other costs necessary to fully complete the work as set forth in the Scope of Services. Anything omitted from the scope of work, which is clearly necessary for the completion of the work, should be considered a portion of the Proposal.

3.0 PROPOSAL FORMAT

- 3.1 Proposers are required to submit Proposals in the following format:

REFER TO SECTION 20 DETAIL SUBMITTAL REQUIREMENTS.

- A. Proposal Forms and Attachments (one electronic file, if files are too big to be submitted via email/zip file etc., then one flash drive can be submitted via mail service.)
 - 1) Addenda Acknowledgement Form
 - 2) Buy America
 - 3) Cost Proposal Form (see General Provisions, Section 11)
 - 4) Affidavit of Non-Collusion Exhibit I (See General Provisions, Section 1)
 - 5) Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower-Tier Covered Transaction Exhibit III (See General Provisions, Section 30)
 - 6) Certification of Primary Participation Regarding Debarment, Suspension and Other Responsibility Matters Exhibit III (See General Provisions, Section 30)
 - 7) Certification of Restrictions on Lobbying Exhibit IV (See Section 43)
 - 8) References According to General Provisions (See General Provisions, Section 26)
 - 9) Certification of Utilization of Disadvantaged Business Enterprises
 - 10) Letter of Intent to Perform as a DBE Contractor or Subcontractor
 - 11) Schedule of DBE Participation
 - 12) Explanation of "No Response"
 - 14) Exception(s) Form
 - 15) Price Schedule (separate download)

4.0 PROPOSAL PROCEDURES

- 4.1 MATA reserves the right to postpone the Proposal due date for its own convenience and to waive any minor informalities in Proposal submission, which do not go to the heart of the Proposal or prejudice other Proposers, or to reject, for good and compelling reasons, any and all Proposals submitted.
- 4.2 Changes to the instructions and or specifications will be made by written addendum by MATA and will be forwarded to all persons and firms to whom Proposal documents have been submitted. **ANY VERBAL COMMUNICATION IS NOT CONSIDERED MATA'S OFFICIAL RESPONSE.**

- 4.3 Requests for clarification must be submitted in writing to Ashley Best, MATA, 1330 Levee Road, Memphis, TN 38108 and must be received **no later than 10:00 a.m. CST, Friday, October 30, 2020 10:00 a.m.** in accordance with the procedures described in the General Contract Provisions. Requests may be faxed to (901) 272-2912 or (901) 274-5866 or email abest@matatransit.com **VERBAL QUESTIONS WILL NOT BE ANSWERED, THUS PREVENTING AN UNFAIR ADVANTAGE TO ANY PROPOSER.**
- 4.4 Proposers shall submit one electronic file, if file(s) are too big to be submitted via email/zip file etc., then one flash drive can be submitted via mail service. Proposals shall be securely sealed to prevent access prior to the Proposal closing date.
- 4.5 Proposals shall be valid for a minimum period of 120 days subsequent to the Proposal closing date. Proposals offering less than 120 days for acceptance by MATA from the Proposal closing date will be considered non-responsive.

5.0 PROPOSAL EVALUATIONS AND AWARD

- 5.1 The Evaluation Committee will evaluate the initial proposals and establish a competitive range for this procurement. The Evaluation Committee may request interviews with the firms in the competitive range. MATA reserves the right to enter into negotiations with the top ranked Proposer without requesting interviews. The Contracting Officer will negotiate separately with each Proposer whose proposal falls within the competitive range.
- 5.2 Negotiations will be in conformance with applicable federal, state, and local laws, regulations, and procedures. The objective of the negotiations will be to reach agreement on all provisions of the proposed contract, including contract price.
- 5.3 MATA reserves the right to make contract award based upon the most highly qualified proposals without requesting best and final offers.
- 5.4 MATA reserves the right to reject any and all proposals or to waive minor informalities and irregularities in offers received.
- 5.5 MATA reserves the right to select and negotiate partial solution proposed by the proposers if it deems is in the best interest of the agency.
- 5.6 A written notice of award or acceptance of offer, mailed or otherwise furnished the successful Proposer within the time specified in the proposal, shall be deemed to result in a binding contract.
- 5.7 Proposals will be evaluated as "Best Value" per the Federal Transit Administration's (FTA) Circular 4220.1F and Best Practices Manual, defined as follows:

"Best Value" is a selection process in which proposals contain both cost and qualitative components, and award is based upon a combination of cost and qualitative considerations. Qualitative considerations may include technical design, technical approach, quality of proposed personnel, and/or management plan. The award selection is based upon consideration of a combination of technical and cost factors to determine (or derive) the offer deemed most advantageous and of the greatest value to the procuring agency."

MATA will make the award to the responsible Proposer whose proposal is most advantageous. Accordingly, MATA may not necessarily make an award to the Proposer with the highest

technical ranking nor award to the Proposer with the lowest Cost Proposal if doing so would not be in the overall best interest to MATA.

The overall criteria listed below are listed in relative order of importance. Technical factors as a whole are more important than cost.

All proposals will be evaluated by the evaluation criteria provided in **Section E** of the Scope of Work.

The Evaluation Committee will make an initial review of the Proposals to eliminate those that do not comply with the minimum submittal requirements. The committee will establish a competitive range of responsive proposals that would provide MATA the best value to meet the needs and terms of the solicitation.

6.0 PROTESTS

- 6.1 MATA will consider all protests filed in a timely manner regarding the award. All protests are to be submitted in writing, in accordance with the protest procedures described in the General Contract Provisions.
- 6.2 Under certain limited circumstances, a potential Proposer may protest to FTA the award of a contract pursuant to an FTA grant. FTA's review of any protest is limited to:
 - a. An alleged failure of MATA to have written protest procedures or alleged failure to follow such procedures.
 - b. Alleged violations of a specific Federal requirement that provides an applicable complaint procedure, which shall be submitted in accordance with the Federal regulation.

7.0 DISADVANTAGED BUSINESS ENTERPRISE

7.1 GENERAL DBE INFORMATION

- A. Memphis Area Transit Authority (MATA), a recipient of Federal financial assistance from the Federal Transit Administration, is committed to and has adopted a Disadvantaged Business Enterprise Policy in accordance with Federal Regulations (49 C.F.R. Part 26, as amended) issued by the U.S. Department of Transportation. It is the policy of MATA to ensure nondiscrimination in the award and administration of DOT-assisted contracts and to create a level playing field on which DBEs can compete fairly for contracts and subcontracts relating to its activities.

To this end, MATA has developed procedures to remove barriers to DBE participation in the bidding and award process and to assist DBE firms to develop and compete successfully outside of the DBE program. In connection with the performance of this contract, the Prime Contractor will cooperate with MATA in meeting these commitments and objectives.

Accordingly, the Prime Contractor and any subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Prime Contractors and subcontractors shall carry out applicable requirements of 49 C.F.R. Part 26 in the award and administration of DOT-assisted contracts. Failure by the Prime Contractor and any subcontractors to carry out these requirements is a

material breach of this contract, which may result in the termination of this contract or such other remedy, as MATA deems appropriate.

The following rules apply to Disadvantaged Business Enterprise participation by firms/teams:

- Only certified Disadvantaged Business Enterprises can be counted toward the goal. Participation by certified “Minority Business Enterprises” (MBE) or certified “Woman Owned Business Enterprises” (WBE) cannot be counted toward the goal. While participation by MBEs and WBEs is encouraged, MATA is governed by the U.S. Department of Transportation program which only recognizes the designation of DBE.
- DBEs must be certified in Tennessee.
- MATA is a member of the Tennessee Unified Certification Program (TN UCP) and accepts Tennessee DBE certifications from the following entities:
 - Memphis Area Transit Authority
 - Tennessee Department of Transportation Unified Certification Program
 - Uniform Certification Agency (managed by the Mid-South Minority Business Council)A list of firms currently certified in Tennessee can be found at:
www.tdot.state.tn.us/dbedirectinternet/
- Certification in the State of Tennessee must be achieved by the time the proposals are due otherwise the participation of a proposed DBE firm cannot be counted toward the goal. If a proposed DBE firm is not certified at the time the proposals are due and, as a result, the goal is not met, then the proposal will be considered “non-responsive” and rejected unless the good faith efforts have been accepted as satisfactory.

It is highly recommended that a copy of a current certification of Disadvantaged Business Enterprise issued by the Tennessee Department of Transportation or the Uniform Certification Agency be included with the offer for each DBE firm being proposed.

7.2 DBE GOAL

A. Annual Overall Goal for DBE Participation

An annual overall goal for DBE participation in Owner U.S. DOT-assisted contracts is established by MATA’s DBE Officer and approved by MATA’s Board of Commissioners on a fiscal year basis. These goals reflect the availability of ready, willing and able DBEs that would be expected to participate in Owner contracts absent effects of discrimination. The goals are calculated as a percentage of the total amount of U.S. DOT funds that the Owner expects to expend on contracting opportunities during the fiscal year.

B. DBE Goal Applicable to This Contract

MATA has established a 3% DBE goal for this contract. However; DBE participation is encouraged either the capacity of the prime contractor or subcontractor. Proposers are required to document their activities in the solicitation and selection of subcontractors to ensure that this process is carried out in a nondiscriminatory manner.

7.3 DBE ELIGIBILITY AND PARTICIPATION

A. Evaluation of DBE Certification Status

MATA shall require that any DBEs listed by proposers for participation in the contract be certified, as eligible DBEs at the time of proposal submittal. The DBE Officer shall review the Proposer's DBE Participation Form to confirm each DBE firm's certification status.

B. Determination of Amount of DBE Participation

Only the work actually performed by a DBE with its own forces will be counted as DBE participation. A DBE may participate as a prime contractor, subcontractor, joint venture partner, or vendor or supplier of materials or services required by the contract.

A DBE's participation can only be counted if it performs a commercially useful function on the contract. A DBE performs a commercially useful function when it actually performs, manages and supervises a portion of the work involved. There is a rebuttable presumption that if the DBE is not responsible for at least 30% of the work with its own forces or subcontracts a greater portion of the work than the normal industry standard, it is not performing a commercially useful function. A DBE trucking company performs a commercially useful function if it is responsible for the overall management and supervision of the transportation services involved and uses at least one truck that it owns, insures and operates with its own employees on the contract.

The Contractor shall count DBE participation according to the following guidelines and in accordance with 49 CFR §26.55:

- i. DBE Prime Contractor – Count the entire dollar amount of the work performed or services provided by the DBE's own forces, including the cost of materials and supplies obtained for the work and the reasonable fees and commissions charged for the services. Do not count any work subcontracted to another firm as DBE participation by the DBE Prime Contractor.
- ii. DBE Subcontractor – Count the entire amount of the work performed or services provided by the DBE's own forces, including the cost of materials and supplies obtained for the work, except for materials and supplies purchased or leased from the Prime Contractor, and reasonable fees and commissions charged for the services. Do not count any work subcontracted by the DBE Subcontractor to another firm as DBE Participation by said DBE subcontractor. If the work has been subcontracted to another DBE, it will be counted as DBE participation for that other DBE.
- iii. DBE Joint Venture Partner – Count the portion of the work that is performed solely by the DBE's forces or, if the work is not clearly delineated between the DBE and the joint venture partner, count the portion of the work equal to the DBE's percentage ownership interest in the joint venture.
- iv. DBE Manufacturer – Count 100% of the costs of materials and supplies obtained from a DBE manufacturer that operates or maintains a factory that produces the materials and supplies on the premises. This applies whether the DBE is a prime contractor or subcontractor.
- v. DBE Regular Dealer – Count 60% of the costs of materials and supplies obtained from a DBE regular dealer that owns, operates or maintains a store or warehouse in which the materials and supplies are regularly bought, kept in stock and sold or leased to the public in the usual course of business, except regular dealers of bulk items such as petroleum, cement and gravel who own

and operate distribution equipment in lieu of maintaining a place of business. This applies whether a DBE is a prime contractor or subcontractor.

- vi. Other DBEs – Count the entire amount of fees or commissions charged for assistance in procuring or delivering materials and supplies when purchased from a DBE that is not a manufacturer or regular dealer. Do not count the cost of materials and supplies.
- vii. DBE Trucking Company – Count the entire amount of the transportation services provided by a DBE trucking company that performs the work using trucks it owns, insures and operates with its own employees on the contract.

Count the entire amount of the transportation service provided by a DBE trucking company that performs the work using trucks it leases from another DBE, including an owner-operator, provided that it is responsible for the overall management and supervision of the service and that it uses at least one truck that it owns, insures and operates with its own employees on the contract.

Count the entire amount of fees and commissions charged for providing the management and supervision of transportation services using trucks it leases from a non-DBE trucking company, including owner-operator, provided that it is responsible for the overall management and supervision of the service and that it uses at least one truck that it owns, insures and operates with its own employees on the contract.

8.0 LIQUIDATED DAMAGES

In the event of delay in the completion of work beyond the contract completion date for each major mile stone to be established with the Contractor, MATA shall assess as liquidated damages and not as penalties, a sum to be determined for each major mile stone per calendar day for undelivered or incomplete materials or unfinished services required by this contract.

MATA will deduct and retain out of any money due or becoming due hereunder the amount of liquidated damages, and in case those amounts are less than the amounts of liquidated damages, the Contractor shall be liable to pay the difference upon demand.

If the Contractor is delayed at any time in the progress or completion of the contract by any act or neglect of MATA or an employee of MATA, or by a separate contractor employed by MATA, or by changes ordered, casualties or calamities or any cause beyond the Contractor's control, or by labor disputes in no wise caused by or resulting from default or collusion on the part of the Contractor, then the times fixed for completion of the work to the extent specified shall be extended for a period equivalent to the time lost by reason of any of the causes mentioned in this Section. No such allowances of time shall be made, however, unless notice in writing or a claim is presented to MATA before the last day of each calendar month for all delays occurring within said calendar month, and the Contractor shall satisfy MATA that the delays claimed were unavoidable, caused substantial cessation of work under the contract and could not have been reasonably anticipated or adequately guarded against.

END OF SECTION

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Abbreviations

ADA	Americans with Disabilities Act
APC	Automated Passenger Counters
API	Application Program Interface
APP	Application
ATC	Airways Transit Center
ATIS	Advanced Traveler Information System
AVA	Automated Voice Announcements
AVAS	Automated Vehicle Announcement System
AVL	Automated Vehicle Location
AWTC	American Way Transit Center
CAD	Computer Aided Dispatch
CCTV	Closed Circuit Television
CEA	Covert Emergency Alarm
DCU	Driver Control Unit
EQMT	Equipment
EPTBS	Emergency Phone Tower with Built-in Surveillance
FTA	Federal Transit Administration
GPS	Global Positioning Satellite
GTFS -RT	General Transit Feed Specification - Real Time
GTFS	General Transit Feed Specification
IEC	International Electrotechnical Commission
IP	Internet Protocol
ISO	International Organization for Standardization
IT	Information Technology
ITS	System Intelligent Transportation Solution System
ITS	Intelligent Transportation Solution
IVR	Interactive Voice Response
LED	Light-Emitting Diode
LTE	Long-Term Evolution (standard for high-speed wireless communication)
MATA	Memphis Area Transit Authority
MIC	Memphis Innovation Corridor
NFC	Near Field Communication
NGFS	Next Generation Fare System
NTD	National Transit Database
ODBC	Open Data Base Connectivity
OTP	On Time Performance
PA	Public Announcement Systems
PIDS	Passenger Information Display System
PWS	Pedestrian Warning System
QA	Quality Assurance
QC	Quality Control
RFP	Request for Proposals
SGR	State of Good Repair
SLA	Service Level Agreement
SMS	Short Message Service
SOP	Standard Operating Procedure
SQL	Structured Query Language
TAM	Transit Asset Management
TBD	To Be Determined

TSA	Transportation Security Administration
TSP	Transit Signal Priority
TVM	Ticket Vending Machine
VHM	Vehicle Health Monitoring
VLU	Vehicle Logic Unit
VoIP	Voice-over Internet Protocol
WHTC	William Hudson Transit Center
Wi-fi	Wireless Fidelity
W-LAN	Wireless Local Area Network

1 Introduction

The purpose of this Request for Proposal (RFP) is to solicit responses from qualified firms (Proposers) offering the functionality and capabilities identified to replace Memphis Area Transit Authority's (MATA) existing CAD/AVL system and to provide additional functionality. MATA seeks a Proposer with the experience, expertise, and qualifications to provide a fully integrated, ADA compliant, Intelligent Transportation Solution System. In this RFP, the Intelligent Transportation Solution System shall be referred to as the "ITS System" or "ITS."

MATA expects to have one integrated system (with either a single system or integrated systems) that includes functions and capabilities listed in this RFP.

Please note that MATA requires a **Hosted Service Solution**.

Proposers will be required to demonstrate their offered solution as part of the evaluation process. Proposers shall be aware that finalist(s) will be required to participate in a scripted demonstration of technical and functional capabilities to allow MATA to fully understand the proposed solution. The scripted demonstration is not intended to be a generic demonstration, but rather a live demonstration of specific technical and functional capabilities deemed most critical to MATA. Proposers must be prepared to invest the time and resources in the scripted demonstration to be successful on this procurement.

Proposers **MUST** provide the technical details and submit pricing information for all Optional items. MATA, at its discretion, will make a decision to either implement or not implement these Optional items. MATA reserves the right to select and negotiate a partial solution proposed by the proposers if it deems it is in the best interest of the agency.

END OF SECTION

2 Intelligent Transportation Solution System Project

2.1 Project Scope

Proposer shall design, furnish, install, test, and make operational the ITS System for MATA. Proposer shall also provide supporting documentation drawings, training, warranty and technical support as specified herein. Proposer shall be responsible for all activities, tasks, equipment, system components, and services required to provide MATA with a turnkey ITS System that is fully functional in accordance with the RFP requirements.

The complete and integrated ITS System shall include the following, but not be limited to:

- Computer-Aided Dispatch
- Automatic Vehicle Location
- Automatic Passenger Counter
- Automatic Vehicle Announcement System
- On-board Variable Message Signs
- Covert Emergency Alarm (CEA)
- Single point vehicle log-in
- Time of Arrival/Departure Information
- Route & Schedule Adherence
- Smart phone application
- Web based customer self-service application
- GTFS and GTFS-RT feed
- Passenger Information Display System
- MATA and BRT Line Transit Centers
- MATA and BRT Bus Bay
- Trolley Stations
- BRT Line Shelters/Platforms
- Transit Signal Priority API
- CAD Tablets and or Ruggedized Laptops
- Integration with Exterior Vehicle Destination Signs/Head Signs
- Integration with Next Generation Fare System Equipment
- Integration with Trapeze software suite for scheduling
- Integration with Interactive Voice Response for time of arrival and departure information
- Integration with Cellular Mobile Data Routers
- Integration with Radio System
- Integration with bulk data transfer via W-LAN (802.11) currently installed at MATA
- Integration with Preteckt
- Emergency Phone Tower with Built-in Surveillance System (EPTBS) - Optional
- Vehicle Health Monitoring - Optional
- Pedestrian Warning System (PWS) - Optional
- Yard Management System - Optional

Proposer will provide the hardware specifications and make recommendations for workstations required to support the ITS System and interfaces. The most cost-effective acquisition of workstations for dispatch, customer service, service planning and other users will be determined and procured by MATA. Proposer Should provide minimum requirements for equipment and standard software needed for each workstation. Any other specific software needed to operate workstations with the ITS solution shall be listed in the proposal and provided by the proposer. All

the vehicles at MATA are equipped with Sierra Wireless MG90 cellular routers/modems. The proposer is expected to utilize this existing equipment for ITS system communications.

It is an important consideration for MATA to procure a comprehensive and fully integrated solution. Increased importance will be given to solutions that provide maximum on-board integration and will save operating and maintenance costs for MATA. The Proposer is encouraged to provide superior and innovative solutions that meet or exceed the requirements and the functional specifications described in this scope.

2.2 Project Schedule

MATA expects a project start of January/February 2021. The below table provides MATA's expectation for the implementation of Intelligent Transportation System. Proposers should recommend an implementation plan that will meet MATA's timeline.

To meet the timeline in this RFP/Contract, any contract negotiations and BAFO **MUST** be finalized in the timeframe prescribed - "December 18th, 2020 through January 7th, 2021." In the event, contract negotiations and BAFO are not finalized before or during the prescribed timeframe, MATA reserves the right to move to the next most advantageous proposer for negotiations and subsequent Board approval.

The Intelligent Transportation System and services described in this RFP shall be delivered, installed and made ready for complete operations **"Phase 1" within 11 months and "Phase 2" within 13 months** after MATA issues the Notice to Proceed. **Phase 3 TBD**

ITS System Procurement and Project Phase Delivery Schedule

Procurement Schedule	
Description	Timeline
ITS System RFP Release	October 15, 2020
Pre-proposal Conference	October 26, 2020
Questions Due	October 30, 2020
MATA Responses	November 4, 2020
Proposals Due	November 24, 2020 by 2:00 pm CST
Demonstration	December 14 - 17, 2020
BAFO and Contract Finalization	December 18 – January 7, 2021
Committee and Board Approvals	January 2021
Notice to Proceed	January/February, 2021
ITS System Project Phase Delivery Schedule	
Description	Timeline
Phase 1- ITS System	
Notice to Proceed/Kick-off	January/February, 2021
Design, Configuration, Implementation and Installation	January/February, 2021 - October 2021
Mini Fleet Pilot Test	October, 2021
Testing and Go-live Readiness	November, 2021
Go-Live and Phase 1 Acceptance	December, 2021/January, 2022
Phase 2- ITS System Passenger Information Display Systems and Optional Systems (Parallel with Phase 1)	

Notice to Proceed/Kick-off	January/February, 2021
Design, Configuration, Implementation and Installation	January/February, 2021 - January, 2022
Testing and Go-live Readiness	February, 2022
Go-live and Phase 2 Acceptance	March, 2022 /April, 2022
Phase 3- Bus Rapid Transit Line and Reopening of Trolley Lines (Madison Avenue and Riverfront)	TBD

2.3 Project Implementation Phases

The below table outlines the systems, sub-systems, components, equipment, applications that must be implemented by phase. Phase 2 activities shall be in parallel with phase 1 activities.

ITS System/Sub-Systems/Applications/Equipment/Component Delivery by Phase

Phase 1 Go-live December 2021	Phase 2 Go-Live March 2022	Phase 3 - TBD BRT Line and Re-opening of Trolley Lines (Madison Ave. and Riverfront)
<ul style="list-style-type: none"> • Computer-Aided Dispatch • Automatic Vehicle Location • Automatic Passenger Counter • Automatic Vehicle Announcement System • On-board Variable Message Signs • Covert Emergency Alarm (CEA) • Single point vehicle log-in • Time of Arrival/Departure Information • Route & Schedule Adherence • Smart phone application • Web based customer self-service application • GTFS and GTFS-RT feed • Transit Signal Priority API • CAD Tablets and or Ruggedized Laptops • Integration with Vehicle Destination Signs • Integration with Next Generation Fare System Equipment • Integration with Trapeze software suite for scheduling • Integration with Interactive Voice Response • Integration with Cellular Mobile Data Routers • Integration with Radio System 	<ul style="list-style-type: none"> • Passenger Information Display System(s) • MATA Transit Centers • Main Street Trolley Line • Emergency Phone Tower with Built-in Surveillance • MATA Transit Centers • Vehicle Health Monitoring (Optional) • Pedestrian Warning System (Optional) • Yard Management System (Optional) 	<ul style="list-style-type: none"> • Automatic Vehicle Location • Automatic Passenger Counter • Automatic Vehicle Announcement System • On-board Variable Message Signs • Covert Emergency Alarm (CEA) Single point vehicle log-in • Passenger Information Display System (BRT Transit Centers, BRT Shelters and Trolley Stations) • Emergency Phone Tower with Built-in Surveillance (BRT Transit Centers and Shelters) • Various Integrations

<ul style="list-style-type: none"> • Integration with bulk data transfer via W-LAN (802.11) currently installed at MATA • Integration with Preteckt 		
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END OF SECTION

3 Overview - MATA Current Systems and On-Board and Infrastructure Equipment

This section provides an overview of MATA's current Intelligent Transportation Systems, applications, vehicle types, onboard vehicle systems/equipment, and MATA's technology network infrastructure.

The purpose of this overview is to give the Proposer an idea of the current equipment that is available on the vehicles or as part of the technology infrastructure that may be utilized by the Proposer. The Proposer shall not consider this as an all-inclusive list and MATA is not responsible for determining the fitness or suitability for use of this equipment. It is the responsibility of the Proposer to determine what equipment can be utilized with its proposed solution and take that into account in the pricing section of the proposal. The Proposers may ask questions during the pre-proposal conference or submit in writing for additional information and clarification.

3.1 MATA Fixed Route Vehicles

Vehicle Type	Qty	Manufacturer / Model	MATA #
Fixed Route Bus	11	2003 Gillig 40BU – 40 Foot Diesel	R401, R404-406, 409-410, 412, 414, 416-418
Fixed Route Bus	22	2010 Gillig 40BU – 40 Foot Diesel	R422, 424-425, 427-432, 434, 436-447
Fixed Route Bus	12	2014 Gillig 40BU – 40 Foot Diesel	R448-R459
Fixed Route Bus	3	2015 Gillig 40BU – 40 Foot Diesel	R460-R462
Fixed Route Bus	15	2017 Gillig 40BU – 40 Foot Diesel	R21701 – R21715
Fixed Route Bus	9	2018 Gillig 40BU – 40 Foot Diesel	R21801 – R21809
Fixed Route Bus	2	2010 Gillig 40BU – 40 Foot Hybrid	R4002 – R4003
Fixed Route Bus	15	2012 Gillig 40BU – 40 Foot Hybrid	R4004 – R4018
Fixed Route Bus	15	2014 Gillig 40BU – 40 Foot Hybrid	R4019 – R4033
Fixed Route Bus	4	2010 Gillig 35BU – 35 Foot Hybrid	R5001, 5002, 5004, 5005
Fixed Route Bus	2	Gillig 29BU – 29 Foot Hybrid	R2001 and R2004
Fixed Route Bus	1	Gillig 29BU – 29 Foot	R3007
Total:	111		

3.1.1 MATA Fixed Route Onboard Vehicle Systems and Equipment (Per Vehicle)

<u>Onboard Systems & Equipment</u>	<u>Qty</u>	<u>Manufacturer/Model</u>
Driver Radio to Dispatch	1	Motorola, CDM 1250, 450-500 MHz Band
Mobile Data Terminal (MDT)	1	Orbstar 3100
Integrated Vehicle Unit (IVU)	1	Orbstar 3100 IVU
Driver Control Unit	0	
CCTV Camera	1	Apollo
Incident Alarm	1	Conduent
Automatic Passenger Counter (APC)	1	InfoDev, GW-200 w/ J1708 protocols
Destination/Head Sign	1	Illuminator
AVA System		Conduent
AVA Amplifier	1	Conduent
Routers	1	Sierra Wireless MG90
Antenna	2	Sierra Wireless
LED Variable Message Sign	1	Sunrise Systems, NXTP7X962M/J15857-1
Vehicle Health Monitoring	1	Preteckt
Transit Signal Prioritization	1	Opticom
Farebox	1	GFI
Mobile Validator	1	AMCO validator

3.2 MATAPlus (Paratransit) Vehicles

<u>Vehicle Type</u>	<u>Qty</u>	<u>Manufacturer / Model</u>	<u>MATA #</u>
Paratransit Van	20	2019 Ford Mobility Trans U4X – Rear (Low Sulfur Diesel Fuel – LSD)	P11901 – P11920
Paratransit Van	1	2010 Gillig 29 BU Hybrid (LSD)	P2006
Paratransit Van	8	2010 Gillig 29BU 29 Foot (LSD)	P3011-14, 16, 19, 20, 22
Paratransit Van	5	2009 Gillig 29BU 29 Foot (LSD)	P3001-3, 8-9
Paratransit Van	10	2016 Dodge Grand Caravan-Braun (Regular Unleaded Gasoline – UG)	P11601-P11610
Paratransit Van	8	2017 Braun Pasi Van (UG)	P11701-P11708
Paratransit Van	1	2018 Braun Pasi Entervan (UG)	P11801
Paratransit Van	1	2018 Ford Transit 350 Wagon (UG)	P11802

Paratransit Van	5	2014 Braun Pasi Van (UG)	P210-213, 215
Paratransit Van	2	2014 Ford Challenger Van (UG)	P218, P227 (Groove Service)
Paratransit Van	1	2010 Ford E350 AllStar Van (UG)	P226 (Groove Service)
Paratransit Van	1	2016 Champion E450 Cutaway (UG)	P217 (Groove Service)
Paratransit Van	12	2016 Champion E450 Cutaway (UG)	P233-P244
Paratransit Van	2	2013 Dodge Caravan (UG)	S114-S115
Total:	77	(7 Paratransit Vans will be removed)	

3.2.1 MATAPlus Onboard Vehicle Systems and Equipment (Per Vehicle)

<u>Onboard Systems & Equipment</u>	<u>Qty</u>	<u>Manufacturer/Model</u>
Driver Radio to Dispatch	1	Motorola, CDM 1250, 450-500 MHz Band
Mobile Data Terminal (MDT)	1	Orbstar 2100
Integrated Vehicle Unit (IVU)	1	Orbstar 2100 IVU
CCTV Camera	1	Apollo
Incident Alarm	1	Conduent
Routers	1	Sierra Wireless MG90
Antenna	2	Sierra Wireless
Farebox	1	GFI
Mobile Validator	1	AMCO validator

3.3 MATA Trolleys (Steel Wheels)

<u>Trolley No.</u>	<u>Make/Model</u>	<u>Status</u>
234	W2-Class Melbourne (Gomaco Trolley Co., typ.)	In Service
455	W2-Class Melbourne	In Service
539	W2-Class Melbourne	In Service
540	W2-Class Melbourne	In Service
453	Birney Replica	In Service
799	W5-Class Melbourne	Not in Service

3.3.1 MATA Trolley Onboard Vehicle Systems and Equipment (Per Trolley) -Steel Wheel

Melbourne style trolley

<u>Onboard Systems & Equipment</u>	<u>Qty</u>	<u>Manufacturer/Model</u>
Exterior Destination/Head Sign (Front/Rear)	2	Luminator
Exterior Destination/Head Sign (Sides)	2	Luminator
Vehicle Sign Controller	2	
Mobile Data Terminal (MDT)	2	Orbstar 6500-2 transportation management
Driver Radio to Dispatch	2	Kenwood TK3312-2 or TK3180-K2
LED Variable Message Signs (VMS)	2	Sunrise Systems, Model NXTP7X962M/J15857-1
Farebox	1	GFI
Automatic Passenger Counter	2	InfoDev APC Module w/ infrared scanner
AVA System	2	
CCTV System	1	Apollo
Onboard computer	1	OrbCAD
Vehicle Router	1	Sierra Wireless MG-90 WWAN
Radio Antenna	2	Sierra Wireless
Transit Signal Priority (TSP)	1	Opticom TSP
Mobile Validator	1	AMCO validator

Birney style trolley

<u>Onboard Systems & Equipment</u>	<u>Qty</u>	<u>Manufacturer/Model</u>
Exterior Destination Sign (Front/Rear)	2	Luminator
Exterior Destination Sign (Sides)	2	Luminator
Vehicle Sign Controller	2	Luminator
Mobile Data Terminal (MDT)	2	Orbstar 6500-2 transportation management
Driver Radio to Dispatch	2	Kenwood TK3312-2 or TK3180-K2
LED Variable Message Signs (VMS)	2	Sunrise Systems, Model NXTP7X962M/J15857-1
Farebox	2	GFI
Mobile Validator	2	AMCO validator
Automatic Passenger Counter	2	InfoDev APC Module w/ infrared scanner
PA Annunciator	2	
CCTV System	1	Apollo

Onboard computer	1	OrbCAD system
Vehicle Router	1	Sierra Wireless MG-90 WWAN
Radio Antenna	2	Sierra Wireless
Transit Signal Priority (TSP)	1	Opticom TSP

3.4 MATA Trolleys (Rubber Wheels)

<u>Trolley Number</u>	<u>Make/Model</u>	<u>Status</u>
R601	2015 Hometown Trolley Villager (UG)	In Service
R602	2015 Hometown Trolley Villager (UG)	In Service
R603	2015 Hometown Trolley Villager (UG)	In Service
R604	2015 Hometown Trolley Villager (UG)	In Service
R605	2015 Hometown Trolley Villager (UG)	In Service
R606	2015 Hometown Trolley Villager (UG)	In Service
R607	2015 Hometown Trolley Villager (UG)	In Service
R608	2015 Hometown Trolley Villager (UG)	In Service

3.4.1 MATA Trolley Onboard Vehicle Systems and Equipment (Per Trolley) -Rubber Wheel

<u>Onboard Systems & Equipment</u> (Hometown Trolley Villager (UG))	<u>Qty</u>	<u>Manufacturer/Model</u>
Destination/Head Sign	1	Luminator
Vehicle Sign Controller	1	Luminator
Mobile Data Terminal (MDT)	1	Orbstar 3100
Driver Radio to Dispatch	1	Motorola, CDM 1250, 450-500 MHz Band
LED Variable Message Signs (VMS)	1	Sunrise Systems, Model NXP7X962M/J15857-1
Farebox	1	GFI
Mobile Validator	1	AMCO validator
Automatic Passenger Counter	1	InfoDev, GW-200 w/ J1708 protocols
AVA System	1	Conduent
CCTV System	1	Apollo
Onboard computer	1	OrbCAD
Vehicle Router	1	Sierra Wireless MG-90 WWAN
Radio Antenna	2	Sierra Wireless
Transit Signal Priority (TSP)	1	Opticom TSP

3.5 MATA Supervisor Vehicles

<u>Supervisor Vehicle Type</u>	<u>Qty</u>	<u>Manufacturer / Model</u>	<u>MATA #</u>
Supervisor Vehicle	2	2010 Dodge Caravan LWB Wagon-FleetMate #22009-2 (UG)	S92, S94
Supervisor Vehicle	2	2012 Dodge Caravan	S102, S105
Supervisor Vehicle	2	2013 Dodge Caravan	S111, S112
Supervisor Vehicle	4	2019 Chevrolet Traverse (UG)	S31901-4
Supervisor Vehicle	1	2019 Dodge Ram 3500 (Diesel)	S41801
Supervisor Vehicle	4	2018 Chevrolet Traverse (UG)	S51801-4
Supervisor Vehicle	1	2019 Dodge Charger (UG)	S51901
Total:	16		

3.5.1 MATA Supervisor Onboard Vehicle Systems and Equipment

<u>Onboard Systems & Equipment</u>	<u>Qty</u>	<u>Manufacturer/Model</u>
Driver Radio to Dispatch	2	Motorola
Onboard laptop computer	1	Panasonic Toughbook, Model CF-54D2900KM w/ Citrix to access CAD/AVL
Mobile Communication Router	1	Mix of RV-50 Sierra Wireless and Cradlepoint routers.

3.6 MATA Service Vehicles

<u>Service Vehicle Type</u>	<u>Qty</u>	<u>Manufacturer / Model</u>	<u>MATA #</u>
Service Vehicle	1	2009 Dodge Pick-Up Truck-FleetMate #22009-1 (Diesel)	S6
Tow Truck	1	1992 International Tow Truck (Diesel)	S23
Tow Truck	1	2010 International Wrecker	S25
Service Vehicle	1	2009 International Bucket Truck	S26
Service Vehicle	1	2010 Dodge 3500 Pickup Crew Cab	S32
Service Vehicle	1	2010 Dodge 4x4 Pickup	S33

Service Car	1	2007 Buick Lucerne	S36
Service Car	1	2007 Buick Lucerne (UG)	S37
Service Vehicle	1	2009 Dodge Caravan LWB Wagon-FleetMate #22009-2 (UG)	S83
Service Vehicle	4	2009 Chevrolet 15 Passenger Van	S84-85
Service Vehicle	4	2009 Dodge Charger	86-89
Service Vehicle	4	2010 Dodge Caravan LWB Wagon-FleetMate #22009-2 (UG)	S90, S91, S93, S95
Service Vehicle	1	2011 Dodge Caravan	S96
Service Vehicle	3	2012 Dodge Pickup Truck	S97-99
Service Vehicle	1	2012 Dodge Caravan	S100
Service Vehicle	2	2012 Dodge Caravan	S101, S104
Service Vehicle	1	2013 F250 Ford Pickup	S110
Service Vehicle	1	2013 Dodge Caravan	S113
Service Vehicle	1	2014 Ford Extended Wheelbase Van	S116
Service Vehicle	1	2014 Dodge 3500 Flatbed	S117
Service Vehicle	1	2014 Ford Pickup F-150 Reg. Cab (UG)	S123
Service Vehicle	1	2014 Ford Pickup F-150 Super Cab (UG)	S124
Service Vehicle	1	2016 Ford Econoline 350 Super Duty (UG)	S125
Service Vehicle	1	2014 Braun Van	S214
Total:	36		

3.6.1 MATA Service Onboard Vehicle Systems and Equipment

<u>Onboard Systems & Equipment</u>	<u>Qty</u>	<u>Manufacturer/Model</u>
Driver Radio to Dispatch	2	Motorola
Mobile Communication Router	1	Mix of RV-50 Sierra Wireless and Cradlepoint routers.

3.7 MATA Radio System

System used to communicate with Operators via radio

- MATA Headquarters Dispatch - Motorola MSF5000 (Closed Mic)
- MATA Trolley Dispatch - Motorola and Kenwood (Open mic)

3.8 MATA Bandwidths

<u>Location</u>	<u>Current Bandwidth</u>	<u>Future Bandwidth</u> (Est. ready Dec 2020)
MATA HQ Administration, Operations and Maintenance Facility	100 MB	300 MB
MATA Trolley Operations and Maintenance Facility	20 MB	50 MB (MATA also may consider 100 MB, TBD)
William Hudson Transit Center	50 MB	100 MB (MATA will further upgrade to 200 MB over the next few years to accommodate Memphis Innovation Corridor project's BRT stations CCTV cameras and added CCTV cameras at existing trolley stations. This facility is the planned data hub.
American Way Transit Center	10 MB	20 MB
Airways Transit Center	20 MB	50 MB
Trolley Station Park and Ride at Madison Avenue Line Trolley – Danny Thomas Station	10 MB	20 MB

3.9 MATA Transit Stations

<u>Location</u>	<u>Passenger Information Display Monitor</u>	<u>Manufacturer / Model</u>	<u>MATA Bus Berths/Bays</u>
William Hudson Transit Center	4	LG monitors	6
American Way Transit Center	2	LG monitors	4

Airways Transit Center	2	LG monitors	3
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3.10 Advanced Traveler Information System

MATA supports the TransLoc Rider App and additionally sends their static schedule GTFS file to approximately 5-6 other companies that provide supplemental trips (Google, Apple, Moovit, other trip planning and supplemental ride-share services).

3.11 Transit Signal Priority

MATA implemented Opticom TSP In 2014 on MATA fixed route vehicles and Trolleys to improve on time vehicle performance on congested downtown Memphis fixed route and Trolley lines. RF modules on the vehicles trigger traffic signals to hold the green signal longer to allow transit vehicles priority through the associated intersections. Currently MATA has TSP implemented along Bellevue Boulevard and Poplar Avenue, as well as along the Main Street Trolley line.

City of Memphis and MATA plan to install a centralized TSP system in the future for MATA fixed route vehicles, Trolleys and BRT Line. Please refer to section 6.8 for requirements.

END OF SECTION

4 Overview of Future Bus Rapid Transit Line and Reopening of MATA Trolley Line

This section provides an overview of Future BRT Line Stations and the reopening of MATA's trolley lines.

4.1 Bus Rapid Transit Line – Future Stations

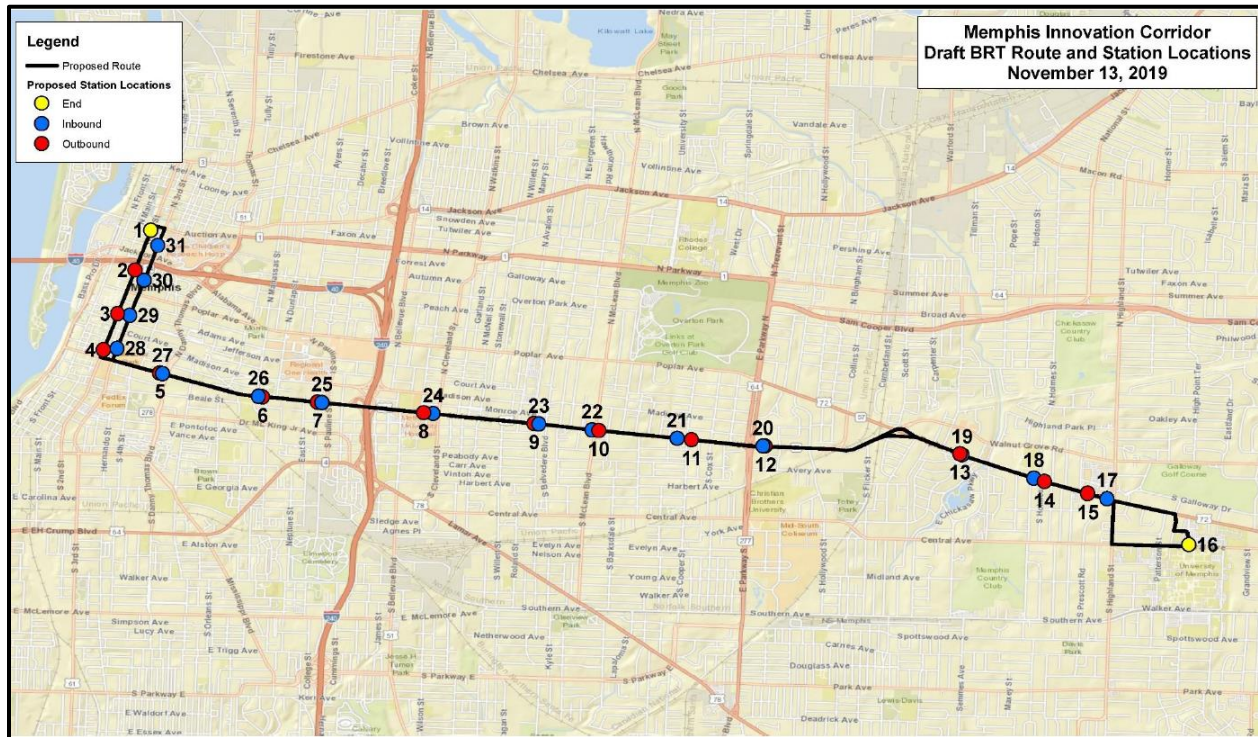
The new BRT corridor will be 8-miles each way with 29 stations between 2 transit centers for a total of 31 stations (approximately one station every half mile). The William Hudson Transit Center (WHTC) will be expanded to include new 3-bay scissor pull-in type bus berths built out onto 2nd Street. The new University of Memphis Transit Center (UMTC) will have a 6-bay sawtooth bus berth arrangement with six 33' L shelters. There will be five double-shelter stations, one double-length station w/ single shelter (Commerce Square) and twenty-three remaining single-shelter stations.

Downtown BRT stations will include five double-shelter stations, one single-shelter station (Monroe and 3rd), 1 double-length station w/ single shelter (Commerce Square) and the WHTC.

The BRT Line is anticipated to be in revenue service in approximately 30 to 48 months

<u>BRT Station Type</u>	<u>Qty</u>	<u>Notes</u>
William Hudson Transit Center Expansion	1	New 3-Bay scissor pull-in type bus berths built out onto 2 nd Street.
University of Memphis Transit Center	1	New 6-bay sawtooth bus berth arrangement w/ six 33'L shelters.
2-Bay Platform w/ 2 Shelters	5	90'L x 12'D x 14"H elevated platform w/ two 33'L x 12'D bus shelter/canopy, ADA accessible ramps.
2-Bay Platform w/ 1 Shelter	1	90'L x 12'D x 14"H elevated platform w/ one 33'L x 12'D bus shelter/canopy, ADA accessible ramps. This type for Commerce Sq. Station only due to restrictions associated w/ historic Commerce Sq. Building.
Single-Bay Platform w/ 1 Shelter	23	45'L x 12'D x 14"H elevated platform w/ one 33'L x 12'D bus shelter/canopy, ADA accessible ramps.

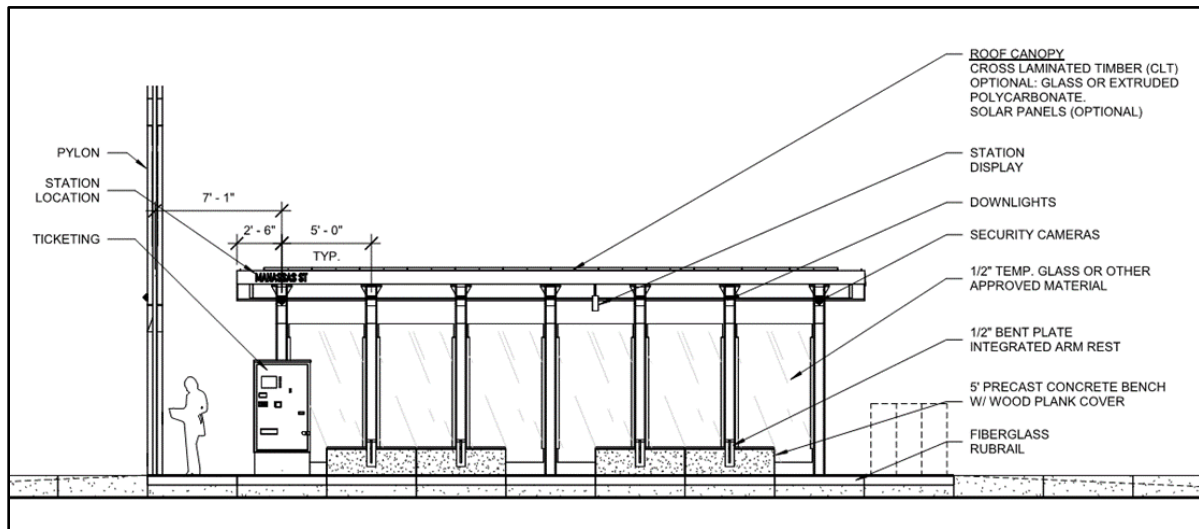
4.1.1 BRT Route and Station Locations



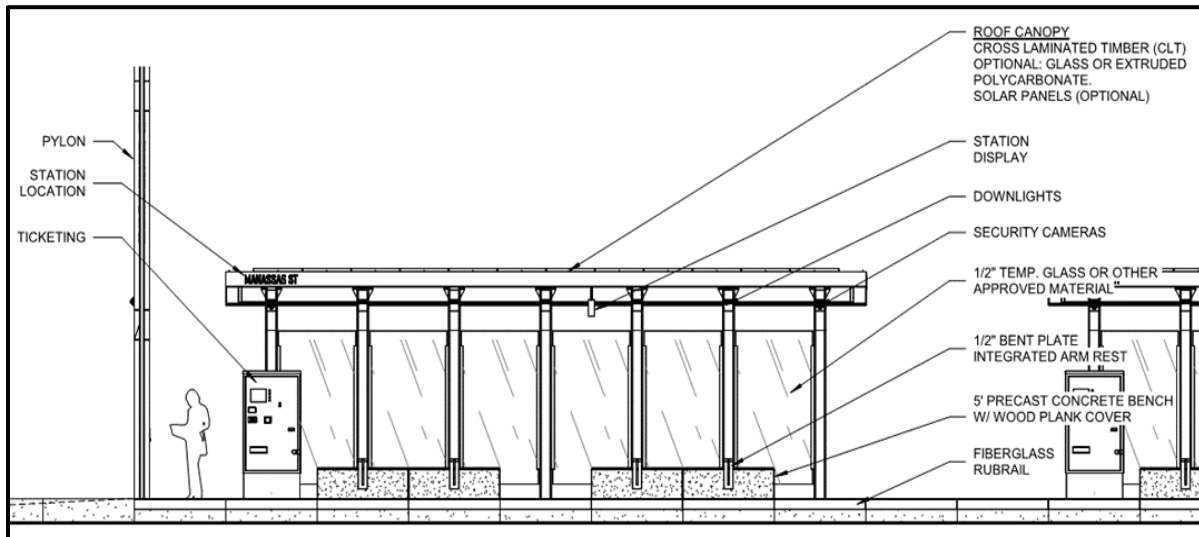
4.1.2 BRT Stations – Typ. Single-Bay Platform Rendering



4.1.3 BRT Stations – Typ. Single Bay Platform (45') Elevation



4.1.4 BRT Stations – Typ. 2-Bay Platform (90') Elevation



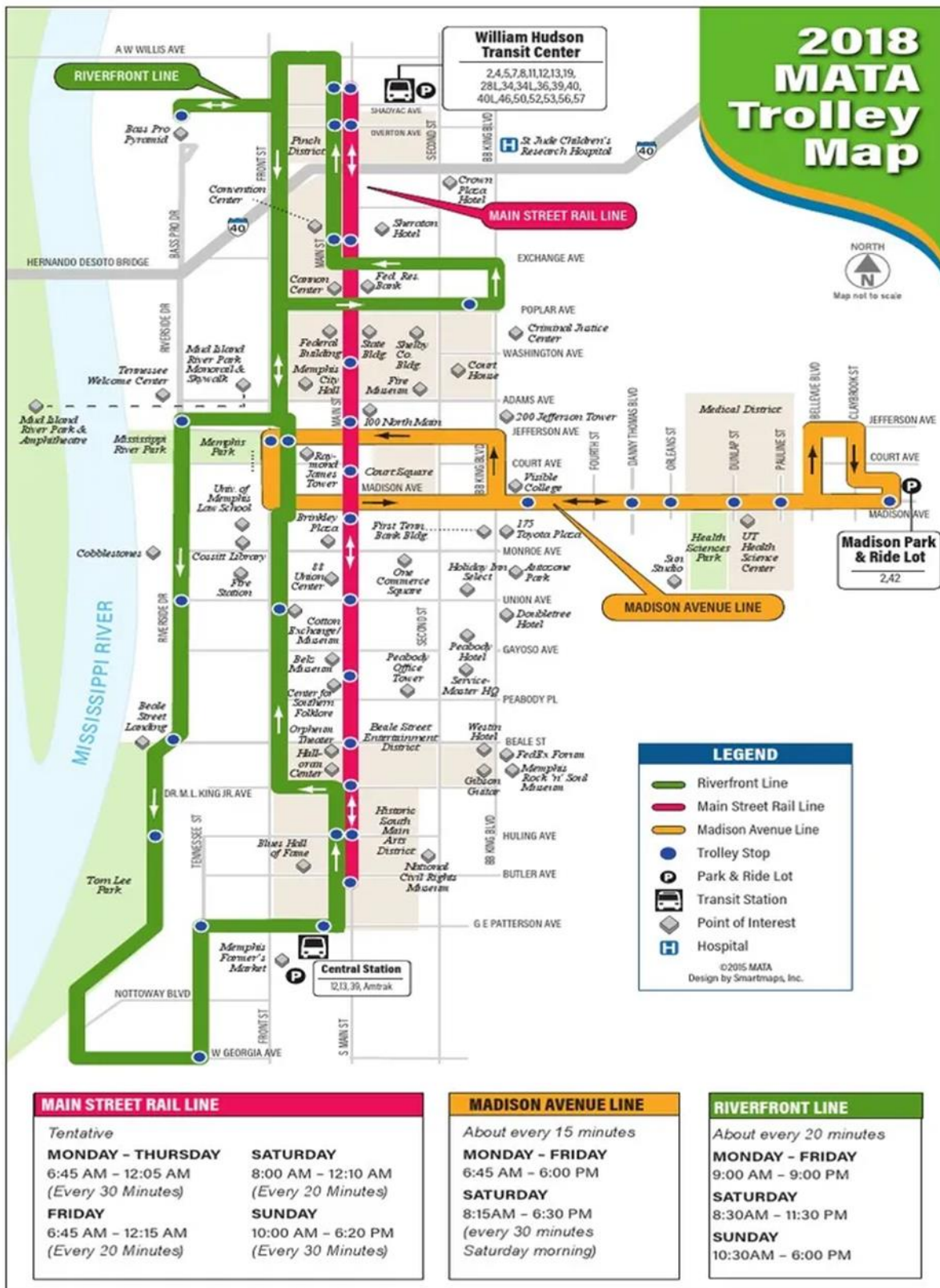
4.2 MATA Trolley Line and Stations - Future Reopening

MATA operates three Trolley lines, Main Street Line, Riverfront Line and Madison Avenue Line. The Main Street Line is currently in service and the other two lines will reopen sometime in the future. The table below lists the lines, number of stations/platforms per line and the anticipated reopening timeframe.

MATA Trolley Line	Number of Stations/Platforms	Anticipated Timeframe to Reopen
Main Street Line	<p>24 individual trolley stations w/ elevated platforms/canopies:</p> <ul style="list-style-type: none"> • William Hudson Transit Center Station (1 center platform for N/S-bound) • Overton Station (2 side platforms: N-bound and S-bound) • Convention Center Station (2 side platforms: N-bound and S-bound) • Jefferson Station (1 side platform: S-bound) • North Court Station (1 side platform: N-bound and S-bound) • South Court Station (1 side platform: N-bound and S-bound) • Madison Station (1 side platform: N-bound) • Union Station (2 side platforms: N-bound and S-bound) • Peabody Place Station (2 side platforms: N-bound and S-bound w/ additional connecting overhead roof across trolley right-of-way) • Beale Street Station (2 side platforms: N-bound and S-bound) • Dr. M.L. King Station (2 side platforms: N-bound and S-bound) • Huling Station (2 side platforms: N-bound and S-bound) • Butler Station (2 side platforms: N-bound and S-bound) • Central Station (1 center platform for N-bound and S-bound) • Future Lowes Hotel Station (location and style TBD) N-bound and S-bound 	<p>In-Service</p> <p>TBD</p>
Madison Avenue Line	<p>7 individual trolley stations w/ elevated platforms/canopies:</p> <ul style="list-style-type: none"> • Cleveland Station (center platform serving both E/W-bound) • Pauline Station (center platform serving both E/W-bound) • Dunlop Station (center platform serving both E/W-bound) • Orleans Station (center platform serving both E/W-bound) • Danny Thomas Eastbound Station (side platform) • Danny Thomas Westbound Station (side platform) • Third Street Station (center platform serving both E/W-bound) 	24 to 36 Months

Riverfront Line	7 individual trolley stations w/ elevated platforms/canopies: <ul style="list-style-type: none"> • Bass Pro Shop (side platform) • Jefferson Street Station (side platform) • Union Avenue Street Station (side platform) • Beale Street Station (side platform) • Tennessee St. Station (side platform) • Huling Avenue Station (side platform) • GE Patterson Station (side platform) 	18 to 24 Months
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4.2.1 MATA Trolley Lines - Main Street, Madison Avenue and Riverfront



4.2.2 MATA Trolley Line Stations/Platforms with Passenger Information Signs

The following pictures are various samplings of MATA's Trolley Stations/platforms with passenger information signs



William Hudson Transit Center Trolley Station
Overhead LED Variable Message Signs



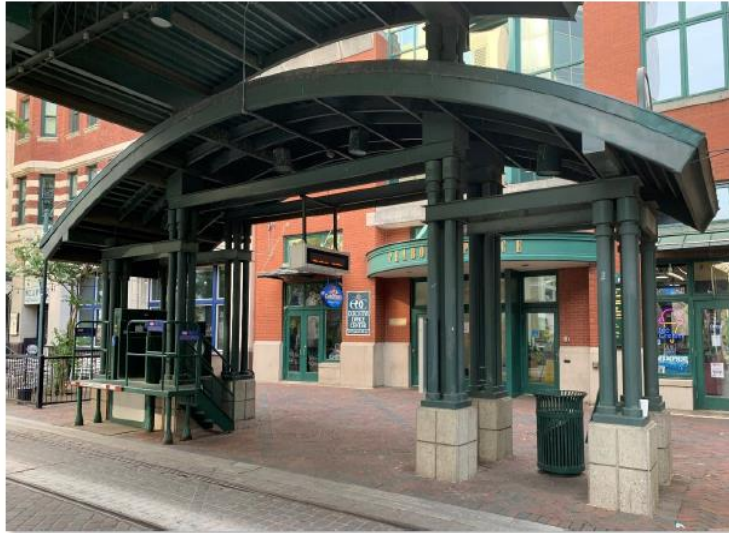
Main Street Line Trolley – Jefferson Station



William Hudson Transit Center Station Overhead LED
Variable Message Signs



Main Street Line Trolley – Madison Station



Main Street Line Trolley – Peabody Place Station



Main Street Line Trolley – Dr. M.L. King Station



Madison Avenue Line Trolley – Dunlop Station



Riverfront Line Trolley - Jefferson Street Station



Riverfront Line Trolley – Beale Street Station



Madison Avenue Line Trolley – Danny Thomas Eastbound Station



END OF SECTION

5 ITS System Requirements

ITS System shall be planned to facilitate future expansion in functionality and transit operating conditions through the use of open, fully documented interfaces and application programming interfaces (API) that are provided as part of this procurement at no additional charge. The ITS system shall be configurable to provide polling frequency and refresh data to a minimum of every three (3) seconds reliably.

ITS System shall be designed to permit the addition of new functional capabilities over its lifetime without significant replacement of existing components. In particular, functions designated in these specifications as future or options shall be readily added to the system during its lifetime without costly rework or replacement of existing system components.

The ITS System shall include provisions to achieve high availability for critical functions through reliability of systems and system components, elimination of single points of failure, self-diagnostics, and reporting of failures, and maintainability of ITS Systems. Such provisions shall include but not be limited to:

- No single point of failure shall disable data communications.
- No single point of failure shall disable onboard vehicle systems/components/equipment.
- ITS System shall include self-diagnostics and shall automatically report and log failures at component level.

5.1 Computer Aided Dispatch and Automated Vehicle Location (CAD/AVL) System

The Computer Aided Dispatch (CAD) component shall be the primary means of assigning, overseeing, and communicating with MATA vehicles; preparing and processing incident reports; and managing voice radio communications. CAD shall support multiple user groups (e.g., driver supervisors, operations managers, system administrator) with settable system rights and privileges. CAD functionality shall be available on MATA workstations via a web-based application or similar means.

The Automatic Vehicle Location (AVL) component shall store, and regularly update real-time vehicle location information of MATA vehicles. The AVL component of the total solution shall display the vehicle information in real-time on a geographic map at workstations for dispatch, customer service and other stakeholders along with other pertinent information regarding the route, vehicle and schedule data.

The CAD/AVL system shall also integrate fully and seamlessly with MATA's existing Trapeze system. All necessary connectors to facilitate this integration shall be supplied by the Proposer. The Proposer shall be required to support integration with the current version and any new versions in the future. Listed below are current versions of Trapeze applications.

- Trapeze FX OPS – V17
- Trapeze FX/BLOCKBUSTER – V17
- Trapeze PASS – V17
- Trapeze PASS OPS – V17
- Trapeze INFO IVR – V17
- Trapeze INFO COM/COM Web – V17

The CAD/AVL system shall also have the capability to input changes to the line, pattern and schedule data from a workstation for full or ad-hoc changes and detours at the trip, run and line levels. The system shall also support interlining.

Proposer shall be sufficiently knowledgeable of the transit scheduling software to carry out the required integration for meeting these CAD system specifications. Such bidirectional data transfer and synchronization with the ITS System and other MATA systems shall occur either automatically or upon user initiation, dependent upon MATA's ITS System administrator settings.

5.1.1 Graphical User Interface

All the information that is provided to the CAD/AVL users shall be via intuitive and easy to use Graphical User Interfaces (GUI). The GUI shall not be static and shall be fully customizable for each class of user. For example, dispatchers shall be able to customize what they are able to view on the screens related to route and vehicle information, customer service agents shall be able to customize what they are able to view on the screens related to real-time vehicle/route performance information and triggers etc. The ITS system must allow the user the ability to create unlimited customized dispatch triggers and/or alerts. These triggers and/or alerts shall have the capability to be created in real-time within the CAD application.

The system shall notify the Dispatchers if vehicle(s) are in operation but have not been logged in. The dispatchers shall have the capability to remotely login these vehicles with the operator and route credentials which shall populate all the other on-vehicle systems through single sign-on.

5.1.1.1 Geographic Display/Functionality

Geographic display/functionality shall include the following but not limited to:

- Allow centering geographic display on and automatically tracking a specified vehicle
- Allow centering on specified lines, stops, and time points.
- Allow selection of vehicle icon to display text/tabular display data about vehicle
- Automatically adjust minor vehicle location discrepancies to show vehicle icons on streets
- Automatically center the display on a vehicle with a covert alarm status while the covert alarm is active.
- Include an up to date map of all highways, streets, and roads by name
- On highest-level map, show full MATA service area
- On lowest-level map, show all streets, roads, railroad tracks, water boundaries, jurisdictional boundaries, bus stops, transfer points, and significant landmarks within the displayed area
- Permit zooming, panning and scrolling of the geographic display

5.1.1.2 Operations Display/Functionality

Operations display/functionality shall include the following but not limited to:

- Display the conditions, location, direction of travel and route/schedule adherence of vehicle
- Display selected lists of data, including vehicle schedules, Operator identification, assignments and schedules, pull-in/layover status, back in-service time/place, schedule and route adherence, and passenger loading.
- Display assignments of operators to lines/runs and or vehicles when selected
- Display various types of canned and custom text messages
- Display passenger counts by stop location

- Display Vehicle health monitoring status, speed etc.
- Allow the ability to create unlimited customized dispatch triggers and/or alerts
- Triggers and/or alerts shall have the capability to be created in real-time within the CAD component

5.1.2 Incident Reporting

CAD/AVL system shall support automatic and manual collection and entry of vehicle information for incident reports. For each incident report, CAD/AVL system shall automatically record vehicle status, run, line, schedule deviation, time, Operator identification, location, alarm status, other pertinent vehicle information, system date and time, workstation identification, and dispatch user. Incident reports shall accept from a console and record manually entered text, coded, combo-boxed or check-boxed notes, and an indication that the incident is closed or the report cancelled. The CAD Incident Report subsystem shall also include the following features, but not limited to:

- Automatically assign a unique identification to each created incident report.
- Be searchable by any incident report data field.
- Automatically update vehicle status for applicable incident report codes.
- Send notifications for follow-up action to appropriate ITS System (e.g. Roadcalls)
- Allow recording of free-form text comments (i.e. Memo field)
- Be exportable in a various format (e.g. Comma delimited, PDF, and MS Office applications)
- Maintain a log of incident report creations and modifications by user, date, and time.
- Maintain a log of response times (i.e. Supervisor to incident, Maintenance to incident, Police to incident, time to close incident etc.)

5.1.3 Operations Notifications

Operations status entries shall be generated automatically by the CAD/AVL system when an out-of-tolerance condition is detected. The CAD/AVL system shall generate notifications for a number of vehicle conditions that shall include at a minimum: off route, schedule adherence variance, out late, missed relief, voice or data communications failure, and vehicle movements without a valid logon. Notifications shall be configurable by MATA.

5.2 Radio Voice Communications Management

The Proposer shall be responsible for providing functionality to manage radio communications and queuing between dispatch and operators utilizing both closed mic and open mic capability. Existing radio equipment shall be utilized.

CAD/AVL system shall manage two-way radio voice communications and other communications features provided as part of Intelligent Transportation System. The system shall provide the Operator with Priority Request To Talk (PRTT), Request To Talk (RTT) and Covert Emergency Alarm functions from the Mobile Data Terminal as well as the ability for dispatch to initiate and manage both closed and open mic calls.

5.2.1 Queue Management

CAD/AVL system shall route specific vehicle or supervisor radio calls and messages to specific workstation as defined by users. Any unassigned calls or messages shall be automatically assigned to an active workstation. CAD/AVL system shall provide functionality to transfer work assignment and calls to another workstation.

CAD/AVL system shall manage the stream of voice radio calls made to the Dispatch Center, data messages from operators, bus alarms and similar events, and Incident Report reminders ("callbacks"), and present these as a queue to the assigned workstations. The system shall provide comprehensive user tools for selecting the detailed methodology of handling calls within queues.

- Calls shall be sorted by priority by type (e.g., CEA, PRTT, RTT, Data, etc.)
- CEA calls shall always have top priority and shall generate an audible alarm
- Supervisors shall have the ability to select any call in the queue at any time
- The queue information shall be displayed in a scrollable window
- For each call, the workstation user shall have the option of opening an incident report

5.2.2 Outgoing Calls

CAD/AVL System shall enable workstation to initiate a call, announcement, or text message to a selected vehicle, supervisor, or talk group either by entering the vehicle number, line/run number, Operator identification, or by selecting from a list in a tabular display or an icon on a graphical display.

5.2.3 Text Messaging

CAD/AVL System shall accept both keyboard-entered and selected pre-defined text messages at a dispatch workstation and transmit those messages to selected vehicle(s). CAD/AVL System shall allow workstation users to append pre-defined text messages. System shall maintain a visible list of unacknowledged text messages and shall inform the workstation user when the acknowledgement has not been received within a time determined by the system administrator.

5.3 Time of Arrival and Departure Data

The ITS System shall determine dynamic estimated time of arrival to the next vehicle stop for each vehicle based on data from the AVL system. The time of arrival information shall be available for PIDS, internet access including MATA public website, Google, the computer-aided dispatch (CAD) and telephone interactive voice response (IVR) systems, and other systems

The time of arrival information shall be determined using an analytical algorithm that utilizes the current AVL information for the approaching vehicle to a stop. ITS System shall have functionality to configure and calculate the arrival times for a number of vehicles that will arrive at each stop for all routes and directions serving that stop. The time of arrival information shall be user configurable and with the ability to be updated at least every (3) three seconds and made available to the systems using such information within (1) one second after the ITS System receives a location update.

The ITS System shall also calculate time of departure information and provide MATA the option to display time of arrival or departure information or both. The ITS System shall provide GTFS and GTFS-RT feed to support external customer information and planning applications

5.4 Presentation of Information to Transit Riders

5.4.1 Webpage

The Proposer shall develop a webpage accessible from MATA's public website for accessing time of arrival information. The website shall provide a real time map display of all current MATA lines, stops, transit stations, trolley station with vehicle locations updated at least every (5) five seconds. MATA shall provide final design approval.

5.4.2 Smart phone Application (IOS and Android)

The Proposer shall provide scheduled and real-time information on vehicle arrival and departures for any route and bus stops via Smartphone mobile application for both IOS and Android platforms. This shall be achieved utilizing the latest generation GUI and map displays and not via text messaging. This application shall be capable of being used as a menu option from within another application, namely the current GO901 Mobile Payments System Smartphone App. In addition, the Proposer shall provide GTFS real-time open API data to the Internet for third party applications. MATA shall provide final design approval.

5.5 Reporting

Comprehensive reporting shall be provided by the system for use by Executive Management, Operations, Service Planning, Maintenance, Information Technology, Customer Service, Safety, Security and other users. Dashboards will also be available to display critical reports and information to enable management to monitor performance and conditions.

The solution shall also provide for viewing and reporting of data by exception that is configurable by the users. The configurable parameters shall allow for various event triggers like exceeding speed limits, vehicles running early or late, vehicle off-route, vehicle in and out of service, service type, date, time, route, vehicle, Operator and work flow assignment/message forwarding to users based on the pre-set event triggers.

The system shall allow for flexible reporting (canned, custom and Ad hoc) and mining of data.

The database utilized shall be based on open architecture standards and shall allow MATA to access the data for any purpose utilizing Open Data Base Connectivity (ODBC) and API's supplied by the Proposer at no additional cost to MATA.

Reports must meet National Transit Database (NTD) requirements for reporting of passenger trips and passenger miles traveled utilizing automated passenger counters.

Reporting functionalities and capabilities shall include the following at a minimum, but not limited to:

- Revenue Vehicle Operations
- Dashboards that display critical information on a continuous basis
- Current status of service showing active CEA, number of vehicles currently on routes, percent of fleet on time, percent of fleet late, and total number of calls currently in queues
- Dispatch user information such as vehicle and line assignments, action events such as vehicle calls and alarms, and dispatch user responses, all with time tags for analysis
- Road call information and status

- Stop information including line, run, direction, vehicle, operator, miles, passenger boardings, wheelchair boardings etc.
- Summary data on trip number, line, run, day of week, time period, OperatorID, vehicle ID, schedule adherence, passenger boardings, wheelchair boardings etc. Summaries shall be for daily, weeks, months, quarters, and years
- Timepoint data including trip vehicle, line, run, and time of timepoint passage
- Trip information including line, run, direction, vehicle, operator, miles, passenger boardings, wheelchair boarding etc.
- Vehicle data including location, equipment status, alarms, passenger counts, and schedule adherence
- Fleet Management
- Revenue and non-revenue miles and hours
- Schedule adherence
- Bus assignments including changes
- Run cancellations
- Out late buses
- Service delays, including type, reason, length of delay, service loss, mileage lost
- Dispatch performance measured by call processing time categorized by problem type
- Vehicle availability, including reasons for unavailability
- Operator Management
- Operator assignments and assignment fulfillment
- Incident Reports involving Operator error
- Accident Reports
- CEA reports by Operator and line

END OF SECTION

6 Onboard Vehicle System Requirements

The proposer shall furnish and install an ITS System for MATA vehicles, with all equipment, cabling software, components and licenses necessary.

Onboard Vehicle System, Equipment and Integration Requirements						
Systems, Equipment and Integrations	Fixed-Route	MATAplus Vans	Trolley Steel wheel	Trolley Rubber wheel	Supervisor Vehicle	Service Vehicle
Automatic Vehicle Location	✓	✓	✓	✓	✓	
Automatic Passenger Counter	✓		✓	✓		
Automatic Voice Annunciators	✓		✓	✓		
Vehicle Logic Units	✓	✓	✓	✓		
Mobile Data Terminals	✓	✓	✓	✓		
On-board Variable Message Signs	✓		✓	✓		
Covert Emergency Alarm	✓	✓	✓	✓		
Single Point Log-On	✓	✓	✓	✓		
Integration with Exterior Vehicle Destination Signs/Head signs	✓		✓	✓		
Integration with voice radio and handset (C=Closed Mic, O=Open Mic)	C	C	O	C	C	
Integration with NGFS (AMCO Mobile Validators)	✓	✓	✓	✓		
Integration with Trapeze software suite for scheduling	✓	✓	✓	✓		
Integration with Cellular Mobile Data Communications System	✓	✓	✓	✓	✓	
Integration with Preteckt	✓	✓		✓		
Integration with bulk data transfer via W-LAN	✓	✓	✓	✓		
CAD Tablets or Ruggedized Laptops with same system access and functionality as dispatch with wireless communication to back-office					✓	
CAD Tablets (Same functionality as above) - Optional						✓
Vehicle Health Monitoring System - Optional	✓	✓		✓		
Pedestrian Warning System - Optional	✓	✓		✓		
Yard Management System - Optional	✓	✓		✓		

6.1 Vehicle Logic Unit (VLU)

The Proposer shall provide a VLU that has, the following specifications at a minimum, but not limited to:

- The VLU shall be the central processing device and data storage device installed onboard for all vehicles and powered by the vehicle's electrical system
- The VLU shall be integrated with the onboard equipment on each vehicle that provides route/destination announcements and onboard visual signs with both audible and textual messages, NGFS, APC etc.
- The VLU shall provide the interface/transmission of data to and from all subsystems such as AVA, onboard visual signs, APC, NGFS etc.
- The VLU shall interface / integrate with the MATA's radio system
- The VLU shall interface to capture, record, and transmit vehicle APC data
- The GPS receiver shall be integrated into the VLU to provide time and location data for AVL functions
- The VLU shall interface with the wireless local area networks (WLAN) at MATA's facilities for bulk data uploads and downloads
- Multiple port selection including RS232, RS485 and Ethernet ports
- Data storage capacity shall be sufficient to store the complete current and pending route schedules, announcement files, and event messages.
- System configuration settings related specifically to a vehicle shall be stored in a vehicle configuration module such that the VLU unit can be swapped out and vehicle information not lost.
- The VLU shall be provisioned for future expansion and interoperability

6.2 Mobile Data Terminal (MDT)

The Proposer shall provide a MDT that has, the following specifications at a minimum, but not limited to:

- The MDT shall automatically engage when the vehicle is started, and shut down a programmable amount of time after the vehicle is turned off.
- The MDT shall store the most recent location received from the GPS receiver, so that if the GPS receiver is not able to report the location the last known good location will remain available
- The MDT shall incorporate a color graphical screen capable of displaying fonts of variable size and can change colors between day and night or has automatic brightness controls
- The MDT shall have capabilities to show Operator turn by turn directions
- The MDT shall have the capabilities to show Operator if they are ahead of schedule or behind schedule in number of minutes and or color code
- The MDT shall be equipped with appropriate functional buttons (physical and or touch screen) capable of controlling other onboard systems (e.g. NGFS, head signs, etc.)
- The MDT display shall be readable by the Operator from the seated position under the full range of ambient illumination conditions, through the incorporation of such measures as driver-operated brightness/contrast control, anti-glare coating and adjustable orientation mounting
- The MDT shall be capable of providing unique audio tones to alert the Operator of incoming messages

- The MDT shall be capable of, but not limited to, displaying the following onboard information and interface to onboard systems during operation of the vehicle:
- Data Messaging
- Emergency Alarm
- Head Sign Control
- Logon
- Maintenance
- NGFS- Mobile Validator (Ability to show fare on MDT, accept and cancel transaction from MDT etc.)
- Route Guidance
- Schedule Adherence
- Stop Announcement
- Talk
- Transfer Notification
- Trip/Schedule Display Control
- The MDT shall support en-route changes of the assigned Operators for cases such as mechanical breakdowns, Operator substitutions, etc.
- The MDT shall enable Operators to send user-friendly, easy to use predefined text data messages to dispatch with a minimum of interaction e.g. wheel chair loaded, bike loaded etc. These text messages shall be user configurable by system administrator and flexible in the way they are ordered on the MDT.
- Operators shall be able to review recently received messages at any time with a minimum of interaction. The MDT shall be capable of retaining at least the last (10) ten received messages for Operator review. The received messages shall be ordered chronologically with the most recently received message presented first.
- When the vehicle receives a data message, the Operator shall be notified by a mutable audio tone signal and the message shall be available for display on the MDT within one second after it is received.
- The MDT shall provide for automatic control of all destination signs in vehicles. The destination signs shall be automatically updated by at Operator logon and at predefined points along each route (e.g., at the end of a trip). The points at which destination sign messages shall be automatically changed shall be configurable by MATA.

6.3 Covert Emergency Alarm

The Proposer shall provide a Covert Emergency Alarm (CEA) with a hidden microphone which will activate a silent alarm when an Operator presses a button in an inconspicuous location of the Operator 's area. When engaged, the CEA shall include the following functionality but not limited to:

- Issue an emergency alarm, including vehicle location, to the dispatch workstation
- Initiate covert microphones for continuous audio to the dispatch workstation
- Discreetly display the CEA activation to the Operator
- Send discrete visual signal to Operator when a dispatch workstation acknowledges receipt of CEA
- Emergency Alarms shall have the highest priority of all data messages.
- Cause exterior headsigns to display an emergency message
- A CEA event indication shall not be noticeable to passengers on any vehicle.
- Update the vehicle location to the dispatch workstation no less than every (5) five seconds
- Allow supervisor to override and disable a CEA using the dispatch workstation

6.4 Automatic Passenger Counters

Proposer shall provide, configure, and install an Automatic Passenger Counter (APC) system on all MATA (Fixed Route, Rubber and Steel Wheeled Trolley) vehicles that shall automatically collect passenger boarding and alighting counts.

Requirements, capabilities, or features of the APC system shall include but not limited to:

- Keep count of all passengers boarding and alighting by each doorway for each door open/close cycle by date, time, and location.
- Keep separate count of all wheelchair passengers boarding and alighting for each wheelchair lift or ramp cycle by date, time, and location.
- Correlate and store passenger/wheelchair counts by vehicle, run, trip, line, schedule, and stop.
- Include a comprehensive set of passenger data reports including detailed and summary passengers by vehicle, run, trip, line, stop etc.
- Include and identify counts from unscheduled locations, including detours.
- Store and retain onboard fourteen days of recorded APC data.
- Remove clearly erroneous or other data that would otherwise improperly affect statistical results due to sensor failures and temporary or unanticipated changes to scheduled routes.
- Provide means of setting various filtering thresholds for determining erroneous data.
- Self-diagnosing
- Counters off-line or out of tolerance

6.5 Automatic Voice Annunciators

The Proposer shall provide an Automatic Voice Annunciator (AVA) system in each MATA vehicle that shall automatically audibly and visually announce stops and stop requests; and change onboard visual signs. The AVA system shall determine where or when to make stop announcements and onboard visual signs changes using AVL system data and pre-defined location or time parameters. Once the Operator is logged into the MDT, the AVA system shall be fully automatic requiring no driver interaction. The AVA system shall include interior and exterior speakers and all relevant equipment for audible announcements.

6.5.1 Destination Announcements

When a vehicle is approaching a stop, one or more announcements shall be made for approaching stop. Requirements, capabilities, and features of the announcement system shall include but not limited to:

- Allow MATA administrator to configure announcements
- Destination description by street, intersection, location, or landmark
- Disabling of exterior audio announcement by time of day, route and vehicle
- Distance or time of announcement(s) prior to the stop
- Multiple occurrences of announcement for a given stop, including upon arrival
- Type of announcement (visual, interior audio, and/or exterior audio) by bus or trolley location
- Allow Operator to disable AVA system in the event of malfunction.
- Allow Operator to manually invoke the pre-defined announcements.
- Automatically make other pre-defined announcements periodically or at pre-defined locations.
- Display time periodically or at pre-defined locations.

- If an unscheduled stop is made, continue to make correct next stop announcements.
- If vehicle goes off-route, disable announcements until vehicle returns to the assigned route.
- Include pre-defined announcements
- Make audio and visual “Stop Requested” announcements and clear when a door is opened.
- Make line and destination location announcements prior to and upon arriving at bus stops.
- Meet Americans with Disabilities Act (ADA) requirements for the bus stop announcements.

6.5.2 Announcement Database

The AVA system shall include a database of audio and visual stop and other pre-defined announcements. The database shall include necessary administrative tools for MATA to easily modify announcement parameters for individual stops including but not limited to announcement content, location, frequency, and type.

6.5.3 On-board Variable Message Signs

The Proposer shall provide and install inside each vehicle:

- MATA Fixed Route bus (Interior) - (1) one electronic variable display sign for visual bus stop and other pre-defined announcements
- MATA Trolley Rubber Wheel (Interior) - (1) one electronic variable display sign for visual bus stop and other pre-defined announcements
- MATA Trolley Steel Wheel (Interior)- (2) two electronic variable display signs for visual trolley stop and other pre-defined announcements

Requirements or capabilities of the signage shall include but not limited to:

- Conceal cable connections to the sign enclosure behind the sign
- House visual signs in a vandal-resistant enclosure with a scratch resistant faceplate lens
- Use text of sufficient size, brightness, contrast, and clarity to be readable by persons with normal vision from anywhere in the vehicle under typical day and night ambient lighting conditions.

6.6 Exterior Vehicle Destination Signs/Head Signs Control

The AVL and AVA system/components shall control existing MATA electronic head signs on vehicles. The ITS system shall automatically display the correct vehicle line, general service message, out-of-service status etc. Such control shall be of all exterior headsigns including those on the front, side, or rear of the vehicle. Requirements, capabilities, or features of the head sign system shall include but not limited to:

- Not inhibit or degrade the use or performance of the existing head sign system
- Allow administrator to program and modify the location at which head sign changes shall occur

6.7 Single Point Log-On

The on-board Mobile Data Terminal (MDT) and Vehicle Logic Unit (VLU) shall provide the driver with a single point for logging onto all interfaced onboard vehicle

equipment/components/systems.

These onboard vehicle equipment/components/systems include, but are not limited to:

- AVL
- APC
- AVA
- Vehicle headsigns
- Next Generation Fare Collection System
 - Mobile Validators

6.8 Transit Signal Priority

City of Memphis and MATA will be deploying a centralized TSP system in 2021/2022. The following information will be required from the ITS System to be provide to the TSP system:

Information / Data	Frequency	Note
GPS Location	3 seconds	Onboard vehicle router (MG 90) to provide GPS location
Bus Schedule Information and Status, i.e. bus on time or bus is behind schedule, route number, block number etc.	3 second frequency maximum	
Onboard passenger count	3 second frequency maximum	
Door Open / Door Close	3 second frequency	

6.9 Operating Environment

The following section describes the operating environment and operating conditions within which the onboard vehicle systems and equipment shall be required to operate.

The onboard vehicle systems and equipment shall be able to operate and not suffer any degradation in performance under the following environmental conditions:

Onboard Vehicle System and Equipment Environmental Conditions	
Storage Temperature	0° to +165°F ambient
Storage Humidity	2 to 99% RH (non-condensing)
Operating Temperature	+25° to +120°F ambient, plus solar load from direct sunlight through bus windows
Thermal Shock	1° per minute drop in temperature over 15°F range between 110° and 60°
Relative Humidity Range	13% to 99% RH including condensation
Vibration	1.5g (rms), 5 to 200 Hz
Shock	5g peak (instantaneous)

Dust	Airborne particles and dust encountered in the bus operating environment and caused by general cleaning
Inclination	0° to 10° off vertical
Water/solvents	Equipment shall be adequately protected against ingress of water or damage due to spray on equipment from cleaning floors and walls, industrial cleaning solvents, rain, mud, and snow
Electromagnetic interference	Withstand the effects of conducted and received electromagnetic energy and radiation in the vehicle environment
Grounding/Lightning	Good ground available/Lightning protection available to protect from high voltage (1000V) spikes from lightning

Onboard system equipment shall remain operational in the presence of any common or typical airborne particles, greases, oils, fuel vapor and engine exhaust and other contaminants accumulated on coins and bills, including bent and mutilated “street money”. The onboard system shall be protected against damage, loss or modification of data caused by high or low voltage or voltage fluctuations and irregularities.

6.9.1 Electrical Power

The onboard vehicle systems and equipment shall be designed to operate on vehicles providing either nominal twelve (12) volt or twenty-four (24) volt direct current power.

The system shall be capable of being installed and interchangeably operating on vehicles providing either 12-volt or 24-volt direct current power without the need for modification.

The onboard system shall be protected against damage, loss or modification of data caused by voltage or voltage fluctuation between zero (0) to fifty (50) volts DC, or reversal of polarity. The onboard system shall be protected against damage, loss or modification of data caused by voltage or voltage spikes of 10-ms up to 1,000 volts DC.

The onboard system shall include provisions for the elimination of electronic interference caused by such items as fluorescent light power units, alternators, air conditioning units, camera systems, cellular data communications equipment, Wi-Fi equipment, radio communication systems, and video systems.

All onboard system components shall be grounded in accordance with the National Electrical Code (NEC), Underwriter Laboratories (UL), Society of Automotive Engineers (SAE) and local codes where applicable.

6.9.2 Sunlight

The onboard system shall not suffer damage or any degradation of operation as a result of direct or indirect sunlight. The design of the onboard system components shall be such to protect the system from these conditions.

6.9.3 Environmental Certification

The Proposer shall be required to provide evidence of environmental specification and tolerance for each onboard vehicle system component and shall be required to provide certification of proper function in the environment specified for the expected service life of the system.

6.9.4 Power Supply and Conditioning

Power supplies for onboard vehicle system and equipment shall include adequate filters and components to regulate the vehicle supplied voltage and render it devoid of power spikes and noise, which could contribute to erroneous registration, data generation and recording. Provisions shall include elimination of electronic interference caused by such items as fluorescent light power units, alternators, air conditioning units, radio communication units, onboard video systems, and other accessories characteristic of the vehicle-operating environment.

Adequate protection against transient surges on the vehicle power supply shall be incorporated to the extent necessary to prevent damage to electronic components.

It shall be incumbent upon the Proposer to be fully aware of the vehicle operating environment and conditions, which may affect the operation and reliability of the onboard equipment.

6.9.5 Power Interruption

Means shall be incorporated within the power supplies of the onboard vehicle system and equipment to be switched off automatically in order to protect the equipment if the supply voltage exceeds tolerable levels as specified. A loss or the reinstatement of input electrical power shall not result in loss or any corruption of the data in memory.

6.9.6 Power System Installation

The arrangements of the electrical and electronic components of the onboard vehicle system shall be such as to permit adequate ventilation to disperse the heat created and to preclude degradation of components and performance.

A master “disconnect” switch shall be provided, internal to the onboard system to disconnect the system from the incoming power supply. This switch shall be identified and marked and be the two-position type.

6.9.7 Fuses and Circuit Breakers

Fuses, circuit breakers or other protective devices shall be employed to protect the electronics, and other components of onboard vehicle system from overload and damage. Where used, they shall be accessible without disassembly of components. Location shall permit inspection or

replacement through normal maintenance access doors or panels. Fuses, circuit breakers or other protective devices shall be of standard, commercially available, non-proprietary design.

6.9.8 Wire Harnesses and Connections

The electrical termination of the onboard vehicle system and equipment, for purposes of connecting it to a power source shall be by means of a polarized, self-aligning, self-locking, plugs. Proposer shall include positive retention means using screw, snap or lever connection. The Proposer shall insure, where cables/wires are passing through holes the edges shall be covered with new proper rubber and or plastic grommets.

All major electrical, electronic sub-assemblies and components of the onboard system shall be interconnected by means of polarized positive plug connectors. Wires and multi-conductor cables shall be color coded and marked to permit positive identification.

Wiring between the onboard system and the sub components shall be completely hidden and internal to the system fixture.

6.10 Vehicle Health Monitoring - Optional

The Vehicle Health Monitoring subsystem (VHM) shall continuously monitor the functionality, performance, and operation of onboard equipment that is equipped with a programmable controller for operator-controlled functions and indications. VHM shall provide detailed operational vehicle fault, alarm, and performance information that allows Operations and Maintenance to efficiently and proactively respond to maintenance issues. At a minimum, VHM shall interface with, monitor, collect and report data for the following systems that are equipped with digital interfaces:

- Electronically controlled engines & transmissions
- Brakes (anti-lock and condition monitoring)
- Air conditioners
- Electric vehicle battery monitoring and management systems
- Fire suppression and event data recorder systems
- Multiplex-interfaced equipment (e.g., doors, wheelchair lifts, lights, etc.)

6.10.1 Data Collected

Equipment data collected shall generally fall into four categories: status, performance, code-generated events, and alarm-generated events. At a minimum, it is expected that VHM shall collect and report the following information:

- Any codes generated by interfaced equipment
- Vehicle Mileage
- Engine and transmission temperature
- Engine, transmission, and radiator fluid pressures and/or levels
- Air, charging, interlock, and A/C system status
- Vehicle speed
- Throttle and brake position activity

6.10.2 Alarm Reporting

Proposer shall recommend which VHM data collected shall be defined as an alarm-generating event that necessitates immediate notification to Operations and Maintenance for consideration of a road-call. VHM shall immediately transmit and display such alarms to the onboard MDT, the Dispatch Center, and to the Maintenance workstation.

6.10.3 Alternative Vehicle Health Monitoring Integration

Currently MATA uses a Vehicle Predictive Maintenance system from “Preteckt” for the MATA fixed route vehicles. If the Proposer is not proposing a Vehicle Health Monitoring System, the Proposer shall integrate/interface to Preteckt vehicle predictive maintenance system as part of the ITS System.

MATA will evaluate the functionality and cost proposed. MATA, at its discretion will make a decision to either implement or not implement the alternative vehicle health monitoring integration.

6.11 Pedestrian Warning System (PWS) - Optional

The Pedestrian Warning System will provide means to give an advance warning to Pedestrians when a bus is making a right or left turn. It gives an audible warning through an external speaker to pedestrians that vehicle is turning. The warning provided shall be user configurable as to the time component on when it comes on before the turn.

- The system shall be a passive system with no Operator interaction required.
- The system shall have manual adjustments for inside and outside volumes and automatic adjustments for ambient levels.
- The system shall have the capability of adjustment of inside and outside volumes by time of the day as well as by route.
- The system shall have the capability to automatically record a new message for any individual vehicle.

6.12 Yard Management System (YMS) - Optional

The Yard Management System shall maintain a MATA yard plan showing the current vehicle locations, IDs, availability status, and assignments by operator and run; and provide for vehicle status updates by the Maintenance Department. The yard plan and vehicle status shall be available to the Dispatch Center console and to selected pre-existing Maintenance Department workstations. Other requirements, capabilities, or features of the Yard Management System shall include but not limited to:

- Display MATA yard plan in graphical format matching the actual layout of the yard.
- Automatically record movements of a vehicle in, out of, and within the yard.
- Provide vehicle status such as:
 - Holding vehicles for maintenance
 - Vehicle being cleaned and disinfected
 - Vehicle disinfected and ready for revenue service etc.
- Provide reports on vehicle movements and status.

END OF SECTION

7 Passenger Information Display Systems (PIDS)

The Proposer shall provide and install passenger information display system showing time of arrival information and other pertinent data/information. The PIDS shall include the ability to display public service or other static or video announcements of MATA's choosing. The time of arrival information displayed shall be of sufficient size, sharpness, contrast, color, and brightness to provide ease of visibility and meet any applicable ADA requirements. MATA shall have functionality to present MATA rider's departure predictions at the PIDS. The PIDS shall have the following specification, functionalities and capabilities but not limited to:

Transit Center PIDS

- Visual display of the route, destination, and real time of arrival for at least the next (5) five arrivals via a "LCD or LED screen/monitor (Minimum 42 inches)" including support for fully ADA compliant visual alerting.
- Visual indication of what route is currently in each dynamically assigned bus bay
- Data and power will be provided

Bus Bay - PIDS (MATA and BRT)

- Kiosk with visual display of the route, destination, and real time of arrival for at least the next (5) five arrivals.
- Audible announcement capable of ADA Compliant On-demand route information
- Audible announcement capable of providing fully automated arrival and departure announcements, as well as scheduled, ad-hoc, or on-demand service alerts and public messages using MATA's choice of either recorded voice, or Text to Speech
- Bus Bay PIDS shall include all necessary speakers and amplification to provide appropriate coverage of its designated bay area and should provide a function whereby volume is raised or lowered to account for the ambient noise level in the area while minimizing the noise impact on the surrounding community
- Wi-Fi and data capability
- Data and power will be provided

Trolley Station- PIDS

- Outdoor visual display of the route, destination, and real time of arrival for at least the next (5) five arrivals via a "LCD or LED screen/monitor" including support for fully ADA compliant visual alerting.
- Audible announcement capable of providing fully automated arrival and departure announcements, as well as scheduled, ad-hoc, or on-demand service alerts and public messages using MATA's choice of either recorded voice, or Text to Speech
- On-demand announcement box (button and speaker) to make audible announcements of route information and next arrival and departure on demand. The on-demand announcement box will be ADA compliant. The location and placement of the On-demand announcement box will be determined during the design review meetings
- Replace current location of overhead display signs
- Cellular, Wi-Fi and data capability
- Power will be provided

BRT Transit Center/Shelters/Platforms- PIDS

- Outdoor visual display of the route, destination, and real time of arrival for at least the next (5) five arrivals via a “Dual Sided LCD or LED screen/monitor- Screen size closest to 32 inches” including support for fully ADA compliant visual alerting.
- Audible announcement capable of providing fully automated arrival and departure announcements, as well as scheduled, ad-hoc, or on-demand service alerts and public messages using MATA's choice of either recorded voice, or Text to Speech
- On-demand announcement box (button and speaker) to make audible announcements of route information and next arrival and departure on demand. The on-demand announcement box will be ADA compliant. The location and placement of the On-demand announcement box will be determined during the design review meetings
- Hardwire data and power will be provided

END OF SECTION

8 Emergency Phone Tower with Built-in Surveillance - Optional

The Proposer shall provide and install an Emergency Phone Tower with Built-in Surveillance (EPTBS). The EPTBS will be in a freestanding 8- or 9-foot tower structure with a red or blue light alarm and 360 CCTV Camera atop the tower and clearly marked as Emergency. The Proposer is responsible for all installation, cabling, hardware, connection to MATA dispatch operations and 911 emergency system, testing, programming and training.

Please note data and the power will be provided by MATA. The EPTBS will have cellular capability or other means of connectivity in the event the data line is not functional. The EPTBS will have a built-in power reserve and or solar panel for back-up in the event main power fails.

8.1 EPTBS Specific Requirements

The EPTBS shall have the following features, capabilities and specifications but, not limited to:

- The tower is to be red or blue (Final color will be determined by MATA during design reviews)
- The word EMERGENCY shall be displayed in large white letters vertically on the unit
- A red or blue light/strobe shall be mounted on top of the column
- The strobe light shall be activated when the EMERGENCY button is pressed and shall remain flashing for the duration of the call until the call has been disconnected by MATA Dispatch and or 911 Emergency personnel.
- The EPTBS shall have a 360 CCTV camera that shall be mounted on top of the column
- The EPTBS shall have fail over capabilities for data connectivity and power
- The EPTBS shall be designed to resist extreme weather conditions
- The EPTBS must be ADA-compliant
- Once the EMERGENCY button is pressed the call and video feed will be immediately provided to MATA dispatch. If MATA dispatch is unavailable or after hours the call will be redirected to 911 emergency system. (The configuration of the call routing and video storage will be determined by MATA during design reviews)
- The EPTBS shall provide location message to emergency personnel

The Proposer shall provide a solution that will let EPTBS to integrate into the CAD workstation to accept emergency call, display video feed and transfer calls to 911 emergency system.

END OF SECTION

9 ITS Systems Equipment Quantities

The following table depicts the current vehicle fleet, transit stations, trolley stations and future stations that need to be outfitted with the ITS System/Sub-systems/Components/Equipment:

MATA Vehicle Fleet			
Vehicle / Service Type			Qty
Fixed Route Vehicles			111
MATApplus Vans (Paratransit)			70
Trolleys (Rubber Wheel)			8
Trolleys (Steel Wheel) - (Dual MDTs Required)			6
Supervisor Vehicles			16
Service Vehicles			36
MATA Transit Centers			
Locations	Transit Center PIDS Qty	Bus Bay PIDS Qty	Emergency Phone Tower with Built-in Surveillance Qty
William Hudson Transit Center	6	6	1
American Way Transit Center	4	4	1
Airways Transit Center	4	3	1
Trolley Stations			
Trolley Line	Trolley Station PIDS Qty		
Main Street Trolley Stations	25	1 per station/platform with exception of William Hudson Center (2 at William Hudson Trolley Station)	
Operator Training Equipment			
	Qty		
Operator Training Units	2	Bus in Box units	
Future BRT Line Vehicles			
Vehicle			Qty
BRT Route Vehicles			9
Future BRT Transit Stations/Shelters/Platforms			
Locations	BRT Station PIDS Qty	Bus Bay PIDS Qty	Emergency Phone Tower with Built-in Surveillance Qty
William Hudson Transit Center	42 Distributed at Transit Centers, Shelters etc.	3	1
University of Memphis Center		5	1
All Centers / Stations / Shelters / Platforms			29

MATA Trolley Future Reopening Fleet	
Vehicle Type / Service	Qty
Trolley (Steel Wheel)	11
MATA Trolley Stations Future Reopening	
Trolley Line	Trolley Station PIDS Qty
Madison Avenue Line	7
Riverfront Line	7

The following table depicts the current vehicle fleet, that need to be outfitted with the Vehicle Health Monitoring System, Pedestrian Warning System and Yard Management System

Optional Systems	Fixed Route Vehicles	MATAplus Vans (Paratransit)	Trolleys (Rubber Wheel)
Vehicle Health Monitoring System	111	70	8
Pedestrian Warning System	111	24(Total) 20--2019 Ford Mobility Trans 01--2018 Ford Transit 02 -- 2014 Ford Challenger Van 01 -- 2010 Ford E350 AllStar	8
Yard Management System	111	70	8

Proposer will provide the hardware specifications and make recommendations for workstations required to support the ITS System and interfaces. The most cost-effective acquisition of workstations for dispatch, customer service, service planning and other user hardware will be determined and procured by MATA and Proposer is required to provide necessary software and interfaces.

MATA may require additional equipment quantities to replace and or expand its current vehicle fleet, PIDS, EPTBS etc. at various locations and future locations. The Proposer shall provide pricing for individual systems/components/equipment.

END OF SECTION

10 Mini Fleet Pilot Test

The selected Proposer shall be required to implement and go-live with a mini fleet pilot test before being allowed to proceed to the full implementation of the ITS System. The intent of the mini fleet pilot test is to ensure the proposed ITS system (Hardware and software) meets MATA requirements. The mini fleet pilot test shall provide all the functionality and capability described in this scope for ITS System.

The following are expected to be part of the mini fleet pilot test. Please note that the quantities may change, or additional items may need to be added to the mini fleet pilot test, if so determined by MATA.

MATA Mini Fleet Pilot Test - Vehicle Fleet	
Vehicle / Service Type	Qty
Fixed Route Vehicles	6
MATApplus Vans (Paratransit)	2
Trolleys (Rubber Wheel)	1
Trolleys (Steel Wheel)	1 (Dual MDTs)
Supervisor Vehicles	1
Service Vehicles	1

Test will include all required ITS system/sub-systems/applications required to ensure an end-to-end solution.

END OF SECTION

11 Training

The Proposer shall provide a program to train personnel in all details of the Intelligent Transportation System including but not limited to the equipment, hardware, support and diagnostic equipment, and software provided under this contract. The Proposer shall be responsible for training designated personnel in accordance with the requirements specified in this section.

Training shall include course development, the provision of instructors, the supply of handouts and manuals, the preparation of classroom aids, and all other items as required to satisfactorily prepare personnel to operate the supplied Intelligent Transportation System.

All training classes will be scheduled with MATA personnel and shall not take place more than eight weeks prior to the first day of planned operation. MATA reserves the right to videotape training sessions conducted by the Proposer for review and future use.

At the completion of each training class, personnel receiving the training will demonstrate proficiency and competency in the area of instruction with the successful completion of performance based and written examinations. Written and performance-based tests shall be approved by MATA prior to implementation. Documentation of test results per student shall be made available to MATA. Test documentation shall include the date of training, class identifier, class instructor and hours of instruction.

11.1 General Outline

The training courses described in this section shall include the following, but not limited to:

11.1.1 Training Program Plan

Detailed training outlines, lesson plans, and tests shall be submitted to MATA for review and approval. At a minimum, the Proposer must provide a training program that is comprehensive enough to bring employees designated by MATA to the level of proficiency required for operations of the furnished equipment. Formal training shall include both classroom and practical work and shall be augmented by informal follow-up as needed. Practical training on equipment shall occupy a significant portion of all training classes. Training should be oriented to the job classification of the students.

Training mock-ups shall be provided to assist with the training. The mock-ups shall be retained by MATA for in-house training.

The Training Program Plan shall be submitted to MATA for approval at the Initial Design Review. The Training Program plan shall, provide the following for each course, but not limited to:

- Brief course description
- Expected performance objectives and how the expected objectives will be measured
- Outline of the course content (one for each course)
- Type or method(s) of presentation that will be used
- Resources required (equipment, classroom space, supplies etc.)
- An estimated time schedule to train (based on the required number of hours and/or sessions of instruction) employees
- Intended audience and the maximum class size

11.1.2 Instructor Qualification

The Proposer shall provide experienced and qualified instructors to conduct the training courses at MATA facilities. MATA personnel to receive training are:

- MATA Trainers
- Supervisors
- Operators
- Analysts and Information Technology Personnel
- Management
- Customer Care Agents
- Maintenance Personnel

The Proposer shall expect MATA supervisory and management personnel to audit the training classes. If in the opinion of MATA, a Proposer instructor(s) lacks the skill or knowledge to provide instruction or cannot communicate with the students, MATA reserves the right to request the training to be repeated and/or the instructor replaced.

11.1.3 Equipment

The Proposer shall provide functional equipment to facilitate and conduct training at the designated training locations of the MATA facility (garage).

- 2 Bus in a Box units (Complete units to provide training to MATA Operators)

11.2 Training Material Submittal

The Proposer shall submit to MATA, a list of the training materials required for each course discussed in the Training Program Plan.

The Proposer shall submit to MATA, instruction guides for each training course. The guides shall include the following, but not limited to:

- Course agenda and objectives
- Resources and facilities required for the course
- Detailed lesson plans or outlined presentations and discussion guides
- Pre- and post-training assessment
- Instructions for using any audiovisual support and equipment
- Student handouts
- Computer-based presentations
- Video-taped demonstrations

Final training material shall be submitted 30 days before classes are scheduled to begin.

11.3 Electronic Documentation and Training

All documentation and training materials provided as final hard copy shall also be submitted in an electronic form as specified by MATA. A directory of all files on the disk shall be listed in hard copy showing filenames, date, file size, and appropriate annotation to cross-reference the chapter and section.

11.4 Reproduction of Training Material

MATA reserves the right to reproduce portions or all of the training materials provided by the Proposer for the sole use of MATA.

11.5 Training Schedule

The Proposer shall provide a preliminary and detailed schedule of training tasks for MATA review and approval. The detailed schedule of training tasks shall be based upon the equipment installation schedule, which shall be established as a dependency in the Proposer Project Plan. The Proposer shall recognize that in addition to routine business hours, training will be required during evening and late-night hours along with weekends to accommodate MATA employee and service schedules.

END OF SECTION

12 Maintenance, Support, Warranty and Service Level

MATA shall require the following as maintenance/support/warranty as base:

Maintenance and Support

- Five (5) years after complete Intelligent Transportation System acceptance

Warranty

- Minimum one (1) year manufacturer warranty
- Four (4) years additional warranty after manufacturer warranty

12.1 ITS System Software and Equipment Maintenance and Technical Support

The Maintenance and Technical Support shall include, but not limited to:

- Maintenance and support for ITS System software
- Upgrades/Patches of ITS System software
- Upgrade Frequency (major and minor releases)
- Maintenance and support for ITS System equipment
- Remote desktop support
- Telephone support
- Service Level support and resolution
- Refer to Equipment Response and Resolution
- Refer to Software Response and Resolution

12.2 ITS System On-Site Technical Support - OPTIONAL

The Proposer shall provide a trained on-site ITS System Technician. The ITS System Technician shall office at a designated location determined by MATA. The ITS System Technician shall have expert knowledge in all aspects of the ITS System/subsystems/applications. The ITS System Technician shall also have adequate knowledge of all equipment/components supplied under this contract, component interoperability, equipment troubleshooting etc.

The ITS System Technician shall report to MATA and be able to work days, nights, after hours, weekends and holidays. The ITS System Technician shall work approximately 40 hours per week. MATA shall reserve the right to request for a replacement ITS System Technician at any time during the life of the ITS System contract to include option years. The Proposer shall replace the ITS System Technician upon a formal written request by MATA. MATA shall allow for a 15-day grace period to enable Proposer to find a replacement ITS System Technician. Replacement of the ITS System Technician shall be subject to MATA's approval.

The following are the ITS System Technician responsibilities, but is not limited to:

- Take direction from MATA assigned staff
- Troubleshoot, repair and replace existing system equipment/components which have failed with spares
- Repair includes effort to troubleshoot and detect possible causes to the failure
- Perform minor equipment/component repairs to removed equipment as appropriate to minimize shipping and downtime

- Visit sites for hands on equipment/component troubleshooting
- Provide status updates on components sent for repair
- Track spare inventory levels and provide status
- Minor Preventive Maintenance as needed (cleaning components etc.)

12.3 ITS System Equipment Warranty

The Proposer shall warrant that the Intelligent Transportation System furnished under this contract is free from defects in material and workmanship under normal operating use and service.

The warranty shall commence upon the date of complete Intelligent Transportation System acceptance. If during the warranty period, any replacement, repair, or modification on an Intelligent Transportation System component, made necessary by defective design, materials, or workmanship is not completed within five (5) calendar days, the warranty period shall be extended by the number of days equal to the delay period.

The warranty on items determined to be with pervasive defects shall be extended for the time of the original warranty remaining at the time the pervasive defect was identified. This extended warranty shall begin on the repair/replacement date for corrected items.

The Proposer warrants that the Software (including any Licensed Software) shall:

- Be of a language that is commercially available and for which software tools are available
- Not contain viruses or pre-programmed devices which will cause any software utilized by MATA or other users to be erased or become inoperable or incapable of processing accurately
- The Software and each module and function thereof shall be capable of operating fully and correctly on the combination of the equipment purchased
- The Software does not contain any code that will, upon the occurrence or the nonoccurrence of any event, disable the Software.

No warranty period shall end unless finished documentation is provided and approved by MATA.

12.4 Service Level

All issues shall be classified by MATA as a Critical, Severe, or Moderate. After acknowledgment of the issue, Proposer and MATA may mutually agree to assign a different severity level, but if such agreement cannot be reached after a brief, good faith discussion, then MATA's classification of the issue shall govern. Proposer shall respond to all MATA issues, and diligently and continuously work to correct all reported issues, in each case in compliance with the timeframe required in the following tables:

12.4.1 Equipment Response and Resolution

Issue Escalation			Equipment Resolution
Severity Level	Support Desk Response Time (Level 1/Level 2)	Escalation to Proposer's Executive Management	Resolution/Work-around
Critical	30 minutes/2 business hours	4 business hours	8 business hours
Severe	2 hours/4 Business hours	24 business hours	1 business day
Moderate	One business day / Not Applicable	20 business days	30 business days

12.4.2 Software Response and Resolution

Issue Escalation			Software Resolution	
Severity Level	Support Desk Response Time (Level 1/Level 2)	Escalation to Proposer's Executive Management	Temporary Software Resolution/Work-around	Final Software Resolution
Critical	30 minutes/1 business hours	4 business hours	8 business hours **	5 business days
Severe	1 hours/2 business hours	12-24 business hours	36 business hours **	10 business days
Moderate	One business day / Not Applicable	20 business days	Next Release	Next Release

MATA Business Days and Hours

- Monday to Friday - 6:30 am to 11:00 pm
- Saturday to Sunday - 8:00 am to 10:00 pm

**Proposer shall provide MATA, within five (5) business days following the release of the temporary software resolution, a written plan detailing the proposed final solution for the software that shall be incorporated in the next release.

12.5 Extended Maintenance/Support/Warranty – Optional

MATA shall require the following as extended maintenance/support/warranty:

Three (3) options after base with each option for two (2) years.

- Option 1 - Years 6 and 7 - Maintenance/Support/Warranty
- Option 2 - Years 8 and 9 - Maintenance/Support/Warranty
- Option 3 - Years 10 and 11 - Maintenance/Support/Warranty

The Proposer must provide a technical description, requirements and pricing for Maintenance /Support/Warranty. MATA will determine if this option will be executed.

END OF SECTION

13 Spare Parts

The Proposer shall prepare and submit to MATA a recommended list of spare parts and consumables to maintain and support the Intelligent Transportation System. The spare parts list shall be grouped by equipment, module, part, etc. Each item listed shall contain at least the following information: item-name, description, original manufacturer's name, part and number. Spare parts that are common to more than one equipment type, module, or subassembly shall be suitably cross-referenced.

The Proposer's proposal shall include recommended spares with their expected life cycle. Any reduced requirement for spares based on long life cycles shall be favorably received.

The stock level shall be consistent with the normal replacement anticipated. This level shall be a function of the total equipment in service and the availability from the Proposer's normal supply operation for such parts.

The Proposer shall provide a list of any equipment required for testing.

The Proposer must provide the spare parts lists, and equipment requirements and pricing for this section. MATA requires Proposer to lock in the price of all spare parts for a period of three (3) years.

END OF SECTION

14 Installation of Intelligent Transportation System

This section defines installation requirements for the ITS System. The Proposer shall furnish all hardware and materials necessary for proper installation of all items.

MATA recognizes that during the period of installation, two parallel CAD/AVL systems may be operational and may need to be supported until the entire installation has been completed. It is the desire of MATA, and the responsibility of the Proposer to limit disruption to service and to minimize the period during which multiple systems are operational.

14.1 Proposer Requirements

The Proposer shall provide an Installation Plan for MATA approval. This Plan shall include the following but not be limited to:

- Identification of required work and storage area
- Identification of required utilities
- Proposed work schedule (schedule shall include the requirement of vehicle availability necessary to support the proposed schedule)
- Any utility or service requirements to support the installation
- Identification of support needed from MATA
- Placement diagrams for all onboard systems per vehicle model
- Placement diagrams for all transit stations and trolley stations
- Detailed wiring diagrams for all installations including wire tabulation, locations, sizes, identification, and clamping
- Process for removal of old system equipment
- Process for disposition of old system equipment
- Modifications to garage facilities

The plan shall include provisions for parallel process to support the existing system until the installation is completed. This shall include a method for handling individual vehicle and garage operations as well as full system support of both the present and newly installed system.

The Proposer shall utilize existing DC electrical power available on MATA vehicles and AC electrical power on the property.

14.2 MATA Support

MATA shall facilitate the installation process by supplying the Proposer identified support as follows:

- Sufficient space to support the installation
- Sufficient access to vehicles and facilities to support the agreed upon installation schedule
- Access to compressed air, lights and electrical service
- Sufficient number of personnel to move vehicles to support the required installation rate
- Test and inspection personnel

14.3 Disposition of old system and equipment

Equipment removed by the Proposer from MATA vehicles and operating locations shall be stored in a safe/clean/accessible/ manner at a MATA provided location throughout the term of the project. The equipment released by MATA shall be removed from the property within 30 days of release. When released for disposal, the Proposer shall be responsible for promptly removing all

equipment from the property and shall be responsible for its proper disposal. Disposition must comply with MATA policies. The Proposer shall ensure no part or component of the system that may compromise installed equipment, system, or operational security is made or becomes available to unauthorized personnel or organizations.

Alternatively, MATA may dispose of the existing equipment in a manner most beneficial to MATA. In this regard, the Proposer shall offer MATA a credit for removed equipment or a credit for release of obligation to dispose the old equipment.

14.4 Onboard Vehicle ITS System Installations

The Proposer shall supply all labor, supervision and materials required for the proper installation of onboard vehicle ITS System. All installations shall be performed at the MATA garages/facilities. All of the supplied of on-board vehicle system and equipment shall be identical in design and operation.

- Automatic Vehicle Location
- Automatic Passenger Counter
- Automatic Voice Annunciators
- Vehicle Logic Units
- Mobile Data Terminals
- On-board Variable Message Signs
- Covert Emergency Alarm
- Any other On-board equipment

14.5 Passenger Information Display Systems Installation

Proposer shall work with MATA to determine the location of the PIDS (LCD or LED screens, Kiosks, overhead signs etc.) and shall perform all tasks necessary for their implementation including obtaining necessary local permits, licenses, and approvals; provision of power to the displays from the existing transit stations, trolley stations and shelters electrical system; and the necessary data communications link between ITS System and the electronic display signs.

14.6 As Built Documentation

As built documentation shall be provided to MATA that thoroughly describes all ITS System installations along with related vehicle and facility modifications. This documentation shall detail the following, but not limited to:

- Equipment and hardware specifications
- Installation procedures for the ITS System (Hardware and Systems/Software)
- Installation locations for the ITS System (Hardware and Systems/Software)
- Environmental restrictions for equipment
- Wiring diagrams
- Communication networks diagrams (Wireless and/or Local Area Network)
- Power and utility connections
- Breakers and fuse tabulation along with locations
- System interfaces
- Logic diagrams
- Photographs of vehicle and facility modifications,
- Copies of all required building permits and approvals
- Copies of all MATA approvals

END OF SECTION

15 ITS System Manuals

The following is a summary of the principle documentation that shall be provided in the form of manuals, organized by the desired content. The manuals shall provide sufficient description, detail, and illustration to support installation, configuration, operation, maintenance, and repair of the equipment and systems provided. Documentation shall be provided in both hard copy and electronic format.

- One (1) Electronic format (PDF)

The Proposer shall supply the full complement of manuals and documentation required to train personnel to operate and maintain the ITS. All manuals shall be in the English language and submitted for review and approval. The manuals shall cover both the hardware and the software associated with each system.

The following manuals shall be provided, but not limited to:

15.5 Operating Manuals

The manuals shall provide information and instruction on the various operational controls and features. The operating manual shall provide information and instruction on the various operational input and features of the device/system/sub-systems/sub-applications and the associated components. The manual shall be sufficient in description, detail, and illustration to provide full and adequate reference to the operation.

15.2 Maintenance Manuals

The maintenance manual shall provide information and instruction on the operational maintenance and configuration of the devices and the associated components. The manual shall be sufficient in description, detail, and illustration to provide full and adequate reference to the diagnosis, testing, maintenance, repair, and configuration of the equipment, components, assemblies and sub assemblies programs.

END OF SECTION

16 Contract Deliverable Requirements List (CDRL)

The following is a listing of all contract deliverable submittals required. The Selected Proposer shall be responsible for development of listed CDRLs to the satisfaction and approvals of MATA. CDRL deliverable dates shall be worked in conjunction with and approval of MATA after contract award.

All contract deliverables shall be provided both in paper copy and electronically format appropriate to the document (Word, Excel, PDF etc.) as approved by MATA. MATA owns all deliverables.

Final versions of all CDRLs shall be provided to MATA within sixty (60) days following approval of System Acceptance Review.

Contract Deliverable Requirements List			
CDRL Number	CDRL Name	CDRL Description	Timing
1	Project Management Plan and Project Schedule	Details the management organization of the project, organization chart, and key personnel and their responsibilities and relationships Details Project Schedule to monitor the project progress (The project schedule shall include time frames for the preparation and MATA's approval of all deliverables and documentation. Detailed description of management controls on progress, performance, schedules, and costs relative to the project schedule and subsequent operations Activity reports to incorporate the project schedule against actual completion of activities	NTP+ 2 Weeks
2.	Quality Assurance Plan	Details the quality processes employed to ensure the quality of the ITS System (including work, equipment, hardware, software, materials, function, operation) delivered is of a level that meets design goals, performance and reliability requirements.	CDR
3.	Contingency Plan	Details action plans should any of the major deliverables not be delivered as originally scheduled.	CDR
4.	ITS System/Sub-system/Component/Application Specifications, Functions & Interfaces	Details the specifications, functionality and interfaces of the entire ITS system to include, sub-systems, applications, components etc.	CDR
5.	System Hardware Access Security Plan	Details the design specifications of ITS System devices/components/hardware to discourage and minimize the effects of vandalism and theft, prevent unauthorized access to the	CDR

		interior of the equipment, and prevent unauthorized removal of the equipment from its installed vehicle and location.	
6.	Training Program Plan	<p>Details the basic principles that will apply to the development and delivery of training program. The plan shall include but not limited to:</p> <ul style="list-style-type: none"> • Outline of training course to be cover by ITS system users <ul style="list-style-type: none"> • Class size • Number of classes by user type (i.e. Operations, Administration, Dispatch etc.) • Equipment provided for training • MATA equipment required (i.e. laptops, projector etc.) • Contingence of refresh training if needed • Schedule of when training will be provided 	CDR
7.	Presentation of Information to Transit Riders	<ul style="list-style-type: none"> • Design of the Webpage. • Design of the Smart phone Application • Layout of information presented on the Passenger Information Display System 	DDR
8.	Implementation Plan	<p>Details activities required of the Proposer, MATA, and other involved parties during the implementation period. The implementation plan will include but not limited to:</p> <ul style="list-style-type: none"> • Mini fleet Pilot Test • Details of what activities are required from MATA • Detail cutover activities • Go-live readiness activities 	DDR
9.	Network/Data Communication Plan	<p>Details of all data communications, whether wired or non-wired (wireless), between all ITS Systems and equipment. The plan shall include but not limited to:</p> <ul style="list-style-type: none"> • Data communication/polling between ITS equipment and ITS system • Data communication between MATA and hosted site 	DDR

		<ul style="list-style-type: none"> Data communication between ITS system and integrated on-board systems (i.e. NGFS etc.) 	
10.	System Architecture and Detailed Configuration Plan	<p>Details the complete system architecture and components configuration required to perform all ITS activities and functions. The plan shall include but not limited to:</p> <ul style="list-style-type: none"> System design and architecture Entity Relationship Diagrams (ERDs) Definition of all databases, tables, fields, elements etc. Network components Communication lines Network communications services (e.g. frame relay, ISDN etc.) Servers and workstations Printers and other printing equipment Operating system software Application software Identification of any special needs for critical components etc. 	DDR
11.	ITS System Equipment Specifications and Functionality	Details the design specifications and functionality of all equipment supplied (i.e. MDT, APC, IVU, PID, etc.) Useful Life Certifications of all equipment.	DDR
12.	ITS System Equipment Installation	<p>Site preparation and installation design, including all necessary civil, electrical and mechanical drawings and construction packages. Complete description of installation plan to include but not limited to:</p> <ul style="list-style-type: none"> On-board vehicle installation by each classification of vehicle PIDS installation locations (Transit Stations, Trolley Stations, Bus Bay etc.) Descriptive drawings, power feeds, data feeds, etc. 	DDR
13.	First Article Test (FAT)	Describes in-depth layout of the intended testing approach. In addition, provides a detail outline of all the test plans including, the procedures, testing inputs required from MATA and any other	DDR

		stakeholders, specific tests to be executed, and the chronological order of their execution.	
14.	ITS System Training Manuals	Detailed training manuals to be used in training all personnel, on the operations and maintenance of the ITS System.	DDR
15.	Application program interface Information	Details of all interfaces/integrations with external systems and onboard systems (i.e. NGFS, Trapeze etc.)	DDR
16.	ITS System Operating Manuals	Details operating manuals of the entire ITS System/sub-systems/applications and equipment (i.e. MDT, CAD/AVL, AVA etc.)	DDR
17.	Network Management Plan	<p>Details of ITS system elements that will be managed along with network management strategy, activities, deployment, startup, and operating procedures such as:</p> <ul style="list-style-type: none"> • System monitoring and recovery • System backup and archiving 	FDR
18.	ITS System Reports	Comprehensive list and details of all ITS System reports as well as tools and procedures for generating custom reports.	FDR
19.	Disaster Recovery Plan	Detailed description of the continuity of the critical business functions and core processes that are required to ensure the ongoing operations when normal operations are interrupted or degraded by adverse events.	FDR
20.	ITS System Equipment Safety Plan	Details of safety measures and precautions that need to be taken, while in use or during maintenance activities.	FDR
21.	ITS/Subsystem/Applications/Component and Equipment Installation Testing	Describe in-depth the installation testing approach. In addition, provide details of all the test plans including, the procedures, testing inputs required from MATA, specific tests to be executed, and the chronological order of their execution.	FDR
22.	ITS/Subsystem/Applications/Component and Equipment Acceptance Testing	Describe in-depth the acceptance testing approach. In addition, provide details of all the test plans including, the procedures, testing inputs required from MATA, specific tests to be executed, and the chronological order of their execution.	FDR
23.	Succession Plan	Details how the Proposer's operations would continue under MATA's control	FDR

End of Section

17 Disaster Recovery

The Proposer shall develop and implement a Disaster Recovery Plan for continuing operations, with a minimum of downtime, in the event of failures of the hardware components, network components, software applications and systems, environmental factors, or other operating emergencies. The Proposer shall be able to re-constitute normal operation within two (2) hours of any failure or emergencies as described above. The Proposer shall document all procedures necessary to maintain orderly operations in the event of emergencies.

The Proposer shall list all system failures and situations or events that will trigger disaster recovery procedures. The Proposer shall prepare a disaster recovery plan for approval by MATA.

At a minimum, the disaster recovery plan shall include the following:

- List of resources required to conduct on-site and off-site recovery
- Description of the escalation process, including contact lists and alternates to provide for emergency coverage of operations, staffing, technical support, and management
- Description of how the Proposer shall provide formal arrangements for emergency replacement of parts, repair services, and technical services
- Descriptions of how the Proposer shall restore and recover lost or corrupt data from back-ups and archives
- A ranking of primary, secondary and non-critical applications with assigned minimum recovery times required to prevent a financial loss
- Description of a test program that will verify the effectiveness of all disaster recovery methods and procedures
- A detailed architectural overview of the backup, recovery, and disaster recovery systems
- A data backup system and architecture for the backup and recovery of the CMRS
- Recovering and transferring of data files from removable storage in the event of a primary data storage failure
- Description of the notification procedure to MATA staff
- The Proposer shall provide Disaster Recovery/business continuity Licenses at no additional cost.

END OF SECTION

18 Succession Plan

The Proposer shall provide a Succession Plan, the purpose of which is to provide for continued operations in the event that the agreement is not renewed or is terminated for convenience, or the Proposer is declared in breach of contract. MATA requires that operations continue without interruption under all circumstances.

The Proposer's succession plan shall assume MATA's ownership of all assets used for ITS operations (e.g. equipment, system hardware and software) and for MATA's immediate/automatic right to assume or use any other elements required for uninterrupted ITS functions. The Proposer's succession plan shall include a reasonable cost for transferring from the Proposer to MATA.

The Succession Plan shall describe how the Proposer's operations would continue under MATA's control, the plan shall cover the following areas, but not limited to:

- Transfer of assets, including equipment and other materials and supplies.
- Transfer of data.
- Transfer of system hardware and software.
- Identification of any contractual agreements which are assumable by MATA, including but not limited to maintenance agreements.
- Staffing and training required to actually accomplish the succession

END OF SECTION

19 Project Management, Design, Testing and Implementation

Project management, design, testing, implementation, and administration requirements are covered in the following sections:

- Project Management
- Quality Assurance
- Design Review
- Testing and Acceptance
- Implementation

19.1 Project Management

19.1.1 Organization and Functions

The Proposer shall establish and maintain a Project Management Team to manage and perform all functions and activities. The Project Management Plan shall address the following critical areas:

- Overall project management
- System/Software development, operations, and upgrades
- Ongoing project and policy review
- Contract administration interface with MATA
- Performance reporting

19.1.2 Project Management Plan

The Project Management Plan shall include:

- A description of the management organization of the project, an organization chart, and identification of key personnel and their responsibilities and relationships
- A Project Schedule shall be in sufficient depth to allow MATA to monitor the project progress in a timely manner
- The project schedule shall include time frames for the preparation and MATA's approval of all deliverables and documentation
- A description of management controls on progress, performance, schedules, and costs relative to the project schedule and subsequent operations
- Activity reports to incorporate the project schedule against actual completion of activities

19.2 Quality Assurance and Quality Control

The Proposer shall develop, establish, and maintain a Quality Assurance (QA) and Quality Control (QC) Program. The Proposer shall clarify and coordinate its QA and QC program with MATA staff. The QA and QC Program shall include detailed descriptions of the quality processes employed by the Proposer to ensure the quality of the ITS (including work, equipment, hardware, software, materials, function, operation) delivered is of a level that meets design goals, performance and reliability requirements, and the intended project purpose and objectives in the described transit application.

The Proposer shall establish a quality assurance program that shall include but not necessarily limited to the following:

- Use of benchmarks for product performance/effectiveness and the quality of service delivery
- The prevention, notification and detection of systematic problems that may affect
- The avoidance and elimination of any security breaches

The Proposer shall be responsible for detecting and correcting deviations from any performance requirements and reporting such to MATA.

19.3 Design Review

Design reviews shall be conducted to evaluate the progress and technical functional design in accordance with the functions and capabilities of the contract. In addition to formal design reviews, informal meetings to address key issues shall be held as needed. Prior to each review, a design review package shall be submitted that includes Contract Data Requirements Lists and other items required for the review. Contract Data Requirements Lists shall be updated as required throughout the contract life to reflect design and process changes. Design review packages shall be provided at least ten (10) days before a design review meeting.

The Design Review package shall include meeting agenda, test procedures, detailed test result check-off sheets, demonstration plans (including functions to be shown) and issues/methods that need technical resolution. A complete Design Review package is required to begin a Design Review meeting.

In addition, the following shall be provided appropriate to the equipment/components being supplied by the Proposer:

- A confirmation that the Proposer is thoroughly familiar with the intended system function, MATA operations, MATA environment and MATA facilities
- A detailed technical description of operation for all major subassemblies in all units of equipment
- Identify all interfaces between the major subsystems with descriptions of operation that include drawings, flow charts, screen graphics, messages and menus, along with accommodation of all operating boundary and error conditions
- Functional block diagram of the system and equipment
- Catalog cuts and data sheets of the ITS hardware, devices etc.
- Physical dimensions of each type of equipment
- Planned equipment layout
- Power and other facility requirements of each type of equipment
- Plans, programs and other data specified CDRL related to management, training, manuals, quality assurance, reliability assurance and configuration control etc.
- Software design descriptions and flow charts (logic diagrams)
- Data system interfaces - upload/download functions
- Other Design Review deliverables as specified
- Information and decisions required from MATA
- MATA and the Proposer shall conduct the following reviews:
 - Conceptual Design Review
 - Detailed Design Review
 - Final Design Review
 - Acceptance Review

- Design reviews shall consist of the following key activities:
- Design review package will be reviewed by MATA
- The design review meeting, or series of meetings, will be held between Proposer and MATA where the Proposer shall explain their design and MATA shall confirm its requirements. When possible, issues will be resolved during the design review meetings
- Issues not resolved during the meetings will be identified and documented. Giving consideration to where the project is in the overall design review process. MATA will determine the appropriate action to close the issue, which may require resubmission of design review items
- Once there are no open issues with the design review submittal, the submittal will be reviewed for approval

19.3.1 Conceptual Design Review (CDR):

The objectives of the CDR shall be to familiarize MATA with Proposer's conceptual approach to meet the ITS requirements, resolve external interfaces, and provide the basis for proceeding to Detailed Design Review (DDR). The CDR shall cover the following:

- Schedule compliance
- Confirm Proposer's management team and the scope
- Provide all CDR items in the CDRL table
- Confirm that Proposer is familiar with the intended functions and capabilities
- Identify information needs and decisions required by MATA
- Provide description of problem tracking, resolution and reporting process.

One (1) electronic of the submittals shall be provided ten (10) days prior to the CDR meeting.

19.3.2 Detailed Design Review (DDR):

The objectives of the DDR shall be to familiarize MATA with Proposer's detailed design around systems, policies, procedures and staffing to meet the ITS requirements. The DDR shall cover the following:

- Schedule compliance
- Open items from CDR
- Progress report of project
- Provide all DDR items in the CDRL table
- Identify information needs and decisions required by MATA.

One (1) electronic copy of the submittals shall be provided ten (10) days prior to the DDR meeting

19.3.3 Final Design Review (FDR):

The objective of the FDR is to review the readiness of the Intelligent Transportation System. The FDR shall cover the following:

- Schedule compliance
- Open items from DDR
- Progress report of project

- Review the milestones presented in the Project Schedule to assess the implementation progress of Intelligent Transportation System (hardware, software, sub-systems, applications etc.)
- Provide all FDR items in the CDRL table

One (1) electronic copy of the submittals shall be provided ten (10) days prior to the DDR meeting.

19.3.4 System Acceptance Review (SAR):

The SAR shall represent 100% completion of total implementation of the ITS System.

19.4 Testing and Acceptance

The objective of the testing is to ensure the Intelligent Transportation System supplied meets all the requirements specified in this RFP. Testing and Acceptance shall be scheduled and conducted to satisfy the production and delivery schedule.

Any and all hardware, software, materials, installations, operations not passing inspections and/or tests with MATA approval of results, shall be repaired, replaced, and/or corrected by the Proposer at no additional cost to MATA and shall be scheduled once again for inspection, testing, and MATA approval.

The Proposer's obligations shall include all costs necessary to completely inspect and test, all hardware, software, function and operations of the supplied ITS System.

Testing shall be conducted at five (5) levels:

- 1) First Article Test (FAT)
- 2) ITS System / Subsystem / Applications / Component and Equipment Installation Testing
- 3) ITS System / Subsystem / Applications / Component and Equipment Acceptance Testing
- 4) Intelligent Transportation System Installation Testing
- 5) Intelligent Transportation System Acceptance Testing

All tests and inspections shall be monitored by MATA and documented by the Proposer. All inspections and tests conducted shall require sign-off by MATA.

The Proposer shall inform MATA of the date and location of a test a minimum of fourteen (14) days prior to conducting the test. The most recent version of all test procedures and supporting design and program documentation shall be made available by Proposer for use by MATA.

The Proposer shall submit a written report for each test, including copies of all test data for approval by MATA. All such reports are contract deliverables. Test reports shall include all historical data, such as inspections and tests performed, failures, modifications and repairs, pertaining to the equipment and/or system tested. Upon completion of all tests for a particular test phase, Proposer shall issue a separate request for MATA's approval of that phase, providing a statement ensuring that the goals of that phase had been met, and listing each of the tests performed and the dates of performance and MATA's approval for each test. Acceptance of each phase of testing by MATA shall be required for Proposer to proceed to the next phase. Proposer shall conduct regular reviews of the testing processes in accordance with guidelines defined by the Proposer's QA and QC Program.

MATA shall be required for Proposer to proceed to the next phase. Proposer shall conduct regular reviews of the testing processes in accordance with guidelines defined by the Proposer's QA and QC Program.

19.4.1 First Article Test (FAT)

The first article tests shall be conducted by the Intelligent Transportation System manufacturer and will be observed and approved by MATA representatives. Each equipment type shall be tested against the test procedures as specified.

The Proposer shall maintain a complete log of all First Article Tests conducted under this requirement, showing each test conducted and results. This log shall be submitted to MATA at the conclusion of the First Article Test for review and approval. Results not meeting specification requirements are to be fully documented and explained by the Proposer. The Proposer shall also submit a plan for corrective action. MATA may postpone delivery of any equipment until First Article Test procedures are successfully completed, documented and approved.

Manuals, drawings, and troubleshooting procedures for equipment similar to that being supplied shall be made available for MATA review during the FAT process.

19.4.2 ITS System / Subsystem / Applications / Component and Equipment Installation Testing

The Proposer is required to coordinate the development of test procedures and performance of the testing with MATA in order to fully demonstrate the complete and successful installation of the ITS/Subsystem/Applications/Component and Equipment.

Upon verification of proper installation of the ITS System / Subsystem / Applications / Component and Equipment, Proposer shall perform a complete installation operational test. All functional characteristics shall be tested to ensure operation as specified. All interface and integration functions shall be tested to verify proper operation.

Proposer shall inform MATA, in writing, of any failures or unacceptable conditions during installation testing. All failures detected during the installation testing period shall be analyzed by the Proposer.

19.4.3 ITS System / Subsystem / Applications / Component and Equipment Acceptance Testing

Acceptance testing shall be performed, with all ITS System / Subsystems / Applications / Components and Equipment. The Proposer shall coordinate the development of test plans and procedures with MATA to ensure that the acceptance testing is complete and satisfactory. The

ITS/Subsystem/Applications/Component and Equipment Acceptance Test Plan shall be submitted for review and approval by MATA fifteen (15) days prior to the scheduled start of the acceptance test period.

- The Proposer shall state agreement with each of the following points:
- The Proposer must ensure each Subsystem/Applications and Equipment of the ITS system operates according to specifications.
- The Proposer must agree that during the acceptance period, each Subsystem/Applications and Equipment will undergo a live test.
- The Proposer must agree to pass an acceptance test. The Subsystem/Applications/Components and Equipment must successfully operate for ten (10) consecutive days.

19.4.4 Intelligent Transportation System Installation Testing

The Proposer is required to coordinate the development of test procedures and performance of the testing with MATA in order to fully demonstrate the complete and successful installation of the ITS.

Upon verification of proper installation of the ITS, Proposer shall perform a complete installation operational test. All functional characteristics of the ITS shall be tested as an integrated system to ensure operation as specified. All interface and integration functions shall be tested to verify proper operation of the installed system, as a whole.

Proposer shall inform MATA, in writing, of any failures or unacceptable conditions during installation testing. All failures detected during the acceptance testing period shall be analyzed by the Proposer. The Proposer shall be responsible for taking corrective action to ensure proper functioning of the ITS.

19.4.5 Intelligent Transportation System Acceptance Testing

ITS system acceptance testing shall be performed at a system level, with all Subsystem / Applications / Component and Equipment with completely functionality, operational, on-line, and in service. The Proposer shall coordinate the development of test plans and procedures with MATA to ensure that the acceptance testing is complete and satisfactory. The ITS Acceptance Test Plan shall be submitted for review and approval by MATA fifteen (15) days prior to the scheduled start of the acceptance test period. Acceptance testing shall include but not be limited to final configuration of hardware and software, interface, integration, test, and installation.

The Proposer shall state agreement with each of the following points:

- The ITS System Acceptance Test Plan must show the events, sequences, and schedules required for acceptance
- The Proposer must ensure each Subsystem / Applications / Component and Equipment of the ITS System operates according to specifications
- The Proposer must agree that during the acceptance period Subsystem/ Applications/Component and Equipment will undergo a live test
- The Proposer must agree to pass the ITS System Acceptance Test. The ITS System (entire system including components and equipment) must successfully operate for thirty (30) consecutive days.
- The Proposer must demonstrate system security. The Proposer must demonstrate the complete and required functionality of the entire integrated ITS System.

The system will be accepted by MATA by formal written notice when

- All required Subsystem/Applications/Component and Equipment has been installed
- All required tests have been satisfactorily passed
- ITS reliability has proven acceptable
- All required deliverables have been received
- All requirements are satisfactorily met

19.5 Implementation Plan

The Proposer shall submit an Implementation Plan for the ITS System. The implementation plan shall be fully integrated with the overall Project Management Plan.

The Implementation Plan shall describe all activities required of the Proposer, MATA, and other involved parties during the implementation period. The Implementation Plan shall clearly identify the nature and timing of any interaction with MATA.

The Implementation Plan shall include, but not limited to:

- Detailed milestones and schedule for testing, installation, and acceptance
- Detailed Interface to internal and external systems
- Acquisition and installation of equipment
- Detailed cutover plan
- Implementation support required of MATA

END OF SECTION

20 Evaluation Criteria and Weight Values

Proposal responses will be evaluated using the following criteria.

CRITERIA	CRITERIA FACTORS	POINTS
Part 1 – Technical/Functional Requirements	<ul style="list-style-type: none"> • Responses to the Functional Requirements • Comprehensive training plan • Responses to Interface with current 3rd party systems and applications • Implementation plan and methodology • Implementation timeframe and rollout strategy • Warranty/Maintenance/Support 	35
Part 2 - Qualification (Experience, Satisfaction of Previous and Current Clients and technical competence)	Demonstrated technical experience in performing work of a closely similar nature; experience working with transit properties or other public agencies; record of completing work on schedule; strength and stability of the firm. Review of client references.	15
Part 3 – Project Management Plan	Logic of proposal, well defined approach, gap closure, and implementation, project schedule.	5
Part 4 – Staffing and Project Organization	Qualifications of project staff, particularly key personnel, especially the project manager; key personnel's level of involvement in performing related work; logic of project organization; adequacy of labor commitment; concurrence in the limitations on changes in key personnel.	10
Part 5 – Cost and Price	<ul style="list-style-type: none"> • Software cost • Equipment Price • Project Implementation Price • Training Price • Maintenance and Support Prices 	20
Part 6 – Financial Stability of the Proposer	Company Financials Evaluation	5
DBE Participation	DBE Goal	5

Required Information Submittals	Proposal Responses shall include all required information submitted with necessary details as well as the required submittals including all requested forms. If a form is not applicable, Proposer should submit and write "Not Applicable".	5
TOTAL SCORE		100
Step 2 Phase - On-Site and or Virtual Demonstrations	Short listed proposers will be invited to participate in on-site and or virtual demonstrations and discussions of the proposed solution.	50
TOTAL SCORE AFTER ON-SITE DEMONSTRATIONS		150

END OF SECTION

21 Detailed Submittal Requirements

Proposers must assemble their proposals in strict adherence to the outline and layout requirements identified in this section and in the order shown. Failure to follow all proposal outline and layout requirements may result in disqualification. Proposals shall be prepared as simply as possible and provide a straightforward, concise description of the proposed products and services to satisfy the requirements of the RFP. Attention shall be given to accuracy, completeness, relevance, and clarity of content.

Proposals shall be submitted in electronic format

Proposal Page Limitation and Format

Part	Page Limitation	Format
1. Executive Summary and Technical/Functional Proposal	Combined 150 Single pages	PDF
2. Qualification		
3. Project Management Plan		
4. Staffing and Project Organization	10 Single pages, resumes excluded from page limit	PDF
5. Price Proposal for ITS System	No page limit	PDF and Excel Format
6. Financial Stability	No page limit	PDF
7. Sample Agreements	No page limit	PDF

21.1 Part 1: Executive Summary and Technical/Functional Proposal

21.1.1 Section 1: Executive Summary and Introductory Materials

The introductory material must include a title page with the RFP name, name of the Proposer, address, telephone number, the date, a Letter of Transmittal, and a Table of Contents. The executive summary shall be limited to a brief narrative summarizing the proposal.

21.1.2 Section 2: Company Background

Proposer must provide information about any firm involved with this proposal including the Software Proposer, Equipment Proposer Implementation Proposer, and/or any third-party Proposers so that MATA can evaluate the Proposer's stability and ability to support the commitments set forth in response to the RFP. MATA at its discretion, may require a Proposer to provide additional supporting documentation or clarify requested information.

21.1.3 Section 3: Scope of Services

This section of the proposal shall include a general discussion of the Proposer's overall understanding of the project and the scope of work proposed. List and describe all proposed

systems/subsystems/applications. Proposer must explicitly state the software module name and versions that are proposed.

21.1.4 Sections 4: Responses to Functional Requirements

This section shall describe in detail the functions and capabilities of the proposed solution. Responses to the functional requirements shall be complete and identify both the capability of the ITS and the scope of the implementation. Proposers must be ready to demonstrate any functionality during on-site and or virtual demonstration/presentation phase.

In addition, describe the following as minimums, but not be limited to:

- Describe proposed ITS functional architecture
- Describe the functionality of the proposed ITS solution
- CAD/AVL system
- Pedestrian Warning System
- Vehicle Health Monitoring
- Single Point Logon
- Presentation of Information to Transit Riders
- Passenger Information Display System (Transit Centers, Bus Bays, Trolley Stations and BRT shelters and centers)
- Describe how information shall be presented to transit riders (Next bus, bus location etc.)
- Describe the proposed hardware for ITS system (Onboard vehicle, PIDs etc.)
- Describe the Management and Reporting System including all subsystems and applications
- Describe the data communication between the ITS devices and the Management and Reporting System (Back-office)
- Describe how MATA can configure the Management and Reporting System
- Describe the Graphical User Interface(s) provided for the ITS, including all subsystems and applications
- Describe how information shall be displayed on the Passenger Information Display Signs (MATA transit stations, trolley stations, etc.)
- Describe the Integration activities/plan with on-board vehicle system, equipment, CAD, external systems, back-office systems (i.e. Mobile Validators, Headsigns, Trapeze Ops, IVR, Radio System, Preteckt, Webpage, GTFS and GTFS-RT feeds to external systems) etc.
- Describe the TSP API's
- Describe the Emergency Phone Tower with Built-in Surveillance features and capabilities
- Describe how mini fleet pilot test will be done

21.1.5 Section 5: Proposed Application Software and Computing Environment

The proposer must present, in detail, features and capabilities of the proposed application software and technical environment. In addition, describe the following at a minimum, but not be limited to:

- Describe the proposed level of integration that exists between proposed base software and third-party applications/products
- Describe the Application program interfaces (APIs) that will be provided
- Describe the software features and capabilities, but not limited to:
- Drill down Capabilities
- Audit trail Features
- Describe proposed disaster recovery services

- Describe the technical environment necessary for the proposed software
- Optimal and minimum network requirements.
- Optimal and minimum database requirements.
- Optimal and minimum server requirements.
- Optimal and minimum desktop (client) requirements.
- Platforms supported
- What are bandwidth requirements?
- Describe the hosted services to include, but not limited to:
- Where is the data center and disaster recovery data center located?
- Number of other users sharing database
- Number of database instances (please list)
- Describe data center security policies including background checks on employees and other measures to protect confidentiality and sensitivity of MATA's data
- Describe network level security
- Describe physical security of data center
- Describe security including firewalls, authentication, and architecture of data center
- Describe back up procedures and testing of backups and other quality assurance processes to ensure the backup is working correctly.
- Describe process for installing patches and updates
- Describe process for roll-back of patches and updates if major functionality is broken as a result of the patch and/or update
- Describe proposed application availability service level
- Service desk support services
- User Setup, Authentication and Management processes
- Application support
- Operational support services
- Technology infrastructure services
- Explain service levels that are used to guarantee performance for MATA through the proposed hosting agreement

21.1.6 Section 6: Equipment Specifications

This section shall describe the equipment specifications to be provided. The information must include, but not be limited to:

- List equipment manufacturer and provider
- Equipment images, dimensions of PID devices, screens, Emergency Phone Tower, etc.
- Equipment features and capabilities

21.1.7 Section 7: Reporting and Analysis Tools

This section shall describe the reporting and analysis tools that are provided with the proposed ITS. In addition, describe the following but not be limited to:

- Describe the reports that are provided "out of the box"
- Describe the reporting tools provided
- Describe the analytical processing tools provided
- Describe the capabilities to export reports to MS Office formats and pdf
- Describe the capabilities to produce graphical reports
- Describe the ability to create ad-hoc reports
- Describe the capabilities to display critical reports or data in dashboard formats

- As part of proposal submittal, the vendor shall describe in details all of the canned reports along with the fields that will be supplied as part of the system. Furthermore, Ad hoc reporting functionality and capability shall be described in detail in the proposal submittal.

21.1.8 Section 8: ITS Reports

This section will provide a comprehensive list of all standard reports that shall be provided with the proposed ITS. The list shall describe the report name, content of the report, and intended audience (In addition, provide sample reports)

21.1.9 Section 9: Entire ITS System Availability

This section shall describe the proposed ITS System availability. The information must include, but not limited to:

- Describe routines which would require the ITS System to be unavailable, including all hardware, subsystems and application
- Describe the average length of the time the ITS System including all hardware, sub-systems and application is up and available prior to an absolutely essential break in activity for system maintenance
- Provide average frequency of totally disruptive maintenance

21.1.10 Section 10: ITS System Security

This section shall describe the security of the proposed ITS System. The information must include, but not limited to:

- Describe the security tools and features that are included in the proposed ITS including all hardware, subsystems and application
- Describe the different access levels securities

21.1.11 Section 11: Installation of ITS System and Equipment

Provide an overview of proposed installation plan/strategy, specifying how and when installation is to be performed. Explain any equipment and personnel MATA is expected to provide.

21.1.12 Section 12: Disaster Recovery and System Backup

Describe the disaster recovery and system backup methods, including available back-up tools and real time redundancy for the software.

21.1.13 Section 13: Training Plan

This section shall include the proposed training plan and a description of all products and services proposed to train the end users.

Provide an overview of proposed training plan/strategy, specifying how and when training is to be delivered for both on-site and off-site training for the train the trainer, end users, and technology personnel

Explain any roles and responsibilities MATA is expected to provide for the training effort including training coordination, train the trainer, training delivery, etc.

21.1.14 Section 14: Implementation Plan

This section shall describe the proposed implementation plan. Provide a detailed plan for implementing the proposed ITS System. The plan must include, but not limited to:

- Proposed roll-out of proposed ITS System and Equipment
- Explanation of advantages AND risks associated with this implementation plan
- Explain the proposed methodology for implementation. This information must include key implementation phases and/or activities
- Description of key deliverables
- Description of how each of the following types of testing will be addressed in the implementation plan:
 - First Article Test (FAT)
 - ITS/Subsystem/Applications/Component and Equipment Installation Testing
 - ITS/Subsystem/Applications/Component and Equipment Acceptance Testing
 - Intelligent Transportation System Installation Testing
 - Intelligent Transportation System Acceptance Testing
 - “Go-Live” strategy and effort etc.

21.1.15 Section 15: Maintenance/Support/Warranty

This section must specify details of any post-implementation and on-going maintenance/support provided. In addition, describe the following, but not limited to:

- Days of on-site support after go-live provided by the proposer
- Other on-site support after go-live provided by the proposer
- Maintenance and support for ITS software and equipment
- Warranty details on ITS equipment
- Support
 - Remote desktop support
 - Additional on-site support
 - Telephone Support
- Hours available (and time zone)
- Issue reporting and resolution procedures
- Response time for various levels of severity
- Issue escalation process

21.2 Part 2: Qualification

21.2.1 Section 1: Experience

MATA seeks an Intelligent Transportation System that has been successfully implemented in the transit sector with similar size and scope of this project. MATA requires the Proposer(s) have at a minimum of five (5) years of experience and have implemented the proposed or similar scope of project at three (3) Transit Authorities where Proposer served as Prime on the project. This section shall describe the experience. The information must include, but not limited to:

- Experience of firm (software and hardware)

- Experience of implementation team
- Experience of key personnel assigned to the project
- Experience with transit implementation
- Experience with implementation of similar size and scope

21.2.2 Section 2: Client References

MATA considers references to be an important part of its decision-making process to award a contract. Proposers shall supply references that will be available to speak with MATA. MATA will not call Proposers to tell them that their references will be contacted. Proposers shall assume that all provided references will be contacted. The names, phone numbers, and email addresses of the project manager or person with broad knowledge of the project for each reference must be listed. MATA reserves the right to contact additional clients for references, if deemed necessary. MATA may at its discretion do site visits.

- Provide at least three (3) transit sector client references. Ideally, references shall be similar in size to MATA and have a similar implementation scope
- Provide implementation references listed in the proposal. Implementation firms shall provide three (3) transit sector references in which they served in a similar role to that proposed for this project. Any differences in project scope or project responsibility shall be listed.
- Provide Third-Party/Hosting Partner references for firms listed in the proposal. Third-party software/hardware firms or implementation firms providing any products or services as part of this proposal shall provide three (3) transit or government sector client references. Ideally, references shall be similar in size to MATA and have a similar implementation scope

21.3 Part 3: Project Management Plan

21.3.1 Section 1: Project Management Plan

This section shall describe the proposed project management plan. Provide a detailed project management plan for implementing the proposed ITS System. The plan must include, but not limited to:

- Explain project management services including:
- Role of the project manager
- Proposed project status reports format and process
- Proposed quality assurance procedures
- A description of how the project manager will ensure that MATA goals are met through this project

21.3.2 Section 2: Project Schedule

Project Schedule based on phased implementation and go-live from Notice to Proceed.

The project schedule shall be specific to the ITS System implementation (no sample project schedule for other implementation at different transit agencies).

21.4 Part 4: Staffing and Project Organization

This section shall describe the proposed staffing and project organization.

- Description of the management organization of the project, an organization chart, and identification of key personnel and their responsibilities and relationships
- Explain the staffing for the project including:
- How many personnel will be assigned to the project
- Commitment to the project of each resource and approximate time work
- Roles and responsibilities for each key phase and activity for implementation
- Provide project team resumes for key members of the implementation team expected to be on this project (Two (2) pages per key member)

It should be noted that MATA reserves the right, in its sole discretion, to ask for replacement of any personnel assigned to the project. Upon such request from MATA, the selected proposer shall promptly identify and assign a suitable and qualified resource with MATA's approval. MATA may or may not elect to interview the replacement resource at its discretion.

21.5 Part 5: Price Proposal for ITS System

Proposers must provide the cost for all Optional items. MATA will evaluate the functionality and cost proposed. MATA at its discretion will make a decision to either implement or not implement these Optional items.

PLEASE NOTE THAT THE TERM "OPTIONAL" APPLIES TO MATA'S SELECTION OF THESE ITEMS AS OPTIONAL; THE PROPOSER MUST SUBMIT DETAILS AND COSTS FOR ALL OPTIONAL ITEMS.

- Complete Price Schedule Excel Spreadsheet Attached
- Submit Signed PDF Price Schedule and all tabs
- Submit Excel spreadsheet Price Schedule and all tabs

Hosted services for five (5) years base and three (3) options after base with each option for two (2) years.

- Base – Five (5) Years
- Option 1 – Two (2) Years
- Option 2 – Two (2) Years
- Option 3 – Two (2) Years

21.6 Part 6: Financial Stability

21.6.1 Section 1: Financial Information

Proposers must provide information demonstrating to MATA that it has the necessary financial resources to perform the Contract. This information shall include:

- Audited financial statements for the last three (3) years, and year-to-date financial statements for the most recently completed operating quarter. The financial statements shall include Balance Sheets, Statements of Income and Stockholder's Equity, and a Statement of Change in Financial Position. If the Proposer is a parent or subsidiary of another entity, consolidated financial statements are also required.
- Unaudited balance sheets of Proposer and unaudited balance sheets of Proposer and its subsidiaries, if any, for interim quarterly periods since the close of its last fiscal year.
- Letter of Credit Commitments (if any).

- Names of banks or other financial institutions with which the Proposer conducts business. The above information shall be handled as confidential data and utilized on a “need to know” basis for proposal evaluation.

21.7 Part 7: Sample Agreements

Proposers shall include sample copies of the following documents/agreements, that shall serve as supplement to the MATA contract. Although they are sample agreements, the documents must contain all material terms so that MATA can fairly evaluate the Proposer’s agreements.

- Sample software licensing agreement
- Sample maintenance/support agreement
 - Software
 - Hardware
 - Onsite Support
- Sample warranty agreement
- Sample hosting agreement

END OF SECTION

SECTION C

REQUIRED FORMS AND CERTIFICATIONS

MEMPHIS AREA TRANSIT AUTHORITY
ADDENDA ACKNOWLEDGEMENT FORM

Addenda received (if none received, write "none received")

Addendum No: _____ Date Received: _____

Addendum No: _____ Date Received: _____

Addendum No: _____ Date Received: _____

Addendum No: _____ Date Received: _____

Addendum No: _____ Date Received: _____

Addendum No: _____ Date Received: _____

Addendum No: _____ Date Received: _____

Addendum No: _____ Date Received: _____

Name of individual, partner or corporation: _____

Street Address: _____

City, State and Zip Code: _____

Telephone Number: _____ Fax Number: _____

Printed Name: _____

Authorized Signature: _____

Title: _____

EXHIBIT I
MEMPHIS AREA TRANSIT AUTHORITY
AFFIDAVIT OF NON-COLLUSION

Affidavit of Non-Collusion:

I hereby swear (or affirm) under the penalty of perjury:

- (1) That I am the proposer (if the proposer is an individual), a partner of the proposer (if the proposer is a partnership), or an officer or employee of the proposing corporation with authority to sign on its behalf (if the proposer is a corporation);
- (2) That the attached proposal or proposals have been arrived at by the proposer independently, and have been submitted without collusion with, and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment, or services described in the request for proposal, designed to limit independent proposing or competition.
- (3) That the contents of the proposal or proposals have not been communicated by the proposer or its employees or agents to any person not an employee or agent of the proposer or its surety on any bond furnished with the proposal or bids; and
- (4) That I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Signed: _____

Firm Name: _____

Subscribed and sworn to before me this _____ day of _____

Notary Public

My Commission expires _____

Proposer's E.I. Number: _____
(Number used on Employer's Quarterly Federal tax return)

EXHIBIT II

MEMPHIS AREA TRANSIT AUTHORITY

BUY AMERICA CERTIFICATE

(For Contracts of \$100,000 or greater)

The proposer hereby certifies that it will comply with the requirements of Section 165a of the Surface Transportation Assistance Act of 1982 and the regulations in 49 CFR 661.

Date _____

Signature _____

Title _____

or

The proposer hereby certifies that it cannot comply with the requirements of Section 165a of Surface Transportation Assistance Act of 1982, but it may qualify for an exception to the requirement pursuant to Section 165b of the Surface Transportation Assistance Act and regulations in 49 CFR 661.7.

Date _____

Signature _____

Title _____

EXHIBIT III

MEMPHIS AREA TRANSIT AUTHORITY

CERTIFICATION OF PRIMARY PARTICIPANT (prime contractor) **REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS**

The Primary Participant (potential contractor for a major third-party contract), _____ certifies to the best of its knowledge and belief that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission or any of the offenses enumerated in paragraph (2) of this certification; and
4. Have not within a three-year period preceding this application/proposer had one or more public transactions (Federal, State, or local) terminated for cause or default.

(If the primary participant (potential third-party contractor) is unable to certify to any of the statements in this certification, the participant shall attach an explanation to this certification.)

THE PRIMARY PARTICIPANT (POTENTIAL CONTRACTOR FOR A MAJOR THIRD-PARTY CONTRACT), _____, CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 U.S.C. SECTION 3801 ET. SEQ. ARE APPLICABLE THERETO.

Signature and Title of Authorized Official

EXHIBIT III

MEMPHIS AREA TRANSIT AUTHORITY

CERTIFICATION OF LOWER-TIER PARTICIPANTS (subcontractors) DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

The Lower Tier Participant (potential third-party contractor, or potential subcontractor under a major third-party contract), _____, certifies, by submission of this proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(If the Lower Tier Participant, (potential third-party contractor or potential subcontractor under a major third-party contract) is unable to certify to any of the statements in this certification, such participant shall attach an explanation to this proposal).

The LOWER-TIER PARTICIPANT, POTENTIAL THIRD-PARTY CONTRACTOR, OR POTENTIAL SUBCONTRACTOR UNDER A MAJOR THIRD-PARTY CONTRACT, _____, CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 U.S.C. SECTIONS 3801 ET. SEQ. ARE APPLICABLE THERETO.

Signature and Title of Authorized Official

EXHIBIT IV

MEMPHIS AREA TRANSIT AUTHORITY

CERTIFICATION OF RESTRICTIONS ON LOBBYING

(For Contracts of \$100,000 or greater)

I, _____, hereby certify on behalf of _____
Name of Official Name of Contractor

that:

- (1) No Federal appropriated funds have been paid or will be paid on behalf of the undersigned to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriate funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the CONTRACTOR shall complete and submit Office of Management and Budget Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Executed this _____ day of _____, _____.

By: _____
Signature of Authorized Official

Title of Authorized Official

**Certification of Utilization of
Disadvantaged Business Enterprises**

The undersigned, as authorized representative of the Proposer, agrees to accept the terms and conditions of Section D and commits to carrying out the DBE contracting arrangements specified in the Schedule of DBE Participation.

Signature _____

Title _____

Date _____

Letter of Intent to Perform as a DBE Contractor or Subcontractor

To: _____ **21-05**
Name of Prime/General Proposer MATA RFP Number

Address of Prime/General Proposer

City/State/Zip

The undersigned DBE intends to perform work in connection with the above project as (check one):

[] An Individual; [] A Corporation; [] Partnership; [] A Joint Venture

The undersigned DBE is prepared to perform the following described work in connection with the above project (specify in detail the particular work, items or parts thereof to be performed:

at the following price \$_____. This price equals _____% of the total proposal price or contract to be awarded to the prime proposer.

Work or Items by Subcontractor	Projected Commencement Date	Projected Completion Date
_____	_____	_____
_____	_____	_____
_____	_____	_____

_____ DBE Business Name	_____ Signature of Authorized DBE Representative	
_____ Certification # / State of Certification	_____ Expiration Date of Certification	
_____ Address	_____ Date	
_____ City/State/Zip	_____ Phone Number	_____ Fax Number

No agreement has been entered into between the above-named Prime Proposer and the DBE subcontractor wherein the above-named DBE subcontractor has promised not to provide subcontracting quotations to other proposers.

_____ Date	_____ Name of Prime or General Proposer
	_____ Signature of Authorized Representative

SCHEDULE OF DBE PARTICIPATION

NAME OF DBE FIRM	ROLE IN PROJECT (P, JV, S)	SERVICES TO BE PERFORMED	% OF TOTAL PROJECT COST
TOTAL			

P = Prime Contractor
JV = Joint Venture
S = Subcontract

NO RESPONSE

PLEASE EITHER PRINT OR TYPE INFORMATION ON THIS FORM

TO: Memphis Area Transit Authority (MATA)

Our company is submitting a "NO RESPONSE" on RFP# 21-05 purchase of Intelligent Transportation Solution System for the reason indicated below.

- () Product or service is not available.
- () Cannot provide required bonds.
- () Other obligations - cannot make deadline.
- () Other (please explain below)

FROM:

Name of Company: _____

Representative: _____

Address: _____

Phone Number: _____

Signature: _____

- () Please keep our name on the Proposer's list for this item.
- () Please remove our name from the Proposer's list for this item.

**FAILURE TO RETURN EITHER A PROPOSAL OR THIS FORM
MAY RESULT IN REMOVAL FROM THE PROPOSER'S LIST.**

[illegible]

SECTION D

**UTILIZATION OF DISADVANTAGED BUSINESS
ENTERPRISES**

Utilization of Disadvantaged Business Enterprises

1. Policy and Terms

- a. It is the policy of the Memphis Area Transit Authority (MATA) that Disadvantaged Business Enterprises (DBE) as defined in the United States Department of Transportation (USDOT) Regulation 49 C.F.R. Part 26 shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with federal funds.
- b. MATA has established a DBE participation goal for this project which is stated in Section A.
- c. The DBE participation goal shall be expressed as a percentage of the total Contract price. The Proposer may also meet the goal by showing good faith efforts to meet the goal as described in 49 C.F.R. Part 26 and as set forth in Section D. Any evidence of good faith efforts must be submitted with the sealed Proposal or the Proposal will be rejected in its entirety.
- d. The DBE participation goal shall apply to the total dollar value of this contract, inclusive of all amendments, modifications, and change orders. The Proposer agrees to make its best efforts to include DBE participation in any contract modification work.
- e. The goal may be met, as further explained in Section D hereof, by the Proposer's status as a DBE, by a joint venture with one or more DBEs, by subcontracting a portion of the work to one or more DBEs, by the purchase of materials used in the performance of the contract from one or more DBEs or by any combination of the above or through a showing of good faith efforts as defined in Section D hereof.
- f. A Proposer who fails to meet the DBE goal and fails to demonstrate sufficient good faith efforts shall not be eligible to be awarded the contract. All documentation of good faith efforts by a Proposer must be included in the envelope or package containing the Proposal.
- g. MATA prohibits agreements between a Proposer and a DBE in which the DBE promises not to provide subcontracting quotations to other Proposers.

2. Definitions

- a. Disadvantaged Business Enterprise (DBE) means a small business concern (a) which is at least 51% owned by one or more socially and economically disadvantaged individuals, or, in the case of any publicly-owned business, at least 51% of the stock of which is owned by one or more socially and economically disadvantaged individuals; and (b) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.
- b. "Good Faith Efforts" means efforts to achieve a DBE contract goal as specified in 49 C.F.R., Part 26 and Section D hereof.
- c. "Joint Venture" means an association of two or more businesses to carry out a single business enterprise for profit, and for which purpose they combine their expertise, property, capital, efforts, skill and knowledge. Proposers may develop joint venture agreements as an instrument to provide participation by DBEs in contract work. A joint

venture seeking to be credit for DBE participation may be formed among DBE firms or between a DBE firm and non-DBE firm.

- d. "Small Business Concern" means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto, including Title 13 C.F.R., Part 121, except that a small business concern shall not include any concern or group of concerns controlled by the small socially and economically disadvantaged individual or individuals which has annual average gross receipts in excess of \$16.6 million over the previous three (3) fiscal years, as such figure may thereafter be adjusted by the Secretary of the DOT.
- e. "Socially and Economically Disadvantaged Individuals" means any individual who is a citizen of the United States (or lawfully admitted permanent residents) and who is in the following groups, the members of which are rebuttably presumed to be socially and economically disadvantaged:
 - 1. "Black Americans" (which includes persons having origins in any of the black racial groups of Africa);
 - 2. "Hispanic Americans" (which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race);
 - 3. "Native Americans" (which includes persons who are American Indians, Eskimos, Aleuts, or native Hawaiians);
 - 4. "Asian-Pacific Americans" (which includes persons whose origins are from Japan, China, Taiwan, Korea, Laos, Cambodia (Kampuchea), the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific (Republic of Palau), and the Commonwealth or the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Tuvalu, Nauru, Federated States of Micronesia or Hong Kong; and
 - 5. "Subcontinent Asian-Indian Americans" which includes persons whose origins are from India, Pakistan, and Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka.
 - 6. Women.
 - 7. Any additional groups whose members are designated as socially and economically disadvantaged by the Small Business Administration (SBA) at such time as the SBE designation becomes effective.
- f. "USDOT" or "DOT" refers to the U.S. Department of Transportation.

3. Counting DBE Participation Toward the Contract Goal

The inclusion of any DBE by the Proposer in its Proposal documents shall not conclusively establish the Proposer's eligibility for full DBE credit for the firms' participation in the contract. The Compliance Officer, DBE Program, will determine the amount of DBE participation credit based upon an analysis of the specific duties, which will be performed by the DBE.

The Proposer may count toward its DBE goal only expenditures to firms which are currently certified by the Uniform Certification Agency or the Tennessee Department of Transportation and which perform a commercially useful function. A firm is considered to perform a commercially useful function when it is responsible for the performance of a distinct element

of the work and carries out its responsibilities by actually performing, managing, and supervising the work involved.

To evaluate whether the firm is performing a commercially useful function, the Compliance Officer, DBE Program will evaluate the amount of work subcontracted, industry practices, and other relevant factors. The Compliance Officer, DBE Program reserves the right to deny or limit DBE credit to the Proposer where any DBE is found to be engaged in substantial pass-through activities with others.

DBE participation shall be counted toward the DBE goal in the contract as follows:

- a. Once a DBE is determined to be eligible in accordance with these rules, the total dollar value of the contract awarded to the DBE may be counted toward the DBE goal except as follows:
- b. A Proposer may count toward its DBE goal that portion of the total dollar value of a contract with an eligible joint venture equal to the distinct, clearly defined portion of the work of the contract that the DBE performs with its own forces.
- c. Consistent with normal industry practices, a DBE may enter into subcontracts. If a DBE prime contractor subcontracts more than thirty percent (30%) or a significantly greater portion of the work of the contract that would be expected on the basis of normal industry practices, the DBE shall be presumed not to be performing a commercially useful function. Evidence may be presented by the Proposer involved to rebut this presumption.
- d. When a DBE subcontracts a part of the work under the contract to another firm, the value of the subcontracted work may only be counted towards the DBE goal if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward the DBE goal.
- e. The Proposer may count one hundred percent (100%) of its expenditures for materials and supplies required under the contract and which are obtained from a DBE manufacturer toward the DBE goal. The Proposer may count sixty percent (60%) of its expenditures for materials and supplies under the contract obtained from a DBE regular dealer towards its DBE goal. The terms "manufacturer" and "regular dealer" are defined in 49 C.F.R. Part 26.55(e)(1)(ii) and (2)(iii).
- f. The Proposer may count towards its DBE goal expenditures to DBEs which are not manufacturers or regular dealers, such as fees or commissions charged for services and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies and transportation charges as set forth in 49 C.F.R. Part 26. However, the Compliance Officer, DBE Program must determine the fee or charge to be reasonable and not excessive as compared with fees or charges customarily allowed for similar services.
- g. Proposer must use good business judgment when negotiating with subcontractors and take a DBE's price and capabilities into consideration. The fact that there may be some additional costs involved in finding and using DBE firms is not sufficient reason to fail to meet the DBE goal set forth in the contract, as long as such costs are reasonable.

4. DBE Substitutions

- a. Arbitrary changes by the Contractor of the commitments previously indicated in the Schedule of DBE participation are prohibited. No changes may be made to the DBE firms listed on this schedule after the opening of Proposals but prior to contract award. Further, after entering into each approved DBE subcontract, the Contractor shall neither terminate the subcontract,

nor reduce the scope of the work to be performed by the DBE, nor decrease the price to the DBE, without receiving prior written approval of the Compliance Officer, DBE Program. Such approval is required even if the DBE agrees with the change to the DBE's contract desired by the Contractor.

- b. It may become necessary, at times, to substitute a new subcontractor in order to complete the contract work. The substitution procedure to be followed is:
1. The Contractor must immediately notify the Compliance Officer, DBE Program, in writing, of the proposed substitution of subcontractor. The Contractor's notification must include the specific reasons it intends to reduce the scope of or terminate a DBE subcontract; adequate documentation to support the Contractor's proposed action; and a proposed substitute firm to complete the DBE's portion of work.
 2. The following is a non-exclusive list of the types of reasons, which justify substitution: the DBE was found not to be able to perform, or not to be able to perform on time; the DBE's work product was not acceptable; the DBE demands an unreasonable escalation of its price.
 3. The following is a non-exclusive list of the types of reason which do not justify substitution: a replacement firm has been recruited by the Contractor to perform the same work under more advantageous terms; performance issues by the DBE were disputed and every reasonable effort to have the dispute resolved or mediated has not been taken; the DBE has requested a reasonable price escalation which may be justified due to unforeseen circumstances (e.g. a change in scope of DBE's work).
 4. If the subcontractor to be substituted for the DBE is not a DBE, the Contractor must show adequate good faith efforts as set forth in Section D hereof.
 5. The Contractor's request for approval of a substitution must include the name, address, and principal official of the proposed substitute subcontractor and the dollar value and scope of work of the proposed subcontract. If the new subcontractor is a DBE, all DBE affidavits and documents required by the contract shall be attached.
 6. MATA will evaluate the submitted documentation and respond within ten (10) business days to the request for approval of a substitution. MATA's response may approve the request, seek more information, request an interview to clarify the problem or reject the proposed DBE substitution, with the reasons for the rejection stated in MATA's response. In the case of an expressed emergency need to receive the necessary decision for the sake of job progress, MATA will respond as soon as practicable.
 7. Actual substitution by the Contractor may not be made prior to MATA approval. Once notified of MATA approval, the substitute subcontract must be executed within five (5) business days, and a copy submitted to the Compliance Officer, DBE Program.

5. Good Faith Efforts

In order to be responsive, a Proposer must make good faith efforts to meet the DBE participation goal set forth in the contract. The Proposer must document the good faith efforts it made in that regard. Thus, the Proposal submitted to MATA must be accompanied by written documentation prepared by the Proposer evidencing all of its reasonable good faith efforts toward fulfilling the goal. These efforts must be active steps, ones that could reasonably be expected to lead to sufficient DBE participation to meet the contract DBE participation goal. Mere *pro forma* efforts are not acceptable and will be rejected by the Compliance Officer, DBE Program.

Good Faith Efforts require that the Proposer consider all qualified DBEs, who express an interest in performing work under the contract. This means that the Proposer cannot reject a DBE as unqualified unless the Proposer has sound reasons based on a thorough investigation of the DBE's capabilities. Further, the DBE's standing within its industry, membership in specific groups, organizations or associations and political or social affiliation (for example, union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of Proposals in the Contractor's efforts to meet the contract DBE participation goal.

The following are illustrative of factors, which will be considered in judging whether or not the Proposer has made adequate good faith efforts:

- a. Attendance at any pre-Proposal meetings that were scheduled by MATA to inform DBEs of participation opportunities.
- b. Advertisement in general circulation, trade association, or minority and female-focused media concerning participation opportunities. Adequate time for advertisement and sufficient DBE response will be considered.
- c. Written notification to a reasonable number of specific DBEs that their participation in the contract is solicited in sufficient time to allow them to participate effectively.
- d. Follow-up of initial solicitations of interest by contacting DBEs to determine with certainty if they were interested.
- e. Documentation of efforts to negotiate with DBEs for specific sub-contracts including at a minimum:
 - i. The names, addresses, and telephone numbers of DBEs that were contacted and the date(s) of contract.
 - ii. A description of the information provided to the DBEs regarding the plans and specifications for portions of the work to be performed.
 - iii. A statement explaining why additional agreements with DBEs were not reached.
- f. For each DBE the Proposer contacted but rejected as unqualified, the reason for the Proposer's conclusion. This may include documentation of price comparisons. Receipt of a lower quotation from a non-DBE will not in itself excuse a Proposer's failure to meet the contract goal.
- g. Documentation of efforts made to assist the DBEs contacted that needed assistance in obtaining bonding or insurance required by the Proposer or MATA.
- h. Documentation of efforts to utilize the service of available minority community organizations or other organizations that provide assistance in the recruitment and placement of qualified DBEs.
- i. Documentation that the Proposer selected portions of the work likely to attract DBE participation (including dividing contracts into economically feasible units to facilitate participation).
- j. Evidence that adequate information was provided to interested DBEs about the plans, specifications and requirements of the contract, and that such information was communicated in a timely manner.

Any Proposer which MATA determines to have failed to fulfill the obligations of this section will be deemed non-responsible and will not be eligible for contract award.

MATA will not award a contract to any Proposer who does not meet the contract DBE participation goal or show good faith efforts to meet the goal. Thus, it is essential that all Proposers submit ALL relevant documentation concerning the DBE goal and/or good faith efforts in the envelope or package containing their sealed Proposal.

6. Procedure to Determine Proposer Compliance

The Proposer must complete and sign the Letter of Intent to Perform as a DBE. The Letter of Intent must also be signed by any DBEs (prime or subcontractor). A separate Letter of Intent must be included for each DBE included in the Proposal. It **MUST** be submitted with the sealed Proposal. In addition, any documentation evidencing the Proposer's good faith efforts to meet the contract DBE goal must be submitted with the Proposal. Any Proposals submitted without a completed and executed Letter of Intent and/or evidence of good faith efforts, if applicable, will be deemed non-responsive and will be rejected by MATA.

a. Letters of Certification

1. A copy of each proposed DBE firm's current Certificate of Certification from the Uniform Certification Agency or the Tennessee Department of Transportation (TDOT) should be attached to the Letter of Intent to Perform as a DBE. **A firm which is in the process of certification or which is not currently certified at the date the proposals are due cannot be counted as a DBE as set forth in 49 CFR Part 26.55.**
2. All DBEs are certified to perform work in a specific specialty or specialties. The DBE firm's scope of work set forth on the Letter of Intent and Schedule of DBE Participation must conform to its stated area of specialization.

b. Joint Ventures

1. Where the Proposer proposes to include in its Proposal a DBE, which is a joint venture, the Proposer must submit a fully executed copy of the joint venture agreement with its Proposal. The joint venture agreement must show that the DBE firm will be responsible for a clearly defined portion of the work to be performed, and that the DBE firm's capital contribution, control, management, risks and profits are commensurate with its ownership interest.

Further, the proposed joint venture agreement shall include specific details related to: 1) contributions of capital and equipment; 2) work items to be performed by the DBEs own forces; 3) work items to be performed under the supervision of the DBE; 4) the DBE management, supervisory and operating personnel to be dedicated to the performance of the project; and 5) the authority of each joint venture to contractually obligate the joint venture and to expend funds.

Failure to submit a copy of the joint venture agreement will cause the firm to be considered by MATA to be non-responsible.

7. Reporting Requirements During the Term of the Contract

- a. The Proposer shall, within five (5) business days of contract award, or prior to any work being performed, execute formal subcontracts or purchase orders with the DBE firms included in the Proposal. These written agreements shall be made available to the Compliance Officer upon request. All contracts between the Proposer and its subcontractors must contain a prompt payment clause as set forth in Section 8 herein.

- b. During the term of the contract, the Proposer shall submit regular "DBE Participation Report" in a form acceptable to MATA. The frequency with which these reports are to be submitted will be determined by the Compliance Officer but in no event will reports be required less frequently than quarterly. In the absence of written notice from the Compliance Officer, the Proposer's first "DBE Participation Report" will be due sixty (60) days after the date of contract award, with additional reports due monthly thereafter.
- c. The address for the Compliance Officer, DBE Program, is: MATA, Attn: Compliance Officer/DBE Program, 1370 Levee Road, Memphis, TN 38108.

8. Prompt Payment to Subcontractors

- a. Prime Contractors are required to pay all subcontractors, both DBE and non-DBE, for all work which the subcontractor has satisfactorily completed, no later than ten (10) business days after the prime Contractor received payment from MATA.
- b. In addition, all retainage amounts must be returned by the prime Contractor to the subcontractor no later than fourteen (14) business days after the subcontractor has satisfactorily completed its portion of the contract work.
- c. A delay or postponement of payment to the subcontractor requires good cause and prior written approval of the Compliance Officer and the Project Manager.
- d. All prime Contractors are required to include, in each subcontract, a clause requiring the use of appropriate arbitration mechanisms to resolve all payment disputes.
- e. MATA will not reimburse Contractors for work performed unless and until the prime Contractor ensures that the subcontractors are promptly paid for the work they have performed to date as evidenced by the submittal of the "DBE Subcontractor Payment Status Report" with canceled checks/wire transfers as supporting documentation.
- f. MATA will consider failure to comply with these prompt payment requirements a contract violation, which may lead to any remedies permitted under law, including but not limited to, contract debarment.

SECTION E

MATA CONTRACT

MATA Contract

**CONTRACT
BETWEEN
MEMPHIS AREA TRANSIT AUTHORITY
AND**

**FOR
THE INTELLIGENT TRANSPORTATION SOLUTION SYSTEM
AND RELATED PRODUCTS AND SERVICES (ITS SYSTEM)**

This Contract (hereinafter referred to as "Contract") is made and entered into this ____ day of ____, 202__, by and between Memphis Area Transit Authority (hereinafter referred to as "MATA"), having its principal office located at 1370 Levee Road, Memphis, Tennessee 38108 and _____ (hereinafter referred to as "Contractor"), having its principal office located at _____.

The following documents constitute the Contract and Contract Documents. In the event of conflicting provisions, all documents shall be construed according to the following priorities:

- Any properly executed amendment to this Contract (most recent with first priority)
- This Contract
- MATA General Contract Provisions
- Scope of Work-Section _ of Request for Proposal (RFP) No. _____
- Request for Proposal (RFP) No. ____ and any Addenda not referred to above
- Contractor Milestones and Payment Schedule dated _____ (Exhibit ____)
- Contractor's BAFO dated _____.
- Contractor's Proposal dated: _____.

1. Duties and Responsibilities of Contractor

1.1. The Contractor shall design, furnish, install, test, and make operational the Intelligent Transportation Solution System for MATA. Goods and Services as detailed in the Request for Proposal _____ at MATA's multi-locations and its principal address at 1370 Levee Road, Memphis, Tennessee 38108, (collectively "Facilities"). The goods and services shall be provided as set forth in this Contract, and to the extent not inconsistent with the terms herein, according to the methods set forth in Request for Proposal _____. All labor, materials, tools, equipment, and other costs necessary to fully complete the project and provide all goods and services in accordance with the requirements of this Contract and any specifications are included in the payment referred to in Section 3.1. All goods and materials shall be new and in no case will used, reconditioned, or obsolete material be accepted unless otherwise agreed to by MATA in writing.

1.2. The Contractor agrees that the project objectives can be best achieved through a

relational contract that promotes and facilitates strategic planning, design, implementation and commissioning of the project, through the principles of collaboration and lean project delivery. This approach recognizes that each party's success is tied directly to the success of all other members of the collaborative project team and encourages and requires the parties to organize and integrate their respective roles, responsibilities and expertise, to identify and align their respective expectations and objectives, to commit to open communications, transparent decision-making, proactive and non-adversarial interaction, problem-solving, the sharing of ideas, to continuously seek to improve the project planning, design, and implementation processes, and to share both the risks and rewards associated with achieving the project objectives.

1.3. The Contractor shall perform as a collaborative project delivery team to facilitate the design, development, implementation and commissioning of the project. Team members shall share information and collaborate for the benefit of the project. Team members shall initially include the project owners, the Contractors and the subcontractors. In forming a collaborative project team, the parties expect that Contractors, subcontractors and consultants shall provide products and services as described and included in the solicitation and scope of work. These parties shall agree to a collaborative partnership, as they become members of the team, accepting the principles and methods of collaboration set forth in this Contract.

1.4. Collaborative Relationship: The Contractor shall accept the relationship of mutual trust, good faith and fair dealing established by this Contract and covenants to cooperate and exercise its skill and judgment in furthering the interests of the project deliverables. The Contractors, subcontractors and consultants each represents that it possesses the requisite skill, expertise, and, as applicable, licensing to perform the required services. MATA, Contractors, consultants and all members of the team agree to adhere to principles of collaboration based on mutual trust, confidence, good faith and fair dealing. Within the scope of their respective expertise, the Contractor shall together actively and continually pursue collaboration in the best interests of the project. The Contractor shall endeavor to promote harmony and collaboration among all project participants.

1.5. Contractor guarantees that in the event of a declared emergency or natural disaster, Contractor shall give supply and delivery priority to the MATA.

1.6. MATA may purchase additional ITS System goods and services offered by Contractor under this Contract. The purchase of additional goods and/or services shall be agreed upon in writing with a properly executed amendment between the parties. Any additional goods and/or services shall be invoiced at the rates as stated in a written amendment as agreed to by both parties. The rights, conditions, and obligations of the parties in this Contract shall pertain and apply to and additional goods and/or service purchased by MATA unless stated otherwise in writing.

2. Term

2.1. Contractor shall commence its work under this Contract upon receipt by Contractor of a written Notice to Proceed issued by MATA. The initial term of this Contract shall continue for a five (5) year period from the date of the Notice to Proceed, unless otherwise terminated as provided herein (the "Initial Term"). At the option of MATA, this Contract may be extended for three (3) successive two (2) year renewal terms.

2.2. This Contract may be extended beyond the initial term and the renewal terms with a

properly executed amendment to this Contract.

3. Compensation/Invoices

3.1. Upon satisfactory completion of this Contract, Contractor will be entitled to a total payment in the amount of _____. Time of payments to Contractor shall be governed by the Contractor milestones and payment schedule dated _____ 2020 (Exhibit _____).

3.2. For any additional goods or services purchased by MATA, MATA may elect to purchase such goods and/or services and other options and quantities at the discretion of MATA through properly executed amendments approved and signed by both MATA and Contractor according to unit quantities and costs agreed to by MATA.

3.3. There shall be no other charges or fees for the performance of this Contract unless otherwise agreed to by both parties in writing. The MATA shall make reasonable efforts to make payments within thirty (30) days of receipt of approved invoice.

3.4. Contractor shall submit invoices to:

Accounts Payable
Memphis Area Transit Authority
1370 Levee Road
Memphis, Tennessee 38108

4. Acceptance

4.1. Acceptance of delivery of goods or services shall not release Contractor from Contractor's other obligations and duties as provided herein.

4.2. Approval or acceptance by MATA of any of Contractor's goods and/or services under this Contract shall not constitute, or be deemed, a release of the responsibility and liability of Contractor, its employees, associates, agents or subcontractors for the exercise of skill and diligence necessary to fulfill Contractor's responsibilities under this Contract. Nor shall MATA's approval or acceptance be deemed to be the assumption of responsibility by MATA for any negligent defect or error in the goods and/or services of Contractor, its employees, associates, agents, or subcontractors.

5. Taxes

5.1. MATA shall not be responsible for any taxes that are imposed on Contractor. Contractor understands that it cannot claim exemption from taxes by virtue of any exemption that is provided to MATA.

6. Warranty and Warranty Period

6.1. Contractor warrants that the goods and services provided by Contractor reflect high professional standards, procedures and performances. Contractor warrants the preparation of materials, the selection of personnel, the fitness and operation of its recommendations, goods provided by Contractor, and the performance of the services by Contractor shall conform to the specifications of the Contract. Contractor warrants that it will exercise diligence and due care

and perform in a good and workmanlike manner all of the Services pursuant to this Contract.

6.2. Contractor shall be responsible for using due diligence to correct errors, deficiencies or unacceptable goods or services. Contractor shall, at no cost MATA remedy any errors, deficiencies or any service, work or other work products found not in accordance with Contract specifications, in MATA's reasonable discretion, as soon as possible, but in all cases within thirty (30) days of Contractor's receipt of written notice of said errors, deficiencies or unacceptable goods or services. For the Warranty Period, as defined below, Contractor's obligation shall be to replace, resolve or correct, at Contractor's own expense, any defects in the goods and/or services.

6.3. Warranty Period is defined as a period of one (1) year beginning on the date of MATA's final acceptance of the Intelligent Transportation Solution System and until Contractor has remedied all problems of which Contractor was notified prior to expiration of the warranty period ("Warranty Period"). If during the warranty period, any replacement, repair, or modification of a component, made necessary by defective design, materials, or workmanship is not completed within five (5) calendar days after Contractor's receipt of written notice, the warranty period shall be extended by the number of days equal to the delay period.

6.4. In the event that during the Term and applicable Warranty Period any goods or services do not operate in all material respects as specified in the Contract and Contractor has failed to correct the problem after written notice to Contractor, MATA shall be entitled to terminate this Contract for Default in accordance with the terms and conditions of this Contract and shall, in addition to any other remedies under this Contract or by law in equity, be entitled to a full refund for any such defective goods and/or services.

6.5. Contractor warrants that the any Software (including any Licensed Software) provided or otherwise made available under this Contract shall:

- Be of a language that is commercially available and for which software tools are available
- Be capable of being copied by MATA
- Not contain viruses or pre-programmed devices which will cause any software utilized by MATA or other users to be erased or become inoperable or incapable of processing accurately
- The Software and each module and function thereof shall be capable of operating fully and correctly on the combination of the equipment purchased or otherwise available for use by MATA
- The Software does not contain any code that will, upon the occurrence or the nonoccurrence of any event, disable the Software

6.6. No warranty period shall end unless finished documentation is provided and approved by MATA.

7. Title Warranty

7.1. Contractor warrants that it has good title to and/or the right to sell the goods and services, and represents that the goods and services delivered to MATA are free and clear of all liens, Claims or encumbrances of any kind.

7.2. Contractor shall, at its own expense, be entitled to and shall have the duty to defend any suit which may be brought against the Covered Entities, as defined in Section 14, below, to the

extent that it is based on a Claim that the goods and/or services or other work products furnished contain liens, Claims, or encumbrances of any kind. The Contractor shall further indemnify and hold harmless, to the fullest extent permitted by law, and as set forth in Section 14, the Covered Entities against any award of damages and costs made against the Covered Entities or in any settlement agreement of a Claim authorized in writing by the MATA.

7.3. In the event use of the goods and/or services are restricted or interfered with as a result of any such encumbrance, Contractor shall, at its cost, procure non-encumbered goods and/or services for MATA which are equal substitutes, in the MATA's discretion, for the goods and/or services in all material respects, or obtain for MATA the right to use the goods and/or services without encumbrances, or refund to MATA all monies paid by MATA for such goods and/or services. Nothing in this Section 7 shall preclude MATA from exercising any rights or remedies as provided elsewhere in this Contract.

8. Copyright, Trademark, Service Mark, or Patent Infringement

8.1. Contractor shall, at its own expense, be entitled to and shall have the duty to defend any suit which may be brought against the Covered Entities to the extent that it is based on a Claim that the Services or other work products furnished infringe a copyright, trademark, service mark, or patent. The Contractor shall further indemnify and hold harmless to the fullest extent permitted by law, and as set forth in Section 14, the Covered Entities against any award of damages and costs made against the Covered Entities or in any settlement agreement of a Claim authorized in writing by MATA.

8.2. If the goods or services or other work products furnished under this Contract are likely to, or do become, the subject of such a Claim of infringement, then without diminishing Contractor's obligation to satisfy the award, Contractor may at its option and expense:

8.2.1. Procure for MATA the right to continue using the goods or services.

8.2.2. Replace or modify the alleged infringing goods or services with other equally suitable goods or services that are satisfactory to MATA, so that they become non-infringing.

8.2.3. Remove the goods or discontinue the services and cancel any future charges pertaining thereto.

8.2.4. Provided, however, that Contractor will not exercise option 8.2.3 until Contractor and MATA have agreed and determined that options 8.2.1 and 8.2.2 are impractical.

8.3. This intellectual property warranty shall not apply to and Contractor shall have no obligation or liability with respect to any patent or other infringement claim based upon: (a) any product that is manufactured to MATA's design; (b) the combination, operation, or use of any product furnished hereunder in conjunction with any other apparatus or material not approved by Contractor; or (c) any products that have been altered, modified, or revised by any party other than Contractor or Contractor's subcontractor or agent. As to any product or use described in the preceding sentence, Contractor assumes no liability whatsoever for patent infringement or the unauthorized use of goods or services, including, without limitation, a breach of the provisions of the Contract and the failure of MATA to implement any update provided by Contractor that would have prevented the claim. Notwithstanding the foregoing, with respect to any products, or portions thereof, which are not manufactured, developed by Contractor and are not

manufactured to Contractor's design specifications, only the indemnity of the manufacturer/developer, if any, shall apply.

8.3.1. Nothing in this Section 8 shall preclude MATA from exercising any rights or remedies as provided elsewhere in this Contract.

9. Works for Hire and Software License

9.1. Excluding all Contractor Intellectual Property, Software, Confidential Information and any related materials, Contractor acknowledges that goods and/or services under this Contract are "work(s) for hire" within the meaning of the United States Copyright Act (Title 17 United States Code) and hereby assigns to MATA all rights and interests Contractor may have in the goods and/or services it prepares under this Contract, including any right to derivative use of the goods and/or services.

9.2. The term "Software" as used herein shall be the set of copyrighted, object code computer programs and databases licensed under this Contract and provided by Contractor at any time, and from time to time under this Contract. Further, the term Software shall include any upgrades, updates, patches, hotfixes, modules, routines, feature enhancements and supplemental or replacement Software and their associated media, printed materials, online or electronic documentation, or other features or components, distributed by or on behalf of the Contractor.

9.3. The term "Documentation" as used herein shall mean all user manuals, operating manuals, technical manuals and any other instructions, specifications, documents or materials, in any form or media, that describe the functionality, installation, testing, operation, use, maintenance, support, or technical or other components, features or requirements, of the Software. Contractor shall provide the MATA with complete and accurate Documentation for all Software prior to or concurrently with its delivery, and as necessary from time to time.

9.4. Contractor warrants that the Software and Documentation, and MATA's use thereof, are and will remain free and clear of all encumbrances, liens and security interests of any kind.

9.5. All Software and related materials developed by Contractor in performance of this Contract for MATA shall be the sole property of the Contractor but shall be licensed to MATA in the manner set forth hereunder. MATA shall own any and all rights to any information MATA generates, inputs, prints, copies, or downloads from the Software. Notwithstanding the foregoing, MATA agrees not to reverse engineer, disassemble, decompile, decode or adapt the Software, or otherwise attempt to derive or gain access to the source code of the Software, in whole or in part, except as and only to the extent provided in a Software Escrow Agreement to be signed among Contractor, MATA and the Escrow Agent. The Escrow Agreement shall be substantially in the form attached hereto as Exhibit ____.

9.6. Contractor hereby grants to MATA a nonexclusive, perpetual, site specific irrevocable license to the Software and Documentation limited for the purposes set out in this Contract.

9.7. Contractor, if requested by MATA, shall execute all necessary documents to enable MATA to protect MATA's rights under this Section 9.

10. Termination

10.1. Should Contractor fail to fulfill in a timely and proper manner its obligations under this Contract or if it should violate any of the terms of this Contract ("Default"), MATA shall have the right to terminate this Contract provided Contractor fails to cure such Default within fifteen (15) days of MATA's written notice of Default to Contractor is received by Contractor. Such termination shall not relieve Contractor of any liability for damages sustained by virtue of any Default by Contractor, including all of MATA's reasonable expenses and costs (including reasonable attorney's fees) incurred by reason of such Default

10.2. Should funding for this Contract be discontinued, MATA shall have the right to terminate this Contract effective immediately, without penalty, upon written notice to Contractor. Such termination shall be treated as a Termination for Convenience.

10.3. MATA may terminate this Contract at any time, without penalty, for its convenience or its best interest upon fifteen (15) days' written notice to Contractor ("Termination for Convenience").

10.4. In the event of a termination under Section 10.2 or 10.3, Contractor will be compensated in accordance with the goods provided and the services that have been performed up until time of termination specified by MATA.

10.5. In addition to the foregoing, MATA reserves the right to cancel any portion of the goods and/or services to be provided hereunder upon written notice to the Contractor specifying the canceled goods and/or services and the effective date of such cancellation. In the event of such cancellation, the CONTRACTOR shall be compensated for satisfactory goods provided and/or services performed and, further, the compensation due to the Contractor hereunder shall be reduced accordingly effective of said cancellation date.

11. Maintenance of Records and MATA Property

11.1. Contractor shall maintain documentation supporting all invoicing issued to MATA and charges against MATA under this Contract. The books, records, and documents of Contractor, insofar as they relate to the goods provided and the services performed or money received under the Contract, shall be maintained in conformity of with generally accepted accounting principles for a minimum period of three (3) full years from the date of final payment and will be subject to audit, at any reasonable time and upon reasonable notice by MATA, the State of Tennessee or the Comptroller of the Treasury or their duly appointed representatives or a licensed independent public accountant. The records shall be maintained for a period not less than that recommended in the uniform Manual for Development Districts of Tennessee, published by the Comptroller of the Treasury, State of Tennessee, but not less than three (3) years from the date of final payment.

11.2. Contractor's activities conducted and records or other documentation maintained pursuant to this Contract shall be subject to inspection, monitoring and evaluation by MATA or its duly appointed representatives. In the event any Federal or State agency audits MATA, the Contractor shall provide whatever records, information, and assistance as MATA may reasonably require. The Contractor shall also provide information and assistance requested by MATA for progress reports required of MATA by any Federal or State Government or agency.

11.3. Any MATA property, including but not limited to books, records and equipment that is in Contractor's possession shall be maintained by Contractor in good condition and repair, and

shall be returned to MATA by Contractor upon expiration or termination of the Contract. Upon expiration or termination of this Contract, Contractor shall promptly deliver to MATA all records, notes, data, memorandum, models, and any other material of any nature that are within Contractor's possession or control and that were provided by MATA are MATA property or relate to MATA or its business.

11.4. MATA shall retain existing ownership and all proprietary rights to its information and data. Confidential information and data may need to be disclosed to Contractor for purposes necessary to Contractor providing the Services. Contractor shall treat any such data and information as strictly confidential.

11.5. Ownership of all data entered into the system shall remain as the property of MATA and shall be transferred in fully operational condition on completion of implementation or the expiration or termination of any support services or contract.

12. Independent Contractor/Subcontractors

12.1. Contractor is an independent contractor. Nothing herein shall in any way be construed or intended to create a partnership or joint venture between the parties or to create the relationship of principal and agent between or among any of the parties. It is expressly agreed and understood between the parties that Contractor and any of its subcontractors and suppliers are independent contractors to MATA and as such shall be viewed in law and equity. No vicarious liability shall be imposed upon the Covered Entities by any action of Contractor, subcontractor or supplier in the performance of this Contract. Neither MATA nor Contractor shall hold itself out in a manner contrary to the terms of this Section 12 nor shall MATA or Contractor become liable for any representation, act, or omission of the other party contrary to the terms of this Section 12.

12.2. Neither Contractor nor Contractor's employees, subcontractors or agents are MATA employees. Contractor shall bear sole responsibility for payment of compensation to its employees and subcontractors. Contractor shall procure and maintain Worker's Compensation Insurance as stated in Section 16.

12.3. In addition to the other requirements of Contractor set forth herein regarding subcontractors, Contractor shall not subcontract any of its rights or responsibilities in this Contract without the prior written approval of MATA. Contractor shall remain fully responsible for the goods provided and/or the services performed by the subcontractor and for supervising the performance by the subcontractor. MATA is not subject to any liability of any kind with respect to any subcontractor nor do subcontractors obtain any rights against MATA under this Contract.

12.4. Contractor and its subcontractors shall be appropriately licensed in the State of Tennessee, if required, in order to perform its obligations under this Contract. Contractor and subcontractors must maintain current Data Universal Numbering Systems ("DUNS") number, System for Award Management ("SAM"), or registration in other substantially similar registration databases. Contractor must submit to MATA all Tennessee Department of Transportation letters or certification of any Disadvantage Business Enterprises ("DBEs") participating in the project. Contractor shall hire reliable and dependable subcontractors. Contractor and its subcontractors found guilty of unethical, irresponsible business practices according to governmental authority will be suspended and debarred from conducting future business with MATA.

12.5. Subcontractors, if approved in writing, shall be made and are subject to the applicable terms of this Contract in their contractual agreements with the Contractor. Contractor shall include in its subcontracts a similar indemnification provision as set forth in Section 14 running from each subcontractor directly to the Covered Entities.

13. Waiver

13.1. No failure to exercise, and no delay in exercising, on the part of either party, any privilege, any power or any right hereunder will operate as a waiver thereof, nor will any single or partial exercise of any privilege, right or power hereunder preclude further exercise of any other privilege, right or power hereunder.

14. Indemnity and Contractor Responsibility

14.1. Contractor shall indemnify, defend and hold harmless, to the fullest extent permitted by law, MATA and its directors, commissioners, officers, agents, representatives, consultants, and employees, the City of Memphis, First Transit, Inc. and Mid-South Transportation Management, Inc. (MTM) ("Covered Entities") from:

14.1.1. Any claims, losses, damages, causes of action, suits and liability of every kind, including all expenses of litigation, court costs, and reasonable attorneys' fees, including, but not limited to third party claims for injury to or death of any person or damage to property ("Claims"), arising or resulting from the acts or omissions of Contractor, its officers, employees and/or agents, including its sub or independent contractors (including third parties), in connection with the performance of this Contract, and,

14.1.2. Any Claims arising from any alleged failure of Contractor, its officers, employees and/or agents, including its sub or independent contractors, to observe applicable laws, including, but not limited to, labor laws, minimum wage laws, and environmental laws.

14.2. The indemnity and release in this Section 14 applies regardless of whether said Claims are covered, in whole or in part, by insurance and regardless of the negligence, if any, of the Covered Entities.

14.3. Contractor assumes full responsibility for the goods to be provided and the services to be performed hereunder and hereby releases, relinquishes, and discharges the Covered Entities from all Claims of every kind and character, including the cost of defense thereof, for any alleged injury to or death of any person (including third parties) and damage to property that are caused by or alleged to be caused by, arising out of, or in connection with the goods and/or services provided under this Contract. This release shall apply regardless of whether said Claims are covered, in whole or in part, by insurance and regardless of the negligence, if any, of the Covered Entities.

14.4. In the event of any Claim against the Covered Entities, the Covered Entities may choose counsel, in the Covered Entities' reasonable discretion, to represent the Covered Entities, and Contractor shall promptly reimburse the Covered Entities for all costs actually incurred, including, but not limited to, all expenses of litigation, court costs, and reasonable attorneys' fees. The Covered Entities shall be consulted prior to any settlement and approve such settlement in writing.

14.5. The Covered Entities shall not, under any circumstances, indemnify, defend, or hold harmless Contractor from any Claim.

15. MATA Owned Data

15.1. MATA will own and retain rights to all of its data. Some data will need to be disclosed to Contractor for purposes necessary for design and implementation. Contractor will treat MATA information as strictly confidential.

16. Insurance

16.1. During the term of this Contract, Contractor shall, at its sole expense, obtain and maintain in full force and effect for the duration of this Contract and any extension hereof the types and amounts of insurance identified below by a check mark.

- a) ☐ Products Liability Insurance in the amount of one million (\$1,000,000) dollars.
- b) ☐ General Liability Insurance in the amount not less than one million dollars (\$1,000,000) combined single limit each occurrence for bodily injury and property damage.
- c) ☐ Professional liability insurance, errors & omissions insurance, or malpractice insurance, whichever may be customary in the professional field, in the minimum amount of one million dollars (\$1,000,000.00) per claim/annual aggregate. Such coverage must be maintained for a period of three (3) years following termination of this Contract or final acceptance by MATA of the Services, whichever is later. This provision shall expressly survive the termination of the Services or the Contract.
- d) ☐ Automobile Liability Insurance in the amount not less than a combined single limit of one million dollars (\$1,000,000) covering Contractor's owned, non-owned, leased or rented vehicles.
- e) ☐ Worker's Compensation Insurance with statutory limits required by the State of Tennessee or other applicable laws and employer's liability insurance with limits of no less than one hundred thousand (\$100,000) dollars, as required by the laws of Tennessee. (Not required for companies with fewer than five (5) employees).
- f) ☐ other insurance
(_____).
- g) Such insurance shall:
 - 1. Contain or be endorsed to contain a provision that includes Covered Entities as additional insureds and loss payees with respect to liability arising out of work or operations performed by or on behalf of Contractor including materials, parts, or equipment furnished in connection with such work or operations. The coverage shall contain no special limitations on the scope of its protection afforded to the Covered Entities.

2. For any Claims related to this Contract, Contractor's insurance coverage shall be primary insurance as respect to the Covered Entities. Any insurance or self-insurance programs covering the Covered Entities shall be excess of Contractor's insurance and shall not contribute with it.
3. Regarding Automotive Liability Insurance including vehicles owned, hired, and non-owned, said insurance shall include coverage for loading and unloading hazards. Insurance shall contain or be endorsed to contain a provision that includes the Covered Entities as additional insureds with respect to Claims and liability arising out of automobiles owned, leased, hired or borrowed by or on behalf of Contractor.
4. Contractor shall maintain workers' compensation insurance, if applicable, with statutory limits as required by the State of Tennessee or other applicable laws and liability insurance. Contractor shall require each of its subcontractors to provide workers' compensation insurance for all of the latter's employees to be engaged in such work unless employees are covered by Contractor's workers' compensation insurance coverage.
5. Other Insurance Requirements. Contractor shall:
 - a) Prior to commencement of activities related to this Contract, furnish MATA with original certificates and amendatory endorsements effecting coverage required by this Section 16 and provide that such insurance shall not be cancelled, allowed to expire, or be materially reduced in coverage except on thirty (30) days' prior written notice to MATA.
 - b) Provide certified copies of endorsements and policies if requested by MATA in lieu of or in addition to certificates of insurance.
 - c) Replace certificates, policies, and/or endorsements for any such insurance expiring prior to completion of services.
 - d) Maintain such insurance from the time its activities under this Contract commence until completed. Failure to maintain, renew coverage or provide evidence of renewal as required by MATA may be treated by MATA as a material breach and Default under this Contract.
 - e) Place such insurance with insurer licensed to do business in Tennessee and having A.M. Best Company ratings of no less than A-. Modification of this standard may be considered upon written appeal to MATA director of risk management services.
 - f) Require all subcontractors to maintain during the Term of this Contract Commercial General Liability insurance, Business Automobile Liability insurance, and Worker's Compensation/Employers Liability insurance (unless subcontractor's employees are covered by Contractor's insurance) in the same manner as specified for Contractor. Contractor shall file subcontractor's certificates of insurance as required by MATA.

g) Disclose any deductibles and/or self-insured retentions greater than ten thousand dollars (\$10,000) and obtain MATA's written approval of such deductibles and/or self-insured retentions prior to the commencement of activities under this Contract.

h) Not have, if Contractor has or obtains primary and excess policies, any gap between the limits of the primary policy and the deductible features of the excess policies.

17. Employment and Nondiscrimination

17.1. Contractor shall not discriminate on the basis of age, race, sex, creed, color, national origin, religion, disability or any other classification protected by Federal or Tennessee State constitutional or statutory law in its hiring and employment practices, or in admission to, access to, or operation of its programs, services, and activities.

17.2. Contractor shall not knowingly employ, permit, dispatch, subcontract, or instruct any person who is an undocumented and/or unlawful worker to perform work in whole or part under the terms of this Contract.

17.3. Violation of these Contract provisions may result in suspension or debarment if not resolved in a timely manner to the satisfaction of MATA.

18. Ethical Standards

18.1. It shall be a breach of ethical standards for any person to offer, give or agree to give any employee or former employee, or for any employee or former employee to solicit, demand accept or agree to accept from any other person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation of any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy or other particular matter, pertaining to any program requirement of a contract, subcontract, solicitation or proposal therefore.

18.2. It shall be a breach of ethical standards for any payment, gratuity or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor or a person associated therewith, as an inducement for the award of a subcontract or order.

18.3. Breach of the provisions of this Section 18 is, in addition to a Default of this Contract, a breach of ethical standards which may result in civil or criminal sanction and/or debarment or suspension from being a contractor or subcontractor under MATA contracts.

19. Assignment-Consent Required

19.1. The provisions of this Contract shall inure to the benefit of and shall be binding upon the respective successors and assignees of the parties hereto. Except for the compensation due to Contractor under this Contract, neither this Contract nor any of the rights and obligations of Contractor hereunder shall be assigned or transferred in whole or in part without the prior written consent of MATA. Any such assignment or transfer shall not release Contractor from its

obligations hereunder. An assignment by MATA, should it occur, shall be set forth in writing by MATA and Contractor.

20. Remedies

20.1. In no event shall either party hereto be liable for special, incidental, indirect, or consequential damages, including, but not limited to, lost profits arising from the performance of this Contract, whether such damages are based in contract, tort, or any other legal theory.

20.2. In the event of breach or Default of the Contract by Contractor, in addition to any other remedies set forth herein, Contractor shall be liable to MATA for damages for the breach or Default thereof, including the costs and reasonable attorneys' fees for the enforcement thereof. The remedies set forth in this Contract shall be cumulative, and no one remedy shall be deemed to be exclusive of any other or of any other remedy in law or equity, and the failure or delay of MATA to exercise a remedy at any time shall not operate as a waiver of the right to exercise a remedy for the same or subsequent breach or Default at any time thereafter.

21. Governing Law and Venue

21.1. The validity, construction and effect of this Contract and any and all extensions and/or modifications thereof shall be governed by the laws of the State of Tennessee. Tennessee law shall govern regardless of any language in any attachment or other document that Contractor may provide.

21.2. The parties consent and agree that all actions, whether sounding in contract or in tort, relating to the validity, construction, interpretation, and enforcement of this Contract shall be instituted and litigated in the courts of the State of Tennessee located in Shelby County, Tennessee, and in no other. In accordance herewith, the parties to this Contract submit to the jurisdiction of the courts of the State of Tennessee, located in Shelby County, Tennessee.

22. Entire Agreement/No Waiver

22.1. This Contract states the entire contract between the parties. No alteration, modification, release, or waiver of this Contract or any of the provisions hereof shall be effective unless in writing, executed by the parties hereto.

22.2. Notwithstanding the foregoing, Contractor agrees that this Contract is subject to modification by MATA to the extent necessary to comply with federal, state or local regulations, which may govern this Contract. MATA shall provide written notice to Contractor of any such modification. In the event that such modification causes Contractor additional expense or requires additional time for completion Contractor may request a Change Order.

22.3. The failure of MATA at any time to insist upon a strict performance of any terms, conditions, and covenants herein shall not be deemed a waiver of any subsequent breach or default of the terms, conditions, and covenants herein contained.

23. Compliance with Federal Regulations

23.1. All USDOT-required contractual provisions, as set forth in FTA Circular 4220.1F and the FTA contract clauses in the solicitation are incorporated by reference. Unless otherwise modified in this Contract, FTA mandated terms shall control in the event of a conflict with other provisions

contained in this Contract. Contractor shall not perform any act, fail to perform any act, or refuse to comply with any MATA request that would cause the parties to be in violation of FTA terms and conditions. Contractor shall comply with all applicable FTA regulations, policies, procedures and directives, including, without limitation, those listed directly or incorporated by reference in the Master Agreement between MATA and FTA, as may be amended or promulgated from time to time during the term of this Contract. Contractor's failure to so comply shall constitute a Default of this Contract.

24. Export

24.1. Contractor represents and warrants that the goods and services and documentation related thereto shall not be disclosed to any foreign national, firm, or country, nor shall be exported from the United States without first complying with all the requirements of the International Traffic in Arms Regulations and the Export Administration Act, including the requirement for obtaining an export license, if applicable. Contractor shall fully indemnify MATA for any breach of this representation.

25. Damages/Liquidated Damages

25.1. In the event of delay in the completion of work beyond the contract completion date for each major milestone to be established with the Contractor, MATA shall assess as liquidated damages and not as penalties, a sum to be determined for each major milestone per calendar day for undelivered or incomplete materials or unfinished services required by this Contract.

25.2. MATA will deduct and retain out of any money due or becoming due hereunder the amount of liquidated damages, and in case those amounts are less than the amounts of liquidated damages, the Contractor shall be liable to pay the difference upon demand.

25.3. Any liquidated damages assessed by MATA shall be in addition to any other remedies available to MATA under this Contract or under the law or in equity.

25.4. If the Contractor is delayed at any time in the progress or completion of the Contract by any act or neglect of MATA or an employee of MATA, or by a separate contractor employed by MATA, or by changes ordered, casualties or calamities or any cause beyond the Contractor's control, or by labor disputes in no wise caused by or resulting from default or collusion on the part of the Contractor, then the times fixed for completion of the work to the extent specified shall be extended for a period equivalent to the time lost by reason of any of the causes mentioned in this Section. No such allowances of time shall be made, however, unless notice in writing or a claim is presented to MATA before the last day of each calendar month for all delays occurring within said calendar month, and the Contractor shall satisfy MATA that the delays claimed were unavoidable, caused substantial cessation of work under the contract and could not have been reasonably anticipated or adequately guarded against.

26. Severability

26.1. At the election of MATA, the invalidity or illegality of any provisions of this Contract, other than arising from the fiscal inability of MATA to pay the compensation due to the Contractor as same becomes due, as determined by a court of last resort of competent jurisdiction, shall not affect the validity of the remainder of this Contract, and this Contract shall remain in full force and effect as if such illegal or invalid provisions were not contained herein.

27. Notices

27.1. Any notice or other communication to be made pursuant to this Contract shall be made in writing by United States certified or registered mail, by messenger service or by a nationally recognized overnight courier, and shall be effective (i) upon receipt, if delivered in person, (ii) five (5) business days after deposit into the United States mail, if sent by certified or registered mail, and (iii) at 1:00pm on the following business day, if sent by overnight courier. Notice hereunder shall likewise be effective when actually received by either party. In each case, such notice or other communication shall be made to the address shown below. Either party shall have the right, by written notice to the other party, to change its address for such notice.

The Agency: Contracting Officer
Memphis Area Transit Authority
1370 Levee Road
Memphis, Tennessee 38108
Attn: Purchasing Department

Contractor: _____

28. Counterparts

28.1. This Contract may be executed in one or more identical counterparts, each of which shall be deemed to be an original for all purposes, and all of which taken together shall constitute a single instrument.

MEMPHIS AREA TRANSIT AUTHORITY

By: _____
Title: _____
Date: _____

By: _____
Title: _____
Date: _____

ATTACHMENT 1

GENERAL CONTRACT PROVISIONS

MEMPHIS AREA TRANSIT AUTHORITY (MATA)
GENERAL CONTRACT PROVISIONS

1. Non-Collusion - The Proposer guarantees that the Proposal submitted is not a product of collusion with any other Proposer and no effort has been made to fix the Proposal price of any Proposer or to fix any overhead, profit, or cost element of any Proposal price. An Affidavit of Non-Collusion, as per attached format, must be signed and submitted with Proposal. (Exhibit I)
2. Proposal Acceptance - Each Proposal will be submitted with the understanding that the acceptance, in writing by purchaser of the offer to furnish any or all of the items described herein, shall constitute a Contract between the Proposer and the purchaser, which shall bind the Proposer on his part to furnish and deliver at his Proposal price and in accordance with said accepted Proposal and specifications.
3. Pricing - The price to be quoted in any Proposal submitted shall include all labor, materials, tools, equipment, and other costs necessary to fully complete the project in accordance with the specifications. Anything omitted from such specifications which are clearly necessary for the completion of the item and its appurtenances shall be considered a portion of such Proposal item although not directly specified or called for in these specifications. All material shall be new and in no case will used, reconditioned, or obsolete material be accepted unless otherwise specified. Proposer should note discounts, if any. Freight charges must be included in Proposal price.
4. Terms of Payment - Payment for the specified items shall be net thirty (30) days after acceptance. Proposer should note any discounts for payment before thirty (30) days.
5. Acceptance of Material - If the item is not acceptable; MATA will furnish a letter of non-acceptance detailing the deficiencies within thirty (30) days after delivery. Acceptance of delivery of an item shall not release the CONTRACTOR from liability for faulty workmanship or materials appearing even after final payment have been made.
6. Approved Equal -
 - a. In all cases, materials must be furnished as specified. Where brand names or specific items are used in the specifications, consider the term "or approved equal" to follow.
 - b. Any unapproved deviations, exceptions, substitutions, alternates, or conditional qualifications contained in a Proposal may be cause for its rejection.
 - c. If a potential Proposer feels that his product is an equal to the product specified, he must submit a written request to MATA.
 - d. Requests for approved equals, clarification of specifications, and protest of specifications must be received by MATA, **IN WRITING, NO LATER THAN 10:00 a.m. CST, Friday, October 30, 2020, TO ALLOW ANALYSIS OF THE REQUEST.** Any request for an approved equal or protest of the specifications must be fully supported with catalog information, specifications, and illustrations or other pertinent information as evidence that the substitute offer is equal to or better than the specifications' requirement. Where an approved equal is requested, the CONTRACTOR must demonstrate the quality of his product to the Authority and must furnish sufficient information to enable the Authority to determine whether the CONTRACTOR's product is or is not equal to that specified. Such requests may be faxed to (901) 278-9108 or

(901) 272-2912. They may also be e-mailed to Ashley Best, Contract Administrator, at abest@matatransit.com.

- e. MATA's replies to requests under paragraph (d) above will be post-marked at least fourteen (14) days before the date scheduled for Proposal opening.
- f. A notice of approved equals shall be furnished to all parties receiving specifications so that all Proposers may prepare their Proposal accordingly.
- g. Appeal from the decisions of MATA to approve or disapprove approved equal status shall be submitted in writing to the Contracting Officer, MATA, 1370 Levee Road, Memphis, TN 38108, not later than five (5) days from the date of MATA's decision. The appeal shall, at a minimum, identify the decision in question, specify all reasons why the appealing party disagrees with the decision, and shall include all facts and justification, including technical information, in support of its position. The Contracting Officer may request additional information from the appealing party, and information or a response from the Proposers which shall likewise be submitted in writing to the Contracting Officer not later than ten (10) days from the date of MATA's request. So far as practicable, appeals will be decided upon the basis of the written appeal, information and written response submitted by the appealing party and other Proposers; all parties are urged to make written submissions as complete as possible. Failure of any party to timely respond to a request for information may be deemed by MATA that such party does not desire to participate in the proceeding, does not contest the matter, or does not desire to submit a response; and, in such event, the appeal will proceed and will not be delayed due to the lack of a response. Upon receipt and review of written submissions and any independent investigation deemed appropriate by MATA, the Contracting Officer shall either (a) render a decision which shall be final and advise all interested parties of same in writing, or (b) at the sole election of the Contracting Officer, conduct an informal hearing at which the interested participating parties will be afforded an opportunity to present their respective positions and facts, documents, justification, and technical information in support thereof. Parties may, but are not required to, be represented by counsel at the informal hearing, which will not be subject to formal rules of evidence or procedure. Following the informal hearing, the Contracting Officer shall render a decision, which shall be final and advise all interested parties thereof in writing.
- h. Changes in the specifications will be made by written addendum by MATA and will be forwarded to all persons and firms to whom Proposal documents have been furnished.

7. Proposal Withdrawal -

- a. Each and every Proposer who submits his Proposal specifically waives any right to withdraw it except as hereinafter provided. Proposers will be given permission to withdraw any Proposal after it has been deposited with MATA, provided any Proposer makes its request by telephone, telegraph, or in writing, twenty-four (24) hours before the time Proposals are due. Requests pertaining to withdrawals by telephone or telegraph must be confirmed in writing by the Proposer and must reach the Office of the Contracting Officer of MATA not later than one (1) hour prior to the time fixed for submission of Proposals.
- b. No Proposer may withdraw his Proposal within ninety (90) days after the date Proposals are due.

8. Proposal Rejection - MATA reserves the right to waive any minor Proposal informalities or irregularities received which do not go to the heart of the Proposal or prejudice other Proposers, or to reject, for good and compelling reasons, any and all Proposals submitted. Conditional Proposals, or those, which take exception to the specifications, may be considered non-responsive and may be rejected.
9. Tax Exemption - MATA is exempt from payment of all Federal, State, and local taxes in connection with the project. Said taxes must not be included in Proposal prices. MATA will provide necessary tax exemption certificate to manufacturer, if requested.
10. Proposal Evaluation -
 - a. Consideration will be given to Proposer's previous experience, price, financial responsibility of Proposer, responsiveness to these specifications, including level of participation of DBEs.
 - b. Proposers may be required to submit duplicate sworn statements of their financial responsibility, technical qualifications, and performance record before a Contract can be awarded to them.
 - c. MATA reserves the right to award Proposals singularly or collectively on any of the Proposal items.
 - d. The Contract shall be awarded according to Section 5.0 of Section A.
11. Proposal Cost Form - If MATA includes a Proposal Cost Form in the RFP, Proposals must be submitted on the form provided. Each item should be listed separately on the form. Proposals submitted in any other form may be considered non-responsive and may be rejected. Proposals may be submitted on any or all items in this Proposal request. Proposal Cost Form should be submitted in a separate package, Proposers shall submit one electronic file, if file(s) are too big to be submitted via email/zip file etc., then one flash drive can be submitted via mail service. Proposals shall be securely sealed to prevent access prior to the Proposal closing date.
12. Protest Procedures - Protests may be made by prospective Proposers whose direct economic interest would be affected by the award of a Contract, or by failure to award a Contract. MATA will consider all protests requested in a timely manner regarding the award of a Contract, whether submitted before or after an award. All protests are to be submitted in writing to the Contracting Officer, Memphis Area Transit Authority, 1370 Levee Road, Memphis, TN 38108. Protest submissions should be concise, logically arranged, and clearly state the grounds for the protest. Protests must include at least the following information:
 1. Name, address, and telephone number of protestor.
 2. Identification of the solicitation or Contract Number.
 3. A detailed statement of the legal and factual grounds of protest, including copies of relevant documents.
 4. A statement as to what relief is requested.

Protests must be submitted to MATA in accordance with these procedures and time requirements. Protests must be complete and contain all issues that the protestor believes relevant.

- a. Proposal protests alleging restrictive specifications or improprieties which are apparent prior to Proposal closing time or receipt of Proposals must be submitted in writing to the Contracting Officer and must be received seven (7) days prior to Proposal closing time or receipt of Proposals. If the written protest is not received by the time specified, Proposals may be received, and award may be made, in the normal manner unless the Contracting Officer determines that remedial action is required. Oral protests not followed up by a written protest will be disregarded. The Contracting Officer may request additional information from the appealing party and information or a response from other Proposers, which shall likewise be submitted in writing to the Contracting Officer not later than ten (10) days from the date of MATA's request. So far as practicable, appeals will be decided upon the basis of the written appeal, information, and written response submitted by the appealing party and other Proposers; all parties are urged to make written submissions as complete as possible. Failure of any party to timely respond to a request for information may be deemed by MATA that such party does not desire to participate in the proceeding, does not contest the matter, or does not desire to submit a response; and, in such event, the protest will proceed and will not be delayed due to the lack of a response. Upon receipt and review of written submissions and any independent investigation deemed appropriate by MATA, the Contracting Officer shall either (a) render a decision, or (b) at the sole election of the Contracting Officer, conduct an informal hearing at which the interested participating parties will be afforded an opportunity to present their respective positions and facts, documents, justification, and technical information in support thereof. Parties may, but are not required to, be represented by counsel at the informal hearing, which will not subject to formal rules or evidence or procedures. Following the informal hearing, the Contracting Officer shall render a decision, which shall be final and advise all interested parties thereof in writing but no later than ten (10) days from the date of the informal hearing.
- b. Proposal protest against the making of an award by the MATA Board must be submitted in writing to the Contracting Officer and received by the Contracting Officer within seven (7) days of the award by the MATA Board. The process for resolving protests listed above in Section (a) will be followed for any protest received under this section.

Notice of the protest and the basis therefore will be given to all prospective Proposers. In addition, when a protest against the making of an award by the MATA Board is received and it is determined to withhold the award pending disposition of the protest, the Proposers whose Proposals might become eligible for award shall be requested before expiration of the time for acceptance, to extend or withdraw the Proposal.

Where a written protest against the making of an award is received in the time specified, award will not be made prior to seven (7) days after resolution of the protest unless MATA determines that:

- 1. The item(s) to be procured or service to be performed is urgently required.
 - 2. Delivery or performance will be unduly delayed by failure to make award promptly; or,
 - 3. Failure to make award will otherwise cause undue harm to MATA or the Federal Government.
- c. Protests made after contract award shall be received no later than seven (7) calendar days afterwards. Protests received after award will be reviewed by the Contracting Officer and MATA's General Counsel.

In instances where the award has been made, the CONTRACTOR shall be furnished with the notice of the protest and the basis therefore. If the CONTRACTOR has not executed the Contract as of the date the protest is received by MATA, the execution of the Contract will not be made prior to seven (7) days after resolution of the protest unless MATA determines that:

1. The item(s) to be procured or service to be performed is urgently required;
2. Delivery or performance will be unduly delayed by failure to make award promptly; or,
3. Failure to make award will otherwise cause undue harm to MATA or the Federal Government.

The process for resolving protests listed above in Section (a) will be followed for any protest received under this section.

- d. Appeals and requests for reconsideration of the determination of the Contracting Officer of protests under (a), (b) and (c) must be submitted to the Chief Executive Officer and received within seven (7) days after the date of the written determination by the Contracting Officer. The Chief Executive Officer may request additional information from the appealing party and information or a response from other Proposers, which shall likewise be submitted in writing to the Chief Executive Officer not later than ten (10) days from the date of MATA's request. So far as practicable, appeals will be decided upon the basis of the written appeal, information, and written response submitted by the appealing party and other Proposers; all parties are urged to make written submissions as complete as possible. Failure of any party to timely respond to a request for information may be deemed by MATA that such party does not desire to participate in the proceeding, does not contest the matter, or does not desire to submit a response; and, in such event, the appeal will proceed and will not be delayed due to the lack of a response. Upon receipt and review of written submissions and any independent investigation deemed appropriate by MATA, the Chief Executive Officer shall either (a) render a decision, or (b) at the sole election of the Chief Executive Officer, conduct an informal hearing at which the interested participating parties will be afforded an opportunity to present their respective positions and facts, documents, justification, and technical information in support thereof. Parties may, but are not required to, be represented by counsel at the informal hearing, which will not be subject to formal rules of evidence or procedures. Following the informal hearing, the Chief Executive Officer shall render a decision, which shall be final and advise all interested parties thereof in writing but no later than ten (10) days from the date of the informal hearing.
- e. Under certain limited circumstances, an interested party may protest to the Federal Transit Administration (FTA) the award of a Contract pursuant to an FTA grant. FTA's review of any protest will be limited to:
 1. Alleged failure of MATA to have written protest procedures or alleged failure to follow such procedures.
 2. Alleged violations of a specific Federal requirement that provides an applicable complaint procedure which shall be submitted and processed in accordance with that Federal regulation.
- f. Protestors shall file a protest with FTA not later than five (5) working days after a final decision of MATA's Chief Executive Officer is rendered under the MATA protest procedure. In instances where the protestor alleges that MATA failed to make a final

determination on the protest, the protestor shall file a complaint with FTA not later than five (5) Federal working days after the protestor knew or should have known of MATA's failure to render a final determination on the protest.

- g. Submission of Protest to FTA
 - 1. Protests shall be filed with the appropriate FTA Regional Office with a concurrent copy to MATA.
 - 2. The protest filed with FTA shall:
 - (i) Include the name and address of the protestor.
 - (ii) Identify MATA project number and the number of the Contract Solicitation.
 - (iii) Contain a statement of the grounds for the protest and any supporting documentation. This should detail the alleged failure to follow protest procedures or the alleged failure to have procedures and be fully supported to the extent possible.
 - (iv) Include a copy of the local protest filed with MATA and a copy of the MATA decision, if any.
- 13. Correspondence - The Proposer is required to show on all correspondence with MATA and FTA, the following: RFP No. 21-05 Communication with MATA should be mailed directly to Ashley Best, Contract Administrator, MATA, 1370 Levee Road, Memphis, TN 38108, or sent by fax to (901) 274-5866 or (901) 272-2912, or sent by e-mail to abest@matatransit.com.
- 14. Contract Subletting - No Contract may be assigned, sublet, or transferred without the written consent of MATA.
- 15. Miscellaneous -
 - a. CONTRACTOR warrants that it has not been paid any bonus or commission for the purpose of obtaining this Contract.
 - b. Except as otherwise set forth herein, this Contract shall be governed and construed in accordance with the laws of the State of Tennessee. All actions, whether sounding in contract or in tort, relating to the validity, construction, interpretation, and enforcement of this Contract shall be instituted and litigated in the courts of the State of Tennessee located in Shelby County, Tennessee, and in no other. In accordance herewith, the parties to this Contract submit to the jurisdiction of the courts of the State of Tennessee, located in Shelby County, Tennessee.
 - c. The failure of MATA at any time to insist upon a strict performance of any terms, conditions, and covenants herein shall not be deemed a waiver of any subsequent breach or default of the terms, conditions, and covenants herein contained.
 - d. CONTRACTOR shall not assign any interest or obligation in this Contract, and CONTRACTOR shall not transfer any interest in the same (whether by assignment or novation), without the prior written consent of MATA.
 - e. Any proposed change or modification of this Contract shall be submitted in writing to MATA for its prior approval. All changes shall be by written agreement of MATA and CONTRACTOR.

- f. The CONTRACTOR acknowledges that MATA is managed and operated by Mid-South Transportation Management, Inc. (MTM). The CONTRACTOR shall cooperate with and abide by the instructions of MATA and MTM personnel.

16. Extent of Agreement -

- a. The Proposal submitted by the CONTRACTOR is incorporated herein by reference as fully set forth verbatim herein. In the event of conflict between this Contract and Proposal, the provisions of this Contract shall control.
- b. This Contract, except as set forth in the preceding paragraph, represents the entire and integrated Agreement between MATA and the CONTRACTOR, and supersedes all prior negotiations, statements, instructions, and representations or agreements, whether written or oral. This Contract may not be modified, amended, or assigned except by written agreement duly signed by both parties.
- c. At the election of MATA, the invalidity or illegality of any provisions of this Contract, other than arising from the fiscal inability of MATA to pay the compensation due to the CONTRACTOR as same becomes due, as determined by a court of last resort of competent jurisdiction, shall not affect the validity of the remainder of this Contract, and this Contract shall remain in full force and effect as if such illegal or invalid provisions were not contained herein.

17. Compliance with Applicable Law -

- a. In the performance of its obligations pursuant to this Contract, the CONTRACTOR shall comply with all applicable provisions of Federal, State, and local law in any manner affecting the conduct of the work and all prohibitive orders and instructions issued by the State and Federal Government regarding fortifications, military, and naval establishments and other areas.
- b. To accommodate changing Federal requirements, the CONTRACTOR agrees that Federal requirements may change, and the changed requirements will apply to the project as required, unless the Federal Government determines otherwise. All standards or limits within FTA's Master Agreement are minimum requirements, unless modified by FTA.
- c. The CONTRACTOR agrees to comply with FTA Circular 4220.1F, "Third Party Contracting Requirements", any revisions or replacement thereof, and applicable Federal regulations or requirements, including FTA third party contracting regulations when promulgated.

18. Audit and Inspection -

- a. The CONTRACTOR shall permit MATA, the Secretary, and Comptroller General of the United States or any of their duly authorized representatives' access to all CONTRACTOR records as they request for audits and inspections related to any Contract not awarded on the basis of competitive bidding for a capital or improvement project, as needed for compliance with 49 U.S.C. § 5325(a). The CONTRACTOR shall permit said persons to inspect all work materials, payrolls, and other data with regard to the project, and to audit the books, records, and accounts pertaining to such Contracts with regard to the project. The CONTRACTOR shall provide sufficient

access to contract records as needed for compliance with federal regulations or to assure proper project management as determined by FTA.

- b. The CONTRACTOR shall maintain documentation for all charges against MATA under this Contract. The books, records, and documents of the CONTRACTOR, insofar as they relate to work performed or money received under the Contract, shall be maintained in conformity with generally accepted accounting principles for a period three full years from the date of final payment, and shall be subject to audit, at any reasonable time upon reasonable notice, by MATA, the State of Tennessee or the Comptroller of the Treasury or their duly appointed representatives, or a licensed independent public accountant. Further, the records shall be maintained for a period not less than that recommended in the Uniform Manual for Development Districts of Tennessee, published by the Comptroller of the Treasury, State of Tennessee, but not less than three years from the date of final payment.
 - c. In the event any Federal or State agency audits MATA, the CONTRACTOR shall provide whatever records, information, and assistance as MATA may reasonably require.
 - d. The CONTRACTOR shall provide information and assistance requested by MATA for progress reports required of MATA by Federal or State Government, or agencies.
19. Equal Employment Opportunity - In the performance of its duties hereunder, the CONTRACTOR shall not discriminate against any employee or applicant for employment because of disability, race, color, age, creed, sex, religion or national origin. The CONTRACTOR shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their disability, race, color, religion, sex, age, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The CONTRACTOR shall insert the foregoing provisions (modified only to show the particular contractual relationship) in all subcontracts, except subcontracts for standard commercial supplies or raw materials.
20. Interests of Federal and State Governmental Officials -
- a. No member of or delegate to the Congress of the United States shall be admitted to any share or part of this Contract, or to any benefit arising therefrom.
 - b. No part of the proceeds hereof shall be paid directly or indirectly to any officer or employee of the State of Tennessee as wages, compensation or gifts in exchange for acting as officer, agent, employee, subcontractor, or consultant to MATA in connection with any work contemplated or performed relative to this Contract.
21. Environmental Requirements -
- a. Environmental Protection. The CONTRACTOR agrees to comply with all applicable requirements and implementing regulations of the National Environmental Policy Act of 1969, as amended (NEPA), 42 U.S.C. §§ 4321 through 4335 (as restricted by 42 U.S.C. § 5159, if applicable); Executive Order No. 11514, as amended, "Protection and Enhancement of Environmental Quality," 42 U.S.C. § 4321 note; FTA statutory requirements at 49 U.S.C. § 5324(b); U.S. Council on Environmental Quality regulations pertaining to compliance with NEPA, 40 C.F.R. Parts 1500 through 1508; and joint FHWA/FTA regulations, "Environmental Impact and Related Procedures,"

23 C.F.R. Part 771 and 49 C.F.R. Part 622, and other applicable Federal environmental protection regulations that may be promulgated at a later date. The CONTRACTOR agrees to comply with the applicable provisions of 23 U.S.C. § 139 pertaining to environmental procedures, and, as applicable, 23 U.S.C. § 326, pertaining to State responsibility for categorical exclusions, in accordance with the provisions of joint FHWA/FTA final guidance, "SAFETEA-LU Environmental Review Process (Public Law 109-59)," 71 *Fed. Reg.* 66576 et seq., November 15, 2006, and any applicable Federal directives that may be issued at a later date, except to the extent that FTA determines otherwise in writing.

- b. Air Quality (Applicable to Contracts Exceeding \$100,000) – Except to the extent the Federal Government determines otherwise in writing, the CONTRACTOR agrees to comply with all applicable Federal laws and regulations and follow applicable Federal directives implementing the Clean Air Act, as amended, 42 U.S.C. §§ 7401 through 7671q. Specifically:

1. The CONTRACTOR agrees to comply with the applicable requirements of subsection 176(c) of the Clean Air Act, 42 U.S.C. § 7506(c); with U.S. EPA regulations, "Determining Conformity of Federal Actions to State or Federal Implementation Plans," 40 C.F.R. Part 93, Subpart A; and with any other applicable Federal conformity regulations that may be promulgated at a later date. To support the requisite air quality conformity finding for the Project, the CONTRACTOR agrees to implement each air quality mitigation or control measure incorporated in the applicable documents accompanying the approval of the Project. The CONTRACTOR further agrees that any Project identified in an applicable State Implementation Plan (SIP) as a Transportation Control Measure will be wholly consistent with the design concept and scope of the Project described in the SIP.

2. U.S. EPA also imposes requirements implementing the Clean Air Act, as amended, that may apply to public transportation operators, particularly operators of large public transportation bus fleets. Accordingly, to the extent they apply to the Project, the CONTRACTOR agrees to comply with U.S. EPA regulations, "Control of Air Pollution from Mobile Sources," 40 C.F.R. Part 85; U.S. EPA regulations, "Control of Air Pollution from New and In-Use Motor Vehicles and New and In-Use Motor Vehicle Engines," 40 C.F.R. Part 86; and U.S. EPA regulations "Fuel Economy of Motor Vehicles," 40 C.F.R. Part 600, and any revisions thereto.

3. The CONTRACTOR agrees to comply with the notice of violating facilities provisions of section 306 of the Clean Air Act, as amended, 42 U.S.C. § 7414, and facilitate compliance with Executive Order No. 11738, "Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans," 42 U.S.C. § 7606 note.

- c. Clean Water Requirements (Applicable to Contracts Exceeding \$100,000) - Except to the extent the Federal Government determines otherwise in writing, the CONTRACTOR agrees to comply with all Federal laws and regulations and follow applicable Federal directives implementing the Clean Water Act, as amended, 33 U.S.C. §§ 1251 through 1377. Specifically:

1. The CONTRACTOR agrees to protect underground sources of drinking water consistent with the provisions of the Safe Drinking Water Act of 1974, as amended, 42 U.S.C. §§ 300f through 300j-6.

2. The CONTRACTOR agrees to comply with the notice of violating facilities provisions of Section 508 of the Clean Water Act, as amended, 33 U.S.C. §§ 1368, and facilitate compliance with Executive Order No. 11738, "Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans," 42 U.S.C. § 7606 note.

- d. Use of Certain Public Lands. The CONTRACTOR agrees that in implementing its Project, it will not use any publicly owned land from a park, recreation area, or wildlife or waterfowl refuge of national, State, or local significance as determined by the Federal, State, or local officials having jurisdiction thereof, unless the Federal Government makes the findings required by 49 U.S.C. § 303. The CONTRACTOR also agrees to comply with joint FHWA/FTA regulations, "Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites," 23 C.F.R. Part 774, and referenced in 49 C.F.R. Part 622.
- e. Wild and Scenic Rivers. The CONTRACTOR agrees to comply with applicable provisions of the Wild and Scenic Rivers Act of 1968, as amended, 16 U.S.C. §§ 1271 through 1287, relating to protecting components of the national wild and scenic rivers system, with applicable implementing U.S. Forest Service regulations, "Wild and Scenic Rivers," 36 C.F.R. Part 297, and with applicable implementing U.S. Bureau of Land Management regulations, "Management Areas," 43 C.F.R. Part 8350.
- f. Coastal Zone Management. The CONTRACTOR agrees to assure Project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972, as amended, 16 U.S.C. §§ 1451 through 1465.
- g. Wetlands. The CONTRACTOR agrees to comply with the protections for wetlands addressed in Executive Order No. 11990, as amended, "Protection of Wetlands," 42 U.S.C. § 4321 note.
- h. Floodplains. The CONTRACTOR agrees to facilitate compliance with the flood hazards protections in floodplains in accordance with Executive Order No. 11988, as amended, "Floodplain Management" 42 U.S.C. § 4321 note.
- i. Endangered Species and Fisheries Conservation. The CONTRACTOR agrees to comply with applicable protections for endangered species of the Endangered Species Act of 1973, as amended, 16 U.S.C. §§ 1531 through 1544, and the Magnuson Stevens Fisheries Conservation Act, as amended, 16 U.S.C. §§ 1801 *et seq.*
- j. Historic Preservation. The CONTRACTOR agrees as follows:
 - 1. The CONTRACTOR agrees that in implementing its Project, it will not use any land from a historic site that is on or eligible for inclusion on the National Register of Historic Places, unless the Federal Government makes the findings required by 49 U.S.C. § 303.
 - 2. The CONTRACTOR agrees to encourage compliance with the Federal historic and archaeological preservation requirements of section 106 of the National Historic Preservation Act, as amended, 16 U.S.C. § 470f; Executive Order No. 11593, "Protection and Enhancement of the Cultural Environment," 16 U.S.C. § 470 note; and the Archaeological and Historic Preservation Act of 1974, as amended, 16 U.S.C. §§ 469a through 469c as follows:

- (a) In accordance with U.S. Advisory Council on Historic Preservation regulations, "Protection of Historic and Cultural Properties," 36 C.F.R. Part 800, the CONTRACTOR agrees to consult with the State Historic Preservation Officer concerning investigations to identify properties and resources included in or eligible for inclusion in the National Register of Historic Places that may be affected by the Project, and agrees to notify FTA of affected properties.
 - (b) The CONTRACTOR agrees to comply with all applicable Federal regulations and directives to avoid or mitigate adverse effects on those historic properties, except to the extent the Federal Government determines otherwise in writing.
 - k. Indian Sacred Sites. The CONTRACTOR agrees to facilitate compliance with the preservation of places and objects of religious importance to American Indians, Eskimos, Aleuts, and Native Hawaiians, pursuant to the American Indian Religious Freedom Act, 42 U.S.C. § 1996, in accordance with Executive Order No. 13007, "Indian Sacred Sites," 42 U.S.C. § 1996 note, except to the extent that the Federal Government determines otherwise in writing.
 - l. Mitigation of Adverse Environmental Effects. Should the Project cause or result in adverse environmental effects, the CONTRACTOR agrees to take all reasonable steps to minimize the impact of those adverse effects, as required by 49 U.S.C. § 5324(b), and other applicable Federal laws and regulations, including 23 C.F.R. Part 771, 23 C.F.R. Part 774, and 49 C.F.R. Part 622. The CONTRACTOR agrees to implement all environmental mitigation measures that may be identified as commitments in applicable environmental documents (such as environmental assessments, environmental impact statements, memoranda of agreement, and other documents required by 49 U.S.C. § 303). The CONTRACTOR also agrees to comply with any conditions the Federal Government might impose in a finding of no significant impact or a record of decision. The CONTRACTOR agrees that those mitigation measures are incorporated by reference and made part of the Contract. The CONTRACTOR agrees that any deferred mitigation measures will be incorporated by reference and made part of the Contract as soon as agreement with the Federal Government is reached. The CONTRACTOR agrees that any mitigation measures agreed on may not be modified or withdrawn without the express written approval of the Federal Government.
22. Energy Conservation - The CONTRACTOR agrees to comply with applicable mandatory energy efficiency standards and policies under the Energy Policy and Conservation Act, as amended, 42 U.S.C. §§ 6321 *et seq.*, except to the extent that the Federal Government determines otherwise in writing. As applicable, the CONTRACTOR agrees to perform an energy assessment for any building constructed, reconstructed, or modified with FTA assistance, in compliance with FTA regulations, "Requirements for Energy Assessments," 49 C.F.R. Part 622, Subpart C.
23. Patent Rights – (Applicable to Contracts For Planning, Research, Development and/or Demonstration Projects Only)
- a. General. If any invention, improvement, or discovery of the CONTRACTOR or of any subcontractor, lessee, third party contractor, or other participant at any tier of the Project is conceived or first actually reduced to practice in the course of or under the Project, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, the Recipient agrees to notify FTA immediately and provide a detailed report in a format satisfactory to FTA.

b. Federal Rights. The CONTRACTOR agrees that its rights and responsibilities, and those of each subcontractor, lessee, or other participant at any tier of the Project, pertaining to that invention, improvement, or discovery will be determined in accordance with applicable Federal laws and regulations, including any waiver thereof. Absent a determination in writing to the contrary by the Federal Government, the Recipient agrees to transmit to FTA those rights due the Federal Government in any invention, improvement, or discovery resulting from that subcontract, lease, or arrangement, as specified in 35 U.S.C. §§ 200 *et seq.*, and U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," 37 C.F.R. Part 401, irrespective of the status of the CONTRACTOR, subcontractor, lessee, third party contractor or other participant in the Project (*i.e.*, a large business, small business, State government, State instrumentality, local government, Indian tribe, nonprofit organization, institution of higher education, or individual).

c. License Fees and Royalties. FTA considers income earned from license fees and royalties for patents, patent applications, and inventions produced under the Project to be program income. Except to the extent FTA determines otherwise in writing, as provided in 49 C.F.R. Parts 18 and 19, the CONTRACTOR has no obligation to the Federal Government with respect to that program income, apart from compliance with 35 U.S.C. §§ 200 *et seq.*, which applies to patent rights developed under a research project.

24. **Rights in Data – (Applicable to Contracts For Planning, Research, Development and/or Demonstration Projects Only)**

a. Definition. The term "subject data," as used in this Section 18 of the FTA Master Agreement means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under the Grant Agreement or Cooperative Agreement for the Project. Examples include, but are not limited to: computer software, standards, specifications, engineering drawings and associated lists, process sheets, manuals, technical reports, catalog item identifications, and related information. "Subject data" do not include financial reports, cost analyses, or other similar information used for Project administration.

b. General. The following restrictions apply to all subject data first produced in the performance of the Contract for the Project:

(1) Except for its own internal use, the CONTRACTOR may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may the CONTRACTOR authorize others to do so, without the prior written consent of the Federal Government, unless the Federal Government has previously released or approved the release of such data to the public.

(2) The restrictions on publication of Paragraph 18(b)(1) of the FTA Master Agreement, however, do not apply to a Contract with an institution of higher learning.

c. Federal Rights in Data and Copyrights. The CONTRACTOR agrees to provide to the Federal Government a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, for Federal Government purposes the subject data described in this Subsection 18.c of the FTA Master Agreement. As used herein, "for Federal Government purposes," means use only for the direct purposes of the Federal Government. Without the copyright owner's consent, the Federal Government may not provide or otherwise extend to other parties the Federal Government's license to:

(1) Any subject data developed under the Contract for the Project, or under a subcontract, lease, third party contract or other arrangement at any tier of the Project, supported with Federal assistance derived from the Contract for the Project, whether or not a copyright has been obtained; and

(2) Any rights of copyright to which a CONTRACTOR, subcontractor, lessee, third party contractor, or other participant at any tier of the Project purchases ownership using Federal assistance.

d. Special Federal Rights in Data for Research, Development, Demonstration, and Special Studies Projects. In general, FTA's purpose in providing Federal assistance for a research, development, demonstration, or special studies Project is to increase transportation knowledge, rather than limit the benefits of the Project to Project participants. Therefore, when the Project is completed, the CONTRACTOR agrees to provide a Project report that FTA may publish or make available for publication on the Internet. In addition, the CONTRACTOR agrees to provide other reports pertaining to the Project that FTA may request. The CONTRACTOR agrees to identify clearly any specific confidential, privileged, or proprietary information it submits to FTA. In addition, except to the extent that FTA determines otherwise in writing, the CONTRACTOR to support a research, development, demonstration, or a special studies Project agrees that, in addition to the rights in data and copyrights that it must provide to the Federal Government as set forth in Subsection 18.c of the FTA Master Agreement, FTA may make available to any FTA CONTRACTOR, subcontractor, or other participant at any tier of the Project, either FTA's license in the copyright to the subject data or a copy of the subject data. If the Project is not completed for any reason whatsoever, all data developed under the Project shall become subject data as defined in Subsection 18.a of the FTA Master Agreement and shall be delivered as the Federal Government may direct. This Subsection 18.d, however, does not apply to adaptations of automatic data processing equipment or programs for the CONTRACTOR's use when the costs thereof are financed with Federal assistance through an FTA capital program.

e. License Fees and Royalties. FTA considers income earned from license fees and royalties for copyrighted material, or trademarks produced under the Project to be program income. Except to the extent FTA determines otherwise in writing, as provided in 49 C.F.R. Parts 18 and 19, the CONTRACTOR has no obligation to the Federal Government with respect to that program income, apart from compliance with 35 U.S.C. §§ 200 *et seq.*, which applies to patent rights developed under a research project.

f. Hold Harmless. Except as prohibited or otherwise limited by State law or except to the extent that FTA determines otherwise in writing, upon request by the Federal Government, the CONTRACTOR agrees to indemnify, save, and hold harmless the Federal Government and its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by the CONTRACTOR of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under the Project. The CONTRACTOR shall not be required to indemnify the Federal Government for any such liability caused by the wrongful acts of Federal employees or agents.

g. Restrictions on Access to Patent Rights. Nothing in Section 18 of the FTA Master Agreement pertaining to rights in data shall either imply a license to the Federal Government under any patent or be construed to affect the scope of any license or other right otherwise granted to the Federal Government under any patent.

h. Data Developed Without Federal Funding or Support. In connection with the Project, the CONTRACTOR may find it necessary to provide data to FTA developed without any Federal funding or support by the Federal Government. The requirements of Subsections 18.b, 18.c, and 18.d of the FTA Master Agreement do not apply to data developed without Federal funding or support by the Federal Government, even though that data may have been used in connection with the Project. Nevertheless, the CONTRACTOR understands and agrees that the Federal Government will not be able to protect data from unauthorized disclosure unless that data is clearly marked "Proprietary" or "Confidential."

i. Requirements to Release Data. To the extent required by U.S. DOT regulations, "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations," at 49 C.F.R. § 19.36(d), or other applicable Federal laws or Federal regulations, the CONTRACTOR understands and agrees that the data and information it submits to the Federal Government may be required to be released in accordance with the Freedom of Information Act (or another Federal law or Federal regulation providing access to such records).

25. Vendor Responsibility - It is the intent of these specifications to provide for goods of first quality and the workmanship must be the best obtainable in the various trades. The design of the goods, which the manufacturer proposes to furnish, must be of substantial and durable construction in all respects. No advantage shall be taken by the Proposer or manufacturer in the omission of any part or detail, which goes to make the product complete and ready for installation and use.

The vendor shall assume responsibility for all materials used in the Proposal item whether the vendor manufactures the same or purchased ready-made from a source outside the vendor's company.

26. References - Proposer shall provide with its proposal at least two references for projects similar to that described in this Request for Proposal. The following must be provided: company name, address and telephone number, fax number, a contact person, and the dates of the contract. The references given should be on contracts within a 12-month period prior to the Proposal due date.
27. Delivery - Proposals shall provide for delivery of all equipment or supplies to MATA, 1370 Levee Road, Memphis, TN 38108, unless stated otherwise in Sections A or B.
28. Delivery Schedule - Hours of delivery shall be any weekday between 8:30 a.m. and 4:00 p.m., unless stated otherwise in Sections A or B.
29. Preference for United States Products and Services. To the extent applicable, the CONTRACTOR agrees to comply with the following U.S. preference requirements:
- a. Buy America (Applicable to Contracts Exceeding \$150,000) - The CONTRACTOR agrees to comply with 49 U.S.C. § 5323(j), FTA regulations, "Buy America Requirements," 49 C.F.R. Part 661, and implementing guidance FTA may issue. A Buy America certificate (Exhibit II), as per attached format, must be completed and submitted with the Proposal or the Proposal will be considered non-responsive.

A waiver from the Buy America provision may be sought by MATA if grounds for the waiver exist. Section 165a of the Surface Transportation Assistance Act of 1982 permits FTA's participation in this Contract only if iron, steel and manufactured products used in the Contract are produced in the United States.

- b. Cargo Preference—Use of United States-Flag Vessels. The CONTRACTOR agrees to comply with U.S. Maritime Administration regulations, "Cargo Preference—U.S.-Flag Vessels," 46 C.F.R. Part 381, to the extent those regulations apply to the Project. Specifically, the CONTRACTOR agrees:
1. To utilize privately owned United States-Flag Commercial vessels to ship at least 50% of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, materials, or commodities pursuant to this section, to the extent such vessels are available at fair and reasonable rates to United States-Flag Commercial vessels.
 2. To furnish within thirty (30) days following the date of loading for shipments originating within the United States, or within thirty (30) working days following the date of loading for shipment originating outside the United States, a legible copy of a rated, On-Board Commercial Ocean Bill-Of-Lading in English for each shipment of cargo described in paragraph one above to MATA (through the prime CONTRACTOR in the case of subcontractor Bills-of-Lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, 400 Seventh Street, S.W., Washington, DC 20590, marked with appropriate identification of the project.
- c. Fly America. The CONTRACTOR understands and agrees that the Federal Government will not participate in the costs of international air transportation of any persons involved in or property acquired for the Project unless that air transportation is provided by U.S.-flag air carriers to the extent service by U.S.-flag air carriers is available, consistent with the requirements of the International Air Transportation Fair Competitive Practices Act of 1974, as amended, 49 U.S.C. § 40118, and U.S. General Services Administration (U.S. GSA) regulations "Use of United States Flag Air Carriers," 41 C.F.R. §§ 301.131 through 301.143.
30. Debarment, Suspension, and Other Responsibility Matters (Applicable to Contracts Exceeding \$25,000) - Unless otherwise permitted by law, any person that is debarred, suspended, or voluntarily excluded may not take part in a federally covered transaction, either as participant or a principal, during the period of debarment, suspension, or voluntary exclusion. Accordingly, neither FTA nor MATA may enter into any transaction with such debarred, suspended or voluntarily excluded persons during such period.
- A certification process has been established by 49 CFR, Part 29 as a means to ensure that debarred, suspended, or voluntarily excluded persons do not participate in a federally assisted project. Each CONTRACTOR and subcontractor must provide to MATA a signed certification in compliance with 49 CFR, Part 29 as part of this Contract. (Exhibit III)
31. Prohibited Interests - No member, officer, or employee of MATA, MTM, First Transit, Inc., or the City of Memphis during his or her tenure or one year thereafter shall have interests, direct, or indirect in this Contract or the proceeds thereof, or if a conflict, real or apparent, as defined in MATA's Code of Ethics, would be involved.
32. Copeland "Anti-Kickback" Act, as amended (Applicable to Construction Contracts) - The CONTRACTOR shall comply with the Copeland "Anti-Kickback" Act, 18 U.S.C. 874 and 40 U.S.C. 276c, and U.S. Department of Labor (DOL) regulations, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in part by Loans or Grants from the United States", 29 C.F.R. Part 3. In addition to other requirements that may apply:

- a. The CONTRACTOR will not induce, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which that employee is otherwise entitled.
- b. MATA agrees to report every suspected or reported violation of the Copeland "Anti-Kickback" Act or its Federal implementing regulations to FTA.

33. Termination of Contract -

- a. MATA may terminate this Contract without cause by giving fifteen (15) days written notice to the CONTRACTOR thereof and specifying the effective date of termination.

If the Contract is terminated by MATA as provided herein, the CONTRACTOR will be paid for its satisfactory services completed through the date of termination specified by MATA.

- b. If, through any cause, the CONTRACTOR shall fail to fulfill in timely and proper manner its obligations under this Contract, or shall violate any of the covenants, agreements, or stipulations of this Contract, MATA shall thereupon have the right to terminate this Contract by giving written notice to the CONTRACTOR for such termination and specifying the effective date of such termination. In the event of termination, the CONTRACTOR shall be entitled to just and equitable compensation for any satisfactory work through the date of termination specified by the MATA.
- c. In the event of default by the CONTRACTOR, MATA shall be entitled to all of its reasonable expenses, and its costs to include, but not limited to its reasonable attorney's fees incurred by reason of such default.
- d. In addition to the foregoing, MATA reserves the right to cancel any services or portion of services to be provided hereunder upon written notice to the CONTRACTOR specifying the canceled services and the effective date of such cancellation. In the event of such cancellation, the CONTRACTOR shall be compensated for satisfactory work completed and, further, the compensation due to the CONTRACTOR hereunder shall be reduced accordingly effective said cancellation date.

34. Employment of Contractor - MATA hereby agrees to engage the CONTRACTOR, and the CONTRACTOR hereby agrees to perform the services hereafter set forth in connection with the project.

35. Interest of the Contractor - The CONTRACTOR covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Contract. The CONTRACTOR further covenants that in the performance of this Contract no person having any such interest shall be employed.

36. Independent Contractor - The CONTRACTOR is at all times an independent contractor and in no wise shall be deemed to be in joint venture, partnership, or other relationship with MATA.

37. Indemnification - The CONTRACTOR shall indemnify, save, defend, and hold MATA, the City of Memphis, TN, First Transit, Inc. and MTM, their officers, agents and employees free from all losses, damages, claims, and expenses in any wise arising or resulting from the actions and omissions of the CONTRACTOR, its employees, agents, or contractors in the performance of its services hereunder.

38. Cost Analysis - MATA reserves the right to conduct a cost or price analysis for any purchase. MATA may be required to perform a cost analysis when competition is lacking for any purchase. Sole source procurements or procurements which result in a single Proposal being received will be subject to a cost analysis which will include the appropriate verification of cost data, the evaluation of specific elements of costs and the projection of the data to determine the effect on Proposal prices. MATA may require a pre-award audit, and potential contractors shall be prepared to submit data relevant to the proposed work which will allow MATA to sufficiently determine that the proposed price is fair, reasonable, and in accordance with Federal, State, and local regulations. Procurements resulting in a single Proposal will be treated as a negotiated procurement and MATA reserves the right to negotiate with the single Proposer to achieve a fair and reasonable price. If both parties cannot agree upon a negotiated price, MATA reserves the right to reject the single Proposal.

Contract change orders or modifications will be subject to a cost analysis.

39. False or Fraudulent Statements or Claims - The CONTRACTOR acknowledges and agrees that:
- a. The Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 *et seq.* and U.S. Department of Transportation (DOT) regulations "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its activities in connection with the Project. Accordingly, by executing the Contract, the CONTRACTOR certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, or it may make in connection with the Project covered by the Contract. In addition to other penalties that may apply, the CONTRACTOR also acknowledges that if it makes a false, fictitious, or fraudulent claim, statement, submission, certification, assurance, or representation to the Federal Government, the Federal Government reserves the right to impose on the CONTRACTOR the penalties of the Program Fraud Civil Remedies Act of 1986, as amended, to the extent the Federal Government deems appropriate.
 - b. If the CONTRACTOR makes a false, fictitious, or fraudulent claim, statement, submission, certification, assurance, or representation to the Federal Government or includes a false, fictitious, or fraudulent statement or representation in any agreement with the Federal Government in connection with a project authorized under 49 U.S.C. chapter 53 or any other Federal law, the Federal Government reserves the right to impose on the CONTRACTOR the penalties of 49 U.S.C. § 5323(1), 18 U.S.C. § 1001, or other applicable Federal law to the extent the Federal Government deems appropriate.
40. No Contingency Fees - The CONTRACTOR shall warrant that no person or selling agency has been employed or retained to solicit or secure this Contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the CONTRACTOR for the purpose of securing business, for the breach or violation of which warranty MATA shall have the right to annul said Contract without liability or, in its discretion, to deduct from the Contract price or consideration the full amount of such commission, percentage, brokerage or contingent fee.
41. Excluded Facilities - The CONTRACTOR shall comply with the provisions of 40 CFR Part 15 which prohibit the use of facilities included on the Environmental Protection Agency list of violating facilities.
42. Federal Changes - The CONTRACTOR shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly

or by reference in the FTA Master Agreement dated October 1, 2012, as they may be amended or promulgated from time to time during the term of this contract. The CONTRACTOR's failure to so comply shall constitute a material breach of this contract.

43. Lobbying Requirements (Applicable to Contracts Exceeding \$100,000) - Federal regulations require MATA to include certifications from contractors. Accordingly, the CONTRACTOR must sign the attached certification. (Exhibit IV)

By executing this Contract, the CONTRACTOR certifies to the best of its knowledge and belief that:

- a. No Federal appropriated funds have been paid or will be paid on behalf of the undersigned to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- b. If any funds other than Federal appropriate funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the CONTRACTOR shall complete and submit Office of Management and Budget Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- c. The CONTRACTOR shall insert the language of this certification in all subcontracts and require that all subcontractors at any tier shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

44. Recycled Products - The CONTRACTOR agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

45. No Government Obligation

- a. MATA and the CONTRACTOR acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to MATA, CONTRACTOR, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

- b. The CONTRACTOR agrees to include the above clause in each subcontract. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.
46. Incorporation of Federal Transit Administration (FTA) Terms - The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Master Agreement (17), dated October 1, 2010, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The CONTRACTOR shall not perform any act, fail to perform any act, or refuse to comply with any MATA requests, which would cause MATA to be in violation of the FTA terms and conditions.
47. Access Requirements for Persons with Disabilities - The CONTRACTOR agrees to comply with the requirements of 49 U.S.C. § 5301(d) which expresses the Federal policy that the elderly and persons with disabilities have the same right as other persons to use mass transportation service and facilities, and that special efforts shall be made in planning and designing those services and facilities to implement those policies. The CONTRACTOR also agrees to comply with all applicable requirements of section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination on the basis of handicaps, and with the Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. §§ 12101 *et seq.*, which requires the provision of accessible facilities and services, and with the following Federal regulations, including any amendments thereto:
- a. U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. Part 37;
 - b. U.S. DOT regulations "Nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," 49 C.F.R. Part 27;
 - c. Joint U.S. Architectural and Transportation Barriers Compliance Board/U.S. DOT regulations, "Americans with Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 36 C.F.R. Part 1192 and 49 C.F.R. Part 38;
 - d. U.S. Department of Justice (DOJ) regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. Part 35;
 - e. U.S. DOJ regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. Part 36;
 - f. U.S. General Services Administration (GSA) regulations, "Accommodations for the Physically Handicapped," 41 C.F.R. Subpart 101-19;
 - g. U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630;
 - h. U.S. Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for the Hearing and Speech Disabled," 47 C.F.R. Part 64, Subpart F; and
 - i. FTA regulations, "Transportation for Elderly and Handicapped Persons," 49 C.F.R. Part 609; and

- j. Any implementing requirements FTA may issue.
48. Disputes, Breaches, Defaults or Other Litigation (Applicable to Contracts Exceeding \$100,000)
- a. Except as otherwise provided in this Contract, any dispute concerning a question of fact arising under this Contract which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the CONTRACTOR. The Contracting Officer may consult with the Construction Manager if one has been appointed for this project. The decision of the Contracting Officer shall be final and conclusive unless, within ten (10) days from the receipt of such copy, the CONTRACTOR mails or otherwise furnishes to the Contracting Officer a written appeal addressed to the Chief Executive Officer of MATA. The Chief Executive Officer shall review the dispute, related documents and the Contracting Officer's Final Decision. The Chief Executive Officer may consult with the Construction Manager and the Contracting Officer. The decision of the Chief Executive Officer shall be final and conclusive unless, within 10 days from the date of the receipt of such copy, the CONTRACTOR mails or otherwise furnishes to the Contracting Officer a written appeal addressed to the Board of the Memphis Area Transit Authority. The decision of the Board or its duly authorized representative for the determination of such appeals shall be final and conclusive unless in proceedings initiated by either party for review of such decision in a court of competent jurisdiction, the Court determines the decision to have been fraudulent, or capricious, or arbitrary, or so grossly erroneous as necessarily to imply bad faith, or is not supported by substantial evidence. In connection with any appeal proceeding under this Article, the CONTRACTOR shall be afforded an opportunity to be heard and to offer evidence in support of his appeal. Pending final decision of a dispute hereunder, the CONTRACTOR shall proceed diligently with the performance of the Contract and in accordance with the Contracting Officer's decision.
- b. This Section 48 does not preclude consideration of questions of law in connection with decisions provided for in Paragraph a. above. Nothing in this Contract, however, shall be construed as making final the decisions of the Board or its representative on a question of law.
49. Nondiscrimination - Title VI of the Civil Rights Act - The CONTRACTOR will comply and will assure the compliance by subcontractors under this project with all provisions prohibiting discrimination on the basis of race, color, or national origin of Title VI of the Civil Rights Act of 1964, as amended, 42 U.S.C. Section 2000d *et seq.*, and with U.S. DOT regulations, "Nondiscrimination in Federally-Assisted Programs of the Department of Transportation – Effectuation of Title VI of the Civil Rights Act," 49 C.F.R. Part 21 and the assurances by MATA pursuant thereto.
50. Disadvantaged Business Enterprises - To the extent authorized by Federal law, the CONTRACTOR agrees to facilitate participation by Disadvantaged Business Enterprises (DBEs) in the Project and assures that each subcontractor, lessee, third party contractor, or other participant at any tier of the Project will facilitate participation by DBEs in the Project to the extent applicable as follows:
- a. The CONTRACTOR agrees and assures that it shall comply with section 1101(b) of SAFETEA-LU, 23 U.S.C. § 101 note, and U.S. DOT regulations, "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs," 49 C.F.R. Part 26.

- b. The CONTRACTOR agrees and assures that it shall not discriminate on the basis of race, color, sex, or national origin in the award and performance of any subcontract, lease, third party contract, or other arrangement supported with Federal assistance derived from U.S. DOT in the administration of its Contract and shall comply with the requirements of 49 C.F.R. Part 26. The CONTRACTOR agrees to take all necessary and reasonable steps as set forth in 49 C.F.R. Part 26 to ensure nondiscrimination in the award and administration of all subcontracts, leases, third party contracts, and other arrangements supported with Federal assistance derived from U.S. DOT.
51. Prompt Payment - The CONTRACTOR agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 10 days from receipt of each payment the prime contractor receives from MATA. The CONTRACTOR agrees further to return retainage payments to each subcontractor within 10 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of MATA. This clause applies to both DBE and non-DBE subcontractors. If the CONTRACTOR determines the work to be unsatisfactory, it must notify MATA's Contracting Officer, Project Manager and DBE Liaison Officer immediately, in writing, and state the reasons. Failure to comply with this requirement will be construed to be a breach of contract and subject to contract termination.
52. Nondiscrimination in Federal Public Transportation Programs - The CONTRACTOR agrees to comply, and assures the compliance of each subcontractor, lessee, third party contractor, or other participant at any tier of the Project, with the provisions of 49 U.S.C. § 5332, which prohibit discrimination on the basis of race, color, creed, national origin, sex, or age, and prohibits discrimination in employment or business opportunity.
53. Contract Work Hours and Safety Standards Act - The CONTRACTOR agrees to comply, and assures the compliance of each subcontractor, lessee, third party contractor, and other participant at any tier of the Project, with the employee protection requirements for non-construction employees of the Contract Work Hours and Safety Standards Act, as amended, 40 U.S.C. §§ 3701 *et seq.*, in particular with the wage and hour requirements of section 102 of that Act at 40 U.S.C. § 3702, and with implementing U.S. DOL regulations, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction (also Labor Standards Provisions Applicable to Non-construction Contracts Subject to the Contract Work Hours and Safety Standards Act)," 29 C.F.R. Part 5.
54. National Intelligent Transportation Systems Architecture and Standards - To the extent applicable, the CONTRACTOR agrees to conform to the National Intelligent Transportation Systems (ITS) Architecture and Standards as required by SAFETEA-LU § 5307(c), 23 U.S.C. § 512 note, and follow the provisions of FTA Notice, "FTA National ITS Architecture Policy on Transit Projects," 66 *Fed. Reg.* 1455 *et seq.*, January 8, 2001, and any other implementing directives FTA may issue at a later date, except to the extent FTA determines otherwise in writing.
55. Seismic Safety (Applicable to Design and/or Construction Contracts Only) - The CONTRACTOR agrees to comply with the Earthquake Hazards Reduction Act of 1977, as amended, 42 U.S.C. §§ 7701 *et seq.*, with Executive Order No. 12699, "Seismic Safety of Federal and Federally-Assisted or Regulated New Building Construction," 42 U.S.C. § 7704 note, and with U.S. DOT regulations, "Seismic Safety," 49 C.F.R. Part 41, (specifically, 49 C.F.R. § 41.117), and any implementing guidance FTA may issue.
56. Environmental Justice. The CONTRACTOR agrees to facilitate compliance with the policies of Executive Order No. 12898, "Federal Actions to Address Environmental Justice in Minority

Populations and Low-Income Populations,” 42 U.S.C. § 4321 note; and DOT Order 5620.3, “Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” 62 *Fed. Reg.* 18377 *et seq.*, April 15, 1997, except to the extent that the Federal Government determines otherwise in writing.

57. Veterans Employment. Recipients and subrecipients of Federal financial assistance under this chapter shall ensure that contractors working on a capital project funded using such assistance give a hiring preference, to the extent practicable, to veterans (as defined in Section 2108 of Title 5) who have the requisite skills and abilities to perform the construction work required under the contract. This subsection shall not be understood, construed or enforced in any manner that would require an employer to give preference to any veteran over any equally qualified applicant who is a member of any racial or ethnic minority, female, an individual with a disability, or former employee.