



Solicitation Request for Proposal (RFP) 2023113
BODY ON CHASSIS CUTAWAY BUSES

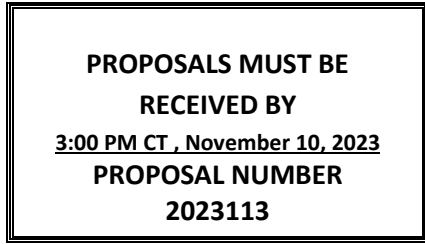
Date Issued: October 6, 2023

Proposal Due: November 10, 2023

Facilitator:
Wade McMillian
Procurement Project Administrator
wade.mcmillian@nashville.gov
615-862-5961

REQUEST FOR PROPOSALS

MTA Main Office
430 Myatt Drive
Nashville, TN 37115



INSTRUCTIONS:

1. SUBMIT (1) ORIGINAL HARDCOPY, AND (1) ELECTRONIC COPY OF YOUR PROPOSAL.
2. RETURN THIS PAGE SIGNED TO RECEIVE ANY ADDENDA.
3. ALL PROPOSALS ARE TO BE IDENTIFIED WITH RFP#, RFP NAME, AND RETURNED IN A SEALED ENVELOPE OR PACKAGE.
4. DURING THE RFP PROCESS ALL COMMUNICATION MUST BE DIRECTED TO PROCUREMENT DEPARTMENT.

Nashville Metropolitan Transit Authority (Nashville MTA), doing business as WeGo Public Transit, (hereafter may be referred to as the “Agency,” the “Authority,” “WeGo Public Transit,” or “WeGo”) requests Proposals for the manufacture and delivery of a base order minimum quantity of 75 and maximum quantity of 125 Body on Chassis Cutaway Buses and manuals, spare parts, training, test equipment and special tools.

Proposers are advised that the procurement resulting from this solicitation will be funded with funds received from the Federal Transit Administration and the State of Tennessee. Proposers are to carefully review Exhibits A and B of the Contract Terms and Conditions in Section VI, as all terms and conditions expressed in those Exhibits will apply to this procurement and resulting contract.

| | |
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PROPOSAL SUBMISSION DEADLINE

Proposals will be accepted at the Agency’s office located at 430 Myatt Drive, Nashville, TN 37115, until **3:00 PM Central Time (CT), Friday, November 10, 2023**. Proposals received after this date and time will not be accepted. Proposals are not opened with regular mail.

QUESTIONS/CLARIFICATION & REQUEST FOR APPROVED EQUAL DEADLINE

All questions, requests for clarification, substitutions, and/or approved equals related to this RFP must be received via email to: wade.mcmillian@nashville.gov by **3:00 PM CT, Monday, October 23, 2023**. Proposers are encouraged to submit any exceptions to the contract terms in the form of a question during the question and answer period.

PRE-BID MEETING (NON-MANDATORY)

Nashville MTA Procurement Department will host a pre-bid meeting on **Monday, October 16, 2023, at 10:00AM CT**. This meeting will be conducted via WebEx. The web address for the pre-bid meeting is:

<https://nashville.webex.com/nashville/j.php?MTID=m94fa8084a81e7ea0336ecf2bced390f7>

The purpose of the pre-bid meeting is to address the solicitation requirements and the procurement process.

If interpretations, specifications, or other changes to the solicitation are required as a result of the meeting, the Nashville MTA will post an addendum to the Nashville MTA Procurement webpage at <https://www.wegotransit.com/doing-business/current-opportunities/> RFP 2023113 – Body on Chassis Cutaway Buses.

ADDENDA REQUEST

Proposers are not to contact other Agency personnel with any questions or clarification concerns in reference to this RFP. The Procurement Department will provide all official communication concerning this RFP. Addenda request MUST be submitted prior to due date in order to receive notices of addenda.

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|---|--------------|
| I HAVE READ AND UNDERSTOOD THIS REQUEST FOR PROPOSALS (RFP) 2023113 and do herein request copies or notices of addenda. The information requested below must be received no later than, 3:00 PM CT, Friday, October 20, 2023, to wade.mcmillian@nashville.gov | |
| Company Name | Phone Number |
| Address | |
| Point of Contact | Title |
| E-mail Address | |

| | |
|---|----------|
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I. INTRODUCTION

I. INTRODUCTION

The mission of the Nashville Metropolitan Transit Authority d/b/a WeGo Public Transit is to connect people to their lives and community by providing friendly, reliable, sustainable, trusted public transportation.

1.1 GENERAL

The Nashville MTA provides public transportation services, including 26 bus routes, to citizens and visitors within the Metropolitan Nashville area. Nashville MTA is a component unit of the Metropolitan Government of Nashville and Davidson County, responsible for public transit services in nine (9) counties within the Greater Nashville and Middle Tennessee areas, and funded with Federal, State and local subsidies, as well as farebox revenue.

The Regional Transportation Authority of Middle Tennessee (RTA) provides commuter service on the Music City Star and a network of express bus routes. Nashville MTA is contracted by the Regional Transportation Authority (RTA) to provide management services for RTA and to operate express services to the surrounding communities of Brentwood, Franklin, Thompson Station, Spring Hill, Smyrna, Murfreesboro, La Vergne, Clarksville, Gallatin, Hendersonville, Joelton, and Springfield, as well as some connecting service with the Music City Star commuter train. The system includes a number of park & ride lots and other supports for commuters, such as the Emergency Ride Home Program. Nashville MTA is contracted to manage RTA services under a fee for service agreement. The two authorities share a headquarters, staff, and a chief executive officer. The Nashville MTA and RTA provide approximately 30,000 rides each weekday during full service and operate under the branding entity WeGo Public Transit.

In addition to bus service, Nashville MTA also operates a paratransit system network of smaller ADA accessible vans for its Access program for people with disabilities. Nashville MTA also contracts with third-party operators to provide its Access on Demand services for customers eligible for Access services.

Please visit www.wegotransit.com for additional information.

1.2 OVERVIEW

Nashville MTA intends to award a Contract to the successful Proposer who shall provide Body on Chassis Cutaway Buses. Refer to Section III of this Request for Proposals for an expanded description of the scope of work and requirements.

Nashville MTA shall enter into a Fixed Price Contract, per unit, for up to 40 vehicles. The services of the Contractor will be based on the detailed specifications in Section III. The contract shall be for an initial term of three (3) years with two additional one (1) year extension options for a total contract duration of five (5) years following the Notice to Proceed.

Proposers shall submit cost information as detailed in Form 1, Pricing Schedule. Non-profit and government discounts should be noted.

These instructions provide detailed legal and technical requirements for the acquisition of the requested services. Section V, Proposed Contract, provides a more detailed description of the contractual and legal requirements.

1.3 SOLICITATION SCHEDULE

The following estimated timeline should be used as a working guide for planning purposes. Nashville MTA reserves the right to adjust the schedule as required during the solicitation process. Nashville MTA will make good faith efforts to notify potential Proposers of adjustments to the schedule; however, ultimate responsibility for obtaining notice of changes lies with the Proposers. Any changes to the proposed schedule will be listed at: <https://www.wegotransit.com/doing-business/current-opportunities/> RFP 2023113 – Body on Chassis Cutaway Buses.

| | |
|--|---|
| Pre-Proposal Conference | 10:00 AM CT, Monday, October 16, 2023 |
| Addenda Request Submittal Deadline | 3:00 PM CT, Friday, October 20, 2023 |
| Questions/Clarifications and Request for Deviation and Approved Equal Deadline | 3:00 PM, CT, Monday, October 23, 2023 |
| Proposal Submittal Deadline | 3:00 PM, CT, Friday, November 10, 2023 |

All questions must be submitted in writing, via email to wade.mcmillian@nashville.gov . The answers to the questions will be posted on the Nashville MTA website: <https://www.wegotransit.com/doing-business/current-opportunities/>. RFP 2023113- Body on Chassis Cutaway Buses. Proposers are solely responsible for checking the website to ensure that they have the most current information regarding the Proposal. Any oral communication, explanation or instruction provided will not be binding on Nashville MTA.

1.4 COST INCURRED BY PROPOSERS

The Nashville MTA is not liable for any costs incurred by prospective Proposers in the preparation of submitting a Proposal in response to this solicitation, in presentation of the Proposal or any other activities related to responding to this solicitation.

1.5 EVALUATION OF PROPOSALS

An Evaluation Committee will examine Proposals received by the due date and time to eliminate those which are determined non-responsive to the stated requirements. The Evaluation Committee will then apply the evaluation criteria set forth in the RFP or in any addenda issued to conduct an initial evaluation and scoring of the Proposals.

1.6 EVALUATION CRITERIA AND POINTS ALLOCATION

The Evaluation Committee will evaluate proposals received on the following factors:

Evaluation Criteria and Point Score Allocation:

| Criterion | Standard | Points Value |
|------------------------------|--|--------------|
| Product Design & Performance | <ul style="list-style-type: none"> • Vehicle construction and system design, as well as documented reliability • Design and performance elements of the components that comprise those systems. • Test results, safety and maintenance factors, and cost of normal operation for the bus design and system components proposed. | 20 |
| Reputation & Performance | <ul style="list-style-type: none"> • Capability and reputation of the Proposer as presented in the Proposal or as is determined by review of information available from references or other resources. • Proposer’s overall organizational and financial capabilities; considering key components such as organizational reporting structure, quality control, quality assurance, research and development, technical, training and parts support, response time, product capabilities, ability to furnish multiple bus configurations, bonding capacity, and financial history. • Review for judgments, liens, Fleet Defect history, warranty claims and the steps that the manufacturer took to resolve these concerns. | 15 |
| Delivery Schedule | <ul style="list-style-type: none"> • Review of proposed delivery schedule for the Agency’s minimum purchase of coaches. • Delivery schedules that fulfill the delivery requirements, with evidence that the schedule can be accomplished. | 50 |
| Cost | <ul style="list-style-type: none"> • The Cost Proposal criteria will be based on the “Sum of Total Base Price per Bus.” • The lowest average Cost Proposal will receive 15 points. • Every other Proposal previously found to be in the Competitive Range will be given points proportionately in relation to the lowest price. • This point total will be calculated by dividing the lowest price by the total price of the Proposal being evaluated and the result multiplied by the maximum weight for price (20 points) to arrive at a Cost Proposal score. (<i>Example: Lowest Proposed Price / Proposer’s Proposed Price × 20 = Proposal Score. The application of this formula will result in a uniform assignment of points relative to the criterion of price.</i>) | 15 |
| Total Points | | 100 |

Nashville MTA reserves the right to conduct negotiations with the top-ranked Proposers to reach final agreement on specific terms of the Services Contract. Proposals should be submitted initially on the most favorable and cost-effective terms within reason.

1.7 PROPOSAL ACCEPTED

Each Proposer submits its Proposal with the understanding that the acceptance in writing by the Agency of the offer to furnish the services requested shall constitute a contract between the Proposer and the Agency, which shall bind the Proposers to furnish the services at the rates quoted, and in accordance with conditions and requirements of the Agency. A formal contract and/or purchase order will be signed between the Agency and the successful Proposer.

Each proposer submits its response with the understanding that nothing in this solicitation shall be construed to require the Nashville MTA to award a contract.

Waiver: Proposer must indicate that the company is prepared to enter into a contract with Nashville MTA in accordance with the terms and conditions set forth in this solicitation, any addenda, and proposed contract. Proposal shall be valid for a minimum period of one hundred twenty days (120) from the date of the opening of proposals.

1.8 DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION

Nashville MTA's commitment and goal is 14% percent for goods and services for the fiscal year 2020-2023. DBE participation is encouraged either in the capacity of the prime contractor or subcontractor. Proposers are required to document their activities in the proposal and selection of any subcontractor(s) to ensure that the process is nondiscriminatory.

END SECTION I

II. INSTRUCTIONS TO PROPOSERS

2.1 REQUESTS FOR CLARIFICATION

If any person submitting a Proposal is in doubt as to the true meaning of any part of the Scope of Work, other Proposal documents, finds discrepancies in or omissions from the Scope of Work, may submit to the Procurement Department a written request for an interpretation or correction, no later than **3:00 PM CT, Monday, October 23, 2023. Only emailed requests to wade.mcmillian@nashville.gov will be accepted.** The person submitting the request will be responsible for its prompt delivery and verification of delivery.

The request must be fully supported with detailed information and reference to a section of the Proposal, if applicable, to assist Nashville MTA in determining whether the request is or is not valid. Any corrections or changes to this Proposal will be distributed to recipients who submitted the “Addenda Request” at the address provided. **Verbal questions will not be answered, thus preventing an unfair advantage to any Proposers.**

2.2 DELIVERY OF PROPOSALS

Proposers must submit (1) Original hardcopy, and (1) Electronic Copy (USB) of the proposal submission including **ALL** required forms by **3:00 PM CT, Friday, November 10, 2023**, to the following address:

Wade McMillian
Procurement & Project Administrator
Nashville MTA
430 Myatt Drive
Nashville, TN 37115

The sealed envelope, box, or appropriate package must be clearly marked with “**RFP 2023113 – Body on Chassis Cutaway Buses**” on the lower left side and “**DO NOT OPEN WITH REGULAR MAIL.**” Nashville MTA will not consider Proposals received after the deadline. **All Proposals will be logged, by a Procurement Staff member, with the date and time of receipt.**

Proposers are solely responsible for delivery of the Proposal on time. Proposers who rely on overnight delivery services, local couriers, or other delivery services remain solely responsible for timely delivery of the Proposal and assume all risk of late delivery or no delivery.

Proposers should note that the Agency has an incoming email file size limit of 30MB. Proposers submitting their electronic response via email must ensure that the proposal submission is received in its entirety. The Agency has no responsibility for emailed proposals that are not received or received in parts due to transmission via email.

****NOTE: RESPONSES WILL NOT BE OPENED PUBLICLY****

2.3 PROPOSAL WITHDRAWAL

Proposers will be given permission to withdraw their Proposal after it has been delivered to Nashville MTA provided the Proposer makes its request by e-mail, twenty-four (24) hours prior to the Proposal due date and time. Requests pertaining to withdrawal by e-mail must be confirmed in writing, on the Proposer's letterhead and must reach the office of Kim Hereford, not later than one (1) hour prior to the time fixed for submission of Proposals. Proposals which are timely withdrawn shall be returned to the Proposer unopened, at Proposer's expense.

2.5 UNACCEPTABLE PROPOSAL

Nashville MTA will not accept Proposals or award any contract to any person, firm or corporation that is in arrears or is in default to Nashville MTA upon any debt or contract, has defaulted on surety or other obligations or has failed to perform faithfully any previous contract for Nashville MTA. Nashville MTA reserves the right to request subcontractor changes to any contract.

2.6 REJECTION OR ACCEPTANCE OF PROPOSAL

The Chief Executive Officer or designee reserves the right to accept or reject any or all or any part of any Proposal. Any Proposal which is incomplete, conditional, obscure, or which contains additions not called for, or irregularities of any kind, may be cause for rejection of the Proposal. If there is a discrepancy between the price written and the price listed in figures, Nashville MTA acknowledges that the price written is the correct price.

It is the intent of Nashville MTA, if it accepts any alternates, to accept them in the order in which they are listed in the Proposal Form. Determination of the Lower Proposers shall be on the basis of the sum of the Base Proposal on the alternates accepted. However, Nashville MTA shall reserve the right to accept alternates in any order which does not affect determination of the Lower Proposers.

Nashville MTA reserves the right to cancel this Proposal in writing or postpone or extend the date and time for submitting Proposals at any time. Nashville MTA reserves the right to reject any or all Proposals, to waive any or all informalities or irregularities in the Proposals received, to investigate the qualifications and experience of any Proposers, to reject any provisions in any Proposal, to modify Proposal contents, to obtain new Proposals, and to negotiate the requested services and contract terms with any Proposers. Nashville MTA reserves the right to award the Contract for requested services in full, in part and/or a single item to one or more Proposers. Nashville MTA will determine the most responsive Proposer(s) whose Proposal(s) is most advantageous.

The submission of a Proposal shall constitute an acknowledgement that the Proposer has thoroughly examined and is familiar with the Proposal, including the Scope of Work, the addenda if any, and has reviewed and inspected all applicable statutes, regulations, ordinances and resolutions dealing with or related to the services requested.

Proposals must indicate that the firm is prepared to enter into a contract with Nashville MTA in accordance with the terms and conditions set forth in this Proposal, any addenda, and proposed contract. Proposals shall be valid for a minimum period of one hundred twenty days (120) from the proposed closing date for acceptance by Nashville MTA.

2.7 PUBLIC RECORDS/CONFIDENTIALITY

The Proposals received become the exclusive property of Nashville MTA. When a contract award is approved by Nashville MTA, all Proposals submitted in response to this Proposal shall become a matter of public record and shall be regarded as public records, with the exception of those elements of each Proposal that are marked as "TRADE SECRET," "CONFIDENTIAL" or "PROPRIETARY." If required by law or by an order of a court, Nashville MTA may be required to disclose such records or portions thereof, including without limitation those so marked. Proposals that indiscriminately identify all or most of the Proposal as exempt from disclosure without justification may be found to be technically unacceptable.

2.8 FORMS PROVIDED

Proposers must submit their Proposals on the forms provided or copies thereof. The Proposer or an authorized representative of the firm must sign the Proposal. Any erasures, corrections or other changes appearing on the Proposal form must be initialed and dated by the person signing the form.

2.9 TECHNICAL PROPOSAL

a. PROPOSER QUALIFICATIONS STATEMENT

The Proposer shall state the representatives responsible for assisting Nashville MTA, as well as the location of the nearest distribution center, which shall furnish a complete supply of parts and components for the repair and maintenance of the buses to be supplied. The Proposer shall also state its policy on transportation charges for parts other than those covered by warranty.

b. TECHNICAL PRODUCT DESIGN AND PERFORMANCE PROPOSAL

Proposers should state in precise terms their response to the technical specifications presented in this RFP. Manufacturers should use the "Vehicle Technical Information Summary" as provided in the RFP. This form will allow the evaluation team to review the design dimensions of each area of the bus proposed, the manufacturers of components utilized in the bus construction, the performance expected of the bus and any other relevant information to allow the team to evaluate the bus proposed. Any documented performance and cost advantages of your product or components utilized should be identified, quantified, and discussed in this section.

c. PRICE PROPOSAL REQUIREMENTS

The Proposer is required to complete and execute the Pricing Schedule in Section IV and provide it in the Proposal. The Contractor shall be liable for payment of all local taxes applicable to the complete bus as delivered and should add these amounts to the Offer price.

d. PRICE ESCALATION/ECONOMIC PRICE ADJUSTMENT (EPA)

Nashville MTA reserves the right to order buses and equipment over the five (5) year period beginning upon the day of contract award. The prices shall remain firm/fixed for any orders issued by Nashville MTA within a period of three hundred and sixty-five (365) days of contract award. The Contractor may be allowed to annually adjust the purchase price each vehicle in the event of changes in cost attributable to any of the following conditions:

1) A documented inflationary increase in the overall cost of building the vehicle, as determined by the Producer Price Index (PPI).

The Index shall be the Producer Price Index for Complete Vehicles on Purchased Chassis, Series No. 14 1302, not seasonally adjusted, published by the United States Department of Labor Bureau of Labor Statistics, or if such Index is no longer in use, then such replacement that is most comparable to the Index as may be designated by the Bureau of Labor Statistics, or as agreed by the parties.

The price adjustment shall be computed by subtracting the documented cost of removed item(s) from the bus price (as specified in the original contract award), applying the PPI percentage increase to the remaining cost of the vehicle, then adding item additions, if any. The Contractor is responsible for notification of price reductions as well as price increases.

Example:

PPI Future Order Month 220.9
Less PPI: Base Award Month 217.3
Equals Index Point Change 3.6
Index Point Change 3.6
Divided by PPI Base Award Month 217.3
Equals (rounded to 4 decimals) .0166
Results Multiplied by 100 Equals Percent of Change 1.66%
Original Bus Price \$100,000.00
Less: Documented original item cost 1,000.00
Subtotal \$99,000.00
Plus: Inflationary change (99,000 x 1.66%) 1,643.40
Plus: Cost for added item 1,500.00
Revised Price for Future Order \$102,143.40

2) A documented increase or decrease in the cost of vehicle equipment due to regulatory changes, design, technology and/or manufacturing process improvements, as requested by the Agency.

The Agency may request changes in vehicle equipment due to improvements in design, technology and/or manufacturing processes or changes in state, federal law or regulations. The Contractor shall adjust the price of each vehicle to account for equipment changes requested by the Agency. The price adjustment can be an increase or a decrease dependent upon the overall changes in equipment costs. The Contractor shall provide written documentation to establish the change in the cost of specific equipment items, from the execution date of the contract up to the date the price adjustment is requested. The Agency reserves the right to request documentation such as invoices, published price lists, or any other written evidence supporting the requested price change. The Contractor is responsible for notification of price reductions as well as price increases.

The price(s) of any buses/equipment ordered by Nashville MTA after the initial three hundred sixty-five (365) days firm/fixed price period shall be that quoted (Base Order Price) plus any escalation which will be calculated based on the following formula which utilize ("P.P.I.") Category WPU 14 1302 "Complete Vehicles on Purchased Chassis". The escalation in this price index shall be used to adjust the Base Order Prices. The Contract shall be a firm, fixed-price Contract with Economic Price Adjustment.

2.10. AVAILABILITY OF FUNDS

This procurement is subject to the availability of funding through grants awarded by the Federal Transit Administration. Nashville MTA's obligation hereunder is contingent upon the availability of appropriated funds from which payment for the Contract purposes can be made. No legal liability on the part of Nashville MTA for any payment shall arise until funds are made available to Nashville MTA for this Contract and until the Contractor receives notice of such availability, to be confirmed in writing by Nashville MTA. Any award of Contract hereunder will be conditioned upon said availability of funds for the Contract.

2.11. CONTRACT AND MODIFICATIONS

a. CONTRACT AWARD AND EXECUTION

The acceptance of an Offer for award, if made, shall be evidenced by a notice of award of Contract in writing delivered in person or by registered mail to the Proposer whose Offer is accepted. No other act by Nashville MTA shall evidence acceptance of an Offer. Such notice shall obligate said Proposer to commence performance under the Contract.

b. CONTRACTOR CHANGES

Any proposed change in this Contract shall be submitted to Nashville MTA for its prior approval.

c. WRITTEN CHANGE ORDERS

Oral change orders are not permitted. No change in this contract shall be made unless Nashville MTA's authorized official or his/her designee gives his/her prior written approval. The Contractor shall be liable for all costs resulting from, and/or for satisfactorily correcting, any specification change not properly ordered by written change order to the contract and signed by Nashville MTA's authorized official or his/her designee.

d. CHANGE ORDER PROCEDURE

As soon as reasonably possible but no later than 30 (thirty) calendar days after receipt of the written change order to modify the Contract, the Contractor shall submit to Nashville MTA a detailed price and schedule Proposal for the work to be performed. This Proposal may be accepted or modified by negotiations between the Contractor and Nashville MTA Manager or his designee. At that time both parties shall execute a detailed modification in writing. Disagreements that cannot be resolved within negotiations shall be resolved in accordance with the Contract disputes clause. Regardless of any disputes, the Contractor shall proceed with the work ordered.

e. PRICE ADJUSTMENT FOR REGULATORY CHANGES

If price adjustment is indicated, either upward or downward, it shall be negotiated between Nashville MTA and Contractor for changes that are mandatory as a result of legislation or regulations that are promulgated and become effective after the Due Date. Such price adjustment may be audited, where required.

2.12. PARTIES

The parties to the contract are Nashville MTA and the Proposer as set out in the accepted Offer.

2.13. SPECIFICATION AND OFFER OMISSIONS

Notwithstanding the provision of drawings, technical specifications, or other data by Nashville MTA, the Contractor shall have the responsibility of supplying all parts and details required to make the bus complete and ready for service even though such details may not be specifically mentioned in the drawings and specifications. Fare collection equipment, communication equipment, and other items that are installed by Nashville MTA shall not be the responsibility of the Contractor unless they are included in this Contract.

Any request, condition, exception, reservation, understanding or other deviation by Contractor not separately stated as required in this RFP shall be invalid and shall not be binding on Nashville MTA.

2.14. APPROVED EQUALS

A proposer may submit to wade.mcmillian@nashville.gov requests for approved equals up to the time specified in the Solicitation Schedule. Proposers must submit requests for substitutions using the Request for Substitution form found at the end of Section III – Technical Specifications, A. Scope of Work page 32.

Whenever brand, manufacturer, or product names are used, they are included only for the purpose of establishing a description of minimum quality of the item. This inclusion is not to be construed as advocating or prescribing the use of any particular brand item or product.

If the proposer proposes to furnish an "equal product", the brand name, if any, of the product to be furnished shall be clearly identified in the Request for Approved Equal. The evaluation of the Request for Approved Equal and the determination as to the equality of the product shall be the responsibility of Nashville MTA.

Caution to Proposers - Nashville MTA is not responsible for locating or securing any information that is not identified in the Request for Approved Equals and reasonably available. Accordingly, to insure that sufficient information is available, the proposer must furnish all descriptive material (such as cut sheets, illustrations,

drawings, or other information) necessary for Nashville MTA (a) to determine whether the product offered meets the requirements of the technical specifications, and (b) establish exactly what the proposer proposes to furnish. The information furnished may include specific references to information previously furnished or to information otherwise available to Nashville MTA.

If the proposer proposes to modify a product in order to make it conform to the requirements of the technical specifications, he/she shall (a) include a clear description of such proposed modifications and (b) clearly mark any descriptive material to show the proposed modifications. Nashville MTA shall make a determination of each proposer and post as an Addendum.

Nashville MTA reserves the right to request additional clarification and/or additional information for material provided.

The decision of the approved equal is at the discretion of the Nashville MTA and is final.

2.15. DELIVERY AND TITLE

a) BUS DELIVERY PROCEDURE

Delivery of buses shall be determined by signed receipt of the Nashville MTA designated agent(s) and may be preceded by a cursory inspection of the bus. Nashville MTA shall have temporary tags for the 30-day acceptance period.

b) DELIVERY SCHEDULE

The buses shall be delivered at a rate not to exceed (5) buses per week. Hours of delivery shall be **Monday through Friday, 8:00 a.m. to 4:00 p.m.**

c) PRE-DELIVERY TESTS AND ON-SITE INSPECTIONS

Production Plant Inspection: The successful proposer shall, at the discretion of Nashville MTA, make arrangements with the vehicle manufacturer for Nashville MTA representatives to inspect the buses being purchased during production. Expenses directly incurred by such representatives in making such a production plant inspection shall be the sole responsibility of Nashville MTA to defray. Any revisions, exceptions, or clarifications of the vendor to the particulars of the solicitation during or subsequent to this inspection must be promptly submitted in writing and concurred with in writing by contacting Nashville MTA. Verbal responses to requests that would revise the particulars of this solicitation shall not be binding. It is the duty of the successful proposer(s) to inform Nashville MTA of the manufacturing schedule of the major components of the buses with ample lead-time to schedule an inspection trip.

d) ASSUMPTION OF RISK OF LOSS

Nashville MTA shall assume risk of loss of the bus on delivery, as defined in "Bus Delivery Procedure", if delivered by common carrier or drive-away, or on release to Nashville MTA's drivers at the Contractor's plant. Prior to this delivery or release, the Contractor shall have risk of loss of the bus, including any damages sustained during the common carrier or drive-away operation regardless of the status of title or any payments related to the bus. Drivers shall keep a maintenance log enroute and it shall be delivered to Nashville MTA with the bus.

e) ACCEPTANCE OF BUS

Within 30 (thirty) calendar days after arrival at the designated point of delivery, the bus shall undergo Nashville MTA tests defined in Quality Assurance Provisions. If the bus passes these tests or if the Nashville MTA does not notify Contractor of non-acceptance within 15 (fifteen) calendar days after delivery, acceptance of the bus by the Nashville MTA occurs on the fifteenth day after delivery. Acceptance may occur earlier if Nashville MTA notifies the Contractor of early acceptance or places the bus in revenue service. If the bus fails these tests, it shall not be accepted until the repair procedures defined in "Repairs After Non-acceptance" have been carried out and the bus retested until it passes.

f) REPAIRS AFTER NON-ACCEPTANCE

The Contractor or its designated representative shall perform the repairs after non-acceptance. If the Contractor fails or refuses to make the repairs within 5 (five) days, Nashville MTA's personnel will make repairs, which will be reimbursed by the Contractor.

g) REPAIRS BY CONTRACTOR

After non-acceptance of the bus, the Contractor must begin work within 5 (five) working days after receiving notification from Nashville MTA of failure of acceptance tests. Nashville MTA shall make the bus available to complete repairs timely with the Contractor repair schedule.

The Contractor shall provide, at its own expense, all spare parts, tools, and space required to complete the repairs. At Nashville MTA's option, the Contractor may be required to remove the bus from Nashville MTA's property while repairs are being affected. If the bus is removed from Nashville MTA's property, the Contractor's representatives must diligently pursue repair procedures, and the Contractor shall assume risk of loss while the bus is under its control.

h) REPAIRS BY NASHVILLE MTA

1. Parts Used. If Nashville MTA performs the repairs after non-acceptance of the bus, it shall correct or repair the defect and any related defects using Contractor specified parts available from its own stock or those supplied by the Contractor specifically for this repair. Monthly, or at a period to be mutually agreed upon, reports of all repairs covered by this procedure shall be submitted by Nashville MTA to the Contractor for reimbursement or replacement of parts. The Contractor shall provide forms for these reports.

2. Contractor Supplied Parts. If the Contractor supplies parts for repairs being performed by Nashville MTA after non-acceptance of the bus, these parts shall be shipped prepaid to Nashville MTA from any source selected by the Contractor within 10 (ten) working days after receipt of the request for said parts.

3. Return of Defective Components. The Contractor may request that parts covered by this provision be returned to the manufacturing plant. The Contractor shall pay the total costs for this action.

Reimbursement for Labor. The Contractor shall reimburse Nashville MTA for labor at an hourly journey level mechanic wage rate, this rate is in addition to shop overhead and fringe benefits. The current rate is \$75.00 per hour. An increase in this rate is anticipated after **July 1, 2022**.

Reimbursement for Parts. The Contractor shall reimburse Nashville MTA for defective parts that must be replaced to correct. The reimbursement shall include taxes where applicable and (20%) percent handling costs.

2.16. UNAVOIDABLE DELAYS

CONTRACTOR'S DELAY

If the Contractor is delayed at any time during the progress of the Work by the neglect or failure of Nashville MTA or by a cause described below, then the time for completion and/or affected delivery date(s) shall be extended by Nashville MTA subject to the following conditions:

1. The cause of the delay arises after the notice of award and neither was nor could have been anticipated by the Contractor by reasonable investigation before such award;
2. The Contractor demonstrates that the completion of the Work and/or affected delivery(s) will be actually and necessarily delayed;
3. The effect of such cause cannot be avoided or mitigated by the exercise of all reasonable precautions, efforts, and measures whether before or after the occurrence of the cause of delay; and
4. The Contractor makes written request and provides other information to the Nashville MTA as described in "Notification of Contractor Delay".

A delay meeting all the conditions of this section shall be deemed an excusable delay. Any concurrent delay, which does not constitute an excusable delay, shall not be the sole basis for denying a request hereunder.

None of the above shall relieve the Contractor of any liability for the payment of any liquidated damages owing from a failure to complete the work by the time for completion that the Contractor is required to pay pursuant to "Liquidated Damages" for delays occurring prior to, or subsequent to the occurrence of an excusable delay.

Nashville MTA reserves the right to rescind or shorten any extension previously granted, if subsequently Nashville MTA determines that any information provided by Contractor in support of a request for an extension of time was erroneous; provided however, that such information or facts, if known, would have resulted in a denial of the request for an excusable delay. Notwithstanding the above, Nashville MTA will not rescind or shorten any extension previously granted if the Contractor acted in reliance upon the granting of such extension and such extension was based on information which, although later found to have been erroneous, was submitted in good faith by the Contractor.

2.17. NOTIFICATION OF CONTRACTOR DELAY

Notwithstanding "Contractor's Delay", no extension or adjustment of time shall be granted unless (1) written notice of the delay is filed with Nashville MTA within 14 (fourteen) calendar days after the commencement of the delay and (2) a written application therefore, stating in reasonable detail the causes, the effect to date and the probable future effect on the performance of the Contractor under the Contract, and the portion or portions of the work affected, is filed by the Contractor with Nashville MTA within 30 (thirty) calendar days after the commencement of the delay. No such extension or adjustment shall be deemed a waiver of the rights of either party under this Contract. Nashville MTA shall make its determination within 30 (thirty) calendar days after receipt of the application.

2.18. LIQUIDATED DAMAGES

It is mutually understood and agreed by and between the parties to the Contract that time is of the essence with respect to the completion of the work and that in case of any failure on the part of the Contractor to complete the work within the time specified in "Delivery Schedule", except for any excusable delays as provided in "Unavoidable Delays", or any extension thereof, Nashville MTA will be damaged thereby. The amount of said damages, being difficult if not impossible of definite ascertainment and proof, it is hereby agreed that the amount of such damages due Nashville MTA shall be fixed at **Five Hundred Dollars (\$500.00)** per calendar day per bus not delivered in substantially as good condition as inspected by Nashville MTA at the time released for shipment. Nashville MTA reserves the right to establish an amount for liquidated damages based on actual damages that may occur if the production schedule is delayed.

The Contractor hereby agrees to pay the aforementioned amounts as fixed, agreed and liquidated damages, and not by way of penalty, to Nashville MTA and further authorizes Nashville MTA to deduct the amount of the damages from money due the Contractor under the Contract, computed as aforesaid. If the monies due the Contractor are insufficient or no monies are due the Contractor, the Contractor shall pay Nashville MTA the difference or the entire amount, whichever may be the case, within 30 (thirty) calendar days after receipt of a written demand by the Maintenance Superintendent.

The payment of aforesaid fixed, agreed and liquidated damages shall be in lieu of any damages for any loss of profit, loss of revenue, loss of use, or for any other direct, indirect, special or consequential losses or damages of any kind whatsoever that may be suffered by Nashville MTA arising at any time from the failure of the Contractor to fulfill the obligations referenced in this clause in a timely manner.

Nashville MTA specifically reserves the right, without limitation of any other rights, to terminate the Contract in accordance with the Contract termination clause

2.19. TITLE

Adequate documents for registering the bus in Tennessee shall be provided to Nashville MTA at least 5 working days before each bus is released to the common carrier drive-away or to Nashville MTA's drivers. Upon acceptance of each bus, the Contractor warrants that the title shall pass to Nashville MTA free and clear of all encumbrances.

2.20. PAYMENT

Nashville MTA shall pay and the Contractor shall accept the amounts set forth in the price schedule as full compensation for all costs and expenses of completing the work in accordance with the Contract, including but not limited to all labor and material required, overhead, expenses, storage and shipping, risks and obligations, taxes (as applicable), fees and profit, and any unforeseen costs.

2.21. FINAL PAYMENT

If the vehicle is accepted with minor deficiencies yet to be corrected (conditional acceptance), and funds are retained to assure corrective actions, a "Final Inspection Report" shall be prepared upon the completion of the last of these corrective actions and, if satisfactory, any retained funds not consumed in the corrective process shall be paid to the vendor within ten (10) working days.

2.22. REJECTION

A vehicle shall be rejected only based on the existence of defects that cannot be corrected according to the manufacturer.

2.23. SERVICE AND PARTS

a. ENGINEER/SERVICE REPRESENTATIVES

The Contractor shall, at its own expense, have a competent engineering service representative(s) available on request to assist Nashville MTA's staff in the solution of engineering or design problems within the scope of the specifications that may arise during the warranty period. This does not relieve the Contractor of responsibilities under the Warranty Provisions.

b. DOCUMENTS

For each model bus, the Contractor shall provide **documents of the Technical Specifications – Manuals, Catalogs, and Diagnostic Software** as part of this Contract. The Contractor shall keep maintenance manuals available for a period of three years after the date of acceptance of the buses procured under this Contract. The Contractor shall also exert its best efforts to keep maintenance manuals, operator manuals, and parts books up-to-date for a period of 10 (ten) years. The supplied maintenance and operator's manuals shall incorporate all equipment ordered on the buses covered by this procurement.

c. PARTS AVAILABILITY GUARANTY

The Contractor hereby guarantees to provide, within reasonable periods of time, the spare parts, software and all equipment necessary to maintain and repair the buses supplied under this Contract for a period of at least 10 (ten) years after the date of acceptance. Parts shall be interchangeable with the original equipment and be manufactured in accordance with the quality assurance provisions of this Contract. Prices shall not exceed the Contractor's then current published catalog prices.

When the parts ordered by Nashville MTA are not received within two working days of the agreed upon time/date and a bus procured under this Contract is out-of-service due to the lack of said ordered parts, then the Contractor shall provide Nashville MTA, within eight hours of Nashville MTA's verbal or written request, the original suppliers' and/or manufacturers' parts numbers, company names, addresses, telephone numbers and contact persons' names for all of the specific parts not received by Nashville MTA.

Where the Contractor fails to honor this parts guaranty or parts ordered by Nashville MTA are not received within 30 (thirty) days of the agreed upon delivery date, then the Contractor shall provide to Nashville MTA, within 7 (seven) days of Nashville MTA's verbal or written request, the design and manufacturing documentation for those parts manufactured by the Contractor and the original suppliers' and/or manufacturers' parts numbers, company names, addresses, telephone numbers and contact persons' names for all of the specific parts not received by Nashville MTA. Contractor's design and manufacturing documentation provided to Nashville MTA shall be for its sole use in regard to the buses procured under this Contract and for no other purpose.

Nashville MTA shall be able to purchase replacement parts directly from the Contractor/OEM to avoid delays and miscommunications problems.

d. INTERCHANGEABILITY

Unless otherwise agreed, all units and components procured under this Contract, whether provided by suppliers or manufactured by the Contractor, shall be duplicates in design, manufacture, and installation to assure interchangeability among buses in this procurement. This interchangeability shall extend to the individual components as well as to their locations in the buses.

e. SURVIVABILITY

Contractor's obligations under this section shall survive the nominal expiration or discharge of other Contract obligations and Nashville MTA may obtain any remedy under law, Contract or equity to enforce the obligations of contractor that survive the manufacturing, warranty, and final payment periods.

2.24. ACCESS TO RECORDS AND REPORTS REQUIREMENTS

In accordance with 49 CFR 18.36(l), the Contractor and any vendor acting on its behalf in this solicitation agree to provide Nashville MTA, the Department of Transportation, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to any contract awarded pursuant to this solicitation for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 CFR Part 633.17, to provide the FTA Administrator or his authorized representatives, including any Program Management Oversight (PMO) contractor, access to Contractor's records and construction sites pertaining to a major capital project, as defined at 49 U.S.C. 5302 (a) 1, which is receiving federal financial assistance through the programs described at 49 U.S.C. section 5307, 5309, or 5311.

The Contractor agrees to permit any of the parties described in the preceding paragraph to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed. The Contractor/EM agrees to maintain all books, records, accounts and reports required under any contract awarded pursuant to this solicitation for a period of not less than three years after the date of termination or expiration of this contract, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case Contractor agrees to maintain same until the Purchaser, Nashville MTA DOT, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. Reference 49 CFR 18.39(l)(11).

A. In the event of a **sole source Contract, or single Offer, single responsive Offer, or competitive negotiated procurement** the Contractor shall maintain and Nashville MTA's Nashville MTA, the U.S. Department of Transportation (*if applicable*), or the representatives thereof, shall have the right to examine all books, records, documents, and other cost and pricing data related to the Contract price, unless such pricing is based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the public, or prices set by law or regulation, or combinations thereof. Data related to the negotiation or performance of the contract shall be made available for the purpose of evaluating the accuracy, completeness, and currency of the cost or pricing data. The right of examination shall extend to all documents necessary for adequate evaluation of the cost or pricing data, along with the computations and projections used therein, including review of accounting principles and practices that reflect properly all direct and indirect costs anticipated for the performance of the Contract.

B. For Contract modifications or change orders the Contracting Officer, the U.S. Department of Transportation (*if applicable*), or their representatives shall have the right to examine all books, records, documents, and other cost and pricing data related to a Contract modification, unless such pricing is based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the public, or prices set by law or regulation, or combinations thereof. Data related to the negotiation or performance of the Contract modification or change order shall be made available for the purpose of evaluating the accuracy, completeness, and currency of the cost or pricing data. The right of examination shall extend to all documents necessary for adequate evaluation of the cost or pricing data, along with the computations and projections used therein, either before or after execution of the Contract modification or change order for the purpose of conducting a cost analysis. If an examination made after execution of the contract modification or change order reveals inaccurate, incomplete, or out-of-date data, the Contracting Officer may renegotiate the contract modification or change order price adjustment and Nashville MTA shall be entitled to any reductions in the price that would result from the application of accurate, complete or up-to-date data.

(FTA does not require contractors to flow down these requirements to subcontractors.)

C. For any cost reimbursable work the Contractor shall maintain and the Contracting Officer, the U.S. Department of Transportation (*if applicable*), or their representatives shall have the right to examine books, records, documents, and other evidence, including review of accounting principles and practices that reflect properly all direct and indirect costs incurred as related to said cost reimbursable work.

1. The materials described in Paragraphs A, B and C above shall be available at the Contractor's office at all reasonable times for inspection, audit, and making excerpts and transcriptions until three years from the date of final payment under the Contract except that the materials described in Paragraph A above shall also be available prior to any award and materials relating to "Service and Parts". For records relating to appeals under "Disputes", "Audit and Inspection of Records", litigation, or the settlement of claims arising out of the negotiation or the performance of contract modifications, records shall be kept available until such appeals, litigation, or claims have been disposed of.

2. The Contracting Officer and his/her representative and any other parties authorized under this clause shall employ sound business practices to protect the confidence of the data specified under this clause, for which the Contractor provides access, against disclosure of such information and material to third parties except as permitted by the Contract. The Contractor shall be responsible for ensuring that any confidential data bears appropriate notice relating to its confidential character.

3. The requirements of this section are in addition to other audit, inspection, and record-keeping provisions specified elsewhere in the Contract documents.

2.25. INDEMNIFICATION

The Contractor shall, to the extent permitted by law (1) protect, indemnify and save Nashville MTA and its officers, employees and agents, including Proposers, harmless from and against any and all liabilities, damages, claims, demands, liens, encumbrances, judgments, awards, losses, costs, expenses, and suits or actions or proceedings, including reasonable expenses, costs and attorneys' fees incurred by Nashville MTA and its officers, employees and agents, including Proposers, in the defense, settlement or satisfaction thereof, for any injury, death, loss or damage to persons or property of any kind whatsoever, arising out of, or resulting from, the

negligent acts, errors or omissions of the Contractor, including negligent acts, errors or omissions of its officers, employees, servants, agents, subcontractors and suppliers; and (2) upon receipt of notice and if given authority, shall settle at its own expense or undertake at its own expense the defense of any such suit, action or proceeding, including appeals, against Nashville MTA and its officers, employees and agents, including Proposers, relating to such injury, death, loss or damage. Each party shall promptly notify the other in writing of the notice or assertion of any claim, demand, lien, encumbrance, judgment, award, suit, action or other proceeding hereunder. The Contractor shall have sole charge and direction of the defense of such suit, action or proceeding. Nashville MTA shall not make any admission which might be materially prejudicial to the Contractor unless the Contractor has failed to take over the conduct of any negotiations or defense within a reasonable time after receipt of the notice and authority above provided. Nashville MTA shall at the request of the Contractor furnish to the Contractor all reasonable assistance that may be necessary for the purpose of defending such suit, action or proceeding, and shall be repaid all reasonable costs incurred in doing so. Nashville MTA shall have the right to be represented therein by advisory counsel of its own selection at its own expense.

The obligations of the Contractor under the above paragraph shall not extend to circumstances where the injury, or death, or damages is caused solely by the negligent acts, errors or omissions of Nashville MTA, its officers, employees, agents or Proposers, including negligence in (1) the preparation of the Contract documents, or (2) the giving of directions or instructions with respect to the requirements of the Contract by written order. The obligations of the Contractor shall not extend to circumstances where the injury, or death, or damages is caused, in whole or in part, by the negligence of any third party operator, not including an assignee or subcontractor of the Contractor, subject to the right of contribution as provided in the next sentence below. In case of joint or concurrent negligence of the parties hereto giving rise to a claim or loss against either one or both, each shall have full rights of contribution from the other.

2.26. MATERIALS/ACCESSORIES RESPONSIBILITY

The Contractor shall be responsible for all materials and workmanship in the construction of the bus and all accessories used, whether the same are manufactured by the Contractor or purchased from supplier. This provision excludes fare boxes, radios, and any equipment leased or supplied by Nashville MTA, except insofar as such equipment is damaged by the failure of a part or component for which the Contractor is responsible, or except insofar as the damage to such equipment is caused by the Contractor during the manufacture of the buses. Risk of damage to or loss of the buses is the subject of "Assumption of Risk of Loss".

2.27. POLICIES FOR PRIME CONTRACT

1. PRE-AWARD AND POST-DELIVERY AUDIT REQUIREMENTS

Pre-Award & Post-Delivery Audit Requirements - Applicability – Rolling Stock/Turnkey

Contractor shall comply with 49 USC 5323(l) and FTA's implementing regulation 49 CFR 663 and submit the following certifications:

1) Buy America Requirements: Contractor shall complete and submit a declaration certifying either compliance or noncompliance with Buy America. If contractor certifies compliance with Buy America, it shall submit documentation listing:

A. Component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin and costs; and

B. The location of the final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly.

C. Solicitation Specification Requirements: Contractor shall submit evidence that it will be capable of meeting the bid specifications.

D. Federal Motor Vehicle Safety Standards (FMVSS): Contractor shall submit 1) manufacturer's FMVSS self-certification sticker information that the vehicle complies with relevant FMVSS or 2) manufacturer's certified statement that the buses will not be subject to FMVSS regulations.

2. CERTIFICATIONS REQUIRED

The Proposer and (if selected) Contractor agrees to comply with 49 U.S.C. § 5323(l) and FTA's implementing regulation at 49 C.F.R. Part 663 and to submit the following certifications with its Offer and (if selected) after acceptance of the last bus:

3. DBE CERTIFICATION

Pursuant to Title 49, Code of Federal Regulations, Part 23.67, any Proposer, as a condition of being authorized to respond to this solicitation, must certify by completing "DBE APPROVAL CERTIFICATION", that it has on file with the Federal Transportation Administration (FTA) an approved or not disapproved annual Disadvantaged Business Enterprise (DBE) subcontracting participation goal.

4. BUY AMERICA REQUIREMENTS

The Proposer and (if selected) Contractor shall complete and submit a declaration certifying either compliance or noncompliance with Buy America. If the Proposer/Contractor certifies compliance with Buy America, it shall submit documentation which lists 1) component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin and costs; and 2) the location of the final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly.

5. CERTIFICATE OF COMPLIANCE WITH SPECIFICATION REQUIREMENTS

Each Proposer must submit a properly prepared and signed Certificate of Compliance with Federal Requirements and Specifications. Signing the form obligates the vendor to all requirements of this solicitation and constitutes the vendors assurance that it has the capacity and intent to deliver each item ordered in a manner that conforms with or exceeds federal and state standards.

6. FEDERAL MOTOR VEHICLE SAFETY STANDARDS (FMVSS)

The Proposer and (if selected) Contractor shall submit 1) manufacturer's FMVSS self-certification sticker information that the vehicle complies with relevant FMVSS or 2) manufacturer's certified statement that the contracted buses will not be subject to FMVSS regulations.

7. BUS TESTING

The Contractor agrees to comply with 49 U.S.C. § 5323(c) and FTA's implementing regulation at 49 CFR Part 665 and shall perform the following:

1. A manufacturer of a new bus model or a bus produced with a major change in components or configuration shall provide a copy of the final test report to the MTA prior to the recipient's final acceptance of the first bus.
2. A manufacturer who releases a report under paragraph 1 above shall provide notice to the operator of the testing facility that the report is available to the public.
3. If the manufacturer represents that the vehicle was previously tested, the vehicle being sold should have the identical configuration and major components as the vehicle in the test report, which must be provided to Nashville MTA prior to Nashville MTA's final acceptance of the first vehicle. If the configuration or components are not identical, the manufacturer shall provide a description of the change and the manufacturer's basis for concluding that it is not a major change requiring additional testing.

If the manufacturer represents that the vehicle is "grandfathered" (has been used in mass transit service in the United States before October 1, 1988, and is currently being produced without a major change in configuration or components), the manufacturer shall provide the name and address of the recipient of such a vehicle and the details of that vehicle's configuration and major components.

8. TRANSIT VEHICLE MANUFACTURERS (TVM)

Pursuant to the provisions of Section 105(f) of the Surface Transportation Assistance Act of 1982, each manufacturer for this procurement must certify that it has complied with the requirements of 49 CFR Part 26.49, regarding the participation of disadvantaged business enterprises in FTA-assisted procurements of transit vehicles.

The manufacturer, and any and all subcontractors of the vendor, are required to comply with Executive Order 11246, entitled "Equal Employment Opportunity", as amended by Executive Order 11375, and supplemented in U.S. Department of Labor Regulation (41 CFR Part 60).

Absent these certifications above, properly completed and signed, a proposal shall be deemed non-responsive.

Include one copy of the Altoona testing report with technical information.

2.28. QUALITY ASSURANCE PROVISIONS
CONTRACTOR'S IN-PLANT QUALITY ASSURANCE REQUIREMENTS

1. QUALITY ASSURANCE REQUIREMENTS

1 QUALITY ASSURANCE REQUIREMENTS

The Contractor, the Contractor's manufacturing plant and organization shall be certified to the appropriate QS-9000/ISO 9000 series of standards.

2.29. QUALITY ASSURANCE ORGANIZATION

a. ORGANIZATION ESTABLISHMENT

The Contractor shall establish and maintain an effective in-plant quality assurance organization. It shall be a specifically defined organization and should be directly responsible to the Contractor's top management.

b. CONTROL

The quality assurance organization shall exercise quality control over all phases of production from initiation of design through manufacture and preparation for delivery. The organization shall also control the quality of supplied articles.

c. AUTHORITY AND RESPONSIBILITY

The quality assurance organization shall have the authority and responsibility for reliability, quality control, inspection planning, establishment of the quality control system, and acceptance/rejection of materials and manufactured articles in the production of the transit buses.

2.30. QUALITY ASSURANCE ORGANIZATION FUNCTIONS

a. MINIMUM FUNCTIONS

The quality assurance organization shall include the following minimum functions.

b. WORK INSTRUCTIONS

The quality assurance organization shall verify inspection operation instructions to ascertain that the manufactured product meets all prescribed requirements.

c. RECORDS MAINTENANCE

The quality assurance organization shall maintain and use records and data essential to the effective operation of its program. These records and data shall be available for review by the Resident inspectors. Inspection and test records for this procurement shall be available for a minimum of 1 year after inspections and tests are completed.

d. CORRECTIVE ACTION

The quality assurance organization shall detect and promptly assure correction of any conditions that may result in the production of defective transit buses. These conditions may occur in designs, purchases, manufacture, tests, or operations that culminate in defective supplies, services, facilities, technical data, or standards.

2.31. STANDARDS AND FACILITIES

a. BASIC STANDARDS AND FACILITIES

The following standards and facilities shall be basic in the quality assurance process.

b. CONFIGURATION CONTROL

The Contractor shall maintain drawings, assembly procedures, and other documentation that completely describe a qualified bus that meets all of the options and special requirements of this procurement. The quality assurance organization shall verify that each transit bus is manufactured in accordance with these controlled drawings, procedures, and documentation.

c. MEASURING AND TESTING FACILITIES

The Contractor shall provide and maintain the necessary gauges and other measuring and testing devices for use by the quality assurance organization to verify that the buses conform to all specification requirements. These devices shall be calibrated at established periods against certified measurement standards that have known valid relationships to national standards.

d. PRODUCTION TOOLING AS MEDIA OF INSPECTION

When production jigs, fixtures, tooling masters, templates, patterns, and other devices are used as media of inspection, they shall be proved for accuracy at formally established intervals and adjusted, replaced, or repaired as required to maintain quality.

c. EQUIPMENT USE BY RESIDENT INSPECTORS

The Contractor's gauges and other measuring and testing devices shall be made available for use by the resident inspectors to verify that the buses conform to all specification requirements. If necessary, the Contractor's personnel shall be made available to operate the devices and to verify their condition and accuracy.

2.32. CONTROL OF PURCHASES

a. MAINTENANCE OF CONTROL

The Contractor shall maintain quality control of purchases.

b. SUPPLIER CONTROL

The Contractor shall require that each supplier maintain a quality control program for the services and supplies that it provides. The Contractor's quality assurance organization shall inspect and test materials provided by suppliers for conformance to specification requirements. Materials that have been inspected, tested, and

approved shall be identified as acceptable to the point of use in the manufacturing or assembly processes. Controls shall be established to prevent inadvertent use of nonconforming materials.

c. PURCHASING DATA

The Contractor shall verify that all applicable specification requirements are properly included or referenced in purchase orders of articles to be used on transit buses.

2.33. MANUFACTURING CONTROL

a. CONTROLLED CONDITIONS

The Contractor shall ensure that all basic production operations, as well as all other processing and fabricating, are performed under controlled conditions. Establishment of these controlled conditions shall be based on the documented work instructions, adequate production equipment, and special working environments if necessary.

b. COMPLETED ITEMS

A system for final inspection and test of completed transit buses shall be provided by the quality assurance organization. It shall measure the overall quality of each completed bus.

c. NONCONFORMING MATERIALS

The quality assurance organization shall monitor the Contractor's system for controlling nonconforming materials. The system shall include procedures for identification, segregation, and disposition.

d. STATISTICAL TECHNIQUES

Statistical analysis, tests, and other quality control procedures may be used when appropriate in the quality assurance processes.

e. INSPECTION STATUS

A system shall be maintained by the quality assurance organization for identifying the inspection status of components and completed transit buses. Identification may include cards, tags, or other normal quality control devices.

2.34. INSPECTION SYSTEM

a. INSPECTION SYSTEM SCOPE

The quality assurance organization shall establish, maintain, and periodically audit a fully documented inspection system. The system shall prescribe inspection and test of materials; work in process, and completed articles. As a minimum, it shall include the following controls.

b. INSPECTION PERSONNEL

Sufficient trained inspectors shall be used to ensure that all materials, components, and assemblies are inspected for conformance with the qualified bus design.

c. INSPECTION RECORDS

Acceptance, rework, or rejection identification shall be attached to inspected articles. Articles that have been accepted as a result of approved materials review actions shall be identified. Articles that have been reworked to specified drawing configurations shall not require special identification. Articles rejected as unsuitable or scrap shall be plainly marked and controlled to prevent installation on the bus. Articles that become obsolete as a result of engineering changes or other actions shall be controlled to prevent unauthorized assembly or installation. Unusable articles shall be isolated and then scrapped.

Discrepancies noted by the Contractor or inspection personnel during assembly shall be entered on a record that accompanies the major component, subassembly, assembly, or bus from start of assembly through final inspection. Actions shall be taken to correct discrepancies or deficiencies in the manufacturing processes, procedures, or other conditions that cause articles to be in nonconformity with the requirements of the contract specifications. The inspection personnel shall verify the corrective actions and mark the discrepancy record. If discrepancies cannot be corrected by replacing the nonconforming materials, Nashville MTA shall approve the modification, repair, or method of correction to the extent that the contract specifications are affected.

d. QUALITY ASSURANCE AUDITS

The quality assurance organization shall establish and maintain a quality control audit program. Records of this program shall be subject to review by Nashville MTA.

2.35. INSPECTIONS

a. INSPECTION STATIONS

Inspection stations shall be at the best locations to provide for the work content and characteristics to be inspected. Stations shall provide the facilities and equipment to inspect structural, electrical, hydraulic, and other components and assemblies for compliance with the design requirements.

Stations shall also be at the best locations to inspect or test characteristics before they are concealed by subsequent fabrication or assembly operations. These locations shall minimally include underbody structure completion, body framing completion, body prior to paint preparation, water test before interior trim and insulation installation, engine installation completion, underbody dress-up and completion, bus prior to final paint touchup, bus prior to road test, and bus final road test completion.

b. RESIDENT INSPECTOR ROLE

Nashville MTA shall be represented at the Contractor's plant by Resident Inspectors, as required by FTA. Resident inspectors may be Agency employees or outside contractors. The Agency shall provide the identity of each inspector and shall also identify his or her level of authority in writing. They shall monitor, in the Contractor's plant, the manufacture of transit buses built under the procurement. The presence of these resident inspectors in the plant shall not relieve the Contractor of its responsibility to meet all the requirements of this procurement. The Agency shall designate a primary resident inspector, whose duties and responsibilities are delineated in "Pre-Production Meetings," "Authority" and "Pre-Delivery Tests," below. Contractor and resident inspector relations shall be governed by the guidelines included as Attachment A to this section.

c. PRE-PRODUCTION MEETINGS

The primary resident inspector shall participate in design review and pre-production meetings with Nashville MTA. At these meetings the configuration of the buses and the manufacturing processes shall be finalized, and all contract documentation provided to the inspector.

No less than 30 (thirty) days prior to the beginning of bus manufacture, the primary resident inspector shall meet with the Contractor's quality assurance manager and shall conduct a pre-production audit meeting. They shall review the inspection procedures and finalize inspection checklists. The resident inspectors may begin monitoring bus construction activities two weeks prior to the start of bus fabrication.

d. AUTHORITY

Records and data maintained by the quality assurance organization shall be available for review by the resident inspectors. Inspection and test records for this procurement shall be available for a minimum of one year after inspections and tests are completed.

The Contractor's gauges and other measuring and testing devices shall be made available for use by the resident inspectors to verify that the buses conform to all specification requirements. If necessary, the Contractor's personnel shall be made available to operate the devices and to verify their condition and accuracy.

Discrepancies noted by the Contractor or inspection personnel during assembly shall be entered on a record that accompanies the major component, subassembly, assembly, or bus from start of assembly through final inspection. Actions shall be taken to correct discrepancies or deficiencies in the manufacturing processes, procedures, or other conditions that cause articles to be in nonconformity with the requirements of the contract specifications. The inspection personnel shall verify the corrective actions and mark the discrepancy record. If discrepancies cannot be corrected by replacing the nonconforming materials, Nashville MTA shall approve the modification, repair, or method of correction to the extent that the contract specifications are affected.

The primary resident inspector shall remain in the Contractor's plant for the duration of bus assembly work under this contract. Only the primary resident inspector or designee shall be authorized to release the buses for delivery. The resident inspectors shall be authorized to approve the pre-delivery acceptance tests. Upon request to the quality assurance supervisors, the resident inspectors shall have access to the Contractor's quality assurance files related to this procurement. These files shall include drawings, assembly procedures, material standards, parts lists, inspection processing and reports, and records of defects.

e. SUPPORT PROVISIONS

The Contractor shall provide office space for the resident inspectors in close proximity to the final assembly area. This office space shall be equipped with desks, outside and interplant telephones, file cabinet, chairs, and clothing lockers sufficient to accommodate the resident staff.

2.36. ACCEPTANCE TESTS

a. RESPONSIBILITY

Fully documented tests shall be conducted on each production bus following manufacture to determine its acceptance to the MTA. These acceptance tests shall include pre-delivery inspections and testing by the Contractor and inspections and testing by Nashville MTA after the buses have been delivered.

b. PRE-DELIVERY TESTS

The Contractor shall conduct acceptance tests at its plant on each bus following completion of manufacture and before delivery to Nashville MTA. These pre-delivery tests shall include visual and measured inspections, as well as testing the total bus operation. The tests shall be conducted and documented in accordance with written test plans, approved by Nashville MTA.

Additional tests may be conducted at the Contractor's discretion to ensure that the completed buses have attained the desired quality and have met the requirements in "Technical Specifications" (Part 5). Nashville MTA may, prior to commencement of production, demand that the Contractor demonstrate compliance with any requirement in "Technical Specifications" (Part 5), if there is evidence that prior tests have been invalidated by Contractor's change of supplier or change in manufacturing process. Such demonstration shall be by actual test or by supplying a report of a previously performed test on similar or like components and configuration. Any additional testing shall be recorded on appropriate test forms provided by the Contractor and shall be conducted before acceptance of the bus.

The pre-delivery tests shall be scheduled and conducted with 30 (thirty) days' notice so that the resident inspectors, who may accept or reject the results of the tests, may witness them. The results of pre-delivery tests, and any other tests, shall be filed with the assembly inspection records for each bus. The underfloor equipment shall be available for inspection by the resident inspectors, using a pit or bus hoist provided by the Contractor. A hoist, scaffold, or elevated platform shall be provided by the Contractor to easily and safely inspect bus roofs. Delivery of each bus shall require written authorization of the primary resident inspector. The Contractor shall provide authorization forms for the release of each bus for delivery. An executed copy of the authorization shall accompany the delivery of each bus.

c. INSPECTION - VISUAL AND MEASURED

Visual and measured inspections shall be conducted with the bus in a static condition. The purpose of the inspection testing is to verify overall dimensional and weight requirements, to verify that required components are included and are ready for operation, and to verify that components and subsystems that are designed to operate with the bus in a static condition do function as designed.

d. TOTAL BUS OPERATION

Total bus operation shall be evaluated during road tests. The purpose of the road tests is to observe and verify the operation of the bus as a system and to verify the functional operation of the subsystems that can be operated only while the bus is in motion.

Each bus shall be driven for a minimum of 15 (fifteen) miles during the road tests. Observed Defects shall be recorded on the test forms. The bus shall be retested when Defects are corrected and adjustments are made. This process shall continue until Defects or required adjustments are no longer detected. Results shall be pass/fail for these bus operation tests.

e. POST-DELIVERY TESTS

Nashville MTA may conduct acceptance tests on each delivered bus. These tests shall be completed within 30 (thirty) days after bus delivery and shall be conducted in accordance with written test plans. The purpose of these tests is to identify Defects that have become apparent between the time of bus release and delivery to Nashville MTA. The post-delivery tests shall include visual inspection and bus operations. No post-delivery test shall apply criteria that are different from the criteria applied in an analogous pre-delivery test (if any).

Buses that fail to pass the post-delivery tests are subject to non-acceptance. Nashville MTA shall record details of all Defects on the appropriate test forms and shall notify the Contractor of acceptance, conditional acceptance, or non-acceptance of each bus within five days according to "Acceptance of Bus" after completion of the tests. The Defects detected during these tests shall be repaired according to procedures defined in Section 2.16 Part F of this RFP which states "The Contractor or its designated representative shall perform the repairs after non-acceptance. If the Contractor fails or refuses to make the repairs within 5 (five) days, Nashville MTA's personnel will make repairs, which will be reimbursed by the Contractor".

f. VISUAL INSPECTION

The post-delivery inspection is similar to the inspection at the Contractor's plant and shall be conducted with the bus in a static condition. Any visual delivery damage shall be identified and recorded during the visual inspection of each bus.

g. BUS OPERATION

Road tests will be used for total bus operation similar to those conducted at the Contractor's plant. In addition, Nashville MTA may elect to perform chassis dynamometer tests. Operational deficiencies of each bus shall be identified and recorded.

2.37. AIR POLLUTION AND FUEL ECONOMY

Each third party contract to acquire rolling stock must include provisions to ensure compliance with applicable Federal air pollution control and fuel economy regulations, such as EPA regulations, "Control of Air Pollution from Mobile Sources," 40 CFR Part 85; EPA regulations, "Control of Air Pollution from New and In-Use Motor Vehicles and New and In-Use Motor Vehicle Engines," 40 CFR Part 86; and EPA regulations, "Fuel Economy of Motor Vehicles," 40 CFR Part 600.

2.38. IN-STATE DEALERS

The recipient may not limit its third-party bus procurements to its in-State dealers, 49 U.S.C. Section 5325(i). Although FTA respects State licensing requirements, FTA is prohibited by law from providing FTA assistance to support bus procurements that have the result of limiting competition to entities that have been able to obtain a State license.

2.39. SPARE RATIOS

While all FTA assistance for third party procurements must be limited to property and services the recipient will use in the near future, FTA is concerned that the recipient does not acquire an excessive number of spare vehicles not regularly used in public transportation service.

2.40. MINIMUM SERVICE LIFE

FTA requires each recipient to maintain satisfactory continuing control of FTA assisted property. For buses and certain other vehicles, FTA has established minimum service life policies that may affect the quantity of vehicles that the recipient may acquire. See, the most recent versions of FTA Circular 5010.1, "Grant Management Requirements," FTA Circular 9030.1, "Urbanized Area Formula Program: Grant Application Instructions," and FTA Circular 9300.1, "Capital Program: Grant Application Instructions," that addresses minimum service life for vehicles.

END SECTION II

III. TECHNICAL SPECIFICATIONS

A. SCOPE OF WORK

TECHNICAL SPECIFICATIONS

TS 3.1 Scope

Technical specifications define requirements for light – duty gasoline powered transit buses. Buses shall have a minimum expected life of five (5) years or 150,000 miles, whichever comes first, and are intended for the widest possible spectrum of passengers, including children, adults, the elderly and people with disabilities.

TS 3.2 DEFINITIONS OF TERMS

The following are definitions of terms and abbreviations used in this Technical Specification.

- (1) dBA. Decibels with reference to 0.0002 microbar as measured on the “A” scale.
- (2) CW. (Curb Weight). Weight of vehicle, including maximum fuel, oil, and coolant; and all equipment required for operation and as required by the Specification, but without passengers or driver.
- (3) SL. (Seated Load). One hundred-fifty pounds for every designed passenger seating position and for the driver.
- (4) Gross Load. One hundred-fifty pounds for every designed passenger seating position and for the driver.
- (5) SLW. (Seated Load Weight). Curb Weight plus Seated Load.
- (6) GAWR. (Gross Axle Weight Rating). Maximum axle capacity.
- (7) GVW. (Gross Vehicle Weight). Curb Weight plus Seated Load plus driver.
- (8) GVWR. (Gross Vehicle Weight Rated). Curb Weight plus maximum gross load vehicle is rated for.
- (9) Wet Weight. Curb Weight plus driver.
- (10) Fireproof. Materials that will not burn or melt at temperatures less than 2,000 degrees Fahrenheit.
- (11) Fire-Resistant. Materials that have a flame spread index less than 150 as measured in a radiant panel flame test per ASTM-E 162-75.
- (12) Standard Configuration Vehicle. The vehicle described by these Technical Specifications if no alternatives are selected.
- (13) Alternative. An alternative specification condition to the standard configuration vehicle. Authority may select alternatives from those detailed in the Technical Specifications.
- (14) Chassis OEM. Original Chassis Manufacturer; Chassis purchased from original builder (OEM), and modified by addition of body and other systems by the Contractor; or as originally manufactured by the Contractor as an integral part of the vehicle design (OEM).
- (15) RMC. Regional Maintenance Center. Service locations that can provide major maintenance and repair services for the vehicles being obtained from these specifications.
- (16) Procuring Agency. The Authority or any other agency identified in the “term contract” that may purchase off the term contract.
- (17) Term Contract. Purchase agreement between the Authority and Vendor.
- (18) Vendor. The organization that contracts to provide vehicles to the Authority. If the Vendor is different than the vehicle manufacturer, the vehicle dealer, or another third party, it is the vendor’s responsibility to ensure that all requirements of this specification are met.
- (19) VM. Vehicle Manufacturer refers to the organization that builds the vehicle from the OEM Chassis.

- (20) Delivery Location. Location(s) identified by the Authority to perform final inspection and delivery of vehicles.
- (21) Elastomeric. A rubber, plastic, polyvinyl, etc. material.
- (22) Ethanol. A renewable fuel made from corn or other plant materials and blended in gasoline.
- (23) Brake Retarder. A device used to decelerate a motor vehicle and augment the functionality of wheel brakes.

TS 3.3 ABBREVIATIONS

The following is a list of abbreviations used in these Technical Specifications.

- (1) ANSI: American National Standards Institute
- (2) APA: American Plywood Association
- (3) ASA: American Standards Association
- (4) AWS: American Welding Society
- (5) ASHRAE: American Society of Heating, Refrigerating, and Air Conditioning Engineers
- (6) EPA: Environmental Protection Agency
- (7) FMVSS: Federal Motor Vehicle Safety Standards
- (8) 49 CFR: Title 49 Code of Federal Regulations, (Part 571)
- (9) ICC: Interstate Commerce Commission
- (10) JIC: Joint Industrial Council
- (11) OEM: Original Equipment Manufacturer
- (12) SAE: Society of Automotive Engineers
- (13) SPI: Society of the Plastics Industry
- (14) UL: Underwriters Laboratories, Inc.
- (15) UMTRI: Univ. of Michigan Transportation Research Inst.
- (16) USDHEW: United States Department of Health, Education, Welfare
- (17) ADA: Americans with Disabilities Act
- (18) ASTM: American Society for Testing Materials
- (19) ECM: Electronic Control Module
- (20) AMT: Automatic Message Trigger
- (21) GPS: Global Positioning System
- (22) USB: Universal Serial Bus
- (23) AGC: Automatic Gain Control
- (24) VLU: Vehicle Logic Unit
- (25) OCU: Operator Control Unit
- (26) CRS: Central Recording Station
- (27) AMT: Automatic Message Trigger
- (28) MFPD: Mis-Filling Prevention Device
- (29) VLU: Vehicle Logic Unit
- (30) OCU: Operator Control Unit
- (31) AMT: Automated Message Trigger
- (32) AGC: Automatic Gain Control
- (33) WAAS: Wide Area Augmentation System
- (34) CRS: Central Recording Station
- (35) RMM: Route Mapping Module
- (36) AMT: Automated Message Trigger
- (37) FCC: Federal Communication Commission
- (38) RFI: Radio Frequency Identification
- (39) PCB: Printed Circuit Board

(40) NVR: Network Video Recorder

This section contains detailed requirements and specifications for the various components of a light-duty coach on chassis bus, incorporating a body structure designed and constructed as a complete integral unit. This information is divided into the following subsections:

- 3.40.0 Vehicle Attributes
- 3.50.0 Vehicle Performance
- 3.60.0 Vehicle Powertrain
- 3.70.0 Vehicle Suspension
- 3.80.0 Vehicle Steering
- 3.90.0 Vehicle Brakes
- 3.10.0 Vehicle Wheels, Tires, and Jack
- 3.11.0 Vehicle Bumpers
- 3.12.0 Vehicle Fuel System
- 3.13.0 Vehicle Electrical System
- 3.14.0 Vehicle General
- 3.15.0 Vehicle Structure
- 3.16.0 Vehicle Interior
- 3.17.0 Vehicle Doors and Windows
- 3.18.0 Vehicle Seating and Restraints
- 3.19.0 Vehicle Interior Lighting
- 3.20.0 Vehicle Controls and Instrumentation
- 3.21.0 Vehicle Climate Control
- 3.21.1 Vehicle Ventilator/Escape Hatch - Transpec or Approved Equal
- 3.22.0 Vehicle Interior Mirrors
- 3.23.0 Vehicle Driver's Sun Visor
- 3.24.0 Vehicle Driver's Coat Hook
- 3.25.0 Vehicle Windshield Wipers/Washers
- 3.26.0 Vehicle Safety Equipment
- 3.27.0 Front Overhead Storage Compartment
- 3.28.0 Video Compartment
- 3.29.0 Antenna Mounting Base and Access Panel
- 3.30.0 Vehicle Exterior
- 3.31.0 Vehicle Mobility Aid Lift System
- 3.32.0 Audio/Video Surveillance System
- 3.33.0 General Conditions, Design Practices, and Construction
- 0 Vehicle Keys
- 3.35.0 Special Conditions
- 3.36.0 Fixed Route Vehicle Components

TS 3.40 VEHICLE ATTRIBUTES

3.4.1 Physical Size and General Dimensions

With the exceptions of exterior mirrors, marker and signal lights, flexible portions of the bumpers, fender, flares, skirts, and rub rails, the vehicle shall have the following overall dimensions and capacities.

The 14 passenger buses are to be configured for paratransit service and the 17 passenger buses are to be configured for fixed route service.

Fourteen (14) Passenger Vehicle:

- (1) Seated Capacity: Fourteen (14) Passengers.
- (2) Length, Overall: Approximate: 287 to 294 inches.
- (3) Wheelbase: Approximate: 158 inches.
- (4) Width, Overall: 97 inches, maximum, excluding outside mirrors
- (5) Height, Overall at GVWR: 115 inches, maximum desired.
- (6) Interior Width at seated shoulder height: 93 inches
- (7) Aisle Width: 17 ½ -20 inches desired.
- (8) Seat Width, per person (all); 17.5 inches minimum.
- (9) Interior Headroom: 75.5 desired minimum.

Seventeen (17) Passenger Vehicle:

- (1) Seated Capacity: Seventeen (17) Passengers.
- (2) Length, Overall: Approximate: 290 to 313 inches. (Does not include bike rack)
- (3) Wheelbase: Approximate: 176 inches.
- (4) Width, Overall: 97 inches, maximum, excluding outside mirrors.
- (5) Height, Overall at GVWR: 115 inches, maximum excluding roof hatch; lower desired.
- (6) Interior Width at seated shoulder height: 93 inches nominal
- (7) Aisle Width: 17 ½ -20 inches desired.
- (8) Seat Width, per person (all); 17.5 inches minimum.
- (9) Interior Headroom: 75.5 minimum.
- (10) Bike Rack is required (Sportworks) or an approved equal.

3.4.2 Underbody Clearance

The vehicle shall have the following minimum clearance dimensions at GVWR, as defined in SAE Standard J689.

Ground Clearance. Overall vehicle ground clearance and axle/wheel zone ground clearance shall be maximized and adequate to enable the vehicle to operate in normal transit service in the environmental climatic, and street and roadway conditions prevailing throughout the Nashville Metropolitan Area.

Vehicles are to have running boards installed below the driver's door.

3.4.3 Weight

The curb weight of the vehicle configuration shall not exceed GVWR and GAWR of OEM manufacturer with full seated load including the driver. Recertification of the vehicle weight rating of any kind shall not be permitted.

3.4.4 Seating Capacity

Fourteen (14) Passenger Paratransit Vehicle:

Rated seating capacity of the standard baseline configuration vehicle shall be fourteen (14) ambulatory passengers (not including driver), with the standard seating arrangement. The vehicle configuration shall accommodate four (4) forward-facing mobility aid positions and four (4) ambulatory passengers, or fourteen (14) ambulatory passengers with no mobility aids. Proposer is to supply scaled diagrams or layout drawings of the proposed interior arrangements for regular seating and positions, and mobility aid securement dimensions. The Agency requires scaled diagrams or layout drawings to be supplied on paper, at minimum, 8-1/2 inches by 14 inches.

Seventeen (17) Passenger Fixed Route Vehicle:

Rated seating capacity of the standard baseline configuration vehicle shall be seventeen (17) ambulatory passengers (not including driver), with the standard seating arrangement. The vehicle configuration shall accommodate two (2) forward-facing mobility aid positions and eleven (11) ambulatory passengers, or seventeen (17) ambulatory passengers with no mobility aids. Proposer is to supply scaled diagrams or layout drawings of the proposed interior arrangements for regular seating and positions, and mobility aid securement dimensions. The Agency requires scaled diagrams or layout drawings to be supplied on paper, at minimum, 8-1/2 inches by 14 inches.

3.4.5 Service Life and Maintenance

The transit vehicle shall be designed to operate in the intended transit service operations for at least five (5) years or 150,000 miles. It shall be capable of operating at least 30,000 miles per year including the fifth year.

Scheduled Maintenance or Inspection tasks as specified by the Base Van Vehicle Manufacturer, and by the Vendor Vehicle Modifier, shall require a skill level of Service Mechanic or Class B Serviceman, or less. Scheduled maintenance tasks shall be related and shall be grouped in maximum mileage intervals.

Routine scheduled maintenance actions, such as filter replacement and adjustments, shall not be required at intervals of less than 6,000 miles, with the exception of engine oil changes if required by the OEM Manufacturer of the engine, and except for routine daily service performed during the fueling operations.

Higher levels of scheduled maintenance tasks shall occur at even multiples of mileage for lower level tasks.

Repair time and skill levels required for various repairs to vehicle components shall be the minimum practicable.

All systems or components serviced as part of periodic maintenance or whose failure may result in:

- (a) A physical safety failure that would lead directly to passenger or driver injury and represents a severe crash situation;
- (b) A road call failure resulting in an enroute interruption of service until the vehicle is replaced or repaired at the point of failure;

shall be readily accessible for service and inspection. To the extent practicable, removal or physical movement of components unrelated to the specific maintenance and/or repair tasks involved shall be unnecessary.

Components with identical functions shall be interchangeable to the extent practicable. These components shall include, but not necessarily be limited to, passenger windows, window hardware, interior trim, lamps, lamp lenses, seat assemblies, seat cushions and upholstery, and seat belts, etc.

3.4.6 New Manufacturer Equipment

All base vehicles, vehicle chassis, transit bus bodies, powertrains and drivetrains, components, or parts, whether specified or not, in this technical specification shall be the manufacturer's current model year production and best heavy-duty quality, and shall conform in design, material, and workmanship to the best practice known, and consistent with the best commercial automotive standards in the automotive industry.

All components and parts shall be new manufacture, and in No case will used, reconditioned, or obsolete parts be acceptable.

All components of, parts installed in, and equipment throughout each vehicle shall be an exact duplicate in design, manufacture and construction. Any component of, parts installed in, and equipment throughout each vehicle shall be so designed, manufactured, and installed to be interchangeable among all like vehicles.

All transit vehicles, subassemblies, component parts and equipment shall be final assembled on station, on the vehicle manufacturer's dedicated assembly line, and shall be complete. Transit vehicles with major or minor sub-assemblies, component parts or equipment assembled to the vehicle off-line will not be accepted.

Requirements and Conditions

No vehicle, component, part, or equipment will contain manufacturer's name, stencil, stamping, or marking of any type as advertisement other than concealed trademarks or standard OEM chassis nameplates or emblems.

Contractor shall ensure that vehicles will comply with all applicable Tennessee State and Federal Motor Vehicle Safety Standards as established by the U. S. Department of Transportation (DOT) in effect at the date of manufacture. In the event of any conflict between the requirements of this specification and any legal requirement, the legal requirement shall prevail.

Contractor shall ensure that:

- The horsepower of the vehicle is adequate for the speed, range and terrain in which it will be required to operate and also to meet the demands of all auxiliary power equipment.
- All gases and vapors emanating from the crankcase of the engine are controlled to minimize their escape into the atmosphere.
- Vehicle(s) meet all Federal, State, and Local Emission Requirements at date of manufacture.

Adequate documents for registering and securing title to the vehicles in the State of Tennessee, including certificates of origin, bills of sale, and any other such documents will be required and shall be provided to Authority as each vehicle is released to the common carrier driveway. Following acceptance of each vehicle, proposer warrants that the title shall pass to Authority free and clear of all liens, mortgages and encumbrances, financing statements, security agreements, claims and demands of any character.

Operating Environment

The vehicle shall achieve normal operation in temperature ranges of minus ten (-10°) degrees to 100 degrees Fahrenheit, at relative humidities between 15% and 100%, and at altitudes up to 3,000 feet above sea level. Degradation of performance due to atmospheric conditions shall be minimized at temperatures below minus ten (-10°) degrees Fahrenheit and above 100° degrees Fahrenheit. Speed, gradability, and acceleration performance requirements shall be met at, or corrected to, 85° degrees Fahrenheit, 29.00 inches Hg, dry air. The interior climate control system shall perform in accordance with the requirements of this specification.

TS 3.50.0 Vehicle Performance

3.5.1 Power Requirements

Propulsion system and drivetrain shall provide sufficient power to enable the vehicle to meet the defined acceleration, top speed, and gradability requirements. Sufficient excess power shall be available to operate all accessories at peak output. An electronic-ignition minimum 73 Liter V-8 gasoline powered (or approved equal) engine shall be used.

The specifications for powertrain components in the following subsections are intended to ensure an adequate longevity (150,000-mile minimum) coupled with reasonable, acceptable vehicle road performance. Vehicle top continuous cruising speeds must be achieved at an engine speed (RPM) well within the manufacturer's recommended maximum.

3.5.2 Top Speed

Vehicles shall be equipped with a V-8 gasoline powered engine (or approved equal) and, shall be capable of a top continuous cruising speed of 65 mph on a straight, level road at GVWR with all accessories operating.

3.5.3 Gradeability

Gradeability requirements shall be met on grades with a surface friction coefficient of 0/3 and above at GVWR with all accessories operating. The gasoline engine shall enable these vehicles to maintain a minimum sustained speed of 55 mph on a two and one-half (2-1/2%) percent grade, and a minimum speed of 25 mph on a ten (10%) percent grade in an appropriate transmission gear range, with all accessories operating at maximum.

3.5.4 Acceleration

An average acceleration rate of at least 0.10g shall be achieved at GVWR between 0 and 20 mph for vehicles equipped with a V-8 gasoline engine.

The Contractor shall supply the Agency with all the necessary performance data to justify the powertrain selected, for approval by Agency, prior to the build-up of both pilot buses (fixed route & paratransit). As a minimum, this shall include the following performance data and curves based on the vehicle loaded to GVWR:

1. Full throttle acceleration. Speed achieved versus time elapsed.
2. Full throttle grade performance in all forward gears against road speed for the transmission with axle ratio proposed.
3. Engine speed relationship to road speed, on level road with vehicle at GVWR, at full throttle operation for the proposed driveline configuration.

3.5.5 Jerk

Jerk, the rate of change of acceleration, shall be minimized throughout the acceleration/deceleration range and shall be no greater than 0.2g/sec, and shall be achieved regardless of driver actions.

3.5.6 Powerplant(s) and Accessory Mounting

All powerplant and accessory mounting, whether mounted to the engine or remotely mounted, shall be mechanically isolated to minimize transfer of vibration to the vehicle chassis and body structure.

3.5.7 Service

The powerplant shall be arranged so that accessibility for all routine maintenance is assured. No special tools shall be required to remove the powerplant.

A Service Mechanic(s) shall be able to remove, replace, and prepare the engine, and transmission assembly for service in the minimum time practicable. All engine subsystems, accessories, and any other component requiring service or replacement shall be easily removable and independent of the engine, and transmission removal. Adequate access shall be provided for inspection and checking so that engine coolant, engine oil,

transmission fluid, and power steering fluid level check points or dipsticks and filler tubes are easily accessible from outside the vehicle through the vehicle engine compartment hood without removing the engine cover or any accessories or components. All fluid fillings shall be accomplished with standard funnels, pour spouts, and automatic dispensing equipment. To the extent supplied from OEM, all lubricant sumps shall be fitted with magnetic type, external, hex head, drain plugs. Access to the engine compartment for inspection and service shall be provided by an inside locking hood or engine compartment access door release.

The engine shall be equipped with sufficient heavy-duty fuel and oil filters for efficient operation and to protect the engine between scheduled filter changes. Filters shall be of the cartridge or spin-on, disposable type and shall be easily accessible. Any fuel, oil, and hydraulic lines used within the engine compartment and elsewhere, other than OEM, shall be rigidly supported and shall be composed of steel tubing where practicable. They shall be routed or shielded so that failure of a line shall not allow fuel or oil to spray onto or drain into any component operable above the auto-ignition temperature of the fluid. All OEM lines and hoses shall be as supplied by the OEM. All other flexible lines to the extent possible shall be Teflon hoses with braided stainless-steel jackets, or approved equal, and standard SAE or JIC brass or steel reusable swivel fittings. Hoses shall be individually supported with clamps coated with elastomeric material and shall not touch one another or any part of the vehicle.

3.5.8 Accessories

All engine-driven accessories shall be heavy-duty type and mounted as a unit for quick removal and repair. Accessory drive systems shall operate without failure or unscheduled adjustment for a minimum of 30,000 miles. These accessories shall be driven at speeds sufficient to assure adequate system performance during extended periods of idle operation and low route speed operation at high accessory output demand. Drive belts shall be heavy-duty type and shall have sufficient wrap around pulleys to avoid slip and provide long life.

TS 3.60.0 Vehicle Powertrain

3.6.1 Engine

The standard engine shall be a gasoline powered heavy-duty V-8-cylinder configuration, with a displacement of 7.3 liters minimum, with electronic fuel injection and shall produce a minimum of 350 horsepower at its rated RPM. A heavy-duty auxiliary air / oil or water / oil engine oil cooler shall be provided if chassis OEM standard is not sufficient to maintain engine oil at the appropriate temperature in heavy stop and go urban service.

The engine shall be equipped with a High Idle Speed governing feature.

The engine shall be capable of operation for 150,000 miles without failure, or significant mechanical or performance deterioration.

The Contractor shall provide certification that the installed engine meets all applicable EPA noise, gas and smoke emissions, toxic fume regulations, and will operate on standard conventional motor fuel without the need for additional fuel additives.

3.6.2 Cooling System

Temperature of operating oils and fluids on the vehicles shall be controlled by a cooling system(s). The cooling system shall be sized to maintain fluids at safe, continuous operating temperatures during the most severe operations with the vehicle loaded to GVWR and with ambient temperatures up to 100° degrees Fahrenheit. A water-based, pressure type, cooling system that does not permit boiling or coolant loss during the operations described above shall cool the engine. Engine thermostat(s) shall easily accessible for replacement.

The radiator shall be of durable, heavy-duty, corrosion resistant construction and shall be the largest capacity chassis OEM installation available for the vehicle, or as may be part of the chassis OEM's heavy-duty Service or Towing Package.

All water hoses not furnished with the OEM chassis shall be premium silicone hose, and retained with Breeze constant torque clamps.

All vehicles shall be equipped and utilize extended life coolant. Extended life coolant shall have a service life expectancy of five (5) years or 100,000 miles. Vehicle(s) shall be equipped with coolant line shut off valves to allow isolation of front heating system from the rear system. Design, type and placement of the shut off valve(s) subject to Agency approval.

An OEM coolant recovery system for the radiator shall be provided and operate so that coolant expelled is retained and restored to the cooling system. If an OEM system is not available, an aftermarket system of a minimum four (4) quart capacity with suitable OEM cap shall be provided. Extended life coolant shall be protected to -35° degrees Fahrenheit. A tag listing level and date shall be attached to the radiator.

3.6.3 Engine Air Filtration

Engine aspiration air shall be filtered through a chassis OEM heavy-duty, dry type, replaceable element unit, with an externally mounted Restriction Indicator.

3.6.4 Transmission

The transmission shall be a heavy-duty truck type six-(6) speed with overdrive (O.D.), fully automatic shift with hydraulic torque converter. A partial box-frame type structural section shall additionally support the transmission. The transmission shall be capable of operation for 75,000 miles without repairs.

A heavy-duty auxiliary air>oil or water>oil transmission oil cooler shall be provided to maintain transmission fluid at the appropriate operating temperature in heavy stop and go urban service. The cooler shall be the largest capacity chassis OEM installation available for the vehicle, or as may be part of the OEM chassis heavy-duty Service or Towing Package, or supplied by an outside OEM heavy-duty components and equipment supplier.

3.6.5 Exhaust System

Exhaust gases and waste heat shall not be discharged on the right (curb) side, and shall be directed generally away from the vehicle and routed to exit behind the left (streetside) rear wheel. Should this exhaust location not be standard for the OEM base vehicle chassis, the exhaust system shall be modified and shall be to the

OEM chassis standards. Exhaust system muffler, and piping shall be corrosion resistant, if OEM available. Piping joints shall be slip-joint type secured with heavy-duty clamps, and supported by heavy-duty compliant type hanger brackets. Butt-welded joints shall not be used. The exhaust system shall incorporate a heat shielding system to protect the floor and surrounding areas. The heat shielding system shall include but not limited to 20 gauge minimum galvanized heat shields, mechanically fastened with formed bends to keep the metal shielding from oilcanning.

The vehicle exhaust system, including modifications, shall meet all applicable federal and state noise and emissions requirements. Exhaust piping modifications shall not restrict the underbody clearances defined in SAE J689.

3.6.6 Exterior Noise

Exterior noise generation by the engine exhaust system and operating accessories of the completed modified vehicle shall be the minimum practicable and shall not exceed the chassis OEM base taken by the Contractor to ensure that the completed vehicle does not generate an audible discrete frequency.

3.6.7 Rear Axle and Final Drive

A heavy-duty full floating, single reduction gearing shall drive the vehicle. The rear axle shall be a one piece forged or cast steel housing and separable carrier construction. The axle assembly shall have a load rating sufficient for the vehicle loaded to GVWR. Axle ratio shall be one of the chassis OEM's base vehicle performance requirements specifications. The driven axle shall be capable of operation for 150,000 miles without repairs.

3.6.8 Drive Shaft/Propeller Shaft

The vehicle drive shaft(s) shall be a heavy-duty, high-capacity design capable of transmitting the maximum torque of the engine/transmission powertrain in all drive gear ranges and under all power applications. The propeller shaft(s) bearings and universal joints shall be the vehicle chassis OEM's standard for the engine selected and GVWR specified.

The propeller shaft(s) shall be correctly balanced, and the universal joint yokes shall be oriented in the proper phase to each other to minimize vibrations and provide maximum bearing life. The propeller shaft(s) shall be restrained by heavy-duty guards to prevent any section of the shaft(s) from entering the vehicle or striking the ground in case of shaft(s) or U-joint failure. The guard shall be a minimum of 3/16-inch thickness steel and shall be securely bolted to the vehicle frame.

All elements of vehicle drivetrain requiring scheduled lubrication shall be provided with grease fittings conforming to SAE Standard J534. These fittings shall be located for ease of inspection, and shall be accessible with a standard grease gun without a flexible hose end. Each element requiring lubrication shall have its own grease fitting with a relief path. Lubricant specified shall be standard for all elements on the vehicle serviced by standard fittings.

3.70.0 Vehicle Suspension

3.7.1 General

Front and Rear Suspension Systems shall be vehicle chassis OEM and of a type most widely utilized in Commercial Fleets of this vehicle type, used in service operations characterized by Continuous Duty under moderate to severe road conditions and climatic environment. Suspension system components shall be computer selected, matched and tuned to provide maximum load capacity, ride quality, stability, and desirable steering and handling characteristics. Damping shall be sufficient to control vehicle motion to one cycle or less after hitting road perturbations.

3.7.2 Front Suspension

The front axle shall be non-driving, independent operating type, with a load rating sufficient for the vehicle loaded to GVWR. Front suspension shall incorporate coil type springs. "Progressive" coil springs shall be provided if available OEM, to provide acceptable ride quality under varying load conditions. An OEM stabilizer bar shall be incorporated to provide additional suspension control and vehicle stability. Vertical damping of the suspension shall be accomplished by OEM gas filled shock absorbers that shall maintain their effectiveness for at least 30,000 miles in normal service. Front suspension system components: springs, shock absorbers, stabilizer, and including bearings, hubs and spindles shall be the heaviest duty OEM equipment available.

3.7.3 Rear Suspension

Rear suspension shall incorporate "progressive" multi-leaf type springs to provide acceptable ride quality under varying load conditions. A rear stabilizer bar shall also be provided if OEM available to provide additional suspension control and vehicle stability. Vertical damping of the suspension shall be accomplished by OEM gas filled shock absorbers that shall maintain their effectiveness for at least 30,000 miles without repairs in normal service. Rear suspension components' springs, shock absorbers, (stabilizer bar) shall be the Heaviest Duty OEM equipment available.

Rear suspension shall incorporate a "Mor/ryde RS System which works in conjunction with the progressive multi-leaf springs replacing the rear shackle with rubber shear springs. The Mor/ryde system shall isolate and absorb road shock and increase dynamic axle travel to provide a smooth ride for passengers and reduce vibrations.

All elements of vehicle suspension requiring scheduled lubrication shall be provided with grease fittings conforming to SAE Standard J534 to the extent practicable. These fittings shall be located for ease of inspection and shall be accessible with a standard grease gun without a flexible hose end. Each element requiring lubrication shall have its own grease fitting with a relief path. Lubricant specified shall be standard for all elements on the vehicle serviced by standard fittings.

3.80.0 Vehicle Steering

3.8.1 General

Vehicle shall be equipped with standard chassis OEM factory installed hydraulic-assisted power steering system with provision for easy adjustment of steering gear backlash. The steering gear shall be an integral type. Steering torque applied by the driver and "road feel" feedback shall be balanced for positive steering control. Power steering failure shall not result in loss of steering control. The steering wheel shall be largest

diameter OEM unit available, and shall be shaped for firm grip with comfort for long periods of time, and shall be removable with a standard or universal puller. Tilt steering column is required, without cruise control.

If Cruise Control comes as part of the Option for Tilt steering, it shall be totally disconnected (disabled) before leaving the OEM factory for delivery to the Authority.

All elements of vehicle steering requiring scheduled lubrication shall be provided with grease fittings conforming to SAE Standard J534. These fittings shall be located for ease of inspection, and shall be accessible with a standard grease gun without a flexible hose end. Each element requiring lubrication shall have its own grease fitting with a relief path. Lubricant specified shall be standard for all elements on the vehicle serviced by standard fittings.

3.8.2 Strength

Fatigue life of all steering system components shall exceed 150,000 miles. No element of the steering system shall fail before suspension system components when one of the tires strikes a severe road hazard. Inadvertent alterations of steering as a result of striking road hazards are considered steering failures.

3.8.3 Turning Circle

Wall-to-wall turning diameter for a standard baseline configuration vehicle shall not exceed 65.0 feet.

3.90.0 Vehicle Brakes

3.9.1 Service Brakes

Service brakes shall be controlled and actuated by a hydraulic power assist system. The braking elements shall be self-adjusting type on the front and rear axle. The service brakes shall be equipped with an anti-locking system from the chassis OEM.

Force to activate the brake pedal shall be an essentially linear function of the vehicle deceleration rate and shall not require excessive force to stop the vehicle effectively during a severe stop.

The braking system shall be efficiency rated and shall be the heaviest duty and largest size and rating offered by the base vehicle chassis OEM for the GVWR. The brakes, with friction material properly burnished, shall be capable of stopping the fully loaded vehicle at GVWR at a deceleration rate equivalent to a 22-foot stop from a vehicle speed of 20 mph or greater. The brakes must be capable of accomplishing this deceleration rate three (3) times in rapid succession from a speed of 20 mph or greater without noticeable brake fade. Brake test results shall be furnished with each vehicle at the time of delivery. Results of brake tests performed as part of Tennessee Department of Transportation Vehicle Safety Line Inspection Tests may be accepted as satisfying this requirement, subject to the approval of Authority.

The brakes shall be free of objectionable noise, squeal, and vibration when applied under all stopping conditions. Vehicles will be supplied with a mobility aid lift and must be equipped with brake interlock to prevent the vehicle moving while the lift door is opened. As an alternative, a hydraulic brake system lock, or a system interlock with the lift system power circuit making the lift controls inoperative until the parking brake is

set, may be acceptable as satisfying this requirement, subject to demonstration by the proposer and to the approval of Authority.

Brake system must comply with the requirements of FMVSS 105 and FMVSS 106.

The entire service brake system, excluding friction material, shall have an overhaul or replacement life of at least 30,000 miles in normal service operations, and shall be self-adjusting throughout this period. Friction material shall have a replacement life minimally of 15,000 miles in normal service operations.

3.9.2 Parking Brake

Parking brake shall be standard chassis OEM mechanical type, manually operated, working on the vehicle rear wheels. The parking brake shall be capable of holding a fully loaded vehicle at GVWR on a 15% incline. The system shall include a dash panel mounted red warning light to indicate to the driver when the brake is applied.

3.9.3 Brake Retarder

Not required

3.10.0 Vehicle Wheels, Tires and Jack

3.10.1 Wheels

Vehicle shall be equipped with the heaviest duty OEM ventilated; one-piece integral pressed steel drop center construction wheels recommended by the base vehicle chassis OEM for the GVWR and tires specified. Single wheels shall be used on front axle and dual mounted wheels on rear axle, and shall be completely interchangeable. All wheels (both sides of each wheel) are to be painted the same, bright white color is acceptable.

3.10.2 Tires

Vehicle shall be equipped with tires suitable for the conditions of transit service and sustained operation at the maximum speed capability of the vehicle.

Load on any tire at GVWR shall not exceed tire supplier's load rating.

Tires shall be premium quality, truck-type, tubeless, black sidewall, all weather, steel-belted radial type, of the highest capacity supplied for this vehicle chassis.

Tire construction shall be truck type with steel belted casing and tread plies, and segmentally molded all-season highway tread incorporating variations to minimize road noise. Tires shall be supplied with the vehicle from the OEM assembly plant as standard or optional equipment, or as Dealer Special Order (DSO). The Contractor shall document its request, and should the specified tires not be available, advise Authority regarding available alternates.

A spare wheel (painted to match both sides "brite white" with an identical tire mounted shall be supplied with each vehicle. All wheel-mounted tires shall be electronically spin balanced, on or off the vehicle, to a minimum speed of 65 mph.

Spare tire and wheel to be shipped loose, not mounted to the vehicle in any way.

Tires and wheels are to meet FMVSS compliance requirements.

3.10.3 Jack

Not required.

3.11.0 Vehicle Bumpers

3.11.1 Bumpers

Both front and rear bumpers shall be installed in such a manner as to transmit any collision shock loads directly to the vehicle under frame members. Bumpers shall be designed to protect against impact at body corners.

Integrated Design

The bumper shall be integrated with design of the coach styling and accommodate for the mounting of a bike rack.

A Sportworks Model: DL2 Stainless Steel (P/N 100536) 2- bike rack or approved an equal shall be provided. The bicycle rack shall be mounted to the front of the bus and shall have a deployed and a stowed position and shall latch securely in both the stowed and the deployed positions.

Front bumper shall be OEM manufacturer standard with bright chrome finish.

Rear bumper to be "Romeo Help" type bumper that shall return to its pre-impact shape within 10 minutes of impact. When using a yard tub with a smooth flat plate bumper 2 feet wide contacting the horizontal centerline of the rear bumper, the bumper shall provide protection at speeds of 5 mph, over pavement discontinues up to 1 inch high, and at accelerations up to 2 mph/sec. The "help" type bumper shall NOT have a step indent.

Tow hooks shall be installed at the rear of the vehicle. Tow hooks (rear only) shall be formed-steel or aluminum. Rear tow hooks can be either OEM or Body Manufacturer.

3.12.0 Vehicle Fuel System

3.12.1 Fuel Tanks

The fuel tank shall be securely mounted to the vehicle frame or underbody members to prevent movement during vehicle maneuvers and easily removable for cleaning or replacement. It is desired that the fuel tank capacity not be less than 55 gallons in a single tank.

The fuel filler pipe shall be so designed as to permit filling to the “full” point at a high rate, from a standard dispensing pump, of foam-free fuel without splash-back, or causing the nozzle to shut off before the tank is full.

The fuel filler pipe cap shall be made captive to the fuel filler pipe by means of a hinge or other device, such as OEM ABS retaining strap. Chains are not acceptable as a retaining device unless protective plates of stainless steel are provided to protect body paint from damage. If supplied from OEM, the fuel tank shall be equipped with an external, hex head, brass drain plug. A dash panel mounted fuel level gauge shall be provided.

The fuel tank shall be located in a protected area under the vehicle floor, well forward of the rear of the vehicle for protection from a rear collision, and shall be mounted to preclude puncture from road hazards or an accident. Fuel tank shall not be located below mobility aid lift entrance door.

The fuel system as specified shall meet applicable FMVSS 301 and State of Tennessee requirements.

3.13 Vehicle Electrical System

3.13.1 General Requirements

The electrical system shall provide and distribute power to ensure satisfactory performance of all electrical components. The system shall supply a nominal 12 volts of direct current. The power generating system shall be rated sufficiently higher than the total possible concurrent electrical load to maintain the charge on the battery(s) at all operating conditions including the engine at idle.

All circuits, except for those involved in engine startup, shall be protected by circuit breakers or fuses. Fuses shall be used where it can be demonstrated that circuit breakers are not practicable, and they shall be easily accessible for replacement.

The vehicle shall be equipped with an alternator powered 12 volt, Extreme Duty Electrical System. All components shall be selected and integrated into a balanced system to function in an environment characterized by low engine (alternator) speeds and high amperage draws due to lights, flashers, air conditioning, wipers, heater/defroster, and other accessories in constant operation.

Redundant grounds shall be used for all major, critical and safety related electrical equipment, except where it can be demonstrated that redundant grounds are not feasible or practicable. One ground may be the vehicle body and framing. Ground shall not be carried through hinges, bolted joints (except those specifically designed as electrical connectors), or powerplant mountings.

Primary or major wiring harnesses shall not be located under the vehicle floor, and underfloor wiring shall be eliminated to the maximum extent practicable.

Wiring and electrical equipment necessarily located under the vehicle shall be insulated from water, heat, corrosion, and mechanical damage. Wiring and harnesses shall be routed and supported independent from fluid carrying lines. Design of the electrical system shall be modular so that each major component, apparatus

panel or wiring bundle is easily separable with standard hand tools or by means of connectors. Powerplant wiring shall be an independent wiring module and its replacement shall not require pulling wires through any bulkhead or removing terminals from the wires.

Except as otherwise specified, all accessories and electrical equipment, with the exception of headlights, tail lights, parking lights, emergency flashers and clearance lights (if provided), shall be wired through the vehicle ignition switch so as to be operative with the switch in the **ON** position. This system shall include air conditioning and mobility aid lift on vehicles so equipped. The exterior vehicle lighting system shall be provided with a bell tone which shall sound when these lights are left on with the ignition switch in the OFF position and the driver door is open. Bell tone system shall be OEM or approved equal.

3.13.2 Alternator

Vehicle shall be equipped with one (1) high output-low RPM **240 amp. minimum Heavy-Duty OEM Alternator**; or Authority approved equal. The proposer must demonstrate that the alternator charging system will meet operational electrical load demands and shall be subject to Authority approval. Dual alternator charging systems are not acceptable.

3.13.3 Voltage Regulator

Voltage regulator shall be chassis OEM, or heavier duty, electronic solid-state design and shall match and be compatible with the alternator/battery system.

3.13.4 Battery

Energy storage system shall consist of two (2), twelve (12) volt heavy-duty lead acid premium construction maintenance free type Group 31 batteries. Each battery shall be rated at 950 Cold Cranking Amps (CCA) minimum with a minimum 180 Reserve Capacity (RC).

The dual battery installation shall be equipped with a parallel crossover interconnect system mounted in a corrosion proof stainless steel sliding tray in an enclosed all-weather storage compartment, with an access door for convenient accessibility, and equipped with an electrical power main disconnect switch. Both the sliding tray and battery compartment shall be warranted to function properly and be free of corrosion for the designed life of the vehicle. A positive lock shall retain the battery tray in the normal position. Battery cables shall be flexible and sufficiently long to reach the batteries in extended positions without stretching or pulling on any connection and shall not lie directly on top of batteries. The battery terminals and cables shall be color-coded with red for primary positive, black for negative, and another color for any intermediate voltage cables. The inside surface of the battery compartment's access door shall be electrically insulated to prevent the battery terminal from shorting on the door if the door is damaged in an accident or if the battery comes loose. The battery tray shall pull out easily and properly support the batteries while they are being serviced, The compartment shall be vented and self-draining, and located to provide easy access. Battery tray door shall be an open "Up" type (downward opening door is not acceptable). Door shall be equipped with a spring loaded "L" shaped battery door securement to hold the battery door open for servicing batteries located inside the battery box. Complete installation, location, and details of battery tray and componentry shall be furnished with proposal submittal and subject to Authority approval.

The manual main electrical power disconnect switch shall be provided to disconnect all power except that required for engine/transmission/ECM operation. Location of the switch is subject to approval of the Agency prior to production. The switch shall be easily accessible for de-activation, and in a location to prevent corrosion from fumes and battery acid when batteries are washed off or in normal service.

All lines and wiring in the area of the OEM original battery trays or as modified in the engine compartment area shall be properly insulated and clamped securely.

3.13.5 Wiring and Terminals

OEM vehicle wiring shall remain unchanged to the greatest extent practicable consistent with requirements of these specifications. The following paragraphs refer primarily to Contractor installed systems, materials, equipment and components.

Wiring and terminals shall meet or exceed current federal and state vehicle requirements and be amply sized for both mechanical strength as well as to carry required electrical currents without significant voltage drop. Electrical components, wiring, materials, terminals and installation practices shall meet or exceed chassis OEM vehicle standards as a minimum, unless in conflict with these specifications in which case these specifications shall take precedence.

All wiring between major electrical components and termination's, except battery wiring, shall have double electrical insulation, have a corrosion spray applied and shall be waterproof. Double insulation shall be maintained as close to the terminals as practicable. The requirement for double insulation shall be met by wrapping harnesses with plastic electrical tape and/or by sheathing all wires and harnesses with non-conductive, rigid or flexible conduit.

Insulated wiring shall conform to current SAE Standards J1127 and J1128. Insulation material shall be upgraded to the next grade higher than that needed for the maximum ambient temperature of 200° degrees Fahrenheit of its on-vehicle environment, per Table 1 of SAE Standard J1292, latest edition.

Contractor installed insulated wiring shall be color coded to the maximum extent practical for easy identification of system functions and, if applicable, permanently number coded at 6-inch intervals with no duplication of numbers between functions. Each wire's gauge, color, and number code, and SAE type (GXL,SXL, etc.) shall be referenced on electrical diagrams covering all Contractor installed electrical systems and their connections to chassis OEM electrical systems (if applicable).

Electrical connectors shall be highest quality, heavy-duty, Automotive Commercial Grade, pre-insulated type, or approved equal, incorporating thermoplastic insulation covering the connection of the wiring and terminal. Wiring harnesses shall utilize weather pack connectors to maximum extent practical for bus interior and are required for all terminals and harnesses located on the exterior of the vehicle. All PCB electrical systems shall be plug and play design. Use of printed circuit board technology shall be incorporated to utilize LED lights to aid in electrical system diagnosis/troubleshooting.

Terminals shall be installed with a tool, which will not release until the crimp is tight. Push-on interlocking type terminals shall incorporate insulation grips and be fully enclosed by lock-on type thermoplastic shields. **Non-shielded blade terminals and “T” splices are not acceptable.**

Push-on terminal interlocking may be provided either by female terminal detent catch, designed to engage the male blade hole, or by snap catches incorporated into the terminal shields. Detent engaging connectors are required for single and dual (polarized) terminals regardless of catches in terminal shields. Multi-terminal blocks of three or more blades may utilize snap catch type block terminal shields.

Wiring shall be continuously enclosed in non-metallic loom meeting current SAE standard J562a and be adequately supported and routed for protection from heat, water splash, moisture, solvents, corrosion, road debris, abrasion, and tension. If heat-shrink tubing cannot be used, such as on frame ground point, the connector shall be coated with silicone grease. Connectors in areas exposed to the elements or subject to moisture shall be protected by heat-shrink tubing and coated with silicone grease. Wiring shall be of sufficient length to permit proper positioning as well as replacement of terminals at least twice without excessive tension. Grommets of elastomeric material shall be provided at points where wiring penetrates metal or other materials with acute edges. Wiring shall be adequately supported and clipped. Clips shall be shielded with elastomeric material to prevent cutting of wire insulation.

Battery cables shall be minimum No. 4AWG, Type SGX meeting current SAE Standard J1127.

Grounding of components shall be through polarized, shielded terminals wired to main structural ground points. Grounding through hinged doors or covers of any type is not acceptable. Ground points shall be bolted to main structure free of paint, oil or rust, and coated with silicone grease after fastening.

Manual reset circuit breakers, blade or cartridge fuses, or fusible links shall protect circuits and be incorporated in printed circuit board design. Circuit protection devices shall be permanently labeled by component or function and installed at a single, protected, easily accessible location within the vehicle. Fuses shall be contained in a single block with holders for one spare fuse of each amperage utilized.

Electrical components, which may require servicing or replacement, shall be readily accessible through access panels or covers. Installation of aftermarket electrical components and systems in the engine compartment shall be eliminated to the greatest possible extent. Aftermarket or OEM supplier electrical switches, relays, solenoids, circuit breakers and other electrical components shall be chassis OEM highest quality, heavy-duty, commercial grade components or approved equal.

Location and connection of any add-on circuit breaker panel(s) shall be included in the “as built” electrical manuals and schematics, and are subject to review and final approval by the Authority prior to production.

3.13.6 Horn

The vehicle shall be equipped with chassis OEM Heaviest Duty dual, high-and low-note, twelve (12) volt horns or equivalent.

3.13.7 Electrical Components Requirements

Electrical equipment shall not be located in an environment that will reduce the performance or shorten the life of the component of electrical system. No vehicle component shall generate, or be affected by electromagnetic interference of radio frequency interference (EMI/RFI) that can disturb the performance of electrical equipment inside and outside of the vehicle as defined in SAE J1113. The Contractor shall supply instructions at vehicle delivery to prevent damage from voltage spikes generated from, welding, jump starts, shorts, etc.

All electrical hardware shall be mounted on an insulated and easily accessed an easily accessed panel to facilitate replacement. The mounting of hardware shall not be used to provide the sole grounding source, and all hardware shall be isolated from potential EMI/RFI.

All electronic equipment mounted in the interior of the vehicle shall be inaccessible to passengers and hidden from view unless intended to be viewed. The hardware shall be mounted in such a manner as to protect it from splash or spray.

All electronic hardware mounted on the exterior of the vehicle that is not designed to be installed in an exposed environment shall be mounted in a sealed enclosure.

All electrical hardware and mounting shall comply with shock and vibration requirements of SAE J1455.

All electric components, including switches, relays, flashers, and circuit breakers, shall be heavy-duty designs.

To the extent practicable, these components shall be designed to last the service life of the vehicle and shall be easily replaceable. Sockets of plug-in components shall be polarized where required for proper function and the components shall be positively retained. Any manual reset circuit breakers critical to the operation of the vehicle and its major operating systems, shall be mounted in a location convenient to the driver with visible indication of open circuits. All electric motors shall be heavy-duty long life type.

Authority prefers all switches installed by the final assembler to be heavy-duty rocker switches. If the OEM supplied chassis includes rocker type switches, final assembler is not required to replace them.

The vehicle(s) shall **NOT** be equipped with an OEM radio. Radio Delete.

5313.8 Electrical Wiring Diagrams

The Contractor shall provide complete and accurate electrical wiring diagrams and schematics of base vehicles and all add on options for Authority review. All electrical wiring diagrams and schematics shall be exact "as built" representations of the electrical system as provided in the actual vehicles as delivered to the Authority.

3.14.0 Vehicle General

3.14.1 Design

The vehicle body shall be an integral unit exhibiting a clean, smooth, simple design primarily derived from performance requirements and passenger service criteria established in these Technical Specifications. The exterior body shall incorporate aerodynamic design and features to the extent practicable for a transit vehicle. The exterior body shall include 155" radius contoured walls for strength and continuity to optimize interior room, and to minimize direct sunlight transfer through the side windows, and solar radiation absorption into the bus passenger cabin. The exterior and body features shall be shaped to allow complete and easy cleaning by commercial vehicle washing systems. Water and dirt shall not be retained in or on any body feature to freeze or bleed out onto the vehicle after washing. Body and windows shall be sealed to prevent leaking of air, dust, or water under normal operating conditions and during cleaning in automatic vehicle washers, for the service life of the vehicle. Accumulation on any window of the vehicle of spray and splash generated by the vehicle's wheels on a wet road shall be minimized. Exterior protrusions greater than one-half inch and within 80 inches of the ground shall have a radius no less than the amount of the protrusion.

The left and right side rear view mirror, required lights and reflectors, are exempt from the protrusion requirement.

3.14.2 Materials

The upper roof/body interior and exterior materials shall be selected and fabricated to reduce maintenance, extend durability, and provide consistency of appearance through-out the service life of the vehicle. Detailing shall be kept simple; add-in devices and trim shall be minimized and, where necessary, shall be integrated into the basic design. Bright metal exterior trim shall be stainless steel or anodized aluminum. Chromium-plated trim pieces are not acceptable for exterior trim except for vehicle grill. Vehicle grill shall bright metal or chrome plated. Drip rails/rain gutters over windows and doors are required, however, ABS type drip rails/rain gutters are not acceptable.

3.15.0 Vehicle Structure

3.15.1 Strength and Fatigue Life

The Agency desires the highest practicable quality and durable extended roof transit vehicle. Under normal conditions of transit service throughout the service life of the vehicle, the basic structure shall withstand fatigue damage that is sufficient to cause a failure that may result in:

- (a) A physical safety failure that could lead directly to passenger or driver injury and represents a severe crash situation.
- (b) A road call failure resulting in an enroute interruption of service until the vehicle is replaced or repaired at the point of failure. The structure shall also withstand impact and inertial loads due to normal street travel throughout the vehicle's service life without permanent deformation or damage.

Contractor shall ensure that the vehicle meets all Federal and State Regulation applicable to fourteen (14) and seventeen (17) adult passenger vehicles regarding collision strength, impact resistance and passenger safety, including the requirements of FMVSS 220 with respect to static rollover protection.

The Contractor shall supply test results together with complete details of the body structure, body panels, joints and materials. The test data shall indicate the model year, manufacturer's name, model name, and GVWR of the vehicle tested. Written documentation outlining test procedures and results shall be prepared by a Professional Engineer and/or test laboratory certifying compliance with the requirements of this section. All documentation shall be provided by the Proposer for approval by the Authority.

3.15.2 Distortion

The vehicle, at GVWR and under static conditions, shall not exhibit deformation or deflection that impairs operation of doors, windows, lift, or other mechanical elements. Static conditions include the vehicle at rest with any one wheel on a four (4) inch obstacle or in a four (4) inch deep hole.

3.15.3 Resonance

All structure, body, and panel-bending mode frequencies, including vertical, lateral, and torsional modes, shall be sufficiently removed from all primary excitation frequencies to minimize audible, visible, or sensible resonant vibrations during normal service.

3.15.4 Corrosion/Rustproofing/Undercoating

The vehicle shall resist corrosion from atmospheric conditions and road salts. It shall maintain structural integrity and nearly original appearance throughout its service life, provided it is maintained in accordance with the procedures specified in the manufacturer's service manual by Authority.

Materials exposed to the elements and all joints and connections of dissimilar metals (and remote from each other in the galvanic series), shall be corrosion-resistant and shall be protected from galvanic corrosion.

The entire body frame assembly, access doors, fenders, cab, underbody, wheel housings, lower skirt panels, including closed-off body panel sections, the exterior surfaces under floor tubing structures and welds shall be treated and rust-proofed with a commercial grade heavy-duty rustproofing material. All metal body parts shall be listed as a qualified product under Mil Spec C-62218, Mil Spec C-0083933A (MR). Shield Guard 342-152 Water based black primer shall be applied to both aluminum and steel.

Body panels that are one-side galvanized, two-side galvanized, two-side iron-zinc alloy, zincrometal, aluminum or tin coated, etc., or treated in any other method or procedure currently accepted by the commercial vehicle industry, are acknowledged as meeting this requirement and need no further treatment except for finish prime/paint or undercoating where applicable.

The entire body lower frame assembly, cab, underbody, understructure/frame, chassis, fenders, wheel housing, and lower skirt panels shall be completely undercoated. Undercoating shall be composed of a non-volatile/non-flammable resin-type base, grit and abrasive free material, dispersed in a petroleum solvent, providing a homogenous formulation, MIL-STD specification grade undercoating material.

Undercoating shall be applied to a uniform thickness throughout with no bare spots. Proposer shall indicate methods to be used in meeting this requirement. Contractor shall provide a rustproof warranty for the stated service life of the vehicle.

Items and components that shall not be undercoated include non-metallic body panels, engine, transmission, driveshaft(s), differential/axle housing, power steering, brakes, lube fittings, exhaust system, heat shields, fuel tank(s), and any OEM designated areas.

Authority will accept rustproofing/undercoating products such as: Columbia 925 Immulsion Auto Black Undercoat, Waxoyl-120-4, Ziebart, Z Technologies, Zinc Chromate (Valspar Corporation), Degacoat by BASF or approved equal.

3.15.5 Body Structure and Exterior Panels

The vehicle body structure shall be designed and constructed as a heavy-duty 14/16 gauge steel roll cage integral unit with steel window corner gussets primed with rust inhibitor attached to the cab using to cab braces and tubing. This assembly shall consist of vertical and horizontal welded tubes as a roll cage with the vehicle cab and as channel assemblies to attach the vehicle cab to the cage.

The vehicle body assembly sidewalls, roof side, end framing, inner steel rear wall and underfloor structure shall be so designed and constructed that they will carry their proportion of the stresses imposed, and absorb excessive impacts (from other stationary or moving objects) with as little damage as is practicable. Body shall be of welded all-steel integral cage frame construction including a rear inner steel wall.

All posts in body side and roof sections shall be of durable steel, channel or box construction securely fastened to the underframe structure so that the entire frame shall act as one integral unit without any movement at the joining.

The body structure end posts shall be designed to resist shear. The vehicle body shall be adequately reinforced in the passenger door and lift system areas where any modifications made to the standard bus body structure may alter the structural integrity of the vehicle. Lower body framing members shall consist of 13-gauge "G" shaped cross members that cross the chassis frame and extend the full width of the body at 24" intervals. Lower body framing members that are altered must be reinforced and strength restored to prevent structural fatigue failure to the vehicle from normal transit operations, and to preserve the integrity of the door and lift system openings from permanent deformation as a result of minor frontal or rear collisions. A 50K PSI yield formed steel seat track welded every 4" in a staggered pattern shall be an integral part of the vehicle floor.

Roof shall consist be one piece reinforced fiberglass panel. The roof shall be an arched type, aerodynamic design, and blended into the upper body contours to present a pleasing integrated appearance. This seamless one-piece roof design minimizes the potential for leaks. FRP roof outer shells (if used) shall be smoothly contoured, free of stress, without blemishes, rough finish or mold marks and of sufficient strength and rigidity to prevent drumming or flexing.

The body roof structure shall be supported by integral collapse resistant steel roll cage which meets or exceeds FMVSS 220. Attached to the top sidewall rail construction shall be formed roof bows. These shall be of minimum 1" x 1" x 16-gauge steel, formed to match roof cap contour. The roof bows shall be welded to minimum of 1" x 2" x 16-gauge top sidewall tube placed to provide additional strength. All tube joints are to be welded on 3 sides minimum. Steel traverse and full length longitudinal members shall be provided as part of the steel cage assembly. Roof transverse bow members shall be appropriately spaced to provide maximum uniform strength throughout the length of the roof. The body cage framing assembly shall be welded by either a certified or factory trained welder and be in accordance with AWS standards to the body upright frame structure members or carlines to ensure the most integrated structure possible. The Proposer shall provide the Authority with a list of designated welders by work station and their certification and/or training, along with quality assurance procedures to be used to monitor the welding process including periodic testing of all welds. All exterior panels shall be attached to the framing by closed-end riveting (Buck, Huck, or Mono-bolt types), welding, or bolts and weld-butts.

The location and use of structural adhesive materials or sheet metal screws must meet with the prior approval of Authority. Panels shall be lapped unless continuously welded, and the upper or forward panel(s) shall form a water shed by being lapped over the following panel so that the sealing of the panels is not dependent on caulking alone.

All metal-to-metal exterior joints and seams shall be protected by the combined application of zinc chromate and insulating compound. FRP and FRP-to-metal joints and seams shall be sealed with butyl rubber tape, 3M VHB tape, or Authority approved equal, per the tape manufacturer's instructions.

Extended steel or aluminum door frames (if applicable) shall be completely covered by the steel, aluminum, or fiberglass roof shell, and shall be integrated in such a manner so as to maintain the roof and body sidewall aerodynamic design.

Lower skirt (body) panels are to be adequately fastened and braced to prevent damage from ice and snow build-up. Lower body panel are to consist of molded gel-coated fiberglass skirting to resist corrosion. The skirting shall be braced on the backside of the skirt to steel cross-members utilizing braces and rivets. The skirts are to be attached with a 1" aluminum retainer trim screwed into place over a seam created by the sidewall material and skirt joint 1-1/2" and covered with a paintable vinyl cover for aesthetic appearance. Lower skirt panels shall be easily removable and repairable or replaceable.

All metal body parts shall be given a thorough multiple-stage anti-corrosion treatment. Zinc chromate or zinc phosphate prime paint shall be applied to both aluminum and steel.

The Contractor shall ensure that all joints and corners where stress concentration may occur are adequately reinforced to fully withstand the required loading and road shock that a transit-type vehicle is exposed to in both urban and rural service, and to maximize the likelihood that the body will retain its integrity in a roll-over accident.

All panels to the extent practicable shall be smooth and non-overlapping.

The entire surface of the exterior of the bus shall be subject to an extensive water test before each bus is allowed to be shipped to the Authority. At the time of the water test, the bus will be complete with all windows, doors etc. installed. Each bus shall be tested to assure that the body, floor, windows, doors, seams and other openings do not emit water into the interior of the bus or into any compartments covered by exterior doors when in operation, including during vehicle washing with pressurized mechanical washing equipment. Nozzles that deliver the water for the test must be capable of ejecting a total volume (spray) at a nominal pressure of no less than thirty-two (32) pounds per square inch measured at each nozzle tip, approximately 300 gallons per minute. The water test shall be conducted for a minimum duration of ten (10) minutes. Bus is to be inspected for any visible signs of water intrusion. Any evident water leak(s) found during the water test shall be repaired and the bus shall undergo another test to ensure leak(s) have been completely corrected. The Authority reserves the right to have the Resident Inspector present to observe all water leak testing.

3.15.6 Roof Extension/Body Joining

Joining of the roof extension shell to the Main Body Shell shall be accomplished in a manner of design and construction that a completely weather tight joint occurs and maintains its sealing integrity against moisture migration for the service life of the vehicle.

Both inner and outer sections shall be attached to the vehicle body shell in the same, or similar manner, depending upon vehicle body inner and outer shell configuration differences. Body shall be thoroughly water tested and made tight to prevent leakage. The Contractor shall provide written documentation outlining water test procedures and results for approval by Authority.

3.15.7 Sidewall Construction

The vehicle body assembly sidewalls, and side and end framing shall be so designed and constructed that they will carry their proportion of the stresses imposed and absorb excessive impacts (from other stationary or moving objects) with as little damage as is practicable.

All posts in body side and roof sections shall be of durable channel or box construction securely fastened to the underframe structure so that the entire frame shall act as one integral unit without any movement at the joints. The end posts shall be designed to resist shear.

Vehicles incorporating mobility aid lift systems shall have adequate reinforcements installed around the side doorposts and, including the bottom and the upper door header, to transfer stresses from these openings to the vehicle body primary load carrying structural members. The vehicle body shall be adequately reinforced in the passenger door and lift system areas where any modifications to the standard van structure may alter the structural integrity of the vehicle. Lower body framing members that are altered must be reinforced and strength restored to prevent structural fatigue failure to the vehicle form normal transit operations, and to preserve the integrity of the door and lift system openings from permanent deformation as a result of minor frontal or rear collisions.

3.15.8 Finish and Color

All exterior surfaces shall be smooth and free of visible fasteners, wrinkles and dents to the extent practicable. Exterior surfaces to be painted shall be properly cleaned and primed, as appropriate for the paint used, prior to application of paint to assure a proper bond between the basic surface and successive coats of original paint for the service life of the vehicle. Paint shall be applied smoothly and evenly with the finished surface free of imperfections. All exterior finished surfaces shall be impervious to fuel, road chemicals, and commercial cleaning agents. Finished surfaces shall not be damaged by controlled applications of commonly used graffiti removing chemicals.

The exterior paint color shall be OEM Black color shall be 8307030EX Imron Elite 3.5 VOC, Purple color shall be 805635EX Purple Pantone 266C Imron Elite 3.5 VOC and the White color shall be N5793EX White Imron Elite 3.5 VOC. Vinyl decals are to be

Paint Information

| Color | MFG Code* | Application Type** |
|-------------|-----------|--------------------|
| PURPLE | 805635EX | SS |
| WHITE | N5793EX | SS |
| GLOSS BLACK | 830730EX | SS |

* Paint Manufacturer/Brand: Axalta Imron Elite
 ** SS - Single Stage B/C - Basecoat/Clearcoat

Decal Information

| Decal | Material | Color |
|-------|--|---|
| | 3M Scotchlite Reflective Graphic Film Series 680 | 10 White (3M Stock Color) |
| | 3M Scotchlite Non-Reflective Graphic Film Series 180 | Custom Printed Purple (Pantone 266C) & 50% Grey |
| | 3M Scotchlite Non-Reflective Graphic Film Series 180 | 10 White (3M Stock Color) |
| | 3M Scotchlite Non-Reflective Graphic Film Series 180 | 12 Black (3M Stock Color) |

Rooftop Fleet number is a 22 inch in height and font, rear, curbside and streetside are 4 inch in height.

Paint scheme drawings are as indicated within depicting Fixed Route and Paratransit schemes. The entire bus body including but not limited to roof extension/conversion unit shall be painted and match the OEM Bright white body chassis color in accordance with the requirements set below, subject to the approval of Authority.

hite body chassis color in accordance with the requirements set below, subject to the approval of Authority.

White body chassis color in accordance with the requirements set below, subject to the approval of Authority.



The finish paint shall be the highest quality and durability automotive/transit vehicle grade paint available. Primer for metallic surfaces shall be rust resistant zinc chromate type (U.S. Federal Spec. TT-P-645, or equal), or equivalent recommended by the paint manufacturer. Primer for non-metallic surfaces (plastics, fiberglass-reinforced plastic, wood, etc.), shall be specifically recommended by the paint manufacturer for the base material and must be compatible with the finish paint. The unit assembly shall be treated with a finish protector coat.

Surfaces to be painted shall be properly sanded, thoroughly cleaned, prepared, primed, and painted per paint manufacturer's direction including drying time.

Finish quality shall be OEM heavy-duty Commercial Grade or better, free of grinding and sanding marks, dirt, pits, blows, runs, orange peel, dullness, and other imperfections. Primed and painted surfaces shall resist peeling per standard industry adhesion strength requirements. Any vehicle exhibiting poor paint adhesion shall be subject to refinishing or rejection.

Stripes and roof top bus numbers shall be painted. Decals, lettering, logos, and other bus numbers shall be commercial grade weatherproof, non-shrinking, fade resistant vinyl.

3.15.9 Rain Gutters/Drip Rails

Roof gutters/drip rails shall be installed over the windows and doors. They shall be so designed to prevent water flowing from the roof onto the side windows, doors, and exterior mirrors. Intermediate drain holes shall be positioned so that water will not drain onto windows or doors. When the vehicle is decelerated, the gutters shall not drain onto the windshield, driver's windows or doors. The cross-sectional area of the gutters shall be amply sized to meet these requirements.

3.15.10 Towing

Frame mounted towing hooks shall be provided at the rear of the vehicle that are adequate in design and construction to permit towing and lifting of the bus without distortion or failure. Each towing device shall withstand tension loads up to one and one-half (1-1/2) times the curb weight (CW) of the vehicle within 20° degrees of the longitudinal axis of the vehicle. Each towing device shall accommodate a standard light commercial vehicle, tow vehicle crane hook. The vehicle shall also have provisions for front and/or rear towing devices that allow attachment of a rigid tow bar and shall permit lifting of the vehicle, at curb weight by the towing devices and the tow bar until the wheels are clear of the ground.

3.15.11 Rubrails

Rubrail(s) composed of durable, flexible, resilient elastomeric material shall be provided at the proper height, to protect both sides of the vehicle body from damage caused by minor sideswipe accidents with automobiles and other vehicles, and stationary objects. Rubrails must be mounted to a structural hard point on the bus body, and shall be fastened with both adhesive and mechanical corrosion resistant fasteners. As an alternative, an extruded aluminum section with an elastomeric rubrail insert 1-3/4 inches in width may be provided, subject to Authority approval. Rubrails are to be finished to match bus exterior color(s). Rubrails composed solely of metal are not acceptable to Authority.

3.15.12 Wheelhousings and Clearance

Wheelhousings shall be of sturdy heavy-duty construction and fabricated from heavy gauge galvanized steel, stainless steel or aluminum. Wheelhousings shall be an integrated continuously welded unit, and shall be continuously welded to the reinforced body floor pan assembly. Sufficient clearance and air circulation, with vehicle at GVWR, shall be provided around the tires, wheels and brakes to preclude overheating when the vehicle is operating in normal transit operations. Adequate clearance shall be provided to enable easy removal of wheels mounted with inflated tires.

The vehicle shall be equipped with black heavy-duty commercial grade, anti-spray mud flaps on all wheels to minimize side spray in wet conditions, and direct spray off exterior panels and structures to the rear of wheels.

Interference between the tires and any portion of the wheelhousings or the vehicle shall not be possible in maneuvers up to the limit of tire adhesion with weights from WET to GVWR.

3.15.13 License Plates

Provisions shall be made to mount standard size U.S. license plates on the front and rear of the vehicle.

3.15.14 Jacking and Hoisting

It shall be possible to jack up the vehicle, at curb weight (CW), with a common hand or floor jack when a tire is completely flat and the vehicle is on a level, hard surface without crawling under any portion of the vehicle and without relocating the vehicle. The vehicle shall withstand such jacking without permanent deformation or damage. The vehicle axles and jacking plates shall accommodate the lifting pads of conventional commercial hoist systems.

3.15.15 Fire Protection

The engine compartment cowl/firewall shall preclude or retard propagation of an engine compartment fire into the passenger compartment. Necessary openings, other than OEM, shall be allowed in the firewall, only if means are provided to prevent or retard fire propagation through the firewall. Conduit, wiring, and/or bulkhead connectors shall be sealed with fireproof material at the firewall.

An AMEREX Model: SMVS or acceptable equal ABC dry chemical pre-engineered fire detection and suppression system listed for use at -40° F to +185° F shall be installed in each vehicle. The system shall provide 24-hour fire detection and fire suppression for the engine compartment. A 13.2 lbs. capacity agent cylinder of the stored pressure type shall be incorporated and be constructed of welded steel and must conform to DOT specification 4BW. The cylinder shall be outfitted with a gauge and forged brass valve assembly. Two (2) temperature sensitive weatherproof miniature fire sensors shall be located in the engine compartment. Factory Mutual Research Corporation shall approve the detectors for use as heat actuated for detectors. The electrical control head shall also be activated manually by depressing a manual actuation switch (button w/pull pin labeled "fire") mounted in the driver's area with easy operator access. Two (2) nozzles shall be located in the engine compartment, which upon actuation will allow full ABC chemical flow. A display panel shall be provided with an integral release button. The system shall provide continuous monitoring to ensure proper operation with an operator display. System shall be equipped with a LED illumination and audible alarm (with silence feature) should a fire system actuation occur. An internal battery back shall be included as part of the

system to provide full function fire detection and suppression for up to one (1) hour after a vehicle power loss. System shall operate at 10VDC to 30VDC and include an internal relay for engine shutdown. A relay override shall be incorporated allowing the vehicle to be moved to a safe place after a fire condition has been detected. System shall also be equipped with a Push to Test Feature. Mounting location of the agent cylinder subject to Authority approval.

3.16 Vehicle Interior

3.16.1 Interior Trim and Finish

The interior shall be generally pleasing, simple, modern and free from superficial design motifs. It shall have no sharp depressions or inaccessible areas and shall be easy to clean and maintain. All interior materials, panels, coverings, treatments and trim shall be flame-retardant in conformance with FMVSS 302, scuff-resistant, and chemically treated to be easily cleaned. The interior lower side panels below the windows shall be covered with Authority approved panels. Interior surfaces shall be covered with Authority approved material to obtain a neat and finished installation. Upper finished trim panels and front and rear finished trim panels may be the manufacturer's standard painted formed metal, molded fiberglass or plastic interior finished trim.

All interior panels, coverings, treatments and trim shall be securely fastened to body structure components to prevent loosening, vibrating and drumming. All joints shall be covered by an overlap-offset molded into panels, trim strips or moldings. All protruding hazardous surfaces, abrasive and sharp edges and corners shall be eliminated. Fastenings or other objects that can catch a passenger's clothing or cause injury shall be avoided.

Interior upper and lower side panels above and below the windows shall be an off white color to match Authority's standard transit fleet. Upper trim panels, lower trim panels and interior ceiling panels shall be a Authority approved light color that is complimentary to the seat covering material color, and harmonizes with the general interior vehicle color scheme.

Interior color scheme coordination, treatments, and color shades and density are subject to the approval of Authority. Vinyl covered upper trim, lower trim and ceiling padded panels are not acceptable. Small vinyl covered panels that are used as transition pieces may be acceptable if used minimally and are subject to Authority approval.

3.16.2 Headroom

Headroom above the aisle and at the centerline of the left side aisle seats shall have a finished vehicle clear floor to ceiling headliner distance of 74 inches, minimum, with 75 inches or more desired.

3.16.3 Inner Ceiling Headliner

The inner roof extension module shall be insulated and trimmed out to match interior of bus body. The headliner panel may be constructed from steel, aluminum, fiberglass, or hard plastic and shall be durable and easy to clean. The ceiling headliner shall be insulated with non-conductive tape or strip material from direct contact with the body roof roll cage tube members to prevent condensation of moisture and sweating on the

underside of the headliner. The headliner shall be designed, fabricated and fastened in a manner so as to prevent or minimize vibration, flexing or drumming.

3.16.4 Floor and Floor Covering

Vehicle Floor shall be a flat floor design with no steps except for slight inclines to accommodate variations in the floor height. Design shall be submitted as part of the approved equals process and subject to Authority approval.

The sub-floor deck shall be securely mounted to prevent chafing or horizontal movement. Tapping plates used for the floor fasteners shall be no less than the same thickness as a standard nut, and all floor fasteners shall be secured and protected from corrosion for the service life of the vehicle. This shall consist of a reinforced structural steel frame and covered with a plywood sub-floor. **The floor shall be a continuous flat plane, level with uppermost portion of entrance stepwell assembly. No interior steps, ledges or protrusions that may pose a 'tripping' hazard shall be allowed.** The floor shall be butted to within ¼-inch of the adjoining sidewall and/or structures and cover panels. Floor surface edges shall be blended with a circular concave molding section with a radius of not less than one (1) inch. The molding shall be molded plastic, fiberglass, FRP, or extruded or press formed aluminum.

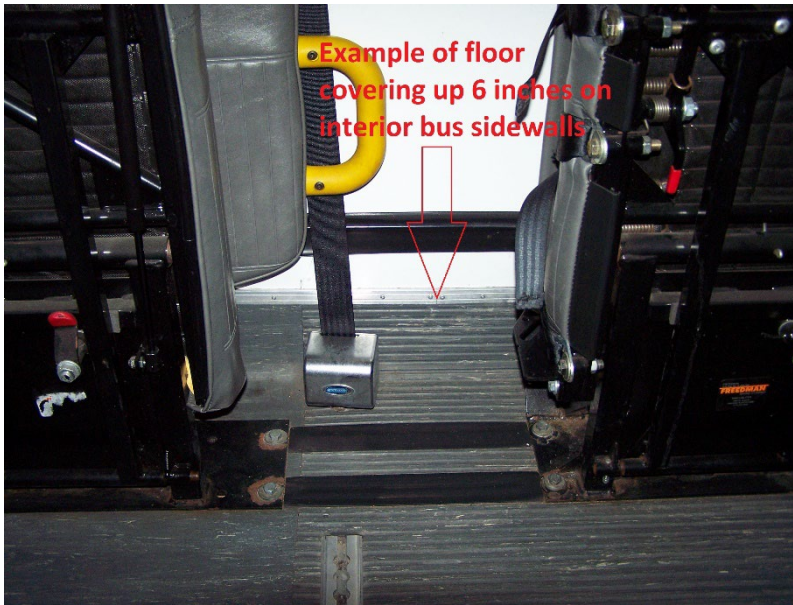
The floor as assembled, including the sealer, attachments, and covering, shall be waterproof, non-hygroscopic, resistant to wet and dry rot, resistant to mold growth, and impervious to insects. **Coosa BW20 3/4" Composite Panel flooring (high density, closed-cell polyurethane foam reinforced panel with woven roving and continuous strand fiberglass)** and securely fastened to the OEM metal floor structure assembly with flush type fasteners, to prevent chafing or horizontal movement.

Edges shall be properly sealed against moisture with a suitable permanent sealer, such as 3M Product 606NF or approved equal. All surface irregularities shall be filled and the sub-floor shall be sanded smooth, cleaned and prepared immediately prior to installation or the floor covering.

The vehicle floor shall be finished with an Authority approved high-quality commercial transit bus covering, laid with compatible adhesive and edge sealant. Step treads, entranceway, aisle and mobility aid positions shall be covered with Commercial Transit Grade non-skid covering.

The standard OEM supplied flooring in the driver's area shall be high-quality commercial grade rubber/vinyl incorporating anti-skid surface properties.

Floor covering shall be continued up the sidewalls approximately six (6) inches and neatly jointed to sidewall panel covering with a durable trim strip or rolled upward to fit neatly under bottom of seat rail. Color of the floor covering shall be Alto (or approved equal) medium-dark gray with white flecks to coordinate with the seating color and the general interior color.



Joints and seams shall be welded using a plastic welding process or be sealed (*an approved equal should be submitted if the joints or seams are not going to be plastic welded*). Floor covering joints shall be neatly mitered if required. Floor covering shall be rolled to eliminate bubbles or loose areas. Exposed sub-floor and floor covering edges in the wheelhouse and mobility aid lift areas shall be covered with corrosion-resistant metal or composition/elastomeric (preferred), trim strips attached with flush fasteners.

The Manufacturer shall protect flooring from damage after installation.

3.16.5 Steps and Stepwells

The passenger door stepwell assembly shall be of heavy-duty construction constructed of minimum 14-gauge steel sides and 10-gauge steel treads. All passenger door entry steps shall be uniform in step tread depth and riser height. Constructed riser height shall not exceed 8 inches. Uppermost portion of stepwell assembly shall be on even plane with finished vehicle floor. No interior 'adjustment' steps, ledges, or protrusions that may pose a 'tripping' hazard shall be allowed.

The drivers door shall be equipped with a running boards installed below the drivers door.

Proposers are advised that the stepwell design and installation will require the concurrence of Authority. Details of the stepwell design and installation shall be submitted as part of the approved equal process.

The stepwells shall be of modular design, one piece molded fiberglass, or one piece fabricated heavy gauge steel properly treated to resist corrosion, or corrosion-resistant steel, i.e., galvaneal steel, two-side galvanized, two-side iron-zinc alloy, zincrometal, stainless steel or aluminum.

The assembly shall be faired smoothly into the surrounding body floor and structure, and continuously welded all around, if metal construction. Stepwell shall be completely enclosed, and be weather tight and draft-free when passenger door is in the closed position. The stepwells shall be designed with coved or square corners,

and shall be adequately reinforced to prevent noticeable deflection when either step is loaded over the center half with a 300-pound static load.

Step treads shall be covered with 3/16-inch thick commercial transit grade, non-skid, ribbed composition rubber covering, identical in composition, appearance, and coloring as the interior floor covering. Step edges shall be covered with bright yellow molded-in step edge nosings over the full width of the step, with minimum or no taper into the butting riser covering. If screws are used for additional holding strength, they shall be dome-head type stainless steel and countersunk below material surface. Bottom (first from ground) step tread of vehicle shall be equipped with low voltage electrical tread heater to prevent accumulation of snow, ice, or slush. Tread heater, activated by either manual dashboard or thermostatically controlled switch, shall operate at less than one (1) watt per square inch with an operational temperature of approximately 160° F.

Affix a corrosion-resistant metal sign plate, or vinyl reflectorized decal, to the top step riser reading, "WATCH YOUR STEP."

3.16.6 Modesty Panels, Stanchions and Grabrails

Passenger assist grabrails and stanchions shall be 1 to 1-¼ inches in diameter and be constructed of stainless steel, or in the case of those that are not padded, constructed of either stainless steel or stainless steel clad tubing.

Grabrails within 48 inches of the floor shall be padded with integrally molded black vinyl padding. The padding shall be of an adequate design to minimize an injury to a passenger striking a stanchion in a crash condition and to withstand normal usage as a handhold. Overall design of stanchions including thickness, material of padding and locations shall require the review and approval of Authority prior to production.

All grabrails and stanchions shall be properly supported by structural metal and held in place with slip joints sufficiently overlapped to keep stanchion from sliding out. All stanchions shall extend to the roof and be securely fastened to either the roof bows or a steel plate welded to the roof bows. There shall be a ¼-inch travel before stanchion bottoms in the socket. Butt end joints in grabrails shall be avoided, but if necessary they shall be made under a fitting or hanger bracket. All fittings shall be stainless steel and the finish of fittings shall match the stanchions as near as possible. Each "T" connection shall be rigidly fixed with ¼-inch stainless steel bolts to prevent the "T" joints from slipping. The seam in the stainless steel tubes, and the padded covering on the tubes shall be turned in to be out-of-sight as far as possible.

There shall be not less than one and one-half (1-1/2) inches of knuckle room clearance at all stanchions or grabrails.

Modesty panels and mountings shall withstand normal kicking, pushing and pulling loads of 200-pound passengers without permanent visible deformation. Panels shall be attached so that there are no exposed edges or rough surfaces. Modesty panels shall be padded and covered with the same type and color material that covers the passenger seats.

3.16.7 Mobility Aid Lift Equipped Bus

The general layout of modesty panels, stanchions and passenger assist grabrails shall be in accordance with Authority approved configuration.

Passenger assist grabrails shall be provided at both sides of the entrance door/stepwells within easy reach from the ground to assist passengers in both boarding and alighting.

A diagonal support railing shall be provided at the right (front) of the stepwells to assist passengers in climbing and descending steps. A padded, floor-to-ceiling stanchion shall be located at the left rear of the stepwells. A diagonal support shall be provided from the stanchion to the entrance to assist passengers in climbing and descending steps. The diagonal support shall not be padded. A sturdy, padded energy absorbent, barrier/modesty panel shall be provided in this position also behind the stepwells.

A guardrail shall be provided in back of the driver's seat from the sidewall to a vertical stanchion. The rail shall be 30 inches above the floor. This rail shall not interfere with the driver's seat in any position, and the vertical stanchion shall be located to provide maximum aisle width.

The rail and stanchion shall both be padded. A rigid modesty/barrier panel, below the horizontal cross-rail, with a rigid (minimum .25 inch thick) tinted Plexiglas or plastic shield provided at the rear of the driver's station. There shall be three (3) inches of hand clearance above the cross rail and one and one-half (1-1/2) inches of knuckle room below the cross rail. Final construction and design of the driver's barrier shall require Authority approval.

A padded stanchion shall be provided and positioned in order to prevent a seated passenger from striking any part of the mobility aid lift. The stanchion shall be located twenty-four (24) inches from the sidewall and a heavily padded modesty panel thirty (30) inches in height shall be provided between the stanchion and the sidewall, securely mounted in at least four (4) points. The panel shall be high enough to prevent seated passengers from striking any part of the lift and strong enough to protect passengers from severe impact. A second vertical stanchion will extend above the thirty (30) inch bar to ceiling fourteen (14) inches from sidewall with two (2) additional cross bars attached to sidewall. The top section will offer protection by means of a tinted Plexiglas panel.

3.17 Vehicle Doors and Windows

3.17.1 Front Passenger Entrance Door

The vehicle shall be equipped with an electric operated bi-fold commercial style front passenger entrance door located on the curb (right) side, just behind the front wheels. Door opening shall be a minimum of 36" wide and 87" high. The vehicle shall utilize an A&M Systems or approved equal gear based 12 volt electric power control system operated by the driver's right hand from the driver's position controlled through a switch panel. Door control shall be within arms reach of a 50th-percentile female driver. The force required to operate the door control shall be well within the strength capabilities established by industry recognized human factors standards. The mechanism shall be adequately reinforced and supported. The mechanism shall be bolted in place and secured with self-locking nuts, utilizing adequate reinforcement within the door to

reduce stresses and minimize deflection. The door mechanisms shall hold the door open in wind and when the vehicle is not standing on level ground. The door mechanism support structure shall not distort, and shall have minimum deflection when door is in the closed position. The door operating mechanism and support structure shall be capable of withstanding normal use and passenger abuse. No portion of the door control mechanism or supporting structure shall interfere with the bus heating and air conditioning system.

The meeting edges of doors shall be equipped with four (4) inch wide extruded elastomeric edge seals, on each door section, that overlap a minimum of 2-1/2 inches to form a tight seal. Upper and lower edges of doors shall be tightly sealed against entrance of air drafts and water, including spray from commercial vehicle washing equipment. 'Sweeps' at the bottom of entrance door that allow drainage of water are acceptable. All materials used for weather sealing shall be designed to withstand varying temperature extremes, road splash and roadway salt, and other exterior elements without cracking, leaking, loosening or deteriorating.

The doors shall be equipped with glazing of adequate size and placement to provide the driver with maximized right side vision, and to allow the driver to see and judge the curb location when stopping. Doors shall be equipped with one piece equal length single large pane panels. Glazing and panels shall conform to all FMVSS and State Motor Vehicle Safety Standards.

The opening shall be structurally reinforced for strength and rigidity.

Extended steel doorframes shall be 14 gauge steel, sealed, powdered coated, completely covered by the roof shell assembly, and shall be integrated in such a manner so as to maintain the roof and body aerodynamic design. A cushioned door header pad shall be provided on the inside, above the entrance door, and covered with upholstery material that matches the interior color scheme.

Entrance door header shall have an access panel allowing lubrication, maintenance, and removal of front door mechanism.

Notwithstanding the above requirements, all doors, installations, and door components shall meet with Authority approval.

3.17.2 Mobility Aid Lift Door

The lift system shall be located on the right (curb) side of the vehicle, just rearward of the passenger entrance door. Mobility aid access shall be through double or single-swing-out type side door(s).

The lift door(s) shall be equipped with an exterior latch handle. An interior release handle may be required, subject to Authority approval. Interior release handle, if so equipped, shall be red-colored. Upper and lower edges and sides of door(s) shall be tightly sealed against entrance of air drafts and water, including spray from commercial vehicle washing equipment. All materials used for weather sealing shall be designed to withstand varying temperature extremes, road splash and roadway salt, and other exterior elements without cracking, leaking, loosening or deteriorating.

Mobility aid lift access door(s) shall be equipped with glazing of adequate size, of the same height as the passenger side windows (or as close as is practicable), and tinted to match that of the passenger side windows. Glazing shall conform to all FMVSS and State Motor Vehicle Safety Standards. All glazing installation shall be secure, clean of any excess sealer and leak free.

All glazing installations shall require Authority final approval.

The mobility aid lift access door shall have a clear opening height of at least sixty-seven (67) inches, minimum, measured when the lift platform is in the fully raised usable position, to the top of the lintel of door header. The lift door(s) shall provide a clear opening width of forty-four (44) inches, minimum, for ease of operation of the lift system. The opening shall be structurally reinforced for strength and rigidity.

Mobility aid access door(s) shall be mounted on heavy-duty, corrosion-resistant hinging and attached to the supporting structure. Authority requires hinging equipped with zerk type lubrication fittings or permanently lubricated. Door(s) shall open and close without binding, sagging or flexing. The door design shall provide for adjustments to allow proper alignment. Pivot points on the door(s) and door shafts shall have bushings or bearings that are either permanently lubricated or equipped with zerk type fittings for lubrication. The structure of the door(s), their mounting, inside and outside trim, and any exposed mechanisms shall be of durable, corrosion-resistant material which is rigidly reinforced. Lift door(s) shall be equipped with gas-props to retain the door(s) in the full open position when the lift is deployed against the wind or when vehicle is standing on sloped surfaces. Mounting points for the gas-props shall be rigidly reinforced such that opening of mobility aid access door(s) past the full open position will not result in any movement of mounting points. The Contractor shall provide details on design of door hold-open device(s) for Authority approval.

Extended steel or aluminum door frames shall, if used, be completely covered by the roof shell assembly, and shall be integrated in such a manner so as to maintain the roof's (and body) aerodynamic design. A cushioned door header pad shall be provided on the inside, over the lift system entrance door(s), and covered with upholstery material that matches the interior color scheme.

Notwithstanding the above requirements, all doors, installations, and door components shall meet with Authority approval.

3.17.3 Windows

The vehicle shall be equipped with transit design type passenger windows. The side window area shall be as large as practical to provide passengers with an unobstructed exterior view. It is desired that a window, or window clear area, be located adjacent to each seat row on both sides of the vehicle.

Window sash shall be constructed of aluminum with black anodized finish, or highly durable scratch-resistant black color finish. Windows shall incorporate durable plastic or nylon (or other similar material) tracks that will not permit metal-to-metal or glass-to-metal contact.

School bus type windows are not acceptable for this application.

The windows shall be securely mounted to the main structural framing of the body. The window opening shall meet the applicable provisions of FMVSS 217. The side windows shall be easily replaceable and shall be sized so that they are interchangeable to the maximum extent possible.

The side windows shall incorporate full emergency push-out capabilities, be equipped with quick release latches per FMVSS 217, and designed to allow quick resetting by the bus operator. The number of windows so equipped shall be as required by the applicable provisions of FMVSS 217. Emergency push-out instructions, clearly and permanently marked on plastic / metal plates or decals, to indicate proper use and operation, shall be located on the vehicle body sidewalls or window mullions within the viewing plane of seated passengers including mobility aid passengers.

All vehicle glazing shall be in compliance with applicable FMVSS standards. All passenger side windows shall be uniformly tinted the darkest gray color allowed by FMVSS.

Standee windows, if fitted, shall be fixed type or approved equal with essentially comparable standards of quality, design and performance in compliance with existing applicable FMVSS standards. Glass sections shall be uniform in length.

All windows shall be fitted with durable firmly installed weather seals to prevent the entrance of air and water, including spray from commercial vehicle wash equipment and driven rain. Materials used for weather seals shall be designed to withstand varying temperature extremes, road splash, salt and other exterior elements without cracking, leaking, loosening or deteriorating. Edges prevent cutting into rubber seals and channels.

All questions regarding the type and quality of safety glazing material, other than OEM glazing, shall be determined by the test methods prescribed in the ASA's latest revision of AS-Z-26-1A, "Safety Code for Safety Glass for Glazing Motor Vehicles Operating on Land Highways."

Windshield, windows and glazing shall meet all applicable Federal and State Motor Vehicle Safety Standards. Details of the window design and installation shall be submitted as part of the proposal and require the concurrence of Authority.

3.17.4 Insulation

The bus body shall be completely insulated to minimize thermal transfer. Any insulation material used between the inner and outer body panels shall be fire-resistant and sealed to minimize entry of moisture and to prevent its retention in sufficient quantities to impair insulation properties.

Insulation properties shall be unimpaired by vibration compacting or settling during the life of the vehicle. The insulation material shall be non-toxic, non-hygroscopic and resistant to fungus and breeding of insects. Any insulation material used inside the engine compartment shall be fire-resistant and shall not absorb or retain oils or water.

The combination of inner and outer body panels on the sides, floor, and ends of the vehicle, and any material used between these panels shall provide thermal insulation sufficient to meet the interior temperature

requirements of these Technical Specifications. The vehicle body shall be thoroughly sealed so that the driver or passengers during normal operations cannot feel drafts with the passenger doors closed.

The combination of inner and outer body panels, and any material between them, shall provide sufficient sound insulation to minimize vehicle-generated and outside-source-generated noise transmission into the vehicle cabin. The engine compartment shall be insulated from the passenger compartment with chassis OEM or vehicle builder's insulation package to minimize transmission of noise, heat and fumes.

Gaps between the body sidewall, roof, inner ceiling, and body end caps are to be filled with a thickness of fiberglass, or other material of equal or greater effectiveness, sufficient to provide a minimum insulating factor of RE-5.

3.18 Vehicle Seating and Restraints

3.18.1 General

Fourteen (14) Passenger Paratransit Vehicle:

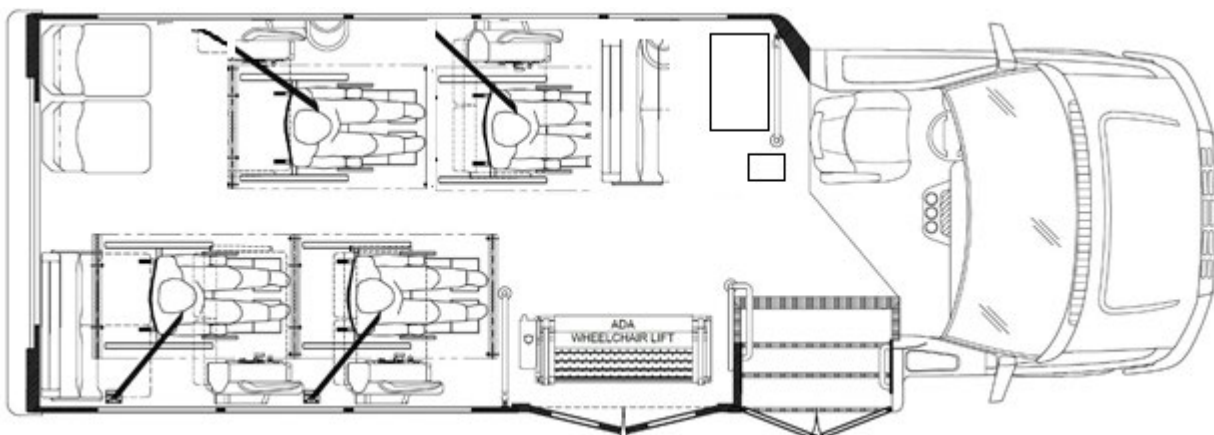
The vehicle shall be designed to accept the seating configuration with defined capacity and comfort. The rated seating capacity of the vehicle shall be fourteen (14) ambulatory passengers, not including the driver. The vehicle configuration shall accommodate four (4) forward-facing mobility aid positions, and four (4) ambulatory passengers, or fourteen (14) ambulatory passengers with no mobility aids.

Seventeen (17) Passenger Fixed Route Vehicle:

The vehicle shall be designed to accept the seating configuration with defined capacity and comfort. The rated seating capacity of the vehicle shall be seventeen (17) ambulatory passengers, not including the driver. The vehicle configuration shall accommodate two (2) forward-facing mobility aid positions, and eleven (11) ambulatory passengers, or seventeen (17) ambulatory passengers with no mobility aids.

3.18.2 Arrangement for Mobility Aid Accommodation

Fourteen (14) Passenger Paratransit Vehicle:



Seating for (14) passenger vehicles equipped with (4) mobility aid accommodations shall be ADA compliant and configured as follows;

Driver's Side/Streetside (Begins from front progressing rearward)

- One (1) Single person forward facing driver's seat, 6-way power adjustable
- One (1) Two-passenger forward facing foldaway seat
- One (1) Two-passenger forward facing foldaway seat
- One (1) Two-passenger forward facing flip seat w/positive locks
- One (1) Two-passenger forward facing fixed seat (rear/last row)

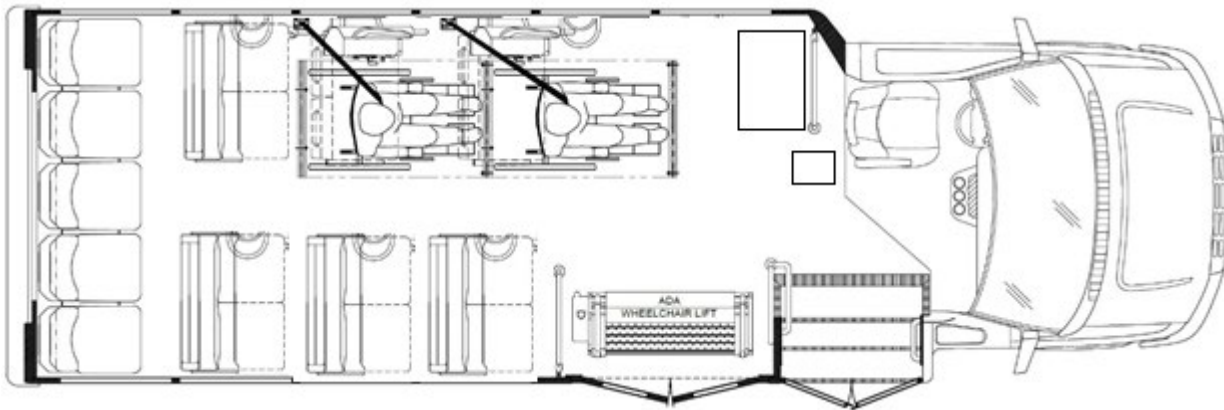
Passenger/Curbside (Begins behind wheel chair lift door progressing rearward)

- One (1) Two-passenger forward facing foldaway seat
- One (1) Two-passenger forward facing foldaway seat
- One (1) Two-passenger forward facing flip seat w/positive locks (rear/last row)

Authority preference for fixed seating is either Freedman or C. E. White mid-hi 'bench' or 'notch' type rigid backrest equipped with a top and a corner grab rail, or Authority approved equal. Top and corner grab rails are to be yellow in color. Top grab rails for window seat and corner grab rail for aisle seat.

Authority desires all 'foldaway' passenger seats to be mid-high 'bench' or 'notch' type Freedman, C. E. White, Braun Series 125, or Authority approved equal. 'Foldaway' passenger seats shall be equipped with a top and a corner grab rail. Top and corner grab rails are to be yellow in color. Top grab rails for window seat and corner grab rail for aisle seat.

Seventeen (17) Passenger Fixed Route Vehicle:



Seating for (17) passenger vehicles equipped with (2) mobility aid accommodations shall be ADA compliant and configured as follows;

Driver's Side/Streetside (Begins from front progressing rearward)

- One (1) Single person forward facing driver's seat, 6-way power adjustable
- One (1) Two-passenger forward facing foldaway seat
- One (1) Two-passenger forward facing foldaway seat
- One (1) Two-passenger forward facing foldaway seat
- One (1) Two-passenger forward facing flip seat w/positive locks

Passenger/Curbside (Begins behind wheel chair lift door progressing rearward)

One (1) Two-passenger forward facing fixed seat

One (1) Two-passenger forward facing fixed seat

Rear (Last row extends from driver's side across to passenger side)

Five (5) One-passenger forward facing fixed seats

Authority preference for fixed seating is either Freedman or C. E. White mid-hi 'bench' or 'notch' type rigid backrest equipped with a top and a corner grab rail, or Authority approved equal. Top and corner grab rails are to be yellow in color. Top grab rails for window seat and corner grab rail for aisle seat.

Authority desires all 'foldaway' passenger seats to be mid-high 'bench' or 'notch' type Freedman, C. E. White, Braun Series 125, or Authority approved equal. 'Foldaway' passenger seats shall be equipped with a top and a corner grab rail. Top and corner grab rails are to be yellow in color. Top grab rails for window seat and corner grab rail for aisle seat.

Fourteen (14) and Seventeen (17) Passenger Vehicles:

All transverse mounted forward facing seats shall be arranged to provide passenger hip-to-knee room clearance of 28 inches, minimum. Care shall be taken in locating seating positions within the vehicle to ensure passenger leg and foot room is optimized.

Proposers are advised that 'bench' or 'notch' type backrest passenger seating is acceptable. All passenger seating backrests within vehicle, whether foldaway, flip, or fixed type, shall be the same type.

The passenger aisle shall be centered in the forward seating area of the vehicle and shall be 16.0 inches wide, minimum, with 20 inches width desired.

Provisions shall be made to accommodate four (4) forward-facing mobility aid positions on fourteen (14) passenger vehicles. Two (2) mobility aids shall be parked on the left, (streetside) of the vehicle rearward of the driver's area. Two (2) mobility aids shall be parked on the right, (curbside) of the vehicle rearward of the mobility aid lift. Provisions shall be made to accommodate two (2) forward-facing mobility aid positions on seventeen (17) passenger vehicles. Two (2) mobility aids shall be parked on the left, (streetside) of the vehicle rearward of the driver's area.

A clear aisle of minimum width must be maintained on the vehicle. All passenger seats must be equipped with certified non-retracting seat belts. All mobility aid positions shall be equipped with a tie-down restraint system meeting all ADA/FTA regulations.

The Proposer shall provide floor plan/seating arrangement drawings that are to scale, and meet the passenger seating and mobility aid capacity requirements of these specifications. Drawings, at a minimum, shall show the location and dimensions of all seating positions, mobility aid restraints, driver's position, mobility aid lift, aisles, doors, stepwells, windows, wheel housings, modesty panels, stanchions, grabrails, and other passenger

assists. In addition, all major body interior dimensions must be shown. Authority requires scaled diagrams or layout drawings to be supplied on paper, at minimum, 8-1/2 inches by 14 inches.

Authority shall approve proposed seating arrangement plans.

3.18.3 Driver's Seat (Highback Suspension Type)

Driver's seat shall be a Recaro LXS or an approved equal with right side fold-up arm rest and six-way power adjustable. Driver Seat shall be covered with Vinyl, 32 ounce, color #686 Newport Ash Grey or approved equal.

3.18.4 Passenger Seats

Passenger seats shall be Freedman Feather Weight Mid/High seats with flip and foldaway seats in locations that correspond to positions as described. Seats shall be covered with Freedman Vinyl, 32 ounce, color #686 Newport Ash Grey or approved equal. Lap belt length shall be a minimum of 74".

(This configuration will be confirmed at the preproduction meeting)

3.18.5 Mobility Aid Restraint System

Authority prefers a heavy-duty retractable mobility aid/occupant securement and restraint system providing positive-locking fully automatic tensioning and adjustment Q'Straint Part# Q-10007 which meets WC18 specifications which took effect January 1, 2016 or Authority approved equal. System shall include a minimum of four (4) retractors for securing each mobility aid. Authority prefers retractors to be equipped with rubber covers (if rubber covers are not available from manufacturer, no covers are required) and shall be equipped with large (Authority prefers minimum of 2 inch) dual tensioning hand wheels or knobs, easy to release positive-locking tension levers or buttons, and shall be interchangeable (able to function in any securement location). All components of mobility aid/occupant securement and restraint system shall be detachable (unboltable) from anchoring point.

Each of the bus wheel chair positions shall be equipped with four (4) Q'Straint Quick Straps (Part # Q5-7580) or Authority approved equivalent to assist in securement and to prevent damage to mobility aid.

A combination mobility aid/occupant restraint system shall be provided for each mobility aid position. The restraint system shall be so designed, configured and installed to provide for accommodation of the broadest possible population spectrum of mobility aid sizes and designs of varying widths equipped with both, solid tires and large-section pneumatic tires, including the newest design propelled mobility aids. Use of the restraint system shall not cause damage to any part of the mobility aid.

The system shall be so designed and configured that the occupant and mobility aid are independently from each wheel chair position and securely fastened and restrained with no dependence of one upon the other. The system shall positively secure the mobility aid with two front and two rear adjustable belt type hold-down assemblies. The mobility aid securement system shall limit the movement of an occupied mobility aid to two inch (2") or less in any direction under normal vehicle operation. Each hold-down assembly shall be attachable into one of four (4) anchorage points that are recessed and flush-mounted into the vehicle floor. The tie-down anchorage assemblies shall be equipped with a tightening device to tension the belt after the initial snug up.

Authority requires floor mounted anchorage points to be, at a minimum, thirty inches (30”) in length, recessed and flush-mounted sections of track such as Q’Straint OMNI L Series Flange 6000 track or Authority approved equal. Floor mounted anchorage points are to be mounted perpendicular to the vehicle interior walls. Spacing of the tracks shall be the widest practicable to accommodate floor plan and ADA requirements.

A combination upper torso (shoulder) and lap belt assembly, which attaches directly into the rear mobility aid tie-down belt attachment hardware, shall be provided as part of the system. The shoulder belt shall be attached to an upper anchorage point located on the vehicle body at the appropriate height (Height adjustable required) and longitudinal rearward displacement. It should be in relation to the seated mobility aid passenger for maximum effectiveness and shall be in accordance with the restraint system manufacturer’s specifications and instructions. The Authority prefers the restraint belts be easily identified and permanently marked as to their location of use as follows: “FRONT,” “REAR,” “LAP,” “SHOULDER.” If manufacturer does not offer a mechanism for identifying belts, this requirement may be omitted.

The mobility aid anchorage points must be securely fastened to the vehicle floor, through the plywood underlayment and vehicles body metal floor, using the anchor’s bracket and bolt assembly, flat washer reinforcement, and other reinforcements as necessary, and secured with a corrosion-resistant high-strength grade self-locking nut. The shoulder belt anchor bracket shall be securely attached to the vehicle body structural members, using additional reinforcements if necessary to prevent pullout.

Both the lap belt and shoulder belt assemblies shall be so designed incorporating provisions to be easily adjustable utilizing Q’Straint Lap Belt Extenders, Part# Q8-6324 or approved equal. They should be of sufficient length to accommodate passengers ranging in size from the 5th-percentile female to the 97 ½-percentile male and including persons of a very stocky nature and short and tall stature. The restraint system shall also accommodate the above passenger population distribution when dressed in bulky winter clothing, with nearly equivalent restraint effectiveness as is achievable and practicable. Failure to meet these criteria shall deem the system to be in non-compliance with these specifications, and may be cause for rejection of the system by Authority.

The mobility aid restraint system shall meet the dynamic testing criteria established by the UMTRI impact sled tests for a minimum 30 mph and 20g force conditions and all ADA/FTA, SAE J-2249, and the new WC18 regulations. All restraint system components shall meet minimum static testing forces equal to:

| | |
|-------------------------------|------------|
| Rear belt assembly | 5,000 Lbs. |
| Front belt assembly | 2,500 Lbs. |
| Lap belt assembly | 2,500 Lbs. |
| Shoulder belt assembly | 1,500 Lbs. |
| Shoulder belt anchor assembly | 2,500 Lbs. |
| Floor insert anchor assembly | 6,000 Lbs. |

A set of clear, concise, user instructions for the operation of the restraint system, printed on durable heavy paper material or plastic, shall be furnished with each restraint system to remain in the bus.

A fixed storage container or receiver with top entry shall be one of the following; wall-mounted and floor secured, wall-mounted storage rack or under seat track type storage system shall be provided for each of the mobility aid restraint systems to store restraints when not in use. The Authority prefers a under seat track type storage system. The storage units shall be located in a convenient location that does not interfere with or cause an inconvenience to seated passengers.

3.19 Vehicle Interior Lighting

3.19.1 Passenger Cabin Area Lighting

An LED type lighting system shall be provided for general illumination in the passenger compartment area. Incandescent or florescent lighting is not acceptable. The system shall produce a uniformly comfortable lighting intensity at the reading level for all seat and mobility aid positions.

Authority prefers interior lighting system to be Dialight, Optronics, Maxxima or an approved equal, which shall include fixtures, cool white lamps, controls, power supply and all necessary components to make a complete fully functional system. Anything necessary to make complete and fully functional system shall be included.

The system shall provide no less than fifteen (15) foot-candles illumination (during night operation) on a one-square-foot plane at an angle of 45° centered 30 to 33 inches above the floor, and twenty-four (24) inches in front of the seat back at each seating position.

Floor surface illumination in the aisle areas shall be illuminated to no less than ten (10) foot-candles. Lighting fixtures shall be located above the side windows, at or near the juncture of the ceiling headliner and the sidewall of the bus body, on both sides of the vehicle. Lighting fixtures, on either side, shall not extend forward of the driver's rear barrier. Lighting system fixture (and lenses) shall be designed and located to minimize side glare into the drivers' eyes, and casting reflections onto the windshield. Lamp fixtures shall be LED type, transit quality units with cool white lenses. Lamp fixtures and lenses shall be fire-resistant and shall not drip flaming material onto seats or interior trim if burned.

The fixtures and lenses shall be sealed to prevent entrance and accumulation of dust and insects but shall be easily opened for cleaning and servicing of fixture components, lamps and lenses. Interior lighting shall be operable through a separate driver-controlled dash panel-mounted switch only when the engine ignition switch is in the "ON" or "ACCESSORIES" position.

3.19.2 Entrance Stepwells Area Lighting

The front passenger entrance door stepwell area shall be illuminated by a transit quality LED system with cool white lenses. The lighting intensity of the front stepwell area shall be adequate to light the stepwell and step treads with between a minimum of one (1) to two (2) foot-candles of illumination, and illuminate the ground surface and/or curb area for a distance of three (3) feet from the bottom step edge outward in all directions. Each step tread in the stepwell shall be illuminated by the positioning of a flush or surface mounted LED centered on both the left and right side of the stepwell. The light(s) shall be hooded, shielded, or mounted in a configuration to protect drivers and passengers' eyes from glare. The light fixture(s) and lens shall be totally

enclosed, sealed and splash proof, and designed to provide ease of cleaning as well as lens, lamp and housing removal. Lighting for each step shall be located and mounted in a manner to be protected from damage caused by passengers kicking the lens(s) or fixture(s), and shall not be a tripping hazard to passengers boarding or alighting. The light(s) shall be located and positioned to preclude the light beam from casting a shadow of one step into another step tread. The stepwell and curb light(s) shall activate only when the engine ignition front switch is in the “ON” or “ACCESSORIES” position, only when the front entrance door is open, and only when the vehicle parking lamps or headlamps are on. Additionally, a separate driver-controlled override switch shall be provided to illuminate the stepwells and curb light(s) when the front entrance door is open or closed, and during day or night operations.

3.19.3 Driver’s Area Lighting

The driver’s area shall have a LED dome light to provide general illumination and it shall illuminate the lower one-half of the steering wheel to a level of six (6) to fifteen (15) foot-candles. This light shall be controlled by a switch convenient to the driver, and operable when the engine ignition switch is in the “ON” or “ACCESSORIES” position. A driver courtesy light shall be provided to illuminate the driver’s entrance area with a low-level light intensity of one (1) to two (2) foot-candles of illumination when the driver’s door is opened.

3.19.4 Mobility Aid Lift Area Lighting

The mobility aid lift system shall be equipped with either LED or halogen lights to provide general area illumination, within an area of a four (4) foot radius outside of the door opening, for the lift system during mobility aid passenger loading and off-loading operations. The lights shall automatically activate when the lift doors are opened and the lift system power master control switch is in the “ON” position, and the vehicle parking lamps or headlamps are on. The preferred method of illuminating the lift area is by uses of two flood type lamps, or two automotive back-up type lamps, mounted on the mobility aid lift frame assembly or structure. The lighting intensity level shall be sufficient to safely perform mobility aid passenger loading and unloading operations, but not of unduly high intensity so as to cause excessive glare or blinding of the operator or mobility aid passenger.

3.19.5 Interior Required Lighting Zones & Activation Switch Configuration

Interior Lighting Configuration will require Authority review and approval. Proposed interior lighting configuration shall be separately switched and submitted as part of the approved equal process and include drawings that depict minimally the area lighting configuration indicated;

1st Row

- Front HVAC Blower Speed
- Rear Heat Fan Speed

2nd Row

- Passenger Door Open & Stepwell Lights (separately switched and activated when door opened)
- Driver dome light
- Left close out lights above and along passenger windows
- Right close out lights above and along passenger windows
- Center isle lights
- Left & Right passenger courtesy (reading/flo) lights

- Interlock/lights for wheel chair lift
- Step heater
- Rear A/C Fan Speed
- Temp Control A/C
- Rear Heater Blower Fan Speed

3.20 Vehicle Controls and Instrumentation

3.20.1 Switches and Controls

All switches and controls necessary for the operation of the vehicle shall be conveniently located in the driver's area and shall provide for ease of identification and operation.

All non-chassis OEM switches and controls (if applicable), added by the vehicle builder (Contractor), shall be essentially within the hand reach envelope described in SAE Recommended Practice J287, Driver Hand Control Reach, with seat belt fastened.

Controls and switches shall be logically organized, and located and mounted in convenient groupings according to function. It is preferred that added switches, controls, warning lights, instruments, etc. (if applicable) be mounted in a separate cluster panel that is mounted to, or adjacent to, the vehicle dash panel and convenient to the driver. All switches and controls shall be marked with permanent easily read identifiers. All non-chassis OEM supplied switches shall be of uniform, back-lighted rocker type and shall be lit, when vehicle parking lamps or headlights are lit. All switches and controls shall be chassis OEM and/or heavy-duty transit quality components. All panel-mounted switches and controls shall be easily replaceable and wiring of these switches and controls shall be easily serviceable. Switches and controls shall be dust-and water-resistant.

The following minimum controls, in addition to the standard chassis OEM controls and specified chassis OEM (if applicable) accessory controls, steering, braking, and transmission functions, are to be provided:

- Engine fast idle control.
- Passenger door control.
- Passenger cabin interior lighting control(s).
- Heating, ventilation, and air conditioning system control.
- Vehicle shall be equipped with a Child Reminder System in compliance with current regulations.

3.20.2 Instrumentation

The vehicle shall be equipped with a complete set of analog or digital type instruments, meters, and gauges mounted in the driver's dash panel to report status of engine and ancillary system functions. Illumination of instrumentation shall be simultaneous with exterior lighting functions, with brilliance controlled by the light intensity control (integrated with the exterior lighting control switch), or by a separate variable control switch. The following instrumentation is to be provided as part of the base vehicle chassis equipment:

- Speedometer equipped with odometer.
- Voltmeter gauge.

- Engine oil pressure gauge
- Engine coolant temperature gauge.
- Fuel tank level gauge.

The vehicle shall also be equipped with the full compliment of base vehicle warning and indicator lights, and including those required by Federal regulations. All gauges shall be backed-up by warning (“tell-tale”) indicator lights if chassis OEM standard or available option. For example:

- Alternator not charging.
- Low engine oil pressure.
- Hot engine coolant temperature.
- Low fuel level(s).
- Low Diesel Exhaust Fluid (DEF)

The vehicle shall also be equipped with an audible buzzer tone indicating key left in ignition switch when engine is not running, and an audible bell tone indication parking lights or headlights left on when key is removed from ignition switch.

3.21 Vehicle Climate Control

3.21.1 General

The interior climate control system shall be designed to maintain the interior of the vehicle at a level suitable for passenger comfort under all ambient seasonal climatic conditions prevailing throughout the Nashville Metropolitan Area. The climate control system shall be efficient and highly reliable to minimize operational service disruptions.

3.21.2 Performance

The heating, ventilating, and cooling systems shall maintain an average passenger compartment temperature between 65 degrees and 80 degrees with a relative humidity of 50% or less. The system shall maintain these conditions in ambient temperatures of minus ten (-10°) degrees to 100 degrees Fahrenheit, with ambient humidity of 5 to 50%, while the vehicle is running in intensive stop and go operations with a full load of passengers. In ambient temperatures of 95 degrees to 100 degrees Fahrenheit with relative humidity lower than 50%, the system shall maintain a temperature gradient of 20 degrees Fahrenheit, while the vehicle is running in intensive stop and go operations with a full load of passengers. In ambient temperatures of ten (10°) degrees to minus ten (-10°) degrees Fahrenheit, the interior temperatures measured from a height of six (6) inches below the ceiling shall be within plus or minus five (+/-5°) degrees Fahrenheit of the average temperature at the top surface of the seat cushions. Temperatures measured more than three (3) inches above the floor shall be within plus or minus five (+/-5°) degrees Fahrenheit of the average temperature at the top surface of the seat cushions.

The interior temperature from front to rear of the vehicle, shall not vary more than plus or minus five (+/-5°) degrees Fahrenheit from the average.

The heating system mode shall be capable of meeting the performance requirements of this Specification tested in accordance with the procedures of SAE J638, Test Procedures and Ratings for Hot Water Heaters for Motor Vehicles.

Under the following conditions, the air conditioning system mode shall be capable of reducing the passenger compartment temperature from 100 degrees Fahrenheit to 75 degrees Fahrenheit within 30 minutes after engine start-up: Engine speed shall be limited to normal fast idle speed (1,000 - 1,200 Rpm's), that may be activated by a driver controlled switch, with the ambient temperature at 100 degrees Fahrenheit and humidity less than 50%, for at least one hour. There shall be no passengers aboard and the door(s) shall be closed. Inlet of outside air may be cut-off during the cool-down period. The entire system must use R-134A refrigerant.

3.21.3 Air Flow

The interior climate control system operating in heating and air conditioning modes shall introduce climatized air into the vehicle that is evenly distributed from the floor to ceiling, and front to rear of the vehicle with air velocity not exceeding 100 feet per minute directed on any passenger. Air shall be distributed into the passenger compartment from the front and rear climate control units (HVA/C) by means of selectable high/low outlet ducting.

The climate control system, operating in the heating/ventilation/defroster and cooling modes, shall deliver sufficient airflow into the driver's area including the area around the driver's feet and legs, to provide a comfortable environment under all specified ambient climatic conditions. The defroster or climate control system shall maintain visibility through the driver's side window and the front entrance door window.

3.21.4 Operating Equipment and Design, Thermo King, Trans/Air or Approved Equal

Operating equipment (hardware) design specifications are written around and describe a two unit-type front and rear HVAC system(s), such as may be used by a proposer whose vehicle design may or may not utilize an outsourced OEM vehicle chassis. However, a single, completely integrated HVAC system of sufficient capacity will be considered depending on design, such as may be used by a proposer whose bus design may or may not incorporate a unitized chassis/body design. Regardless of the HVA/C system offered by the proposer, all other performance and operational aspects of this Specification apply.

The front climate control system shall be the heaviest duty dash panel mounted units available from the vehicle chassis OEM (if applicable), providing high-output heating, defrosting, ventilation, and air conditioning (HVA/C) functions. The front system shall meet the requirements of FMVSS 103. The vehicle shall also be equipped with the highest output rear-located air conditioning system and auxiliary hot water heating system available for the vehicle.

Control of these functions shall be through a minimum three-speed blower fan control switch, variable temperature adjustment control, outside-air/recirculation-air diverter selector control, and adjustable dash panel mounted air outlet nozzles. Control of the functions, both the front and rear systems, shall be independent and separately operable and located for ease of operation from the driver's seat position. The rear auxiliary heating system shall incorporate an in-line shut-off valve installed in the vehicle engine

compartment or under vehicle on street side just rear of driver's seat, whose handle is painted red or red tagged. Under vehicle installation shall require decal applied to lower body skirt identifying location. Both the front and rear climate control systems shall shutdown automatically when the engine ignition system is turned off.

If an out-sourced vehicle OEM chassis is used and its rear climate control system (HVAC), in combination with the OEM chassis front dash panel mounted system (including evaporator assembly), cannot meet the performance requirements of this Specification, a higher capacity system from an out-sourced OEM heavy-duty equipment supplier must be installed. The auxiliary air conditioning unit shall be a heavy-duty transit quality assembly. The system shall incorporate a rear ceiling mounted evaporator enclosed in an outer casing made of corrosion-resistant metal, high-impact ABS plastic, or fiberglass reinforced plastic (FRP) material. The system shall incorporate adjustable multi-speed high-capacity blower fans driven by permanently lubricated heavy-duty electrical motors, air distribution ducts to outlet grilles and/or adjustable air directional blowers or nozzles to evenly distribute air throughout the passenger compartment. The system shall be independent and separately operable and thermostatically controlled from the driver's seat position, or by an easily accessible control panel located on the evaporator unit; based upon approval by Authority.

The Higher-Capacity Auxiliary Hot Water Heater(s) assembly shall be located at the rear area of the vehicle under the fixed passenger seats. Heater(s) outlet shall be shielded, or air diffused to prevent blowing of hot air directly onto the passengers' legs.

Heat rejection of the air conditioning system shall be through an outside street-side skirt-mounted condenser unit. Condenser fans shall be powered by independent heavy-duty sealed and permanently lubricated, permanent magnet ball bearing electric motors. Internally mounted pressure controls and a system sightglass, placed in a readily accessible location must be provided. The unit assembly must be of heavy-duty transit grade construction utilizing corrosion-resistant metal.

The heater/ventilator/defroster unit located in the driver's area shall be the highest capacity unit available for this type and size of bus. It shall operate independently of the passenger area unit, and shall meet the requirements of FMVSS 103.

The vehicle shall be equipped with an engine fast idle control to be used primarily in conjunction with the air conditioning system for use during stand-by periods. The engine fast idle control shall permit the driver to increase engine idle speed to a preset RPM (in the range of 1,000 to 1,500 Rpm's). The fast idle selector shall be operative only when the transmission selector is in the park or neutral position and the parking brake is set. The control switch shall be interlocked so as to return the engine to normal idle RPM, automatically, when the parking brake is released or when transmission is put in gear.

It is estimated that the climate control system (both front and rear units in combination, if applicable) will require a minimum output capacity of approximately 60,000 to 70,000 BTU in the cooling mode, and 70,000 to 80,000 BTU in the heating mode, to provide a comfortable interior environment under the ambient climatic conditions.

All electrical relays, fuses, circuit breakers, etc. shall be heavy-duty type and located in a weather proof, but easily opened electrical panel or box inside the vehicle for reliability and ease of repair. All refrigeration hoses shall be constructed in order to comply/exceed SAE specification – J2064 Type D. The construction of the hose shall include a nylon based thermoplastic inner liner reinforced with two (2) separate layers of textile yarn and a cover consisting of a synthetic elastomer in order to reduce incidences of chaffing, cuts and rub through. All refrigeration fittings shall be constructed in order to comply/exceed SAE specification – J2064 Type D. The construction of the fittings shall be of steel with yellow zinc plating per ASTM-B-633 capable of maintaining integrity after 250 hours of salt spray testing. The hose-coupling end of all fittings shall include two (2) hose barbs and two (2) HNBR elastomer gaskets.

All refrigeration and heater supply lines that enter the passenger compartment must be encased in a protective rigid material; fiberglass, plastic, aluminum or steel, etc. Run-off water from the rear evaporator drain pan must be piped to drain-off at the rear underside area of the vehicle.

All air conditioning and heater hoses, and electrical wiring that pass within twelve (12) inches of the vehicle's engine exhaust system shall be shielded in a manner to prevent heat damage, and protected from damage from roadway debris, and ice and snow accumulation. Grommets of elastomeric material shall be provided at points where refrigerant and hot water heater lines and hoses penetrate metal or other materials with acute edges.

All lines and hoses shall be adequately supported and clipped with clips that are shielded with elastomeric material to prevent abrading, chafing or cutting of lines and hoses. All HVAC electrical wiring shall meet the requirements of the Specification. All heater hoses are to be premium silicone hoses retained with Breeze constant torque clamps.

The proposer shall supply a general design layout drawing(s) showing the configuration of the interior climate control system, and supply specifications and performance data. The Contractor shall provide certification that the climate control system is adequately sized for the vehicle, and can meet the performance requirements of this specification. The Air Conditioning System must pass the most current version of the Houston Pull (Cool) Down Test. If submitted data is inconclusive the Procuring Agency may require testing witnessed by Procuring Agency Representatives to ensure compliance to performance requirements are met. The climate control system design shall require the prior approval of Authority. Authority requires scaled diagrams or layout drawings to be supplied on paper, at minimum, eleven (11) inches by seventeen (17) inches.

3.22 Vehicle Ventilator/Escape Hatch

Not required

3.23 Vehicle Interior Mirrors

A standard vehicle (OEM standard, if applicable), non-glare, day-night feature rear view mirror shall be provided. In addition, an adjustable convex design rear view mirror, no smaller than approximately six (6) inches by ten (10) inches in size, shall be firmly mounted on the overhead bulkhead compartment towards the

curbside to provide the driver with a full view of the vehicle interior. See picture below for example of Mirror and installation. Mirror and installation shall require the prior approval of Authority.



Mirror mounted to
Bulkhead Top Curb Side

3.24 Vehicle Driver's Sun Visor

An adjustable, (OEM if applicable) sun visor shall be provided for the driver's side of the windshield and side window. The visor shall store out of the way and shall not obstruct air flow from the climate control system or foul other equipment such as the radio handset, or shall not restrict vision of the rearview mirrors. Visor adjustments shall be made easily by hand and shall maintain their set position, unaffected by vehicle vibrations or when vehicle is operated over rough roadways. The passenger (right) side visor shall be removed and its' mounting covered and neatly trimmed-out in a smooth, professional manner.

3.25 Vehicle Driver's Coat Hook

A coat hook shall be provided in a convenient location in the driver area. It shall be located so as not to restrict driver's interior or exterior field of view or field of view through the interior rear view mirrors when in use.

3.26 Vehicle Windshield Wipers/Washers

Windshield wipers and washers shall be the standard heavy-duty system (OEM standard if applicable) for transit vehicles of this type and size. Wipers shall be controlled by an adjustable "**OFF/INTERMITTENT/LOW-SPEED/HIGH-SPEED**" position switch. Windshield washer system shall evenly deposit washing fluid on the windshield and, when wipers are on, shall wet the entire wiped area. The washer supply reservoir shall be located for ease of filling and shall not be restricted by aftermarket installation if applicable. The reservoir itself shall incorporate a sight gauge or shall be translucent for easy determination of fluid level.

3.27 Vehicle Safety Equipment

The vehicle shall be equipped with the following fire, first aid, and emergency equipment:

1. One (1) Ten-unit size first aid kit with mounting bracket, mounting subject to Authority approval.
2. One (1) Five pound, UL approved, Dry Chemical type fire extinguisher with a type 10-B-C rating, equipped with a visible gauge, and a mounted bracket, mounting subject to Authority approval.
3. One (1) ICC triangular reflector kit (disabled vehicle warning device).
4. One (1) EDCOR Model BFK 10 PC-1 Body Fluid Clean up Kit, or Authority approved equal.
5. One (1) Qstraint Seat Belt Cutter # Q5-7590

Emergency equipment shall conform to the requirements of FMVSS 125, Warning Devices. The location and mounting of these equipment items shall require the approval of Authority.

3.28 Front Overhead Storage Compartment

Front storage compartment will be located in the front overhead area. An access door to this compartment, opening into vehicle interior, shall be provided and shall be equipped with a full length lower hinge with three evenly spaced thumb locks at top of the door. Access door shall be equipped with cabling or other mechanism designed to allow door to open into vehicle interior no further than perpendicular to storage compartment. Minimum size of this compartment door shall be 46" long x 13" height x 12" deep. It is Authority's intent that this area contain applicable electrical and electronic components, such as the public address system, and destination sign components. All components contained in this compartment shall be removable and serviceable from the interior of the vehicle. A 6" x 6" Permit Holder shall be attached to the outside of the compartment door to hold vehicle registration and insurance cards.

3.29 Video Compartment

Video compartment will be located behind the driver area on left hand "street" side. This compartment shall have a full-length hinge with a keyed lock at the front of the door. Radio compartment door shall be same material as radio compartment.

A six (6)-pole power strip supplied by a **red**, ten (10) gauge minimum, 30 amp circuit breaker protected twelve (12) volt power lead will be mounted in the compartment. The power strip shall be powered only when the ignition switch is in the "on" or "accessory" position. An additional six (6)-pole ground strip shall also be provided. The ground strip shall be attached to a clean chassis ground via a ten (10)-gauge minimum, **black** wire. Mounting of the power and ground strips shall be subject to prior approval of the Authority.

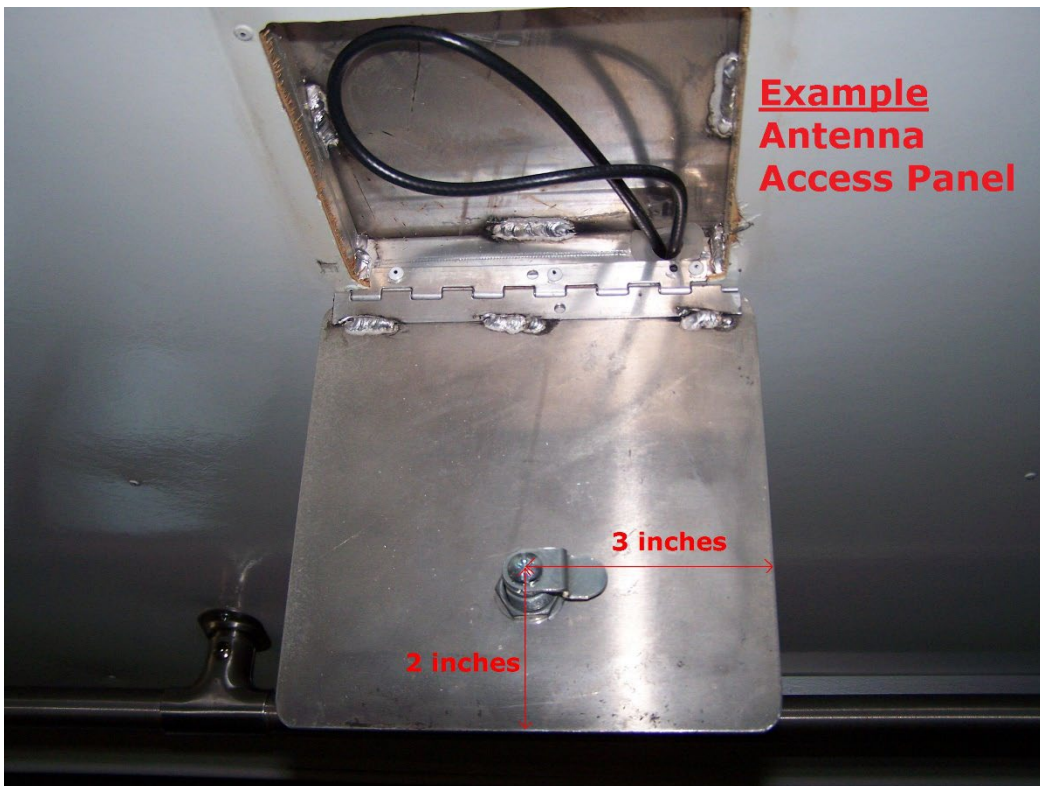
3.30 Antenna Mounting Base and Access Panel

Vehicle shall be equipped with three (3) antenna mounting bases, or ground planes. The ground planes shall be located between structural members to provide a mounting base for a 2-way radio antenna, forward most position, a GPS receiver antenna at center position and Wi-Fi receiver antenna at the rear most position. Each ground plane shall be an aluminum panel measuring twelve (12) inches square by one eighth (1/8) inch thick. Ground planes shall be incorporated into the roof structure of the vehicle and permanently grounded. The

ground planes shall be installed at points along the centerline of the vehicle starting four (4') feet (48") from the front of the vehicle (measurement starts from interior front storage compartment door) with the second panel positioned a minimum of thirty-six inches (36") to the rear of the first position and a third positioned approximately thirty-six (36") from the rear of the second position.

Three (3) hinged and lockable antenna access panels shall be installed in the ceiling of each vehicle. Access panels are to be stainless steel. The access panels shall be installed at points along the centerline of the vehicle centered directly under each of the three (3) antenna mounting bases. A one inch (3/4") inside diameter flexible conduit and pull wire shall be incorporated into the roof and sidewall of the vehicle from the immediate area of the forward most radio antenna and terminate under the front dash at the center. A second one inch (3/4") inside diameter flexible conduit and pull wire shall be incorporated into the roof and sidewall of the vehicle from the immediate area of the center most GPS antenna access panel terminating at the floor area behind the driver's seat. A third one inch (3/4") diameter flexible conduit and pull wire shall be incorporated into the roof and sidewall of the vehicle and terminate in the video compartment. Conduit and pull wires are to facilitate installation of coax and wiring for 2-way radio, GPS and automated voice announcement equipment and shall have minimum bend radius adequate for easy pulling of cables.

Unless otherwise specified, all hardware used shall be anti-corrosive, i.e., stainless steel or cadmium plated. All wiring shall be protected with high dielectric compound and dressed.



3.31 Vehicle Exterior

3.31.1 Exterior Lighting and Warnings

The vehicle shall be fully equipped with a standard exterior lighting system (OEM chassis standard if applicable), and additional exterior lights, in compliance with the U.S. Department of Transportation FMVSS, and State of Tennessee requirements. Control of clearance and marker lights shall be integrated into the headlight/parking light control switch electrical circuit. Clearance lights shall be heavy-duty transit type units. Authority prefers the use of flush mounted lights, subject to Authority approval.

Authority requires the use of LED (Light Emitting Diode) type Clearance, Stop/Taillights and Rear Turn Signal lights. The flasher unit for directional light signals and emergency flashers shall be replaceable from inside the vehicle. The flasher relay shall be a simple plug-in heavy-duty unit of higher than standard chassis OEM (if applicable) capacity to operate flashers continuously without increasing flash rate.

Visible and audible warning shall be provided to inform following vehicles or pedestrians of reverse operation.

Audible and visible reverse operation warning shall be in compliance to SAE Recommended Practice J994-Type C or D and FMVSS 108.

A rear accident prevention system shall be provided at the rear of the vehicle. The rear accident prevention system assembly shall consist of two (2) Optronics Model: STL-80RB or Dialight 87 series, or approved equal additional red strip LED fixtures, each shall be dimensions of approximately 3/4 inch in height and 18 inches in length. Red LED fixtures shall be centered on the rear of the vehicle and mounted on a horizontal plane as defined by a straight line connecting the topmost portion of the vehicle's brake lights, space approximately three (3) inches apart. When the driver applies the brakes, the rear accident prevention system shall operate in conjunction with the brake lights. Configuration, location and mounting of the rear accident prevention system will be subject to Authority review and approval. The rear accident prevention system assembly shall be mounted to minimize transfer of vibration.

The vehicle shall be equipped with side docking lights to work in conjunction with the standard OEM backup lights. These lights are to be flush mounted in the lower skirt near the rear wheel opening and angled rearward of the bus having a minimum of 50 watts of power. Include with your proposal, pictures showing both location and mounting.

3.31.2 Exterior Mirrors

The vehicle shall be equipped with black metal finished heavy-duty corrosion-resistant, fully adjustable, remote controlled and heated exterior rear view mirrors on streetside and curbside. The flat glass mirrors shall be minimally six (6) inches by ten (10) inches in size, with larger size desired. Authority requires the mirror to include convex glass incorporated into each exterior rear view mirror. The mirrors shall be mounted on swing out or breakaway, mounting brackets or support arms.

Mirrors shall be firmly mounted to the brackets or arms to prevent vibration and loss of adjustment, but not so firmly attached to the mount or arm that the vehicle is damaged when the mirror is struck in an accident. The mirrors shall provide an undistorted view to the rear of the vehicle, and mirror-mounting brackets shall not obstruct the driver's field of vision. The right side mirror shall be mounted and located so as to prevent contact with boarding and alighting passengers or pedestrians. Mirrors and installation shall require the prior approval of Authority. The exterior mirrors shall meet the requirements of FMVSS 111.

Authority prefers exterior rear view mirrors to be heavy duty, Velvac Model 2020, Rosco 2020SS or Authority approved equal.



3.32 Vehicle Mobility Aid Lift System

3.32.1 General

An elevator lift system is required for this vehicle that shall provide ingress and egress quickly, safely, comfortably for a passenger in a mobility aid from the street level or curb. Because of the nature of its intended use, the lift system must be ruggedly built, operate in a positive but smooth manner, be of safe but fail-safe design, and be highly reliable throughout its useful life. The controls must be simple to operate with no complex phasing operations required, and the loading/unloading operations shall be under the surveillance and complete control of the driver/operator. The mobility aid lift system shall not present a hazard, nor inconvenience passengers. When not in use, the lift system shall be stowed in a secure manner and not present a hazard to any on-board passengers. The device shall have a useful operational life of at least four years, shall function with maximized mean-time-between-failure (MTBF) of adjustments, under the environmental climatic conditions outlined in this Specification.

3.32.2 Operating Equipment and Design

The mobility aid lift system shall be installed in the curbside (right) of the vehicle, just rearward of the passenger door, with a minimum of structural body modification. Cutting of vehicle chassis structural members is prohibited. All changes required to the basic body/chassis structure shall provide for adequate reinforcing and load redistribution. The Contractor shall ensure that the installation is adequate to withstand the loads and stresses imposed by regular lift operation on a sustained basis. The mobility aid lift system shall meet requirements of Federal Motor Vehicle Safety Standard 403 for platform lift systems for motor vehicles, NHTSA and ADA.

Mobility aid lift construction shall be a modular steel box frame type design providing rigidity independent of the vehicle body for reinforcement and lift alignment. The lift shall be tested to a minimum 2,400 pound static load lift capacity, and be capable of safely lifting a static load of 1,000 pounds minimum continuous lifting capacity. All power units, operating joints, linkage and mounting points to the body shall be certified by the manufacturer in a written test report as being adequate for this loading.

The lift platform shall be of steel or aluminum construction and the surface shall be expanded metal or hole-punched metal grating. The platform shall have a usable minimum nominal width of 34 inches exclusive of handrail, and a length or depth of 54 inches, and a minimum height clearance of 67 inches when in the raised position. The platform shall be equipped with 2-1/2 inch minimum, side plates, measured from the platform surface, to assure lateral security of the mobility aid. The platform shall be equipped with a minimum four (4) inch high outboard safety roll stop. Outboard roll stop may be manual or automatic in operation. If manual, the outboard safety roll stop shall be spring loaded in the up position and shall be operated by a foot-depression platform side plate to preclude the mobility aid running over attendant's foot during loading/unloading operations. A bridge plate, forming the bridge between the lift platform and the vehicle floor when the platform is at floor level position, shall be constructed of a threshold sensing system. The platform shall be power folded-out/folded-in and fully automatic in operation.

The power unit shall be a 12-volt electric-hydraulic integral self-contained system assembly operating dual cylinders. The power unit shall be mounted to the frame structure of the lift. The lift system shall be protected by an electrical circuit breaker that is readily accessible for maintenance and service. Hydraulic system shall incorporate a flow-controlled gravity-down design, and shall provide a smooth, jerk-free ride in both up and down directions. The hydraulic system shall incorporate a pressure relief valve to prevent "Jacking" of the vehicle if power remains on once the lift touches the ground. The power unit shall not emit any objectionable noise in the passenger cabin area. Cycle times for the lift shall be as follows:

- Platform unfold: 10 seconds or less.
- Platform fold: 10 seconds or less.
- Lift lower: 12 seconds or less.
- Lift raise: 12 seconds or less.

Power unit shall operate using standard type automatic transmission fluid (ATF), shall be capable of operating in temperatures down to minus twenty (-20) degrees Fahrenheit, and shall be readily accessible for service. Hydraulic fluid reservoir shall have an easily accessible system for checking and filling. The lift system shall incorporate a manual hand pump or other override system as an integral part of the lift for use in the event of a power failure. The manual back-up system shall be capable of safely lowering and raising the lift with a passenger aboard.

The lift shall be inoperable unless the lift access door is in the open position, the engine ignition switch is in the **“ON”** position, vehicle parking brake has been applied, and transmission shift lever is in the **“PARK”** position.

The lift platform fold-in function shall be inoperable with 50 pounds or more of weight centered on the platform.

Lift operating controls shall be mounted in a lightweight, weatherproof control box. Controls shall be self-centering switches of weatherproof design and construction. The control box shall be held in a permanently mounted bracket on the inside of the lift door, with the control box removable for use within a six-foot minimum, operating radius of the bracket. Control switches shall be clearly identified and permanently labeled with engraved lettering or equivalent. Exposed cable for the mobility aid lift control unit shall be of the coiled cord type of abrasion-resistant material, with adequate strength to insure that movement, constant use, or exterior elements will not cause premature failure.

All parts of the lift structure and platform intruding into the vehicle body/passenger cabin area shall be properly protected and padded to protect the lift occupant from bodily injury. Padding is required at the lift door header to prevent injury to the lift occupant. There shall be no pinch points or shear points on the lift or its mechanisms where a hand or foot, of either a passenger onboard the vehicle or a mobility aid lift occupant, can be injured or severed. The installed lift shall be free from resonant vibrations, rattles and other objectionable noises in the stowed position when the vehicle is operated over rough streets and roads. The lift design, construction and installation shall minimize metal-to-metal contact points. If necessary, the Contractor shall supply additional restraints to ensure stored integrity of the lift, as Authority shall require.

Certification of the testing of the lift system will be required to ensure compliance with the specification and verify the reliability of the product. An engineering test shall have been performed on one (1) lift of the type to be installed. The test shall cover the maximum and minimum temperature and humidity conditions that may be encountered in operations in the State of Tennessee. The test shall have checked the operating characteristics and safety features of the lift system under repeated cycling at load and no load conditions. Certification, details and reports of this test shall be submitted to Authority for review.

In addition to the engineering test certification, each lift shall be quality control tested on the vehicle to assure proper functioning. These tests shall be performed under full load and no load conditions under repeated cycling.

The Contractor shall supply installation drawings and details of the mobility aid lift system installation including general layout, dimensions, safety features, and controls to Authority. Authority requires scaled diagrams or layout drawings to be supplied on paper, at minimum, eleven (11) inches by seventeen (17) inches.

Authority requests a Braun NCL10001B3454HB-2 Century II Series mobility aid lift with a minimum 34" wide x 54" length platform and 1,000 lb. lifting capacity or acceptable equal.

3.33 Audio/Video Surveillance System

The surveillance system shall be a March RideSafe XT-12 including the optional GPS module digital video recording system (DVR and associated components) that shall be specifically designed for use on public transit buses (Or an Approved Equal). The DVR, cameras, and cables must endure frequent shock, constant vibration, high humidity, exposure to dust, temperature extremes, frequent acceleration, and contact with water. Equipment required will be confirmed at pre-production meeting.

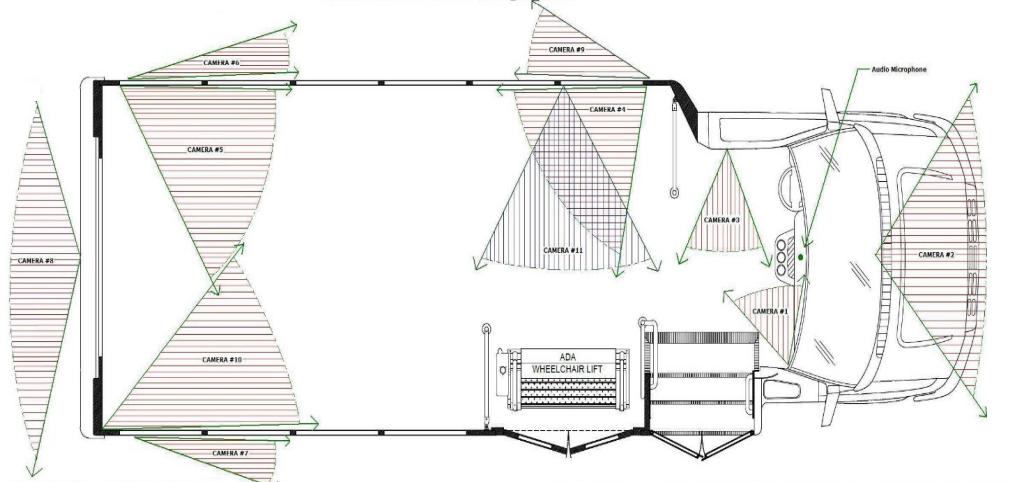
The surveillance system shall incorporate the latest technology available at the time of installation and be easy to upgrade when hardware or software improvements become available. All components, including hard drive assemblies, shall be interchangeable with like components, regardless of software version or firmware changes. Nashville MTA must approve all camera locations. Such approval shall require a supplied diagram showing the viewing angles for each camera (See Figure 1 Below) for approval as part of the pre-production process. As part of the acceptance process a video capture shall be provided for each camera on each vehicle ensuring that the cameras are aimed properly.

- **System Features**
- SSD Digital Video Recorder with a Minimum Capacity of 1 TB
- GPS and WIFI Connectivity
- 2 Audio Channels
- 8 Analog Cameras
- 4 IP Camera

Exact locations for mounting and placement for all Audio/Video cameras, equipment and related componentry mounting/placement must be coordinated with the Authority.

Camera Layout:

**Coach on Chassis
Video Camera View Configuration**



| Camera # | Location | View | Camera |
|----------|---|--------------------------|-----------------|
| #1 | Bottom of front overhead | Look at Driver | Mini-Dome 2.8mm |
| #2 | Dash-Centered | Look out frt. Windshield | Mini-Dome 2.8mm |
| #3 | Streetside above driver window + microphone | Look out frt. Pass. Door | Mini-Dome 2.8mm |
| #4 | Streetside front corner of body | Look to rear of bus | Mini-Dome 2.8mm |
| #5 | Streetside rear corner of body | Look to front of bus | Mini-Dome 2.8mm |
| #10 | Curbside rear corner of body | Look to front of bus | Mini-Dome 2.8mm |
| #11 | Streetside centered from wheelchair door | Look at wheelchair door | Mini-Dome 2.8mm |

| Camera # | Location | View | Camera |
|----------|--|----------------------|--------|
| #6 | Streetside rear corner of body | Look to front of bus | 4.0mm |
| #7 | Curbside rear corner of body | Look to front of bus | 4.0mm |
| #8 | Rear of bus centered (Tilt type w/guard) | Look out rear of bus | 2.8 mm |
| #9 | Streetside front corner of body | Look to rear of bus | 4.0mm |

3.34 General Conditions, Design Practices & Construction

1. The vehicle shall be designed to the highest commercial heavy-duty automotive vehicle practices, constructed in accordance to the latest standards in use by the industry, and utilize heavy-duty transit quality materials in the manufacturing, construction, and final assembly of the vehicle. The following subsections are generally intended to refer to the transit vehicle builder, workmanship, and aftermarket market materials and are not generally intended to apply to the base vehicle OEM chassis, if out-sourced by the proposer.
2. All tubing fittings shall be high-quality, heavy-duty, transit/industrial grade type. Different brands of fittings may be used with essentially comparable standards of quality, design, and performance, but the same type of fitting must be used in the same location throughout the order of the vehicles. Long tubing nuts shall be applied where space conditions permit.
3. All piping, tubing, hoses, electrical harnesses, cables, and wiring shall be properly bracketed and clipped with insulated clips.
4. All mounting of assemblies and sub-assemblies, including the power plant and accessories, shall be mechanically isolated to minimize the transmission of vibration to the body structure.
5. Rubber seals on ventilator doors, compartment cabinet doors, and passenger doors shall be secured and retained in recessed, shaped channels or by door lips to hold rubber seals firmly in place.
6. All burrs and sharp edges shall be dressed so as to prevent injury to passengers, operators and maintenance personnel.
7. Castings and forgings shall be true and free from significant imperfections.
8. Clevises shall be threaded on or pinned to allow removal, and not be welded to the rods.
9. Lumber and wood products shall be thoroughly air seasoned or kiln dried; shall be straight grained; and shall be free from rot, knots, checks, and other defects which may impair its strength or durability

or mar its appearance. Lumber shall be dressed on all sides to full dimensions. Wood of any type shall not be used except where specified.

10. Welding shall conform to AWS standard quality procedures and where visible have a finished appearance. All welds on galvanized surfaces shall be coated with Zinc Chromate primer after welding. All metal surfaces (except engine and transmission) must either be painted, galvanized, primed, or rustproofed, or any combination of the above.
11. All insulation, plastics, and synthetic materials shall be fire-retardant, self-extinguishing, non-toxic, and meet the requirements of FMVSS 302.
12. All surfaces to which springs are attached shall be of such a pattern so as to prevent excessive grooving or wear of the parts.
13. Jack-shafts or spindle brackets which require removal for maintenance shall be bolted on rather than welded to the vehicle frame structure.
14. All aftermarket bolts, nuts, screws, and washers shall be corrosion-resistant zinc plated, except where otherwise specified. The thickness and method of cadmium coating shall conform to ASTM Specification No. A-165, latest revision, for type TS coating. All cap screws, nuts and bolts shall be SAE, Grade-5 minimum, material. Bolt projections through nuts shall not be excessive. Should there be a reason for excessive bolt projection, the bolts shall be double nutted. Bolts used with nylon insert locknuts shall be sized to extend at least two full threads through the locking ring but shall not extend more than two threads beyond the length of the next longer bolt.
15. All sheet metal screws shall comply with ASTM and ASA recommendations relative to quality, use and installation.
16. Bosses on components or units of light construction, with threaded sections in which fittings or pipes are connected, shall have hexagon or square shoulders which can be held with a wrench so as to eliminate damage to the unit.
17. All non-painted, exposed aluminum fabricated components and parts shall be anodized, except as otherwise specified or granted by exception.
18. One copy of a complete and comprehensive vehicle operator's manual shall be supplied with each vehicle, outlining the proper operating procedures of all systems other than the systems supplied with the OEM base vehicle chassis (if applicable), in addition to operators manual supplied with the OEM base vehicle chassis.
19. Three (3) copies of a complete and comprehensive vehicle maintenance, service, and repair manual, with wiring schematics and one complete and comprehensive parts manual shall be supplied (CD format acceptable).
20. Three (3) copies of manufacturer's vehicle operators manual, maintenance manual, parts manual, bulletins, etc., and specific recommendations for all operating equipment components, and systems supplied by outside equipment suppliers, as to the adjustments and settings shall be provided to Authority prior to vehicle delivery. Information on items such as voltage regulators, governors, engine tune-up data, and others pertinent data shall be furnished to allow time to prepare service and inspection forms for initial vehicle inspection upon delivery (CD format acceptable).
21. All air, oil, and water lines and openings into equipment component units shall be sealed, plugged or adequately protected against entrance of contaminants until connected.
22. Removal and replacement of aftermarket assemblies and subassemblies shall be easily conducted by conventional shop methods and practices.

- 23. The edges of all glazing material shall be finished to a minimum SAE #4 edging to prevent cutting into rubber channels.
- 24. All units, subassemblies, or components parts, whether specified or not in the Contract Documents, shall be the Manufacturer’s best quality and shall conform in design, material, construction and workmanship to the best practice known in the commercial heavy-duty Automotive Industry.
- 25. Authority reserves the right of final approval or rejection of any method of fastening, routing, coating, painting, priming, rust proofing or anodizing.

3.35 Vehicle Keys

Three (3) sets of keys shall be delivered with each vehicle. All ignition keys on all vehicles shall be keyed alike. If there are other types of keys delivered with each vehicle (fuel door, vehicle doors, mobility aid lift door, etc.), key each type of key alike for each vehicle. For example, ignition keys do not have to be the same as the mobility aid lift door key. However, all mobility aid lift keys should be keyed alike.

3.36 Special Conditions

- 1. **ADA** – Vehicle must meet or exceed all ADA requirements for transit or paratransit vehicles, as applicable.
- 2. **Mobility Aid tie-downs** – A storage compartment must be provided at each tie-down location for any belts not permanently mounted.

Body color and striping – Axalta exterior Imron Elite 3.5 VOC single stage paint or an approved equal shall be used to match existing fleet. Paint colors are to be per the following:

- N5793EX (White)
- 805635EX (Purple Pantone 266C)
- 830730EX (Black)

Paint Information

| Color | MFG Code* | Application Type** |
|-------------|-----------|--------------------|
| PURPLE | 805635EX | SS |
| WHITE | N5793EX | SS |
| GLOSS BLACK | 830730EX | SS |

* Paint Manufacturer/Brand: Axalta Imron Elite
 ** SS = Single Stage B/C = Basecoat/Clearcoat

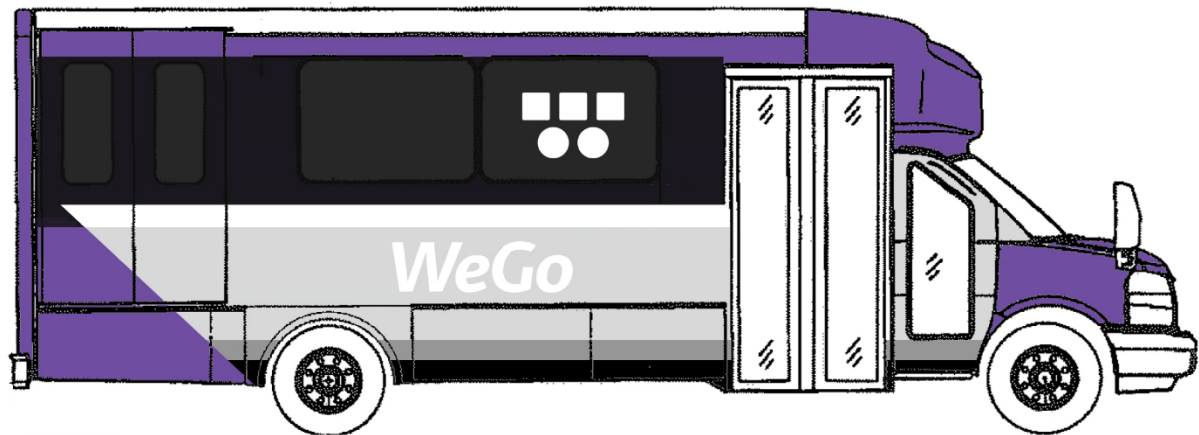
Decal Information

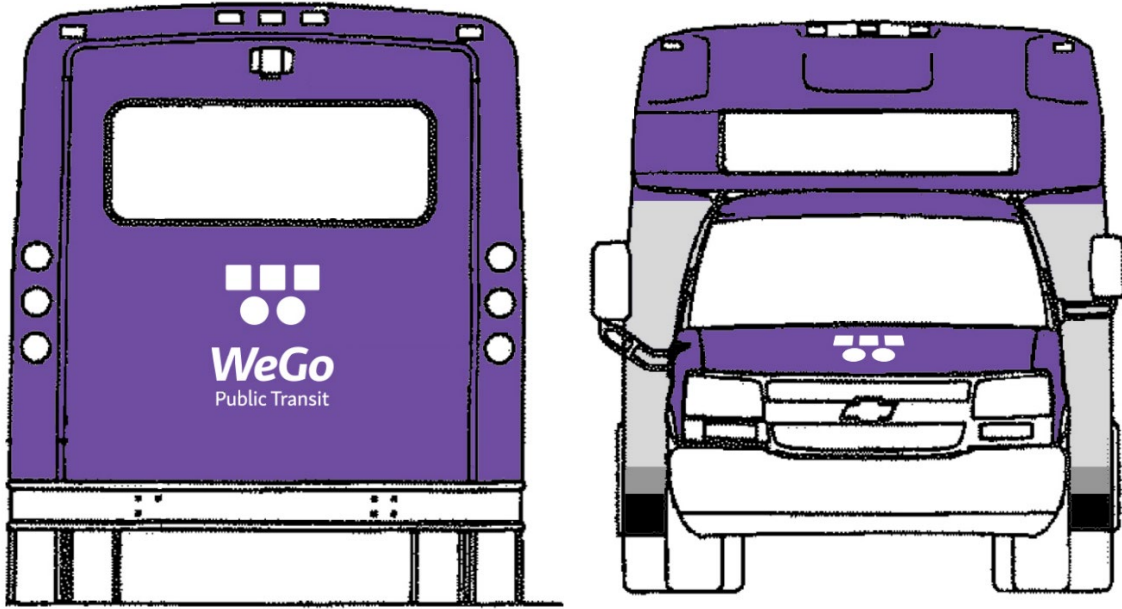
| Decal | Material | Color |
|-------|--|---|
| | 3M Scotchlite Reflective Graphic Film Series 680 | 10 White (3M Stock Color) |
| | 3M Scotchlite Non-Reflective Graphic Film Series 180 | Custom Printed Purple (Pantone 266C) & 50% Grey |
| | 3M Scotchlite Non-Reflective Graphic Film Series 180 | 10 White (3M Stock Color) |
| | 3M Scotchlite Non-Reflective Graphic Film Series 180 | 12 Black (3M Stock Color) |

Final Bus Paint Scheme Layout Drawings and Paint Samples shall be submitted to The Agency for approval prior to production of the Pilot Bus.

3. Stripe dimensions, decals and paint scheme for Fixed Route and Paratransit Buses are as indicated:

FIXED ROUTE / PARATRANSIT BUS PAINT SCHEME:





4. **Interior colors** – OEM door panels, dashboard, etc., and aftermarket seating to be medium graphite gray or Authority approved equal.
5. **Warranty** – OEM best and longest available warranty.
6. **Engine exhaust** – To exit the vehicle at the left, street side, rear corner of the vehicle.

3.37 Fixed Route Vehicle Components

It is the Authority's intent to equip the 17-Passenger vehicles with additional componentry for utilization in fixed route service. These vehicles shall be equipped as specified previously and shall include the additional items contained in this section.

3.37.1 Public Address & Automated Voice Announcement System (Fixed Route Option Pricing to be provided)

A Vontas IVLU Intelligent or approved equal, shall be provided and installed. The IVN IV shall be comprised of three components: a system controller, an operator interface unit, and an interior twenty (20) character LED sign. The IVLU shall provide Automatic Passenger Information System functionality including the capability to provide automatic interior and exterior announcements and automatically display text messages on interior sign(s) as required by the ADA.

The system shall play an accurate representation of human voice without the evidence of distortion or noise inside and outside the vehicle. The system shall provide for a microphone input for driver-initiated announcements both inside and outside the vehicle. The IVLU must automatically adjust the audio output level for ambient noise levels both inside and outside the vehicle. The operator interface must be a Mobile Data Terminal capable of single point log in for all system components to include Farebox, Destination Sign and the MDT.

Vontas on-board RADIO COMMUNICATIONS system shall be furnished, installed, and tested in each bus. The vehicle manufacturer shall acquire approval of all components and their installation drawings for the Vontas ITS On-Board Solution with IVLU from the Vontas OEM. The Vehicle manufacturer shall contact the OEM to receive system design approval, supply and install all the components, bracketry, system cables and reinforcements necessary to facilitate a Pre-wired installation of this equipment. The Vehicle manufacturer shall contact the OEM to receive system design approval, supply and install all the components, bracketry, system cables and reinforcements necessary to facilitate a Pre-wired installation of this equipment. Vontas shall perform final commissioning of the Vontas on-board RADIO COMMUNICATIONS System at the Authority's headquarters.

The on-board RADIO COMMUNICATIONS system shall be provided as a complete integrated system including the mobile radio subsystem, mobile data terminal (MDT) with touch-screen interface, integrated vehicle logic unit (IVLU), automatic passenger counters (APC), annunciation system, interior information signs, destination signs, speakers, ambient noise microphone(s), local control microphone, and RFID location tags that are required for an onboard Intelligent Transportation System (ITS).

The Contractor shall be responsible for providing all wiring, cabling, conduits, connections, power circuits, structural mounting necessary for a complete and fully operational RADIO COMMUNICATIONS system. The vehicle wiring and infrastructure that support ITS hardware and software infrastructure shall comply with the National Transportation Communication for ITS Protocol (NTCIP) COBRA and TCIP compatibility. The communications between system components shall be via the bus Vehicle Area Network (VAN) that shall be based on the latest SAE J1939 and J1708 protocols and other applicable standards for physical, data and software interconnects. The system components shall operate in the bus without degradation due to shock and vibration encountered during normal service.

The system components shall operate reliably within an ambient temperature range of -22 F to +128 F. The mobile radio subsystem shall be designed to function with the existing bus radio system that is presently employed by MTA to control and coordinate bus operations. This shall include data radio and cellular communication integration.

Provide single-point log on for all system components to include Farebox, Destination Sign and the MDT. The IVLU in conjunction with the MDT shall be the core component of the on-board RADIO COMMUNICATIONS system that shall be designed based on an open architecture and design of industry-standard SAE interfaces integrated within the unit.

The IVLU shall be ITS ready providing real-time over-the-air full fleet management including advanced ADA annunciation, APC and fare collection.

The embedded and integral functions of the IVLU shall include, but not limited to, Automatic Vehicle Locator (AVL) system, Schedule and Route Performance Monitoring, and built-in interfaces for peripheral devices including destination sign, automatic passenger counters, and fare collection units.

The IVLU shall also include a built-in Global Positioning Satellite (GPS) receiver, wireless LAN (WLAN) interface, radio antenna, and Public Address amplifiers.

Memory for the system shall be contained in a non-volatile memory device. Contractor shall certify that the complete RADIO COMMUNICATIONS system is operational and tested to operate in conjunction with MTA base communications infrastructure and make all arrangements to facilitate the certification. Contractor shall supply, install and certify the functionality of an Automatic Passenger Counter. The APC shall be IRMA Matrix. The Automatic Passenger Counter shall be compatible with the Vontas ITS Package. The system shall be installed in a way to facilitate accurate passenger polling data.

A public address system shall be provided on each bus for facilitating radio system and driver-originated announcements to passengers. A minimum of two (2) interior loudspeakers shall be provided. The loudspeakers shall be semi-flush mounted, on alternate sides of the bus passenger compartment, installed with proper phasing. Total impedance seen at the input connecting end shall be 8 Ohms. Mounting shall be accomplished with rivnuts and machine screws. The speaker cable shall terminate at the instrument panel area on the curb side with a minimum of 3 feet of extra speaker cable. An end connector shall be supplied so a lead can be connected from the radio control head in order to make announcements directly from the Vontas Fixed end application to passengers through the PA system.

Each bus shall have a speaker in the panel above the driver. This speaker shall be the same component used for the speakers in the passenger compartment. It shall have 8 Ohms of impedance. Contractor will install a handset for driver use.

A silent "covert" alarm shall be installed as part of the radio system pre-wire requirements. The silent alarm shall be activated when the operator pushes the covert Emergency Alarm (EA) switch. The location of the EA switch on the left-hand switch panel shall be approved by MTA. Covert functionality must include, but is not limited to:

Covert microphone shall be "open", permitting MTA dispatch to monitor (audibly) what is occurring on the bus.

A signal or input shall be sent to the radio to alert MTA dispatch via the radio system.

The design of the Silent Alarm function shall be such that after the initial "push/depress" of the Emergency Alarm button, any further push/depress of the Emergency Alarm button shall have no effect on any part of the Emergency Alarm function until the Emergency Alarm function is cancelled by the operator.

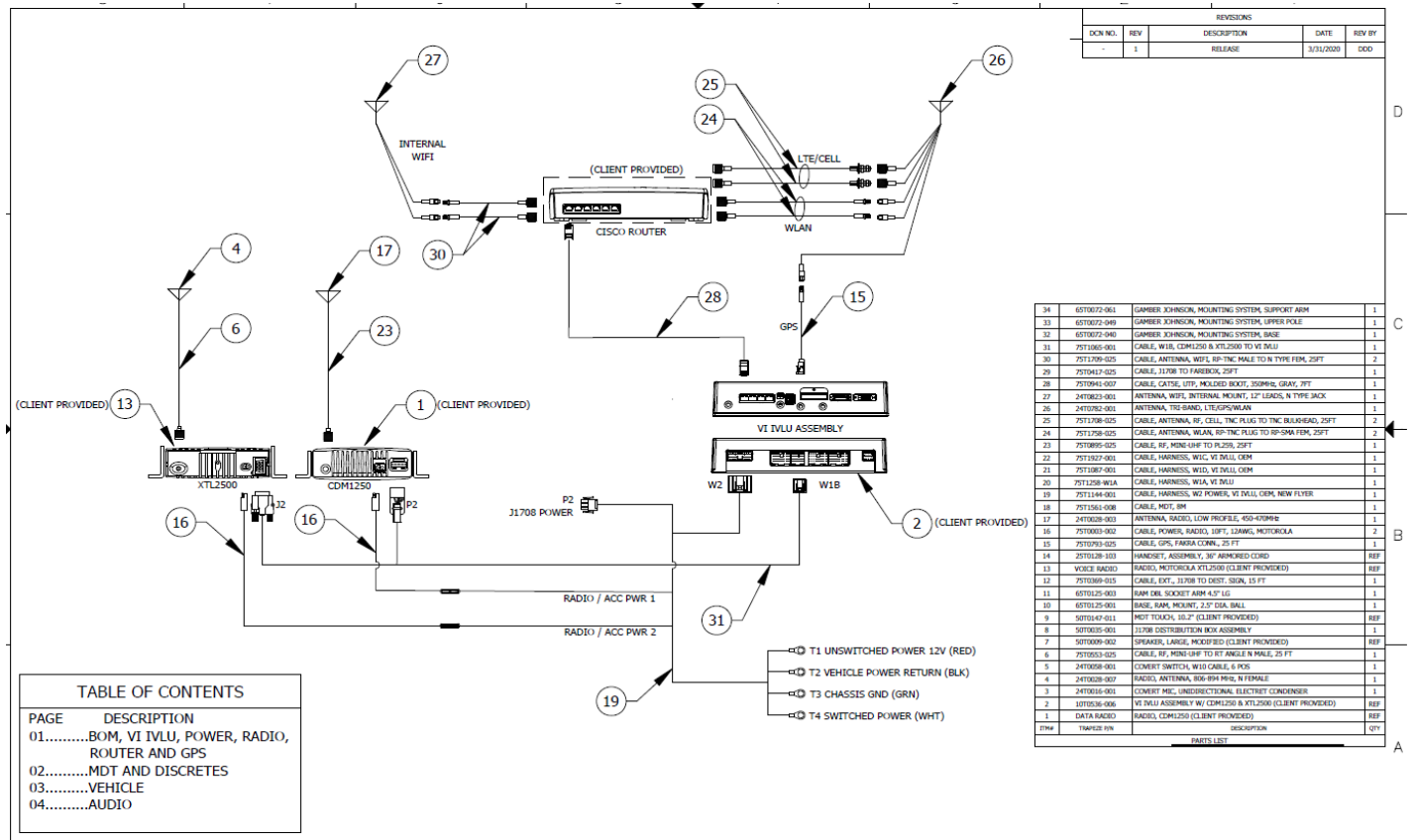
An attachment to the maintenance manual shall be provided for use by MTA radio technicians. The section shall cover and include bus radio installation schematics. It shall contain several schematics depicting all the provisions contained herein. Included shall be schematics for the following:

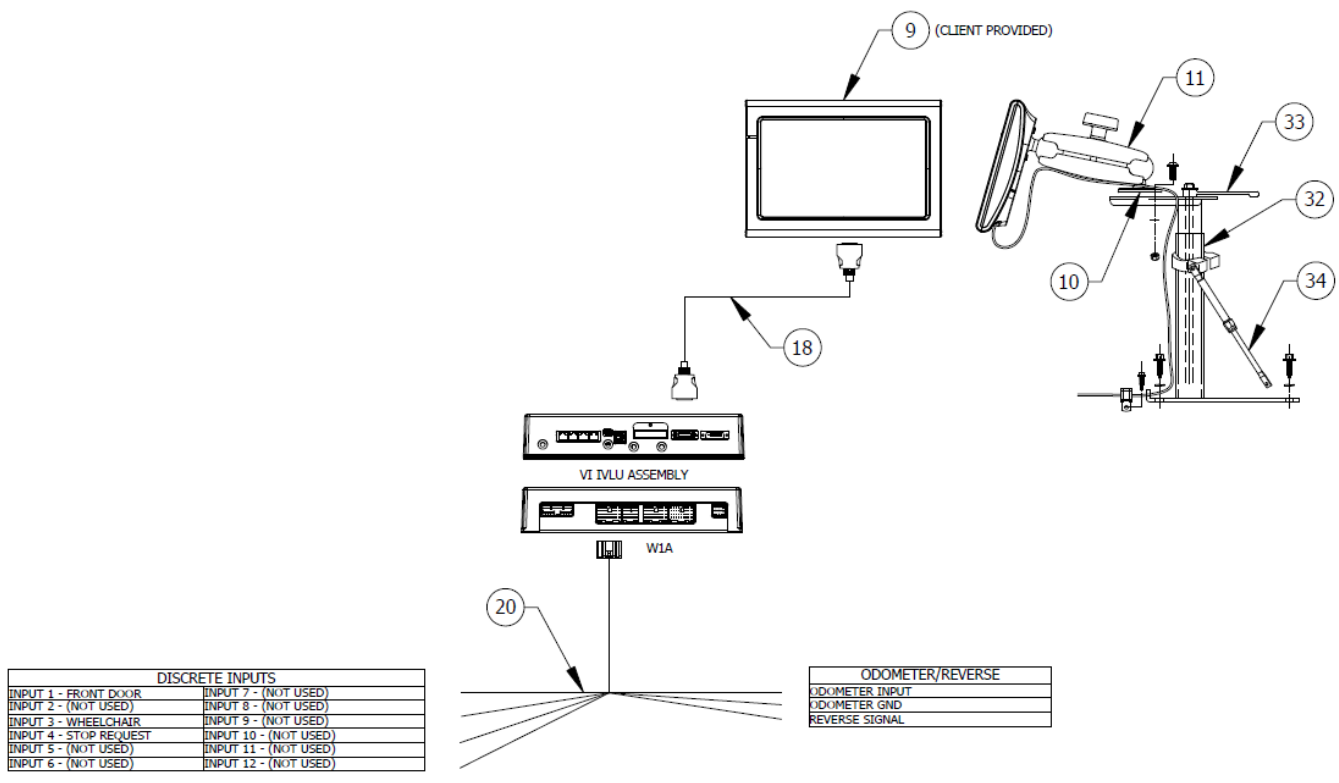
1. Top view of the coach shall be provided showing antenna locations and conduit runs.
2. Side view(s) shall be provided showing location of the radio compartment and conduit runs.

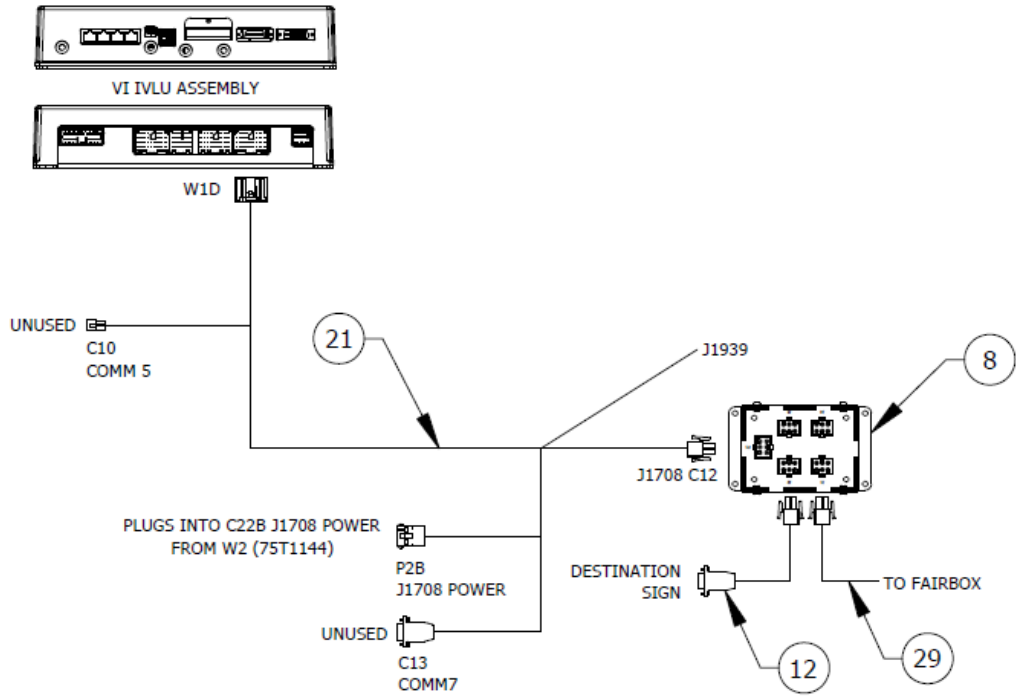
3. One or more schematics shall be provided clearly indicating wire sizes, terminal numbers, purposes and routing.

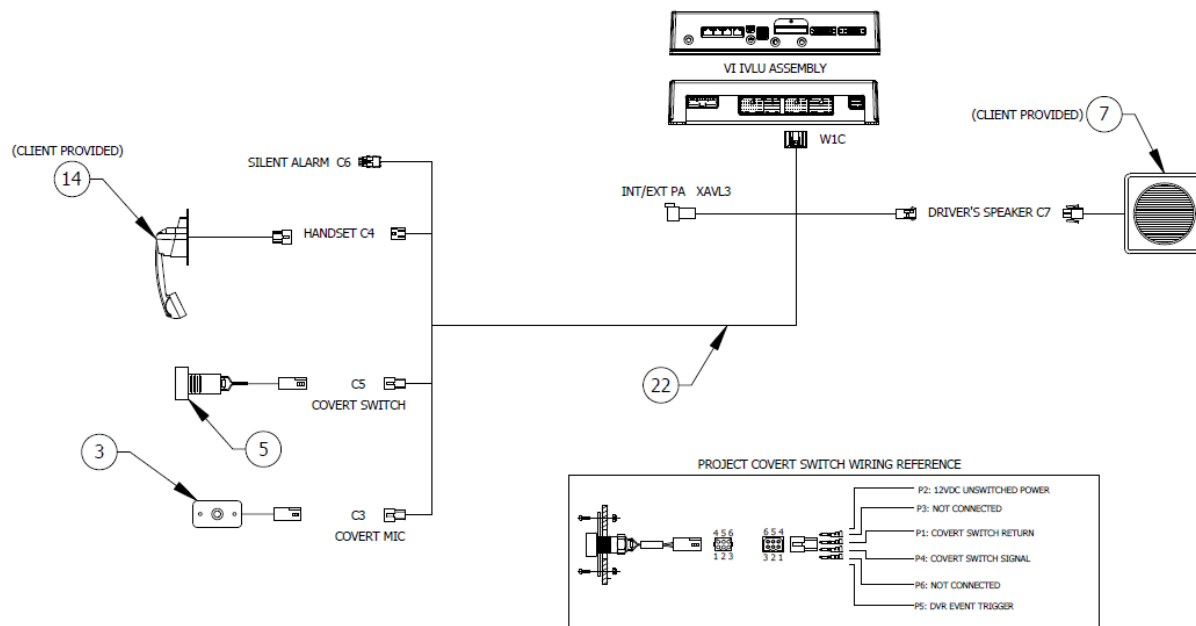
The IVLU architecture must include a defined method for integrating to other intelligent systems. These intelligent systems include at a minimum, the vehicle multiplex system, destination sign system and fare collection devices. The IVLU must have a demonstrated interface to a wireless communications system and a demonstrated ability to provide Automatic Vehicle Monitoring functionality with input from J1939, multiplex systems, and discrete I/O.

The system shall provide for integration with other intelligent systems on the vehicle through J1939 data communication protocol and data definition. The system shall be supplied with wireless communication capabilities to communicate with off-board devices. Automatic Vehicle Monitoring shall be provided using the IVLU system. The system integration and communication scheme must be approved by Nashville MTA.









The acceptance test procedures for the system shall be based upon the manufacturer’s published procedures. These procedures must be approved by Nashville MTA. The system may utilize only the internal and external speakers from the public address system. The external speaker must be of a weather proof design to resist corrosion, to be approved by Nashville MTA. Location and installation must be approved by Nashville MTA.

Nashville MTA requires a mobil page system with a handheld microphone or approved equal. Outside and inside speakers with on/off switch shall be provided that complies with the ADA requirements of 49 CFR, Part 38.35 and enables the operator to address passengers either inside or outside the bus.

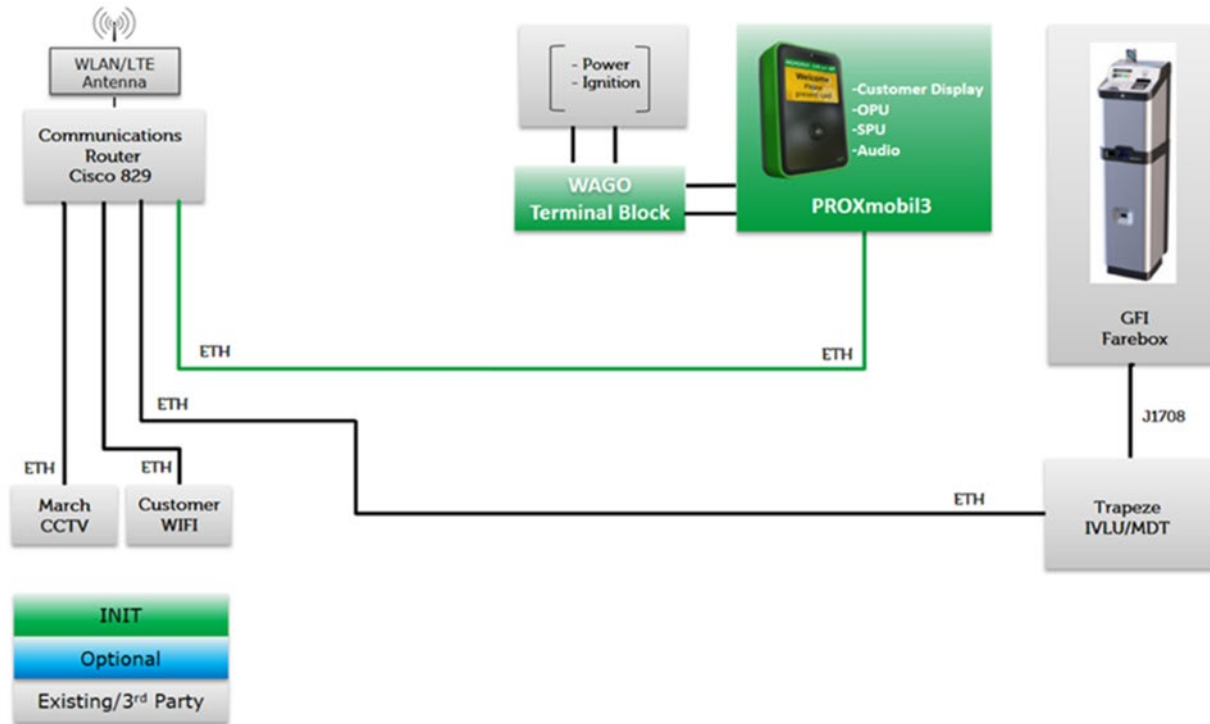
A separate volume control shall not be necessary for the outside when switching from inside to outside. Any volume control will not be accessible by the vehicle driver. The system shall be muted when not in use. A provision shall be provided to secure the microphone in a stored position when not in use.

3.37.2 Farebox / Fare Collection

The bus manufacturer shall install the wiring and connections for use with the Nashville MTA’s GFI Fast Fare Farebox. Nashville MTA shall provide drawings for appropriate installation(s). The Fast Fare, Fare box control shall be powered by a multiplexing system output that is timer controlled to remain on for XX min after the ignition is off and will be determine at the preproduction meeting. Farebox placement should minimize impact to passenger access and minimize interference with the driver’s line of sight.

3.37.3 eFare (*Option Pricing to be Provided for Fixed Route Option)

Automated Fare Collection System (AFCS) Nashville MTA shall require that an INIT PROXmobil3 Fare Validation System be installed. This system will communicate with a Vontas IVLU using a Cisco 829 Router (provided by Nashville MTA), connected via an Ethernet connection. The power and cable harness are to be provided by INIT.



The cable for PROXmobil3 will run from the radio cabinet, under the driver dash area to an area to be defined at the preproduction meeting.

The PROXmobile3 will be installed using a mount extension attached to the dash using a base mount. The center of the mount should align to the front-most right blind spot seen from the driver's seat.

An ethernet cord will be run along the path to the router location mounted to the mounting plate on the back wall of the radio cabinet

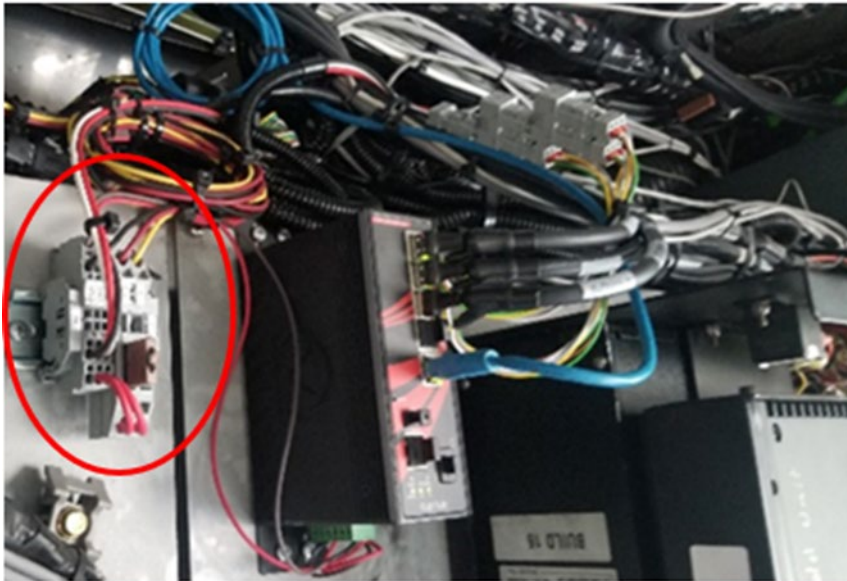


The WAGO block will be mounted in the radio cabinet near the router. The WAGO block provides two features in addition to an easy interconnection to the vehicle systems:

1. The vehicle power connections are fused through the WAGO block.

2. The WAGO block incorporates a time delay relay which prevents the shutdown of the system for a predetermined duration to enable the system to finish transferring bulk data after the vehicle has returned to the yard.

Power wires will run from the WAGO block, along with the existing wire harness, to the appropriate terminal blocks. (24 v Battery (Fuse 2A connected to F1 of WAGO), 24 v Ignition (Fuse 7,5A connected to F2 of WAGO), Ground)



Additional items to note:

- Wires and cables are secured with cable ties every 12 in. or more frequently to ensure that cables are secured.
- Single-conductor wires inside split loom are to be secured by using electrical tape at both ends of the loom, in between both ends, zip ties can be used.
- Wires and cables are secured before and after any corner, bend, or bulkhead.
- Provide at least 6-8 inches of service loop which might need to be removed in the future for maintenance. Cut and terminated cables should have enough length for at least 3 terminations.
- Excess cable should be loosely coiled (no less than 6 in. diameter) and secured so that it cannot interfere with cabling.
- When securing existing cable harnesses, make sure they are secured as close to existing hangers or supports as possible.
- Large bundles of cables are secured using cushioned P-clamps secured to a solid structure.
- All single-conductor wires passing between compartments or around bulkheads and panels are to be covered in the appropriately sized split loom.
- Antenna cables are to be covered in the appropriately sized split loom.
- Remove any sharp edges caused by drilling holes. Wherever cabling is pulled through drilled holes, use grommets or loom.
- Pinning of all terminal blocks/hubs is completed after all INIT cables are run, terminated at their respective locations, and secured in their final layout.
- When running a single-conductor wire, take care to prevent chafing, abrasion, and short circuits.
- Use bolts, nylon nuts, lock washers, or washers when possible.

3.37.4 SIGNAGE AND COMMUNICATION (*Option Pricing to be Provided for Fixed Route Option)

Destination Signs

A Hanover Displays (or an approved equal) electronic LED destination sign system shall be supplied for the bus with destination signs for the front, side of the bus. The sign system must be fully functional and integrate with the Vontas IVLU system that Nashville MTA currently operates. The electronic destination information system shall be ADA compliant, Act (ADA) of 1990 Reference 49 CFR Section 38.39. The sign system shall have an operational temperature range of -30°C to +80°C. The 24-vdc system shall be LED's on all signs shall be White in color and consist of the following:

The displays shall consist of White colored LED's. All White LED's used for the destination signs shall be rated for a 100,000-hours. The entire display area of all signs shall be clearly visible and readable both in direct sunlight and at night with a viewing angle of at least 140 degrees. The characters formed by the LED's shall meet the requirements of the Americans with Disabilities ACT (ADA) of 1990 Reference 49 CFR Section 38.39. The software will give the end user the capability to select from a vast selection of custom fonts, pre-programmed fonts and the Microsoft TrueType Directory fonts for display on the LED Signs for the most customization possible to the desire of the end user's riding public.

ALL Hanover Displays Destination Signs shall be supplied with an ambient light detection sensor that controls the LED intensity according to the exterior light conditions. This adjustment shall be continuously linear, not stepped, from 10-100% output.

Destination Signs

A combination of any of the following signs may be mounted in any one vehicle. Each sign will contain common processor and power supply circuit boards to ease maintenance and spare parts stock control. Individual signs within each vehicle will be identified by the use of a user selectable rotary address switch.

FRONT DESTINATION SIGN:

Shall be: Sized to fit in the vehicles being bid. The sign should be readable from at least 250' with a viewing angle of not less than 140°. Total weight shall not exceed 20.5lbs.

SIDE DESTINATION SIGN:

Shall be: Sized to fit the vehicle being bid. The destination message shall be readable by a person with 20/20 vision from a distance of 250'. The sign shall have equal readability at 70 degrees on either side of the line perpendicular to the center of the mean plane of the display. The sign should weigh no more than 12lbs. The power connector will be a sealed 'weather pack' model.

System Control and Programming

All system control and drive PC boards shall be enclosed in either the sign housings or in the System Control Console. The various destination signs can be programmed to display either one common message or each sign can display an independent message. The System Control Console shall incorporate a flexible keypad with no moving parts. The system control console shall be used to view display messages and contain the destination sign database. The driver console shall utilize a tactile membrane keypad. The system control console shall be equipped with an LCD display.

Sign system shall be capable of sequentially displaying a minimum of one pre-selected destination message and one public relations message. The operator shall be able to quickly change between pre-selected destination messages without re-entering a message code. Public relations messages shall be capable of being displayed alternately with the regular destination.

The Master Coach Run Switch shall control power to the sign system. The signs shall operate in all positions of this switch except off. The signs shall be internally protected against voltage transients and RFI interference to ensure proper operation in a bus environment.

***(OPTIONAL PRICING TO BE PROVIDED)* Wireless Download System Control Console**

The system control console shall be used to view and update display messages. The system control console shall utilize a multiple function keyboard with tactile feel, designed especially for the harsh transit environment. The system control console shall contain an LCD display. The system control console shall continuously display the complete message associated with the selected destination code. Diagnostics and/or maintenance and test features that indicate any sign defects shall be included.

The system shall be capable of integrating to on-board computer devices for message listing program via anyone of several possible protocols, including but not limited to J1708, RS485, RS232, RS422 or IBIS. The sign system shall be capable of wireless upload capability for receiving the messaging database. The sign system shall be reprogrammable through the system control console by either a standard USB Thumb Drive or via a 9-pin "D" type keyfob memory device. Wireless Data Manager (WDM) will be required if not already provided and or used by Transit Authority.

Emergency and Wheelchair Deploy Message Display

A pre-programmed emergency message may be activated using a customer-selected switch located in the driver area. This message shall be displayed on signs facing outside the vehicle, while signs inside the vehicle, including the driver console, remain unchanged. Removing the emergency signal or entering a new destination shall cancel this message. System shall also be capable of showing a wheelchair graphic on the rear sign automatically when the wheelchair is deployed.

System Level Diagnostics

The system control console shall provide, at a minimum, visual indication of system level errors with the destination signs. This shall include detection of communication failure, power supply failure on a particular sign and display board failure on a particular sign.

Programming (HELEN)

A PC-based software package will be furnished for creating the destination sign messages. The character shape and size shall be programmable, and the software should allow the creation of personalized fonts. These may vary in pixel height and comprise single, double and triple stroke typeface. The program will allow an unlimited number of special characters, logos or fonts to be displayed.

A programming software package shall be furnished to generate message lists for the destination sign system. It shall be a Windows compatible software package, using drop down menus and help screens. The software shall not require a standalone computer or a computer of a specific make or model. The software will allow, at a minimum, individual font selection, shape and choice of fonts, font creation and import, destination display management (right or left route numbers, pre-defined text fields, alternating screens and scrolling), as well as full system previews are available for all signs. The software shall also offer utilization of the TrueType font directory for programming. Graphic capabilities are available to allow personal logo creation as well as selection from pre-programmed pictograms.

The programming software shall use techniques that require minimal operator training and are intended for use by operators that are not trained in complex computer operations.

Warranty & Spares

All White Destination Signs and components of the White Sign System shall be covered by a 12-year warranty. Free spare parts, (whole components), shall be provided to the end user free of charge for storage and use at the end users selected facility. The number of spares to be provided will be commensurate with the number of original systems purchased and shall be agreed to by all parties at the execution of a contract.

The destination sign compartments shall meet the following minimum requirements:

- Compartments shall be designed to prevent condensation and entry of moisture and dirt.
- Compartments shall be designed to prevent fogging of both compartment window and glazing on the unit itself.
- Access shall be provided to allow cleaning of inside compartment window and unit glazing.

- Buses shall be delivered with a pre-programmed list of destination sign messages, supplied by Nashville MTA. The various signs on a bus shall be programmable to display independent messages or the same messages. The destination sign system shall allow two destination messages and one public relations message to be pre-selected and the operator shall be able to change between the pre-selected destination messages without entering a new message code. Public relations messages shall be capable of being displayed alternately with the regular text and route messages or displayed separately.

- A networked Covert Emergency Alarm shall be provided along with the Destination Sign System for the operators use in dangerous situations. The alarm shall be programmable and integrated with the Destination Sign System to display an emergency message on the bus exterior. It should also be capable of networking with an optional radio system to transmit audio from a listen-in microphone as well as location data from the AVL (Vontas). It should also be capable of signaling the DVR system to tag and save recordings. Once activated the emergency shall be cancelled by entering a new destinations code or by repowering the Destination Sign System.

- When the vehicle master run switch is in the "OFF" position, the entire display area of all destination signs shall automatically blank within ten minutes.

Passenger Information

Passenger Stop Request/Exit Signal

Transit Coach

Pull Cord Passenger Signal

A passenger “stop requested” signal system that complies with applicable ADA requirements defined in 49 CFR, Part 38.37, shall be provided. The system shall consist of a heavy-duty pull cable, chime and interior sign message. The pull cable shall be located the full length of the bus on the sidewalls at the level where the transom is located. If no transom window is required, then the height of the pull cable shall approximate this transom level and shall be no greater than 63 in. as measured from the floor surface. It shall be easily accessible to all passengers, seated or standing. Pull cable(s) shall activate one or more solid state or magnetic proximity switches. At each wheelchair passenger position and at priority seating positions, additional provisions shall be included to allow a passenger in a mobility aid to easily activate the “stop requested” signal. An auxiliary passenger “stop requested” signal shall be installed at the rear door to provide passengers standing in the rear door/exit area a convenient means of activating the signal system. The signal shall be a heavy-duty push button type located in the rear door vicinity. Button shall be clearly identified as “passenger signal.”

Signal Chime

Transit Coach

A single “stop requested” chime shall sound when the system is first activated. A double chime shall sound anytime the system is activated from wheelchair passenger areas. Nashville MTA prefers a Floyd Bell 2-Tone On 2-Horn Chime System or an approved equal.

Exit signals located in the wheelchair passenger area shall be no higher than 4 ft above the floor. Instructions shall be provided to clearly indicate function and operation of these signals.

4.0.0 WARRANTY REQUIREMENTS

4.1.0 Warranties

Warranties in this document are in addition to any statutory implied warranties, remedies or warranties imposed on Contractor. Consistent with this requirement, Contractor warrants and guarantees to the original Authority each complete vehicle, and specific subsystems and components as follows:

Complete Vehicle

The vehicle is warranted and guaranteed to be free from defects and related defects for a minimum of one (1) year, beginning on the date of acceptance of each vehicle. During this warranty period, the vehicle shall maintain its structural and functional integrity. The warranty is based on regular operation of the vehicle under the operating conditions prevailing in Authority service area.

Contractor shall provide Authority with standard OEM warranty covering the frame and suspension members. This warranty shall not cover suspension air bags, leveling valves, springs, shocks, bushings, or other normal

wearing parts. Contractor is not liable if Authority voids the warranty as outlined in Section 0 Voiding of Warranty.

If the frame or suspension fails or shows indication of imminent failure, Authority shall immediately notify Contractor of said defect. Within ten (10) calendar days, Contractor shall inform Authority of Contractor’s plans to repair the vehicle. Repairs to the frame and suspension due failure is the responsibility of Contractor if it is determined the defects were due to construction failure, poor workmanship or faulty installation of a component or subsystem by the bus body manufacturer. Within fifteen (15) calendar days from notification, Contractor shall begin the repairs of the frame and suspension defects. If the Contractor cannot begin the repairs within fifteen (15) calendar days the Contractor must provide sustainable proof that the delays are due to circumstances beyond their immediate control and provide a time table for the commencement of repairs.

Subsystems and Components

Specific subsystems and components are warranted and guaranteed to be free from defects and related defects for the times and/or mileages given in the table below. Components and subsystems not listed shall carry manufacturer standard warranties.

SUBSYSTEM AND COMPONENT WARRANTY WHICHEVER COMES FIRST

| <u>ITEM</u> | <u>YEARS</u> | <u>MILEAGE</u> |
|--|--------------|----------------|
| Bumper to Bumper | 3 | 36,000 |
| Engine | 5 | 100,000 |
| Transmission | 5 | 100,000 |
| Drive axle & driveline | 5 | 60,000 |
| Brake system excluding friction material | 3 | 36,000 |
| Air conditioning system (OEM) | 3 | 36,000 |
| Air conditioning system (Body) | 2 | Unlimited |
| Basic bus body structure | 4 | 50,000 |
| Major Bus body construction | 5 | 100,000 |
| OEM Chassis Electrical Sys. | 3 | 36,000 |
| Bus Body Electrical Sys. | 4 | 50,000 |

4.2.0 Voiding of Warranty

The warranty shall not apply to any part or component of the vehicle that has been subject to misuse, negligence, accident, or that has been repaired or altered in any way so as to affect adversely its performance or reliability, except insofar as such repairs were in accordance with Contractor's maintenance manuals and the workmanship was in accordance with the recognized standards of the industry. The warranty shall also be void if Authority fails to conduct normal inspections and scheduled preventive maintenance procedures as recommended in Contractor's maintenance manuals.

4.3.0 Exceptions to Warranty

The warranty shall not apply to scheduled maintenance items or to items of normal wear furnished by Contractor, except insofar as such equipment may be damaged by the failure of a part of component for which Contractor is responsible.

4.4.0 Detection of Defects

If Authority detects a defect within the warranty periods defined in Warranty Requirements, it shall promptly notify Contractor's representative. Within five (5) working days after receipt of notification, Contractor's representative shall either agree that the defect is in fact covered by warranty, or reserve judgment until the subsystem or component is inspected by Contractor's representative or is removed and examined at Authority's property. At that time, the status of warranty coverage on the subsystem or component shall be mutually resolved between Authority and Contractor. Work necessary to effect the repairs defined in Repair Procedures, shall commence within 10 working days after receipt of notification by Contractor.

4.5.0 Scope of Warranty Repairs

When warranty repairs are required, Authority and Contractor's representative shall agree within five days after notification on the most appropriate course for the repairs and the exact scope of the repairs to be performed under the warranty. If no agreement is obtained within the five day period, Authority reserves the right to commence the repairs in accordance with Repair Procedures.

4.6.0 Fleet Defects

A fleet defect is defined as the failure of identical items covered by the warranty and occurring within the warranty period in a specified number of vehicles. For this contract, a fleet defect will be defined as an identical defect occurring in one-quarter (1/4) of vehicles delivered.

Scope of Warranty Provisions

Contractor shall correct a fleet defect under the warranty provisions defined in Repair Procedures. If the defect was due to a body construction failure, poor workmanship or faulty installation of a component or subsystem by the body manufacturer or the contractor, the Contractor shall promptly undertake and complete a work program reasonably designed to prevent the occurrence of the same defect in all other vehicles purchased under this contract. The work program shall include inspection and/or correction of the potential or defective part(s) in all of the vehicles.

Voiding of Warranty Provisions

The fleet defect provisions shall not apply to vehicle defects caused by non-compliance with Contractor's recommended normal maintenance practices and procedures in place at time of manufacturer.

Exceptions to Warranty Provisions

Fleet defect warranty provisions shall not apply to damage that is a result of normal wear and tear in service to such items as seats, lights, and interior trim. The Fleet Defect warranty shall not apply to Authority supplied items, such as radios, fare collection equipment, communication systems and tires.

4.7.0 Repair Procedures

Repair Performance

At its option, Authority or its designated representative may require Contractor or its designated representative to perform non-acceptance or warranty covered repairs that are clearly beyond the scope of Authority's capabilities. At its discretion, the Authority may perform such work if it determines it needs to do so based on transit service or other requirements. Work performed by Authority's personnel or designated representative shall be reimbursement by the Contractor.

Repairs by Contractor

If Authority requires Contractor to perform non-acceptance or warranty covered repairs, Contractor's representative must begin work necessary to effect repairs within ten (10) working days after receiving notification of a defect from Authority. Authority shall make the vehicle available to complete repairs timely with Contractor's repair schedule.

Contractor shall provide, at its own expense, all spare parts, tools and space required to complete repairs. At Authority's option, Contractor may be required to complete repairs. At Authority's option, Contractor may be required to remove the vehicle from Authority's property while repairs are being effected. If the vehicle is removed from Authority's property, repair procedures must be diligently pursued by Contractor's representative.

Repairs by Authority

4.8.0 Parts Used

If Authority performs the non-acceptance or warranty covered repairs, it shall correct or repair the defect and any related defects using Contractor's specified spare parts available from its own stock or those supplied by Contractor specifically for this repair. Monthly, or at a period to be mutually agreed upon, reports of all repairs covered by this non-acceptance or warranty shall be submitted by Authority to Contractor for reimbursement or replacement of parts. Contractor shall provide forms for these reports.

4.8.1 Contractor Supplied Parts

Authority may request that Contractor supply new parts for non-acceptance or warranty covered repairs being performed by Authority. These parts shall be shipped prepaid to Authority from any source selected by Contractor within ten (10) working days of receipt of the request for said parts.

4.8.2 Defective Components Return

Contractor may request that parts covered by the non-acceptance or warranty be returned to the manufacturing plant. The total cost for this action shall be paid by Contractor. Materials should be returned in accordance with Contractor's instructions.

4.8.3 Reimbursement for Labor and Other Related Costs

Authority shall be reimbursed by Contractor for labor. The amount shall be determined by the Authority for a qualified mechanic at a straight time wage rate of \$75.00 per hour, which includes fringe benefits and overhead in effect at the time the work is performed plus the cost of towing the vehicle if such action was necessary and if the bus was in the normal service area. These wage, fringe benefits and overhead rates shall not exceed the rates in the Authority's service facility at the time the Defect correction is made.

4.8.4 Reimbursement for Parts

Authority shall be reimbursed by Contractor for defective parts and for parts that must be replaced to correct the defect. The reimbursement shall be at the invoice cost of the part(s) at the time of repair and shall include taxes where applicable and fifteen (15%) percent handling costs.

4.8.5 Reimbursement to Contractor's Agents

Authority will make no non-acceptance or warranty related payments to Contractor's agents. Contractor will be totally responsible to Authority for all warranty claims, either full or pro-rated, that may arise. Authority assumes no liability to any agent employed by Contractor to perform Contractor's warranty obligations.

4.9.0 Warranty After Replacement/Repairs

If any component, unit, or subsystem is rebuilt or replaced by Contractor or by Authority's personnel, with the concurrence of Contractor, the subsystem shall have the unexpired warranty period of the original subsystem.

5.0.0 QUALITY ASSURANCE REQUIREMENTS

5.1.0 Quality Assurance Organization

Contractor shall establish and maintain an effective in-plant quality assurance organization. It shall be a specifically defined organization and should be directly responsible to Contractor's top management.

Control

The quality assurance organization shall exercise quality control over all phases of production from initiation of design through manufacture and preparation for delivery. The organization shall also control the quality of supplied articles.

Authority and Responsibility

The quality assurance organization shall have the authority and responsibility for reliability, quality control, inspection planning, establishment of the quality control system, and acceptance/rejection of materials and manufactured articles in the production of the vehicle.

5.2.0 Quality Assurance Organization and Functions

The quality assurance organization shall include the following minimum functions.

Work Instructions

The quality assurance organizations shall verify inspection operation instructions to ascertain that the manufactured product meets all prescribed requirements.

Records Maintenance

The quality assurance organization shall maintain and use records and data essential to the effective operation of its program. These records and copies of these records and data shall be available to and for review by Authority. Inspection and test records for this procurement shall be available for a minimum of one year after inspections and tests are completed.

Corrective Actions

The quality assurance organization shall detect and promptly assure correction of any conditions that may result in the production of defective powered vehicles. These conditions may occur in design, purchases, manufacture, tests, or operations that culminate in defective supplies, services, facilities, technical data or standards.

5.3.0 Standards and Facilities

The following standards and facilities shall be basic in the quality assurance process.

Manufacturing Control

Contractor shall ensure that all basic production operations, as well as all other processing and fabricating are performed under controlled conditions. Establishment of these controlled conditions shall be based on the documented work instructions, adequate production equipment, and special working environments if necessary.

5.4.0 Completed Item

A system for final inspection and test of completed vehicles shall be provided by the quality assurance organization. It shall measure the overall quality of each completed vehicle.

5.4.1 Non-conforming Materials

The quality assurance organization shall monitor Contractor's system for controlling non-conforming materials. The system shall include procedures for identification, segregation, and disposition.

5.4.2 Statistical Techniques

Statistical analysis, tests, and other quality control procedures may be used when appropriate in the quality assurance processes.

5.4.3 Inspection Status

A system shall be maintained by the quality assurance organization for identifying the inspection status of components and completed powered vehicles. Identification may include cards, tags, or other normal quality control devices.

5.4.4 Inspection System

The quality assurance organization shall establish, maintain and periodically audit a fully-documented inspection system. The system shall prescribe inspection and test of materials, work in progress, and completed articles. As a minimum, it shall include the following controls.

5.4.5 Inspection Stations

Inspection stations shall be at the best locations to provide for the work content and characteristics to be inspected. Stations shall provide the facilities and equipment to inspect structural, electrical, hydraulic, and other components and assemblies for compliance with the design requirements.

Stations shall also be at the best locations to inspect or test characteristics before they are concealed by subsequent fabrication or assembly operations. These locations shall minimally include underbody structure completion, body framing completion, body prior to paint preparation, water test before interior trim and insulation installation, engine installation completion, underbody dress-up and completion, vehicle prior to final paint touchup, vehicle prior to road test, and vehicle final road test completion.

5.4.6 Inspection Personnel

Sufficient trained inspectors shall be used to insure that all materials, components, and assemblies are inspected for conformance with the qualified vehicle design.

5.4.7 Inspection Records

Acceptance, rework, or rejection identification shall be attached to inspected articles. Articles that have been accepted as a result of approved materials review actions shall be identified. Articles that have been reworked to specified drawing configurations shall require special identification. Articles rejected as unsuitable or scrap shall be plainly marked and controlled to prevent installation on the vehicle. Articles that become obsolete as a result of engineering changes or other actions shall be controlled to prevent unauthorized assembly or installation. Unusable articles shall be isolated and then scrapped.

Discrepancies noted by Contractor during assembly shall be entered by the inspection personnel on a record that accompanies the major component, sub-assembly, assembly, or vehicle from start of assembly through final inspection. Actions shall be taken to correct discrepancies or other conditions that cause articles to be in nonconformity with the requirements of the contract specifications. The inspection personnel shall verify the corrective actions and mark the discrepancy record.

Copies of these records shall be given to Authority and shall be shipped with each vehicle.

If discrepancies cannot be corrected by replacing the non-conforming materials, Authority shall approve the modification, repair, or method of correction to the extent that the contract specifications are affected.

5.4.8 Quality Assurance Audits

The quality assurance organization shall establish and maintain a quality control audit program. Records of this program shall be subject to review by Authority.

5.4.9 Resident Inspector

Authority will be represented at the Contractor's plant by Resident Inspector(s) for bus orders of more than 10. The Resident Inspector(s) shall monitor, in the Contractor's plant, the manufacture of vehicles built under this procurement. The Resident Inspector(s) shall be authorized to approve the pre-delivery acceptance tests, and to release the vehicles for delivery. Upon request to the quality assurance supervisor, the Resident Inspector(s) shall have access to the Contractor's quality assurance files related to this procurement. These files shall include drawings, material standards, parts lists, inspection processing and reports, and records of defects.

Prior to the beginning of vehicle manufacture, the Resident Inspector(s) shall meet with the Contractor's Director or Manager of Quality Assurance. They shall review the inspection procedures and checklists. The Resident Inspector(s) may begin monitoring vehicle construction activities two (2) weeks prior to the start of vehicle fabrication.

The Contractor shall provide office space for the Resident Inspector(s) in close proximity to the final assembly area. This office space shall be equipped with desks, outside and inter-plant telephones, file cabinet, chairs, and clothing lockers sufficient to accommodate the Resident Inspector(s) staff. The office space shall be properly heated, air-conditioned and void of other personnel.

The presence of the Resident Inspector(s) in the plant shall not relieve the Contractor of its responsibility to meet all of the requirements of this contract.

Upon satisfactory completion of all inspection, audit and test criteria, and resolution of any outstanding issues affecting the purchase of any or all buses, proper documentation (the Release for Delivery) is signed by the designated resident inspector authorizing the bus manufacturer to deliver the vehicle to the agency's facility, where it will undergo a post-delivery inspection process and final acceptance. The satisfactory sign-off of the Release for Delivery should complete the Resident Inspector's duties for each bus. In final preparation for delivery, the bus manufacturer may request the Resident Inspector to do a final walk-through of the bus after it has been cleaned and prepped for shipping.

Request for Supplier Specification Deviation and Approved Equals

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| Request for Supplier Specification Deviation and Approved Equals |
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I certify on that the deviations to the specifications submitted below are "brand name, equivalent or equal" in performance. Prior to the award phase, Agency has the right to ask the bidder for documentation that confirms the deviation is "brand name, equivalent or equal" in performance. Bidder Name:

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| NASHVILLE, TN REQUEST FOR PROPOSALS (RFP) 2023113 | RFP Title: Body on Chassis Cutaway Buses |
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| Requesting # Nashville MTA dba WeGo Public Transit | Procurement Administrator: Wade McMillian Email Address: wade.mcmillian@nashville.gov |
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| Request # | Page | RFP Section | Specification | Deviation/Equivalent | Approve/Deny | Agency Response |
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***All Deviation request must be submitted on the excel spread sheet located on the website at www.wegotransit.com or Prosper may request a copy from wade.mcmillian@nashville.gov ***

Signature of the Director of Maintenance: _____

B. PROPOSAL FORMAT

Proposers shall include all of the items listed below in the order shown, in their Proposals. Each section should be clearly labeled, with pages numbered and separated by tabs. This format is necessary for evaluation purposes. A more detailed explanation of the requested services is found in Section III – Part A, the Scope of Work. Proposers shall utilize Pricing Schedule, Form 1, located in Section IV, to provide compensation in response to the suggested requirements, to indicate the cost of services.

Proposals shall be prepared simply and economically, providing a straightforward, concise description of capabilities to satisfy the requirements of this Proposal. Emphasis should be on completeness and clarity of content with sufficient detail to allow for accurate evaluation and comparative analysis.

Please be advised each Part referenced below is the minimum requirements requested by Nashville MTA.

Proposals shall include: six tabbed sections (Part 1, Part 2, Part 3, Part 4, Part 5, and Part 6) shall be indexed in the order outlined below. Proposals shall list questions and responses and/or attachments as numbered and listed within each section. The contents of each section should be concise and should address the Evaluation Criteria, Project Goals and Objectives, and Scope of Work.

PART 1:

Cover Page and Cover Letter

Reputation & Performance

All Proposals shall be accompanied by an introductory cover letter and executive summary. Responses for contact information should include, name (including professional title), address, telephone number and email address.

1. Qualifications, Experience, References and Samples
 1. Briefly introduce the Proposer, providing a summary of the Proposer's company history, certifications/qualification, and staffing; include all contact information.
 - 1.1 Organization chart showing the organization proposed for this Contract
 - 1.2 History of the proposer, including information about manufacturing capabilities
 - 1.3 Experience in producing the same or similar vehicles as those being proposed.
 - 1.4 Experience in producing composite structure vehicles
 - 1.5 Maintenance and warranty experience, including a qualified staff to provide the necessary services
 - 1.6 Proposer's ISO certification (s) or equivalent
 2. Clearly identify the contact person for the resulting contract, include professional title and all direct contact information.
 3. Clearly identify the contact person responsible for reporting monthly payment audits for DBE Compliance monitoring; include professional title and all direct contact information.
 4. Detail the Proposer's financial capabilities and financial history. Please include a financial statement for 2019 tax year.
 5. Detail any judgements, liens, Fleet Defect history, warranty claims and the actions taken to resolve these incidents.

6. Provide, project similar, references from at least (5) five federally funded transit agencies, including agency name and all direct contact information of our supervising project owner.
 - 6.1 Reference list
 - 6.2 Proposer's work under way or for the Proposer is committed
7. An acknowledgement that key individuals named in the Proposal will not be replaced without advance notice and approval by Nashville MTA and that replacement personnel will be subject to Nashville MTA's approval.

PART 2:

Product Design & Performance

This section should include a detailed discussion of the Proposer's approach to the project and how the approach will meet the project's goals and objectives. The approach should include, at minimum: insert customized requirements

1. Detail the following vehicle performance requirements:
 - 1.1 Vehicle performance
 - 1.2 Reduced exterior sound levels
 - 1.3 Minimum range requirements
 - 1.4 Compliance with general performance requirements
2. Detail the following vehicle structure:
 - 2.1 Previous service experience of the vehicle, if applicable
 - 2.2 Current and/or planned durability testing, including existing test results
 - 2.3 Physical dimensions
 - 2.4 Interior layout, including compliance with ADA requirements
 - 2.5 Layout of the operator's compartment, including the operator's field of view
 - 2.6 Available ergonomic information
 - 2.7 Functional enhancements, including integration of electronic controls and minimizing the number of gauges and switches
3. Detail the advanced design provisions, addressing the design characteristics, including how the design complies with the program's design objectives.
4. Detail the proposed technical deviations, addressing the effect and acceptability of proposed technical deviations, including proposed benefits to the Agency and Deviations that will result in cost reductions.
 - 4.1 Rational for proposed deviation
 - 4.2 Benefit and/or risk to Agency if the request is granted
5. Detail the manufacturing process, addressing the proposed manufacturing process, including a detailed description of the proposed facilities where the work would be done.
6. Detail the maintainability requirements and the following related items:
 - 6.1 Maintainability of the proposed powerplant
 - 6.2 Maintainability of proposed component parts
 - 6.3 Skills needed to perform maintenance work
 - 6.4 Required special equipment, tools or maintenance facility requirements that must be implemented to maintain the vehicles
 - 6.5 Proposed "built-in" diagnostic equipment, if offered
 - 6.6 Reasonableness of proposed scheduled maintenance requirements

- 6.7 Proposed spare parts package required to support the schedule maintenance and replacement of major components
- 6.8 Expected reliability and service life of major proposed components
- 6.9 Projected emissions of the vehicle
- 7. Detail the following system safety provisions:
 - 7.1 Proposed safety features
 - 7.2 Knowledge of Tennessee State codes and regulations affecting vehicles
 - 7.3 Vehicle code changes required for the vehicle to legally operate in the state, if any.
- 8. Detail the following technical support items:
 - 8.1 Identification of proposed parts and service center
 - 8.2 Service center staffing and qualifications
 - 8.3 Availability of electronic maintenance documentation and comprehensive plan for providing technical updates for the life of the proposed vehicles
 - 8.4 Proposed availability of spare parts, including methodology for storing parts locally and for expediting needed parts
 - 8.5 Proposed training plans and instruction program
 - 8.6 Proposed diagnostic equipment required to maintain the vehicles
 - 8.7 Provision of advanced features such as wireless self-diagnostics and/or database management
- 9. Detail items on the request for supplier deviation and approved equal form, if applicable.

PART 3:

Delivery Schedule

This section will discuss the schedule and timeline for accomplishing each task’s deliverable and how the proposed schedule will lead to the timely fulfillment of the project’s goals and objectives. This section should include, at minimum:

1. Proposed general project schedule and plan to ensure schedule compliance or to expedite the delivery schedule
2. Proposed critical path schedule for the production of the pilot vehicle and remaining vehicles as well as the methodology of controlling the schedule
3. Major component suppliers and the products to be provided by each for this contract
4. An outline of the major steps of each component and a schedule estimating the length of time required to complete each step.

PART 4:

Cost & Vehicle Technical Information

Nashville MTA requires Proposers to submit complete Form 1 – Pricing Schedule and Form 1A – Vehicle Technical Information, located in Section IV. If a discount off retail pricing for items not specifically listed on Form 1 is available, please provide that information. Also include any other pricing discounts or offers that will assist Nashville MTA in obtaining the best possible pricing for the services provided.

1. Provide detailed information and pricing.
2. Pricing for training courses will be optional and not included in the base bus price.
3. In this section, provide proposed rates and expenses. Proposers are encouraged to offer more options in addition to what is listed in the Scope.

4. Provide any discount for non-standard services, volume discounts or any other special price offered.
5. Proposers must identify in their cost proposal all direct costs they anticipate they will incur. Nashville MTA reserves the right to reject the request for payment of any direct cost item that was not submitted with the cost proposal or that was not expressly approved by Nashville MTA in advance of the cost being incurred.

PART 5:

FTA REQUIRED FORMS

Nashville MTA requires Proposers to complete the following forms located in Section IV FTA Model Clauses and Required Forms.

1. Please review, sign, and submit forms. If a form is not applicable to the Proposal or the proposing organization, ***please indicate not applicable and SUBMIT.***

*Proposal Forms, Licensing, and Permits

| | | | |
|--|---|--|-----------------------|
| Pricing Schedule | DBE Compliance Statement | References | Buy America |
| Acknowledgment of Addenda | Affidavits of Compliance DBE | Notice to Proposers | Insurance Certificate |
| Affidavit & Information Required for Proposers | Certificate of Authority | Certification Debarment, Suspension Lower-Tier | DBE Certificate |
| Proposer’s Certification of Eligibility | Certification of Restrictions on Lobbying | Certification of Debarment, Suspension Primary | License |
| Compliance Specifications | Affidavits | Subcontractors | Permits |

All forms may not apply but must be submitted and indicate not applicable

PART 6:

ACCEPTANCE OF THE PROPOSED CONTRACT TERMS AND CONDITIONS

This section will indicate any exceptions to the Scope of Work, general terms and conditions or other requirements listed in the Proposed Contract.

1. Overall compliance to requirements and acceptance.
 1. Signature is not required on the Proposed Contract included in the Proposal; however, any exceptions or proposed changes to the terms and conditions must be proposed on a separate attachment and **must be submitted with the Proposal** in order to be considered. Nashville MTA reserves the right to make changes to the Proposed Contract and to reject or accept any changes the Proposer may propose.. **Nashville MTA will not consider changes to Contract Exhibit A – Federal Transit Administration Clauses or Exhibit B – State of Tennessee Clauses.**

IV. REQUIRED FORMS

FORM 1 – PRICING SCHEDULE

RFP 2023113 - Body on Chassis Cutaway Buses

| Body on Chassis Cutaway Buses | | | |
|-----------------------------------|--------------------|-----------------------|------------------|
| GENERAL INFORMATION | | | |
| COMPANY NAME: | | | |
| FTA COMPLIANT VEHICLE (Y/N): | | | |
| DELIVERY CHARGE (\$ per mile): | | | |
| DELIVERY CHARGE TO NASHVILLE, TN: | | | |
| BASE VEHICLE INFORMATION | | | |
| VEHICLE DESCRIPTION | | MAKE & MODEL | TOTAL BASE PRICE |
| | | | |
| OVERHEAD RATE %: | | | |
| FEE %: | | | |
| VEHICLE ATTRIBUTES | | | |
| # | ATTRIBUTE CATEGORY | ATTRIBUTE DESCRIPTION | CREDIT VALUE |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |

_____ Initialed by Proposer

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| 29. | | | |

_____ Initialed by Proposer

VEHICLE OPTIONAL EQUIPMENT

Provide a credit (decrease) or an up charge (increase) to the Base Bus price. All options must be priced.

| RFP SECTION | DESCRIPTION | MANUFACTURER | CREDIT | UPCHARGE |
|--------------------|--------------------|---------------------|---------------|-----------------|
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_____ Initialed by Proposer

Provide a price for all items.

| ITEM # | DESCRIPTION | QUANTITY | UNIT PRICE | EXTENDED PRICE |
|--------|----------------|----------|------------|----------------|
| | Transmission | 1 | | |
| | Front Cap | 1 | | |
| | Drivers Seat | 2 | | |
| | W/C Lift Assy. | 1 | | |
| | Rear Cap | 1 | | |
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_____ Initialed by Proposer

TRAINING

Per section Technical Specification 5.6

Training prices shall be separate and distinct in order to account for classes that may or may not be needed. Proposer are allowed to provide prices in a different format as long as all training is accounted for and The Agency is capable of removing certain types of training and their respective price if found not needed.

| TRAINING CLASS TITLE | COST |
|----------------------|------|
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_____ Initialed by Proposer

PRICING – TEST EQUIPMENT AND SPECIAL TOOLS

Proposer shall include a separate document with proposed test equipment and/or special tools necessary or recommended for maintenance of proposed buses. This schedule shall include a respective price for each equipment and tool recommended.

The Agency's evaluation of these items will be based on the Agency's current equipment and tools inventory as compared to Proposer's stated requirements and recommendations.

| DESCRIPTION | QUANTITY | UNIT PRICE |
|-------------|----------|------------|
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_____ Initialed by Proposer

The undersigned Proposer hereby declares and represents that she/he; a) has carefully examined and understands the Proposing Documents, b) has not received, relied on, or based his Proposal on any verbal instructions contrary to the Proposing Documents or any addenda, c) has personally inspected and is familiar with the Request for Proposal solicitation and requirements, and hereby proposes to provide all labor, materials, tools, appliances and facilities as required to perform, in a workmanlike manner, all work and services for the completion of the referenced project, all in strict accordance with the Proposing Documents.

Name of Proposer: _____

Address Of Proposer: _____

City, State, ZIP: _____

Phone: _____

Name and Title of Authorized Signatory: _____

Signature of Authorized Signatory: _____ Date: _____

VEHICLE TECHNICAL INFORMATION

This form must be completed and included in the Technical Proposal.

GENERAL COACH DATA SHEET Body on Chassis Cutaway Buses as applicable.

| | |
|-------------------------------------|--|
| Bus manufacturer: | |
| Bus model: | |
| Understructure manufacturer: | |
| Model number: | |

Dimensions

| | | | | | |
|-----------------------|--|---|----|---|-----|
| Overall length | Over bumpers | <input style="width: 50px;" type="text"/> | ft | <input style="width: 30px;" type="text"/> | in. |
| | Over body | <input style="width: 50px;" type="text"/> | ft | <input style="width: 30px;" type="text"/> | in. |
| Overall width | Over body excluding mirrors | <input style="width: 50px;" type="text"/> | ft | <input style="width: 30px;" type="text"/> | in. |
| | Over body including mirrors—driving position | <input style="width: 50px;" type="text"/> | ft | <input style="width: 30px;" type="text"/> | in. |
| | Over tires front axles | <input style="width: 50px;" type="text"/> | ft | <input style="width: 30px;" type="text"/> | in. |
| | Over tires rear axles | <input style="width: 50px;" type="text"/> | ft | <input style="width: 30px;" type="text"/> | in. |

| | | | | |
|--|---|----|---|-----|
| Overall height (maximum) | <input style="width: 50px;" type="text"/> | ft | <input style="width: 30px;" type="text"/> | in. |
| Overall height (main roof line) | <input style="width: 50px;" type="text"/> | ft | <input style="width: 30px;" type="text"/> | in. |

| Doorway Dimensions | Front | Rear |
|---------------------------|---|---|
| Width between door posts | <input style="width: 50px;" type="text"/> in. | <input style="width: 50px;" type="text"/> in. |
| Door width between panels | <input style="width: 50px;" type="text"/> in. | <input style="width: 50px;" type="text"/> in. |
| Clear door width | <input style="width: 50px;" type="text"/> in. | <input style="width: 50px;" type="text"/> in. |
| Doorway height | <input style="width: 50px;" type="text"/> in. | <input style="width: 50px;" type="text"/> in. |

Step height from ground measured at center of doorway

Interior head room (center of aisle)

| | |
|---------------------|---|
| Front axle location | <input style="width: 50px;" type="text"/> in. |
| Rear axle location | <input style="width: 50px;" type="text"/> in. |

Aisle width between transverse seats in.

Floor height above ground (centerline of bus)

At front door in.

At rear door in.

Minimum ground clearance (between bus and ground, with bus un-kneeled)

Excluding axles in.

Including axles in.

Horizontal turning envelope (see diagram below)

Outside body turning radius, TR0 (including bumper)

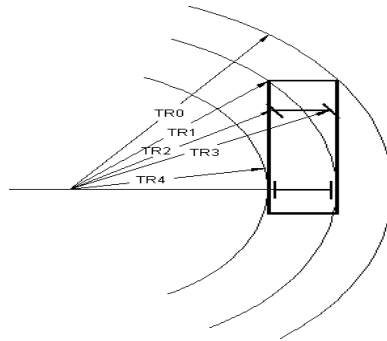
Front inner corner radius, TR1

Front wheel inner turning radius, TR2

Front wheel outer turning radius, TR3

Inside Body Turning Radius innermost point, TR4 (including bumper)

| | | | |
|----------------------|---|----------------------|-----|
| <input type="text"/> | f | <input type="text"/> | in. |
| <input type="text"/> | t | <input type="text"/> | |
| <input type="text"/> | f | <input type="text"/> | in. |
| <input type="text"/> | t | <input type="text"/> | |
| <input type="text"/> | f | <input type="text"/> | in. |
| <input type="text"/> | t | <input type="text"/> | |
| <input type="text"/> | f | <input type="text"/> | in. |
| <input type="text"/> | t | <input type="text"/> | |



Wheel base

Front in.

Rear in.

Overhang, centerline of axle over bumper

Front in.

Rear in.

Floor

Interior length ft in.

Interior width (excluding covings) ft in.

Total standee area (approximately) ft²

Minimum distance between wheelhouses: Front in.

Rear in.

Maximum interior floor slope (from horizontal) deg

Passenger capacity provided

| | | |
|--------------------------|--|-----|
| Total maximum seating | | |
| Standee capacity | | |
| Minimum hip to knee room | | in. |
| Minimum foot room | | in. |

Weight

| | No. of people | Front axle | | | Rear axle | | | Total bus |
|--|---------------|------------|-------|-------|-----------|-------|-------|-----------|
| | | Left | Right | Total | Left | Right | Total | |
| Empty bus, full fuel and farebox | | | | | | | | |
| Fully seated, full fuel and farebox | | | | | | | | |
| Fully loaded standee and fully seated, full fuel and farebox | | | | | | | | |
| Crush load (1.5x fully loaded) | | | | | | | | |
| GVWR | | | | | | | | |
| GAWR | | | | | | | | |

Engine, main

| | | |
|------------------------|--|------------------|
| Manufacturer | | |
| Type and weight rating | | |
| Model number | | |
| Displacement | | in. ³ |

Wheels and tires

Wheels

| | |
|----------|--|
| Make | |
| Size | |
| Capacity | |
| Material | |

Tires

| | | |
|-------------------------|--|-----|
| Manufacturer | | |
| Type | | |
| Size | | |
| Load range/air pressure | | psi |

Interior lighting

| | | |
|--------------------|--|--|
| Manufacturer | | |
| Type | | |
| Number of fixtures | | |
| Size of fixtures | | |
| Power pack | | |

Doors

Front

| | | |
|-------------------------------------|--|--|
| Manufacturer of operating equipment | | |
| Type of door | | |
| Type of operating equipment | | |

Rear

| | | |
|-------------------------------------|--|--|
| Manufacturer of operating equipment | | |
| Type of door | | |
| Type of operating equipment | | |

Passenger windows

Front

| | | | |
|--------------|--------------------|--|--|
| Manufacturer | | | |
| Model | | | |
| Type | | | |
| Number: | Side | | |
| | Rear | | |
| Sizes: | | | |
| | | | |
| Glazing: | Type | | |
| | Thickness | | |
| | Color of tint | | |
| | Light transmission | | |

Mirrors

| | Size | Type | Manufacturer | Part no. | Model no. |
|---------------------|------|------|--------------|----------|-----------|
| Right side exterior | | | | | |
| Left side exterior | | | | | |

Seats

Passenger

| | | |
|--------------|--|--|
| Manufacturer | | |
| Model | | |
| Type | | |

Wheelchair lift equipment

| | | |
|------------------------------|--------|--------|
| Manufacturer | | |
| Model number | | |
| Capacity | | lbs |
| Width of platform | | in. |
| Length of platform | | in. |
| System fluid capacity | | quarts |
| Type of fluid used | | |
| Operating hydraulic pressure | | psi |
| Hydraulic cylinders: | Size | |
| | Number | |

Wheelchair securement equipment

| | |
|--------------|--|
| Manufacturer | |
| Model number | |

Destination signs

| | |
|--------------|--|
| Manufacturer | |
| Type | |

Electrical

Multiplex system

| | |
|--------------|--|
| Manufacturer | |
| Model number | |

Batteries

| | |
|--------------|--|
| Manufacturer | |
| Model number | |
| Type | |

Communication system

GPS

| | |
|--------------|--|
| Manufacturer | |
| Model number | |

PA system

| | Manufacturer | Model number | Number |
|-------------------|--------------|--------------|--------|
| Amplifier | | | |
| Microphone | | | |
| Internal speakers | | | |
| External speaker | | | |

Security camera system

| | | |
|-------------------|--|--|
| Manufacturer | | |
| Model number | | |
| Number of cameras | | |
| Storage capacity | | |

Bike racks (fixed route option)

| | | |
|--------------|--|--|
| Manufacturer | | |
| Model number | | |

Fire detection system

| | | |
|---------------------------|--|--|
| Manufacturer | | |
| Model number | | |
| Fire detectors | | |
| Type (thermal or optical) | | |
| Number of detectors | | |

Automatic voice annunciator system (fixed route options)

| | | |
|-----------------------|--|--|
| Manufacturer | | |
| Model and part number | | |

Annunciator LED sign

| | | |
|--------------------|--|-----|
| Number of signs | | |
| Housing dimensions | | |
| Character length | | in. |
| Character height | | in. |
| Character width | | in. |

GPS antenna

| | | |
|-----------------------|--|--|
| Manufacturer | | |
| Model and part number | | |

Automatic passenger counter (fixed route option)

| | | |
|-----------------------|----|--|
| Manufacturer | | |
| Model and part number | a. | |
| | b. | |
| | c. | |

FORM 2

ACKNOWLEDGMENT OF ADDENDA

The undersigned acknowledges receipt of the following addenda to the Bid documents: (If none received, write none)

| | |
|------------------------|--------------|
| ADDENDUM NUMBER: _____ | DATED: _____ |
| ADDENDUM NUMBER: _____ | DATED: _____ |
| ADDENDUM NUMBER: _____ | DATED: _____ |
| ADDENDUM NUMBER: _____ | DATED: _____ |
| ADDENDUM NUMBER: _____ | DATED: _____ |
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| ADDENDUM NUMBER: _____ | DATED: _____ |
| ADDENDUM NUMBER: _____ | DATED: _____ |
| ADDENDUM NUMBER: _____ | DATED: _____ |
| ADDENDUM NUMBER: _____ | DATED: _____ |

NOTE: Failure to acknowledge receipt of all addenda may cause the Proposal to be considered non-responsive to the Proposal. Acknowledged receipt of each addendum must be clearly established and included with the Proposal.

Company

Authorized Signature /Date

Name Printed

Title

FORM 3

AFFIDAVIT OF NON-COLLUSION

Affidavit and information required for Proposer:

I hereby swear, or affirm, under the penalty for perjury:

- (1) That I am the Proposer (if the Proposer is an individual), a partner in the Proposal (if the Proposer is a partnership), or an officer or employee of the proposing corporation with the authority to sign on its behalf (if Proposer is a corporation).
- (2) That the attached Proposal or any subsequently submitted best and final offer have been arrived at by the Proposer independently and have been submitted without collusion with, and without any agreement, understanding, or planned course of action with, and other vendor of materials, supplies, equipment, or services described in the Request for Proposals, designed to limit independent proposing or competition.
- (3) That the contents of the Proposal 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; and
- (4) That I have fully informed myself regarding the accuracy of the statements made in this affidavit.

Proposing Company

Authorized Signature /Date

Name Printed

Title

Subscribed and sworn to before me the _____ day of _____, 20____.

Notary Public

My commission expires: _____

FORM 4

PROPOSER'S CERTIFICATION OF ELIGIBILITY

The _____ (Name of Proposer) hereby certifies that (Check appropriate box) is or is not included on the United States Comptroller General's "Consolidated List of Persons or Firms Currently Debarred for Violation of Various Public Contracts Incorporation Labor Standards Provision"

Company

Authorized Signature /Date

Name Printed

Title

SAM Number

DUNS Number

NOTE: The System for Award Management (SAM) is an official website of the U.S. government.

There is no cost to use SAM. You can use this site for FREE to:

- Register to do business with the U.S. government
- Update or renew your entity registration
- Check status of an entity registration
- Search for entity registration and exclusion records

<https://www.sam.gov>

Subscribed and sworn to before me the _____ day of _____, 20__.

Notary Public

My commission expires: _____

FORM 5

COMPLIANCE WITH SPECIFICATIONS

In submitting a Proposal, the Proposer is sufficiently informed in all matters affecting the Proposal, and that the Proposer has checked the Proposal for errors and omissions and hereby states that they will comply with the specifications in all areas including addenda that were granted by the Nashville MTA.

Company

Authorized Signature /Date

Name Printed

Title

Subscribed and sworn to before me this _____ day of _____, 20__.

Notary Public

My commission expires _____

FORM 6A– INTENTIONALLY OMITTED

DISADVANTAGED BUSINESS ENTERPRISE LETTER OF INTENT

FORM 6B– INTENTIONALLY OMITTED

PROPOSER DBE GOALS ACCOMPLISHMENT STATEMENT

FORM 6C– INTENTIONALLY OMITTED

**NASHVILLE METROPOLITAN TRANSIT AUTHORITY CONTRACTOR GOOD FAITH EFFORTS DOCUMENTATION
FORM**

FORM 6D – INTENTIONALLY OMITTED

NASHVILLE METROPOLITAN TRANSIT AUTHORITY DBE UTILIZATION PLAN

FORM 6E – INTENTIONALLY OMITTED

AFFIDAVIT OF COMPLIANCE

FORM 7

CERTIFICATE OF AUTHORITY

I hereby declare and affirm that I am:

PROPOSER IS A CORPORATION

PROPOSER IS A PARTNERSHIP

PROPOSER IS AN INDIVIDUAL

PROPOSER IS A JOINT VENTURE

I, the undersigned, as certified authority of the organization submitting the foregoing Proposal, hereby certify that under and pursuant to the By-Laws and Resolutions of said organization, each officer who has signed Proposals on behalf of the corporation, including the foregoing assurance of irrevocability, is fully and completely authorized so to do.

Company

Authorized Signature /Date

Name Printed

Title

Subscribed and sworn to before me the _____ day of _____, 20____.

Notary Public

My commission expires: _____

FORM 8

CERTIFICATION OF RESTRICTIONS ON LOBBYING

I _____ hereby certify on behalf of _____
(Name of Official) (Name of Proposer)

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an 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 appropriated funds have been paid or will be paid to any person for making lobbying contacts to 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 undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)]

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub awards at all tiers (including subcontracts, sub grants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients 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 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). 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.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure or failure.]

The Proposer, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. A 3801, et seq., apply to this certification and disclosure, if any.

Company

Authorized Signature /Date

Name Printed

Title

FORM 9

CERTIFICATION REGARDING DEBARMENT AND SUSPENSION PRIMARY PARTICIPANT

The prospective contractor certifies, by submission of this Proposal, that neither it nor its “principals” as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any governmental department or agency as defined at 49 CFR 29.940 and 29.945.

The Proposer must comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into.

By signing and submitting its Proposal, the Proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by MTA. If it is later determined that the Proposer knowingly rendered an erroneous certification, in addition to remedies available to MTA, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The Proposer agrees to comply with the requirements of 49 CFR 29, Subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The Proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

Company

Authorized Signature /Date

Name Printed

Title

FORM 10

CERTIFICATION OF LOWER-TIER PARTICIPANTS

CERTIFICATION REGARDING DEBARMENT AND SUSPENSION

The prospective lower tier participant proposer certifies, by submission of this Proposal, that neither it nor its “principals” as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any governmental department or agency as defined at 49 CFR 29.940 and 29.945.

By signing and submitting its Proposal, the Proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by Nashville MTA. If it is later determined that the Proposer knowingly rendered an erroneous certification, in addition to remedies available to Nashville MTA, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The Proposer agrees to comply with the requirements of 49 CFR 29, Subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The Proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

Company

Authorized Signature /Date

Name Printed

Title

FORM 11

CONTACT INFORMATION OF SIMILAR CONTRACTS/REFERENCES

Proposers are requested to supply references for past projects of similar scope. Please provide project name, owner, and contact information for owner including the name, email, and telephone number of the owner's representative that can attest to the work performed. Please include references for subconsultants who are performing key elements of work. References for subconsultants should related specifically to the items of work the subconsultant will be performing in this Proposal.

- 1. _____

- 2. _____

- 3. _____

- 4. _____

Company Name

Authorized Signature /Date

Name Printed

Title

FORM 12

AFFIDAVITS

State of _____ County of _____

As used herein, "Contractor" will include Proposers and Bidders.

Compliance with Laws: After first being duly sworn according to law, the undersigned (Affiant) states that he/she is the _____ (Title) of _____ (Contractor), and that Contractor is presently in compliance with, and will continue to maintain compliance with, all applicable laws. Thus, Affiant states that Contractor has all applicable licenses, including business licenses, copies of which are attached hereto. Finally, Affiant states that Contractor is current on its payment of all applicable gross receipt taxes and personal property taxes.

Contingent Fees: In accordance with the Metropolitan Government's 1992 Procurement Code, and MTA Purchasing Policy and FTA rules it is a breach of ethical standards for a person to be retained, or to retain a person, to solicit or secure a Nashville MTA contract upon an agreement or understanding for a contingent commission, percentage, or brokerage fee, except for retention of bona fide employees or bona fide established commercial selling agencies for the purpose of securing business. After first being duly sworn according to law, the undersigned (Affiant) states that the Contractor has not retained anyone in violation of the foregoing.

Non-Discrimination: After first being duly sworn according to law, the undersigned (Affiant) states that by its employment policy, standards, and practices the Contractor does not subscribe to any personnel policy which permits or allows for the promotion, demotion, employment, dismissal, or laying off of any individual due to his/her race, creed, color, national origin, age, or sex, and that the Contractor is not in violation of and will not violate any applicable laws concerning the employment of individuals with disabilities.

It is the policy of the Nashville MTA, FTA and the Metropolitan Government not to discriminate on the basis of age, race, sex, color, national origin, or disability in its hiring and employment practices, or in admission to, access to, or operation of its programs, services, and activities. With regard to all aspects of its contract with the Nashville MTA, Contractor certifies and warrants it will comply with this policy.

Company

Authorized Signature /Date

Name Printed

Title

Sworn to and subscribed before me on this ____ day of _____, 20____.

Notary Public
My commission expires: _____

FORM 13

NOTICE TO PROPOSER

The Proposer hereby agrees that the Nashville MTA Chief Executive Officer and or the Board of Directors have the right to reject any or all Proposals and to waive informality in any Proposal and the Proposer shall not dispute the correctness of the quantities used in computing the best, responsive Proposal.

Company

Authorized Signature /Date

Name Printed

Title

FORM 14 - INTENTIONALLY OMITTED

FORM 15

BUY AMERICA CERTIFICATE

(Rolling stock is defined in the Buy America regulations (49 CFR Part 661.3) as: "transit vehicles such as buses, vans, cars, railcars, locomotives, trolley cars and buses, and ferry boats, as well as vehicles used for support services.")

FOR COMPLIANCE WITH TITLE 49 U.S.C. § 5323(j)(2)(C)

The Bidder or Offeror hereby certifies that it will comply with the requirements of Title 49 USC § 5323(j)(2)(C) and the applicable regulations at 49 CFR. Part 661.

Company

Authorized Signature /Date

Name Printed

Title

or

BUY AMERICA CERTIFICATE FOR NON-COMPLIANCE WITH TITLE 49 USC § 5323(j)(2)(C)

The Bidder or Offeror hereby certifies that it cannot comply with the requirements of Title 49 USC § 5323(j)(2)(C), but may qualify for an exception pursuant to Title 49 USC § 5323(j)(2)(B) or (j)(2)(D) and the regulations in 49 CFR Part 661.7.

Company

Authorized Signature /Date

Name Printed

Title

Title

FORM 16

NASHVILLE METROPOLITAN TRANSIT AUTHORITY SUBCONTRACTOR INFORMATION

| | | | | | | | |
|----------------------|--|--|--------------|----------------|--|--------------|--|
| Proposer Name | | | | Address | | | |
| Contact | | | Email | | | Phone | |

Please list all subcontractors performing work on the above contract. Use additional sheets, if necessary.

| SUBCONTRACTOR INFORMATION | | | | | | | |
|---------------------------|---------|-------|----------------|---------------|-------------------|------------------|-------|
| Company Name | Address | Phone | Contact Person | Contact Email | Subcontract Value | License # & Date | SAM # |
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Prime Proposer Signature

Date

CERTIFICATION 1

CERTIFICATE OF COMPLIANCE WITH BUS TESTING REQUIREMENT

The undersigned certifies that the vehicle offered in this procurement complies and will, when delivered, comply with 49 USC § 5323(c) and FTA’s implementing regulation at 49 CFR Part 665 according to the indicated one of the following three alternatives.

Mark one and only one of the three blank spaces with an “X.”

- 1. ____ The buses offered herewith have been tested in accordance with 49 CFR Part 665 on _____ (date). If multiple buses are being proposed, provide additional bus testing information below or on attached sheet. The vehicles being sold should have the identical configuration and major components as the vehicle in the test report, which must be submitted with this Proposal. If the configuration or components are not identical, then the manufacturer shall provide with its Proposal a description of the change and the manufacturer’s basis for concluding that it is not a major change requiring additional testing. If multiple buses are being proposed, testing data on additional buses shall be listed on the bottom of this page.

- 2. ____ The manufacturer represents that the vehicle is “grandfathered” (has been used in mass transit service in the United States before October 1, 1988 and is currently being produced without a major change in configuration or components), and submits with this Proposal the name and address of the recipient of such a vehicle and the details of that vehicle’s configuration and major components.

- 3. ____ The vehicle is a new model and will be tested and the results will be submitted to the Agency prior to acceptance of the first bus.

The undersigned understands that misrepresenting the testing status of a vehicle acquired with federal financial assistance may subject the undersigned to civil penalties as outlined in the Department of Transportation’s regulation on Program Fraud Civil Remedies, 49 CFR Part 31. In addition, the undersigned understands that FTA may suspend or debar a manufacturer under the procedures in 49 CFR Part 29.

Company name: _____

Name of signer: _____

Title: _____

Authorized signature

Date

CERTIFICATION 2

DBE APPROVAL CERTIFICATION

I hereby certify that the Proposer has complied with the requirements of 49 CFR 26, Participation by Disadvantaged Business Enterprises in DOT Programs, and that its goals have not been disapproved by the Federal Transit Administration.

Company name: _____

Name of signer: _____

Title: _____

Authorized signature

Date

CERTIFICATION 3

FEDERAL MOTOR VEHICLE SAFETY STANDARDS

The Proposer and (if selected) Contractor shall submit (1) manufacturer’s FMVSS self-certification sticker information that the vehicle complies with relevant FMVSS or (2) manufacturer’s certified statement that the contracted buses will not be subject to FMVSS regulations.

Company name: _____

Name of signer: _____

Title: _____

Authorized signature

Date

CERTIFICATION 4

PRE-AWARD AND POST DELIVERY AUDIT REQUIREMENTS

Pre-Award and Post-Delivery Audit Requirements - The Contractor agrees to comply with 49 U.S.C. § 5323(1) and FTA's implementing regulation at 49 C.F.R. Part 663 and to submit the following certifications:

1. Buy America Requirements: The Contractor shall complete and submit a declaration certifying either compliance or noncompliance with Buy America. If the Bidder/Offeror certifies compliance with Buy America, it shall submit documentation which lists 1) component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin and costs; and 2) the location of the final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly.
2. Solicitation Specification Requirements: The Contractor shall submit evidence that it will be capable of meeting the bid specifications.
3. Federal Motor Vehicle Safety Standards (FMVSS): The Contractor shall submit 1) manufacturer's FMVSS self-certification sticker information that the vehicle complies with relevant FMVSS or 2) manufacturer's certified statement that the contracted buses will not be subject to FMVSS regulations.

CERTIFICATE OF COMPLIANCE

The bidder hereby certifies that it will comply with the requirements of 49 U.S.C. Section 5323(j)(2)(C), Section 165(b)(3) of the Surface Transportation Assistance Act of 1982, as amended, and the regulations of 49 C.F.R. 661.11:

Company name: _____

Name of signer: _____

Title: _____

Authorized signature

Date

CERTIFICATION 5

DISADVANTAGED BUSINESS ENTERPRISES (DBE) FOR TRANSIT VEHICLE MANUFACTURERS (TVM) CERTIFICATION

The Proposer, _____, certifies or affirms shall comply with all applicable federal, state, and local regulations. These shall include but not be limited to the Federal Transportation Administration (FTA) annual DBE subcontracting participation goal of Transit Vehicle Manufacturers as stated in the following clause:

“Pursuant to Title 49, Code of Federal Regulations, Part 26.49, a Proposer, as a condition of being authorized to respond to this solicitation, must certify by completing the form Transit Vehicle Manufacturer DBE Approval Certification that it has on file with the Federal Transportation Administration (FTA) an approved or not disapproved annual disadvantaged business enterprise (DBE) subcontracting participation goal.”

TVM CERTIFICATION:

I hereby certify that the proposer named below, has complied with the requirements of 49 CFR Part 26.49, Participation by Disadvantaged Business Enterprises in DOT Programs, and that its goals have been submitted and have either been approved or not disapproved by the Federal Transit Administration.

The proposer, if a non-vehicle manufacturer supplier, hereby certifies that the manufacturer of the transit vehicle to be proposed has complied with the above referenced requirements of 49 CFR Section 26.49.

| | |
|------------------------------------|------------------------------------|
| Company (Manufacturer or Proposer) | |
| Authorized Signature | Date |
| Print Name | Title |
| Dealer (Company Name) | Dealer (Print Representative Name) |
| Dealer Representative Signature | Date |

Subscribed and sworn to before me the _____ day of _____, 20____.

Name of Notary Public

My commission expires: _____

V. GENERAL TERMS AND CONDITIONS & STANDARD CLAUSES

Any contract resulting from this Request for Proposals shall include the following:

- Request for Proposal No 2023113 and all addenda
- Proposer's Accepted Offer and Guarantee
- Proposal Award/Contract

The Proposer ("contractor") and appropriate parties of Agencies will sign to execute contract.

Federal requirements apply to this procurement and any future contract. If those requirements change then the most recent requirements shall apply. The Federal Government requires that activities financed in part, with Federal funds, and performed by a third-party contractor and/or its subcontractors on behalf of the Agencies must be in accordance with Federal requirements.

All subcontracts and subcontractors employed under this contract are subject to the same conditions and regulations as set forth herein unless specifically exempted.

The prime contractor shall ensure that its subcontractors at all tiers are aware of and comply with these Federal regulations. The prime contractor is liable for subcontractor's compliance failures. Failure to comply will render the prime contractor responsible for damages and/or contract termination.

See Exhibit A to Contract for Federal Transit Administration Clauses.

1. GENERAL REQUIREMENTS

The Parties shall fully cooperate with one another and shall take any additional acts that may be necessary, appropriate, or convenient to attain the purposes of this Proposal and any contract entered into.

2. PROPOSER'S AFFIDAVITS NON-COLLUSION

The Proposer guarantees that the Proposal submitted is not a product of collusion with any other Proposer and no effort made to fix the Proposal price of any Proposers, or to fix any overhead, profit or cost elements of any Proposal price. An affidavit of non-collusion form is included and must be signed and submitted with Proposal.

3. INSURANCE REQUIREMENTS

During the term of this Contract, Proposer shall, at its sole expense, obtain and maintain in full force and effect for the duration of the 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 five million (\$5,000,000) dollars per occurrence, for a period of five (5) years after acceptance of the last bus delivered under this contract (Products Liability coverage may be effected through one or more excess liability policies.

b) General Liability Insurance including Bodily Injury, Property Damage and Contractual Liability covering the indemnification contained herein, five million dollars (\$5,000,000) combined single limits per occurrence \$5,000,000.00 aggregate, where applicable.

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 Nashville MTA 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 five hundred thousand (\$500,000) dollars, as required by the laws of Tennessee. (Not required for companies with fewer than five (5) employees).

f) Other insurance

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 the Services, furnish Nashville MTA with original certificates and amendatory endorsements effecting coverage required by this Section 16 of the proposed contract 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 Nashville MTA.
- b) Provide certified copies of endorsements and policies if requested by Nashville MTA 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 the Services commence until completed. Failure to maintain, renew coverage or provide evidence of renewal as required by Nashville MTA may be treated by Nashville MTA 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 the Nashville MTA 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 subcontractors' 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 Nashville MTA.
- g) Disclose any deductibles and/or self-insured retentions greater than ten thousand dollars (\$10,000) and obtain Nashville MTA's written approval of such deductibles and/or self-insured retentions prior to the commencement of the Services.
- 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.

Upon request, the Proposer will provide a Certificate of Coverage with the Nashville Metropolitan Transit Authority named as Certificate Holder.

The Proposer shall indemnify and hold harmless Nashville MTA from any and all damages, loss or injury, lawsuits, claims, demands, or liens resulting from any performance of Proposer's employees or subcontractors.

4. INTEREST OF MEMBERS OF NASHVILLE MTA

No member of the governing body of Nashville MTA, other officer, employee or agent of Nashville MTA who exercises any functions or responsibilities in connection with the carrying out of the activities, to which this Contract pertains, shall have any personal interest, direct or indirect, in this Contract.

5. INTEREST OF OTHER LOCAL PUBLIC OFFICIALS AND STATE OFFICIALS

No member of the governing body of Metro, and no other public official of such locality, who exercises any functions or responsibilities in the review or approval of the carrying out of activities to which this Contract pertains, shall have any personal interest, direct or indirect, in this Contract. No part of the proceeds 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 Proposer to Nashville MTA in connection with any work contemplated or performed relative to this Contract.

6. INTEREST OF MEMBERS, OR DELEGATES TO CONGRESS

In accordance with 18 U.S.C. Section 431, 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 there from.

7. INTEREST OF THE PROPOSER

The Proposer 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 Proposer further covenants that no person having such interest shall be employed in the performance of this Contract.

8. WORKERS COMPENSATION ACT

The Proposer shall comply with the State Law known as the Workers' Compensation Act and shall pay into the State insurance fund the necessary premiums required by the Act to cover all employees furnishing said services to Nashville MTA, and under the control of the Proposer, and shall relieve Nashville MTA from any costs due to accidents and other liabilities mentioned in said Act.

9. SOCIAL SECURITIES ACT

The Proposer shall be and remain an independent Proposer with respect to all services performed and agrees to and does accept full and exclusive liability for payment of any and all contributions or taxes for social security, unemployment insurance, and retirement benefits or annuities imposed under any State and Federal law which are measured by the wages, salaries, or other remunerations paid to persons by the Proposer for work performed under the terms of this contract. The Proposer agrees to obey all lawful rules and regulations and to meet all lawful requirements which are now or may be issued or promulgated under laws authorized by State or Federal officials; and Proposer also agrees to indemnify and save harmless the Nashville MTA from any contributions or liability, therefore.

10. EQUAL EMPLOYMENT OPPORTUNITY

In implementing the Project/Contract, the Proposer may not discriminate against any employee or applicant for employment because of race, color, creed, sex, disability, age or national origin. The Proposer agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, sex, disability, 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 Proposer 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.

11. AUTHORITY TO ENTER CONTRACT

The Proposer has all requisite power and authority to conduct its business and to execute, deliver, and perform services specified in the Proposal and any Contract that may be issued. The Proposer warrants that the individuals who have signed the Proposal have the legal right and authority to bind the Proposer.

12. AUTHORIZATION OF PROPOSAL

If the Proposal is made by an individual doing business under an assumed name, the Proposal shall so state. If the Proposal is made by a partnership, the full name and addresses of each member and the address of the partnership shall be given and the Proposal shall be signed by one member thereof. If the Proposal is made by a corporation, it shall be signed in the corporate name by an authorized officer. If the Proposal is made by a joint venture, the full name and address of each member of the joint venture shall be given and the Proposal shall be signed by each venture. Form(s) is included to be filled out and submitted with Proposal.

13. SUBCONTRACT APPROVAL

Proposers shall contain a provision making the subcontractor(s) subject to all provisions stipulated in the Contract. The Proposers shall be fully responsible for all services performed by any subcontractor.

14. COST/PRICE ANALYSIS

Nashville MTA reserves the right to conduct a cost or price analysis for any purchase or service. Nashville MTA may be required to perform a cost/price analysis when competition is lacking for any purchase. Sole source procurements or procurements which result in a single Proposal received, will be subject to a cost/price 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. Nashville MTA may require a pre-award audit, and potential Proposers shall be prepared to submit data relevant to the proposed work which will allow Nashville MTA 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 Nashville MTA reserves the right to

negotiate with the single Proposers to achieve a fair and reasonable price. If both parties cannot agree upon a negotiated price, Nashville MTA reserves the right to reject the single Proposal.

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

15. PRICING

The price quoted in any Proposal submitted shall include all necessary cost to complete the services in accordance with the specifications. Anything omitted from such specifications, which are clearly necessary, shall be considered a portion of such cost although not directly specified or called for in the specifications. Proposers should note discounts.

16. PROMPT PAYMENT

The Proposer agrees to pay each subcontractor for satisfactory performance of its contract no later than 30 days from receipt of each payment the Proposer receives from Nashville MTA. Any delay or postponement of payment from the above reference may occur only for good cause following written approval of Nashville MTA. This clause applies to both DBE and non-DBE subcontractors. If the Proposer determines the work to be unsatisfactory, it must notify Nashville MTA immediately, in writing, and state the reasons. Failure to comply with this requirement would be construed to be a breach of contract and subject to contract termination.

17. PROTEST

A. Definitions for Purposes of the section

The term “days” refers to working days of the Authority.

The term “interested party” means any person (a) who is an actual proposer or prospective proposer in the procurement involved, and (b) whose direct economic interest would be affected by the award of the contract or by a failure to award the contract.

Note – WeGo will notify FTA regional office when it receives a third-party contract protest on a contract with substantial FTA funds (projects over \$500,000), and keep FTA informed about the status of the protest.

B. The Agency will hear and consider a bona fide protest regarding its procurement actions. It is anticipated that the majority of protests will be evaluated and finally decided by the Authority. Accordingly, the Authority intends to provide a thorough review of all bona fide proposal protests. The Authority’s primary concern, however, is the timely procurement of needed capital equipment, supplies or services. It does not intend to allow the filing of protests to unnecessarily delay the procurement process, especially if the protest involved is vexatious or frivolous in nature.

Notwithstanding the availability of these protest procedures, any interested party is encouraged to exhaust all methods described in this section of resolving an issue before filing a formal protest with the Authority. In its consideration of a protest, the Authority reserves the right to give due consideration to the good faith efforts of the protestor to resolve the issue involved through informal methods.

C. Submission of Protest

Any interested party may file a protest with the Authority on the basis that the Authority has failed to comply with applicable Federal or State Regulations or with the Authority's Procurement Process. The protest must be filed in accordance with the timing requirements set forth in subsection D. "Types of Protests and Timing" of this section, and must include: **The name, phone number, e-mail and address of the protestor.**

The proposal and proposed contract number of the proposal.

A statement of grounds for the protest, a statement as to what relief is requested, and the Federal or State law or Authority Process alleged to have been violated. This statement should be accompanied by any supporting documentation the protesting party desires the Authority to consider in making its decision. Protest(s) should be submitted to:

Procurement Manager
430 Myatt Drive
Nashville, TN 37115
Kim.Hereford@nashville.gov

D. Types of Protests and Timing

The requirement for timely filing of protest with the Authority will depend upon the type of protests involved. The Authority will consider the following three types of protest by interested parties:

1. Protest regarding Proposal

Any protest regarding the proposal must be filed no later than five (5) business days before proposal due date. Any protest filed after that date regarding the proposal will not be considered by the Authority.

This type of protest would include any claim that the proposal contained exclusionary or discriminatory specification, any challenge to the basis of award, or any claim that the proposal documents or the proposal process violated applicable Federal or State law, or that the Authority failed to follow its procurement process in the proposal solicitation.

2. Protests regarding Requirements and Responsiveness

Any protest regarding the requirements and responsiveness of the proposal by the Authority must be filed with Authority no later than five (5) business days after receipt of letter of notification of non-responsiveness. Any protest filed after such date regarding the requirements and responsiveness will not be considered by the Authority.

This type of protest would include any challenge to determinations by the Authority of the responsiveness of or the responsibility of a proposer, or any claim that the requirements and responsiveness of the proposal violated Federal or State law or the Authority's procurement process.

3. Protest Regarding Receipt of Non-Award Notification

Any protest regarding the award of the contract must be filed no later than five (5) business days after receipt of Non-Award Notification. Any protest regarding the award of the contract filed after that date will not be considered by the Authority.

This type of protest will only be entertained by the Authority if the protestor is able to demonstrate that the party awarded the contract fraudulently represented itself as a responsible proposer or that the Authority violated Federal or State regulations or its procurement process in the award of the contract.

E. Authority Response

The Authority will notify the protestor five business days after receipt of a protest and may, where appropriate, request additional information from the protestor. The Authority may, at its discretion, meet with protestor to review the matters raised by the protest. The Authority's consideration of the particular types of protests will, except as otherwise stated in subsection 2. "Decisions by Authority" of this section E. "Authority Response" in accordance with the following provisions:

1. Types of Protests

a. Protest regarding the proposal

Upon receipt of a timely filed protest regarding the proposal, the Authority will postpone the opening until resolution of the protest. No additional proposals will be accepted during the period of postponement.

If the protest regarding the proposal involves a claim of unduly restrictive or exclusionary specifications, the Authority will, in evaluation of the protest, consider both the specific need of the Authority for the feature or item challenged and any effects on competition of including the specifications regarding that feature or item. If the Authority determines that such feature or item was included in the specification in order to meet justified and valid transit needs of the Authority and was not unduly restrictive of competition or designed to exclude a particular competitor, then the Authority will have grounds to deny the protest.

b. Protest regarding requirement and responsiveness

Upon receipt of a timely filed protest regarding the requirements responsiveness, the Authority will suspend its evaluation of all proposals submitted until resolution of the protest, if the Authority determines that the protestor has established that there are reasonable doubts regarding the responsiveness of a proposal or the responsibility of a proposer or regarding the Authority's compliance with Federal or State Regulations or its procurement process.

c. Protests after non-award notification

Upon receipt of a timely filed protest regarding the non-award notification, the Authority will not proceed with contract, if necessary, until the resolution of the protest if the Authority determines that the protestor has established a prima facie case that the contract was awarded fraudulently or in violation of that Federal or State Regulations or the Authority's procurement process.

2. Decisions by Authority

As indicated above, in most instances the Authority will suspend the procurement process upon receipt of a bona fide protest. However, the Authority reserves the right, notwithstanding the pendency of a protest, to proceed with the appropriate action in the procurement process or under the contract in the following cases:

- A. where the item to be procured is urgently required.
- B. where the Authority determines that the protest was vexatious or frivolous; and
- C. where delivery or performance will be unduly delayed or other undue harm will occur, by failure to make the award promptly.

After reviewing the protest submitted under this section, the Authority will issue a written decision of the basis of the information provided by the protestor, the results of any meetings with protestor, and the Authority's own investigation. If the protest is upheld, the Authority will take appropriate action to correct the procurement process and protect the rights of the protestor, revised evaluation of Proposal or Authority determinations, or termination of the contract. If the protest is denied, the Authority will lift any suspension imposed and proceed with the procurement process. If the protestor is not satisfied with the response of the Director, the protestor may appeal in writing to the Chief Executive Officer or the CEO's designee ("CEO"), within five (5) business days from the date of the Director's response. The CEO, in his or her sole discretion, shall determine if the protest has been given fair and reasonable consideration by the Director, or if additional information is needed or consideration is warranted. The CEO will provide a response within ten (10) business days after receipt of the appeal. The CEO's decision is final and no further action on the protest shall be taken by Nashville MTA. By written notice to all parties, the Director or CEO may extend the time provided for each step of the protest procedures, extend the date of notice of award, or postpone the award of a contract if deemed appropriate for protest resolution.

F. FTA Protest Procedure

Note – WeGo will notify FTA regional office when it receives a third-party contract protest on a contract with substantial FTA funds (projects over \$500,000), and keep FTA informed about the status of the protest. A protestor must exhaust all administrative remedies with the Authority before pursuing a protest with FTA. An appeal to FTA must be on the grounds of federal concern. Protesters must raise any federal matters arising out of the agency's award of a third-party contract within five (5) business days of the agency's final decision of the bid protest as outlined in the Best Business Practice Manual section 4.9.

18. ADDITIONAL SERVICES REQUEST

Nashville MTA reserves the right to request Additional Services under this Proposal that may not be specifically identified within. Proposers are encouraged to identify and provide supporting statements for any other area(s) of services not listed in the Scope that may be related to Additional Services and the work of Nashville MTA.

19. PROPOSED CONTRACT ALTERATIONS

No alterations or variables in the terms of the Proposal and /or of the Proposed Contract shall be valid or binding upon Nashville MTA unless authorized in writing by Nashville MTA.

20. ASSIGNABILITY

Any public agency (i.e., city, district, public agency, municipality, and other political subdivision or any FTA-funded entity) shall have the option of participating in any award made as a result of a Proposal and/or contract at the same prices, terms and conditions. Nashville MTA reserves the right to assign any or all portions of Services awarded under this Proposal and/or contract. This assignment, should it occur, shall be agreed to by Nashville MTA and Proposers. Once assigned, each agency will enter into its own contract and be solely responsible to the Proposers for obligations to the service assigned. Nashville MTA's right of assignment will remain in force over the contract period or until completion of the contract including options, whichever occurs first. Nashville MTA shall incur no financial responsibility in connection with contracts issued by another public agency. The public agency shall accept sole responsibility for placing service and payments to the Proposers.

21. PUBLICATION AND MEDIA RESTRICTIONS

The Proposer shall not publish or reproduce subject data in whole or in part, or in any manner or form, without the advance written consent of Nashville MTA, unless the Nashville MTA has released or approved the release of that data to the public.

22. GRATUITIES AND KICKBACKS

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 another 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 or subcontract or to any Proposal or Proposal therefore. 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. Breach of the provisions of this paragraph is, in addition to a breach 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 Nashville MTA contracts.

STANDARD CLAUSES

To the extent not inconsistent with foregoing Federal requirements, this contract shall also include those standard clauses attached hereto, and shall comply with the recipient's Procurement Guidelines, available upon request from the recipient.

The following requirements are not federal clauses.

1. FULL AND OPEN COMPETITION

In accordance with 49 U.S.C. § 5325(a) all procurement transactions shall be conducted in a manner that provides full and open competition.

2. PROHIBITION AGAINST EXCLUSIONARY OR DISCRIMINATORY SPECIFICATIONS

Apart from inconsistent requirements imposed by Federal statute or regulations, the contractor shall comply with the requirements of 49 USC 5323(h)(2) by refraining from using any FTA assistance to support procurements using exclusionary or discriminatory specifications.

3. INELIGIBLE CONTRACTORS AND SUBCONTRACTORS

Any name appearing upon the Comptroller General's list of ineligible contractors for federally assisted contracts shall be ineligible to act as a subcontractor for contractor pursuant to this contract. If contractor is on the Comptroller General's list of ineligible contractors for federally financed or assisted construction, the recipient shall cancel, terminate or suspend this contract.

4. COMPLIANCE WITH FEDERAL REGULATIONS

Any contract entered pursuant to this Proposal shall contain the following provisions: All USDOT-required contractual provisions, as set forth in FTA Circular 4220.1F, are incorporated by reference. Anything to the contrary herein notwithstanding, FTA mandated terms shall control in the event of a conflict with other provisions contained in this Agreement. Contractor shall not perform any act, fail to perform any act, or refuse to comply with any grantee request that would cause the recipient 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 the recipient 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 material breach of this contract.

5. REAL PROPERTY

Any contract entered into shall contain the following provisions: Contractor shall at all times comply with all applicable statutes and USDOT regulations, policies, procedures and directives governing the acquisition, use and disposal of real property, including, but not limited to, 29 CFR 18.31, 49 CFR 24 Subpart B, FTA Circular 5010.1D, and FTA Master Agreement, as they may be amended or promulgated during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

6. ACCESS TO SERVICES FOR PERSONS WITH LIMITED ENGLISH PROFICIENCY

To the extent applicable and except to the extent that FTA determines otherwise in writing, the Recipient agrees to comply with the policies of Executive Order No. 13166, "Improving Access to Services for Persons with Limited English Proficiency," 42 U.S.C. § 2000d 1 note, and with the provisions of U.S. DOT Notice, "DOT Guidance to Recipients on Special Language Services to Limited English Proficient (LEP) Beneficiaries," 70 Fed. Reg. 74087, December 14, 2005.

7. ENVIRONMENTAL JUSTICE

The Recipient agrees to comply 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, except to the extent that the Federal Government determines otherwise in writing.

8. ENVIRONMENTAL PROTECTIONS

Compliance is required with any applicable Federal laws imposing environmental and resource conservation requirements for the project. Some, but not all, of the major Federal laws that may affect the project include: the National Environmental Policy Act of 1969; the Clean Air Act; the Resource Conservation and Recovery Act; the comprehensive Environmental response, Compensation and Liability Act; as well as environmental provisions with Title 23 U.S.C., and 49 U.C. chapter

53. The U.S. EPA, FHWA and other federal agencies may issue other federal regulations and directives that may affect the project. Compliance is required with any applicable Federal laws and regulations in effect now or that become effective in the future.

9. GEOGRAPHIC INFORMATION AND RELATED SPATIAL DATA

Any project activities involving spatial data or geographic information systems activities financed with Federal assistance are required to be consistent with the National Spatial Data Infrastructure promulgated by the Federal Geographic Data Committee, except to the extent that FTA determines otherwise in writing.

10. FEDERAL SINGLE AUDIT REQUIREMENTS FOR STATE ADMINISTERED FEDERALLY AID FUNDED PROJECTS ONLY

Non-Federal entities that expend \$500,000 or more in a year in Federal awards from all sources are required to comply with the Federal Single Audit Act provisions contained in U.S. Office of Management and Budget (OMB) Circular No. A 133, Audits of States, Local Governments, and Non Profit Organizations. Non-Federal entities that expend Federal awards from a single source may provide a program specific audit, as defined in the Circular. Non-Federal entities that expend less than \$500,000 in a year in Federal awards from all sources are exempt from Federal audit requirements for that year, except as noted in '3052.215(a), but records must be available for review or audit by appropriate officials of the Federal and State agencies.

11. CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) IDENTIFICATION NUMBER

The municipal project sponsor is required to identify in its accounts all Federal awards received and expended, and the Federal programs under which they were received. Federal program and award identification shall include, as applicable, the CFDA title and number, award number and year, name of the Federal agency, and name of the pass-through entity.

12. CFDA NUMBER FOR THE FEDERAL TRANSPORTATION ADMINISTRATION

A Recipient covered by the Single Audit Act Amendments of 1996 and OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations," agrees to separately identify the expenditures for Federal awards under the Recovery Act on the Schedule of Expenditures of Federal Awards (SEFA) and the Data Collection Form (SF-SAC) required by OMB Circular A-133. The Recipient agrees to accomplish this by identifying expenditures for Federal awards made under Recovery Act separately on the SEFA, and as separate rows under Item 9 of Part III on the SF-SAC by CFDA number, and inclusion of the prefix "ARRA" in identifying the name of the Federal program on the SEFA and as the first characters in Item 9d of Part III on the SF-SAC.

End of Text Section V

VI CONTRACT TERMS AND CONDITIONS (PROPOSED)

NOTE: This is a Proposed Contract. Nashville MTA reserves the right to make changes to this Proposed Contract prior to execution.

CONTRACT NO. 2023113

BETWEEN

NASHVILLE METROPOLITAN TRANSIT AUTHORITY

AND

CONTRACTOR NAME

FOR

Body on Chassis Cutaway Buses

This Contract No. 2023113 (hereinafter referred to as “Contract”) is entered into as of the ___ day of _____, _____, by and between Nashville Metropolitan Transit Authority (hereinafter referred to as “Agency”), having its principal office located at 430 Myatt Drive, Nashville, TN 37115, and Contractor Name (hereinafter referred to as “Contractor”), having its principal office located at, Contractors Address.

The following documents constitute the Contract and Contract Documents:

- Contract No. 2023113
- Request for Proposed (RFP) No. 2023113
- Contractor’s Proposal dated: Date

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)
- Contract No. 2023113
- Request for Proposed (RFP) No. 2023113
- Contractor’s Proposal dated: Date

NOW, THEREFORE, for and in consideration of the mutual promises and covenants contained herein, the parties agree as follows:

1. Duties and Responsibilities of Contractor

1.1. Contractor shall provide Body on Chassis Cutaway Buses Parts, Supplies and Materials, Rolling Stocks, Training, All Manuals, Warranties, Preventative Maintenance and Support Services deliverables as detailed in the RFP and this Contract (the “**Deliverables**”) at location as provided below:

- 430 Myatt Drive, Nashville, TN 37115
- 130 Nestor Street, Nashville, TN 37210

1.2. The Deliverables 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 the RFP. Contractor's duties and responsibilities are more specifically set forth in the RFP.

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

1.4. Agency may purchase additional Deliverables offered by Contractor under this Contract ("**Additional Deliverables**"). The Additional Deliverables shall be agreed upon in writing with a properly executed amendment between the applicable parties. Additional Deliverables shall be invoiced at the rates as stated in the cost form or purchase order or in a written amendment as agreed to by the applicable parties.

2. Term

2.1. This Contract shall commence on the ____ day of _____, 2015. The initial term of this Contract shall continue for a three (3) year period, unless otherwise terminated as provided herein (the "**Term**"). This Contract may be extended by a properly executed amendment for two (2) additional one (1) year terms as may be offered by Agency. Any such amendment regarding the Term shall be subject to the prior written approval of the Contract Administrator.

3. Purchase Orders/Compensation/Invoices

3.1. For its Deliverables, Contractor is entitled to receive an amount not to exceed _____ (\$_____).

3.2. Contractor shall not be compensated or reimbursed for travel, meals, or lodging.

3.3. There shall be no other charges or fees for the performance of this Contract unless otherwise agreed to by the Contract Administrator and the Contractor in writing.

3.4. Invoices for delivered and signed acceptance of Deliverables shall be submitted to the Agency in accordance with the terms of this Contract.

3.5. The Contractor may, in its discretion, offer an early payment credit discount.

3.6. Invoices shall be processed and reasonable efforts made to pay them within thirty (30) days of acceptance of the Deliverable by the Agency.

3.7. Contractor shall prepare and submit invoices to the Agency at the address specified on the Agency's purchase order. Invoices shall be emailed to: Mta.AccountsPayable@nashville.gov with a copy to: Carl.Rokos@nashville.gov.

3.8. If any invoice does not comply with the requirements of this Section 3, the Agency may reject it and return it to Contractor detailing in writing why such invoice failed to comply with this Section 3. An acceptable invoice shall include the items listed below.

3.8.1. Name and address of Contractor.

3.8.2. Invoice date and invoice number. Contractor shall date invoices as close as reasonably possible to the date of mailing or transmission of such invoice.

3.8.3 Agency's purchase order number.

3.8.4. Description, quantity, unit of measure, unit price, and extended price.

3.8.5. Shipping and payment terms, including, but not limited to, shipment number, date of shipment, and discount for prompt payment terms, if any.

3.8.6. Name and address of the individual, department, or entity to whom payment shall be sent.

3.8.7. Name, title, phone number, and mailing address of person to notify in the event of an unacceptable invoice.

3.8.8. Any other information or documentation required by this Contract (e.g., post-delivery audit supporting documents, certification of origin for motor vehicle, odometer statement).

4. Taxes

4.1. Neither the Contract Administrator nor any Agency shall 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 the Agency or to the Contract Administrator.

5. Acceptance

5.1. Within fifteen (15) business days after arrival at the designated point of delivery, the Deliverables shall undergo the tests defined below in Section 6 (the "**Post-Delivery Tests**").

5.2. If the Deliverables pass the Post-Delivery Tests or if the Agency does not give initial notification of non-acceptance to the Contractor within fifteen (15) business days after delivery, then acceptance of the Deliverables by the receiving Agency occurs on the fifteenth (15th) business day after delivery.

5.3. If the Deliverables fail these Post-Delivery Tests, the Deliverables shall not be accepted until the repair procedures defined in Section 6 below have been performed and the Deliverables have passed the Post-Delivery Tests.

5.4. Acceptance of the Deliverables shall occur earlier if the Agency notifies the Contractor of early acceptance or places the Deliverables in revenue service.

5.5. The Agency reserve the right to withhold payment of non-accepted Deliverables until deficiencies are remedied to the satisfaction of the Agency, as applicable.

5.6. Notwithstanding anything in this Section 5 to the contrary, in the case of the first bus Deliverable to the Agency, acceptance (if more than fifteen (15) business days after delivery) and payment shall be withheld until receipt of the recommended spare parts list.

6. Post-Delivery Tests

6.1. The Agency shall conduct acceptance tests, referred to in this Contract as Post-Delivery Tests, on each Deliverable. These Post-Delivery Tests shall be completed within fifteen (15) business days after receipt of the Deliverable and shall be conducted in accordance with written test plans. The purpose of these Post-Delivery Tests is to identify defects that have become apparent between the time of the Deliverable's release from the Contractor and delivery to the Agency. The Post-Delivery Tests shall include visual inspection and an inspection of bus operations. No Post-Delivery Test shall apply criteria that are different from the criteria applied in a similar pre-delivery test.

6.2. New Deliverables that fail to pass the Post-Delivery Tests are subject to non-acceptance. The Agency shall provide initial notice of non-acceptance to Contractor within fifteen (15) business days of receipt of the unacceptable Deliverable and shall provide Contractor details of all defects within thirty (30) business days of receipt of such unacceptable Deliverable. Contractor, or its designated representative, shall perform the repairs after non-acceptance. If Contractor fails or refuses to begin the repairs within five (5) business days of receiving details regarding such Deliverable's defects, then the work may be done by the Agency's personnel with timely reimbursement by Contractor.

7. Assignability and Option Quantities

7.1. The parties anticipate that there may occur situations in which a Agency has surplus option quantities. In any such situation, such surplus option quantities shall be available for assignment consistent with FTA Cir 4220.1f and state law.

7.2. Agencies requesting the surplus option quantities ("**Requesting Agencies**") must obtain written consent for any such assignment from the Contract Administrator.

7.2. Requesting Agencies must comply with the Nashville MTA Procurement Department's policies and procedures as indicated in the solicitation documents.

8. Warranty and Warranty Period

8.1. Contractor warrants that the Deliverables reflect high professional and industry standards, procedures and performances. Contractor warrants the preparation of materials, the selection of personnel, the fitness and operation of its recommendations, and the performance of the Deliverables shall conform to a high standard of performance in the profession. Contractor warrants that it will exercise diligence and due care and provide in a good and workman-like manner all of the Deliverables pursuant to this Contract.

8.2. Contractor shall be responsible for using due diligence to correct errors, deficiencies or unacceptable Deliverables. Contractor shall, at no cost to the Agency, remedy any errors, deficiencies or any service, work or other work products found unacceptable, in the Agency's sole discretion, as soon as possible, but in all cases within fifteen (15) days of Contractor's receipt of written notice of said errors, deficiencies or unacceptable Deliverables. 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 Deliverables.

8.3. Warranty Period is defined for the _____ Bus, as a period of _____ () years or _____ miles (whichever comes first), and otherwise as provided in Exhibit D, beginning, for the Agency, on the date the Agency accepts the

Deliverables, until Contractor has remedied all problems of which Contractor was notified prior to expiration of the warranty period (“**Warranty Period**”).

8.4. In the event that during the Term and applicable Warranty Period any Deliverables do not operate in all material respects as specified in the Contract, the Agency shall be entitled to terminate this Contract, as applicable to the Agency, for Default in accordance with the terms and conditions of this Contract and shall be entitled to a full refund for any such defective Deliverables.

9. Title Warranty

9.1. Contractor warrants that it has good title to and/or the right to sell the Deliverables, and represents that the Deliverables delivered to the Agency is free and clear of all liens, claims or encumbrances of any kind.

9.2. Contractor shall, at its own expense, be entitled to and shall have the duty to defend any suit which may be brought against the Agency, Nashville MTA, Davidson Transit Organization, the Metro Government of Nashville and Davidson County, and their officers, agents, employees and volunteers (“**Covered Entities**”) to the extent that it is based on a claim that the Deliverables or other work products furnished infringe any trademark, patent, copyright, or other intellectual property right. The Contractor shall further indemnify and hold harmless, to the fullest extent permitted by law, and as set forth in Section 15, the Covered Entities against any award of damages and costs made against the Covered Entities by a final judgment of a court of last resort in any such suit or in any settlement agreement authorized in writing by Nashville MTA.

9.3. In the event use of the Deliverables are restricted or interfered with as a result of such infringement, Contractor shall, at its cost, procure non-infringing Deliverables for the Agency which are equal substitutes, in the Agency’s discretion, for the Deliverables in all material respects, or obtain for the Agency the right to use the Deliverables without infringement, or refund to the Agency all monies paid by the Agency for such Deliverables. Nothing in this Section 9 shall preclude the Agency from exercising any rights or remedies as provided elsewhere in this Contract.

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

10.1. 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 Deliverables 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 15, the Covered Entities against any award of damages and costs made against the Covered Entities by a final judgment of a court of last resort in any such suit or in any settlement agreement authorized in writing by Nashville MTA.

10.2. If the Deliverables 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 final award, Contractor may at its option and expense:

10.2.1. Procure for the Agency the right to continue using the products or services.

- 10.2.2. Replace or modify the alleged infringing products or services with other equally suitable products or services that are satisfactory to the Agency, so that they become non-infringing.
- 10.2.3. Remove the products or discontinue the services and cancel any future charges pertaining thereto.
- 10.2.4. Provided, however, that Contractor will not exercise option 10.2.3 until Contractor and the Agency have determined that options 10.2.1 and 10.2.2 are impractical.

10.3. Contractor shall have no liability to the Agency, however, if any such infringement or claim thereof is based upon or arises out of:

- 10.3.1. Such Agency's use of the Deliverables or other work products in combination with apparatus or devices not supplied or else approved by Contractor.
- 10.3.2. Such Agency's use of the Deliverables or other work products in a manner for which the Deliverables or other work products were neither designated nor contemplated.
- 10.3.3 The claimed infringement in which such Agency has any direct or indirect interest by license or otherwise, separate from that granted herein.

11. Termination

11.1. 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**”), the Agency shall have the right to terminate this Contract as to the Agency only provided Contractor fails to cure such Default within thirty (30) days of the Agency's written notice of Default to Contractor. Such termination shall not relieve Contractor of any liability for damages sustained by virtue of any Default by Contractor.

11.2. Should funding for this Contract be discontinued, then the Agency shall have the right to terminate this Contract, effective immediately, without penalty, upon written notice to Contractor and Contract Administrator.

11.3. Agency may terminate this Contract at any time, without penalty, for its convenience upon thirty (30) days' written notice to Contractor and Contract Administrator; provided, however, that if Nashville MTA terminates this Contract, then this Contract is terminated as to all Transit Agencies.

11.4. In the event of a termination under 11.2 or 11.3, Contractor will be compensated in accordance with the status of the Deliverables performed.

12. Maintenance of Records and Agency's Property

12.1. Contractor shall maintain documentation for all charges against the Agency. The books, records, and documents of Contractor, insofar as they relate to the Deliverables performed or money received under the Contract, shall be maintained 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 any Agency or its duly appointed representative. The records shall be maintained in accordance with generally accepted accounting principles.

12.2. Contractor's activities conducted and records maintained pursuant to this Contract shall be subject to monitoring and evaluation by the Agency or the Agency's duly appointed representative.

12.3. Agency's 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 the applicable Agency by Contractor upon termination of the Contract. All goods, documents, records, work and other work product and property produced by Contractor during the performance of this Contract are deemed to be the property of the applicable Agency. Upon completion or termination of this Contract, Contractor shall promptly deliver to the applicable Agency all records, notes, data, memorandum, models, and any other material of any nature that are within Contractor's possession or control and that are such Agency's property or relate to such Agency or its business.

12.4. Agency 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 Deliverables. Contractor shall treat any such data and information as strictly confidential.

13. Independent Contractor/ Subcontractors

13.1. 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 the Agency and shall as such 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 a Agency nor Contractor shall hold itself out in a manner contrary to the terms of this Section 13 nor shall any Agency or Contractor become liable for any representation, act, or omission of any of the other parties to this Contract contrary to the terms of this Section 13.

13.2. Neither Contractor nor Contractor's employees, subcontractors or agents are the employees of any Agency. 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.

13.3 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 the Nashville MTA. Contractor shall remain fully responsible for the Services of the subcontractor and for supervising the performance of the Services by the subcontractor. Nashville MTA is not subject to any liability of any kind with respect to any subcontractor nor do subcontractors obtain any rights against Nashville MTA under this Contract.

13.4 Contractor and its subcontractors shall be appropriately licensed in the State of Tennessee to conduct the Services required by this Contract. Contractor and subcontractors must maintain current Central Contractor Registration ("CCR"), Data Universal Numbering Systems ("DUNS") number, System for Award Management ("SAM"), or registration in other substantially similar registration databases.

Contractor must submit to Nashville MTA 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 Nashville MTA.

13.5 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 15 running from each subcontractor directly to the Covered Entities.

14. Waiver

14.1. In the event any Agency elects to waive its rights or remedies for any Default by Contractor, such waiver by such Agency shall not limit such Agency’s rights or remedies for any succeeding Default. Any such waiver by any Agency must be in writing.

15. Indemnity and Contractor Responsibility.

15.1. The Contractor has agreed to enter into this Contract which contains the following indemnification clause in this Section 15 with the Agency. The indemnification clause in this Section 15 shall not be altered in any way.

15.2. Contractor shall defend, indemnify and hold harmless, to the fullest extent permitted by law, the Covered Entities from any and all liabilities which may accrue against the Covered Entities or any third party for any and all lawsuits, claims, demands, losses or damages alleged to have arisen from an act or omission of Contractor, its officers, employees and/or agents, including its sub or independent contractors in performance of this Contract and any claims arising from any failure to observe applicable laws, including, but not limited to, labor laws and minimum wage laws, or from Contractor’s failure to perform this Contract using ordinary care and skill, except where such injury, damage, or loss was caused by the sole negligence of a Agency, its agents or employees. Notwithstanding anything to the contrary in this Section 15, no Agency shall be liable for the action or inaction of any other Agency, or such Agency’s agents or employees. Contractor shall indemnify, defend and hold harmless, to the fullest extent permitted by law, the Covered Entities from:

15.2.1. The cost of the defense of any claim, demand, litigation, suit or cause of action made or brought against the procuring agencies alleging liability referenced above, including, but not limited to, court costs, fees, reasonable attorneys’ fees, and other expenses of any kind whatsoever arising in connection with the defense of the procuring agencies; and

15.2.2. Any claims, losses, damages, causes of action, suits and liability of every kind, including all expenses of litigation, court costs, and reasonable attorneys’ fees (“**Claims**”), for injury to or death of any person or damage to property, arising from the Deliverables under this Contract, and/or from the negligent or intentional 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.
Contractor shall:

15.2.3. Contractor shall assume and take over the defense the Agency, in any such claim, demand, suit, or cause of action upon written notice and demand for same by each such Agency.

15.2.4. Contractor shall have the right to defend the Agency, with counsel of its choice that is satisfactory to each such Agency, and the Agency shall provide reasonable cooperation in the defense as Contractor may request.

15.2.5. Contractor shall not consent to the entry of any judgment or enter into any settlement with respect to an indemnified claim without the prior written consent of the Agency, such consent not to be unreasonably withheld or delayed.

15.2.6. The Agency, shall have the right to participate in the defense against the indemnified claims with counsel of its choice at its own expense.

15.2.7. Contractor shall save, indemnify and hold the procuring agencies harmless, to the fullest extent permitted by law, and pay judgments that shall be rendered in any such actions, suits, claims or demands against any such Agency alleging liability referenced above.

The indemnification and hold harmless provisions of this Contract shall survive termination of the Contract.

15.3. The indemnity in this Section 15 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.

15.4. Contractor assumes full responsibility for the Deliverables 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 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 Contractor's Deliverables and work to be performed hereunder. 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.

15.5. In the event of any third party Claim against the Covered Entities, the Covered Entities shall choose counsel, in the Covered Entities' sole and absolute 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.

15.6. The Covered Entities shall not, under any circumstances, indemnify, defend, or hold harmless Contractor from any Claim. Further, no Agency shall, under any circumstance, indemnify, defend, or hold harmless any other Agency from any Claim.

16. Insurance Requirements

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 here of the types and amounts of insurance identified below by a **check mark**.

16.1.1 Occurrence Version Commercial General Liability Insurance in the amount of five million dollars (\$5,000,000).

16.1.2 Automobile Liability Insurance in the amount of one million dollars (\$1,000,000).

16.1.3 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 five hundred thousand (\$500,000) dollars, as required by the laws of Tennessee. (Not required for companies with fewer than five (5) employees).

16.2. Such insurance shall:

16.2.1 Contain or be endorsed to contain a provision that includes Covered Entities as additional insureds 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.

16.2.2 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.

16.2.3 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.

16.2.4 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.

16.3. Other Insurance Requirements. Contractor shall:

16.3.1 Prior to commencement of the Deliverables, furnish the Agency 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 the Contract Administrator.

16.3.2 Provide certified copies of endorsements and policies if requested by any Agency in lieu of or in addition to certificates of insurance.

16.3.3 Replace certificates, policies, and/or endorsements for any such insurance expiring prior to completion of services.

16.3.4 Maintain such insurance from the time the Deliverables commence until completed. Failure to maintain, renew coverage or provide evidence of renewal as required by any Agency or this Contract may be treated by any Agency as a material breach and Default under this Contract.

16.3.5 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 the Contract Administrator Deliverables.

16.3.6 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 this Contract and or any Agency.

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

16.3.8 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.

16.4. Bid Requirements: No Bonds currently required

17. Employment and Nondiscrimination

17.1. Contractor shall not discriminate on the basis of age, race, sex, color, national origin, 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. The Agency and its subrecipients are recipients of federal financial assistance on this Contract. Contractor shall give a hiring preference, to the extent practicable, to veterans, as such term is defined in 5 U.S.C.A. § 2108, who have the requisite skills and abilities to perform the Construction Services required under this Contract. This Section shall not be understood, construed or enforced in any manner that would require an employer to give a 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 a former employee.

17.4. Violation of these Contract provisions may result in suspension or debarment if not resolved in a timely manner, not to exceed ninety (90) days, to the satisfaction of any Agency.

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 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 any Agency's 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 all parties to the Contract and the Contract Administrator. Any such assignment of transfer shall not release Contractor from its obligations hereunder.

19.2. Any public agency (i.e., city, Authority, public agency, municipality, and other political subdivision or any FTA-funded entity) shall have the option of participating in this Contract at the same prices, terms and conditions. Agency reserves the right to assign any or all portions of the Deliverables awarded under this Contract. This assignment, should it occur, shall be set forth in writing by the applicable Agency and Contractor. Once assigned, each agency will enter into its own agreement and be solely responsible to Contractor for obligations for the Deliverables assigned. Each Agency's right of assignment will remain in force over the Term. No Agency shall incur any financial responsibility in connection with agreements issued by another public agency. The public agency shall accept sole responsibility for placing service and payments to the Contractor.

20. Remedies

20.1. In no event shall any Agency 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 each Agency 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 any Agency to exercise a remedy at any time shall not operate as a waiver of its 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 that any action between any Agency and Contractor arising from this Contract shall be maintained in the state trial courts of local jurisdictions in the State of Tennessee.

22. Entire Agreement

22.1. When finalized and fully executed, this Contract states the entire contract between the Agency and Contractor. 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 the Agency to the extent necessary to comply with federal, state or local regulations, which may govern this Contract. Nashville MTA as Contract Administrator of this Contract shall provide written notice to Contractor of any such modification.

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 RFP 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 Agency's 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 the Agency 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 Deliverables 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, to the fullest extent permitted by law, the Agency for any breach of this representation.

25. Force Majeure

25.1. No party shall have any liability to the other hereunder by reason of any delay or failure to perform any obligation of this Contract if the delay or failure to perform is occasioned by force majeure, meaning any act of God, storm, fire, casualty, unanticipated work stoppage, strike, lockout, labor dispute, civil disturbance, riot, war, national emergency, act of Government, act of public enemy, or other cause of similar or dissimilar nature beyond its control.

26. Severability

26.1. If any provision of this Contract is held invalid under any applicable statute or rule of law, it is to that extent to be deemed omitted and the remainder of this Contract shall remain in full force and effect.

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

Nashville MTA: Nashville Metropolitan Transit Authority
430 Myatt Drive
Nashville, TN 37115
Attn: Procurement Department

Contractor: [Contractor’s name]
[Street Address]
[City, State Zip]
Attn: _____

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.

IN WITNESS WHEREOF, NASHVILLE MTA AND CONTRACTOR HAVE EXECUTED THIS CONTRACT AS OF THE DATE FIRST ABOVE WRITTEN

Nashville Metropolitan Transit Authority

[Contractor]

Stephen G. Bland, Chief Executive Officer

Authorized Signatory

Date: _____

Title: _____

Date: _____

EXHIBIT A

FEDERAL TRANSIT ADMINISTRATION CLAUSES

1. Access to Records and Reports

- a) Record Retention. The Contractor will retain, and will require its subcontractors of all tiers to retain, complete and readily accessible records related in whole or in part to the contract, including, but not limited to, data, documents, reports, statistics, sub-Contracts, leases, subcontracts, arrangements, other third party Contracts of any type, and supporting materials related to those records.
- b) Retention Period. The Contractor agrees to comply with the record retention requirements in accordance with 2 C.F.R. § 200.333. The Contractor shall maintain all books, records, accounts and reports required under this Contract for a period of at not less than three (3) years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of claims arising from the performance of this Contract, in which case records shall be maintained until the disposition of all such litigation, appeals, claims or exceptions related thereto.
- c) Access to Records. The Contractor agrees to provide sufficient access to FTA and its contractors to inspect and audit records and information related to performance of this contract as reasonably may be required.
- d) Access to the Sites of Performance. The Contractor agrees to permit FTA and its contractors access to the sites of performance under this contract as reasonably may be required.

2. Air Pollution and Fuel Economy

Each third party contract to acquire rolling stock must include provisions to ensure compliance with applicable Federal air pollution control and fuel economy regulations, such as EPA regulations, "Control of Air Pollution from Mobile Sources," 40 CFR Part 85; EPA regulations, "Control of Air Pollution from New and In-Use Motor Vehicles and New and In-Use Motor Vehicle Engines," 40 CFR Part 86; and EPA regulations, "Fuel Economy of Motor Vehicles," 40 CFR Part 600.

3. Americans with Disabilities Act (ADA)

The contractor 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, with the Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. §§ 12101 et seq., which requires that accessible facilities and services be made available to persons with disabilities, including any subsequent amendments to that Act, and with the Architectural Barriers act of 1968, as amended, 42 U.S.C. §§ 4151 et seq., which requires that buildings and public accommodations be accessible to persons with disabilities, including any subsequent amendments to that Act. In addition, the contractor agrees to comply with any and all applicable requirements issued by the FTA, DOT, DOJ, U.S. GSA, U.S. EEOC, U.S. FCC, any subsequent amendments thereto and any other nondiscrimination statute(s) that may apply to the Project.

4. Bus Testing

The Contractor [Manufacturer] agrees to comply with the Bus Testing requirements under 49 U.S.C. 5318(e) and FTA's implementing regulation at 49 C.F.R. part 665 to ensure that the requisite testing is performed for all new bus models or any bus model with a major change in configuration or components, and that the bus model has achieved a passing score. Upon completion of the testing, the contractor shall obtain a copy of the bus testing reports from the operator of the testing facility and make that report(s) publicly available prior to final acceptance of the first vehicle by the recipient.

The operator of the bus testing facility is required to provide the resulting test report to the entity that submits the bus for testing. The manufacturer or dealer of a new bus model or a bus produced with a major change in component or configuration is required to provide a copy of the corresponding full bus testing report and any applicable partial testing report(s) to the Agency during the point in the procurement process specified by the Agency, but in all cases before final acceptance of the first bus by the Agency. The complete bus testing reporting requirements are provided in 49 C.F.R. § 665.11.

5. Buy America Requirements

The contractor agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. part 661 and 2 CFR § 200.322 Domestic preferences for procurements, which provide that Federal funds may not be obligated unless all steel, iron, and manufactured products used in FTA funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. § 661.7. Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C), 49 U.S.C. § 5323(u) and 49 C.F.R. § 661.11. Domestic preferences for procurements The bidder or offeror must submit to the Agency the appropriate Buy America certification. Bids or offers that are not accompanied by a completed Buy America certification will be rejected as nonresponsive.

6. Cargo Preference Requirements

The contractor agrees:

- a) to use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities
- b) pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels;
- c) to furnish within 20 working days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments 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 the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the FTA Recipient (through the contractor in the case of a subcontractor's bill-of-lading.); and
- d) to include these requirements in all subcontracts issued pursuant to this contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

7. Civil Rights Laws and Regulations

The following Federal Civil Rights laws and regulations apply to all contracts.

1. **Federal Equal Employment Opportunity (EEO) Requirements.** These include, but are not limited to:
 - a. Nondiscrimination in Federal Public Transportation Programs. 49 U.S.C. § 5332, covering projects, programs, and activities financed under 49 U.S.C. Chapter 53, prohibits discrimination on the basis of race, color, religion, national origin, sex (including sexual orientation and gender identity), disability, or age, and prohibits discrimination in employment or business opportunity.
 - b. Prohibition against Employment Discrimination. Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e, and Executive Order No. 11246, "Equal Employment Opportunity," September 24, 1965, as amended, prohibit discrimination in employment on the basis of race, color, religion, sex, or national origin.
2. **Nondiscrimination on the Basis of Sex.** Title IX of the Education Amendments of 1972, as amended, 20 U.S.C. § 1681 et seq. and implementing Federal regulations, "Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance," 49 C.F.R. part 25 prohibit discrimination on the basis of sex.
3. **Nondiscrimination on the Basis of Age.** The "Age Discrimination Act of 1975," as amended, 42 U.S.C. § 6101 et seq., and Department of Health and Human Services implementing regulations, "Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance," 45 C.F.R. part 90, prohibit discrimination by participants in federally assisted programs against individuals on the basis of age. The Age Discrimination in Employment Act (ADEA), 29 U.S.C. § 621 et seq., and Equal Employment Opportunity Commission (EEOC) implementing regulations, "Age Discrimination in Employment Act," 29 C.F.R. part 1625, also prohibit employment discrimination against individuals age 40 and over on the basis of age.
4. **Federal Protections for Individuals with Disabilities.** The Americans with Disabilities Act of 1990, as amended (ADA), 42 U.S.C. § 12101 et seq., prohibits discrimination against qualified individuals with disabilities in programs, activities, and services, and imposes specific requirements on public and private entities. Third party contractors must comply with their responsibilities under Titles I, II, III, IV, and V of the ADA in employment, public services, public accommodations, telecommunications, and other provisions, many of which are subject to regulations issued by other Federal agencies.

Civil Rights and Equal Opportunity

The Agency is an Equal Opportunity Employer. As such, the Agency agrees to comply with all applicable Federal civil rights laws and implementing regulations. Apart from inconsistent requirements imposed by Federal laws or regulations, the Agency agrees to comply with the requirements of 49 U.S.C. § 5323(h) (3) by not using any Federal assistance awarded by FTA to support procurements using exclusionary or discriminatory specifications. Under this Contract, the Contractor shall at all times comply with the following requirements and shall include these requirements in each subcontract entered into as part thereof.

1. **Nondiscrimination.** In accordance with Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, sex, disability, or age. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.
2. **Race, Color, Religion, National Origin, Sex.** In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e et seq., and Federal transit laws at 49 U.S.C. § 5332, the Contractor

agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. chapter 60, and Executive Order No. 11246, "Equal Employment Opportunity in Federal Employment," September 24, 1965, 42 U.S.C. § 2000e note, as amended by any later Executive Order that amends or supersedes it, referenced in 42 U.S.C. § 2000e note. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, national origin, or sex (including sexual orientation and gender identity). Such action shall include, but not be limited to, the following: employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

3. **Age.** In accordance with the Age Discrimination in Employment Act, 29 U.S.C. §§ 621-634, U.S. Equal Employment Opportunity Commission (U.S. EEOC) regulations, "Age Discrimination in Employment Act," 29 C.F.R. part 1625, the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6101 et seq., U.S. Health and Human Services regulations, "Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance," 45 C.F.R. part 90, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any Implementing requirements FTA may issue.
4. **Disabilities.** In accordance with section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. § 12101 et seq., the Architectural Barriers Act of 1968, as amended, 42 U.S.C. § 4151 et seq., and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against individuals on the basis of disability. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
5. **Promoting Free Speech and Religious Liberty.** The Contractor shall ensure that Federal funding is expended in full accordance with the U.S. Constitution, Federal Law, and statutory and public policy requirements: including, but not limited to, those protecting free speech, religious liberty, public welfare, the environment, and prohibiting discrimination.

8. Clean Air Act and Federal Water Pollution Control Act

The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. § 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. § 1251-1387). Violations must be reported to FTA and the Regional Office of the Environmental Protection Agency. The following applies for contracts of amounts in excess of \$150,000:

Clean Air Act

1. The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
2. The contractor agrees to report each violation to the Agency and understands and agrees that the Agency will, in turn, report each violation as required to assure notification to the Agency, Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
3. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA.

Federal Water Pollution Control Act

1. The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
2. The contractor agrees to report each violation to the Agency and understands and agrees that the Agency will, in turn, report each violation as required to assure notification to the Agency, Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
3. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA.”

9. Conformance with its National Architecture

Intelligent Transportation Systems (ITS) projects shall conform to the National ITS Architecture and standards. Conformance with the National ITS Architecture is interpreted to mean the use of the National ITS Architecture to develop a regional ITS architecture in support of integration and the subsequent adherence of all ITS projects to that regional ITS architecture. Development of the regional ITS architecture should be consistent with the transportation planning process for Statewide and Metropolitan Transportation Planning (49 CFR Part 613 and 621).

10. Contract Work Hours and Safety Standards Act

- a) Applicability: This requirement applies to all FTA grant and cooperative agreement programs.
- b) Where applicable (see 40 U.S.C. § 3701), all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. §§ 3702 and 3704, as supplemented by Department of Labor regulations at 29 C.F.R. Part 5. See 2 C.F.R. Part 200, Appendix II.
- c) Under 40 U.S.C. § 3702, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week.
- d) The requirements of 40 U.S.C. § 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.
- e) The regulation at 29 C.F.R. § 5.5(b) provides the required contract clause concerning compliance with the Contract Work Hours and Safety Standards Act:

Compliance with the Contract Work Hours and Safety Standards Act.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall

be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.

3. Withholding for unpaid wages and liquidated damages. The agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.
4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.”

11. Debarment and Suspension

a. Applicability: This requirement applies to all FTA grant and cooperative agreement programs for a contract in the amount of at least \$25,000

(1) This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000.

As such the contractor is required to verify that none of the contractor, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

(2) C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

(3) The accompanying certification is a material representation of fact relied upon by the subrecipient. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the Agency and subrecipient, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.”

12. Disadvantaged Business Enterprise (DBE)

The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 C.F.R. part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor 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 the Agency deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;

- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible. 49 C.F.R. § 26.13(b).

Prime contractors are required to pay subcontractors for satisfactory performance of their contracts no later than 30 days from receipt of each payment the Agency makes to the prime contractor. 49 C.F.R. § 26.29(a).

Finally, for contracts with defined DBE contract goals, each FTA Recipient must include in each prime contract a provision stating that the contractor shall utilize the specific DBEs listed unless the contractor obtains the Agency's written consent; and that, unless the Agency's consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE. 49 C.F.R. § 26.53(f) (1).

It is the policy of the Agency and the United States Department of Transportation ("DOT") that Disadvantaged Business Enterprises ("DBE's"), as defined herein and in the Federal regulations published at 49 C.F.R. part 26, shall have an equal opportunity to participate in DOT-assisted contracts.

13. DHS Seal, Logo, and Flags

The contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FTA pre-approval.

14. Energy Conservation

The contractor agrees to comply with mandatory standards and policies relating to energy efficiency, which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

15. Equal Employment Opportunity

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, 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 agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed

the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's non-compliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

16. Federal Changes

49 CFR Part 18 Federal Changes - 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 Master Agreement between Purchaser and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

17. Federal Tax Liability and Recent Felony Convictions

- (1) The contractor certifies that it:
 - a. Does not have any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and
 - b. Was not convicted of the felony criminal violation under any Federal law within the preceding 24 months.
 - c. If the contractor cannot so certify, the Recipient will refer the matter to FTA and not enter into any Third Party Agreement with the Third Party Participant without FTA's written approval.
- (2) Flow-Down. The Recipient agrees to require the contractor to flow this requirement down to participants at all lower tiers, without regard to the value of any subagreement.

18. Fly America

- a) Definitions. As used in this clause—
 - 1) "International air transportation" means transportation by air between a place in the United States and a place outside the United States or between two places both of which are outside the United States.
 - 2) "United States" means the 50 States, the District of Columbia, and outlying areas.
 - 3) "U.S.-flag air carrier" means an air carrier holding a certificate under 49 U.S.C. Chapter 411.
- b) When Federal funds are used to fund travel, Section 5 of the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. 40118) (Fly America Act) requires contractors, Agencies, and others use U.S.-flag air carriers for U.S. Government-financed international air transportation of personnel (and their personal effects) or property, to the extent that service by those carriers is available. It requires the Comptroller General of the United States, in the absence of satisfactory proof of the necessity for foreign-flag air transportation, to disallow expenditures from funds, appropriated or otherwise established for the account of the United States, for international air transportation secured aboard a foreign-flag air carrier if a U.S.-flag air carrier is available to provide such services.
- c) If available, the Contractor, in performing work under this contract, shall use U.S.-flag carriers for international air transportation of personnel (and their personal effects) or property.
- d) In the event that the Contractor selects a carrier other than a U.S.-flag air carrier for international air transportation, the Contractor shall include a statement on vouchers involving such transportation essentially as follows:

Statement of Unavailability of U.S. – Flag Air Carriers
International air transportation of persons (and their personal effects) or property by U.S.-flag air carrier was not available or it was necessary to use foreign-flag air carrier service for the following reasons. See FAR § 47.403. [State reasons]:
- e) Contractor shall include the substance of this clause, including this paragraph (e), in each subcontract or purchase under this contract that may involve international air transportation.

19. Incorporation of Federal Transit Administration (FTA) Terms

Incorporation of Federal Transit Administration (FTA) Terms - The provisions within 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 the current FTA Circular 4220 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 Contract. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any request which would cause a violation of the FTA terms and conditions.

20. No Government Obligation to Third Parties

The Agency and 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 the Agency, Contractor or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying Contract. The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by the FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

21. Notice to Third Party Recipients

Federal requirements that apply to the Recipient or the Award, the accompanying Underlying Agreement, and any Amendments thereto may change due to changes in federal law, regulation, other requirements, or guidance, or changes in the Recipient's Underlying Agreement including any information incorporated by reference and made part of that Underlying Agreement; and

Applicable changes to those federal requirements will apply to each Third Party Agreement and parties thereto at any tier.

22. Notification to FTA

If a current or prospective legal matter that may affect the Federal Government emerges, the Recipient must promptly notify the FTA Chief Counsel and FTA Regional Counsel for the Region in which the Recipient is located. The Recipient must include a similar notification requirement in its Third Party Agreements and must require each Third Party Participant to include an equivalent provision in its subagreements at every tier, for any agreement that is a "covered transaction" according to 2 C.F.R. §§ 180.220 and 1200.220.

- (1) The types of legal matters that require notification include, but are not limited to, a major dispute, breach, default, litigation, or naming the Federal Government as a party to litigation or a legal disagreement in any forum for any reason.
- (2) Matters that may affect the Federal Government include, but are not limited to, the Federal Government's interests in the Award, the accompanying Underlying Agreement, and any Amendments thereto, or the Federal Government's administration or enforcement of federal laws, regulations, and requirements.

- (3) The Recipient must promptly notify the U.S. DOT Inspector General in addition to the FTA Chief Counsel or Regional Counsel for the Region in which the Recipient is located, if the Recipient has knowledge of potential fraud, waste, or abuse occurring on a Project receiving assistance from FTA. The notification provision applies if a person has or may have submitted a false claim under the False Claims Act, 31 U.S.C. § 3729 et seq., or has or may have committed a criminal or civil violation of law pertaining to such matters as fraud, conflict of interest, bribery, gratuity, or similar misconduct. This responsibility occurs whether the Project is subject to this Agreement or another agreement between the Recipient and FTA, or an agreement involving a principal, officer, employee, agent, or Third Party Participant of the Recipient. It also applies to subcontractors at any tier. Knowledge, as used in this paragraph, includes, but is not limited to, knowledge of a criminal or civil investigation by a Federal, state, or local law enforcement or other investigative agency, a criminal indictment or civil complaint, or probable cause that could support a criminal indictment, or any other credible information in the possession of the Recipient.

23. Pre-Award and Post-Delivery Audits of Rolling Stock Purchases

The Contractor agrees to comply with 49 U.S.C. § 5323(m) and FTA's implementing regulation at 49 C.F.R. part 663. The Contractor shall comply with the Buy America certification(s) submitted with its proposal/bid. The Contractor agrees to participate and cooperate in any pre-award and post-delivery audits performed pursuant to 49 C.F.R. part 663 and related FTA guidance.

24. Program Fraud and False or Fraudulent Statements and Related Acts

The contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the contractor's actions pertaining to this contract."

The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. chapter 53, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5323(l) on the Contractor, to the extent the Federal Government deems appropriate.

The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

25. Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment

- (a) Recipients and subrecipients are prohibited from obligating or expending loan or grant funds to:
1. Procure or obtain;
 2. Extend or renew a contract to procure or obtain; or
 3. Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
 - i. For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
 - ii. Telecommunications or video surveillance services provided by such entities or using such equipment.
 - iii. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.
- (b) In implementing the prohibition under Public Law 115-232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.
- (c) See Public Law 115-232, section 889 for additional information.
- (d) See also § 200.471.

26. Prompt Payment

The contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the contractor's receipt of payment for that work. In addition, the contractor is required to return any retainage payments to those subcontractors within 30 days after the subcontractor's work related to this contract is satisfactorily completed.

The contractor must promptly notify the Agency, whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work and must make good faith efforts to engage

another DBE subcontractor to perform at least the same amount of work. The contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of the Agency.

27. Restrictions on Lobbying

Conditions on use of funds.

- (a) No appropriated funds may be expended by the recipient of a Federal contract, grant, loan, or cooperative agreement to pay 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 any of the following covered Federal actions: 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) Each person who requests or receives from an agency a Federal contract, grant, loan, or cooperative agreement shall file with that agency a certification, that the person has not made, and will not make, any payment prohibited by paragraph (a) of this section.
- (c) Each person who requests or receives from an agency a Federal contract, grant, loan, or a cooperative agreement shall file with that agency a disclosure form if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under paragraph (a) of this section if paid for with appropriated funds.
- (d) Each person who requests or receives from an agency a commitment providing for the United States to insure or guarantee a loan shall file with that agency a statement, whether that person has made or has agreed to make any payment to influence or attempt 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 that loan insurance or guarantee.
- (e) Each person who requests or receives from an agency a commitment providing for the United States to insure or guarantee a loan shall file with that agency a disclosure form if that person has made or has agreed to make any payment to influence or attempt 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 that loan insurance or guarantee.

Certification and disclosure.

- (a) Each person shall file a certification, and a disclosure form, if required, with each submission that initiates agency consideration of such person for:
 - 1. Award of a Federal contract, grant, or cooperative agreement exceeding \$100,000; or
 - 2. An award of a Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000.
- (b) Each person shall file a certification, and a disclosure form, if required, upon receipt by such person of:
 - 1. A Federal contract, grant, or cooperative agreement exceeding \$100,000; or
 - 2. A Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000,

Unless such person previously filed a certification, and a disclosure form, if required, under paragraph (a) of this section.

- (c) Each person shall file a disclosure form at the end of each calendar quarter in which

there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under paragraphs (a) or (b) of this section. An event that materially affects the accuracy of the information reported includes:

1. A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or
 2. A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or, A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.
- (d) Any person who requests or receives from a person referred to in paragraphs (a) or (b) of this section:
- (1) A subcontract exceeding \$100,000 at any tier under a Federal contract;
 - (2) A subgrant, contract, or subcontract exceeding \$100,000 at any tier under a Federal grant;
 - (3) A contract or subcontract exceeding \$100,000 at any tier under a Federal loan exceeding \$150,000; or,
 - (4) A contract or subcontract exceeding \$100,000 at any tier under a Federal cooperative agreement, shall file a certification, and a disclosure form, if required, to the next tier above.
- (e) All disclosure forms, but not certifications, shall be forwarded from tier to tier until received by the person referred to in paragraphs (a) or (b) of this section. That person shall forward all disclosure forms to the agency.
- (f) Any certification or disclosure form filed under paragraph (e) of this section shall be treated as a material representation of fact upon which all receiving tiers shall rely. All liability arising from an erroneous representation shall be borne solely by the tier filing that representation and shall not be shared by any tier to which the erroneous representation is forwarded. Submitting an erroneous certification or disclosure constitutes a failure to file the required certification or disclosure, respectively. If a person fails to file a required certification or disclosure, the United States may pursue all available remedies, including those authorized by section 1352, title 31, U.S. Code.
- (g) For awards and commitments in process prior to December 23, 1989, but not made before that date, certifications shall be required at award or commitment, covering activities occurring between December 23, 1989, and the date of award or commitment. However, for awards and commitments in process prior to the December 23, 1989 effective date of these provisions, but not made before December 23, 1989, disclosure forms shall not be required at time of award or commitment but shall be filed within 30 days. No reporting is required for an activity paid for with appropriated funds if that activity is allowable under either subpart B or C.

28. Safe Operation of Motor Vehicles

Seat Belt Use

The Contractor is encouraged to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company-owned vehicles, company rented vehicles, or personally operated vehicles. The terms “company-owned” and “company-leased” refer to vehicles owned or leased either by the Contractor or Agency.

Distracted Driving

The Contractor agrees to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by

an employer, and driving a vehicle the driver owns or rents, a vehicle Contactor owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the work performed under this Contract.

29. Simplified Acquisition Threshold

Contracts for more than the simplified acquisition threshold, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. § 1908, or otherwise set by law, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate. (Note that the simplified acquisition threshold determines the procurement procedures that must be employed pursuant to 2 C.F.R. §§ 200.317–200.327. The simplified acquisition threshold does not exempt a procurement from other eligibility or processes requirements that may apply. For example, Buy America’s eligibility and process requirements apply to any procurement in excess of \$150,000. 49 U.S.C. § 5323(j)(13).)

30. Termination

Termination for Convenience (General Provision)

The Agency may terminate this contract, in whole or in part, at any time by written notice to the Contractor when it is in the Agency’s best interest. The Contractor shall be paid its costs, including contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to Agency to be paid the Contractor. If the Contractor has any property in its possession belonging to Agency, the Contractor will account for the same, and dispose of it in the manner Agency directs.

Termination for Default [Breach or Cause] (General Provision)

If the Contractor does not deliver supplies in accordance with the contract delivery schedule, or if the contract is for services, the Contractor fails to perform in the manner called for in the contract, or if the Contractor fails to comply with any other provisions of the contract, the Agency may terminate this contract for default. Termination shall be effected by serving a Notice of Termination on the Contractor setting forth the manner in which the Contractor is in default. The Contractor will be paid only the contract price for supplies delivered and accepted, or services performed in accordance with the manner of performance set forth in the contract. If it is later determined by the Agency that the Contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of the Contractor, the Agency, after setting up a new delivery of performance schedule, may allow the Contractor to continue work, or treat the termination as a Termination for Convenience.

Opportunity to Cure (General Provision)

The Agency, in its sole discretion may, in the case of a termination for breach or default, allow the Contractor [an appropriately short period of time] in which to cure the defect. In such case, the Notice of Termination will state the time period in which cure is permitted and other appropriate conditions. If Contractor fails to remedy to Agency's satisfaction the breach or default of any of the terms, covenants, or conditions of this Contract within [10 days] after receipt by Contractor of written notice from Agency setting forth the nature of said breach or default, Agency shall have the right to terminate the contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude Agency from also pursuing all available remedies against Contractor and its sureties for said breach or default.

Waiver of Remedies for any Breach

In the event that Agency elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this contract, such waiver by Agency shall not limit Agency's remedies for any succeeding breach of that or of any other covenant, term, or condition of this contract.

Termination for Convenience (Professional or Transit Service Contracts)

The Agency, by written notice, may terminate this contract, in whole or in part, when it is in the Agency's interest. If this contract is terminated, the Agency shall be liable only for payment under the payment provisions of this contract for services rendered before the effective date of termination.

Termination for Default (Supplies and Service)

If the Contractor fails to deliver supplies or to perform the services within the time specified in this contract or any extension, or if the Contractor fails to comply with any other provisions of this contract, the Agency may terminate this contract for default. The Agency shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. The Contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner or performance set forth in this contract.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Agency.

Termination for Default (Transportation Services)

If the Contractor fails to pick up the commodities or to perform the services, including delivery services, within the time specified in this contract or any extension, or if the Contractor fails to comply with any other provisions of this contract, the Agency may terminate this contract for default. The Agency shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of default. The Contractor will only be paid the contract price for services performed in accordance with the manner of performance set forth in this contract.

If this contract is terminated while the Contractor has possession of Agency goods, the Contractor shall, upon direction of the Agency, protect and preserve the goods until surrendered to the Agency or its agent. The Contractor and Agency shall agree on payment for the preservation and protection of goods. Failure to agree on an amount will be resolved under the Dispute clause.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the Agency.

Termination for Default (Construction)

If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will ensure its completion within the time specified in this contract or any extension or fails to complete the work within this time, or if the Contractor fails to comply with any other provision of this contract, Agency may terminate this contract for default. The Agency shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. In this event, the Agency may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Agency resulting from the Contractor's refusal or failure to complete the work within specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Agency in completing the work.

The Contractor's right to proceed shall not be terminated nor shall the Contractor be charged with damages under this clause if:

1. The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include: acts of God, acts of Agency, acts of another contractor in the performance of a contract with Agency, epidemics, quarantine restrictions, strikes, freight embargoes; and
2. The Contractor, within [10] days from the beginning of any delay, notifies Agency in writing of the causes of delay. If, in the judgment of Agency, the delay is excusable, the time for completing the work shall be extended. The judgment of Agency shall be final and conclusive for the parties, but subject to appeal under the Disputes clause(s) of this contract.
3. If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of Agency.
- 4.

Termination for Convenience or Default (Architect and Engineering)

The Agency may terminate this contract in whole or in part, for the Agency's convenience or because of the failure of the Contractor to fulfill the contract obligations. The Agency shall terminate by delivering to the Contractor a Notice of Termination specifying the nature, extent, and effective date of the termination. Upon receipt of the notice, the Contractor shall (1) immediately discontinue all services affected (unless the notice directs otherwise), and (2) deliver to the Agency's Contracting Officer all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this contract, whether completed or in process. Agency has a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, all such data, drawings, specifications, reports, estimates, summaries, and other information and materials.

If the termination is for the convenience of the Agency, the Agency's Contracting Officer shall make an equitable adjustment in the contract price but shall allow no anticipated profit on unperformed services. If the termination is for failure of the Contractor to fulfill the contract obligations, the Agency may complete the work by contract or otherwise and the Contractor shall be liable for any additional cost incurred by the Agency.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of Agency.

Termination for Convenience or Default (Cost-Type Contracts)

The Agency may terminate this contract, or any portion of it, by serving a Notice of Termination on the Contractor. The notice shall state whether the termination is for convenience of Agency or for the default of the Contractor. If the termination is for default, the notice shall state the manner in which the Contractor has failed to perform the requirements of the contract. The Contractor shall account for any property in its possession paid for from funds received from the Agency, or property supplied to the Contractor by the Agency. If the termination is for default, the Agency may fix the fee, if the contract provides for a fee, to be paid the Contractor in proportion to the value, if any, of work performed up to the time of termination. The Contractor shall promptly submit its termination claim to the Agency and the parties shall negotiate the termination settlement to be paid the Contractor.

If the termination is for the convenience of Agency, the Contractor shall be paid its contract close-out costs, and a fee, if the contract provided for payment of a fee, in proportion to the work performed up to the time of termination.

If, after serving a Notice of Termination for Default, the Agency determines that the Contractor has an excusable reason for not performing, the Agency, after setting up a new work schedule, may allow the Contractor to continue work, or treat the termination as a Termination for Convenience.

31. Trafficking in Persons

The contractor agrees that it and its employees that participate in the Recipient's Award, may not:

- (a) Engage in severe forms of trafficking in persons during the period of time that the Recipient's Award is in effect;
- (b) Procure a commercial sex act during the period of time that the Recipient's Award is in effect; or

Use forced labor in the performance of the Recipient's Award or subagreements.

32. Violation and Breach of Contract

Rights and Remedies of the Agency

The Agency shall have the following rights in the event that the Agency deems the Contractor guilty of a breach of any term under the Contract.

1. The right to take over and complete the work or any part thereof as agency for and at the expense of the Contractor, either directly or through other contractors;
2. The right to cancel this Contract as to any or all of the work yet to be performed;
3. The right to specific performance, an injunction or any other appropriate equitable remedy; and
4. The right to money damages.

For purposes of this Contract, breach shall include.

Rights and Remedies of Contractor

Inasmuch as the Contractor can be adequately compensated by money damages for any breach of this Contract, which may be committed by the Agency, the Contractor expressly agrees that no default, act or omission of the Agency shall constitute a material breach of this Contract, entitling Contractor to cancel or rescind the Contract (unless the Agency directs Contractor to do so) or to suspend or abandon performance.

Remedies

Substantial failure of the Contractor to complete the Project in accordance with the terms of this Contract will be a default of this Contract. In the event of a default, the Agency will have all remedies in law and equity, including the right to specific performance, without further assistance, and the rights to termination or suspension as provided herein. The Contractor recognizes that in the event of a breach of this Contract by the Contractor before the Agency takes action contemplated herein, the Agency will provide the Contractor with sixty (60) days written notice that the Agency considers that such a breach has occurred and will provide the Contractor a reasonable period of time to respond and to take necessary corrective action.

Disputes

Disputes arising in the performance of this Contract that are not resolved by agreement of the parties shall be decided in writing by an authorized representative of Agency. This decision shall be final and conclusive unless within [10] days from the date of receipt of its copy, the Contractor mails or otherwise

furnishes a written appeal to the Agency's authorized representative. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the Agency's authorized representative shall be binding upon the Contractor and the Contractor shall abide by the decision.

In the event that a resolution of the dispute is not mutually agreed upon, the parties can agree to mediate the dispute or proceed with litigation. Notwithstanding any provision of this section, or any other provision of this Contract, it is expressly agreed and understood that any court proceeding arising out of a dispute under the Contract shall be heard by a Court de novo and the court shall not be limited in such proceeding to the issue of whether the Authority acted in an arbitrary, capricious or grossly erroneous manner.

Pending final settlement of any dispute, the parties shall proceed diligently with the performance of the Contract, and in accordance with the Agency's direction or decisions made thereof.

Performance during Dispute

Unless otherwise directed by Agency, Contractor shall continue performance under this Contract while matters in dispute are being resolved.

Claims for Damages

Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of its employees, agents or others for whose acts it is legally liable, a claim for damages therefor shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

Remedies

Unless this Contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the Agency and the Contractor arising out of or relating to this Contract or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which the Agency is located.

Rights and Remedies

The duties and obligations imposed by the Contract documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the Agency or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

EXHIBIT B

STATE OF TENNESSEE REQUIRED CLAUSES

Conflicts of Interest.

The Grantee warrants that no part of the total Grant Contract Amount shall be paid directly or indirectly to an employee or official of the State of Tennessee as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the Grantee in connection with any work contemplated or performed relative to this Grant Contract

Lobbying.

The Grantee certifies, to the best of its knowledge and belief, that:

- a. No federally appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an 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 federally appropriated 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 contract, grant, loan, or cooperative agreement, the Grantee shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.
- c. The Grantee shall require that the language of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, 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 and is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352

Nondiscrimination.

The Grantee hereby agrees, warrants, and assures that no person shall be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination in the performance of this Grant Contract or in the employment practices of the Grantee on the grounds of handicap or disability, age, race, color, religion, sex, national origin, or any other classification protected by federal, Tennessee state constitutional, or statutory law. The Grantee shall, upon request, show proof of nondiscrimination and shall post in conspicuous places, available to all employees and applicants, notices of nondiscrimination.

Public Accountability.

If the Grantee is subject to Tenn. Code Ann. § 8-4-401 et seq., or if this Grant Contract involves the provision of services to citizens by the Grantee on behalf of the State, the Grantee agrees to establish a system through which recipients of services may present grievances about the operation of the service program. The Grantee shall also display in a prominent place, located near the passageway through which the public enters in order to receive Grant supported services, a sign at least eleven inches (11") in height and seventeen inches (17") in width stating:

NOTICE: THIS AGENCY IS A RECIPIENT OF TAXPAYER FUNDING. IF YOU OBSERVE AN AGENCY DIRECTOR OR EMPLOYEE ENGAGING IN ANY ACTIVITY WHICH YOU CONSIDER TO BE ILLEGAL, IMPROPER, OR WASTEFUL, PLEASE CALL THE STATE COMPTROLLER'S TOLL-FREE HOTLINE: 1-800-232-5454.

The sign shall be on the form prescribed by the Comptroller of the Treasury. The Grantor State Agency shall obtain copies of the sign from the Comptroller of the Treasury, and upon request from the Grantee, provide Grantee with any necessary signs.

Public Notice.

All notices, informational pamphlets, press releases, research reports, signs, and similar public notices prepared and released by the Grantee in relation to this Grant Contract shall include the statement, "This project is funded under a grant contract with the State of Tennessee, Department of Transportation." All notices by the Grantee in relation to this Grant Contract shall be approved by the State.

Records.

The Grantee and any approved subcontractor shall maintain documentation for all charges under this Grant Contract. The books, records, and documents of the Grantee and any approved subcontractor, insofar as they relate to work performed or money received under this Grant Contract, shall be maintained in accordance with applicable Tennessee law. In no case shall the records be maintained for a period of less than five (5) full years from the date of the final payment. The Grantee's records shall be subject to audit at any reasonable time and upon reasonable notice by the Grantor State Agency, the Comptroller of the Treasury, or their duly appointed representatives.

The records shall be maintained in accordance with Governmental Accounting Standards Board (GASB) Accounting Standards or the Financial Accounting Standards Board (FASB) Accounting Standards Codification, as applicable, and any related AICPA Industry Audit and Accounting guides.

In addition, documentation of grant applications, budgets, reports, awards, and expenditures will be maintained in accordance with U.S. Office of Management and Budget's Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

Grant expenditures shall be made in accordance with local government purchasing policies and procedures and purchasing procedures for local governments authorized under state law.

The Grantee shall also comply with any recordkeeping and reporting requirements prescribed by the Tennessee Comptroller of the Treasury.

The Grantee shall establish a system of internal controls that utilize the COSO Internal Control - Integrated Framework model as the basic foundation for the internal control system. The Grantee shall incorporate any additional Comptroller of the Treasury directives into its internal control system. Any other required records or reports which are not contemplated in the above standards shall follow the format designated by the head of the Grantor State Agency, the Central Procurement Office, or the Commissioner of Finance and Administration of the State of Tennessee.

Environmental Tobacco Smoke.

Pursuant to the provisions of the federal “Pro-Children Act of 1994” and the “Children’s Act for Clean Indoor Air of 1995,” Tenn Code Ann. §§39-17-1601 through 1606, the Grantee shall prohibit smoking of tobacco products within any indoor premises in which services are provided to individuals under the age of eighteen (18) years. The Grantee shall post “no smoking” signs in appropriate, permanent sites within such premises. This prohibition shall be applicable during all hours, not just the hours in which children are present. Violators of the prohibition may be subject to civil penalties and fines. This prohibition shall apply to and be made part of any subcontract related to this Grant Contract.

EXHIBIT C
PRICING SCHEDULE

EXHIBIT D

WARRANTY

WARRANTY REQUIREMENTS

4.1.0 Warranties

Warranties in this document are in addition to any statutory implied warranties, remedies or warranties imposed on Contractor. Consistent with this requirement, Contractor warrants and guarantees to the original Authority each complete vehicle, and specific subsystems and components as follows:

Complete Vehicle

The vehicle is warranted and guaranteed to be free from defects and related defects for a minimum of one (1) year, beginning on the date of acceptance of each vehicle. During this warranty period, the vehicle shall maintain its structural and functional integrity. The warranty is based on regular operation of the vehicle under the operating conditions prevailing in Authority service area.

Contractor shall provide Authority with standard OEM warranty covering the frame and suspension members. This warranty shall not cover suspension air bags, leveling valves, springs, shocks, bushings, or other normal wearing parts. Contractor is not liable if Authority voids the warranty as outlined in Section 0 Voiding of Warranty.

If the frame or suspension fails or shows indication of imminent failure, Authority shall immediately notify Contractor of said defect. Within ten (10) calendar days, Contractor shall inform Authority of Contractor's plans to repair the vehicle. Repairs to the frame and suspension due failure is the responsibility of Contractor if it is determined the defects were due to construction failure, poor workmanship or faulty installation of a component or subsystem by the bus body manufacturer. Within fifteen (15) calendar days from notification, Contractor shall begin the repairs of the frame and suspension defects. If the Contractor cannot begin the repairs within fifteen (15) calendar days, the Contractor must provide sustainable proof that the delays are due to circumstances beyond their immediate control and provide a time table for the commencement of repairs.

Subsystems and Components

Specific subsystems and components are warranted and guaranteed to be free from defects and related defects for the times and/or mileages given in the table below. Components and subsystems not listed shall carry manufacturer standard warranties.

SUBSYSTEM AND COMPONENT WARRANTY WHICHEVER COMES FIRST

| <u>ITEM</u> | <u>YEARS</u> | <u>MILEAGE</u> |
|--|--------------|----------------|
| Bumper to Bumper | 3 | 36,000 |
| Engine | 5 | 100,000 |
| Transmission | 5 | 100,000 |
| Drive axle & driveline | 5 | 60,000 |
| Brake system excluding friction material | 3 | 36,000 |
| Air conditioning system (OEM) | 3 | 36,000 |
| Air conditioning system (Body) | 2 | Unlimited |
| Basic bus body structure | 4 | 50,000 |
| Major Bus body construction | 5 | 100,000 |
| OEM Chassis Electrical Sys. | 3 | 36,000 |
| Bus Body Electrical Sys. | 4 | 50,000 |
| Radiator | 3 | 36,000 |

4.2.0 Voiding of Warranty

The warranty shall not apply to any part or component of the vehicle that has been subject to misuse, negligence, accident, or that has been repaired or altered in any way so as to affect adversely its performance or reliability, except insofar as such repairs were in accordance with Contractor’s maintenance manuals and the workmanship was in accordance with the recognized standards of the industry. The warranty shall also be void if Authority fails to conduct normal inspections and scheduled preventive maintenance procedures as recommended in Contractor’s maintenance manuals.

4.3.0 Exceptions to Warranty

The warranty shall not apply to scheduled maintenance items or to items of normal wear furnished by Contractor, except insofar as such equipment may be damaged by the failure of a part of component for which Contractor is responsible.

4.4.0 Detection of Defects

If Authority detects a defect within the warranty periods defined in Warranty Requirements, it shall promptly notify Contractor's representative. Within five (5) working days after receipt of notification, Contractor's representative shall either agree that the defect is in fact covered by warranty, or reserve judgment until the subsystem or component is inspected by Contractor's representative or is removed and examined at Authority's property. At that time, the status of warranty coverage on the subsystem or component shall be mutually resolved between Authority and Contractor. Work necessary to effect the repairs defined in Repair Procedures, shall commence within 10 working days after receipt of notification by Contractor.

4.5.0 Scope of Warranty Repairs

When warranty repairs are required, Authority and Contractor's representative shall agree within five days after notification on the most appropriate course for the repairs and the exact scope of the repairs to be performed under the warranty. If no agreement is obtained within the five day period, Authority reserves the right to commence the repairs in accordance with Repair Procedures.

4.6.0 Fleet Defects

A fleet defect is defined as the failure of identical items covered by the warranty and occurring within the warranty period in a specified number of vehicles. For this contract, a fleet defect will be defined as an identical defect occurring in one-quarter (1/4) of vehicles delivered.

Scope of Warranty Provisions

Contractor shall correct a fleet defect under the warranty provisions defined in Repair Procedures. If the defect was due to a body construction failure, poor workmanship or faulty installation of a component or subsystem by the body manufacturer or the contractor, the Contractor shall promptly undertake and complete a work program reasonably designed to prevent the occurrence of the same defect in all other vehicles purchased under this contract. The work program shall include inspection and/or correction of the potential or defective part(s) in all of the vehicles.

Voiding of Warranty Provisions

The fleet defect provisions shall not apply to vehicle defects caused by non-compliance with Contractor's recommended normal maintenance practices and procedures in place at time of manufacturer.

Exceptions to Warranty Provisions

Fleet defect warranty provisions shall not apply to damage that is a result of normal wear and tear in service to such items as seats, lights, and interior trim. The Fleet Defect warranty shall not apply to Authority supplied items, such as radios, fare collection equipment, communication systems and tires.

4.7.0 Repair Procedures

Repair Performance

At its option, Authority or its designated representative may require Contractor or its designated representative to perform non-acceptance or warranty covered repairs that are clearly beyond the scope of Authority's capabilities. At its discretion, the Authority may perform such work if it determines it needs to do so based on transit service or other requirements. Work performed by Authority's personnel or designated representative shall be reimbursement by the Contractor.

Repairs by Contractor

If Authority requires Contractor to perform non-acceptance or warranty covered repairs, Contractor's representative must begin work necessary to effect repairs within ten (10) working days after receiving notification of a defect from Authority. Authority shall make the vehicle available to complete repairs timely with Contractor's repair schedule.

Contractor shall provide, at its own expense, all spare parts, tools and space required to complete repairs. At Authority's option, Contractor may be required to complete repairs. At Authority's option, Contractor may be required to remove the vehicle from Authority's property while repairs are being effected. If the vehicle is removed from Authority's property, repair procedures must be diligently pursued by Contractor's representative.

Repairs by Authority

4.8.0 Parts Used

If Authority performs the non-acceptance or warranty covered repairs, it shall correct or repair the defect and any related defects using Contractor's specified spare parts available from its own stock or those supplied by Contractor specifically for this repair. Monthly, or at a period to be mutually agreed upon, reports of all repairs covered by this non-acceptance or warranty shall be submitted by Authority to Contractor for reimbursement or replacement of parts. Contractor shall provide forms for these reports.

4.8.1 Contractor Supplied Parts

Authority may request that Contractor supply new parts for non-acceptance or warranty covered repairs being performed by Authority. These parts shall be shipped prepaid to Authority from any source selected by Contractor within ten (10) working days of receipt of the request for said parts.

4.8.2 Defective Components Return

Contractor may request that parts covered by the non-acceptance or warranty be returned to the manufacturing plant. The total cost for this action shall be paid by Contractor. Materials should be returned in accordance with Contractor's instructions.

4.8.3 Reimbursement for Labor and Other Related Costs

Authority shall be reimbursed by Contractor for labor. The amount shall be determined by the Authority for a qualified mechanic at a straight time wage rate of \$75.00 per hour, which includes fringe benefits and overhead in effect at the time the work is performed plus the cost of towing the vehicle if such action was necessary and if the bus was in the normal service area. These wage, fringe benefits and overhead rates shall not exceed the rates in the Authority's service facility at the time the Defect correction is made.

4.8.4 Reimbursement for Parts

Authority shall be reimbursed by Contractor for defective parts and for parts that must be replaced to correct the defect. The reimbursement shall be at the invoice cost of the part(s) at the time of repair and shall include taxes where applicable and fifteen (15%) percent handling costs.

4.8.5 Reimbursement to Contractor's Agents

Authority will make no non-acceptance or warranty related payments to Contractor's agents. Contractor will be totally responsible to Authority for all warranty claims, either full or pro-rated, that may arise. Authority assumes no liability to any agent employed by Contractor to perform Contractor's warranty obligations.

4.9.0 Warranty After Replacement/Repairs

If any component, unit, or subsystem is rebuilt or replaced by Contractor or by Authority's personnel, with the concurrence of Contractor, the subsystem shall have the unexpired warranty period of the original subsystem.

EXHIBIT E
PRE-AWARD BUY AMERICA COMPLIANCE CERTIFICATION

EXHIBIT F
PRE-AWARD PURCHASER'S REQUIREMENT CERTIFICATION

EXHIBIT G
PRE-AWARD FMVSS COMPLIANCE CERTIFICATION

EXHIBIT H
TRANSIT VEHICLE MANUFACTURER'S (TVM) CERTIFICATION